

FORD ENERGY RECOVERY FACILITY AND
WASTE SORTING AND TRANSFER FACILITY,
FORD CIRCULAR TECHNOLOGY PARK



ENVIRONMENTAL STATEMENT
TECHNICAL APPENDIX A:
EIA SCOPING

FORD ENERGY RECOVERY FACILITY AND WASTE SORTING AND
TRANSFER FACILITY, FORD CIRCULAR TECHNOLOGY PARK
SCOPING RESPONSE REPORT
VIRIDOR WASTE MANAGEMENT LIMITED, GRUNDON WASTE
MANAGEMENT LIMITED AND FORD ENERGY FROM WASTE LIMITED
JUNE 2020



TERENCE
O'ROURKE

1 Introduction

- 1.1 This report summarises the results of the environmental impact assessment (EIA) scoping consultation undertaken by Terence O'Rourke Ltd for the proposed energy recovery facility (ERF) and waste sorting and transfer facility (WSTF) at the Ford Circular Technology Park. A scoping report was submitted to West Sussex County Council (WSCC), who consulted a number of other organisations (table 1) in February / March 2020.
- 1.2 This scoping consultation response document presents the key issues raised by WSCC and the consultees, and provides responses to each of the comments. Where applicable, cross references are made to where the issues have been addressed in the environmental statement (ES). The scoping report is included in appendix 1, WSCC's scoping opinion forms appendix 2 and copies of the consultees' responses are included in appendix 3.

WSCC: Planning
WSCC: Ecology
WSCC: Landscape (Terra Firma)
WSCC: Highways
WSCC: Heritage / archaeology
WSCC: Tree Officer
WSCC: Flooding and drainage
WSCC: Public rights of way
Arun District Council and Environmental Health Officer
Yapton Parish Council
Ford Parish Council
Clymping Parish Council
South Downs National Park Authority
Environment Agency
Natural England
Historic England
National Air Traffic Services Safeguarding
Goodwood Aerodrome
Public Health England
National Planning Casework Unit
Southern Water
Lymminster and Crossbush Parish Council
Barton Willmore on behalf of Redrow Homes Southern Counties and Wates Developments Ltd
Table 1: Organisations consulted as part of the scoping process

West Sussex County Council – Scoping Opinion – Air quality and climate

Comment	Response
<p>The matters set out in your Scoping Request are considered generally appropriate and adequate. However, contrary to that set out in Table 5.2, and with reference to the general matters raised above, consideration of potential impacts arising from road traffic emissions, in particular in combination effects, should be scoped in.</p>	<p>Noted, road traffic emissions has been scoped into the EIA – see ES Chapter 6 Air quality, odour and dust and the associated Technical Appendix C.</p>
<p>With regard to paragraph 5.6, taking into account the phased nature of the proposals (whereby the WTS could be operating during construction), it is not clear whether identified thresholds would be exceeded if construction and operation are undertaken together. The potential impact of these combined operations on air quality should be assessed.</p>	<p>Noted, the potential impacts of the operation of the WTS / WSTF during construction has been considered in the air quality assessment - see ES Chapter 6 Air quality, odour and dust and the associated Technical Appendix C.</p>
<p>It will be crucial that you can demonstrate that the development would not result in emissions that give rise to significant impacts on human health and conform to all relevant EU, national, and local objectives/limits for air quality. It will be important that this is presented in plain English.</p>	<p>Noted – see ES Chapter 6 Air quality, odour and dust and the associated Technical Appendix C.</p>
<p>Assessments of emissions to air from the selected technology should be supplemented with data from similar plants. Reference should be made to the air quality controls and monitoring measures required by the Environmental Permitting process.</p>	<p>The development is currently technology neutral, so it is not possible to provide information on a similar plant. However, the plant will be required to meet the requirements of the Industrial Emissions Directive and the Best Available Techniques Reference Document (the BREF) as required by the Environmental Permitting process. This is set out in the ES Chapter 6 Air quality, odour and dust and the associated Technical Appendix C.</p>
<p>The design of the stack (in particular diameter/height) and its relationship with corresponding emission dispersal requirements should be fully explained. The height of the stack should be defined as early in the process as possible so that the building design and site layout can be fixed, and the implications for landscape and visual impact in particular considered.</p>	<p>Noted – see ES Chapter 6 Air quality, odour and dust and the associated Technical Appendix C. Also see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H. The assessment includes a stack height assessment which was undertaken early on in the project with the most appropriate stack height for air quality fed into the other disciplines for their consideration.</p>

Comment	Response
<p>The impacts on air quality in combination with those from nearby land uses should also be taken into account. A full review of all substantive, and/or sensitive future development in the immediate locality, should be undertaken, including those with planning approval, but which have yet to be implemented.</p>	<p>Noted – see ES Chapter 6 Air quality, odour and dust and the associated Technical Appendix C.</p>
<p>With regard to potential for odour and dust during operation, noting the likelihood for putrescible waste to be managed at the site, the site’s location next to a waste water treatment works, and taking into account the future development now likely in the immediate locality, contrary to the conclusion in Table 5.2, an assessment of the potential odour and dust impacts must be scoped in. Given the proposed 4 year duration of construction works and phased delivery of the development, this should include assessment of the combined impact of construction and operational impacts on air quality.</p>	<p>Noted, odour and dust is included in the assessment - see ES Chapter 6 Air quality, odour and dust and the associated Technical Appendix C.</p>
<p>The submitted information includes outline details of proposed mitigation measures to be included to control dust and odour; however, whether this would apply to both the WTS and EfW is unclear (only ‘tipping hall’ referred to). All proposed mitigation measures relied upon for the purposes of the assessment should be clearly detailed in the ES, along with mechanisms to secure it. It is recommended that operational odour and dust management schemes and an outline Construction Environment Management Plan (CEMP) are included in the ES so that the mitigation measures within it can be considered.</p>	<p>Noted – see ES Chapter 3 Proposed development and Technical Appendix L Outline construction environment management plan.</p>
<p>Consideration of measures to reduce emissions from HGVs should also be considered.</p>	<p>The carbon emissions associated with transport from HGV’s has been assessed within Chapter 7 of the ES. It is noted that this assessment is conservative, and it may be possible to co-ordinate HGV movements to reduce the number of trips. Raw materials will be sourced from, and residues will be disposed of, in locations close to the site where possible to reduce distances travelled by HGVs.</p>
<p>The assessment should take into account Air Quality and Emissions Mitigation Guidance for Sussex (2020) which requires increased emissions to be avoided, mitigated, or offset. A damage cost calculation will be required with the submission, along with a mitigation plan to offset the impacts, which should feed in to the Air Quality section of the ES.</p>	<p>Noted, the stated guidance was taken into account and a damage cost calculation and mitigation plan has been prepared - see ES Chapter 6 Air quality, odour and dust and the associated Technical Appendix C.</p>
<p>With reference to paragraph 5.17, data to be used to establish the air quality baseline, will need to be agreed in advance with Arun District Council’s Environmental Health Officer (EHO), along with any requirements for further monitoring data. The sensitive receptors potentially impacted by emissions from the new stack and other operations should be agreed with the EHO, and should include both human and sensitive ecological receptors (see Ecology section below).</p>	<p>We have unfortunately not been able to contact the EHO until recently. The scope is based on similar projects and if needed any comments can be addressed during the consultation period.</p>

West Sussex County Council – Scoping Opinion – Carbon / greenhouse gas emissions

Comment	Response
It is noted that climate change and in carbon/greenhouse gas emissions are proposed for inclusion in the air quality topic chapter. Such matters should be considered separately to air quality considerations as the issues assessed are distinct.	Noted, carbon and greenhouse gas emissions have been addressed in a separate chapter within the ES – see Chapter 7.
The Carbon/Greenhouse Gas Emissions chapter should clearly assess whether the development would result in reduction in greenhouse gas emissions, in particular as a result the diversion and recovery of energy from residual wastes which may otherwise have gone to landfill (supported by an R1 assessment), and the measures to minimise impacts on climate change, including use of renewable energy, minimising the use of resources, control over vehicular fleet emissions, and potential local heat users. It should also identify the potential impact of climate change on the facility, if any.	Noted – see ES Chapter 7 Carbon and greenhouse gas emissions and the associated Technical Appendix D Carbon balance assessment. An R1 assessment is included in the CHP Assessment.

West Sussex County Council – Scoping Opinion – Community, social and economic effects

Comment	Response
Given the focus of this chapter will seemingly be on the potential for post construction health effects, and noting the comments of Public Health England (dated 13/02/20), as well as the comments below in relation to scoping out various effects, it is considered that rather than a 'community, social and economic effects' chapter, this should relate entirely to Health Impacts. Drawing upon the relevant issues, this chapter section should summarise key information, risk assessments, proposed mitigation measures (including approaches to minimise public exposure to air pollutants, and maximise mitigation/co-benefits), conclusions and residual impacts, relating to human health.	Noted, health has been separated from community and social effects and two separate ES chapters have been prepared – see ES Chapter 8 Health (and the associated Technical Appendix E Human health risk assessment) and ES Chapter 9 Community and social effects.
Alternatively, it may be possible to provide a dedicated Health Risk Assessment to provide a robust and quantitative assessment of health risks posed by the proposed development.	A Human health risk assessment has been prepared – see Technical Appendix E.
Contrary to that set out in table 6.2, it is considered that there may be some potential for impacts upon, housing supply, education and local services, microclimate (in particular overshadowing) and potentially tourism, particularly given the strategic allocations proposed in the immediate locality. The extent, to which they may be affected, as a minimum, must be proportionately considered, in relevant corresponding sections (e.g. landscape and visual, air quality, noise, cumulative impacts).	Noted, housing supply, education, local services and tourism have been considered in ES Chapter 9 Community and social effects. Microclimate has been addressed in ES Chapter 6 Air quality, odour and dust, and overshadowing has been considered in the Design and Access Statement and ES Chapters 9 Community and social effects and Chapter 12 Landscape and visual effects.

With regard to table 6.2, it is accepted that the proposal is not likely to result in significant employment/economic effects on the area, therefore this can be scoped out of consideration in the ES. However, employment generation must be made clear in the Planning Statement and potential contributions quantified.

Noted. Information on employment is provided in ES Chapter 3 Proposed development.

West Sussex County Council – Scoping Opinion – Cultural heritage

Comment	Response
<p>The matters set out in the Scoping Request are considered generally appropriate and adequate.</p>	<p>Noted.</p>
<p>As set out at section 7.7, consideration should be given of the visual impact of the development on heritage assets. The scale, mass and height of the proposed development (and stack) are such that potential for impact upon the setting and views form/to heritage assets can be expected from considerable distances. The assessment should consider all heritage assets where there may be an impact, even if less than substantial. A Heritage Visual Impact Assessment (HVIA) must be provided, including “before and after” photomontages showing views to and from key designated heritage assets. The relevant assets should be informed by consideration of a Zone of Theoretical Visibility (ZTV) and should cross reference with the landscape and visual assessment as appropriate.</p>	<p>Noted, see ES Chapter 10 Cultural heritage and the associated Technical Appendix F and ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H. A HVIA has been included in the assessment.</p>
<p>In addition to those heritage assets identified in Figure 2 and the Scoping Report, the assessment should include the impact on wider Conservation Areas (e.g. to include Lyminster) and Tortington Priory (a Scheduled Monument), and the elevated “heritage ridge line” of Arundel to the north, including the Keep of Arundel Castle (Scheduled Monument), Grade I Listed Buildings of St Nicholas’ church and Arundel Cathedral).</p>	<p>Noted, see ES Chapter 10 Cultural heritage and the associated Technical Appendix F.</p>
<p>With reference to the comments of the County Archaeologist (10/02/20), the proposed assessment should include consideration of:</p> <ul style="list-style-type: none"> • Above and below ground military structures. This should include historical mapping and aerial photograph-related regression to illustrate the evolution of the pre-airfield and military airfield landscape. Suitable mitigation measures should be included where appropriate. • Below ground remains of the Portsmouth to Arundel Canal and its historical alignment. This should include impacts on the buried canal, and suitable mitigation measures. It should be noted it is possible the original artificial clay lining of the canal survives below its backfill and development-related excavation (e.g. foundation) works that might breach that lining could have cross-cutting hydrological implications. • Below-ground archaeological remains of later prehistoric or Roman date, in parts of the site where there appears to be little depth of made ground. Suitable mitigation measures should be included where appropriate. • Geoarchaeology. This should include both an assessment of the Ice-Age Sussex Raised Beach and river terrace sequence, and below-ground geoarchaeological deposits within the site (relating to Ice-Age former coastlines and the possibility of contemporary human occupation and associated artefacts). 	<p>Noted, see ES Chapter 10 Cultural heritage and the associated Technical Appendix F2.</p>
<p>In addition to designated assets, the assessment should also consider the potential impacts on non-designated features of historic, architectural, archaeological or artistic interest since these can also be of national importance and make an important contribution to the character and local distinctiveness of an area and its sense of place.</p>	<p>Noted, see ES Chapter 10 Cultural heritage and the associated Technical Appendix F and ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H.</p>

Comment	Response
The assessment should take account of the potential impacts of construction and associated traffic, might have upon perceptions, understanding, and appreciation of the heritage assets in the area.	Noted, see ES Chapter 10 Cultural heritage and the associated Technical Appendix F and ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H.
It is strongly recommend that the Heritage Assessment is the subject of continued discussion with the County Archaeologist (John Mills, 0330 2226 445; john.mills@westsussex.gov.uk).	Noted, the County Archaeologist has been consulted on a number of occasions during the assessment process.

West Sussex County Council – Scoping Opinion – Ground conditions

Comment	Response
Contrary to the intention to scope out this topic, to ensure a comprehensive EIA and consideration of the interrelationship between all impacts, the EIA must include consideration of impact of/on ground conditions so this should be scoped in.	Noted, ground conditions has been scoped in to the EIA – see ES Chapter 11 Ground conditions and the water environment and the associated Technical Appendix G.
It is accepted that, in part, ground conditions have been explored as part of the ES submitted for WSCC/096/13/F which concluded limited potential for significant impacts upon the environment. However, such assessments must be reviewed in the context of the waste development/operations which have taken place on site since that time, must be updated in accordance with the latest guidance/standards, and take into account the substantial change in proposed development (which is likely to require significantly different, and /more substantial ground works, and the demolition of large buildings of an industrial nature).	Noted.
Such assessments should give due regard to ‘Model Procedures for the Management of Land Contamination’ (CR11), the Environment Agency’s ‘Guiding Principles for Land Contamination’, and the contaminated land pages on the government website.	Noted.
With reference to the comments of the Environment Agency (14/02/20) a Phase 1 investigation will be required, undertaken in accordance with current best practice, and which will need to address any potential impacts arising from the identified legacy fuel tank, potential for creation of preferential pathways, groundwater levels, and provision to deal with any unknown contamination at the site.	Noted - see Technical Appendix G for the Geoenvironmental Desk Study.
Any mitigation measures set out in site investigation reports should be taken into account in the ES, particularly in relation to intrusive ground works, but also the removal of buildings which could contain hazardous or contaminated materials. The measures set out may affect the project design and programme, and may impact upon the surface water environment so should be considered at an early stage.	Noted – see ES Chapter 11 Ground conditions and the water environment and the associated Technical Appendix G.

West Sussex County Council – Scoping Opinion – Land use and land take

Comment	Response
It is confirmed that land use and land take does not require a specific section within the ES so can be scoped out, albeit all potential impacts on nearby receptors (existing and future) should be considered in the relevant topic areas.	Noted - see all environmental topic chapters (6 – 15) for details of potential impacts on receptors.

West Sussex County Council – Scoping Opinion – Landscape and visual impact

Comment	Response
The approach to assessing landscape/visual impact is generally considered appropriate.	Noted.
Given the potential height/scale of the stack and buildings proposed, the development has the potential to be visible from a wide area beyond the site, to a far greater degree than adjacent or approved developments. The Assessment will therefore need to consider built structures, lighting, and plumes, as well as more general impacts through disturbance and should include a clear assessment of the impact on the skyline, topography, through overshadowing, and on views into and out of the site.	Noted – see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H. Also see the Design and Access Statement. Overshadowing is considered in Chapter 9 Community and social effects.
As set out at paragraph 10.11 of the Scoping Report, the application must be accompanied by a Landscape and Visual Impact Assessment (LVIA) based on the third edition of Guidelines for Landscape and Visual Impact Assessment (2013)(GLVIA). The findings of the LVIA should feed into the Landscape and Visual Impact chapter in the ES.	Noted - see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H. Viewpoint selection has been further discussed in meetings with WSCC. WSCC agreed the proposed list of representative viewpoints put forward, but also asked for additional local views, most of which have been provided.
With reference to the comments of the WSCC Landscape Architect (17/02/20) the assessment will need to consider all relevant Landscape Character Assessments at a National, County and District level, and also consider impacts on relevant character areas and viewpoints within the South Downs National Park and Marine Character Areas.	Noted - see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H.
As set out in the Scoping Report the assessment will require consideration of all areas where the proposal would likely be visible, for which a ZTV and Zone of Visual Influence (ZVI) should be established. It should be clear to what extent.	Noted, a ZTV has been established for the purposes of the assessment work - see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H.
Representative viewpoints should be agreed with County Planning once the ZVI has been established. Such viewpoints will need to include, landscape, visual and heritage receptors and be representative of susceptible receptors e.g. valued landscapes and views (as identified in in Landscape Character Assessments, Neighbourhood Plans, Village Design Statements, Conservation Area appraisals), surrounding PROW and Publically accessible spaces (including Ford Market	Viewpoints have been agreed with WSCC Planning Department and their landscape advisers. Viewpoint selection has been further discussed in meetings with WSCC. WSCC agreed the proposed list of representative viewpoints put

Comment	Response
<p>and Plating Fields), from nearby residential dwellings (including future residents of the surrounding Arun District Council allocation site), and transport corridors.</p>	<p>forward, but also asked for additional local views, most of which have been provided / will be provided when CV19 restrictions allow.</p>
<p>Thereafter verified visualisations, photomontages and 3D models must be provided, prepared in accordance with GLVIA guidelines. Viewpoints should also examine the potential effects of the proposed built form on any valued views (as highlighted in landscape character studies, neighbour plans, conservation area appraisals etc.) either by obscuring or detracting from it. Visualisations should also take in to account the effect of the plume, materials/finishes and any lighting.</p>	<p>Verified visualisations have not been possible due to CV19 restrictions but other methods of accurately placing the proposals into views have been applied to provide illustrative visualisations for 17* out of a total of 36 views, with a high degree of accuracy. The resultant photomontages and 3D models have been provided as part of the planning application – see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H and the Design and Access Statement.</p> <p>* Please note, it is considered that 17 visualisations exceeds the normal expected number of visualisations in an LVIA and is sufficient to illustrate the degree of effect in views.</p>
<p>The impact of the development in its entirety should be considered, including all new buildings/structures, any changes in land levels, landscaping (including any bunds which may be proposed), outside storage of materials, fencing and lighting, including of the stack. If planting is proposed (either on or off-site), consideration should be given to any mitigation effects at year 1, and then at 5 yearly intervals sufficient to demonstrate the effectiveness of the mitigation proposals over time. Views into the site during winter months should be assessed as a ‘worst case scenario’ when vegetative screening is least effective. The scope of the assessment should include an assessment of visual impact, and impact on the landscape, of HGVs travelling to/from the site.</p>	<p>Noted - see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H. Due to the scale of the proposals and the fact that in all views, the proposed planting will not be a factor in the assessment of significance of effect, there is therefore no merit in providing visualisations.</p>
<p>For completeness, it is recommended that the outcome of the arboricultural survey, and a proposed landscaping scheme are included within this section of the report. These matters are particularly relevant to assessing the impact of the development and extent to which any such impacts may be mitigated.</p>	<p>The findings of the arboricultural assessment and proposed landscape scheme have been taken into account in the LVIA.</p>
<p>The height and design/finish of the stack, and the potential scale of the plume (both extent and period when it would likely be visible) should be established as early as possible in the process so that this can feed into considerations of landscape and visual impact. If there is any doubt over the stack height, a ‘worst case scenario’ should be presented.</p>	<p>Noted – see ES Chapter 6 Air quality, odour and dust and see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H.</p>

Comment	Response
<p>Given the proximity to both existing and future proposed development, the LVIA should also include details of lighting and a plan showing post- development lux levels to confirm light spill from the site. If required, any lighting on the stack must be identified and considered in the LVIA. Particular account should be taken of the 24-hour operations that are typical of an EfW facility, compared with the operating hours of the existing facility and that on nearby sites.</p>	<p>Noted – see lighting plan, Design and Access Statement, and see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H.</p>

West Sussex County Council – Scoping Opinion – Major accidents and disasters

Comment	Response
<p>It is confirmed that accidents/disasters does not require a specific section within the ES and can be scoped out, albeit all potential impacts on nearby receptors (existing and future) should be considered in the relevant topic areas.</p>	<p>Noted.</p>
<p>Of particular relevance is consideration of potential risk of accidents arising from the operation of a facility managing the receipt and burning of waste, and likely fuel/chemical/hazardous residue storage on site should be considered, particularly in relation to impacts on air quality and the water environment. Any site security should also be detailed, particularly if it would give rise to a visual impact.</p>	<p>Noted – see ES Chapter 3 Proposed development, Chapter 6 Air quality, odour and dust, Chapter 11 Ground conditions and the water environment and Chapter 12 Landscape and visual effects.</p>
<p>Any aviation safeguarding matters should be addressed in the Planning Statement.</p>	<p>Noted – see Aerodrome Safeguarding statement.</p>

West Sussex County Council – Scoping Opinion – Natural heritage

Comment	Response
<p>Contrary to the intention to scope out this topic, it is considered there is the potential for significant effects on habitat and species, particularly with reference to the comments of Natural England. Such evidence will also be important to inform the Habitats Regulation Assessment (HRA) Screening process.</p>	<p>Noted, natural heritage has been scoped into the EIA – see ES Chapter 13 Natural heritage and the associated Technical Appendix I. Also see the Shadow Habitat Regulations Assessment.</p>
<p>The development is significant in scale, with the potential to result in significant emissions to air and water, as well as noise and light impacts. This therefore has the potential to affect biodiversity in the area.</p>	<p>Noted. All emissions, noise and light impacts are scoped for in the ES Chapter. It has been assessed that there will be no significant impacts on local biodiversity.</p>
<p>The potential impacts upon the Duncton to Bignor Escarpment Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI), Ancient Woodland priority habitats nearby and potential impacts to grazing marsh / functional Land to the Arundel Valley SAC/Special Protection Area (SPA) should be clearly assessed. Impacts on other SSSI's and Local Nature Reserves which may be affected by this proposal should also be considered. Proposals for mitigation of any impacts and, if appropriate, compensation measures also need to be included.</p>	<p>Noted – see ES Chapter 13 Natural heritage and the associated Technical Appendix I. Also see the Shadow Habitat Regulations Assessment.</p>

Comment	Response
	<p>The proposed development is sufficient distance from the internationally protected sites to not cause direct disturbance on the interest features. Furthermore, the development type will not lead to an increase in recreational activities at the protected sites. The in-combination effects of the proposals, including air quality, in the absence of mitigation, are assessed to be slight and not significant.</p>
<p>An ecological appraisal should be included, with any further assessment to be agreed with the County Ecologist to understand whether the preliminary assessments undertaken to date are sufficiently comprehensive, and confirm whether further surveys and evaluation is required.</p>	<p>Noted – see Technical Appendix I Natural heritage.</p>
<p>In addition to matters raised in the Scoping Report, proportionate assessments of potential impacts upon all existing retained trees/vegetation/habitats and, where appropriate, the measures that are proposed to ensure their retention. It may be possible that this is incorporated into Landscape and Visual chapters, however, it will nonetheless be important to summarise any biodiversity impacts within this chapter, and demonstrate biodiversity net gain.</p>	<p>Noted - see ES Chapter 13 Natural heritage and the associated Technical Appendix I. Also see the Arboricultural Implications Assessment.</p> <p>All vegetation will be lost from within the site boundary. The existing vegetation is of low ecological value. The proposed mitigation and enhancement habitats for the site will result in a significant net gain in biodiversity at the site, calculated through the DEFRA metric 2.0.</p>

West Sussex County Council – Scoping Opinion – Noise and vibration

Comment	Response
<p>As set out in the Scoping Report, it is considered Noise and Vibration must be scoped in.</p>	<p>Noted, noise and vibration has been scoped into the EIA – see ES Chapter14 Noise and vibration and the associated Technical Appendix J.</p>
<p>As alluded to at paragraph 13.4, a number of strategic housing sites allocated in the Arun Local Plan 2011-2031 fall in close proximity to the application site, including the site the subject of a current application for outline planning permission (ref. F/4/20/OUT). Accordingly, and noting the nature of activities proposed (which includes 24 hour operations) and the significant length of the proposed construction process, the potential for noise and vibration impacts on both existing and future receptors, both during construction and operation, must be scoped in. Contrary to paragraph 13.6 of the Scoping Report, noting the proximity of the site to land allocated for future housing, consideration of potential vibration impacts</p>	<p>Noted – other local development has been taken into account in the assessment work - see ES Chapter14 Noise and vibration and the associated Technical Appendix J.</p>

Comment	Response
<p>arising from construction should be scoped in. This information will also provide useful context for helping shape any future proposals on neighbouring land and guide possible buffer zones.</p>	
<p>Given the proposed four year duration of construction works and phased delivery of the development, this should include assessment of the combined impact of construction and operational noise and vibration impacts.</p>	<p>Noted, overlapping impacts during construction and operation have been considered - see ES Chapter14 Noise and vibration and the associated Technical Appendix J.</p>
<p>Noise emissions from the selected technology, and operational activities (e.g. reversing alarms/ on site HGV movements) should be supplemented with data from similar developments. The noise impacts in combination with those from nearby land uses should also be taken into account. The type of plant and machinery to be used at the site, any external operations, and the hours of operation of the site should be clarified as early in the process as possible so that the noise emissions resulting from operations at the site can be assessed, along with the visual impact of any potential mitigation measures (e.g. bunds, acoustic fencing).</p>	<p>Noted - see ES Chapter14 Noise and vibration and the associated Technical Appendix J and ES Chapter 12 Landscape and visual effects.</p>
<p>Contrary to that set out at paragraph 13.5 of the Scoping Report, potential noise/vibration impacts arising from HGV traffic should be considered. In this regard it should be noted that the route of the access along the former airfield service road is flanked by land allocated for housing, and that additional operational traffic (over and above that previously considered/permitted) is now proposed. As a result the potential impacts upon these receptors should be considered.</p>	<p>Noted, noise and vibration impacts associated with HGV movements have been considered - see ES Chapter14 Noise and vibration and the associated Technical Appendix J.</p>
<p>Further, potential noise impacts from HGVs are likely to be considerably greater than that of typical traffic, and as a result should be addressed. In addition to Institute of Environmental Assessment Guidelines, the assessment should include consideration of the Design Manual for Roads and Bridges, Volume 11.</p>	<p>Noted - see ES Chapter14 Noise and vibration and the associated Technical Appendix J.</p>
<p>If mitigation measures are required, these should be incorporated into the design of the building and layout of the site at the earliest stage so the implications can be considered in terms of landscape and visual impact. As a minimum measures should be identified to mitigate the effects on identified sensitive receptors (e.g. an operational noise management plan and CEMP).</p>	<p>Noted, see ES Chapter 3 Proposed development, ES Chapter 12 Landscape and visual assessment, ES Chapter 14 Noise and vibration and the associated Technical Appendix J and the Design and Access Statement.</p>
<p>Noise/vibration sensitive receptors and the scope of baseline and predictive noise assessments should be agreed with Arun District Council's Environmental Health Officers. Receptors should include public rights of way closest to the site, future allocated uses surrounding the site, and all receptors where there would be a perceptible change in the noise environment.</p>	<p>Noted, WSCC and Arun District Council EHOs were both consulted at an early stage of the assessment.</p>

West Sussex County Council – Scoping Opinion – Traffic and transport

Comment	Response
<p>Contrary to the intention to scope out this topic, it is considered Traffic and Transport must be scoped in, noting the comments above that the proposal represents an increase in the already significant levels of traffic allowed in the approved development, and the proximity of allocated housing and other sensitive uses. There is therefore considered to be the potential for significant effects.</p>	<p>Noted, traffic and transport has been scoped into the EIA – see Chapter 15 and the associated Technical Appendix K.</p>
<p>As set out at paragraph 4.8, it will be crucial that the submitted ES draws upon data/information considered in previous EIAs/TAs, repeating, updating or re- assessing where necessary. In this regard it is noted, however, that the proposals are considerably different from that previously consented, involving both an EfW and a WTS that could operate independently, the use of larger vehicles (it is of note that the reasoning presented for an increase in HGVs permitted for the new access was to “allow most of the input to the Materials Recovery Facility (MRF) to come to the site by smaller lorries, such as Refuse Collection Vehicles (RCVs) or Roll-on/Roll-Off (RoRo), rather than bulkers”) and would result in a considerable increase in car and LGV movements (from 94 to 223 movements).</p>	<p>Noted - see ES Chapter 15 and the associated Technical Appendix K.</p>
<p>Further, in light of local growth, approved and current development, the assessment should present an updated baseline position. Of particular relevance in this regard are the approval of strategic developments at Climping and Yapton, and the recent application submissions for land at Ford, all of which could impact on the proposed route of HGVs to from the site (including off- highway access roads).</p>	<p>Noted, an updated baseline has been provided which takes into account committed developments - see ES Chapter 15 and the associated Technical Appendix K.</p>
<p>It is understood the applicant is currently seeking further pre-application advice regarding the scope of any required Transport Assessment which is supported. The applicant will need to consider and incorporate any advice provided by the Highway Authority in this regard.</p>	<p>Advice sought from WSCC Highways team and taken into account in the scope of assessment work completed - see Technical Appendix K.</p>
<p>The ES must identify a realistic planning fall-back position for existing vehicle movements and their routing to/from the site, as well as a baseline relating to the existing situation, from which potential impacts should be assessed. Proposed vehicular, types, numbers, frequency and routing should all be set out as necessary.</p>	<p>Noted - see ES Chapter 15 and the associated Technical Appendix K.</p>
<p>The potential impact of the facility on non-motorised users should be clearly set out, and opportunities for increasing sustainable transport modes, both for site employees/visitors and surrounding land uses, should be specified.</p>	<p>Noted - see ES Chapter 15 and the associated Technical Appendix K, which includes a Walking, Cycling and Horse Riding Assessment.</p>

West Sussex County Council – Scoping Opinion – Waste and natural resources

Comment	Response
It is confirmed that waste and natural resource does not require a specific section within the ES, albeit all potential impacts relating to contamination, hydrology and upon nearby receptors should be considered in the relevant topic areas.	Noted – see ES Chapter 11 Ground conditions and the water environment and the associated Technical Appendix G.

West Sussex County Council – Scoping Opinion – Water environment

Comment	Response
The approach to assessing the impact on the water environment is generally considered appropriate.	Noted.
With reference to the comments of the Environment Agency (14/02/20), a Hydrological Risk Assessment will be required, based on the findings of the Phase 1 contamination investigation. This risk assessment must include the potential impact from any penetrative works and potential to create preferential pathways for contaminants to reach groundwater. This should clarify the extent and nature of any change in levels on site and detail of proposed foundations.	Noted - see Water Quality Technical Appendix that forms part of Technical Appendix G. It is not possible to carry out a detailed assessment at this stage as the detailed foundation design will not be undertaken until the detailed engineering design stage post planning.
The Scoping Report suggests surface water will be discharged to surface water via an interceptor and that foul drainage will continue to be handled by the current foul drainage provider. Contrary to that set out at table 16.2 of the Scoping report, the ES will need to demonstrate that an increase in the intensity of operations at the site would not result in a risk to controlled waters via either/or increased run off and /or potential contamination of the run off. This should include details of the safe storage of materials, chemicals, fuels, oils and hazardous materials which could pose a risk to controlled waters if a spillage were to occur.	Noted - see ES Chapter 11 Ground conditions and the water environment and the associated Technical Appendix G. Also see Chapter 3 Proposed development and Technical Appendix L: Outline construction environment management plan.
With reference to the comments of WSCC as Lead Local Flood Authority (17/02/20), the Flood Risk Assessment and Drainage Strategy in support of any planning application to comply with the West Sussex LLFA policy for the Management of Surface Water. Any FRA should include consideration of climate change. Further guidance can be found on the gov.uk website here .	Noted – see Flood Risk Assessment and Outline Surface Water Drainage Strategy that form part of Technical Appendix G. Assessments comply with West Sussex LLFA policy and consider climate change.
The applicant will be expected to demonstrate a 50% betterment in terms of reduction in discharge rates for the proposed brownfield development. A clear outline Drainage Strategy must be prepared, accompanied with appropriate plans setting out all drainage features, any silt management, all process water usage, and any discharge points, with the results feeding into the EIA.	Noted – see Flood Risk Assessment and Outline Surface Water Drainage Strategy that forms part of Technical Appendix G. The drainage strategy is based upon direct consultation with and the requirements of the LLFA.

Comment	Response
<p>The scope for roof drainage to be directed to infiltration structures should be explored in accordance with the SuDS hierarchy, noting that the EA's permission would be required because of the presence of the principal aquifer beneath the site. If infiltration structures are possible, evidence of winter groundwater and soakage tests to support of any decision regarding infiltration should be provided. Pollution prevention upgrades based upon the CIRIA SuDS guidance (SuDS Manual C753) are encouraged.</p>	<p>Noted – rainwater harvesting tanks will be installed in the ERF and WSTF buildings to collect rainwater from building roof areas. This water will be used on site to support site activities / processes where appropriate. See ES Chapter 3 Proposed development and Chapter 11 Ground conditions and the water environment and the associated Technical Appendix G.</p>
<p>With reference to the comments of Southern Water, development capacity assessments will be required to determine if the existing sewerage system can accommodate the proposed development flows.</p>	<p>Noted – a capacity assessment to be submitted to Southern Water in due course.</p>
<p>Reference to controls and monitoring measures for and discharges off site and storage/containment of materials as required by the Environmental Permitting process should be made.</p>	<p>Information on controls and monitoring measures are included in ES Chapter 3 Proposed development and Technical Appendix L Outline construction environment management plan.</p>

West Sussex County Council – Scoping Opinion – Cumulative effects

Comment	Response
<p>The approach to assessing cumulative effects is generally considered appropriate. However, it is recommended that the cumulative impacts of the development should take into account all approved and allocated large scale development within at least a 5km radius of the site where they would likely result in large volumes of vehicular movements on Ford Road/Church Lane & its junction with the A259, would have the potential to significantly alter the character of the local landscape, or could give rise to substantive cumulative air quality impacts.</p>	<p>Noted – list of projects to be considered cumulatively was reviewed and extended as per WSCC recommendation – see ES Chapter 5 Environmental issues and methodology and all environmental topic chapters.</p>
<p>In addition to those developments identified at paragraph 17.3 and 17.4 of the Scoping Report, the applicant's attention is drawn to the following planning applications recently submitted to Arun District Council: F/5/20/PL: Reconfiguration of Ford Market, including revised market access, hardstanding for replacement vehicular parking and associated infrastructure, landscape, ancillary and site preparation works, and; F/4/20/OUT: Outline planning application (with all matters reserved except for access) for the development of up to 1,500 dwellings (Use Class C3), 60-bed care home (Use Class C2), up to 9,000 sqm of employment floorspace (Use Classes B1), local centre of up to 2,350 sqm including up to 900 sqm retail / commercial (Use Classes A1-A5) and 1,450 sqm community / leisure floorspace (Use Classes D1-D2), land for a two-form entry primary school (Use Class D1), public open space, allotments, new sports pitches and associated facilities, drainage, parking and associated access, infrastructure,</p>	<p>Noted – projects included in the cumulative assessment - see ES Chapter 5 Environmental issues and methodology and all environmental topic chapters.</p>

Comment	Response
<p>landscape, ancillary and site preparation works, including demolition of existing buildings and part removal of existing runway hardstanding).</p> <p>These applications, form part of proposals for the development of the 'Ford' strategic housing allocation sites SD8 (Ford), which surrounds the proposed site and in part, propose to share the sites access from Ford Road. It is of note that at present the applications do not cover the full extent of the allocated land, however, with reference to the relevant chapters/assessments, the ES will need to clarify any assumptions that have been made in respect of potential impacts upon future development (e.g. any stand-off, buffer zones, or mitigation). As far as possible this section will need to reflect the status of future strategic allocation development proposals which are likely to come forward at the same time as the proposed development. Close liaison with both the developer of that site and Arun District Council are advised.</p>	
<p>With reference to the comments of Arun District Council, your attention is also drawn to the Preferred location for a new 10 Form Entry Secondary School to the north west of the site. The potential cumulative effects on this school development should also be considered.</p>	<p>Noted – project included in the cumulative assessment - see ES Chapter 5 Environmental issues and methodology and all environmental topic chapters.</p>
<p>The cumulative impact of the development alongside existing facilities in the area must be considered (e.g. the Ford Materials Recycling Facility, Waste Water Treatment Works, Rudford Industrial Estate, approved Wick Farm Anaerobic Digestion facility), particularly where these result in large HGV numbers, and/or other impacts.</p>	<p>Existing facilities are taken into account in the assessment of the current baseline environment.</p>
<p>As set out at paragraph 17.7 of the Scoping Report, the interaction of effects and potential to give rise to a cumulative effect will need careful consideration. A full consideration of the implications of the whole scheme should be included in the ES.</p>	<p>Noted – see cumulative section of all environmental topic chapters.</p>

West Sussex County Council – Scoping Opinion – Alternatives

Comment	Response
<p>It is noted that the cumulative impact section would also address 'alternatives'. Such matters are separate from cumulative effect considerations, accordingly, the applicant should address this is an independent section. As well as alternative site layouts and designs, this section should clarify why the revised EfW is being sought, rather than the approved gasification/MRF facility; why another type of waste facility is not being sought; and why a front-end MRF has not been included (compared with the approved development).</p>	<p>The council has misread the scoping report; it did not suggest that cumulative impacts and alternatives be addressed together in the ES.</p> <p>The ES addresses alternatives in Chapter 4 and cumulative impacts in Chapter 5 and in all the cumulative sections within the individual environmental topic chapters as is standard practice.</p>

West Sussex County Council – Landscape Architect Response (Terra Firma Consultancy on behalf of WSCC)

Comment	Response
<p>Chapter 10.0 of the submitted EIS Scoping Report sets out the applicant’s approach to assessing the likely landscape and visual effects. It is noted that the assessment methodology is to follow guidance in Natural England and Defra’s ‘Landscape and Seascape Character Assessments’ (2014) and ‘Guidance for Landscape and Visual Impact Assessments 3rd Edition’ (2013) produced by the Landscape Institute and Institute of Environmental Management and Assessment. The results of this assessment should then inform the design proposals and provide appropriate landscape mitigation accordingly.</p>	<p>Noted.</p>
<p>The LIVA should consider: Landscape Character Assessments – Referring to all character areas likely to be impacted by the proposals at County, District and local level and referring to character areas within the South Downs National Park (SDNP) and Marine Character Areas (to include but not be limited to: SDNP Integrated Landscape Character Assessment/West Sussex Landscape Character Assessment /WSCC Land Management Guidelines/ Pan Sussex Historic Landscape Characterisation/Seascape Assessment for the South Marine Plan Areas).</p>	<p>Noted, assessment of potential impacts on landscape resources has been undertaken with respect to the relevant landscape character assessments – see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H.</p>
<p>Due to the scale of the proposed built form and stack a computer-generated Zone of Theoretical Visibility (ZTV) will be essential to determine the receptors that will require consideration and to inform selection of viewpoints (as stated in section 6.18 of the Landscape Institute/IEMA 2013 3rd Edition). Viewpoints should be agreed with WSCC as part of an iterative, collaborative process through which representative views and key views can be identified.</p>	<p>Noted – a ZTV was generated for assessment purposes and viewpoints agreed with WSCC and their landscape advisers. Viewpoint selection has been discussed in meetings with WSCC. WSCC agreed the proposed list of representative viewpoints put forward, but also asked for additional local views, most of which have been provided / will be provided when CV19 restrictions allow. See ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H.</p>
<p>Impact on views should be assessed, including where the proposals may influence, detract from or block views to or from valued landscapes or landmarks including the SDNP.</p>	<p>Noted – see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H.</p>
<p>Impacts on views which are locally valued and / or described in Landscape Character Assessments, Neighbourhood Plans, Village Design Statements, Conservation Area appraisals etc. The SDNPA Viewshed Study (‘SDNP: View Characterisation and Analysis’ (2015)) should also be referred to.</p>	<p>Noted – see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H.</p>
<p>Potential effects on wider public views should be explored including from the surrounding PROW network and from the higher ground to the north.</p>	<p>Noted – see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H.</p>

Comment	Response
Views from nearby residential dwellings (including future residents of the surrounding Arun District Council allocation site) should be considered as should views from transport corridors including road and rail travel, views from public open spaces, playing fields, the market and recreation grounds.	Noted and additional local views added as requested by WSCC in viewpoint meeting – see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H.
The study should also take into account impacts on views of the skyline, views of the plume, changes in visual effects due to seasonal leaf cover, impacts of proposed fencing, and buildings taking into account their specific RAL colours and any glare from reflective surfaces and impacts of proposed lighting on dark night skies. If significant lighting is proposed then night-time visualisations will be required.	Noted – see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H.
Any proposed mitigation (including landscaping and bunding etc) or retention and protection of existing landscape features should be clearly set out and considered in the assessment.	Noted – see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H. Also see ES Chapter 3 Proposed development, the Design and Access Statement and the proposed Landscape Design Plan.
Landscape effects including impacts on designated sites i.e. landscape and visual setting of Conservation Areas, Listed Buildings and other heritage assets, SDNP (including potential effects on the Special Qualities of the National Park), Registered Parks and Gardens.	Noted – see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H and ES Chapter 10 Cultural heritage and the associated Technical Appendix F.
Impacts on existing vegetation (inc. TPO's or any vegetation to be cleared or retained).	Noted – see ES Chapter 3 Proposed development, ES Chapter 13 Natural heritage and the associated Technical Appendix I, the Design and Access Statement and the proposed Landscape Design Plan.
Impacts of any road / access improvements and the potential impact on the character of the surrounding rural lanes e.g. Alterations to access, visibility splays, associated vegetation removal, lighting, signage etc.	Noted – see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H.
Impacts on tranquillity – including potential noise from internal vehicular movements and machinery.	Noted – see ES Chapter 9 Community and social effects (impacts on amenity) and ES Chapter 14 Noise and vibration.
Impacts on topography, waterbodies and site levels and any regrading required as part of the proposals.	No impacts on topography, waterbodies and site levels (with the exception of the construction of the waste bunker, 2 m below ground level) – see ES Chapter 11 Ground conditions and the water

Comment	Response
	environment and associated Technical Appendix G.
Cumulative impacts.	Noted – see ES Chapter 5 Environmental issues and methodology and the cumulative sections in each of the environmental topic chapters.
I would recommend that verified photomontages which meet appropriate standards as described in the Landscape Institutes' Technical Guidance Note 06/19 on Visual Representation of Development Proposals are submitted from viewpoints agreed with the local authority showing an accurate visual representation of the proposed development including plumes and, if appropriate, mitigation proposals at year 1 and then at 5 yearly intervals sufficient to demonstrate the effectiveness of the mitigation proposals over time and at full extent.	Verified visualisations have not been possible due to CV19 restrictions but other methods of accurately placing the proposals into views have been applied to provide illustrative visualisations for 17* out of a total of 36 views, with a high degree of accuracy. The resultant photomontages and 3D models have been provided as part of the planning application – see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H and the Design and Access Statement. *Please note, it is considered that 17 visualisations exceeds the normal expected number of visualisations in an LVIA and is sufficient to illustrate the degree of effect in views.
Due to the proximity of the SDNP to the application site the applicant's attention is drawn to the National Planning Policy Framework (NPPF) (particularly with regard to paragraph 172), Defra Circular 2010 - English National Parks and the Broads UK Government Vision, the SDNPA National Park Purposes, National Planning Policy for Waste (NPPW).	Noted.
ADDITIONAL COMMENTS SET OUT IN EMAIL FROM JAMES NEAVE TO PROJECT TEAM, DATED 27TH FEBRUARY 2020	
<p><u>Proposed viewpoint locations</u> (See also response to scoping request).</p> <p>Referring to the submitted ZTVs (Dwg 264101 dated 31.1.2020) I consider that 10km is initially an adequate study area for a project of this scale. The ZTV would also need to state if they are a 'bare earth' model or include existing built form and/or vegetation. My preference is to include built form but omit tree cover, which is seasonally variable.</p> <p>Considering the scale of the proposals I would wish to see greater examination of the potential visual effects on receptors near to the site (particularly within 3km), including ProW and promoted trails and publicly accessible land (including sports pitches and the nearby market site), residents in Ford, Yapton and Climping and future residents of the surrounding Arun District Council allocation site. I would also wish to see a more in-depth examination of the likely visual effects on listed</p>	<p>Noted - see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H. ZTVs omitting tree cover have been prepared.</p> <p>Additional local representative views, proposed by WSCC in the viewpoint selection meeting have been included to further illustrate and inform the effects on local visual receptors.</p> <p>Visual effects on heritage features have also been addressed in detail as part of the viewpoint</p>

Comment	Response
<p>buildings, conservation areas (to include Arundel, Yapton, Lymminster) and their settings including views to and from them. Views to the skyline and from the sea will also need to be examined.</p> <p>Viewpoints should also be chosen to examine potential effects on views to and from the SDNP with special regard given to those highlighted in the SDNPA Viewshed Study ('SDNP: View Characterisation and Analysis' (2015)) and if the proposed built form will impact on any valued views (as highlighted in landscape character studies, neighbour plans, conservation area appraisals etc) either by obscuring or detracting from it. Visual effects should also take in to account the effect of the plume, any reflective materials employed in construction and any lighting.</p> <p>Photographs should be taken and presented in accordance with industry guidance contained with GLVIA 3 and LI technical notes.</p>	<p>selection process and are addressed both in the Cultural Heritage (effects on resources) and LVIA (effects on persons visiting the resources) assessments.</p> <p>SDNP viewpoints have been agreed with WSCC.</p>

West Sussex County Council - Archaeology

Comment	Response
<p>All the potential cultural heritage effects referred to in Table 7.2 are valid factors to be taken into account in EIA. The Cultural Heritage chapter of the Environmental Statement should include historical map and aerial photograph regression, amongst the sources for which should be photographs of Ford Airfield in West Sussex Record Office.</p>	<p>Noted – see ES Chapter 10 Cultural heritage and the associated Technical Appendix F.</p>
<p>In respect of “Impact on archaeological remains on site during construction” (Table 7.2), assessed as of low sensitivity, I note that the Geo-Environmental report (Appendix 2) found varying thicknesses of concrete and of made ground beneath. From the report, there are parts of the site where deep made ground is likely to reflect substantial previous ground disturbance, most probably of wartime or early post-war date. But especially on the west side of the site and parts of the east, depths of 270mm – 400mm of made ground below concrete may not have involved original ground excavations deep enough to reduce or wholly remove buried archaeological features of later prehistoric or Roman date, if present, similar to those recorded in 1999, advance of construction of Ford Wastewater Treatment Works, to the south.</p> <p>Another significant historical landscape feature which runs below the site, immediately to the south of Hangars 1 and 2, is the early 19th-century Portsmouth to Arundel Canal, where still visible protected in Local Plan development management policy (Arun Local Plan Policy HER DM5).</p> <p>Development proposals for the surrounding Ford Strategic (development) Allocation (Arun Local Plan: Ford - SD8) must demonstrate compliance with key design and infrastructure requirements including reflection of the historic alignment of the canal (Policy SD8 (h)). Geo-environmental test pits TP12, TP 13, and TP14, from their depths, may well have been excavated through wartime backfill of the Canal.</p> <p>Consideration of the impact of the proposals on the buried canal, and suitable mitigation measures, should be part of EIA. It is quite possible that the original artificial clay lining of the canal survives below its backfill; development-related excavation (e.g. foundation) works that might breach that lining could have cross-cutting hydrological implications.</p>	<p>Noted – a geoarchaeological desk based assessment was commissioned by Archaeology South-East to inform the impact assessment. See ES Chapter 10 Cultural heritage and the associated Technical Appendix F2.</p>

Comment	Response
<p>Also below the site, at varying depths above the chalk bedrock, are identified river terrace sand deposits (Geo-Environmental Report). It is possible that such deposits may contain early prehistoric artefacts (geoaerchaeological deposits) and microfossils which can provide information on the ancient environment of early human occupation. Limited geoaerchaeological investigation was carried out in connection with the building of the Wastewater Treatment Works and of the Materials Recycling Facility on Ford Airfield in the late 1990s and early 2000s (West Sussex Historic Environment Record source reports 04_270, 04_276).</p> <p>In connection with the Cultural Heritage Chapter there should be a desk-based geoaerchaeological assessment, carried out by a geoaerchaeologist familiar with the Ice- Age Sussex Raised Beach and river terrace sequence.</p>	
<p>As regards changes to the settings of scheduled monuments and listed buildings during and post-construction (Table 7.2), the medieval settlement earthworks at Church Farm, Climping, a Scheduled Monument, and Grade I Listed churches of Climping, Ford and Yapton are mentioned specifically in the Scoping Report (7.2, 7.4), all designated heritage assets of the highest significance (National Planning Policy Framework, para. 194 (b)). The upper parts of the existing Hangars 1 and 3 are clearly visible from St Andrew’s church, Ford (site visit to church, 28/1/2020).</p> <p>In connection with the Cultural Heritage chapter of the Environmental Statement there should be a Heritage Visual Impact Assessment (HVIA), with mitigation measures proposed. The HVIA should include before and after photomontages of the digital-image views to and from the nearby Scheduled Monuments, Listed Buildings and Conservation Areas.</p> <p>Scheduled Tortington Priory and the elevated “heritage ridge line” of Arundel to the north should be included amongst these views, if these fall within the Landscape Zone of Theoretical Visibility (ZTV) (“Heritage ridge line” – including the Keep of Arundel Castle (Scheduled Monument), Grade I Listed Buildings of St Nicholas’ church and Arundel Cathedral).</p> <p>The “after” views should include “wire diagrams” to allow the proposed bulk and height of the new buildings and stack to be appraised in context.</p>	<p>Noted – a HVIA has been undertaken alongside the landscape and visual impact assessment. See ES Chapter 10 Cultural heritage and the associated Technical Appendix F, and ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H.</p>
<p>Finally, the “impact on Ford Airfield military structures during construction” (Table 7.2) should take account of previous consideration of the above and below ground military structures referred to in the Phase 1 Environmental Site Assessment of September 2012 by Golder Associates (on behalf of Grundon Waste Management), and propose suitable mitigation measures where appropriate.</p>	<p>Noted – see ES Chapter 10 Cultural heritage and the associated Technical Appendix F2.</p>

West Sussex County Council – Ecology

Comment	Response
<p>No objection to the proposed approach.</p> <p>The majority of the site comprises colonised hardstanding, as well as areas of poor semi-improved grassland, scrub, broadleaved woodland, a non-native hedgerow and scattered trees. The site is judged to be of low ecological value. The proposed development will result in the removal of all three hangars and associated buildings and some areas of hardstanding. Areas of colonised hardstanding, scrub and amenity grassland will also be lost, whilst the broad-leaved woodland will remain intact.</p> <p>It is proposed that natural heritage is not scoped into the EIA and will not be considered in the ES. However, an ecological appraisal will be submitted in support of the planning application in accordance with local requirements.</p> <p>Given the limited value of the habitats and species onsite and subject to the usual expectation for mitigation and enhancement being met, in accordance with national and local policy (also refer to s5 of the Ecological Appraisal) , I would not raise an objection to this approach.</p>	<p>Contrary to the comments provided by the WSCC Ecologist, the WSCC Planning Department required the inclusion of ecology within the EIA. This was noted – see ES Chapter 13 Natural heritage and the associated Technical Appendix I. Chapter 13 concurs with this assessment, valuing the habitats and species on site as being of low biodiversity value. The overall magnitude of change from losing all site habitats is small, and the unmitigated effect is assessed as being slight and not significant.</p>

West Sussex County Council – Lead Local Flood Authority

Comment	Response
<p>Paragraph 16.10 of Reference A states: <i>A flood risk assessment will be submitted in support of the planning application to address flooding and drainage, in accordance with national requirements.</i> The LLFA requires the flood risk assessment and drainage strategy in support of any planning application to comply with the West Sussex LLFA policy for the Management of Surface Water https://www.westsussex.gov.uk/media/12230/ws_llfa_policy_for_management_of_surface_water.pdf</p>	<p>Noted – a Flood Risk Assessment and Outline Drainage Strategy forms part of ES Technical Appendix G: Ground conditions and the water environment.</p>
<p>In accordance with LLFA Policy we would expect the applicant to demonstrate 50% betterment in terms of reduction in discharge rates for the proposed brownfield development.</p>	<p>Noted – the drainage strategy is based upon direct consultation with and the requirements of the LLFA.</p>
<p>It is noted from Reference A that no infiltration drainage is currently proposed. The scope for roof drainage to be directed to infiltration structures should be explored in accordance with the SuDS hierarchy, noting that EA permission would be required because of the presence of the principal aquifer beneath the site (paragraph 16.8). If the EA holds no objection to the direction of roof drainage to infiltration structures, the LLFA would wish to see evidence of winter groundwater monitoring and soakage tests either to support or discount any decision regarding infiltration.</p>	<p>Rainwater harvesting tanks will be installed in the ERF and WSTF buildings to collect rainwater from building roof areas. This water will be used on site to support site activities / processes where appropriate. See ES Chapter 3 Proposed development and Chapter 11 Ground conditions and the water environment and the associated Technical Appendix G. Also see the Design and Access Statement.</p>

West Sussex County Council – Tree Officer

Comment	Response
<p>It is noted that natural heritage is not proposed to be scoped into the EIA. Given that the currently known baseline concludes that existing habitats have ‘negligible value’, excluding natural heritage from the EIA may be ‘sufficient and appropriate’, although the phase 1 habitat survey was undertaken 7 years ago and included in the ES at that time. However, potential construction and post-construction effects have been identified for habitat types and protected / notable species (table 12.1 of scoping report).</p>	<p>An Ecological Appraisal of the site (including a Phase 1 bat survey) was undertaken at the end of 2019 / early 2020 which verified the ecological status of the site and the commentary provided in the scoping report. The Ecological Appraisal was issued to WSCC for information during the scoping consultation period. Nevertheless, WSCC’s scoping opinion required the inclusion of natural heritage in the EIA – see ES Chapter 13 Natural heritage and the associated Technical Appendix I.</p>
<p>It is noted that an ecological appraisal is to be submitted to support the planning application. This should include proposals to comply with anticipated biodiversity net gain requirements. Multi-functional properties of appropriate tree planting would contribute to the mitigation of identified noise and air pollution as well as visual landscape impacts.</p>	<p>Noted – see ES Chapter 13 Natural heritage and the associated Technical Appendix I. Also see the Landscape Management Plan. Biodiversity net gain was assessed and confirmed using the DEFRA 2.0 metric.</p>

West Sussex County Council – Public Rights of Way Officer

Comment	Response
<p>From what I can see the Public Footpath here is not affected as Footpath 200_3 passes a 70m section to the N/E corner of the site (see photo below). It would be useful to confirm if they foresee any issues and whether a closure during works would be required, which will need a formal application and associated costs well in advance. The footpath may fall outside of the site boundary but again would be good to clarify.</p>	<p>No footpath closures or diversions are required as a result of the proposals. Footpaths have been considered in ES Chapter 12: Landscape and visual effects and Chapter 15 Traffic and transport and the associated Technical Appendix K.</p>

West Sussex County Council – Highways

Comment	Response
<p>I note that the application is not intending to scope traffic and transport into the EIA and It is noted that section 14.12 and 14.13 that a scoping exercise will take place before producing a transport statement and framework travel plan.</p> <p>As part of the transport statement scoping exercise the applicant has provided trip generation information that details the site is anticipated to generate an average of 440 two way trips (217 HGV trips and 223 Car and LGV trips) and a peak generation of 462 two way trips (239 HGV and 223 Car and LGV). Network peak hour flows are a maximum of 29 two way trips in the AM peak and 30 in the PM peak.</p> <p>The EIA submitted as part of the proposed new access road to Ford Circular Technology Park assessed the impact of 334 additional two way trips including 240 two way trips HGV trips. Junction Modelling was provided within the TA for 2024 which detailed the application would not have a severe effect.</p> <p>It is noted that the application was assessed prior to the Arun Local Plan being adopted. Whilst the Local Plan does include significant planned development in the area such as Ford Airfield, Yapton Strategic Development, Climping and Littlehampton Economic Growth Area, the utilisation of TEMPRO to uplift traffic flows would have accounted for this within the modelling. In addition a significant junction improvement has been secured to the A259 / Church Lane junction as part of the Climping application. Further works are also being developed and funding being secured for the Oystercatcher, Comet Corner and A259/B2187 (Tesco Rbt).</p> <p>Conclusion</p> <p>The LPA should consider if traffic and transport should be scoped into the EIA with regard to an updated baseline position reflecting local growth, the baseline position of current HGV flows associated with the site and if the additional predicted 128 daily car and LGV two way trips would require consideration within an EIA.</p>	<p>Noted – traffic and transport has been included in the EIA – see ES Chapter 15 and the associated Technical Appendix K, which includes a Transport Assessment, a Walking, Cycling and Horse Riding Assessment and an Interim Delivery and Servicing Plan).</p>

Natural England

Comment	Response
<p>The EIA Scoping Report suggests that a Natural Heritage chapter is not required as it would simply repeat the Air Quality Assessment which is intended to be undertaken. Natural England would like to see a Natural Heritage Chapter included within the EIA (whilst acknowledging that this may indeed refer to the results of a full Air Quality Assessment).</p>	<p>Noted – a natural heritage chapter has been included in the ES - see ES Chapter 13 Natural heritage and the associated Technical Appendix I.</p>
<p>Impacts to be considered as part of a Natural Heritage chapter include impacts to the Dundon to Bignor Escarpment Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI), Ancient Woodland priority habitats nearby and potential impacts to grazing marsh / functional Land to the Arundel Valley SAC/Special Protection Area (SPA). Impacts to other SSSI's and Local Nature Reserves which may be affected by this proposal should also be considered. Proposals for mitigation of any impacts and, if appropriate, compensation measures also need to be included. Please see Annex A of response for further information.</p>	<p>Noted – see ES Chapter 13 Natural heritage and the associated Technical Appendix I. Also see ES Chapter 6 Air quality, odour and dust and the Habitat Regulations Assessment (HRA). The HRA considers the potential impacts of air quality changes from pollutants on the Dundon to Bignor Escarpment SAC. At Natural England's request, the Arun Valley protected sites were also assessed.</p>
<p>Natural England standard advice appended to response.</p>	<p>Noted.</p>

Environment Agency

Comment	Response
<p>The site rests upon River Terrace deposits, overlying Newhaven Chalk – classified as secondary A and principal aquifers respectively by the Environment Agency. The site does not sit within a source protection zone, however there are some small scale abstractions nearby. There are also inert legacy landfills proximal to the site.</p>	<p>Noted.</p>
<p>The site has a legacy of industrial activity and there have been site investigations conducted in the past in support of previous planning applications. These investigations have revealed minimal contamination and indicates a low risk to groundwater.</p>	<p>Noted.</p>
<p>We would expect the phase 1 investigation to be submitted for review by the Environment Agency and its format would comply with the current best practice; BS 10175: Investigation of potentially contaminated sites – code of practice BS 5930: Code of practice for ground investigations If the phase 1 investigation reveals a hitherto unknown source of potential contamination, we would expect a strategy for investigating and quantifying said contamination to be included in the phase 1 report.</p>	<p>Noted – see ES Chapter 11 Ground conditions and the water environment and associated Technical Appendix G.</p>

Comment	Response
<p>We note that within the EIA Scoping report, there is evidence to suggest soil based PAH contamination from a legacy fuel tank. The EIA scoping report indicates that there is no evidence of contamination on the concrete hard standing around the base of said tank, which was still in position at the time of the investigation. It was assumed that the tank was acting as the source. We would expect the phase 1 investigation to validate and confirm these assumptions. We would also expect that any findings of the phase 1 investigation include a provision to deal with any unknown contamination at the site.</p>	<p>Noted – see ES Chapter 11 Ground conditions and the water environment and associated Technical Appendix G.</p>
<p>We expect the client to conduct a hydrological risk assessment based on the findings of the phase 1 investigation. This risk assessment is to include the potential impact from any penetrative works at the site. We can find no indication as to what type of foundations will be employed during the development phase.</p> <p>Certain types of foundation construction can create preferential pathways for existing or new contaminants to reach groundwater and we would expect this to be addressed in any hydrological risk assessment.</p> <p>Additionally, it is unclear at which time within the hydrologic calendar groundwater level data was obtained. Groundwater levels within this area fluctuate seasonally and we would expect this to be factored into any preliminary conceptual model generated by the phase 1 investigation.</p>	<p>Noted - see Water Quality Technical Appendix that forms part of Technical Appendix G. It is not possible to carry out a detailed assessment at this stage as the detailed foundation design will not be undertaken until the detailed engineering design stage post planning.</p>
<p>Finally, it is our understanding that surface water will be discharged to surface water via an interceptor and that foul drainage will continue to be handled by the current foul drainage provider. The applicant will need to confirm that an increase in the intensity of operations at the site will not result in a risk to controlled waters via either/or increased run off and /or potential contamination of the run off. It is also our understanding that the applicant, has indicated that any foul sewage increase will be negligible. Can they confirm this?</p>	<p>Noted - see ES Chapter 3 Proposed development and ES Chapter 11 Ground conditions and the water environment and the associated Technical Appendix.</p>
<p>We would encourage the applicant to base any pollution prevention upgrades upon the CIRIA SuDS guidance (SuDS Manual C753). Also, the applicant may need to amend their existing waste acceptance permit.</p>	<p>Noted, SuDS guidance has been consulted in relation to the preparation of the outline surface water drainage strategy.</p>

Historic England

Comment	Response
<p>Development on this site has the potential to impact upon both designated and undesignated heritage assets and their settings both within the boundary of the proposed development area and in the area around the site. In line with the advice in the National Planning Policy Framework (NPPF), we would expect the Environmental Statement to contain a thorough assessment of the likely effects which the proposed development of this area might have upon those elements which contribute to the significance of these assets.</p>	<p>Noted – see ES Chapter 10 Cultural heritage and associated Technical Appendix F.</p>
<p>Designated heritage assets</p> <p>Our initial assessment of the Scoping Report shows that the designated heritage assets within the near vicinity of the proposed development (a 2.5km radius) have been identified (section 2.2), and that undesignated heritage assets and archaeology have been scoped in (section 7).</p> <p>We note that heritage assessment will be supported as necessary by an analysis of viewpoints to and from key locations, including selected listed buildings, and that the assessment will cross reference with the landscape and visual assessment as appropriate. We think this is a suitable approach to understanding potential impacts on the historic environment. Analysis of the views from within the site, out of, and across the site in relation to designated heritage assets will be important. As indicated above, we recommend close collaboration of cultural heritage and landscape/visual impact assessment, in order to adequately address issues in relation to setting of heritage assets. Setting may also form a part of the wider conceptual significance of a heritage asset. Further guidance on setting can be found at our website (https://historicengland.org.uk/images-books/publications/gpa3-setting-of-heritage-assets/).</p>	<p>Noted – see ES Chapter 10 Cultural heritage and associated Technical Appendix F and ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H.</p> <p>We can confirm that the Historic England best practice guidance formed part of our impact assessment process, as detailed in Chapter 10.</p>
<p>Non-designated heritage assets</p> <p>We would expect the Environmental Statement to also consider the potential impacts on non-designated features of historic, architectural, archaeological or artistic interest since these can also be of national importance and make an important contribution to the character and local distinctiveness of an area and its sense of place. This information is available via the local authority Historic Environment Record (www.heritagegateway.org.uk) and relevant local authority staff.</p> <p>We note that the area of the proposed development has been identified as having archaeological potential for archaeology relating to multi-period farming and settlement activity, and World War II or early post-war military structures (sections 7.6). Consideration must be given as to whether any undesignated heritage assets have the potential to be of national importance and therefore of equal significance to designated assets.</p> <p>We would strongly recommend that conservation and archaeological staff at the relevant County and Local Councils are involved at an early stage. They are well placed to advise on: local historic environment issues and priorities; the nature and design of any required mitigation measures; and opportunities for securing wider benefits for the future conservation and management of heritage assets.</p>	<p>Noted – see ES Chapter 10 Cultural heritage and associated Technical Appendix F and ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H.</p> <p>Consultation was undertaken with WSCC Archaeology during the early stages of the assessment work and their recommendations resulted in specialist geoarchaeological assessment, see Technical Appendix F2.</p>

Comment	Response
<p>Further comments</p> <p>The assessment should also take account of the potential impact which associated development activities (such as construction, servicing, maintenance, and associated traffic) might have upon perceptions, understanding, and appreciation of the heritage assets in the area. The assessment should also consider the likelihood of alterations to drainage and ground water patterns that might lead to in situ decomposition or destruction of below ground archaeological remains and deposits, and can also lead to subsidence of buildings and monuments.</p>	<p>Noted – see ES Chapter 10 Cultural heritage and associated Technical Appendix F and ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H.</p>

South Downs National Park Authority

Comment	Response
<p>Given the proximity to the South Downs National Park and the scale of the proposal, and visual impact of the proposal will need to be properly assessed. We recommend this is done early on in the process as visual impact in views from the National Park in particular will need to be mitigated through design. The process and evidence for this should be set out within the Landscape & Visual Impact Assessment, but we would expect to see a specific and bespoke piece of work to consider views from the National Park. The SDNPA would expect to see from the applicant, in accordance with the Guidelines for Landscape and Visual Impact Assessment (2013), the following:</p> <ul style="list-style-type: none"> • The baseline study must establish if this site is part of the landscape setting of the National Park, the visual setting, both or none. This is essential to establish prior to the development of the assessment. • Potential for change to views from the National Park to be qualified or quantified, with evidence, within the first section of the report. • The site appears to be located within a valley which creates one of a small number of coastal gaps along the length of the Chalk Downs. These gaps of undeveloped coast are not only significant to local coastal communities but they are the locations at which visitors to the National Park gain a visual link and relationship with the coast and the seascape beyond. The impact of such a large building breaking the skyline in views from the National Park must be assessed. • The assessment must also include the impact of lighting to the structure, in terms of the impact of views and other perceptual qualities from the National Park and the impact on the National Park's status as an International Dark Sky Reserve, (IDSR). 	<p>Noted, the SDNP has been taken fully into account in the landscape and visual impact assessment (LVIA) – see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H.</p>
<p>We would query the submitted scoping report conclusion that there is limited change to ground cover due to given the scale of the building now proposed compared to the existing development on this site. The magnitude of this change should be reassessed, (table 10.2 of the Scoping Report).</p>	<p>Noted - see ES Chapter 11 Ground conditions and the water environment and the associated Technical Appendix G.</p>
<p>Para 10.11 of the Report refers to sources of relevant information that will guide the report. The SDNPA recommend the following should form part of the sources of information used to inform the Baseline evidence and understanding of this site:</p>	<p>Noted.</p>

Comment	Response
<ul style="list-style-type: none"> • South Downs National Park Integrated Landscape Character Assessment (2011) • Local Landscape Character Assessment • Historic Evidence (maps, historic landscape characterisation) • South Downs National Park Viewshed Characterisation and Analysis (2015) • South Downs National Park Tranquillity Study (2017) • A bespoke visual assessment 	
<p>Para 10.13 - The visualisations of the viewpoints must include all relevant view points within the National Park to lead the design stage. The use of panoramic images must only be used when the view is truly a panorama (as opposed to images stitched together). Our expectation is that the Landscape Institute guidelines for photography and LVIA are followed.</p>	<p>Noted – see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H.</p>
<p>Furthermore, whilst the SDNPA will defer to the relevant statutory and non-statutory consultees to make comment on the air quality assessment details, the SDNPA would like to draw your attention to the sensitive designated areas within the immediate area, including SSSI's and the National Park. The location of the site in relation to the South Downs National Park means that the prevailing wind direction will carry emissions from the development across the National Park. Any such issues of pollution should be fully addressed and mitigated against at assessment stage.</p>	<p>Noted – see ES Chapter 6 Air quality, odour and dust and the associated Technical Appendix C and ES Chapter 13 Natural heritage and the associated Technical Appendix I.</p>
<p>Section 62 of the Environment Act requires all relevant authorities to have regard to the purposes of the National Park, the two statutory purposes of the SDNP designation are:</p> <ul style="list-style-type: none"> • To conserve and enhance the natural beauty, wildlife and cultural heritage of their areas • To promote opportunities for the public understanding and enjoyment of the special qualities of their areas 	<p>Noted.</p>
<p>At this stage the SDNPA would raise concerns about the scale of the building so close the National Park and the impact of the development on the purposes of the National Park.</p>	<p>Noted – see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H.</p>

Public Health England

Comment	Response
<p>We understand that many issues including air quality, emissions to water, waste, contaminated land etc. will be addressed in specific sections of an EIA but prefer to see public health matters summarised and considered in a specific section of the EIA (ES). We believe the summation of relevant issues into a specific section of the report provides a focus which ensures that public health is given adequate consideration. The section should summarise key information, risk assessments, proposed mitigation measures, conclusions and residual impacts, relating to human health.</p>	<p>Noted – a separate chapter of the ES has been provided on health issues – see ES Chapter 8 Health and the associated Technical Appendix E Human health risk assessment. Also refer to ES chapter 3 Proposed development and the other environmental topic chapters (Chapters 6 – 15).</p>
<p>The included appendix outlines generic considerations that we advise are addressed by all applicants when they are preparing Environmental Statements (ES) for the Local Planning Authority. In terms of the level of detail to be included in an ES, we recognise that the differing nature of projects is such that their impacts will vary. Our view is that the assessments undertaken to inform the ES should be proportionate to the potential impacts of the proposal. Where an applicant determines that it is not necessary to undertake detailed assessment(s) (e.g. undertakes qualitative rather than quantitative assessments), if the rationale for this is fully explained and justified within the application documents, then we consider this to be an acceptable approach. Where impacts relating to health and/or further assessments are scoped out, we would recommend that this is fully explained and justified within submission.</p>	<p>Noted.</p>
<p>Pollutants associated with road traffic or combustion, particularly particulate matter and oxides of nitrogen, are non-threshold; i.e., an exposed population is likely to be subject to potential harm at any level. Reducing public exposures of non-threshold pollutants (such as particulate matter and nitrogen dioxide) below air quality standards will have potential public health benefits. We support approaches which minimise or mitigate public exposure to non-threshold air pollutants, address inequalities (in exposure) and maximise co-benefits (such as physical exercise). We encourage their consideration during development design, environmental and health impact assessment, and development consent.</p>	<p>Noted - see ES Chapter 6 Air quality, odour and dust, and associated Technical Appendix C, and ES Chapter 15 Traffic and transport and the associated Technical Appendix K.</p>
<p>Appendix: PHE recommendations regarding the scoping document</p> <p>General approach</p> <p>It is the role of the applicant to prepare the ES. PHE provides advice relating to EIA within this document and during any relevant consultation stages.</p> <p>When preparing an ES the applicant should give consideration to best practice guidance such as the Government’s Handbook for scoping projects: environmental impact assessment, IEMA Guide to Delivering Quality Developments, and Guidance: on Environmental Impact Assessment.</p> <p>The Planning Inspectorate’s Advice Note Seven: Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements also provide guidance to applicants and other persons with interest in the EIA process.</p> <p>It is important that the submitted ES identifies and assesses the potential public health impacts of the activities at, and emissions from, the development.</p>	<p>Noted, best practice has been followed throughout all assessment work.</p>

Comment	Response
<p>PHE understands that there may be separate sections of the ES covering the assessment of impacts on air, land, water and so on, but expects an ES to include a specific section summarising potential impacts on population and health. This section should bring together and interpret the information from other assessments as necessary. The health and population impacts section should address the following steps.</p> <p>Screening: Identify and significant effects</p> <p>Summarise the methodologies used to identify health impacts, assess significance and sources of information. Evaluate any reference standards used in carrying out the assessment and in evaluating health impacts (e.g., environmental quality standards).</p> <p>Where the applicant proposes the ‘scoping out’ of any effects a clear rationale and justification should be provided along with any supporting evidence.</p> <p>Baseline Survey</p> <p>Identify information needed and available, Evaluate quality and applicability of available information.</p> <p>Undertake assessment.</p> <p>Alternatives</p> <p>Identify and evaluate any realistic alternative locations, routes, technology etc.</p> <p>Design and assess possible mitigation</p> <p>Consider and propose suitable corrective actions should mitigation measures not perform as effectively predicted.</p> <p>Prediction: Quantify and Assess Impacts</p> <p>Evaluate and assess the extent of any positive and negative effects of the development. Effects should be assessed in terms of likely health outcomes, including those relating to the wider determinants of health such as socio-economic outcomes, in addition to health outcomes resulting from exposure to environmental hazards. Mental health effects should be included and given equivalent weighting to physical effects.</p> <p>Clearly identify any omissions, uncertainties and dependencies (e.g., air quality assessments being dependant on the accuracy of traffic predictions).</p> <p>Evaluate short-term impacts associated with the construction and development phase.</p> <p>Evaluate long-term impacts associated with the operation of the development.</p> <p>Evaluate any impacts associated with decommissioning.</p> <p>Evaluate any potential cumulative impacts as a result of the development, currently approved developments which have yet to be constructed, and proposed developments which do not currently have development consent.</p> <p>Monitoring and Audit (not a statutory requirement)</p> <p>Identify key modelling predictions and mitigation impacts and consider implementing monitoring and audit to assess their accuracy / effectiveness.</p> <p>Any assessments undertaken to inform the ES should be proportionate to the potential impacts of the proposal, therefore we accept that, in some circumstances particular assessments may not be relevant to an application, or that an</p>	

Comment	Response
<p>assessment may be adequately completed using a qualitative rather than quantitative methodology. In cases where this decision is made, the applicant should fully explain and justify their rationale in the submitted documentation.</p> <p>Consideration of alternatives (including alternative sites, choice of process, and the phasing of construction) is widely regarded as good practice. Ideally, the EIA process should start at the stage of site selection, so that the environmental merits of practicable alternatives can be properly considered. Where this is undertaken, the main alternatives considered should be outlined in the ES.</p>	
<p>Human and environmental receptors</p> <p>The applicant should clearly identify the development's location and the location and distance from the development of off-site human receptors that may be affected by emissions from, or activities at, the development. Off-site human receptors may include people living in residential premises; people working in commercial, and industrial premises and people using transport infrastructure (such as roads and railways), recreational areas, and publicly-accessible land.</p> <p>Identify and consider impacts on residential areas and sensitive receptors (such as schools, nursing homes and healthcare facilities, as well as other vulnerable population groups such as those who are young, older, with disabilities or long-term conditions, or on low incomes) in the area(s) which may be affected by emissions, this should include consideration of any new receptors arising from future development.</p> <p>Consideration should also be given to environmental receptors such as the surrounding land, watercourses, surface and groundwater, and drinking water supplies such as wells, boreholes and water abstraction points.</p>	<p>Noted.</p>
<p>Impacts arising from construction and decommissioning</p> <p>Any assessment of impacts arising from emissions or activities due to construction and decommissioning should consider potential impacts on all receptors and describe monitoring and mitigation during these phases. Construction and decommissioning will be associated with vehicle movements and cumulative impacts should be accounted for.</p> <p>We would expect the applicant to follow best practice guidance during all phases from construction to decommissioning to ensure appropriate measures are in place to mitigate any potential negative impact on health from emissions (point source, fugitive and traffic-related) and activities. An effective Construction Environmental Management Plan (CEMP) (and Decommissioning Environmental Management Plan (DEMP)) will help provide reassurance that activities are well managed. The applicant should ensure that there are robust mechanisms in place to respond to any complaints made during construction, operation, and decommissioning of the facility.</p>	<p>Noted and addressed as appropriate. An Outline construction environment management plan has been prepared. A detailed version will be prepared once a contractor is appointed. A decommissioning plan has not been prepared at this stage as the project has a life expectancy of at least 25 years and any plan prepared at this stage would out of date. A DEMP will be prepared at the appropriate time in the future.</p>
<p>Emissions to air and water</p> <p>Significant impacts are unlikely to arise from industrial installations which employ Best Available Techniques (BAT) and which meet regulatory requirements concerning emission limits and design parameters. However, PHE has a number of comments regarding the assessment of emissions from any type of development in order that the ES provides a comprehensive assessment of potential impacts.</p>	<p>Noted, emissions to air and water are considered in detail in ES Chapters 6 Air quality, odour and dust and the associated Technical Appendix C and ES Chapter 11 Ground conditions and the water environment and the associated Technical Appendix G.</p>

Comment	Response
<p>When considering a baseline (of existing environmental quality) and in the assessment and future monitoring of impacts these should:</p> <ul style="list-style-type: none"> • include appropriate screening assessments and detailed dispersion modelling where this is screened as necessary • encompass the combined impacts of all pollutants which may be emitted by the development with all pollutants arising from associated development and transport, considered in a single holistic assessment (i.e. of overall impacts) • include Chemical Abstract Service (CAS) numbers alongside chemical names, where referenced in the ES • consider the construction, operational, and decommissioning phases • consider the typical operational emissions and emissions from start-up, shut-down, abnormal operation and accidents when assessing potential impacts and include an assessment of worst- case impacts • fully account for fugitive emissions • include appropriate estimates of background levels when assessing the human health risk of a chemical emitted from a facility or operation, background exposure to the chemical from other sources should be taken into account • identify cumulative and incremental impacts (ie, assess cumulative impacts from multiple sources), including those arising from associated development, other existing and proposed development in the local area, and new vehicle movements associated with the proposed development; associated transport emissions should include consideration of non-road impacts (ie, rail, sea, and air) • include consideration of local authority, Environment Agency, Natural Resources Wales, Defra national network, and any other local site-specific sources of monitoring data • compare predicted environmental concentrations to the applicable standard or guideline value for the affected medium. Where available, the most recent UK standards for the appropriate media (ie, air, water, and/or soil) and health-based guideline values should be used when quantifying the risk to human health from chemical pollutants • where UK standards or guideline values are not available, use those recommended by the European Union or World Health Organization: <ul style="list-style-type: none"> — If no standard or guideline value exists, the predicted exposure to humans should be estimated and compared to an appropriate health-based value (eg, a Tolerable Daily Intake or equivalent) — This should consider all applicable routes of exposure (eg, include consideration of aspects such as the deposition of chemicals emitted to air and their uptake via ingestion) • when quantitatively assessing the health risk of genotoxic and carcinogenic chemical pollutants, PHE does not favour the use of mathematical models to extrapolate from high dose levels used in animal carcinogenicity studies to well below the observed region of a dose-response relationship. When only animal data are available, we recommend that the 'Margin of Exposure' (MOE) approach is used 	

Comment	Response
<ul style="list-style-type: none"> identify and consider impacts on residential areas and sensitive receptors (such as schools, nursing homes and healthcare facilities) in the area(s) which may be affected by emissions. This should include consideration of any new receptors arising from future development <p>Whilst screening of impacts using qualitative methodologies is common practice (e.g. for impacts arising from fugitive emissions such as dust), where it is possible to undertake a quantitative assessment of impacts then this should be undertaken.</p> <p>PHE's view is that the applicant should appraise and describe the measures that will be used to control both point source and fugitive emissions and demonstrate that standards, guideline values or health-based values will not be exceeded due to emissions from the installation, as described above. This should include consideration of any emitted pollutants for which there are no set emission limits. When assessing the potential impact of a proposed installation on environmental quality, predicted environmental concentrations should be compared to the permitted concentrations in the affected media; this should include both standards for short and long-term exposure. Further to assessments of compliance with limit values, for non-threshold pollutants (ie, those that have no threshold below which health effects do not occur) the benefits of development options which reduce population exposure should be evaluated.</p> <p>Additional points specific to emissions to air</p> <p>When considering baseline conditions (of existing air quality) and the assessment and future monitoring of impacts, these should include:</p> <ul style="list-style-type: none"> consideration of impacts on existing areas of poor air quality e.g. existing or proposed local authority Air Quality Management Areas (AQMAs) modelling using appropriate meteorological data (i.e. come from the nearest suitable meteorological station and include a range of years and worst-case conditions) modelling taking into account local topography, congestion and acceleration evaluation of the public health benefits of development options which reduce air pollution – even below limit values – as pollutants such as nitrogen dioxide and particulate matter show no threshold below which health effects do not occur <p>Additional points specific to emissions to water</p> <p>When considering baseline conditions (of existing water quality) and the assessment and future monitoring of impacts, these should:</p> <ul style="list-style-type: none"> include assessment of potential impacts on human health and not focus solely on ecological impacts identify and consider all routes by which emissions may lead to population exposure (e.g., surface watercourses, recreational waters, sewers, geological routes etc.) assess the potential off-site effects of emissions to groundwater (eg, on aquifers used for drinking water) and surface water (used for drinking water abstraction) in terms of the potential for population exposure include consideration of potential impacts on recreational users (eg, from fishing, canoeing etc.) alongside assessment of potential exposure via drinking water 	

Comment	Response
<p>Land quality</p> <p>We would expect the applicant to provide details of any hazardous contamination present on site (including ground gas) as part of a site condition report.</p> <p>Emissions to and from the ground should be considered in terms of the previous history of the site and the potential of the site, once operational, to give rise to issues. Public health impacts associated with ground contamination and/or the migration of material off-site should be assessed⁶ and the potential impact on nearby receptors and control and mitigation measures should be outlined.</p> <p>Relevant areas outlined in the Government’s Good Practice Guide for EIA include:</p> <ul style="list-style-type: none"> • effects associated with ground contamination that may already exist • effects associated with the potential for polluting substances that are used (during construction / operation) to cause new ground contamination issues on a site, for example introducing / changing the source of contamination • impacts associated with re-use of soils and waste soils, for example, re-use of site-sourced materials on-site or offsite, disposal of site-sourced materials offsite, importation of materials to the site, etc. 	<p>Noted – see ES Chapter 3 Proposed development and ES Chapter 11 Ground conditions and the water environment and the associated Technical Appendix G.</p>
<p>Waste</p> <p>The applicant should demonstrate compliance with the waste hierarchy (e.g. with respect to re-use, recycling or recovery and disposal).</p> <p>For wastes arising from the development the ES should assess:</p> <ul style="list-style-type: none"> • the implications and wider environmental and public health impacts of different waste disposal options • disposal route(s) and transport method(s) and how potential impacts on public health will be mitigated • Consider issues associated with waste delivery and acceptance procedures (including delivery of prohibited wastes) and should assess potential off-site impacts and describe their mitigation 	<p>Noted – see the Planning Supporting Statement and ES Chapter 3 Proposed development.</p>
<p>Other aspects</p> <p>Within the ES, PHE would expect to see information about how the applicant would respond to accidents with potential off-site emissions (e.g., flooding or fires, spills, leaks or releases off-site). Assessment of accidents should: identify all potential hazards in relation to construction, operation and decommissioning; include an assessment of the risks posed; and identify risk management measures and contingency actions that will be employed in the event of an accident in order to mitigate off-site effects.</p> <p>PHE would expect the applicant to consider the COMAH Regulations (Control of Major Accident Hazards) and the Major Accident Off-Site Emergency Plan (Management of Waste from Extractive Industries) (England and Wales) Regulations: both in terms of their applicability to the development itself, and the development’s potential to impact on, or be impacted by, any nearby installations themselves subject to these Regulations.</p>	<p>Noted - see ES Chapter 3 Proposed development and ES chapter 11 Ground conditions and the water environment and the associated Technical Appendix.</p>

Southern Water

Comment	Response
<p>Due to the size of the development capacity assessments will be required to determine if the existing sewerage system can accommodate the proposed development flows.</p>	<p>Noted.</p>
<p>Southern Water requires a formal application for a connection to the public foul and surface water sewer to be made by the applicant or developer.</p>	<p>Noted.</p>
<p>Southern Water requires existing access arrangements to Waste Water Treatment Works to be maintained with regards to unhindered 24 hour / 7 days a week access. Southern Water operates a closed gate policy during maintenance works for Health and Safety reasons.</p>	<p>Noted.</p>
<p>Trade effluent is any liquid waste (effluent) discharged into our sewers from a business or industrial process. This includes any waste water derived from a production process or from washing down or cooling activities including wastes from public funded activities such as municipal landfills. This can be best described as anything other than domestic sewage (toilet, bath or sink waste) or uncontaminated surface water and roof drainage (rainwater).</p> <p>Trade Effluent application process for non-household (NHH) customers has changed since April 2017. This was a governmental decision to open the Market to competition. In order to apply for a consent, you will need to engage a Retailer and submit the application through them. All charges for the trade effluent application and ongoing billing will be through the Retailer Southern Water (SW) is still the owner of assets (Wholesaler), but all administrative or billing matters are conducted by the Retailer of your choice as SW did not enter the Retail market at this point in time. Once we have received an application via your appointed water retailer, we have 2 months to issue a consent or refuse the application. Any permit/consent to the environment e.g. lakes/rivers/streams should be made by the discharger to the EA.</p>	<p>Noted.</p>

National Air Traffic Services Safeguarding

Comment	Response
<p>The proposed development has been examined from a technical safeguarding aspect and does not conflict with our safeguarding criteria. Accordingly, NATS (En Route) Public Limited Company ("NERL") has no safeguarding objection to the proposal.</p> <p>However, please be aware that this response applies specifically to the above consultation and only reflects the position of NATS (that is responsible for the management of en route air traffic) based on the information supplied at the time of this application. This letter does not provide any indication of the position of any other party, whether they be an airport, airspace user or otherwise. It remains your responsibility to ensure that all the appropriate consultees are properly consulted.</p> <p>If any changes are proposed to the information supplied to NATS in regard to this application which become the basis of a revised, amended or further application for approval, then as a statutory consultee NERL requires that it be further consulted on any such changes prior to any planning permission or any consent being granted.</p>	<p>Noted.</p>

Goodwood Aerodrome

Comment	Response
<p>I have assessed the proposed site against the obstacle limitation surfaces (defined within CAP738) for Chichester Goodwood Aerodrome, and can confirm that the proposed development in terms of height (80m) and scope does not present a flight safety issue for the Aerodrome operation at Goodwood. The proposed site is partially within the safeguarded bird circle (13km) but as we have no approaches to runways in that area, I judge it to be a very low risk of birdstrike.</p>	<p>Noted.</p>
<p>On behalf of Goodwood Aerodrome, I confirm that there is no objection to the proposed development.</p>	<p>Noted.</p>

Ford Parish Council

Comment	Response
<p>Requirement for mandatory best available technology for the incinerator. This should be validated by a technical expert in the field. Requirements would be</p> <ul style="list-style-type: none"> • Maximum waste to energy efficiency (in other words it should do the best job possible and not be a tick box exercise for WSCC and a profit opportunity for Grundon). • No secondary emissions from the site (this is full control of regulated emissions and demonstration of no increase in secondary emissions). This would be based upon a detailed survey of background levels. 	<p>Noted - see ES Chapter 3 Proposed development and various environmental topic chapters that consider secondary emissions (ES Chapters 6 – 15).</p>
<p>No storage of ash/clinker on the site where wind and water could lead to contamination of surrounding areas.</p>	<p>Noted - see ES Chapter 3 Proposed development.</p>
<p>Imposition of the stack on local views to and from the National Park.</p>	<p>Noted - see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix H.</p>
<p>High risk of large visible plume, when weather conditions lead to water vapour condensation, will lead to significant anxiety of local residents in the downwind area.</p>	<p>Noted - see ES Chapter 6 Air quality, odour and dust and the associated Technical Appendix C and Chapter 12 Landscape and visual effects and the associated Technical Appendix H.</p>
<p>No increase in truck movements. All trucks that service the site must be equipped with best available technology emissions control devices, so of Euro VI-C or D standard, to limit emissions under the duty cycles encountered on and immediately around the site.</p>	<p>Noted - see ES Chapter 3 Proposed development and Chapter 15 Traffic and transport and the associated Technical Appendices in relation to the number of HGV and passenger car movements.</p>

Arun District Council

Comment	Response
<p>Air quality and climate - Odour</p> <p>There is concern about the potential generation of odour from waste handling operations post-construction. Given the increase in size of population likely to be living within proximity of the site, as a result of the strategic housing allocation, and the amount of waste that will be processed, odour could become a significant issue. It is considered that this should be included within the scope of the EIA.</p>	<p>Noted, odour is included in the EIA – see ES Chapter 6 Air quality, odour and dust and the associated Technical Appendix C.</p>
<p>Community, social and economic effects - House Prices</p> <p>It is unknown whether the study mentioned in paragraph 6.7 of the Scoping Report is directly comparable with the Ford site in terms of the size of the proposed facility, its setting and the proximity of existing and proposed housing. The study also appears to be rather dated, having been undertaken 15 years ago.</p>	<p>Noted – see ES Chapter 9 Community and social effects for consideration of effects of the proposed development on house prices.</p>
<p>Community, social and economic effects - Micro-climate</p> <p>Table 6.1 contains a comment that "the nature and scale of the proposed development mean that there is no potential for microclimate effects". The ERF is likely to be accommodated in a building approximately 47m high and the WTS building is likely to be in the region of 14m high. Such buildings are clearly not small in scale. The distance between these buildings and the new housing is not yet known. Nor has the precise use or uses of land adjoining the site yet been established. Micro-climatic effects, such as overshadowing and wind, should not be lightly ignored.</p>	<p>Noted - micro-climate has been addressed in ES Chapter 6 Air quality, odour and dust and in the associated Technical Appendix C. Overshadowing has been addressed in the Design and Access Statement and in ES Chapter 9 Community and social effects.</p>
<p>Ground conditions</p> <p>It is noted that ground conditions will not be considered in the ES. However, a geo-environmental desk study report is proposed to be submitted in support of the planning application as a separate document. The Council's Environmental Health Officer has stated that the contaminated land aspect does not need to be included in the ES provided that there is a reference to it being separately addressed. The Phase I and II reports, mentioned in the Scoping Report, were completed in 2012 and 2015 respectively. ,Therefore, they cannot be considered current and will require updating.</p>	<p>The EIA now includes the consideration of ground conditions – see ES Chapter 11 Ground conditions and the water environment and the associated Technical Appendix.</p>
<p>Land use and land take - Residential</p> <p>While Chapter 9 of the Scoping Report considers the effects of the proposal on the use of existing public rights of way in the vicinity of the site, it ignores the Local Plan strategic housing allocation. The latter is considered under cumulative effects instead.</p>	<p>The local plan strategic housing allocation is considered within the cumulative effects assessments – see ES Chapter 5 Environmental issues and methodology and the cumulative effects sections of the environmental topic chapters (Chapters 6 – 15).</p>
<p>Noise and vibration</p> <p>Paragraph 13.4 recognises" ... that new dwellings may be constructed and occupied in the surrounding allocated area before construction of the proposed development is completed. Given the proximity of these receptors, it is considered that there is the potential for a significant effect to occur."</p>	<p>Noted – see ES Chapter 14 Noise and vibration and the associated Technical Appendix J. Relevant proposed and allocated developments in the vicinity of the site have been considered as</p>

Comment	Response
<p>Paragraph 13.7 adds that" ... the development of the allocated residential land surrounding the site will bring dwellings closer to the proposed development. As a result, there is the potential for significant operational noise effects." Consequently, the effects of noise both during construction and post construction are to be included in the EIA. This approach is supported.</p> <p>Paragraph 13.8 states that "The nearest existing residential dwellings are approximately 210m from the site and therefore well beyond any piling impact zone. While new dwellings may be constructed and occupied in the surrounding allocated area before construction of the proposed development is completed, these are not likely to be close enough to be affected by significant vibration from piling." It is unclear what assumptions have been made about the proximity of new dwellings. New dwellings could be permitted and constructed in advance of the proposed ERF and WTS and could be the subject of significant vibration effects. Therefore, it would be inappropriate to exclude vibration during construction from the EIA.</p> <p>The Council's Environmental Health Officer is generally satisfied with the proposed inclusion of noise and vibration in the EIA. However, with reference to Table 13.2, they recognise that increased traffic noise during construction (or impact of this on local residents) could be controlled by way of a condition imposed on any planning permission granted but, nevertheless, consider it should be included within the scope of the EIA.</p>	<p>part of the assessment of cumulative effects – see ES Chapter 5 Environmental issues and methodology and ES Chapter 14.</p>
<p>Cumulative effects</p> <p>Paragraph 17.4 proposes to include the Ford strategic housing allocation site in the cumulative effects' assessment. It should be noted that two planning applications were made to Arun District Council on 20 February 2020, as follows:</p> <ol style="list-style-type: none"> 1. An application submitted on behalf of Redrow Homes Southern Counties and Wates Development Limited for: "Outline planning application (with all matters reserved except for access) for the development of up to 1,500 dwellings (Use Class C3), 60-bed care home (Use Class C2), up to 9,000 sqm of employment f/oorospace (Use Classes 81), local centre of up to 2,350 sqm including up to 900 sqm retail / commercial (Use Classes A 1-A5) and 1,450 sqm community / leisure f/oorospace (Use Classes 01-02), land for a two-form entry primary school (Use Class 01), public open space, allotments, new sports pitches and associated facilities, drainage, parking and associated access, infrastructure, landscape, ancillary and site preparation works, including demolition of existing buildings and part removal of existing runway hardstanding", and 2. An application submitted on behalf of Ford Airfield Market for: "Full planning application for the reconfiguration of Ford Market, including revised market access, hardstanding for replacement vehicular parking and associated infrastructure, landscape, ancillary and site preparation works". <p>The applications are currently the subject of validation and registration and will be available to view on the District Council's website shortly. At the time of writing, there are no application reference numbers to give.</p> <p>The proposals the subject of these two latest applications will need to be added to those identified in paragraph 17.3 of the Scoping Report. The applications do not cover the full area of the Strategic Housing Allocation. However, the EIA will need to assume that the land to north-east and east of the site will also be developed with housing.</p>	<p>Noted, the list of projects to be considered cumulatively has been reviewed and updated and now includes: The Landings, Ford Airfield Market, the additional allocated housing land, the secondary school and others. See ES Chapter 5 Environmental issues and methodology for a full list.</p>

Comment	Response
<p>An EIA Scoping Opinion (F/19/18/EIS) was provided by Arun District Council on 31 January 2019 for a proposal described as "Up to 1,500 dwellings, up to 37,000 sqm of employment floor space, a local centre including retail, commercial and community facilities, primary school, nursery, a care/retirement home, healthcare facilities, public open space, new sports pitches and facilities, & associated access, infrastructure, landscape & ancillary works" on land at Ford Airfield, Ford. A copy of the Opinion is attached for your information.</p> <p>Due to the significant growth of development in the District a requirement has been identified to provide a new 10 Form Entry Secondary School in the District. At its meeting held on the 27 February 2019, the District Council's Planning Policy Sub-Committee resolved that Option/Site F be supported as the preferred location for a 10 Form Entry Secondary School to support the Local Plan Strategic Allocations. Option F is shown on the map below (see Appendix 2 below which includes a copy of all consultation responses in full). This proposal will need to be included among the cumulative effects too.</p>	
<p>To conclude, it is considered that the scope of the EIA should be extended to include the effects of the proposed development on the use of the surrounding land for housing, employment, retail, commercial, leisure and community uses as envisaged in the Arun Local Plan 2018-2031. The following should be included:</p> <p>Odour from waste handling operations post-construction</p> <p>Microclimate effects</p> <p>Traffic noise during construction</p> <p>Vibration during construction</p> <p>The cumulative effects of the development of the Strategic Housing Allocations, SO? Yapton, SOB Ford, S010 Climping and the preferred site for a 10 Form Entry Secondary School.</p>	<p>Noted, the EIA scope has been extended as specified – see ES Chapter 3 Proposed development, Chapter 6 Air quality, odour and dust, Chapter 14 Noise and vibration, Chapter 15 Traffic and transport and all environmental topic chapters for the consideration of cumulative effects (Chapters 6 – 15).</p>

Lyminster and Crossbush Parish Council

Comment	Response
<p>Is there sufficient planned assessment for air quality impact? Specifically the stack emissions and long term consequences on residents and agricultural land in particular. I note that this application includes provision for the site to accept waste from outside the county - perhaps this is something that outside of this scoping exercise that WSCC would like to engage with parish councils on at a forthcoming WSCC JEAAC meeting? I would imagine that part 2 of this could be WSCC plans for Community Infrastructure Levy plans for this scheme?</p>	<p>Noted – see ES Chapter 6 Air quality, odour and dust and the associated Technical Appendix. Also see Planning Supporting Statement regarding waste management.</p>
<p>Modelling of stack emissions should be predicated on the precise engineering process and design specification for the proposed plant, not theoretical assumptions as is often the case in these types of models. The applicant cannot claim to not have this detail if they are investing in this planning submission. In my brief review of the previous 2013/15 planning application note that the previous planning application granted in 2015 was free from this detail (at least I haven't found it in the few days I have had to review these documents).</p>	<p>Noted - see ES Chapter 6 Air quality, odour and dust and the associated Technical Appendix.</p>
<p>Carbon balance modelling should incorporate waste journey distances accurately reflecting anticipated waste imports to the site from beyond West Sussex whilst the comparison to alternative waste strategies should not be limited to landfill and reflect realistic future waste disposal options. Both of these variables could be used to drive very different model outcomes.</p>	<p>Noted – see ES Chapter 7 Carbon and greenhouse gas emissions and the associated Technical Appendix D Carbon balance assessment. Assumptions on transport distances have been made as accurately as possible at this stage of design. It is recognised that comparing to alternative waste strategies will influence the outcomes of the assessment, however landfill is currently the most likely alternative destination for the residual waste which the proposed development will treat and therefore has been chosen as a suitable baseline for the purposes of the assessment.</p>
<p>Transport infrastructure - I am not seeing satisfactory consideration of proposed traffic moving between the A259 and the A27 and waste arriving at the site from across and outside the county. It is obviously worth noting that the A27 Arundel bypass scheme is still in consultation stage with Highways England and there is no confirmed connection for the Ford Road to the A27. Further consideration of this is required on the distributed road network to include current traffic flows from the A27 to the A259 including the A284 / Lyminster Road.</p>	<p>Noted – see ES Chapter 3 Proposed development and ES chapter 15 Traffic and transport and the associated Technical Appendix.</p>
<p>Safety and accident planning. The Terence O'Rourke scoping considers impacts with regard to COMAH sites but does not consider the consequences or mitigation of disasters or major accidents as a result of the operation of the planned facility.</p>	<p>Page 28 of the EIA Scoping Report notes that 'The scale and nature of the proposed development mean that it does not have the potential to lead to a major accident that could pose a significant risk</p>

Comment	Response
	<p>to human health, cultural heritage or the environment. The location and nature of the proposed development mean that it is not at significant risk from major accidents.'</p> <p>ES Chapter 3 Proposed development, considers abnormal operating conditions.</p>

Barton Willmore on behalf of Redrow Homes Southern Counties and Wates Developments Ltd – Please note the comments from Barton Willmore are based on a previous / superceded version of the EIA Scoping Report that was not issued for consultation.

Comment	Response
<p>Paragraph 1.1 explains that the site currently handles about 20-25,000 tonnes of waste per annum. In comparison, it is noted that the Environmental Statement in support of the 2015 permission confirms that the approved facility would handle up to 200,000 tonnes of waste per annum. However, it is not clear from the current Scoping Report how much waste the current proposals would handle as this information is not provided.</p> <p>To assist, it is noted that the Environmental Statement in support of the 2015 permission explains that the scheme would generate 14MW of electricity, while paragraph 3.2 of the current Scoping Report explains that the current proposals will generate approximately 31MW of electricity. It can therefore be inferred that approximately double the amount of waste could be handled at the proposed facility compared to that currently permitted. With this in mind, we request that Grundon / Viridor provide full details of the quantum of waste they anticipate handling per annum at the proposed facility to enable full consideration of the potential impacts.</p>	<p>Noted - see information in June 2020 planning application submission, in particular ES Chapters 1 – 4: Introduction, Site description, Proposed development and Alternatives.</p>
<p>Paragraph 3.3 explains that the proposed ERF is likely to be housed within a building approximately 47m high, with a single stack up to 80m high. In comparison, the approved elevations associated with the 2015 permission show that the maximum height of the buildings was 22m, with a 50m dual stack. The tallest elements of the proposed facility are therefore significantly taller (114% more for the building and 60% more for the stack) than the 2015 permission.</p> <p>In addition to being considerably taller, it is necessary to consider the impact of the scale of the proposals (the buildings in particular), namely the combination of their height, alongside the width and length that they would extend across and their mass / bulk, but this information is not currently available. It is noted that paragraph 10.8 acknowledges this, stating that “The scale of the proposed buildings and the height of the stack mean that these effects have the potential to be significant.” Consideration will therefore need to be given to ensuring that the height and scale of the buildings / stack is compatible with a neighbouring residential-led development, including any change in levels and the operations due to take place at different levels i.e. above screening.</p>	<p>Noted - see information in June 2020 planning application submission, in particular ES Chapter 3 Proposed development, ES Chapter 12 Landscape and visual effects and the associated Technical Appendix, and the Design and Access Statement.</p>
<p>Paragraph 3.5 explains that parking for the ERF will be to the east of the ERF building, while parking for the WTS will be to the south of the WTS workshops and offices. Given the size of the two proposed buildings and the nature of the proposed operations, it is assumed that some parking would be required along the boundaries of the site.</p> <p>Given the quantum of heavy goods vehicles (HGV) movements permitted at the site (120 HGVs entering and exiting the site Mondays to Fridays and 60 HGVs entering and exiting the site on Saturdays, as confirmed at paragraph 14.3), there is likely to be a high degree of noise associated with reversing (beeping) HGVs (potentially as late as 8pm Mondays to Fridays and 6pm on Saturdays, as confirmed by condition 3 of the recent access road permission ref. WSCC/027/18/F). It is therefore necessary to consider the location of parking bays and vehicular washing facilities within the site and potential implications on the Masterplan at Ford Airfield, alongside the nature and extent of noise mitigation measures that may be required.</p>	<p>Noted - see information in June 2020 planning application submission, in particular ES Chapter 3 Proposed development, Chapter 12 Landscape and visual effects and the associated Technical Appendix, and Chapter 14 Noise and vibration and the associated Technical Appendix.</p>

Comment	Response
<p>It is welcomed that paragraph 5.10 confirms the following: “The land surrounding the site is allocated for residential and employment use in the adopted Arun Local Plan 2011-2031 and it is possible that some of the new dwellings may be occupied before construction works on the proposed development are completed. The Institute of Air Quality Management (IAQM) recommends that an assessment is carried out if there are sensitive receptors within 350m of the site boundary, as such an assessment of the impact of construction phase dust generating activities will be included in the air quality assessment.”</p> <p>While not yet a submitted planning application, it is necessary to have regard to what could come forward on adjacent land in the future, particularly where it has been allocated in an adopted Local and Neighbourhood Plan.</p> <p>Based on the current Masterplan for Ford Airfield, we encourage WSCC to require an assessment of the impact of construction phase dust generating activities in the area shown in Appendix A of this letter. The 350m buffer outlined relates to the screening criteria in the Institute of Air Quality Management (IAQM) document ‘Guidance on the assessment of dust from demolition and construction’, which states that an assessment will be required if there is a ‘human receptor’ i.e. residential properties within 350m. It is also important to note that the guidance explains that human receptors within 50m of the routes used by construction vehicles should also be considered within the construction phase assessment.</p>	<p>Noted – see ES Chapter 6 Air quality, odour and dust and the associated Technical Appendix.</p>
<p>Paragraph 5.12 explains that the nature of the proposed development means there is the potential for odours to arise from the site and that odour management will be an integrated part of the design of the scheme. It concludes that no significant odour nuisance is expected to occur.</p> <p>Based on conversations with local residents during the January 2020 public exhibition we understand that they have experienced significant odour on an ongoing basis from the existing Grundon facility. We recommend that the Environmental Health Officer is contacted to confirm whether any formal complaints have been received. It is understood that this arises from the doors to the facility being left open during operations, resulting in odour not being contained, while waste is often discarded outside the buildings, attracting seagulls in the process.</p> <p>This conflicts with the requirements set out within Grundon’s permit as provided at Appendix B, which explains at paragraph 3.2.1 that: “Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable, to minimise, the odour.”</p> <p>Further to this, we understand that Grundon does not have an odour or environmental management plan.</p> <p>Paragraph 5.16 explains that the findings of the scoping process in relation to air quality and climate effects are summarised in Table 5.2. This notes that the potential effect concerning ‘generation of odour’ will not be included in the Environmental Statement. In light of the points raised above, alongside odour being detected by ourselves during a site visit at Ford Airfield, we encourage WSCC to require that odour is considered as part of the Environmental Statement. To ensure that the proposed facility has an acceptable relationship with the Ford Airfield Masterplan, we recommend that</p>	<p>Noted – see ES Chapter 6 Air quality, odour and dust and the associated Technical Appendix.</p>

Comment	Response
<p>odour is considered across the whole of the Ford Airfield site, utilising the IAQM guidance, which requires a robust assessment of odour impacts be undertaken in agreement with the Council's Environmental Health Officer. Any application will need to be supported by comprehensive baseline assessments for all relevant environmental considerations.</p>	
<p>As explained earlier, the proposed ERF is likely to be housed within a building approximately 47m high, with a single stack up to 80m high. This would be far in excess of the heights of the buildings / structures associated with the 2015 permission, alongside comprising a far greater scale when considering the combined impact of their height, width, length and mass / bulk. The sheer scale of the proposals should not be understated or underestimated. It is helpful that paragraph 10.8 confirms the following:</p> <p>"The landscape character will change from a partially open and derelict site to a built-up, operational facility. This change also has the potential to affect surrounding landscape character areas from which the site is visible. The scale of the proposed buildings and the height of the stack mean that these effects have the potential to be significant."</p> <p>With this in mind, the impact on the Masterplan for Ford Airfield – alongside the existing designations / receptors covered in paragraphs 10.4 and 10.5 – needs to be fully considered and assessed. An appropriate balance between securing a high-quality place that creates a healthy and sustainable living environment alongside an allocated waste site needs to be achieved, in liaison with the Local Planning Authority at Arun District Council. Given the obvious tensions between the two uses, extensive liaison and close attention needs to be given to ensure compatibility.</p> <p>In particular, such a large-scale industrial building and associated stack will likely be overbearing for neighbouring dwellings and amenity space. These structures could inadvertently become a major landmark for the local area with people associating the Landings with an EfW site rather than a residential area. This could lead to the area ultimately having an overarching industrial as opposed to residential character, which needs to be fully assessed.</p>	<p>Noted – see ES Chapter 9 Community and social effects and Chapter 12 Landscape and visual effects and the associated Technical Appendix.</p>
<p>Paragraph 10.7 of the Scoping Report explains the following:</p> <p>"The proposed development will change the character of the site from partially vacant, open hardstanding with some derelict buildings and limited operational buildings to a fully operational waste management site. However, as there are already structures on the site, the overall change in land cover will not be significant."</p> <p>It is important to be realistic about the extent of land cover associated with the proposals. While there are some structures on site at present, their extent is relatively limited when compared to that associated with "a fully operational waste management site." This is best explained with reference to our comments above concerning paragraphs 1.1 and 3.2 of the Scoping Report. In summary, the proposed development would handle a far greater quantum of waste and generate a far greater quantum of electricity than the current operations, alongside the level of operations granted by the 2015 permission. As a consequence, the land requirements will undoubtedly increase by some distance.</p> <p>Notwithstanding paragraph 3.1 of the Scoping Report, which confirms that all existing buildings on site will be demolished, the proposed structures will likely have a far greater coverage than the existing structures. It would be helpful for any</p>	<p>Noted - see ES Chapter 3 Proposed development and the Design and Access Statement for full details of proposed buildings.</p>

Comment	Response
<p>planning application to confirm the coverage of existing buildings on site and how this compares to the coverage of buildings under the 2015 permission and the current proposals.</p>	
<p>In light of our earlier comments, we suggest that the potential effect 'Change to land cover of the site', as referred to in Table 10.2, be included in the Environmental Statement.</p>	<p>Noted - see ES Chapter 3 Proposed development and Chapter 12 Landscape and visual effects and the associated Technical Appendix.</p>
<p>It is recommended that the study area for the Landscape and Visual Assessment is a minimum of 5km from the site boundary to include the South Downs National Park and likely effects from the proposed development on landscape and visual receptors.</p>	<p>Noted - see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix.</p>
<p>Paragraph 10.13 explains that representative viewpoints will be established and confirmed with WSCC's landscape officer. A number of representative viewpoints have been considered as part of the Environmental Statement for the forthcoming planning application at Ford Airfield, which were discussed and agreed with Arun District Council. With this in mind, alongside ensuring appropriate consideration is given to the Masterplan at Ford Airfield, we recommend that those viewpoints already identified and agreed with Arun District Council within the wider study area for the forthcoming planning application at Ford Airfield, alongside the close distance viewpoints provided at Appendix C, are considered as part of any application at the site.</p> <p>Furthermore, as the scale of the proposed development may have significant effects on views from the South Downs National Park, particularly elevated locations where there are long distance views towards the coast, it is recommended that viewpoint locations are identified within the National Park, in consultation with the South Downs National Park Authority.</p>	<p>Noted - see ES Chapter 12 Landscape and visual effects and the associated Technical Appendix for information on agreed viewpoints. Consultation on viewpoints was undertaken with WSCC and its landscape advisers.</p>
<p>Regarding noise, it is helpful that paragraph 13.4 acknowledges that "there is the possibility that new dwellings may be constructed and occupied in the surrounding allocated area before construction of the proposed development is completed." It is welcomed that noise mitigation measures will be implemented through a Construction Method Statement that can be conditioned as part of any planning permission. It will be necessary to ensure strict compliance with the requirements of such a Statement to avoid adversely impacting upon new residents.</p>	<p>Noted - see ES Chapter 14 Noise and vibration and the associated Technical Appendix and Technical Appendix L Outline construction environment management plan.</p>
<p>Paragraph 13.7 explains that the operation of the proposed plant and day-to-day activities on site will generate noise post-construction. It goes on to explain that the operations will be enclosed and the buildings will be designed to reduce plant noise to within acceptable levels at the nearest sensitive receptors, while with appropriate mitigation, plant noise would not pose unacceptable noise impacts. Furthermore, it states that if (our emphasis) the plant rating noise level limit is achieved, operational noise is not considered to be significant. We note that operational noise should include noise emissions from all sources associated with the facility, including HGV movements and other day-to-day activities i.e. not just the proposed plant.</p> <p>We note that the control of noise emissions at the existing Grundon site are currently subject to planning conditions, including limits on the hours of use for intensive operations. The proposals represent an intensification of the existing and more recently consented operations and so there is the potential for increased operational noise. It is also relevant to note</p>	<p>Noted - see ES Chapter 14 Noise and vibration and the associated Technical Appendix and Technical Appendix L Outline construction environment management plan.</p>

Comment	Response
<p>that the achievement of acceptable noise limits is reliant on the plant rating noise level being achieved. Given the proximity of the allocation at Ford Airfield to the site, it is critical that sufficient mitigation is secured to ensure an appropriate relationship, especially as the Scoping Report explains that the facility will operate 24 hours a day. In addition, strict monitoring of compliance by WSCC is necessary, especially as we are aware from conversations with local residents during our recent public exhibition of concerns regarding noise from the existing facility.</p> <p>It is necessary to have regard to the requirements set out within Grundon's permit as provided at Appendix B, which explains at paragraph 3.3.1 that:</p> <p>"Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan, to prevent or where that is not practicable, to minimise, the noise and vibration."</p>	
<p>Paragraph 13.8 explains the following:</p> <p>"While new dwellings may be constructed and occupied in the surrounding allocated area before construction of the proposed development is completed, these are not likely to be close enough to be affected by significant vibration from piling."</p> <p>It would be helpful to confirm what distance it has been assumed that the new dwellings at Ford Airfield would be from the proposed facility. It will need to be ensured that no future residents will be adversely affected by noise and vibration from piling operations. Appropriate mitigation should be secured by condition.</p>	<p>Noted - see ES Chapter 14 Noise and vibration and the associated Technical Appendix and Technical Appendix L Outline construction environment management plan.</p>
<p>Paragraph 13.11 explains that it is proposed that noise and vibration are not scoped into the EIA and will not be considered in the Environmental Statement. In light of the above, it is essential that noise and vibration are scoped into the Environmental Statement, as was the case for the Environmental Statement that supported the 2015 permission. It seems odd that the topic would not be scoped in when it was previously scoped in for a far smaller scheme.</p> <p>Furthermore, if a noise assessment is to be submitted as part of any planning application as suggested in paragraph 13.11, which we would encourage, we would expect this to assess the impacts of construction noise, vibration and operational noise levels on the proposed new dwellings within the Ford Airfield Masterplan, with mitigation measures specified accordingly. With this in mind, and as it is difficult to confirm specific receptor locations at this stage, as the proposed 80m high stack has the potential to affect a lot of dwellings, we recommend that noise impact is assessed across the whole of the Ford Airfield site.</p>	<p>The EIA Scoping Report scopes noise and vibration into the EIA – see ES Chapter 14 Noise and vibration and the associated Technical Appendix.</p>
<p>While the Scoping Report explains that the proposed level of operational traffic would remain the same as that already consented, no consideration appears to have been given to the additional construction traffic that would be required to construct a much larger facility. The impact of this activity would be exacerbated by the fact that the 2015 permission comprised two points of access. The subsequent reduction to a single point of access means that all construction activity will be concentrated through a single location. While this may not have been something that required consideration as part</p>	<p>Noted – see ES Chapter 15 Traffic and transport and the associated Technical Appendix.</p>

Comment	Response
<p>of the original application, the subsequent allocation of sites in Ford and Climping as part of the adopted Local Plan alters the sensitivity of local receptors, as does the recent introduction of the off-carriageway NCN Route 2 alongside the A259. Paragraph 3.20 of the Institute of Environmental Management and Assessment (IEMA) cites that a sensitive receptor includes links or locations where there may be high pedestrian flows. In this instance, allocations for residential development and the construction of new schools in the locality will inevitably increase foot and cycle flows on Ford Road, upon which the proposed development will route 100% of its HGV and construction traffic along. It would therefore be appropriate for consideration to be given to the impact upon 'Community Severance' and 'Fear and Intimidation of Road Users and Pedestrians', in accordance with the IEMA Guidelines, to establish whether improvement is required to address the likely significant impact of the HGV traffic associated with the proposed facility.</p>	
<p>The Transport Evidence base associated with the Arun Local Plan identified a 'severe' highway safety issue at the A259 / Yapton Road (Oystercatcher) and the A259 / Bilsham Road (Comer Corner) junctions; a scheme to mitigate the severe highway safety issue is yet to be identified. Whilst routing of HGV traffic to the east of the site from the Church Lane / A259 junction will limit the HGV movements through these junctions, the proposals will inevitably increase the traffic flows through an increase in staff trips, particularly if the amount of waste to be handled could increase by in excess of 10 times existing levels. It would be appropriate for any application to consider the impact of this additional traffic upon the operation of the junctions and identify suitable measures to mitigate the highway safety concerns.</p>	<p>Noted – see ES Chapter 15 Traffic and transport and the associated Technical Appendix.</p>
<p>Paragraph 17.3 sets out that – at this stage – it is envisaged that three consented developments will be included in the cumulative effects assessment of the Environmental Statement. This is a very limited number of schemes and we question whether further schemes should be included given the level of development activity in the local area, potentially other strategic allocations aside from those solely at Ford, Climping and Yapton.</p>	<p>Noted, the list of cumulative projects has been reviewed and updated – see ES chapter 5 Environmental issues and methodology.</p>
<p>Paragraph 17.4 explains that – although a planning application is yet to be submitted for the Masterplan at Ford Airfield – an EIA Scoping Opinion has been sought and it is possible that a planning application could be submitted and approved before the Ford ERF and WTS application is determined. It goes on to state that given this, and the proximity of the allocation to the application site, it is considered appropriate for the scheme to also be included within the cumulative effects assessment. We agree with the suggested approach.</p> <p>We also wish to confirm that a planning application concerning Ford Airfield will be submitted in due course, which underlines the need to consider the impact of Grundon / Viridor's proposals on future receptors. For ease of reference, the material from the January 2020 public exhibition, which was based on the draft application documents, can be accessed here: https://fordwestsussex-pc.gov.uk/media/8886/23885-exhib-january-2020-a03_lowres.pdf</p>	<p>Noted.</p>
<p>Paragraph 18.1 sets out the topics where it is considered the potential effects of the proposals are likely to be significant. Based on this, paragraph 18.3 details the topics that are proposed for inclusion in the Environmental Statement. This includes the following:</p>	<p>This information is inaccurate, the Scoping Report also included noise and vibration and the water environment. Following receipt of WSCC's formal scoping opinion the following environmental topics are included in the EIA:</p>

Comment	Response
<ul style="list-style-type: none"> • Air quality and climate • Community, social and economic effects • Cultural heritage • Landscape and visual effects <p>On this basis, Grundon / Viridor propose that the following topics are scoped out of the Environmental Statement:</p> <ul style="list-style-type: none"> • Ground conditions • Land use and land take • Major accidents / disasters • Natural heritage • Noise and vibration • Traffic and transport • Waste and natural resources • Water environment <p>It is clear that a narrow Environmental Statement is proposed. For the reasons explained earlier, we encourage WSCC to request that consideration of the following additional topics / potential effects are included in the Environmental Statement, as a minimum:</p> <ul style="list-style-type: none"> • Noise and vibration • 'Generation of odour' within the air quality and climate chapter • 'Change to land cover of the site' within the landscape and visual effects chapter 	<p>Chapter 6 Air quality, odour and dust Chapter 7 Carbon and greenhouse gas emissions Chapter 8 Health Chapter 9 Community and social effects Chapter 10 Cultural heritage Chapter 11 Ground conditions and the water environment Chapter 12 Landscape and visual effects Chapter 13 Natural heritage Chapter 14 Noise and vibration Chapter 15 Traffic and transport</p>

Appendix 1

EIA Scoping Report, January 2020

FORD CIRCULAR TECHNOLOGY PARK
FORD ENERGY RECOVERY FACILITY AND TRANSFER STATION, FORD
EIA SCOPING REPORT
FORD EFW LTD (GRUNDON WASTE MANAGEMENT LTD AND VIRIDOR)
JANUARY 2020



**FORD CIRCULAR TECHNOLOGY PARK
 FORD ENERGY RECOVERY FACILITY AND TRANSFER STATION, FORD**
 EIA SCOPING REPORT
 FORD EFW LTD (GRUNDON WASTE MANAGEMENT LTD AND VIRIDOR)
 JANUARY 2020



Issue / revision	FINAL	Prepared by	Lauren Tinker / Emma Robinson
Reference	264101	Date	January 2020
This document is issued for		Checked by	Neil Trollope
<input type="checkbox"/> Information	<input type="checkbox"/> Approval	Date	January 2020
<input type="checkbox"/> Comment	<input checked="" type="checkbox"/> Submission	Authorised by	Steve Molnar
Comments		Date	January 2020
		Please return by	N/A

LONDON
 7 Heddon Street
 London
 W1B 4BD

BIRMINGHAM
 Enterprise House
 115 Edmund Street
 Birmingham
 B3 2HJ

BOURNEMOUTH
 Everdene House
 Deansleigh Road
 Bournemouth
 BH7 7DU

TELEPHONE
 020 3664 6755

www.torltd.co.uk

© Terence O'Rourke Ltd 2020. All rights reserved.

No part of this document may be reproduced in any form or stored in a retrieval system without the prior written consent of the copyright holder.

All figures (unless otherwise stated) © Terence O'Rourke Ltd 2020.
 Based upon the Ordnance Survey mapping with the permission of the Ordnance Survey on behalf of Her Majesty's Stationery Office © Crown Copyright Terence O'Rourke Ltd Licence number 100019980.

Terence O'Rourke Ltd Reg
 No. 1905454 Registered office
 Everdene House Deansleigh
 Road Bournemouth Dorset
 BH7 7DU Registered in England
 and Wales VAT No. 905095727

Contents

1.0	Introduction	1
2.0	Site description	3
3.0	Proposed development	4
4.0	Scoping the environmental impact assessment	6
5.0	Air quality and climate	8
6.0	Community, social and economic effects	13
7.0	Cultural heritage	17
8.0	Ground conditions	20
9.0	Land use and land take	23
10.0	Landscape and visual effects	25
11.0	Major accidents / disasters	28
12.0	Natural heritage	29
13.0	Noise and vibration	32
14.0	Traffic and transport	35
15.0	Waste and natural resources	38
16.0	Water environment	41
17.0	Cumulative effects and alternatives	45
18.0	Summary	47

Figures

Figure 1: Site location plan

Figure 2: Designations plan

Figure 3: The scoping matrix

Appendix 1: Air quality assessment – proposed methodology

Appendix 2: Enzygo Ltd, 2015, *Geo-Environmental Report Ford Arundel*

Appendix 3: Callidus Transport and Engineering, 2018, *CTP Ford Airfield, Alternative Site Access Transport Statement*

1.0 Introduction

Background

- 1.1 The Ford Circular Technology Park at Ford Road, Ford (see figure 1) is identified in the adopted West Sussex Waste Local Plan (2014) as a Strategic Waste Site. In 2015, Grundon Waste Management Ltd secured planning permission for an energy from waste facility and a materials recovery facility, known as the Circular Technology Park (application reference: WSCC/096/13/F). The application was subject to environmental impact assessment (EIA) and accompanied by an environmental statement (ES). The approved facilities have not been built, although the permission has been implemented and the site currently operates as a waste transfer station (WTS) that handles about 20-25,000 tonnes per annum (tpa).
- 1.2 Planning permission was granted in August 2019 for a new access road that has replaced the previous one-way circulation system (application reference: WSCC/027/18/F). The permission also increases the permitted heavy goods vehicle (HGV) movements to / from the site and amends the approved waste delivery hours. Construction of the road was recently completed and vehicles are no longer using Rollaston Park Road to access the site or the private access road to the north of Rodney Crescent to egress onto Ford Road. The access road application was also subject to EIA and accompanied by an ES.
- 1.3 Ford EfW Ltd, a joint venture between Grundon Waste Management Limited and Viridor, is now proposing to build and operate a conventional energy recovery facility (ERF) to treat non-hazardous, non-recyclable residual waste. Grundon Waste Management, the sole owner / operator of the existing WTS, is proposing to continue this operation in a new, purpose built facility on site. A full planning application, including the ERF and WTS and ancillary uses, will be submitted in spring 2020.

Purpose of the scoping report

- 1.4 The proposed ERF and WTS falls within schedule 1 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended; hereafter the EIA Regulations), meaning that EIA is mandatory and the planning application will be accompanied by an ES prepared in accordance with the EIA Regulations. Ford EfW Ltd therefore submits this report as a formal request to West Sussex County Council (WSCC), as the relevant local planning authority, for an EIA scoping opinion under the EIA Regulations. Given this background, Ford EfW Ltd has decided not to ask for a formal screening opinion from WSCC as the proposal is clearly an EIA development.
- 1.5 This report presents information to assist the council in the process of scoping the EIA and outlines Ford EfW Ltd's view as to the potentially significant effects that the EIA would need to examine and the preliminary scope of the information that would need to be provided in the ES.

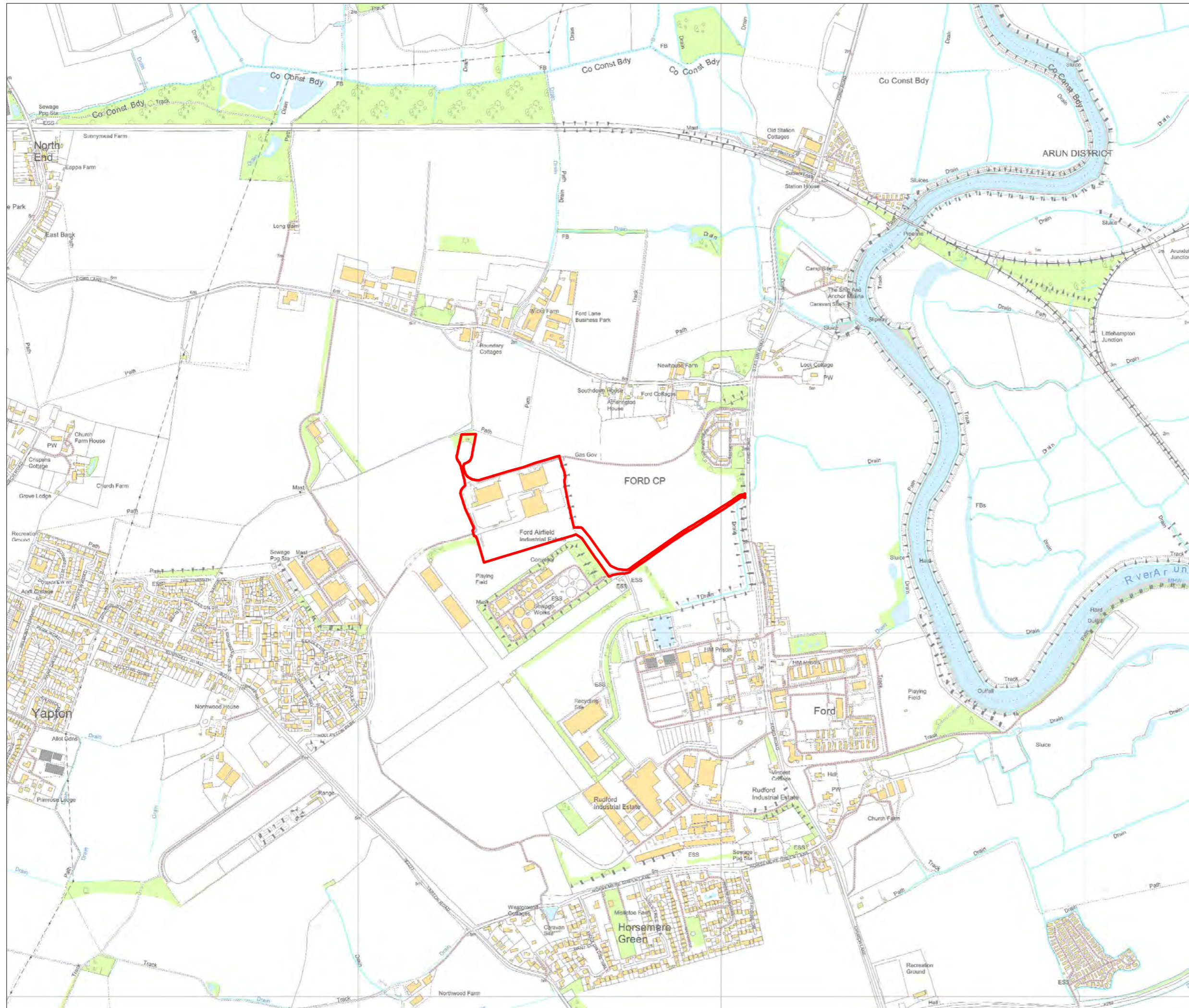
Report structure

- 1.6 This report is broadly structured as follows:

- Site description (chapter 2)
- Proposed development (chapter 3)
- An overview of the scoping process (chapter 4)
- The results of the scoping exercise (chapters 5 to 17)
- Conclusion with Ford EfW Ltd's view as to the information to be provided in the ES and its proposed structure (chapter 18)

2.0 Site description

- 2.1 The application site is located at the Ford Circular Technology Park (the former Tarmac blockworks site, which forms part of the former Ford Airfield) to the west of the village of Ford (see figure 1). Yapton is situated approximately 1 km to the west of the site, Climping approximately 1 km to the south, Littlehampton approximately 2 km to the east, and Arundel approximately 3 km to the north east.
- 2.2 The 7.12 ha site is partially used for the existing WTS operations and partially vacant. The existing WTS building is located towards the centre of the site and portacabins, parking and containers associated with this operation are situated to the west of the WTS. There are two vacant, derelict former hangar buildings towards the north of the site and a large area of hardstanding is situated towards the south and east of the site.
- 2.3 The site is surrounded by agricultural land to the north, east and west, while a sewage treatment works and an area of sports pitches lie to the south. Ford Industrial Estate lies beyond the agricultural land to the west, beyond which is the residential area of Yapton. Viridor's materials recovery facility lies beyond the sewage treatment works to the south, beyond which there is another industrial estate, HM Prison Ford and the residential area of Climping. Ford village lies beyond the agricultural land to the north east, while Ford Lane and a small number of commercial premises lie beyond the agricultural land to the north. There is agricultural land and the Ford to Barnham railway line beyond these. Beyond the agricultural land to the east of the site is Ford Road, more agricultural land and the River Arun.
- 2.4 There are several public rights of way in the vicinity of the site to the north, including footpaths 366 and 366/1, which run north-south to Ford Lane, and footpath 200/3, which runs from Ford along the site's north eastern edge and joins footpath 363, which runs to Yapton.
- 2.5 There are no environmental or cultural heritage designations on site. Figure 2 shows the designations within 2.5 km of the site.



 Site boundary

Ford ERF and TS, Ford CTP

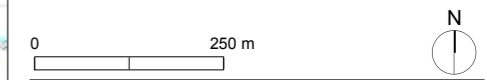


Figure 1: Site location plan

Dwg no/264101/E03	Revision
Status	08 January 2020
Scale: 1:10,000 @A3	Drawn by: JC Checked by: ER

Based upon the 2019 Ordnance Survey 1:10,000 colour raster map with the permission of the Ordnance Survey on behalf of Her Majesty's Stationery Office, © Crown copyright. Licence No. 100019980.
Copyright Terence O'Rourke Ltd, 2019



TERENCE O'ROURKE

LONDON
7 Heddon Street
London W1B 4BD

BIRMINGHAM
Enterprise House 115 Edmund Street
Birmingham B3 2HU

BOURNEMOUTH
Everdene House Deansleigh Road
Bournemouth BH7 7DU

TELEPHONE
020 3664 6755
www.torltd.co.uk



- Site boundary
- 2.5km buffer
- Woodland Trust site
- Listed buildings
- Scheduled monuments
- Ancient woodland
- Local Nature Reserve
- Site of Special Scientific Interest
- South Downs National park
- Flood Zone 2
- Flood Zone 3

Ford ERF and TS, Ford CTP

0 625 m

N

Figure 2: Designations plan

Dwg no/264101/E01	Revision
Status	08 January 2020
Scale: 1:25,000 @A3	Drawn by: JC Checked by: ER

Based upon the 2019 Ordnance Survey 1:50,000 colour raster map with the permission of the Ordnance Survey on behalf of Her Majesty's Stationary Office, © Crown copyright. Licence No. 100019980. © Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right 2019. © Historic England copyright. Contains public sector information licensed under the Open Government Licence v3.0. Copyright Terence O'Rourke Ltd, 2019

LONDON
7 Heddon Street
London W1B 4BD

BIRMINGHAM
Enterprise House 115 Edmund Street
Birmingham B3 2HU

BOURNEMOUTH
Everdene House Deansleigh Road
Bournemouth BH7 7DU

TERENCE O'ROURKE

TELEPHONE
020 3664 6755
www.torfd.co.uk

3.0 Proposed development

- 3.1 The proposed 7.12 ha development site comprises 6.39 ha for the ERF and WTS and 0.73 ha for the existing access road. A temporary construction compound will be located within the site boundary. The existing buildings on site will be demolished. The existing WTS will continue to operate during construction of the key elements of the new WTS and will then be demolished to make way for the ERF. The new WTS will operate during the construction of the ERF and construction of its ancillary elements will be completed following completion of the ERF.
- 3.2 The ERF will process up to 275,000 tpa of non-hazardous / non-recyclable residual waste. It will generate approximately 31 MWe (gross power) and, of this, 28 Mwe will be exported to the National Grid. The ERF will include a heat station building that will, in the future, enclose plant that transfers heat generated from the ERF off site to local heat users. The site layout will be designed to enable the combined heat and power (CHP) pipework to be installed relatively easily beneath site roads once customers are identified.
- 3.3 The ERF will use various raw materials during operation, principally: hydrated lime, ammonium hydroxide, activated carbon, water and fuel for vehicles and auxiliary burners. It will also produce approximately 72,000 tpa of bottom ash, which is the residue remaining from the combustion process. The majority of the bottom ash residue will be recycled to form a secondary aggregate. Approximately 12,000 tpa of residues from the treatment of flue gasses will also be generated. Ferrous metals will be separated from the bottom ash and subsequently sent for recycling.
- 3.4 The ERF is likely to be housed within a building approximately 47 m high, with a single stack up to 80 m high. The ERF will comprise one line, with the majority of process stages and equipment enclosed within one building. Other, relatively small scale ancillary buildings and structures to the ERF, such as the flue gas treatment, air-cooled condensers, fuel and ammonia stores, substation, fire tank, pump house and the gate house will be positioned to the south of the main ERF building.
- 3.5 The WTS will process up to 20,000 tpa, two thirds of which will go on for further treatment / recycling elsewhere and the remaining third will be transferred to the ERF for treatment. The WTS building is likely to be in the region of 14 m high and will be situated to the west of the main ERF building and its associated ancillary buildings and structures. Separate smaller welfare, workshops and offices buildings will be to the south of the WTS building, while the small ancillary structures, including the pump house, fire tank and storage tanks, will be to the north.
- 3.6 Car parking for staff and visitors will all be on-site. Parking for the ERF will be to the east of the ERF building, while parking for the WTS will be to the south of the WTS workshops and offices.
- 3.7 Access to / from the site will be gained during construction and operation from the new access road that has just been completed. This links the site in its south east corner to Southern Water and Viridor's existing access road and joins Ford Road to the south of Rodney Crescent. No vehicles will use Rollaston Park Road to

access the site or the private access road to the north of Rodney Crescent to egress onto Ford Road. The number of HGV movements will not exceed those consented under the recent planning permission for the new access road.

- 3.8 It is envisaged that the development will discharge into the existing surface water drainage system. A degree of betterment to the existing brownfield runoff rate will be provided to account for the effects of climate change on rainfall intensities. This could be accommodated through the incorporation of measures such as cellular storage features into the drainage system, with discharge rates controlled by a hydrobrake, similar to the scheme previously proposed in 2015⁽¹⁾.
- 3.9 The proposed development will be constructed in three phases. Phase 1 will be the construction of the key operational elements of the WTS, which will take approximately six months and will allow the new WTS to replace the existing facility. Phase 2 will be the construction of the ERF, which will take approximately 30 months, followed by six months of commissioning. Phase 3 will be the construction of the remaining elements of the WTS, which will take approximately six months. The total construction period will therefore be approximately 48 months.

¹ Enzygo Ltd, 2015, *Ford CTP, Arundel – Drainage Assessment*.

4.0 Scoping the environmental impact assessment

Background

- 4.1 The EIA process examines the significant effects of an EIA development on its receiving environment. This is encapsulated in the advice given in paragraph 035 (reference ID 4-035-20170728) of the Ministry of Housing, Communities and Local Government's (MHCLG) web-based National Planning Practice Guidance: *Environmental Impact Assessment* (NPPG; updated 2019):

"Whilst every Environmental Statement should provide a full factual description of the development, the emphasis should be on the 'main' or 'significant' environmental effects to which a development is likely to give rise. The Environmental Statement should be proportionate and not be any longer than is necessary to assess properly those effects. Where, for example, only one environmental factor is likely to be significantly affected, the assessment should focus on that issue only. Impacts which have little or no significance for the particular development in question will need only very brief treatment to indicate that their possible relevance has been considered."

- 4.2 This approach is reinforced by case law from UK and European courts. Judgements have stated that, even in relation to the minimum requirements for an ES, not every possible effect has to be considered. The focus should be on the main effects and remedying the significant adverse effects. The Milne judgement (R v Rochdale MBC ex parte Milne) states that *"the environmental statement does not have to describe every environmental effect, however minor, but only the main effects or likely significant effects."* The Tew judgement (R v Rochdale MBC ex parte Tew) noted that the underlying objective of EIA is that decisions be taken *"in full knowledge"* of a project's likely significant effects and stated:

"that is not to suggest that full knowledge requires an environmental statement to contain every conceivable scrap of environmental information about a particular project. The directive and the Assessment Regulations require the likely significant effects to be assessed. It will be for the local planning authority to decide whether a particular effect is significant."

- 4.3 A comprehensive and focused scoping process, culminating in a constructive scoping opinion that identifies the likely significant effects and any EIA methodologies that WSCC wishes to see employed, will enable the production of an ES that provides a concise and objective analysis that deals with the significant areas of impact and highlights the key issues relevant to the decision-making process.
- 4.4 The aim is to 'scope in' only those aspects considered likely to have significant environmental effects. Where a particular environmental feature or component of it has not been included within the proposed scope of the EIA, this is not to suggest that there will be no associated effects; rather that these are not considered to be among the significant effects. In line with the guidance given in the NPPG, these effects will be given *"very brief treatment [within the scoping report] to indicate that their possible relevance has been considered"*, but no detailed assessment work is proposed for them.

The scoping process undertaken

- 4.5 Baseline data on the site and surrounding area have been gathered for each environmental topic. A checklist has then been used to identify which environmental issues have the potential to be subjected to effects arising from the proposed development, which has been presented as the first table in each topic section. The checklist is based on the features of the environment referred to in the EIA Regulations, the European Commission’s (2017) *Environmental Impact Assessment of Projects: Guidance on Scoping* and the Institute of Environmental Management and Assessment’s (IEMA; 2004) *Guidelines for environmental impact assessment*. Where no potential for a significant effect has been identified in the checklist, the issue has not been considered further in the scoping exercise.
- 4.6 To determine whether the identified potential effects are likely to be significant, the relative importance of the potential receptors (classified as high, medium, low or negligible) was combined with the magnitude of the envisaged changes (classified as large, medium, small or negligible) to which they would be subjected, using the matrix in figure 3 below. The findings of this process form the second table in each topic section. The scoping exercise was informed by the findings of the EIAs undertaken for the Circular Technology Park and the access road where appropriate.

		Importance / sensitivity of receptor				Key	
		High	Medium	Low	Negligible		
Predicted scale or magnitude of effect	Large					Likely to be significant – scope into EIA	
	Medium						Possibly significant – scope into EIA
	Small						Not significant – scope out of EIA
	Negligible						

Figure 3: The scoping matrix

- 4.7 The following sections consider each environmental topic in turn and section 17 considers cumulative effects.

5.0 Air quality and climate

Introduction

- 5.1 New development can affect air quality and climate by generating dust during site preparation and construction, increasing emissions to air from processes and traffic, and generating carbon dioxide (CO₂) emissions during and post-construction. ERF developments that generate CHP can reduce CO₂ emissions by displacing other fuels, such as coal and gas, and diverting waste from landfill. There is also the potential for new developments to be vulnerable to risks associated with climate change.

Currently known baseline

- 5.2 Arun District Council has not declared any air quality management areas. The council undertakes regular air quality monitoring at two locations near the site: one in Ford, approximately 1 km to the north east, and one in Yapton, approximately 1.7 km to the west. Recorded nitrogen dioxide (NO₂) concentrations at these monitoring points in 2018 were 18 µg/m³ and 17 µg/m³ respectively². These are well below the annual mean objective of 40 µg/m³.
- 5.3 Grundon Waste Management Ltd commissioned TRL to undertake a six-month programme of diffusion tube monitoring at eight locations around Ford Airfield in 2018, including at points on Ford Lane, Ford Road and Rodney Crescent. Recorded NO₂ concentrations ranged from 10.54 µg/m³ at Rodney Crescent to 30.55 µg/m³ at Ford Lane. No exceedances of the annual mean objective were recorded.
- 5.4 Data from the National Atmospheric Emissions Inventory³ show that 573,000 tonnes of CO₂ were emitted in Arun district in 2017, of which 54,000 were from industry and commercial electricity, 59,000 were from industry and commercial gas, 72,000 were from domestic electricity, 156,000 were from domestic gas, and 214,000 were from road transport.

Potential significant effects

- 5.5 The initial identification of potential significant effects is set out in table 5.1.

² Arun District Council, 2019, *2019 Air Quality Annual Status Report (ASR)*.

³ <https://naei.beis.gov.uk/laco2app/>.

Component	Potential construction effect?	Potential post-construction effect?	Comments
Local air quality (criteria pollutants)	Yes	Yes	Increased road traffic emissions during and post-construction and process emissions post-construction
Dust	Yes	Yes	Potential generation of dust during and post-construction
Odour	No	Yes	Potential generation of odour from waste handling operations post-construction
Local climatic effects	No	Yes	The proposed development may lead to localised effects on air temperature or the moisture content of the air around the stack
International transboundary air quality	No	No	The location and scale of the proposed development mean that there is no potential for significant international transboundary effects
Global climate	No	No	The nature and scale of the proposed development mean that there is no potential for significant global climate effects
Climate adaptation and vulnerability to climate change	No	Yes	There is the potential for increased risk from flooding due to increased rainfall as a result of climate change
Carbon dioxide budget / emissions	Yes	Yes	Emissions from traffic during and post-construction and use of materials during construction. Reduction in emissions post-construction as a result of the displacement of more carbon-intensive fuel sources and diversion of waste from landfill

Table 5.1: Initial air quality and climate scoping checklist

- 5.6 The movement of materials and personnel to and from a construction site will have associated emissions. However, guidance⁽⁴⁾ suggests that an assessment is not required if traffic flows will increase by fewer than 100 HGVs or 500 other vehicles (annual average daily traffic). Based on previous experience elsewhere, the construction of the proposed development is predicted to generate up to 51 HGV movements each way per day (i.e. 102 movements in total) during peak construction periods. As a result, no significant effects are predicted.
- 5.7 The proposed development will also generate operational traffic movements. However, the effects associated with these additional traffic movements have already been assessed as part of the EIA for the new access road, which concluded that these would lead to a negligible change in air quality. The proposed development will not increase the number of vehicle movements beyond that assessed in the access road EIA, so there is no potential for significant effects on air quality from operational traffic.
- 5.8 The operation of the proposed development will generate emissions that will be discharged to the atmosphere from the stack. The ERF will be designed to comply with the requirements of the Industrial Emissions Directive 2010/75/EU and emissions will be controlled and regulated by the Environment Agency under the Environmental Permitting (England and Wales) Regulations 2016 (as amended). However, public concern regarding the emissions from such facilities remains, so this issue will be examined in the EIA.
- 5.9 In addition, there is the potential for effects on sensitive habitats in designated nature conservation sites as a result of increased nitrogen and acid deposition

⁴ EPUK and IAQM, 2017, *Land-Use Planning & Development Control: Planning for Air Quality*.

associated with operational emissions. Sites that could potentially be affected include the Duncton and Bignor Escarpment Special Area of Conservation (SAC), approximately 9.8 km to the north, the Climping Beaches Site of Special Scientific Interest (SSSI), 2.8 km to the south east, and Arundel Park SSSI, 4.2 km to the north east. Given the importance of these sites, the effect has the potential to be significant and will be examined in the EIA.

- 5.10 Subject to the nature of the ground conditions, demolition, site preparation and construction activities and meteorological conditions, construction sites have the potential to mobilise dust that can then be deposited on surrounding areas. The significance of dust deposition tends to decrease with increasing distance from the source. The nearest existing residential properties to the site are approximately 210 m away on Ford Lane to the north east and 390 m away on Rodney Crescent in Ford. There are no sensitive ecological sites in the vicinity. The land surrounding the site is allocated for residential and employment use in the adopted Arun Local Plan 2011-2031 and it is possible that some of the new dwellings may be occupied before construction works on the proposed development are completed. The Institute of Air Quality Management (IAQM) recommends that an assessment is carried out if there are sensitive receptors within 350 m of the site boundary, and as such an assessment of the impact of construction phase dust-generating activities will be included in the air quality assessment.
- 5.11 Dust management will be an integrated part of operations at the proposed ERF and transfer station. Equipment such as the waste feed hoppers will be designed to ensure emissions of dust are minimised. Dust suppression measures will be used and dust level checks will be undertaken in operational areas where high dust levels could occur. In addition, dust-generating activities will be fully enclosed within the proposed buildings. The site will be properly maintained and checks made periodically of road conditions. Cleaning will be carried out as necessary and vehicle checks made to ensure they are clear of loose waste and their loads are securely covered. Dust generation during the operational phase is therefore not considered likely to give rise to significant effects.
- 5.12 The nature of the proposed development means there is the potential for odours to arise from the site. However, odour management will be an integrated part of the design of the scheme. Odour control will be achieved through negative air pressure within the tipping hall, which will draw air through the bunker and into the furnace. The waste tipping hall will also be fully enclosed. Periodic olfactory surveys will be carried out around the perimeter of the site to check for odours and the results will be recorded in an operations log book that will be available for inspection by the Environment Agency / local environmental health officer. Given this, no significant odour nuisance is expected to occur.
- 5.13 Emissions from the stack have the potential to lead to very localised effects on the temperature and moisture content of the air surrounding the stack. However, these effects are known from other facilities to normalise within a short distance, so no significant effects are considered likely to arise on the local climate.
- 5.14 The construction and operation of the proposed development will generate CO₂ emissions through the use of materials and increased traffic emissions. However, the operation of the proposed development is likely to lead to a reduction in carbon emissions as a result of the displacement of emissions produced by the

combustion of fossil fuels and the reduction in methane (landfill gas) brought about by the diversion of waste from landfill. The scale of the proposed development means that this has the potential to be significant.

5.15 As discussed in section 16, the site is not at risk of flooding from rivers or the sea and most of the site is at very low risk of surface water flooding, although there are small areas of low to medium risk in the west and north of the site. There is the potential for climate change to exacerbate these risks through increased rainfall levels and intensity. However, as set out in section 16, this issue will be addressed through the drainage strategy and flood risk assessment that will be submitted in support of the application and it is not considered appropriate to duplicate coverage here. In addition, a climate change risk assessment will be required as part of the facility's environmental permit application, in accordance with the Environment Agency's (2019) guidance. The location of the site and nature of the proposed development mean that it is not vulnerable to any other climate change risks.

Air quality and climate effects summary

5.16 The findings of the scoping process in relation to air quality and climate effects are summarised in table 5.2.

Potential effect	Receptor importance / sensitivity ⁽¹⁾	Magnitude or scale of effect ⁽²⁾	Likely significant?	To be included in the EIA?
Generation of dust during construction	High (Neighbouring population)	Small Short term	✓	Yes
Generation of dust post-construction	High (Neighbouring population)	Negligible Long term	X	No
Increased road traffic emissions during construction	High (Population along the local road network)	Negligible Short term	X	No
Increased road traffic emissions post-construction	High (Population along the local road network)	Negligible Long term	X	No
Generation of emissions from process plant post-construction	High (Local residents)	Negligible to small Long term	✓	Yes
Increased nitrogen and acid deposition at designated nature conservation sites as a result of process plant emissions	High (SAC and SSSIs)	Negligible to small Long term	✓	Yes
Generation of odour	High (Local residents)	Negligible Long term	X	No
Effect of stack emissions on local climate	High (Existing local climate)	Negligible Long term	X	No
Effect on greenhouse gas emissions	High (Local greenhouse gas emissions)	Small Long term	✓	Yes
Vulnerability to climate change risks	High (Site users)	Negligible Long term	X	No

Table 5.2: Air quality and climate effects summary

Notes:

(1) Categories = high, medium, low, negligible (takes into account geographical level of importance)

(2) Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

Proposed assessment methodology

- 5.17 The air quality baseline will be examined using historic empirical data, background pollution maps published by Defra, and current monitoring data from Arun District Council's diffusion tube network, recent monitoring commissioned by Grundon Waste Management Ltd and national monitoring data. It is considered that this information will provide sufficient data, and no additional monitoring is proposed. Arun District Council's environmental health officer will be contacted regarding the provision of air quality monitoring data and assessment reports and to agree the approach and methodology to be used for the assessment.
- 5.18 Construction dust effects are considered to be temporary effects that can be controlled by implementation of standard mitigation measures frequently used during the construction of new development. The assessment of the potential effects associated with construction dust will be qualitative and based on the IAQM's (2016) *Guidance on the assessment of dust from demolition and construction*.
- 5.19 The process emissions air quality assessment will appraise the impact of emissions from the stack. Detailed dispersion modelling will be undertaken using the latest version of the ADMS dispersion modelling software (ADMS 5.2). This will take account of existing and proposed buildings and will use five years of sequential hourly meteorological data from Shoreham Airport meteorological station. Data from this station was used to support previous planning applications for the site. The dispersion model will be used to predict the short term and long term process contributions from the proposed plant for all regulated emissions at the appropriate averaging periods and percentiles at the point of maximum impact and specific sensitive local receptors.
- 5.20 A carbon balance assessment will be undertaken that calculates the carbon emissions from the proposed ERF and WTS, including CO₂ released from the combustion of fossil-fuel derived carbon in the ERF, releases of other greenhouse gases from the combustion of waste, combustion of gas in auxiliary burners, CO₂ emissions from the transport of waste and other residues, and the emissions offset from the export of electricity from the ERF. These will be compared with the carbon emissions from sending the same waste to landfill. It is proposed that the carbon balance assessment is included as a technical appendix to the ES.
- 5.21 Further details on the methodology proposed for the air quality assessment are set out in appendix 1.

6.0 Community, social and economic effects

Introduction

- 6.1 The potential community, social and economic effects of ERF developments are often among the key issues associated with such projects, particularly in relation to public concerns over effects on health, amenity and property prices. ERF developments can also lead to beneficial effects through job creation and the contribution to the local economy.

Currently known baseline

- 6.2 The unemployment rate in Arun district in June 2019 was 3.0%, similar to the regional average for the South East (3.1%), but below the national average of 4.1%. The average gross weekly pay for workers in Arun in 2019 is £513.60, well below the regional average of £636.00 and also below the national average of £587.00. Adults in Arun are generally better qualified than the national average, as only 5.6% of adults in Arun have no qualifications, the same as the regional average, compared to 7.8% of adults in Britain as a whole (Nomis, 2019⁵).
- 6.3 The average residential property price in Arun district in September 2019 was £290,573, below the regional average of £329,197, but above the national average of £250,677⁶.
- 6.4 There are several public rights of way in the vicinity of the site to the north, including footpaths 366 and 366/1, which run north-south to Ford Lane, and footpath 200/3, which runs from Ford along the site's north eastern edge and joins footpath 363, which runs to Yapton. The nearest existing residential dwellings are approximately 210 m away on Ford Lane to the north east and on Rodney Crescent in Ford, approximately 390 m north east of the site.

Potential significant effects

- 6.5 The initial identification of potential significant effects is set out in table 6.1.

⁵ www.nomisweb.co.uk.

⁶ <http://landregistry.data.gov.uk>.

Component	Potential construction effect?	Potential post-construction effect?	Comments
Population profile and demography	No	No	The proposed development will not change the local population profile or demography, as it will not introduce new residents
Housing supply	No	No	The proposed development will not affect the area's housing supply
Employment	Yes	Yes	The proposed development will generate jobs both during and post-construction.
Economy	Yes	Yes	The proposed development will contribute to the local economy during and post-construction. Potential for effect on house prices
Lifestyle / standard of living	No	No	There is no potential for effects on lifestyle
Health	Yes	Yes	Potential for health and wellbeing effects through generation of noise and emissions to air
Education, healthcare and local services	No	No	No education, healthcare or local services will be provided or affected by the proposed development
Public health and safety	Yes	No	Potential risk to public safety during construction in the vicinity of the public right of way along the site's edge
Local environmental amenity	Yes	Yes	Construction works may affect the amenity of local residents and users of the public rights of way. Potential long term changes in amenity post-construction
Telecommunications	No	No	The proposed development will not affect telecommunications
Microclimate (e.g overshadowing, wind effects)	No	No	The nature and scale of the proposed development mean that there is no potential for microclimate effects
Tourism	No	No	The location of the proposed development means that there is no potential for tourism effects

Table 6.1: Initial community, social and economic effects scoping checklist

- 6.6 The construction of the proposed development will lead to a short term increase in employment. However, many of the construction jobs are likely to be filled by specialist workers based outside the local area. As a result, no significant effects are predicted on local employment levels. Post-construction, the existing 24 jobs at the WTS will be reprovided and the number of people employed at the WTS, offices and workshop will increase to approximately 40. In addition, approximately 50 new jobs will be created at the ERF. Given the relatively low unemployment levels locally, this is considered unlikely to be significant. The relatively small increases in local employment predicted as a result of the proposed development mean that it is not considered likely to lead to significant effects on the local economy.
- 6.7 There is often concern among local communities that ERFs could affect house prices. However, a 2005 study by Cluttons Estates Ltd⁽⁷⁾ that reviewed the impacts of three operational ERFs on property prices in the surrounding areas did not identify any noticeable or lasting detrimental effects on residential property prices. Given this, no significant effects are predicted on the area's property prices.
- 6.8 There is the potential for the proposed development to affect the health and wellbeing of local residents through the generation of noise and emissions to air

⁷ Cluttons Estates Ltd, 2005, *Evaluation of property and land values in the vicinity of three Hampshire ERFs*.

during and post-construction. As set out in sections 5 and 13, the potential for dust and noise effects during construction will be considered in the air quality and noise assessments respectively. It is therefore not appropriate to duplicate coverage here.

- 6.9 Numerous studies on the health impacts of ERF plants have shown there to be no significant effects on health from modern facilities and Public Health England's view is that health effects "*if they exist, are likely to be very small and not detectable*"⁽⁸⁾. However, public concern on this issue remains, so a health risk assessment will be carried out that will use ratified scientific data to determine if there is any risk that emissions from the proposed ERF will give rise to physical health effects. The findings of this assessment will be summarised in the ES to determine the overall potential for significant health effects.
- 6.10 There is the potential for construction works adjacent to the local public rights of way to pose a risk to public safety. However, the construction site will be securely fenced and it is considered that there is no potential for a significant effect.
- 6.11 There is the potential for construction works to lead to a reduction in local amenity. However, as discussed in sections 5 and 13, construction dust will be addressed as part of the air quality and noise assessments and it is not proposed to duplicate coverage in this part of the ES. Similarly, the potential for long term changes to amenity through changes to views and increased operational noise will be examined in the landscape and visual and noise assessments (see sections 10 and 13).

Community, social and economic effects summary

- 6.12 The findings of the scoping process in relation to community, social and economic effects are summarised in table 6.2.

⁸ Defra, 2014, *Energy from waste: A guide to the debate*.

Potential effect	Receptor importance / sensitivity ⁽¹⁾	Magnitude or scale of effect ⁽²⁾	Likely significant?	To be included in the EIA?
Generation of employment during and post-construction	Low (Local unemployment level)	Negligible to small Short and long term	X	No
Effects on the local economy during and post-construction	Low to medium (Local economy)	Negligible Short and long term	X	No
Effects on the area's house prices	Medium (Local house prices)	Negligible Long term	X	No
Effects on health during construction	High (Local population)	Small Short term	✓	Yes – to be covered in the air quality and noise chapters
Effects on health post-construction	High (Local population)	Negligible Long term	X	Yes – to be covered to address public concerns
Effect on public safety during construction	High (Users of public rights of way)	Negligible Short term	X	No
Effect on local amenity during construction	Medium (Local amenity)	Small Short term	✓	Yes – to be covered in the air quality and noise chapters
Effect on local amenity post-construction	Medium to high (Views into the site and local population)	Small to large Long term	✓	Yes – to be covered in the landscape and visual and noise chapters

Table 6.2: Community, social and economic effects summary

Notes:
(1) Categories = high, medium, low, negligible (takes into account geographical level of importance)
(2) Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

Proposed assessment methodology

- 6.13 As discussed above, the assessment will focus on the potential for health effects. The findings of the specialist health risk assessment will be reviewed and summarised in the assessment to determine the overall potential for significant health effects. In addition, a general review of background information on the issues of public perception of ERFs and the nature of the general public's concerns will be provided to inform the assessment, based on a range of published research.
- 6.14 The potential for community, social and economic effects will be assessed using a matrix to determine the significance of effects based on the sensitivity of affected receptors and the predicted magnitude of change.

7.0 Cultural heritage

Introduction

- 7.1 New development can affect cultural heritage assets, including buried archaeology, the historic landscape and built heritage features. These can include effects relating to damage to or loss of a heritage asset itself, as well as changes to an asset's setting. A development necessitating archaeological investigations can be beneficial by improving understanding of an area's history or providing a better understanding of the archaeological record.

Currently known baseline

- 7.2 There are no designated archaeological assets on the site. The closest scheduled monuments are two areas of medieval settlement earthworks on the south east edge of Climping, approximately 1 km away. The site is an area of known archaeological potential and previous investigations at the airfield have shown the potential for multi-period farming and settlement activity. The effects on any archaeological remains of the works to create the airfield are unknown.
- 7.3 There are no designated built heritage assets on the site. A number of features of the World War II and later development of Ford Airfield survive, including sections of the runway, parts of the taxiways and perimeter road and some structures, including several hangars. The site is a large area of concrete apron that is occupied by two hangars of World War II or early post-war date that were formerly in use as Ford Blockworks.
- 7.4 There are a number of designated heritage assets in the surrounding area. These include Yapton Church Lane and Main Road / Church Road conservation areas, approximately 1 km and 1.3 km to the west of the site respectively, which contain a number of listed buildings. There are also scattered listed buildings at Ford and Climping, the nearest of which is the grade II listed Atherington House, Ford Place, Southdown House and The Lodge (one collective listing) approximately 190 m to the north east. Other built heritage assets in the area include the three churches at Yapton, Ford and Climping, all of which are listed at grade I. There are no registered parks and gardens near the site.

Potential significant effects

- 7.5 The initial identification of potential significant effects is set out in table 7.1.

Component	Potential construction effect?	Potential post-construction effect?	Comments
Archaeology	Yes	No	Potential for disturbance of below ground archaeological remains
Scheduled monuments	Yes	Yes	Potential for changes to the setting of scheduled monuments during and post-construction
Architecture / buildings / structures	Yes	Yes	Potential for changes to the setting of listed buildings during and post-construction
Conservation areas	Yes	Yes	Potential for changes to the setting of nearby conservation areas during and post-construction
Historic parks and gardens	No	No	There are no registered parks and gardens within 1 km of the site
Other historic interest	Yes	Yes	Loss of the military features on the site

Table 7.1: Initial cultural heritage scoping checklist

7.6 The site and study area have been subject to significant disturbance for the creation and development of the airfield; however, previous investigations have uncovered significant archaeology and there remains unknown potential for discovery of archaeological deposits. Archaeology will therefore be addressed within the EIA. The EIA will cover the potential interest of the World War II or early post-war military structures on the site as non-designated heritage assets.

7.7 The proposed development will lead to changes to views into the site. The scale of the proposed development and the proximity of a number of designated assets, including scheduled monuments, listed buildings and conservation areas, mean that there is the potential for significant effects through changes to their settings as a result of the development.

Cultural heritage effects summary

7.8 The findings of the scoping process in relation to cultural heritage effects are summarised in table 7.2.

Potential effect	Receptor importance / sensitivity ⁽¹⁾	Magnitude or scale of effect ⁽²⁾	Likely significant?	To be included in the EIA?
Impact on archaeological remains on site during construction	Low (Archaeological remains on site)	Large Long term	✓	Yes
Change to settings of scheduled monuments in the vicinity of the site during and post-construction	High (Scheduled monuments in vicinity of site)	Small to medium Short and long term	✓	Yes
Change to settings of listed buildings in the vicinity of the site during and post-construction	High (Listed buildings in vicinity of site)	Small to medium Short and long term	✓	Yes
Change to settings of conservation areas in the vicinity of the site during and post-construction	Medium (Conservation areas in vicinity of site)	Small to medium Short and long term	✓	Yes
Impact on Ford Airfield military structures during construction	Low (Non-designated structures)	Large Long term	✓	Yes

Table 7.2: Cultural heritage effects summary

Notes:
 (1) Categories = high, medium, low, negligible (takes into account geographical level of importance)
 (2) Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

Proposed assessment methodology

- 7.9 An assessment of designated and undesignated heritage assets will be undertaken in accordance with paragraphs 184 to 202 of the National Planning Policy Framework (NPPF; 2019), the MHCLG's (2019), NPPG: *Historic environment* and Historic England's *Good Practice Advice in Planning Note 2: Managing Significance in Decision-Taking in the Historic Environment* (2015) and *Good Practice Advice in Planning Note 3: The Setting of Heritage Assets* (2017).
- 7.10 The assessment will be supported as necessary by an analysis of viewpoints to and from key locations, including selected listed buildings. The assessment will cross reference with the landscape and visual assessment as appropriate.
- 7.11 The significance of effects will be determined by combining the importance of identified receptors with the predicted magnitude of change, using a matrix.

8.0 Ground conditions

Introduction

- 8.1 The existing ground conditions of a site can be of concern due to the potential mobilisation of contaminants during construction or exposure of sensitive receptors such as construction workers, groundwater, surface waters and future site users to such material. The potential for the proposed development to alter the ground conditions of the site post-construction is limited.

Currently known baseline

- 8.2 Site investigations undertaken in 2015 by Enzygo Ltd⁽⁹⁾ (see appendix 2) recorded varying thicknesses of made ground across the site, from 0.30 to 3.00 m. This is underlain by superficial materials of clay, sand and gravel between 1.00 and 3.80 m thick, which in turn are underlain by chalk bedrock. Details of the site's hydrogeology and hydrology are set out in section 16.
- 8.3 The 2013 ES for the Circular Technology Park identified a number of potential sources of contamination on site as a result of its past use as an aerodrome and Tarmac manufacturing plant, including former gas oil tanks, former oil stores, the aerated block plant, which contained soluble oil, mould oil storage vessels, an oil store, a pulverised fuel ash silo and an anhydrite silo, substations, an infilled slurry pit, former autoclaves, a historic inert landfill, a former RAF refuelling area, and a pallet storage area and possible former RAF bunker⁽¹⁰⁾.
- 8.4 The subsequent site investigations undertaken by Enzygo Ltd did not record any exceedances of the relevant soil guideline values and general assessment criteria for a commercial end use. No asbestos was detected in the samples tested. Groundwater testing generally found concentrations of contaminants to be below the relevant environmental quality standards⁽¹¹⁾, with the exception of samples tested in the vicinity of a former above ground fuel tank, where exceedances of the standards for the polycyclic aromatic hydrocarbons anthracene, fluoranthene and benzo(a)pyrene, as well as total petroleum hydrocarbons, were recorded. However, the fuel tank has now been removed. This indicates that there has been historical leakage in this area, although there was no evidence of spillage on the current concrete hardstanding. Ground gas monitoring did not record significant concentrations of ground gas (<0.1% methane and <0.1% to 1.6% CO₂) and no flow was measured.
- 8.5 The subsequent use of the site for a WTS has been subject to stringent controls under its environmental permit and is not likely to have led to significant contamination.
- 8.6 The site does not lie within a minerals safeguarding area.

⁹ Enzygo Ltd, 2015, *Geo-Environmental Report Ford Arundel*.

¹⁰ Golder Associates, 2012, *Phase 1 Environmental Site Assessment Former Tarmac Topblock Site, Ford, Arundel, West Sussex, BN18 0HY*.

¹¹ Fresh water environmental quality standards, UK drinking water standards and World Health Organization values for drinking water, as applicable.

8.7 Online mapping indicates that the site is in an area that is at low risk overall from unexploded ordnance, although a Luftwaffe target is shown to the south of the site⁽¹²⁾.

Potential significant effects

8.8 The initial identification of potential significant effects is set out in table 8.1.

Component	Potential construction effect?	Potential post-construction effect?	Comments
Geology and geomorphology	No	No	The nature and location of the development mean that effects on geology are unlikely
Ground contamination	Yes	Yes	Historic contaminative uses present on site and contamination recorded in groundwater
Mineral resources	No	No	The site is not within a minerals safeguarding area
Unexploded ordnance	Yes	Yes	The site is at low risk, but close to an identified historic bombing target

Table 8.1: Initial ground conditions scoping checklist

8.9 While the 2013 ES identified a number of potential sources of contamination that were considered to pose a risk to human health, the subsequent intrusive investigations in 2015 did not identify any exceedances of the relevant soil guideline values or general assessment criteria and concluded that there would be no significant risk to human health. As these investigations were undertaken relatively recently, and the existing WTS has been operating in accordance with an environmental permit, it is considered that the findings remain valid. Details of standard and proven best practice measures to be used during construction of the proposed development will be set out in a construction method statement (CMS), which would be required by a planning condition attached to any consent. No significant effects are predicted on human health as a result of existing contamination on site, either during or post-construction.

8.10 As discussed above, the intrusive investigations identified some exceedances of freshwater environmental quality standards in the vicinity of a former fuel tank. However, the results also indicated that the levels decrease towards the site boundaries. As the nearest watercourse is a ditch approximately 440 m to the east, and the River Arun is around 900 m to the east, the site investigation report concluded that there is no significant risk to surface waters from mobilisation of existing contamination.

8.11 In relation to groundwater, the report noted that there are no active abstractions from the chalk within 170 m of the site and the contamination source (the former fuel tank) has been removed. Given this, and the fact that the site would be covered by hardstanding, the report concluded that there was no significant risk to groundwater. As discussed above, it is considered that these conclusions remain valid. The site will also be covered by hardstanding under the proposed development and standard and proven best practice measures will be used to protect groundwater during construction, which will be implemented through the CMS. No significant effects are therefore predicted on the water environment as a result of the mobilisation of existing contamination.

¹² <https://zeticauxo.com/downloads-and-resources/risk-maps/>.

- 8.12 The ERF and WTS will be housed within purpose-built, enclosed facilities and subject to continuous monitoring for accidental releases. It is therefore not considered that there is the potential for significant effects from contamination post-construction.
- 8.13 The site is in an area that is classified as being at generally low risk from unexploded ordnance, although it is close to an identified historic bombing target. Given that the site is previously developed, it is considered that there is not likely to be a significant risk of unexploded ordnance on site.
- 8.14 It is therefore proposed that ground conditions are not scoped into the EIA and will not be considered in the ES.

Ground conditions effects summary

- 8.15 The findings of the scoping process in relation to ground conditions effects are summarised in table 8.2, which confirms that there will not be a specific ground conditions chapter in the ES.

Potential effect	Receptor importance / sensitivity ⁽¹⁾	Magnitude or scale of effect ⁽²⁾	Likely significant?	To be included in the EIA?
Potential for human health effects from contact with contaminants during construction	High (Construction workers)	Negligible Short term	X	No
Potential for human health effects from contact with contaminants post construction	High (Plant workers)	Negligible Long term	X	No
Potential for mobilisation of existing contaminants into the water environment during construction	Medium to high (Groundwater)	Negligible Short term	X	No
Potential risk from unexploded ordnance on site	High (Construction workers)	Negligible Short term	X	No

Table 8.2: Ground conditions effects summary
Notes:
(1) Categories = high, medium, low, negligible (takes into account geographical level of importance)
(2) Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

Supporting information to be submitted

- 8.16 It is proposed that ground conditions are not scoped into the EIA and will not be considered in the ES. Notwithstanding this, a phase 1 geoenvironmental desk study report will be submitted in support of the planning application as a stand alone document, in accordance with local requirements.

9.0 Land use and land take

Introduction

- 9.1 Proposed developments can have an effect on the local area through the introduction of a new land use, which can complement, co-exist or conflict with the existing land uses, and through the loss of existing uses on site.

Currently known baseline

- 9.2 The site is currently partially used for a WTS and partially vacant. It comprises the WTS building, two vacant former hangars and a large area of hardstanding that is partly occupied by containers and portacabins.
- 9.3 The site is surrounded by agricultural land to the north, east and west, while a sewage treatment works and area of sports pitches lie to the south. Ford Industrial Estate lies beyond the agricultural land to the west, beyond which is the residential area of Yapton. Viridor's materials recovery facility lies beyond the sewage treatment works to the south, beyond which are another industrial estate and HM Prison Ford. Ford village lies beyond the agricultural land to the north east.
- 9.4 There are several public rights of way in the vicinity of the site to the north, including footpaths 366 and 366/1, which run north-south to Ford Lane, and footpath 200/3, which runs from Ford along the site's north eastern edge and joins footpath 363, which runs to Yapton.

Potential significant effects

- 9.5 The initial identification of potential significant effects is set out in table 9.1.

Component	Potential construction effect?	Potential post-construction effect?	Comments
Agricultural land	No	No	No agricultural land use on site, which is previously developed
Horticulture	No	No	No horticulture on site or proposed
Forestry	No	No	No forestry on site or proposed
Recreation / open space / rights of way	Yes	No	A public right of way runs along the site's north eastern edge
Mineral extraction	No	No	No mineral extraction on site or proposed
Industrial / commercial / retail	No	No	No industrial, commercial or retail land uses on site or proposed
Residential	No	No	No residential land use on site or proposed
Health / social / education	No	No	No health, social or education land uses on site or proposed
Waste disposal	Yes	Yes	Intensification of waste management use on site
Other (specify)	No	No	No other land uses on site or proposed

Table 9.1: Initial land use and land take scoping checklist

- 9.6 The proposed development will lead to the intensification of the existing waste management use on the site. Given that there will be no overall change in land use terms, no significant effects are predicted.

9.7 There are several public rights of way in the vicinity of the site, including one along its north eastern edge. As discussed in section 6, the construction site will be securely fenced so the use of the public rights of way will not be affected.

9.8 It is therefore proposed that land use and land take are not scoped into the EIA and will not be considered in the ES.

Land use and land take effects summary

9.9 The findings of the scoping process in relation to land use and land take effects are summarised in table 9.2, which confirms that there will not be a specific land use and land take chapter of the ES.

Potential effect	Receptor importance / sensitivity ⁽¹⁾	Magnitude or scale of effect ⁽²⁾	Likely significant?	To be included in the EIA?
Reduction in use of existing public rights of way in the vicinity of the site during construction	Medium (Local rights of way)	Negligible Short term	X	No
Intensification of existing waste management use on site	Low (Land use on site)	Negligible Long term	X	No
Table 9.2: Land use and land take effects summary				
Notes:				
(1) Categories = high, medium, low, negligible (takes into account geographical level of importance)				
(2) Categories = large, medium, small, negligible (takes into account whether effect is short or long term)				

10.0 Landscape and visual effects

Introduction

- 10.1 Effects on the landscape can arise from a development giving rise to direct changes to physical elements of the receiving landscape, which may affect its features, character and quality; or from indirect effects on the character and quality of the surrounding landscape. Visual effects can result if the development changes the character and quality of people's views. Landscape and visual effects are linked, but have different attributes, so are considered as two elements.

Currently known baseline

- 10.2 The site lies within the Chichester to Yapton Coastal Plain landscape character area, as identified in West Sussex County Council's (2003) *West Sussex Landscape Character Assessment*. Key characteristics of this area include a low-lying, flat, open landscape, a low density of hedgerows and hedgerow trees with occasional shelterbelts, large-scale arable farming and market gardening, long views to Arundel and the Downs, frequent urban fringe influences of horse paddocks, light industry and disused airfields, with busy minor and major roads, and light industry in the countryside at Ford and Tangmere.
- 10.3 Hankinson Duckett Associates' (2006) *Arun Landscape Study* identifies local landscape character areas in the district. The site lies within character area 29: North of Yapton Coastal Plain and the report notes that Ford Lane provides an urban influence on this character area, which comprises predominantly arable fields of varying size and enclosure, with parkland and recreation adjacent to Yapton. It also states that the large industrial buildings on the disused aerodrome, together with Ford prison, have an urbanising impact on the adjacent arable landscape.
- 10.4 The site is not covered by any landscape designations, but it is approximately 2.2 km to the south of the South Downs National Park. Yapton Church Lane and Main Road / Church Road conservation areas are approximately 1 km and 1.3 km to the west respectively.
- 10.5 The main sensitive visual receptors in the vicinity of the site are the existing residential properties in Ford and Yapton and users of the public rights of way to the north of the site. Further afield, there may be distant views from the South Downs National Park to the north, residential properties in Climping to the south, Barnham to the north west, and on the edges of Littlehampton to the south east, Arundel to the north east and Middleton-on-Sea to the south west, and from areas along the coast to the south.

Potential significant effects

- 10.6 The initial identification of potential significant effects is set out in table 10.1.

Component	Potential construction effect?	Potential post-construction effect?	Comments
Landform / topography	No	No	No significant re-profiling of the land is proposed during construction
Land cover	Yes	Yes	Change in land cover from partially open hardstanding with some derelict buildings and limited operational buildings to a fully operational waste management site
Landscape character	Yes	Yes	Limited change to character from partially open to more built-up
Protected landscapes / townscapes	Yes	Yes	Potential for changes to views from the South Downs National Park to the north and Yapton Main Road / Church Road and Church Lane conservation areas to the west
Sensitive views	Yes	Yes	Changes to views from residential properties, public rights of way and the wider countryside and coast, including at night

Table 10.1: Initial landscape and visual effects scoping checklist

- 10.7 The proposed development will change the character of the site from partially vacant, open hardstanding with some derelict buildings and limited operational buildings to a fully operational waste management site. However, as there are already structures on the site, the overall change in land cover will not be significant.
- 10.8 The landscape character will change from a partially open and derelict site to a built-up, operational facility. This change also has the potential to affect surrounding landscape character areas from which the site is visible. The scale of the proposed buildings and the height of the stack mean that these effects have the potential to be significant.
- 10.9 The proposed development will also lead to changes to views from sensitive visual receptors into the site, including residential properties, public rights of way and the wider countryside and coast, including the South Downs National Park. There is also the potential for changes to night time views as a result of increased lighting on site. Given the scale of the proposed development and the sensitivity of the receptors, these changes have the potential to be significant.

Landscape and visual effects summary

- 10.10 The findings of the scoping process in relation to landscape and visual effects are summarised in table 10.2.

Potential effect	Receptor importance / sensitivity ⁽¹⁾	Magnitude or scale of effect ⁽²⁾	Likely significant?	To be included in the EIA?
Change to land cover of the site	Negligible (Site's land cover)	Small Long term	X	No
Change to landscape character of the site and effects on surrounding landscape character areas	Low to high (Character of site and surrounding areas)	Small to medium Long term	✓	Yes
Change to sensitive views, including from designated landscapes	Medium to high (Visual receptors in vicinity of site)	Small to large Long term	✓	Yes

Table 10.2: Landscape and visual effects summary
Notes:
(1) Categories = high, medium, low, negligible (takes into account geographical level of importance)
(2) Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

Proposed assessment methodology

- 10.11 Natural England and Defra's (2014) *Landscape and seascape character assessments* and the *Guidelines for Landscape and Visual Impact Assessment 3rd Edition* (2013) produced by the Landscape Institute and the Institute of Environmental Management and Assessment will be used to guide the assessment of the site and surrounding area. Reference will also be made to the county and local landscape character assessments.
- 10.12 The landscape and visual assessment will include determination of the landscape character of the site and surrounding area, the site's topography, the quality of the landscape and the existing land cover on site. This will be undertaken through a desk study and site visits. A detailed study of the visual setting of the site and the potential visual receptors that may be affected by the development proposals will be undertaken. This will include mapping of the zone of theoretical visibility (ZTV), which will inform the extent of the study area. In defining the ZTV, the screening effects of existing buildings will be considered.
- 10.13 Representative viewpoints will be established and confirmed with West Sussex County Council's landscape officer. Photographs will be taken at each viewpoint and used to create panoramas of the views. The precise locations (Ordnance Survey grid reference), date, time of day and weather conditions will be described for each viewpoint taken.
- 10.14 The significance of the effects on landscape and visual receptors will be determined by combining the sensitivity of identified receptors with the predicted magnitude of change, using a matrix.

11.0 Major accidents / disasters

Introduction

- 11.1 A new development can increase the risk from major accidents / disasters if it introduces new receptors to a location close to a major hazard site, such as a fuel terminal. Alternatively, new development itself can introduce a new source of major accident risk.

Currently known baseline

- 11.2 There are no Control of Major Accident Hazard (COMAH) sites within 4 km of the site and no high pressure gas pipelines in the vicinity that could pose a major accident risk.
- 11.3 The site is in flood zone 1 and is largely at very low risk of surface water flooding, with small areas of low to medium risk. It is not in an area at risk from other forms of natural disaster.

Potential significant effects

- 11.4 The initial identification of potential significant effects is set out in table 11.1.

Component	Potential construction effect?	Potential post-construction effect?	Comments
Major accidents	No	No	The scale and nature of the proposed development mean that it does not have the potential to lead to a major accident that could pose a significant risk to human health, cultural heritage or the environment. The location and nature of the proposed development mean that it is not at significant risk from major accidents
Disasters	No	No	The risk from flooding is addressed in section 16. The location and nature of the proposed development means it is not at risk from any other forms of natural disaster

Table 11.1: Initial major accidents / disasters scoping checklist

- 11.5 The location and nature of the proposed development mean that no potential effects are identified in table 11.1 and no further scoping is required. Major accidents / disasters are therefore scoped out of the EIA.

12.0 Natural heritage

Introduction

- 12.1 Potential natural heritage effects that could arise from a development such as that proposed include habitat loss and fragmentation, disturbance of animals during and post-construction, loss of or modification to breeding and foraging habitat, and effects on designated nature conservation sites.

Currently known baseline

- 12.2 The only internationally designated nature conservation site within 10 km of the site is the Duncton and Bignor Escarpment SAC, approximately 9.8 km to the north. There are two nationally designated nature conservation sites within 5 km of the site: Climping Beaches SSSI, 2.8 km to the south east, and Arundel Park SSSI, 4.2 km to the north east. There are no locally designated nature conservation sites within 2 km of the site.
- 12.3 A phase 1 habitat survey was undertaken on the site in 2013⁽¹³⁾, which found that the majority of the site comprises buildings and hardstanding. Patches of ephemeral / short perennial vegetation are scattered around the areas of hardstanding, which are characterised by plants typical of disturbed places. These habitats were considered to be of negligible ecological value. The northern edge of the site is bounded by a species-poor conifer hedge. Similar habitats were recorded during a 2019 update walkover survey.
- 12.4 No amphibians were found during a habitat search conducted as part of the 2013 ecology walkover survey. No evidence of badger activity was found on or within 30 m of the site and no direct sightings of reptiles were recorded. No bats were observed in the built structures and the 2019 walkover survey confirmed that the buildings on site have negligible bat roost potential. The buildings, site edges and vegetation patches are likely to be used by common bird species.

Potential significant effects

- 12.5 The initial identification of potential significant effects is set out in table 12.1.

¹³ Enzygo Ltd, 2013, *ES for Proposed Waste Treatment Facility at New Circular Technology Park (Former Ford Blockworks), Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, BN18 0HY: Chapter 12 Ecology & Nature Conservation.*

Component	Potential construction effect?	Potential post-construction effect?	Comments
Habitat types	Yes	Yes	Loss of on-site habitats and limited potential for creation of new habitat post-construction
Protected species and notable species (e.g. species of principal importance)	Yes	Yes	Potential for effects from habitat loss and increased disturbance
Ecosystem integrity	No	No	The nature of the existing habitats on site suggests that the area's overall ecosystem integrity will not be affected
Wildlife conservation	No	Yes	The distance of the designated sites from the site means there is no potential for effects during construction. Potential for effects on designated nature conservation sites from emissions post-construction
Resource management	No	No	The management of natural resources (such as woodlands, lakes etc) will not be affected
Natural processes	No	No	No changes are predicted to natural processes (such as hydrodynamics, sedimentation etc)

Table 12.1: Initial natural heritage scoping checklist

12.6 The proposed development will lead to the loss of the existing habitats on site, but their negligible value means that this effect will not be significant. The nature and scale of the proposed development and the size of the application site mean that post-construction habitat creation is likely to be limited, so no significant effects are predicted as a result of this.

12.7 The site has been confirmed as being unsuitable for bats and no evidence of amphibians, reptiles or badgers has been recorded. Parts of the site may be used by common breeding birds, but the availability of suitable habitat in the surrounding area means that the loss of the limited site habitats is not likely to be significant. Standard and proven measures will be put in place through a CMS to protect breeding birds during site clearance works and no significant effects are predicted.

12.8 The proposed development has the potential to lead to significant effects on nationally and internationally designated nature conservation sites as a result of emissions to air from the stack leading to increased nitrogen and acid deposition. However, these effects will be examined in the air quality assessment and it is not considered appropriate to duplicate coverage here.

12.9 It is therefore proposed that natural heritage is not scoped into the EIA and will not be considered in the ES.

Natural heritage effects summary

12.10 The findings of the scoping process in relation to natural heritage effects are summarised in table 12.2, which confirms that there will not be a specific natural heritage chapter of the ES.

Potential effect	Receptor importance / sensitivity ⁽¹⁾	Magnitude or scale of effect ⁽²⁾	Likely significant?	To be included in the EIA?
Loss of existing habitats and creation of new habitats on site	Negligible (On-site habitats)	Small Short and long term	X	No
Effects on breeding birds from habitat loss and disturbance during construction	Low (Common bird species using the site)	Negligible to small Short term	X	No
Effects on internationally and nationally designated sites from increased emissions	High (SAC and SSSIs in wider area)	Negligible to small Short and long term	✓	Yes – to be addressed in the air quality chapter

Table 12.2: Natural heritage effects summary

Notes:

(1) Categories = high, medium, low, negligible (takes into account geographical level of importance)

(2) Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

Supporting information to be submitted

12.11 It is proposed that natural heritage is not scoped into the EIA and will not be considered in the ES. However, an ecological appraisal will be submitted in support of the planning application in accordance with local requirements.

13.0 Noise and vibration

Introduction

- 13.1 The proposed development has the potential to generate noise and vibration during demolition, site preparation, construction and operation. Additional road traffic has the potential to increase noise levels both during and post-construction.

Currently known baseline

- 13.2 The main existing source of noise in the vicinity of the site is the local road network, although noise monitoring for the 2013 ES also recorded a hum from the nearby sewage treatment works and vehicle movements on the access road to the nearby industrial estate, including reversing alarms⁽¹⁴⁾. Activities at the existing WTS may also be audible close to the site (such as the intermittent use of bird scarer alarms).

Potential significant effects

- 13.3 The initial identification of potential significant effects is set out in table 13.1.

Component	Potential construction effect?	Potential post-construction effect?	Comments
Construction noise	Yes	No	Generation of noise during demolition, site preparation and construction
Road traffic noise	Yes	Yes	Increased traffic noise during and post-construction
Operational noise	No	Yes	Generation of noise from plant and post-construction activities
Vibration	Yes	No	Potential for generation of vibration during construction

Table 13.1: Initial noise and vibration scoping checklist

- 13.4 Demolition, site preparation and construction works will generate noise. As discussed in section 5, the nearest existing residential receptors are approximately 210 m from the site, but there is the possibility that new dwellings may be constructed and occupied in the surrounding allocated area before construction of the proposed development is completed. Given the proximity of these receptors, it is considered that there is the potential for a significant effect to occur.
- 13.5 HGV construction traffic will follow the existing HGV routeing agreement and will use the new access road. Broadly speaking, a perceptible increase of 3 dB in noise associated with road traffic would require a doubling of traffic flows on a given link⁽¹⁵⁾. As discussed in section 5, the construction of the proposed development is predicted to generate up to 51 HGV movements each way per day (i.e. 102 movements in total) during periods of peak activity, which is not likely to lead to a doubling of traffic flows on local roads. No significant effects are therefore predicted.

¹⁴ Grundon, 2013, *ES for Proposed Waste Treatment Facility at New Circular Technology Park (Former Ford Blockworks), Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, BN18 0HY: Chapter 8: Noise & Vibration.*

¹⁵ Institute of Environmental Assessment, 1993, *Guidelines for the Environmental Assessment of Road Traffic.*

- 13.6 As discussed in section 14, post-construction traffic flows associated with the proposed development will be within the increased flows consented as part of the access road permission. The effects of these flows have therefore already been assessed as part of the EIA for the new access road, which concluded that the increases in road traffic noise would be negligible and not significant. No significant effects are therefore predicted as a result of increased road traffic noise post-construction.
- 13.7 The operation of the proposed plant and day-to-day activities on site will generate noise post-construction. While the nearest existing residential dwellings are approximately 210 m from the site, the development of the allocated residential land surrounding the site will bring dwellings closer to the proposed development. As a result, there is the potential for significant operational noise effects.
- 13.8 Piling is likely to be necessary during construction and there is therefore the potential for vibration. The typical maximum distances at which a just perceptible (but not necessarily significant) level of vibration may be felt, based on historical field measurements, are 5-10 m for auger piling and 30-40 m for vibratory piling (BS 5228:2009+A1:2014 *Code of practice for noise and vibration control on construction and open sites*). The nearest existing residential dwellings are approximately 210 m from the site and therefore well beyond any piling impact zone. While new dwellings may be constructed and occupied in the surrounding allocated area before construction of the proposed development is completed, these are not likely to be close enough to be affected by significant vibration from piling. In addition, good practice construction measures will be implemented through the CMS. Given these factors, it is considered that the proposed development will not lead to significant vibration effects.

Summary of noise and vibration effects

- 13.9 The findings of the scoping process in relation to noise and vibration effects are summarised in table 13.2.

Potential effect	Receptor importance / sensitivity ⁽¹⁾	Magnitude or scale of effect ⁽²⁾	Likely significant?	To be included in the EIA?
Generation of noise during site preparation and construction	Medium to high (Local sensitive receptors)	Small Short term	✓	Yes
Increased traffic noise during construction	Medium to high (Receptors adjacent to local road network)	Negligible Short term	X	No
Increased traffic noise post-construction	Medium to high (Receptors adjacent to local road network)	Negligible Long term	X	No
Generation of plant and activity noise post-construction	Medium to high (Local sensitive receptors)	Small Long term	✓	Yes
Generation of vibration during construction	Medium to high (Local sensitive receptors)	Negligible Short term	X	No

Table 13.2: Noise and vibration effects summary

Notes:

(1) Categories = high, medium, low, negligible (takes into account geographical level of importance)

(2) Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

Proposed assessment methodology

- 13.10 An updated baseline noise survey will be undertaken to determine the noise levels on site and at the nearest sensitive receptors. This will include both attended and unattended noise measurements. The proposed monitoring locations and assessment methodology will be agreed with Arun District Council's environmental health officer.
- 13.11 The potential for increases in noise during construction will be assessed in accordance with the guidance set out in BS 5228, with assumptions made regarding construction plant where required. Construction noise thresholds will be set to the 'ABC Method' set out in the guidance.
- 13.12 Fixed plant noise will be examined following the rating methodologies set out in BS 4142:2014+A1:2019 *Methods for rating and assessing industrial and commercial sound*. Noise emission limits from proposed fixed plant will be set in accordance with this guidance. Plant rating noise level limits will be set equal to the representative background noise levels, with penalties applied based on the expected future characteristics of the site noise emissions. Noise modelling of the proposed facility will be undertaken to predict noise emissions levels at the nearest noise-sensitive receptors to be assessed against the plant noise limits.

14.0 Traffic and transport

Introduction

- 14.1 The proposed development will lead to increased traffic on the local road network during and post-construction, which has the potential to lead to associated effects on pedestrian severance, driver and pedestrian delay and pedestrian amenity.

Currently known baseline

- 14.2 As discussed in section 1, all vehicles now enter and leave the site via the newly constructed access road that links the site with the existing access road from the Viridor site to the south to Ford Road. Ford Road connects the A259 to the south with the A27 at Arundel to the north. Ford Road becomes Station Road to the north of the site, and to the south it becomes Church Lane, before connecting to the A259 at the Crookthorne Roundabout.
- 14.3 The planning permission for the new access road also allows an increase in the number of HGV movements associated with the site. Previously, no more than 60 HGVs could enter and exit the site Mondays to Fridays and no more than 30 HGVs could enter and exit the site on Saturdays. The planning permission doubled these numbers to 120 HGVs entering and exiting the site Mondays to Fridays and 60 HGVs entering and exiting the site on Saturdays. It should be noted that, while the section 106 agreement for the planning permission sets the limits on the number of HGVs that can access the site per day, it does not set a limit on their size. 'Heavy goods vehicle' is defined in the section 106 agreement as *"a vehicle for the carriage of goods having a maximum laden weight exceeding 3.5 tonnes and for the avoidance of doubt to include traffic associated with the construction of the site."*
- 14.4 The transport statement produced for the access road planning application⁽¹⁶⁾ provides a daily traffic count for Ford Road and the A259 taken from an automatic traffic count recorded in 2018. This recorded seven days' worth of data for a representative week in February, from Monday 19 February to Sunday 26 February. A maximum weekly daily traffic flow of 9,742 vehicles was recorded on Ford Road, 1,064 of which were HGVs. The A259 west of the Crookthorne Roundabout had a maximum recorded weekly daily traffic flow of 27,013 vehicles, 529 of which were HGVs.
- 14.5 The closest railway station to the site is in Ford, approximately 1 km to the north east, which provides services to Brighton, Chichester, Portsmouth & Southsea, Worthing, Havant and Gatwick Airport. The nearest bus stops to the site are on Ford Road just south of the Viridor site access. However, these only provide one return service per day to Poling, Littlehampton, Bognor Regis and Arundel. As discussed in section 2, there are several public rights of way in the vicinity of the site, including routes to Ford and Yapton.

Potential significant effects

- 14.6 The initial identification of potential significant effects is set out in table 14.1.

¹⁶ Callidus Transport and Engineering, 2018, *CTP Ford Airfield, Alternative Site Access Transport Statement*.

Component	Potential construction effect?	Potential post-construction effect?	Comments
Traffic flows and associated effects	Yes	Yes	Increased traffic during and post-construction
Road infrastructure	No	No	No new or upgraded road infrastructure is proposed
Pedestrians and cyclist links / facilities	No	No	No new pedestrian / cycle links are proposed
Public transport	No	No	There is no potential for effects on public transport
Air traffic	No	No	There is no potential for effects on air traffic
Water traffic	No	No	There is no potential for effects on water traffic

Table 14.1: Initial traffic and transport scoping checklist

14.7 There will be an increase in traffic flows on the local road network both during and post-construction, with an associated potential for effects on pedestrian severance, driver and pedestrian delay, and pedestrian amenity. However, as set out in paragraph 14.3, the recent planning permission for the new access road doubles the numbers of HGVs allowed to enter and leave the site to 120 on weekdays and 60 on Saturdays. No distinction was made in the planning permission between the types and sizes of HGVs permitted. The effects associated with these additional traffic movements have already been assessed as part of the EIA for the new access road, which concluded that they would be negligible and not significant (see appendix 3).

14.8 As discussed in section 5, the construction of the proposed development is predicted to generate up to 51 HGV movements each way per day (i.e. 102 movements in total) during periods of peak construction activity (forecast to be month 13). HGV construction traffic will follow the existing HGV routeing agreement and will use the new access road. Even with the operational traffic associated with the WTS, flows will not exceed those consented under the planning permission for the new access road. As a result, no significant effects are predicted.

14.9 Operational vehicle movements associated with the proposed ERF and WTS will also not exceed the consented numbers, so there will be no significant adverse effects as a result of increased traffic post-construction. Nevertheless, a transport statement (TS) will be submitted in support of the planning application to address highways issues, in accordance with national requirements.

14.10 It is therefore proposed that traffic and transport are not scoped into the EIA and will not be considered in the ES.

Summary of traffic and transport effects

14.11 The findings of the scoping process in relation to traffic and transport effects are summarised in table 14.2, which confirms that there will not be a specific traffic and transport chapter of the ES.

Potential effect	Receptor importance / sensitivity ⁽¹⁾	Magnitude or scale of effect ⁽²⁾	Likely significant?	To be included in the EIA?
Increased traffic generation during construction	Medium to high (Local road network and users)	Negligible Short term	X	No
Increased traffic generation post-construction	Medium to high (Local road network and users)	Negligible Long term	X	No

Table 14.2: Traffic and transport effects summary
 Notes:
 (1) Categories = high, medium, low, negligible (takes into account geographical level of importance)
 (2) Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

Supporting information to be submitted

- 14.12 It is proposed that traffic and transport are not scoped into the EIA and will not be considered in the ES. Highways and traffic considerations will be scoped with WSCC and traffic documents will be submitted in support of the planning application.
- 14.13 Based on the scale of the proposed development and the previous EIA for the new access road, it is assumed that a transport statement would be required, in addition to a framework travel plan, subject to scoping.

15.0 Waste and natural resources

Introduction

- 15.1 During demolition and construction activities, wastes should be correctly segregated to maximise re-use and recycling. Where any contaminated or hazardous arisings cannot be treated on site during remediation works, suitable disposal options should be identified as part of the environmental assessment process. Once operational, the proposed WTS and ERF will receive and process non-hazardous residual, non-recyclable waste.
- 15.2 Natural resources are used in both construction of developments and by the occupiers of the developments post-construction. The EIA Regulations require particular consideration to be given to the use of water, land, soil and biodiversity.

Currently known baseline

- 15.3 Part of the site is currently a WTS, which processes 20-25,000 tonnes of waste per year. This process uses natural resources in the form of land, energy and water.
- 15.4 The total waste arisings in West Sussex in 2017/18 were 2.19 million tonnes, of which 435,000 tonnes were municipal solid waste, 456,000 tonnes were commercial and industrial waste, and 1.295 million tonnes were construction and demolition waste. Approximately 171,000 tonnes of municipal solid waste were landfilled, 201,000 tonnes were recycled / composted and 63,000 tonnes were subject to other recovery methods. The majority of commercial and industrial waste was recycled / composted (204,000 tonnes), while 64,000 tonnes were landfilled and 188,000 tonnes subject to other recovery methods. The majority of construction and demolition waste was landfilled (683,000 tonnes), while 391,000 tonnes were recycled / composted and 221,000 tonnes were subject to other recovery methods⁽¹⁷⁾.
- 15.5 The council's annual monitoring report identifies that there is a shortfall of 235,000 tonnes of non-inert landfill capacity in the county, but spare capacity in all other forms of waste management.

Potential significant effects

- 15.6 The initial identification of potential significant effects is set out in table 15.1.

¹⁷ West Sussex County Council, 2019, *West Sussex Joint Minerals Local Plan and Waste Local Plan Monitoring Report 2017/18*.

Component	Potential construction effect?	Potential post-construction effect?	Comments
Demolition waste	Yes	No	Demolition of existing buildings on site will generate waste
Waste management	Yes	Yes	Generation of waste during construction that will require management. Increase in the area's waste management capacity post-construction. The proposed development will also generate operational waste, including bottom ash and air pollution control residues
Natural resources	Yes	Yes	Natural resources will be used both in the construction of the proposed development and for the operation of the plant. The ERF will also preserve natural resources by producing power that might otherwise be generated from coal or gas

Table 15.1: Initial waste and natural resources scoping checklist

- 15.7 The demolition of the existing buildings on site and the construction of the proposed development will generate waste, which will require management. However, this will be managed in accordance with good practice to encourage waste minimisation, re-use and recycling where possible, and the quantities involved are likely to be negligible in relation to existing waste generation and management in West Sussex. The requirement to manage demolition and construction waste in accordance with good practice will be included in the CMS that will be required by a condition attached to any planning consent.
- 15.8 As discussed in section 8, no evidence of contamination was recorded in the soils on site. It is therefore unlikely that large quantities of contaminated spoil will require disposal off site and no significant effects are predicted.
- 15.9 By its nature, the proposed development will not lead to the generation of waste post-construction, other than the production of bottom ash, metals and air pollution control residues. However, it is envisaged that these will be recycled and no significant effects are predicted as a result of post-construction waste generation. The proposed development will reprovide the existing waste transfer facilities and will treat additional residual waste at the ERF. As the site is allocated in the adopted West Sussex Waste Local Plan (2014), the proposed development has already been included in the county's waste management forecasts. No significant effects are therefore predicted on the county's waste management infrastructure.
- 15.10 The construction and operation of the proposed development will use natural resources, although the previously developed nature of the site means that there will be no new land take or loss of soil resources. No potentially significant effects as a result of habitat loss are identified in section 12 and section 16 confirms that the increased demand for potable water is not considered likely to be significant.
- 15.11 It is therefore proposed that waste and natural resources are not scoped into the EIA and will not be considered in the ES.

Summary of waste and natural resources effects

- 15.12 The findings of the scoping process in relation to waste and natural resources effects are summarised in table 15.2, which confirms that there will not be a specific waste and natural resources chapter of the ES.

Potential effect	Receptor importance / sensitivity ⁽¹⁾	Magnitude or scale of effect ⁽²⁾	Likely significant?	To be included in the EIA?
Generation of demolition waste that requires management / disposal	Low (Local inert waste management facilities)	Negligible Short term	X	No
Generation of construction waste that requires management / disposal	Low (Local inert waste management facilities)	Negligible to small Short term	X	No
Generation of contaminated waste during site preparation / construction	Low (Local contaminated waste management facilities)	Negligible Short term	X	No
Increase in West Sussex's non-hazardous residual waste management capacity	Low (Local non-hazardous residual waste management capacity)	Small Long term	X	No
Generation of waste post-construction that requires management / disposal	Low (Specialist waste management facilities)	Negligible Long term	X	No
Use of natural resources	Negligible to low (Natural resources on site)	Negligible to small Long term	X	No

Table 15.2: Waste and natural resources effects summary

Notes:

(1) Categories = high, medium, low, negligible (takes into account geographical level of importance)

(2) Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

16.0 Water environment

Introduction

- 16.1 Effects on the water environment relate to the potential for changes in runoff associated with the proposed drainage regime and any associated effects on flood risk, groundwater recharge and surface water and groundwater quality. There is also the potential for limited increases in demand for wastewater treatment and potable water supply post-construction.

Currently known baseline

- 16.2 The site is currently surfaced with largely impermeable hardstanding and is served by an existing private surface water sewer. This conveys water in an easterly direction and outfalls to an unnamed land drain approximately 520 m to the east. The surface water sewer contains an interceptor to improve the quality of surface water discharging from the site to the land drain⁽¹⁸⁾.
- 16.3 There are no watercourses on or near the site; the nearest is a field drain approximately 440 m to the east, which drains into the River Arun around 900 m to the east of the site. The Environment Agency classifies the river's ecological quality as moderate and its chemical quality as good, with the overall water body classified as moderate⁽¹⁹⁾. The site is in flood zone 1 and is largely at very low risk of surface water flooding, although there are small areas of low to medium risk in the west and north⁽²⁰⁾.
- 16.4 The site is not within a groundwater source protection zone or drinking water protected / safeguard area. It is underlain by bedrock that is classified as a principal aquifer of intermediate groundwater vulnerability. The superficial deposits beneath the site are classified as a secondary A aquifer⁽²¹⁾. Site investigations undertaken by Enzygo Ltd⁽²²⁾ encountered groundwater within made ground beneath the site at depths of 0.95 to 1.40 metres below ground level, which was thought to be perched groundwater, and within the chalk at depths ranging from 6.00 to 7.50 metres below ground level. Details of the site's geology are set out in section 8.
- 16.5 Southern Water is the area's wastewater treatment supplier. Ford Wastewater Treatment Works to the south of the site serves the local area. Southern Water has advised that the need for and timing of an investment scheme at the works will need to be investigated through the price review process, but that the provision of wastewater infrastructure should not be seen as a constraint to new development provided there is good forward planning in place through the local plan and water industry price review process⁽²³⁾.
- 16.6 Portsmouth Water is the area's potable water supplier. It is currently planning to create a new reservoir in Hampshire to secure reliable drinking water supplies for

¹⁸ Enzygo Ltd, 2015, *Ford CTP, Arundel – Drainage Assessment*.

¹⁹ <https://environment.data.gov.uk/catchment-planning/WaterBody/GB540704105000>.

²⁰ <https://flood-map-for-planning.service.gov.uk>.

²¹ <https://magic.defra.gov.uk>.

²² Enzygo Ltd, 2015, *Geo-Environmental Report Ford Arundel*.

²³ Parsons Brinckerhoff, 2015, *Arun District Council Infrastructure Delivery Plan*.

the future.

Potential significant effects

16.7 The initial identification of potential significant effects is set out in table 16.1.

Component	Potential construction effect?	Potential post-construction effect?	Comments
Surface water quality	Yes	Yes	There are no watercourses on or near the site. However, construction activities and post-construction runoff may impact on watercourses via groundwater
Surface water hydrology	No	Yes	There are no watercourses on or near the site, which is already covered with hardstanding. Potential for changes to drainage systems post-construction could affect hydrology
Surface water temperature	No	No	No processes are proposed that could change surface water temperature
Groundwater quality	Yes	Yes	Potential for pollution during demolition and construction activities and from site runoff post-construction
Groundwater hydrology / recharge	Yes	No	The construction of foundations and the waste bunker may impact on groundwater levels during construction. The existing hardstanding means groundwater levels are not likely to be affected post-construction
Groundwater temperature	No	No	No processes are proposed that could change groundwater temperature
Coastal water quality	No	No	The site is not near the coast
Coastal water temperature	No	No	The site is not near the coast
Coastal processes / hydrodynamics	No	No	The site is not near the coast
Flood risk	No	Yes	Potential for changes to drainage systems post-construction that could affect runoff rates and flood risk
Availability of utility services	No	Yes	Increased demand for wastewater treatment and potable water supply from staff post-construction

Table 16.1: Initial water environment scoping checklist

16.8 There is the potential for effects on groundwater and surface water quality as a result of leaks / spills and sedimentation during construction. The construction of foundations and the waste bunker may also impact on groundwater levels during construction. Given the presence of a principal aquifer beneath the site, which may also provide base flows to local watercourses, it is considered that these effects have the potential to be significant.

16.9 There is also the potential for pollution of surface waters and groundwater by leaks and spills from plant and equipment and contaminated runoff from the site post-construction. As discussed in section 3, it is envisaged that the proposed development will connect into the site's existing surface water drainage system. Runoff from the site will discharge via the existing interceptor, which will ensure that there will be no significant adverse effects on surface water quality post-construction. No significant effects are predicted on groundwater quality post-construction, as the site will be covered with hardstanding and no infiltration drainage is proposed.

16.10 The site is currently impermeable and it is proposed that the development will discharge into the existing surface water drainage system. It is likely that a degree of betterment to the existing brownfield runoff rate will be required to account for the effects of climate change on rainfall intensities. This may be accommodated through the incorporation of measures such as cellular storage features into the drainage system, with discharge rates controlled by a hydrobrake, similar to the scheme previously proposed in 2015⁽²⁴⁾. There will therefore be no increase in surface water runoff or off site flood risk as a result of the proposed development. In addition, the site is in flood zone 1 and generally at very low risk of surface water flooding. No significant effects on surface water hydrology or flood risk are therefore predicted. A flood risk assessment will be submitted in support of the planning application to address flooding and drainage, in accordance with national requirements.

16.11 The proposed development will increase demand for wastewater treatment and potable water supply through the use of staff welfare facilities. However, the employment of a small number of additional people on site is not considered likely to lead to significant effects on the local networks, particularly given the measures in place through the forward planning process to ensure sufficient capacity is available.

Summary of water environment effects

16.12 The findings of the scoping process in relation to the water environment are summarised in table 16.2.

Potential effect	Receptor importance / sensitivity ⁽¹⁾	Magnitude or scale of effect ⁽²⁾	Likely significant?	To be included in the EIA?
Pollution of surface water during construction	Low to medium (Local watercourses)	Small Short term	✓	Yes
Pollution of groundwater during construction	Medium to high (Groundwater)	Small Short term	✓	Yes
Change in groundwater hydrology / recharge during construction	Medium to high (Groundwater)	Small Short term	✓	Yes
Pollution of surface water post-construction	Low to medium (Local watercourses)	Negligible Long term	X	No
Pollution of groundwater post-construction	Medium to high (Groundwater)	Negligible Long term	X	No
Increased surface water runoff post-construction and associated increase in flood risk	Low (Area's surface water hydrology)	Negligible Long term	X	No
Increased demand for wastewater treatment and potable water supply	Low to medium (Area's wastewater treatment and potable water supply networks)	Negligible Long term	X	No

Table 16.2: Water environment effects summary

Notes:

(1) Categories = high, medium, low, negligible (takes into account geographical level of importance)

(2) Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

²⁴ Enzygo Ltd, 2015, *Ford CTP, Arundel – Drainage Assessment*.

Proposed assessment methodology

- 16.13 A desk study will be undertaken to determine the existing water environment on and in the vicinity of the site and to identify potential receptors, which will be informed by the results of the past intrusive investigations undertaken on site as appropriate. The significance of effects on the water environment during construction will be determined by combining the sensitivity of the identified receptors with the predicted magnitude of change, using a matrix.

17.0 Cumulative effects and alternatives

Cumulative effects

- 17.1 The EIA Regulations require the consideration of the potential for cumulative effects with other existing and / or approved projects. Cumulative effects will be considered on an issue-by-issue basis and the scope of the EIA will be expanded, if necessary, to include any cumulative issues that arise in the future, for example, with developments that are approved prior to determination of the proposed ERF and transfer station application. In particular, developments for which planning permission are currently being sought and that may be approved prior to determination of the application for the Ford ERF and WTS will be included in the assessment.
- 17.2 Consultees are requested to suggest projects that should be covered in the cumulative effects assessment. To ensure that the assessment is proportionate, it is proposed that only large scale developments should be included. These are considered to be developments of over 150 dwellings or more than 1 ha of non-residential development, in line with the thresholds in section 10(b) of schedule 2 of the EIA Regulations. It should be noted that the Transport Statement will be scoped separately with WSCC and may include additional committed developments, in line with relevant guidance.
- 17.3 At this stage, it is envisaged that the following consented developments will be included in the cumulative effects assessment:
- Land West of Church Lane and South of Horsemere Green Lane, Climping (application reference: CM/1/17/OUT) – up to 300 dwellings and ancillary development comprising open space, a building of up to 875 m² for D1 use and a building of up to 530 m² for A1 use
 - Land at Bilsham Road, Yapton (application reference: Y/91/17/OUT) – up to 250 dwellings and public open space
 - Land East of Drove Lane, Yapton (application reference: Y/92/17/OUT) – up to 300 dwellings, a link road and public open space
- 17.4 In addition, it is proposed that the Ford strategic housing allocation (site SD8 in policy H SP2c of the adopted local plan) surrounding the application site will be included in the cumulative effects assessment. While no planning application has yet been submitted for this scheme, an EIA scoping opinion has been sought and it is possible that a planning application could be submitted and approved before the Ford ERF and WTS application is determined. Given this, and the proximity of the allocation to the application site, it is considered appropriate for the scheme to be included within the cumulative effects assessment. Based on the description of development in the scoping report, it is envisaged to comprise up to 1,500 dwellings, up to 37,000 m² of employment floorspace, a local centre including retail, commercial and community facilities, a primary school, a nursery, a care / retirement home, healthcare facilities, public open space, sports pitches and facilities, and associated infrastructure.
- 17.5 The assessment of cumulative effects will involve the consideration of any residual effects (i.e. those that remain following effective design and mitigation) identified during the main assessment (i.e. the assessment of the construction and

operational effects of the proposed ERF and transfer station on the existing baseline). For the main assessment, only those effects graded 'moderate' and above will be considered significant. For the purposes of the cumulative effects assessment, those residual effects graded 'slight', 'moderate', 'substantial' and 'very substantial' will be included. Residual effects graded as 'negligible' significance are not considered to have the potential to lead to significant cumulative effects and will therefore be excluded.

- 17.6 For the purposes of the cumulative effects assessment, information on the construction and operational timescales will be sought for the above projects and compared with the proposed construction and operational timescale for the proposed ERF and transfer station proposals. Publicly available information for each project will therefore be sought and utilised for the assessment.
- 17.7 The potential for cumulative effects to arise through the interaction of two or more impacts on the same receptor will also be examined where applicable.

Alternatives

- 17.8 The ES will include details of alternatives (e.g. sites, layouts, technologies) considered by Ford EfW Ltd and will set out the reasons for the selection of the proposed options.

18.0 Summary

18.1 From this scoping exercise, it has been possible to reach a preliminary view on the environmental features that are likely to be significantly affected by the proposed development and that should be included within the EIA. All the potential effects that are likely to be significant are listed in table 18.1.

Feature	Potential effects that are likely to be significant
Air quality and climate	Generation of emissions from process plant post-construction
	Increased nitrogen and acid deposition at designated nature conservation sites as a result of process plant emissions
	Increase in dust during construction and effects on air quality and local amenity
	Effect on greenhouse gas emissions
Community, social and economic effects	Effects on health post-construction
Cultural heritage	Impact on archaeological remains on site during construction
	Change to settings of scheduled monuments in the vicinity of the site during and post-construction
	Change to settings of listed buildings in the vicinity of the site during and post-construction
	Change to settings of conservation areas in the vicinity of the site during and post-construction
	Impact on Ford Airfield military structures during construction
Landscape and visual effects	Change to landscape character of the site and effects on surrounding landscape character areas
	Change to sensitive views, including from designated landscapes
Noise and vibration	Generation of noise during site preparation and construction
	Generation of plant and activity noise post-construction
Water environment	Pollution of surface water during construction
	Pollution of groundwater during construction
	Change in groundwater hydrology / recharge during construction
Table 18.1: Effects that are likely to be significant	

18.2 Although the environmental features are described here under separate headings, the EIA will pay close attention to the interrelationships of the various factors in order to assemble a holistic picture of the likely significant effects and mitigation measures. It should also be noted that EIA is an iterative process, enabling matters not recognised at a preliminary stage to be addressed subsequently.

18.3 Based on the preliminary scope determined within this report, the provisional ES chapters are envisaged to be as follows:

Non-technical summary

1. Introduction (including a statement outlining the relevant expertise and competence of the experts who contributed to the EIA)
2. Site description
3. Development proposals (including alternatives considered)
4. Environmental issues and methodology
5. Air quality and climate
6. Community and health effects
7. Cultural heritage
8. Landscape and visual effects
9. Noise

10. Water environment
11. Summary tables
12. Glossary

Technical appendices

- A. EIA scoping
 - B. Competent experts involved in the preparation of the ES
 - C. Air quality
 - D. Carbon balance assessment
 - E. Health risk assessment
 - F. Cultural heritage
 - G. Landscape and visual effects
 - H. Noise
 - I. Water environment
- 18.4 Each ES topic chapter will follow a similar format, including sections on guidance and legislation, methodologies, reporting the baseline conditions, discussion of the future baseline, impact assessment during and post-construction, mitigation and monitoring, residual effects and cumulative effects.
- 18.5 The ES will include appropriate visual presentation materials (maps, diagrams and photographs) and will be supported by technical documents that will be supplied as appendices.
- 18.6 The consideration of the potential significant effects in this scoping report is preliminary. WSCC and consultees are invited to comment on the intended scope of the EIA and to highlight any likely significant issues they consider should be addressed in the EIA.
- 18.7 In addition to the ES and its technical appendices, the following environmental, planning and design supporting information will be submitted with the planning application so that WSCC has sufficient information on which to determine it:
- Planning supporting statement
 - Design and access statement
 - Tree survey and arboricultural impact assessment
 - Phase 1 geoenvironmental desk study report
 - Ecological appraisal
 - Flood risk assessment and drainage strategy
 - Transport statement and framework travel plan
 - R1 assessment
 - Heat user study

Appendix 1

Proposed air quality methodology

Baseline

The air quality baseline will be examined using historic empirical data, background pollution maps published by Defra, current monitoring data from Arun District Council's diffusion tube network, recent monitoring commissioned by Grundon's and national monitoring data. It is considered that this information will provide sufficient data, and no additional monitoring is proposed. The council's environmental health officer will be contacted regarding the provision of air quality monitoring data and assessment reports.

The land surrounding the site is allocated for residential and employment use in the adopted Arun Local Plan 2011-2031 and it is possible that some of the new dwellings may be occupied before construction works on the proposed development are completed. Therefore, these areas will be considered as sensitive receptors for the purpose of the air quality EIA.

A review of ecological constraints has shown that there are a number of ecological sites in the local area which may be sensitive to changes in air quality. The Environment Agency states that the following sites of ecological importance should be considered for facilities such as the ERF:

- Special Protection Areas (SPAs), Special Areas of Conservation (SACs), or Ramsar sites within 10 km of the facility
- Sites of Special Scientific Interest (SSSIs) within 2 km of the facility
- National Nature Reserves (NNR), Local Nature Reserves (LNRs), local wildlife sites and ancient woodlands within 2 km of the facility

Whilst this is not specifically for use for planning, the IAQM guidance which is applicable for planning (assessment of air quality impacts on designated nature conservation sites (2019)) does not specify any other screening distances. As the ERF will need an environmental permit to operate it is considered that these screening distances are appropriate for the purpose of the EIA.

These sensitive ecological receptors are listed in the following table.

Site	Designation	Distance from ERF (km)
Duncanton and Bigmor Escarpment	SAC	10
Solent and Dorset Coast	pSPA	3.5
Ancient Woodland	Anient Woodland	1.3

Table A.1: Ecological Receptors to be considered in the EIA

Construction phase dust

It is proposed to assess the impact of construction phase dust emissions qualitatively using the methodology outlined in the IAQM guidance document *Guidance on the assessment of dust from demolition and construction* (February 2014). This will be used to determine any potential risks from dust generating activities and recommend suitable mitigation measures and determine whether residual significant effects are likely.

Operational phase process emissions

The process emissions air quality assessment will appraise the impact of emissions from the stack. Detailed dispersion modelling will be undertaken using the latest version of the ADMS dispersion modelling software (ADMS 5.2). This will take account of existing and proposed buildings and will use five years of sequential hourly meteorological data from Shoreham Airport meteorological station. Data from this site were used to support the previous planning applications for the site to the agreement of the local authority. The dispersion model will be used to predict the short term and long term process contributions from the ERF for the following pollutants at the appropriate averaging periods at the point of maximum impact and specific sensitive local receptors. This includes all those pollutants which would require assessment as part of the environmental permit application for the ERF:

- Oxides of nitrogen ('NO_x', as NO₂)
- Sulphur dioxide
- Particulate matter (as 'PM₁₀' and 'PM_{2.5}')
- Carbon monoxide
- Hydrogen chloride
- Hydrogen fluoride
- Volatile organic compounds ('VOCs')
- Ammonia
- Mercury compounds
- Cadmium and thallium compounds
- Other metals and their compounds (antimony, arsenic, cobalt, copper, chromium, lead, manganese, nickel and vanadium)
- Dioxins / furans
- Dioxin-like polychlorinated biphenyls ('PCBs')
- Polycyclic aromatic hydrocarbons ('PAHs')

For those pollutants that have a short term emission limit, the impact of the ERF operating at this short term emission limit will also be considered.

The dispersion modelling results will be used to determine a suitable stack height to minimise the impact upon the local environment whilst ensuring any limitations of the site are considered. This will include consideration of the ecological receptors. In addition, a sensitivity analysis will be included which will consider the effect that varying model assumptions has on the predicted impacts. This will be used to ensure the most appropriate model assumptions are used.

The significance of effects will be determined using the methodology outlined in the IAQM (2017) guidance.

The IAQM (2017) guidance does not provide any descriptors for averaging periods of between one hour and a year. Therefore, for these periods we will draw on the criteria detailed in Environment Agency's guidance *Air emissions risk assessment for your environmental permit*, which states that:

“process contributions can be considered insignificant if:

- *the long term process contribution is <1% of the long term environmental standard; and*
- *the short term process contribution is <10% of the short term environmental standard.”*

Results will be presented in tabular form for the point of maximum impact and at identified sensitive receptors in addition to a series of contour plots. Consideration will be made of the in combination impacts of vehicle and process emissions for those receptors within 200 m of the road network impacted by the proposed development.

The environmental permit for the ERF will include limits on emissions of dioxins and dioxin-like PCBs. These have the potential to accumulate within the food-chain. The impact of this will be considered as part of the human health risk assessment, which considers the potential pathways for the pollutants to move through soil, plants and animals to humans using specialised software called I-RAP.

I-RAP implements the US Environmental Protection Agency's Human Health Risk Assessment Protocol (HHRAP) for pathway assessment. The results will be taken from I-RAP and the UK specific health criteria applied to assess the impact (this is the Environment Agency's preferred approach). This approach is explained in the Environment Agency's document *Human Health Toxicological Assessment of Contaminants in Soil*, ref SC050021. This explains that dioxins and dioxin-like PCBs have a threshold level for toxicity, the Tolerable Daily Intake (TDI). This is *“an estimate of the amount of a contaminant, expressed on a bodyweight basis, which can be ingested daily over a lifetime without appreciable health risk.”* A Mean Daily Intake (MDI) is also defined, which is the typical intake from background sources (including dietary intake) across the UK.

An assessment will be undertaken of the impact of emissions, including acid and nitrogen deposition at ecologically sensitive receptors identified within the screening distances for habitats. The results will be compared to the relevant critical levels for the protection of ecosystems and the habitat specific critical loads for deposition.

The IAQM guidance *A guide to the assessment of air quality impacts on designated nature conservation sites* was published in 2019 and sets out an approach to determining whether there will be a 'likely significant effect' on a habitat. Where this cannot be screened out the ecologist will determine whether in reality there will be a 'significant effect' or, for European designated sites, an 'adverse effect on the integrity of the site'.

When determining the impact of the process emissions from the ERF it is considered appropriate to give consideration to the guidance set by the Environment Agency but noting recent case law on the judgement of significance of air quality impacts at ecological sites.

For the purpose of the EIA, the following criteria will be used to screen out impacts that are not likely to have a significant effect on a habitat:

- The short-term PC is less than 10% of the short-term environmental standard; and
- The long-term PC is less than 1% of the long-term environmental standard.

Where impacts cannot be screened out, further assessment will be undertaken by a suitably qualified ecologist, taking into consideration the background pollutant concentrations and deposition rates, including contributions from the existing facility and identified cumulative developments.

In relation to the potential effect of traffic emissions on sensitive ecological sites, there are no European or UK designated sites within 200 m from the roads that would be impacted by the proposals. 200m is the screening distance set out in the Design Manual for Roads and Bridges (DMRB) beyond which significant air quality effects from road traffic are considered unlikely. On this basis, the impact of traffic-related emissions on statutory and locally designated sites has been screened out. As such, the assessment will only consider the air quality impact from process emissions using the approach set out above.

Carbon

A carbon balance assessment will be undertaken that calculates the carbon emissions from the proposed ERF, including CO₂ released from the combustion of fossil-fuel derived carbon in the ERF, releases of other greenhouse gases from the combustion of waste, combustion of gas in auxiliary burners, CO₂ emissions from the transport of waste and other residues, and the emissions offset from the export of electricity from the ERF. These will be compared with the carbon emissions from sending the same waste to landfill. It is proposed that this is included as a technical appendix to the EIA.

Appendix 2

Enzygo Ltd, 2015, Geo-Environmental Report Ford Arundel

Appendix 3

Callidus Transport and Engineering, 2018, CTP Ford Airfield, Alternative Site Access Transport Statement



Geo-Environmental Report

Ford Arundel

For:

Grundon Waste Management Ltd



Contact Details:

Enzygo Ltd.
The Byre
Woodend Lane
Cromhall
Gloucestershire
GL12 8AA

tel: 01454 269237
fax: 01454 269760
email: steve.rhodes@enzygo.com
www: enzygo.com

Geo-Environmental Report

Project:	Land at Ford Arundel
For:	Grundon Waste Management Ltd
Ref:	CRM.049.009.GE.R001A
Status:	final
Date:	September 2015
Author:	Richard Hamilton Associate Director
Reviewer:	Steve Rhodes Technical Director

Disclaimer:

This report has been produced by Enzygo Limited within the terms of the contract with the client and taking account of the resources devoted to it by agreement with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

Enzygo Limited Registered in England No. 6525159

Registered Office Stag House The Chipping Wotton-Under-Edge Gloucestershire GL12 7AD

Executive Summary

Proposed Development

The site is to be redeveloped as a new waste treatment facility with the addition of one new building within the southern part of the site and new access road and Weighbridge.

Investigation

Site works were undertaken by Enzygo Ltd. in August 2015, together with groundwater and gas monitoring.

Ground Conditions

Ground conditions were noted to comprise Made Ground over superficial firm clay and gravelly sand and gravel over structureless chalk. Groundwater was encountered at 0.95mbgl to 1.40mbgl and was 6.50m to 8.00mbgl.

Contamination

A negligible risk of contamination has been identified from the desk study and ground investigation. The soil quality analysis does not show any exceedances of the reference values for commercial end use. Asbestos fibres were not detected. Groundwater quality analysis shows exceedances in TPH and PAH. Given the closest surface water receptor is 351m south east it is considered there is no risk to the surface water has been dismissed.

Foundations

A piled foundations solution is recommended. Given the thickness of the Made Ground and strength of the superficial materials a suspended floor slab is recommended

Re-use of Materials

Made Ground is not considered suitable for re-use as an engineered fill.

Pavement Design

A design equilibrium CBR of 3% is recommended for the underlying natural materials. Soils are not considered to be frost susceptible.

Buried Concrete

It is considered that Class AC-1s conditions of Special Digest 1 can be used

Gas and Radon

No radon protection measures are required and gas monitoring identifies that characteristic situation 1 applies.

TABLE OF CONTENTS

Executive Summary i

1.0 INTRODUCTION 5

Background 5

Proposed Development 5

Objectives..... 5

Scope of Works 5

Risk Classification 5

2.0 SITE SETTING 7

Site Description 7

Current Site Description..... 7

3.0 SUMMARY OF THE PREVIOUS DESK STUDY 8

Site Description 8

History 9

Geology and Hydrogeology..... 10

Mining 10

Consultation 10

Waste Facilities 10

Hydrology..... 10

Sensitive Land Use 10

Proposed Development 11

4.0 PRELIMINARY CONCEPTUAL MODEL 12

5.0 SITE INVESTIGATION 14

General 14

Laboratory Testing 15

<i>Installations</i>	15
6.0 GROUND AND GROUNDWATER CONDITIONS	16
<i>Summary of Ground and Groundwater Conditions</i>	16
<i>Made Ground</i>	16
<i>Superficial Materials</i>	17
<i>Chalk</i>	17
<i>Visual and Olfactory Evidence of Contamination</i>	18
<i>Soil Strength</i>	18
<i>Groundwater</i>	18
<i>Ground Gas</i>	18
<i>Preliminary Soil Infiltration</i>	19
7.0 CONTAMINATION ASSESSMENT	20
<i>General</i>	20
<i>Human Health</i>	20
<i>Controlled Waters</i>	20
<i>Ground Gas</i>	22
<i>Revised Conceptual Model</i>	23
<i>Remediation and verification Strategy</i>	24
<i>Waste Classification</i>	24
8.0 GEOTECHNICAL ASSESSMENT	25
<i>Proposed Development</i>	25
<i>Ground Conditions</i>	25
<i>Site Preparation</i>	25
<i>Foundations</i>	25
<i>Ground Floor Slab</i>	27
<i>Materials Re-use</i>	27

<i>Pavement Construction</i>	27
<i>Buried Concrete</i>	28
<i>Excavation</i>	28
Drawings	29
Appendix A – Desk Study Information	30
Appendix B – Exploratory Hole Records.....	31
Appendix C – Chemical Testing	32
Appendix D – Geotechnical Testing.....	37

1.0 INTRODUCTION

Background

- 1.1 Enzygo Limited has been commissioned by Grundon Waste Management Ltd to prepare a Geo-Environmental Phase II Report to address the requirements set out in Condition 7 (Contamination Remediation Strategy) of planning consent no. WSCC/096/13/F for the development and operation of a waste treatment facility at the new Circular Technology Park (Former Ford Blockworks) at Ford, West Sussex.

Proposed Development

- 1.2 It is proposed to redevelop the site with commercial land usage. An existing layout drawing has been incorporated in to the site plan prepared by Enzygo, which is presented as Drawing CRM.049.009.D.001.

Objectives

- 1.3 The objectives of the study are to:
- Review the existing Phase I report;
 - Undertake a targeted ground investigation;
 - Assess the implications of any potential environmental risks, liabilities and development constraints associated with the site in relation to the future use of the site and in relation to off-site receptors; and
 - Provide a factual and interpretative report relating to the desk study and site investigations. Provide a revised conceptual model and recommendations on any potential development issues and mitigation measures, where appropriate.

Scope of Works

- 1.4 The Scope of works was agreed at a site meeting between Grundon Waste Management Ltd, Arun District Council, Enzygo Ltd and the Contaminated Land Officer. This meeting was carried out prior to the site works commencing.

Risk Classification

- 1.5 Enzygo has utilised the available information, together with our experience to assess the likely risks to development from land quality issues. Definitions of the risk terms used are provided on the following table.

Risk	Description
Negligible	No contamination risk has been identified which is likely to affect development.
Low	No significant contaminated land risks have been encountered affecting development and a low risk that remediation will be required.
Low-Moderate	There are unlikely to be significant contaminated land issue associated with the site which will adversely affect its re-development. However, minor or localised contamination may be present requiring remediation. Remediation should be possible under a discovery strategy and with a call out service.
Moderate	Some potential contaminated land risks have been encountered or identified which may affect re- development. The risks identified are unlikely to affect the entire site or preclude development. Remediation is considered feasible as part of the development process and no further investigation is considered necessary.
Moderate-High	Some potentially significant contaminated land risks have been identified at the property that requires remediation. It is recommended that a separate remedial methodology is prepared supported by a site specific risk assessment
High	Significant potential contaminated land risks have been identified and remediation is required supported by further intrusive ground investigation, risk assessment and remedial design.

2.0 SITE SETTING

Site Description

Item	Description
Site Address	Former ford Topblock concrete works. Off Rodney Crescent, Ford, Arundel, Nearest post code BN18 0DB
National Grid Reference	499436,103348
Site Area	Approximately 5.7 Hectares proposed operational site area excluding access roads.

Current Site Description

- 2.1 The following site description has been compiled from the site inspection undertaken by an experienced environmental consultant, together with current maps and aerial photographs.
- 2.2 The site comprises an area currently unoccupied and comprising concrete hardstanding and former airfield and concrete works buildings.

3.0 SUMMARY OF THE PREVIOUS DESK STUDY

- 3.1 A Desk study has been undertaken at the site by Golder Associates in September 2012.
- 3.2 It should be emphasized that the desk study covers the full extent of the Circular Technology Park (formerly known as the Ford Blockworks site) and therefore some of the information provided as part of the Study is not specifically relevant to the area included within the Application Site. Of particular relevance, it should be noted that two of the existing buildings present within the site, Hangar No. 1 (also referred to as 'Main Aggregates Block Production Building') and Hangar No. 2, are not included within the Application Site for the proposed waste treatment facility.
- 3.3 The information is included in the Phase I Environmental Site Assessment Report included within Appendix A. Pertinent details are provided below:

Site Description

- 3.4 The site occupies an area of approximately 6.5 hectares comprising a roughly rectangular shaped site.
- 3.5 At the time of the walk over survey the site comprised empty buildings and an area of concrete hardstanding associated with a former Blockworks facility used for the manufacture of concrete blocks.
- 3.6 At the time of the site inspection the facility was no longer in use and the machinery and plant has been removed.
- 3.7 Building reported to be present on site include:
- Open building formerly housing the block production machinery. This was noted to be of portal frame construction with corrugated cladding, brick rendering;
 - Laboratory building, although this was empty at the time of the site inspection;
 - Production and sales office;
 - Former steam generation plant room which historically included a bunded heating oil tank and boiler house. The building and tank are no longer present and no evidence of oil staining was noted indicating that oil leakage has not occurred.
 - Former building containing workshops and offices

- Store and welfare buildings;
- Underground chamber, probably an interceptor;
- Building formerly containing sand and PFA silos. Slurry tanks, pits and ducts were noted historically these have been removed;
- External yard area which was noted to be of concrete construction and in generally good condition. A mound of material was noted on the eastern boundary of the site, this is actually located outside the boundary and is thought to be a former inert landfill recorded within the desk study;
- Former underground bunker was noted in the south eastern corner of the site which is reported to have been infilled, this is also outside the current site boundary and could not be accessed during the site walkover;
- In addition to the three buildings present on site an above ground storage tank was observed historically. This is reported to be a double skinned gas oil tank which had been removed at the time of the survey. Evidence was noted of other above ground tanks, which had been removed, but no underground tanks were noted.
- The site is surrounded on all sides by agricultural land. A sewage treatment works is present approximately 100m South, Commercial units are present approximately 200m West and North of the site. Residential development is present approximately 300m east.
- No evidence of contamination such as staining or spillages was noted on the surfacing is reported.
- Golder Associates report that cement bound asbestos is present within buildings.
- During the walkover the area of the former slurry settlement tanks to the east of the site had been levelled and Made Ground placed on top at the ground surface and levelled. This Made Ground contained pieces of metal and numerous pieces of cement bound asbestos

History

- 3.8 A review of the historical maps undertaken by Golder Associates show the site to have been agricultural land prior to development as 'Works' with buildings, two conveyors and a tank. Electrical sub stations were also noted.

- 3.9 Pertinent surrounding historical land uses include: the Ford Airfield, with hangers, a runway and sewage treatment works.

Geology and Hydrogeology

- 3.10 The site is underlain by Brickearth, comprising silt and clay over White Chalk Sub-Group. Ground conditions are classified as a Secondary (A) Aquifer. The underlying Chalk is classified as a Principal Aquifer.
- 3.11 Borehole records held by the BGS close to the site confirm the presence of sandy clay with gravel over chalk.
- 3.12 there are no active abstraction boreholes on the site with the closest being 179m north east and used for agricultural purposes. There are no drinking water abstractions recorded.
- 3.13 The site is not located within a source protection zone.

Mining

- 3.14 The site is identified as not being within an area of mining activity.

Consultation

- 3.15 Consultation information, incorporated into the Phase 1 Environmental Site Assessment, did not identify any relevant pollution incidents or contaminated land on or adjacent to the site.

Waste Facilities

- 3.16 There are two historic landfill sites within 500m of the site, the nearest being on site for the deposition of waste, including brick rubble, broken concrete, stone, chalk and soils (inert waste). The other landfill is 434m North East also for the deposition of inert waste.

Hydrology

- 3.17 The closest source is a Secondary River 351m south east. This in turn drains into the River Arun 900m west of the site.

Sensitive Land Use

- 3.18 There are no ecologically sensitive designations on or close to the site.

Proposed Development

- 3.19 The proposed development is for a waste treatment facility that will enable the separation, recycling and recovery of materials and which will include:
- A Reception/Pre-treatment facility and Materials Recovery Facility (MRF) to be accommodated within an existing building and;
 - A Residual Waste Treatment Facility, to be housed within a new purpose-built building.
- 3.20 The materials handled by the facility will comprise waste generated mainly from commercial and industrial sources.
- 3.21 The facility is to incorporate an existing buildings and the construction of an additional building to house gasification plant, including stack. The existing building will house a Materials Recycling Facility (MRF)/Reception and pre-treatment area.
- 3.22 Infrastructure will include roadways, hardstanding and utilities.
- 3.23 In order to summarise the above recommendations Enzygo has used the previous information supplied in the Golder Report to compile the following Preliminary Conceptual model.

4.0 PRELIMINARY CONCEPTUAL MODEL

Source	Location	Exposure Pathway	Potential Receptor	Probability of Exposure	Details
Human Health					
Asbestos, metals.	Potential Made Ground on site.	Ingestion dermal and inhalation.	Construction Workers.	Moderate	Made Ground potential on site. Normal construction PPE will address risk under CDM.
			Site users.	Low.	Covered by proposed buildings and with a low sensitive end use.
Hydrocarbon and metals.	Potential historic localised spillage on site.	Ingestion dermal and inhalation.	Construction Workers.	Moderate.	Made Ground potential on site
			Site users.	Low.	Covered by handstanding
Hydrocarbon and metals.	Potential migration from off-site source.	Ingestion dermal and inhalation.	Construction Workers.	Moderate.	Potential source identified off site risks identified.
			Site users.	Negligible.	
Ground Gas.	Historic Landfill.	Inhalation & Explosive.	Construction Workers.	Moderate	Made Ground and Landfill off site.
			Site users.	Moderate.	
	Made Ground on site.	Inhalation & Explosive.	Construction Workers.	Negligible.	No confined access likely.
			Site users.	Low.	Unlikely to be significant organic matter.
Groundwater					
Hydrocarbon and metals.	Potential historic spillage on site	Vertical Migration.	Groundwater	Moderate	Potential vertical migration into underlying Chalk aquifer depending on nature of materials. Site located on an underlying Non Aquifer.
Surface Water					
Hydrocarbon and metals.	Potential historic spillage on site	Horizontal Migration.	River Network	Dismissed.	No receptor
Environmental Receptors					
On site contaminants.		Ingestion dermal and inhalation.	Ecology.	Dismissed.	No sensitive ecology designation.
			Direct.	Archaeology.	Dismissed.
		Direct.	Geology.	Dismissed.	None identified.
		Phytotoxic.	Woodland.	Dismissed.	None present.
		Phytotoxic.	Crops.	Dismissed.	None present.
		Ingestion dermal and inhalation.	Livestock.	Dismissed.	None present.
Buildings and Services					
On site contaminants		Direct.	Historic Buildings.	Dismissed.	No historic buildings present.
		Direct.	Proposed Buildings.	Moderate.	Potential for sulphate attack on concrete from contamination.
		Permeate into pipework.	Water Pipes.	Moderate	Pipework will need to be protected.

- 4.1 Principal sources are the potential for onsite contamination from Made Ground and historical spillages resulting in potential harm to underlying groundwater, buildings and services (via sulphate attack) and human health during construction.

5.0 SITE INVESTIGATION

General

- 5.1 A ground investigation was undertaken based on the findings of the requirements given in the Golder report and taking account of the proposed development layout shown on Drawing CRM.049.009.D.001.
- 5.2 The site works were undertaken on 14 July 2015 and comprised trial pitting and deep boreholes. Borehole BH6 was redrilled due to concrete refuel BH6A. The site works are summarised in the table below:

Rationale	Exploratory Holes	Notes
Environmental assessment - Above ground fuel tank	TP1	Sources identified by desk study
Environmental assessment - Backfilled slurry pits and above ground tanks	TP12, TP13, TP14	Sources identified by desk study
Environmental assessment - Former Autoclaves	TP09, TP10, TP11 and BH8	Sources identified by desk study
Environmental assessment - boiler house and above ground fuel tank	TP6, TP7 and TP8 and BH7	Sources identified by desk study
Environmental assessment - former backfilled canal	BH1, BH8 and TP15	Sources identified by desk study
Environmental assessment - former weighbridge and office	TP2 and TP3	Sources identified by desk study
Environmental Assessment - Possible RAF bunker	BH6 and BH6A	Sources identified by desk study
Environmental Assessment - Sub station	TP12	Sources identified by desk study
Proposed new buildings	BH3, BH4 and BH5 and TP4 and TP5	Within proposed building footprint.
Gas and water monitoring	BH1, BH2, BH6, BH7 and BH8	Installation for monitoring

- 5.3 Locations of all exploratory holes are shown on Drawing CRM.049.009.D.001, together with the proposed development.
- 5.4 Representative soil and groundwater samples were collected for chemical testing. Soil samples destined for chemical analysis were collected in appropriate containers provided by the analytical laboratory. Samples were stored in cool boxes prior to dispatch to the laboratory for analysis. All samples were collected using appropriate sampling equipment that was cleaned at each sampling location. All groundwater samples were collected from developed and purged borehole installations and using dedicated bailers.

Laboratory Testing

- 5.6 Soil and groundwater samples for chemical analysis were sent to the laboratories of The Environmental Laboratory Ltd who are NAMAS and MCERTS accredited. Samples were tested for the CLEA metal suite, pH, sulphate, cyanide, phenols, speciated Polycyclic Aromatic Hydrocarbons (PAH), organic carbon, banded Total Petroleum Hydrocarbon (TPH), VOC and SVOC, PCB's and asbestos screen.

Installations

- 5.7 Five installations were installed in Boreholes BH1, BH2, BH6A, BH7 and BH8. Four gas and groundwater monitoring visits at weekly intervals have been carried out.

6.0 GROUND AND GROUNDWATER CONDITIONS

Summary of Ground and Groundwater Conditions

6.1 The investigations undertaken confirm the published geology and the previous history of the site and identify the following strata:

Strata	Summary Description	Thickness (m)
General Made Ground	Made Ground (concrete 120mm to 250mm thick) over lean concrete (150mm to 200mm) over black ashy sandy fine angular gravel.	0.3 to 0.6
Made Ground Backfilled slurry pit (TP12, TP13 and TP14)	Large concrete blocks (300 mm + square), rebar, cable in a sandy gravel matrix over large concrete blocks with abundant 6 mm rebar in grey sandy gravelly size concrete matrix black sandy gravelly clay with brick fragments	0.65 to 1.2
Made Ground backfilled pit (TP15)	Dark grey sandy gravelly topsoil with brick and concrete fragments over large concrete blocks with rebar, metal pipe, brick in a topsoil matrix	In excess of 1.50
Made Ground demolished autoclaves (TP9, TP10 and TP11)	Large concrete blocks (300 mm + square), rebar, pieces of plastic, wire metal roots, wood and rag in a sandy matrix Slight discernible hydrocarbon odour over firm brown, grey and black sandy gravelly clay over concrete lean mix	2.10 to 3.00
Superficial Materials	Firm locally soft orange brown sandy clay over medium dense orange brown and yellow brown slightly clayey slightly gravelly medium sand and gravel. Gravel is medium to coarse rounded flint	1.00 to 3.80
Chalk	Structureless CHALK composed of sub-angular to rounded medium to coarse gravel size light brown highly weathered weak fragments with sub-rounded cobble size weathered weak fragments. Some matrix of soft light brown clayey sand size fragments	In excess of 6.00
Groundwater	Seepages within Made Ground at 1.40m bgl. Water strike at depths between 6.50mbgl and 7.50mbgl.	N/A

6.2 Details of the ground and groundwater conditions encountered are given on the exploratory hole records included in Appendix B and are summarised in the sections below:

Made Ground

6.3 Generally the Made Ground comprised concrete 120mm to 250mm thick) over lean concrete (150mm to 200mm) over black ashy sandy fine angular gravel. This was proved over the majority of the site with the exception of the backfilled slurry pit area (Trial pits TP12, TP13 and TP14), the demolished autoclaves area (trial pits TP9, TP10, Tp11) and a backfilled pit in

the centre of the site (Trial pit TP15). The general Made Ground generally ranged to depths 0.40mbgl to 0.60mbgl.

- 6.4 The Made Ground with the slurry pits comprised Large concrete blocks (300 mm + square), rebar, cable in a sandy gravel matrix over large concrete blocks with abundant 6 mm rebar in grey sandy gravelly size concrete matrix black sandy gravelly clay with brick fragments and was proved to depths ranging from in excess of 1.20mbgl to 1.80mbgl and is thought to represent the residual waste materials from the concrete works.
- 6.5 The Made Ground within the area of the former autoclaves comprised large concrete blocks (300 mm + square), rebar, pieces of plastic, wire metal roots, wood and rag in a sandy matrix Slight discernible hydrocarbon odour over firm brown, grey and black sandy gravelly clay over concrete lean mix these materials were proved to a maximum depth of 3.00mbgl and are thought to represent the residual waste materials form the concrete works.
- 6.6 Deeper Made Ground was also encountered in Trial Pit TP15 to in excess of 1.50m bgl. These material comprised Dark grey sandy gravelly topsoil with brick and concrete fragments over large concrete blocks with rebar, metal pipe, brick in a topsoil matrix and are thought to represent a backfilled pit.

Superficial Materials

- 6.7 Superficial materials comprised firm locally soft orange brown sandy clay over medium dense orange brown and yellow brown slightly clayey slightly gravelly medium sand and gravel. Gravel is medium to coarse rounded flint. The cohesive materials were generally proved to depths ranging from 2.00m bgl to 3.00m bgl and up to 4.00mbgl where no granular materials were encountered. The granular materials were proved to depths ranging from 2.3-mbgl to 4.40mbgl. Soft clays were encountered in Boreholes BH4, BH5 and BH7 and BH8. Loose materials were encountered in Borehole BH6.

Chalk

- 6.8 Structureless Chalk was encountered at depths ranging from 3.00m bgl to 4.00m bgl. The variation in depth is possible associated with the variable depth of the chalk interface. The structures chalk comprised of sub-angular to rounded medium to coarse gravel size light brown highly weathered weak fragments with sub-rounded cobble size weathered weak fragments. Some matrix of soft light brown clayey sand size fragments gravelly silt.

Visual and Olfactory Evidence of Contamination

- 6.9 Visual olfactory evidence of contamination was encountered during the site works, however the hydrocarbon odour was encountered within the backfilled autoclaves area up to 1.40mbgl.

Soil Strength

- 6.10 Based on SPT data arising from the site investigation the strength of the underlying superficial materials ranged from soft to firm and loose to medium dense although was generally firm and medium dense.

Groundwater

- 6.11 Groundwater was encountered during the investigation as two strikes one within the Made Ground which is thought to be perched at depths ranging from 0.95mbgl to 1.40mbgl and one with the chalk at depths ranging from 6.00m to 7.50mbgl. Subsequent monitoring visits are summarised below:

Exploratory Hole	Depth m(bgl)				
	Site Works	21-7-15	30-7-15	05-08-15	12.08.15
BH1	6.50	5.61	5.46	5.54	5.55
BH2	6.00	5.55	5.31	5.4	5.43
BH6	6.75	5.75	5.71	5.76	5.8
BH7	7.00	5.59	5.54	5.60	5.61
BH8	7.50	5.64	5.55	5.59	5.57

Ground Gas

- 6.12 Ground gas was monitored during the return visit and the results are summarised on the table below:

Exploratory Hole	Atmos pressure (Mb)	Flow (l/hr)	CH4		CO2		O2
			Concentration (%)	GSV (l/hr)	Concentration (%)	GSV (l/hr)	Concentration (%)
21-7-15							
BH1	1014	0.2	<0.1	<0.0004	0.2	<0.0014	14.8
BH2	1014	<0.1	<0.1	<0.0001	0.1	<0.0001	19.8
BH6	1014	<0.1	<0.1	<0.0001	<0.1	<0.0001	20.1
BH7	1014	<0.1	<0.1	<0.0001	<0.1	<0.0001	20.2
BH8	1014	<0.1	<0.1	<0.0001	<0.1	<0.0001	19.5
30-7-15							
BH1	1018	<0.1	<0.1	<0.0001	0.1	<0.0001	15.6
BH2	1018	<0.1	<0.1	<0.0001	<0.1	<0.0001	12.4
BH6	1018	<0.1	<0.1	<0.0001	<0.1	<0.0001	20.1
BH7	1018	<0.1	<0.1	<0.0001	<0.1	<0.0001	20.0

BH8	1018	<0.1	<0.1	<0.0001	<0.1	<0.0001	20.0
BH1	1012	<0.1	<0.1	<0.0001	1.3	<0.0013	15.0
BH2	1012	<0.1	<0.1	<0.0001	<0.1	<0.0001	15.6
BH6	1012	<0.1	<0.1	<0.0001	<0.1	<0.0001	19.0
BH7	1012	<0.1	<0.1	<0.0001	<0.1	<0.0001	16.5
BH8	1012	<0.1	<0.1	<0.0001	<0.1	<0.0001	19.9
12.08.15							
BH1	1022	<0.1	<0.1	<0.0001	1.6	<0.0016	14.4
BH2	1022	<0.1	<0.1	<0.0001	<0.1	<0.0001	13.0
BH6	1022	<0.1	<0.1	<0.0001	0.5	<0.0005	18.3
BH7	1022	<0.1	<0.1	<0.0001	<0.1	<0.0001	17.0
BH8	1022	<0.1	<0.1	<0.0001	<0.1	<0.0001	19.1

- 6.13 Where gas concentrations exceed 1% by volume methane or 5% by volume carbon dioxide the concentrations are coloured yellow. If concentrations are lower the values are coloured green. Where gas flux meets characteristic situation 1 the GSV is coloured green. The GSV is coloured yellow for Characteristic Situation 2 and red for Characteristic Situation 3 and above.

Preliminary Soil Infiltration

- 6.14 A preliminary soakaway test was not undertaken given the high groundwater and underlying cohesive materials. This cohesive materials were in turn is underlain by Chalk which can be water sensitive and therefore no soakaway testing was undertaken.

7.0 CONTAMINATION ASSESSMENT

General

- 7.1 A Tier I risk assessment has been undertaken using available and current screening values for human health and where appropriate controlled waters. The risk assessment is undertaken based on the findings of the preliminary conceptual model presented in Section 6. Based on the contamination testing and Tier I assessment a revised Conceptual Model has been prepared, which is presented later in this section.
- 7.2 Where significant risks are identified remedial measures are recommended.

Human Health

- 7.3 Assessment of the risks to human health has been undertaken by comparing the soil quality data with reference values obtained from the Contaminated Land Exposure Assessment (CLEA), Soil Guideline Values (SGV) and General Acceptance Criteria (GAC) published by LQM/CIEH. A summary table of the reference values is included in Appendix C.
- 7.4 Where an exceedance is identified the risk is assessed by considering the sensitivity of the proposed development and the potential pathway.
- 7.5 The soil quality analysis does not show any exceedances of the reference values for a commercial end use.
- 7.6 Asbestos has not been detected in the samples tested. A separate Asbestos survey has been undertaken in relation to the structures.

Controlled Waters

- 7.7 The risk to groundwater has been discussed previous and minimised via eliminating the potential pathway by covering the site with hard standing and incorporating a surface water drainage system which eliminates groundwater migrating vertically and horizontally. Given historically mobile sources were encountered on the site, above ground fuel tanks. Groundwater analysis has been carried out.
- 7.8 Groundwater samples have been analysed the results are compared against reference values. These reference values are summarised in Appendix C and are taken from Fresh Water Environmental Quality Standards (EQS), UK Drinking Water Standards and World Health Organisation (WHO) values for Drinking Water.

- 7.9 Where the controlled waters receptor is a surface water course then the EQS are used as the primary reference value. Drinking Water Standards and WHO values are used where EQS values are not available. An assessment of likely risk is then made based on a source-pathway-receptor model. Where the receptor is potable groundwater resources the Drinking Water Standards and WHO values are used.
- 7.10 The groundwater results have been compared against freshwater EQS values to assess if there is any risk to the identified groundwater. This assessment generally shows concentrations of determinants to be below the EQS, with the exception of the following:

Determinant	EQS (µg/l)	Drinking water (µg/l)	WHO guidelines (µg/l)	Location	Concentration (µg/l)
Anthracene	0.02			BH2, 5.63mbgl	0.07
				BH6, 5.80mbgl	0.03
				BH7 5.76mbgl	6.26
				BH8 5.77mbgl	1.74
Flouranthecene	0.02			BH2, 5.63mbgl	0.03
				BH6, 5.80mbgl	0.08
				BH7 5.76mbgl	27.0
				BH8 5.77mbgl	12.4
Benzo(a)Pyrene	0.03		0.01	BH2, 5.63mbgl	0.25
				BH6, 5.80mbgl	0.05
				BH7 5.76mbgl	18.5
				BH8 5.77mbgl	9.59
TPH C8 to C10	20		10	BH6, 5.80mbgl	30
				BH7 5.76mbgl	33.3
				BH8 5.77mbgl	23.6

- 7.11 Based on this there is a spike in the contamination levels in the vicinity of Borehole BH7 which was located next to the former above ground fuel tank indicating there has been an historical leakage in this area, however there was no evidence of spillage on the current concrete hardstanding. The results also indicate that at the levels decrease towards the site boundaries. Given the nearest surface water receptor is a Secondary River 351m south east of the site and the River Arun is 900m east the risk to the surface water has been dismissed.
- 7.12 A moderate groundwater risk was given in the preliminary conceptual model. Based on the Groundwater analysis the results marginally exceed the WHO Guidelines which can be used as there are no Drinking Water standards available for these contaminants. Given the proposed end use of the site as concrete hardstanding and there is no visible staining on the current surface, the confirmation that the AST and boiler house source (Borehole BH7) have been removed, and there are no active abstractions from the chalk within 179m of the site it is considered that these are associated with a residual risk which has since been broken as the source has been removed. It is therefore considered that remediation of these

marginally exceedances is not practicable or viable as the source has been removed and the proposed end use is for concrete hardstanding with a low sensitivity. Given this it is considered that the groundwater risk can be dismissed.

Ground Gas

- 7.13 Following the guidance provided in CIRIA C665 an initial assessment is undertaken to determine if there are any significant sources of potential ground gas. Such sources include landfills, organic clays and made ground incorporating putrescible materials such as rags, paper and wood. Where no significant source is identified no further assessment is necessary.
- 7.14 Where significant potential risk from ground gas has been identified from the Initial Conceptual Model and the intrusive ground investigation works ground gas monitoring is undertaken and the results of the monitoring are compared against the Gas Screening Values given in CIRIA Report 665. From this the Characteristic Situation is identified and remedial measures proposed.
- 7.15 When assessing the risk and type of remedial measures appropriate consideration is given to the likely construction of the development, the nature of the gas posing a risk and the nature of the likely source. The use of engineering judgement when determining risk from ground gas is consistent with the recommendations given in CIRIA C665.
- 7.16 No significant sources of ground gas were noted from the desk study.
- 7.17 Gas monitoring was undertaken during return visits to monitor groundwater levels. No significant concentrations of ground gas and no flow has been measured. The risk from ground gas is dismissed based on site observations, desk study information and monitoring the risk from ground gas is dismissed.

Revised Conceptual Model

7.18 The Initial Conceptual Model presented in Section 6 has been revised based on the findings of the ground investigation and the revised Conceptual Model is presented below:

Source	Location	Exposure Pathway	Potential Receptor	Probability of Exposure	Details
Human Health					
Asbestos, metals.	Potential Made Ground on site.	Ingestion dermal and inhalation.	Construction Workers.	Dismissed	No soil exceedances.
			Site users.		Covered by proposed buildings or concrete hardstanding.
Hydrocarbon and metals.	Potential historic localised spillage on site.	Ingestion dermal and inhalation.	Construction Workers.	Dismissed	No soil exceedances.
			Site users.		Covered by proposed buildings or concrete hardstanding.
Hydrocarbon and metals.	Potential migration from off-site source.	Ingestion dermal and inhalation.	Construction Workers.	Dismissed	No soil exceedances.
			Site users.		
Ground Gas.	Historic Landfill.	Inhalation & Explosive.	Construction Workers.	Dismissed	No source.
			Site users.		
	Made Ground on site.	Inhalation & Explosive.	Construction Workers.	Dismissed	Characteristic situation one.
			Site users.		
Groundwater					
Hydrocarbon and metals.	Potential historic spillage on site	Vertical Migration.	Groundwater	Dismissed.	Dismissed as the source as been removed, the contamination identified is considered to be residual risk and the proposed end use is concrete hardstanding with a low sensitivity.
Surface Water					
Hydrocarbon and metals.	Potential historic spillage on site	Horizontal Migration.	River Network	Dismissed	No receptor.
Environmental Receptors					
On site contaminants		Ingestion dermal and inhalation.	Ecology.	Dismissed.	No sensitive ecology designation.
		Direct.	Archaeology.	Dismissed.	None identified.
		Direct.	Geology.	Dismissed.	None identified.
		Phytotoxic.	Woodland.	Dismissed.	None present.
		Phytotoxic.	Crops.	Dismissed.	None present.
		Ingestion dermal and inhalation.	Livestock.	Dismissed.	None present.
Buildings and Services					
On site contaminants.		Direct.	Historic Buildings.	Dismissed	No historic buildings present.
		Direct.	Proposed Buildings.	Moderate.	Potential for sulphate attack on concrete from contamination.
		Permeate into pipework.	Water Pipes.	Moderate	Pipework will need to be protected.

Remediation and verification Strategy

- 7.19 No remediation is proposed.
- 7.20 If unforeseen contamination is encountered during construction works such as localised spillage outside the areas investigated an Environmental consultant will be available on a 'call out' basis to undertake an assessment of risk. If 'unforeseen contamination' is encountered the discovery strategy will be to remove the source as it is likely to be very limited in extent and the Local Planning Authority advised.

Waste Classification

- 7.21 Two part WAC tests were undertaken for the proposed extension which revealed levels below the inert threshold values for leachable extracts.
- 7.22 Based on the chemical analysis a preliminary assessment of the materials is likely to classify the materials as Inert.
- 7.23 The Waste Management Paper 2 has recently been updated to version 3 which states that sites which previously could be considered 'uncontaminated land' surplus soils if they did not exceed the GAC values now requires the landfill to make an appropriate assessment of the waste classification. As such final assessment will be undertaken by the receiving landfill based on the requirements of their permit.

8.0 GEOTECHNICAL ASSESSMENT

Proposed Development

- 8.1 The proposed development will comprise a redevelopment of the existing building and the construction of a new building as a materials waste recycling site. The structural loading is not known and is assumed to be 50kN per/metre run for assessment purposes.
- 8.2 It is considered that the scheme meets the criteria of Geotechnical Category 1 of Eurocode 7.

Ground Conditions

- 8.3 Ground Conditions comprise Made Ground over bands of firm locally soft clay over medium dense locally loose sand and gravel over chalk. Groundwater was encountered at depths of 0.95mbgl to 1.40mbgl and between 6.00mbgl to 8.50mbgl. The shallower groundwater was not encountered in the vicinity of the proposed building.

Site Preparation

- 8.4 The site should be cleared below areas of proposed development stripped in accordance with Series 200 of the Specification for Highway Works. This should include:
- Any redundant services should be sealed off and grubbed out and replaced with suitable compacted engineered fill; and,
 - Any buried structures and old foundations encountered on site should be excavated from below the proposed structures with the resulting void backfilled.

Foundations

- 8.5 Given the soft clay and loose sand has been encountered below the Made Ground it is considered that strip or conventional foundations are not suitable and it is therefore considered that piled foundations founding onto the chalk are appropriate. Consideration has been given to a raft foundation however the underlying materials get softer and looser with increasing depth above the Chalk.
- 8.6 Given a piled foundation is recommended it is considered that CFA piles are likely to be required. Should CFA piles be unsuitable (given the presence of gravels) it is recommended that a Piling risk assessment is undertaken. A piling risk assessment is likely to be required to

confirm that risk to the underlying aquifer by piling. It is recommended that this is undertaken by the piling contractor and submitted and approved by the Local Planning Authority prior to the construction of the proposed new building that will house the Residual Waste Treatment Facility.

- 8.7 A preliminary pile design has been undertaken based on the following parameters:
- The initial 4m bgl of pile has been ignored given the presence of variable ground conditions including soft clays and loose sand.
 - For the purposes of this preliminary assessment the top of the chalk is considered to be approximately 4.00m below ground level.
 - The chalk is classified as a Dm Structureless Chalk.
 - A factor of safety of 3 on end bearing has also been undertaken
 - Groundwater is assumed at 6.00m bgl, however a perched groundwater was encountered at 0.95mbgl.
 - A typical pile depth greater than 7m bgl is recommended, this is based on the borehole logs taken to 10 mbgl given in the appendices.
- 8.8 The following preliminary pile working loads have been calculated and are given below and are based on end bearing into the underlying chalk. The pile depths are based on Borehole logs.

Depth bgl	Preliminary Working Load kN		
	200mm	300mm	450mm
5m	60	85	150
7m	120	150	260
9m	170	220	350

- 8.9 Final pile design should be undertaken by a specialist contractor who can use pile test records to agree lower factors of safety and thereby generate a more cost effective pile design.
- 8.10 During drilling no obstructions and concrete surfacing were encountered within the first 5 metres which the boreholes. No obstructions were also noted in the deep borehole adjacent to the site
- 8.11 Groundwater was encountered below 0.95m bgl.

- 8.12 Given the variability in strength and soil type it is recommended that reinforcement is used on all foundations to minimise any differential settlement.

Ground Floor Slab

- 8.13 Given the variability in the thickness and strength of the underlying Made Ground and superficial materials it is recommended a suspended floor slab is adopted.

Materials Re-use

- 8.14 An assessment of the shallow soils suitability for re-use has been undertaken using the following parameters:

- Description of the soils.

- 8.15 It is considered that the Made Ground is too variable to be suitable for re-use as engineered fill.

Pavement Construction

- 8.16 An assessment of the likely California Bearing Ratio (CBR) has been assessed from the following sources:

- Laboratory CBR tests undertaken on a sample re-compacted using a 2.5kg rammer to simulate proof rolling;
- Description of the materials encountered in the exploratory holes; and
- Guidance given in HD25/94 and 73/06.

- 8.17 Based on this and where cohesive materials are encountered it is recommended that an equilibrium CBR of 3% is used for shallow soils following proof rolling.

- 8.18 Should granular materials be encountered it is recommended that a CBR value of 15% is used for shallow soils.

- 8.19 Soils are not considered to be frost susceptible.

- 8.20 Chemical results should be provided to the water authority to confirm the design of potable water supply pipes. As TPH and PAH have been identified ductile iron or metal pipes may be required.

Buried Concrete

- 8.21 Results of the sulphate testing indicate that soils have soluble sulphate concentrations of less than 0.5 g/l consistent with DS1 Conditions of BRE Special Digest 1 and as such buried concrete may be designed in accordance with ACEC Class AC-1s.

Excavation

- 8.22 Based on the various site observations it is considered that excavations should be feasible with normal plant, however a heavy duty breaker will be required to remove concrete hardstanding.
- 8.23 Excavations where access is required should be supported in accordance with CIRIA RR97.
- 8.24 Groundwater was not encountered in the area of the proposed development, however localised perched groundwater was encountered to the north and therefore localised sumping and pumping may be required if groundwater is encountered and excavations are required below 0.95mbgl.

Key

-  Site Boundary
-  Trial Pit Location (TP)
-  Borehole Location (BH)
-  Borehole Installation (I)



enzygo
1000 Industrial Estate, Watlington, Oxford, OX12 9JF

CLIENT	Grundens Waste Management Ltd
PROJECT REF	CRM.049.009
SCALE	1:1,000@A3
DRAWN	MG
CHECKED	RH
DATE	Sept 2015
PROJECT	Ford Anundel
FILE	Site Location Plan
NUMBER	CRM.049.009.GE.D.001

Ref: Golder Associates 12514190632_Grundon Phase 1_Ford Airfield_B0_Sep 2012

Project Name Grundon Ford CTP project (West Sussex)	Project No. CRM.049.009	Co-ords: - Level: -	Date 13/07/2015
Location: Ford Road, Ford, Arundel, BN18 0DB		Dimensions: 2.60m Depth 3.10m 0.45m	Scale 1:25
Client:			Logged By dn

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.50	ES		0.20			CONCRETE
			0.40			MADE GROUND lean mix concrete
			0.60			MADE GROUND black ashy sandy fine angular gravel
1.00	D					Firm orange brown sandy CLAY
2.00	D					
3.00	D		2.30			Orange brown and yellow brown slightly clayey slightly gravelly medium SAND. Gravel is medium to coarse rounded flint
			3.10			Trialpit Complete at 3.10 m

Remarks:

Groundwater: Not encountered



Project Name
Grundon Ford CTP project (West Sussex)

Project No.
CRM.049.009

Co-ords: -
Level: -

Date
13/07/2015

Location: Ford Road, Ford, Arundel, BN18 0DB

Dimensions: 2.90m

Scale
1:25





Client:

Depth
3.20m

0.45m



Logged By
dn





Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description		
Depth (m)	Type	Results						
0.40	ES		0.15			CONCRETE		
			0.40			MADE GROUND lean mix concrete		
			0.55			MADE GROUND black ashy sandy fine angular gravel		
1.00	D					Firm orange brown and dark brown with black speckling sandy CLAY	1	
			2.10			Orange brown and yellow brown slightly clayey slightly gravelly medium SAND. Gravel is medium to coarse rounded flint	2	
3.00	D		3.20				3	
						Trialpit Complete at 3.20 m		4

Remarks:

Groundwater: Not encountered



Project Name Grundon Ford CTP project (West Sussex)	Project No. CRM.049.009	Co-ords: - Level: -	Date 13/07/2015
Location: Ford Road, Ford, Arundel, BN18 0DB		Dimensions: 2.90m Depth 3.00m 0.45m	Scale 1:25
Client:			Logged By dn

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.40	ES		0.15			CONCRETE
			0.35			MADE GROUND lean mix concrete
			0.50			MADE GROUND dark brown and grey sandy gravelly clay with carbonaceous deposits
						Firm orange brown sandy CLAY
1.00	D					
2.00	D					
			2.30			Orange brown and yellow brown slightly clayey slightly gravelly medium SAND. Gravel is medium to coarse rounded flint
3.00	D		3.00			Trialpit Complete at 3.00 m

Remarks:

Groundwater: Not encountered



Project Name
Grundon Ford CTP project (West Sussex)

Project No.
CRM.049.009

Co-ords: -
Level: -

Date
13/07/2015

Location: Ford Road, Ford, Arundel, BN18 0DB

Dimensions: 2.80m

Scale
1:25

Client:

Depth
0.80m



Logged By
dn










Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
						CONCRETE
0.20						MADE GROUND lean mix concrete
0.30						MADE GROUND dark grey lean mix concrete
0.40						MADE GROUND dark brown and grey sandy gravelly clay with carbonaceous deposits
0.50						Firm orange brown sandy CLAY
0.80						Trialpit Complete at 0.80 m

Remarks: 64 mm diameter water pipe encountered at 0.30 m. Service damaged and pit abandoned

Groundwater: Not encountered



Project Name Grundon Ford CTP project (West Sussex)	Project No. CRM.049.009	Co-ords: - Level: -	Date 13/07/2015
Location: Ford Road, Ford, Arundel, BN18 0DB		Dimensions: 2.90m Depth 3.00m 0.45m	Scale 1:25
Client:			Logged By dn

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description		
Depth (m)	Type	Results						
0.20	ES		0.12			Reinforced CONCRETE		
			0.30			MADE GROUND dark brown sandy gravel		
0.50	D		0.40			MADE GROUND dark brown and grey sandy gravelly clay with carbonaceous deposits		
						Firm orange brown sandy CLAY		
1.00	D						1	
2.00	D						2	
			2.10			Orange brown and yellow brown very clayey slightly gravelly medium SAND. Gravel is medium to coarse rounded flint		
			2.30			Structureless CHALK composed of sub-angular to rounded medium to coarse gravel size light brown highly weathered weak fragments with sub-rounded cobble size weathered weak fragments. Some matrix of soft light brown clayey sand size fragments		
3.00	D		3.00				3	
							Trialpit Complete at 3.00 m	
							4	

Remarks:

Groundwater: Not encountered





Project Name Grundon Ford CTP project (West Sussex)	Project No. CRM.049.009	Co-ords: - Level: -	Date 13/07/2015
Location: Ford Road, Ford, Arundel, BN18 0DB		Dimensions: 2.70m Depth 3.10m 0.45m	Scale 1:25
Client:			Logged By dn

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.30	ES		0.13 0.25 0.40		<div style="background-color: #cccccc; width: 100px; height: 10px; margin-bottom: 2px;"></div> Reinforced CONCRETE <div style="background-color: #cccccc; width: 100px; height: 10px; margin-bottom: 2px; border: 1px dashed black;"></div> MADE GROUND lean mix concrete <div style="background-color: #cccccc; width: 100px; height: 10px; margin-bottom: 2px; border: 1px dashed black;"></div> MADE GROUND dark brown and grey sandy gravelly clay with carbonaceous deposits, brick and slate fragments <div style="background-color: #cccccc; width: 100px; height: 10px; margin-bottom: 2px;"></div> Firm orange brown sandy CLAY		
1.00	D						1
2.00	D						2
3.00	D		2.50 3.10		<div style="background-color: #cccccc; width: 100px; height: 10px; margin-bottom: 2px;"></div> Orange brown and yellow brown very clayey slightly gravelly medium SAND. Gravel is medium to coarse rounded flint		3
Trialpit Complete at 3.10 m							4

Remarks:

Groundwater: Not encountered



Project Name Grundon Ford CTP project (West Sussex)	Project No. CRM.049.009	Co-ords: - Level: -	Date 14/07/2015
Location: Ford Road, Ford, Arundel, BN18 0DB		Dimensions: 2.90m Depth 3.00m 0.45m	Scale 1:25
Client:			Logged By dn





Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.20	ES		0.12			Reinforced CONCRETE	
			0.25			MADE GROUND dark brown sandy gravel	
			0.40			MADE GROUND dark brown and grey sandy gravelly clay with carbonaceous deposits	
1.00	D					Firm orange brown sandy slightly gravelly CLAY. Gravel is fine to medium sub-angular to sub-rounded flint	1
2.00	D					Orange brown and yellow brown very clayey slightly gravelly medium SAND. Gravel is medium to coarse rounded flint	2
3.00	D		2.40				
			2.60			Structureless CHALK composed of sub-angular to rounded medium to coarse gravel size light brown highly weathered weak fragments with sub-rounded cobble size weathered weak fragments. Some matrix of soft light brown clayey sand size fragments	
			3.00			Trialpit Complete at 3.00 m	3
							4

Remarks:

Groundwater: Not encountered



Project Name Grundon Ford CTP project (West Sussex)	Project No. CRM.049.009	Co-ords: - Level: -	Date 14/07/2015
Location: Ford Road, Ford, Arundel, BN18 0DB		Dimensions: 2.90m Depth 3.30m 0.45m	Scale 1:25
Client:			Logged By dn




Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.30	ES		0.13			Reinforced CONCRETE	
			0.40			MADE GROUND dark brown sandy gravel with fine brick fragments	
1.00	D					Firm orange brown sandy slightly gravelly CLAY. Gravel is fine to medium sub-angular to sub-rounded flint	1
2.00	D						2
			2.65			Orange brown and yellow brown very clayey slightly gravelly medium SAND. Gravel is medium to coarse rounded flint	
3.00	D		2.80			Structureless CHALK composed of sub-angular to rounded medium to coarse gravel size light brown highly weathered weak fragments with sub-rounded cobble size weathered weak fragments. Some matrix of soft light brown clayey sand size fragments	3
			3.30			Trialpit Complete at 3.30 m	4

Remarks:

Groundwater: Not encountered



Project Name Grundon Ford CTP project (West Sussex)	Project No. CRM.049.009	Co-ords: - Level: -	Date 14/07/2015
Location: Ford Road, Ford, Arundel, BN18 0DB		Dimensions: 2.80m Depth 2.50m 0.45m	Scale 1:25
Client:			Logged By dn





Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.50	ES					MADE GROUND large concrete blocks (300 mm + square), rebar, pieces of plastic, chicken wire, cable, tin in a sandy gravel matrix. Slight discernible hydrocarbon odour
1.00	D					
1.50	D		1.40			Firm orange brown sandy CLAY
2.00	D		2.00			Orange brown and yellow brown slightly clayey slightly gravelly medium SAND. Gravel is medium to coarse rounded flint
			2.50			Trialpit Complete at 2.50 m

Remarks:

Groundwater: Seepage at 1.40 m



Project Name Grundon Ford CTP project (West Sussex)	Project No. CRM.049.009	Co-ords: - Level: -	Date 14/07/2015
Location: Ford Road, Ford, Arundel, BN18 0DB		Dimensions: 2.80m Depth 2.50m 0.45m	Scale 1:25
Client:			Logged By dn






Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.80	ES		0.70			MADE GROUND large concrete blocks (300 mm + square), rebar, cable in a sandy gravel matrix.
1.50	D		1.50			MADE GROUND firm brown sandy gravelly clay. 150 mm diameter clayware duct surrounded by 40 mm rounded gravel at 1.50 m on western elevation
			1.50			Firm orange brown sandy CLAY
			2.10			Orange brown and yellow brown slightly clayey slightly gravelly medium SAND. Gravel is medium to coarse rounded flint
			2.50			Trialpit Complete at 2.50 m

Remarks:

Groundwater: Seepage at 1.40 m



Project Name Grundon Ford CTP project (West Sussex)	Project No. CRM.049.009	Co-ords: - Level: -	Date 14/07/2015
Location: Ford Road, Ford, Arundel, BN18 0DB		Dimensions: 2.80m Depth 3.00m 0.45m	Scale 1:25
Client:			Logged By dn

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.50	ES		0.70			MADE GROUND large concrete blocks (300 mm + square), rebar, pieces of plastic, roots, wood and rag
1.20	ES		1.30			MADE GROUND firm brown, grey and black sandy gravelly clay
			1.40			CONCRETE lean mix
2.00	ES		2.30			Firm orange brown sandy CLAY with some grey and black staining
			3.00			Stiff orange brown very sandy CLAY
Trialpit Complete at 3.00 m						

Remarks:

Groundwater: Seepage at 1.40 m



Project Name
Grundon Ford CTP project (West Sussex)

Project No.
CRM.049.009

Co-ords: -
Level: -

Date
14/07/2015

Location: Ford Road, Ford, Arundel, BN18 0DB

Dimensions: 2.80m

Scale
1:25




Client:

Depth
1.80m

0.45m



Logged By
dn

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.50	ES					MADE GROUND large concrete blocks (300 mm + square), rebar, cable in a sandy gravel matrix.
			0.70			
			0.90			MADE GROUND lean mix concrete
1.00	D					Firm orange brown sandy CLAY
			1.80			Trialpit Complete at 1.80 m

Remarks:

Groundwater: Seepage at 1.40 m



Project Name
Grundon Ford CTP project (West Sussex)

Project No.
CRM.049.009

Co-ords: -
Level: -

Date
14/07/2015

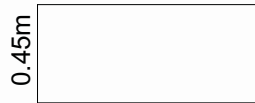
Location: Ford Road, Ford, Arundel, BN18 0DB

Dimensions: 3.00m

Scale
1:25

Client:

Depth
1.20m



Logged By
dn

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
			0.70			MADE GROUND large concrete blocks (300 mm + square), rebar, cable in a sandy gravel matrix.
			1.20			MADE GROUND large concrete blocks with abundant 6 mm rebar in grey sandy gravelly size concrete matrix
Trialpit Complete at 1.20 m						

Remarks: Pit abandoned at 1.20 m due to tangled rebar

Groundwater: Not encountered



Project Name
Grundon Ford CTP project (West Sussex)

Project No.
CRM.049.009

Co-ords: -
Level: -

Date
14/07/2015

Location: Ford Road, Ford, Arundel, BN18 0DB

Dimensions: 2.80m

Scale
1:25

Client:

Depth
1.50m

0.45m



Logged By
dn

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.65	ES		0.55 0.65			MADE GROUND dark brown sandy gravelly topsoil with roots and large concrete blocks
						MADE GROUND black sandy gravelly clay with brick fragments
1.00	D					Firm orange brown sandy CLAY
			1.50			----- Trialpit Complete at 1.50 m

Remarks:

Groundwater: Seepage at 1.40 m



Project Name
Grundon Ford CTP project (West Sussex)

Project No.
CRM.049.009

Co-ords: -
Level: -

Date
13/07/2015

Location: Ford Road, Ford, Arundel, BN18 0DB

Dimensions: 3.50m

Scale
1:25

Client:

Depth
1.50m

0.45m



Logged By
dn

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.10						MADE GROUND dark grey sandy gravelly topsoil with brick and concrete fragments
0.50	ES					MADE GROUND large concrete blocks with rebar, metal pipe, brick in a topsoil matrix
1.50	ES		1.50			Trialpit Complete at 1.50 m

Remarks: Pit very unstable and abandoned at 1.50 m due to collapse

Groundwater: Fast inflow at 0.95 m



Project Name

Grundon Ford CTP project (West Sussex)

Project No.

CRM.049.009

Co-ords: -

Hole Type

Cable

Location: Ford Road, Ford, Arundel, BN18 0DB

Level: -

Scale

1:50

Client:

Dates: 13/07/2015

Logged By

dn

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.20		CONCRETE	
					0.40		MADE GROUND lean mix concrete	
		0.50	ES		0.60		MADE GROUND black ashly sandy fine angular gravel	
		0.60	D				Firm orange brown sandy CLAY	
		1.20	SPT	N=8				
		1.20	SPTLS	(1,1,1,2,2,3)				
		1.70	D					
		2.00	SPT	N=6	2.00			
		2.00	SPTLS	(2,2,2,2,1,1)			Loose orange brown and yellow brown slightly clayey slightly gravelly medium SAND. Gravel is medium to coarse rounded flint	
		2.50	D					
		3.00	SPT	N=1				
		3.00	SPTLS	(0,0,1,0,0,0)				
		3.50	D		3.50			
							Medium dense yellow brown clayey medium SAND	
		4.00	SPT	N=26				
		4.00	SPTLS	(3,5,6,6,6,8)				
		4.40	D		4.40			
							White weathered CHALK weak. Fractures very closely spaced infilled in excess of 10 mm with light brown comminuted chalk with occasional coarse flint gravel	
		5.00	SPT	N=22				
		5.00	SPTLS	(3,7,6,5,5,6)				
		5.50	D					
		6.50	SPT	N=16	6.50			
		6.50	D	(2,2,3,3,5,5)			White fresh CHALK moderately strong. Fractures medium spaced clean and tight	
		6.50	SPTLS					
		7.50	D					
		8.00	SPT	N=47				
		8.00	SPTLS	(4,6,8,11,12,16)				
		8.50	D					
		9.50	SPT	N=44				
		9.50	D	(3,5,5,9,15,15)				
		9.50	SPTLS					
			Type	Results				

End of borehole at 10.00 m

Remarks: 50 mm diameter standpipe installed to 10.00 m

Project Name

Grundon Ford CTP project (West Sussex)

Project No.

CRM.049.009

Co-ords: -

Hole Type

Cable

Location: Ford Road, Ford, Arundel, BN18 0DB

Level: -

Scale

1:50

Client:

Dates: 13/07/2015

Logged By

dn

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.30		CONCRETE	
					0.60		MADE GROUND brown sandy coarse rounded gravel	
							Firm orange brown sandy CLAY	
		1.00	D					
		1.20	SPT	N=7				
		1.20	SPTLS	(1,1,2,1,2,2)				
		2.00	SPT	N=17	2.00			
		2.00	D	(1,1,3,4,4,6)			Loose to medium dense orange brown clayey sandy fine to coarse sub-rounded to rounded flint GRAVEL	
		2.00	SPTLS					
		3.00	SPT	N=6				
		3.00	D	(1,1,1,2,1,2)				
		3.00	SPTLS					
		4.00	SPT	N=12	4.00			
		4.00	D	(1,1,3,3,3,3)			White weathered CHALK weak. Fractures very closely spaced infilled in excess of 10 mm with light brown comminuted chalk with occasional coarse flint gravel	
		4.00	SPTLS					
		5.00	SPT	N=15				
		5.00	D	(2,4,3,3,4,5)				
		5.00	SPTLS					
		6.00	SPT	N=19	6.00			
		6.00	D	(4,3,5,5,4,5)			White fresh CHALK moderately strong. Fractures medium spaced clean and tight	
		6.00	SPTLS					
		7.00	D					
		7.50	SPT	N=10				
		7.50	SPTLS	(1,1,1,2,3,4)				
		8.00	D					
		9.00	SPT	N=11				
		9.00	D	(1,2,1,1,4,5)				
		9.00	SPTLS					
			Type	Results			End of borehole at 10.00 m	

Remarks: 50 mm diameter standpipe installed to 10.00 m

Project Name

Grundon Ford CTP project (West Sussex)

Project No.

CRM.049.009

Co-ords: -

Hole Type

Cable

Location: Ford Road, Ford, Arundel, BN18 0DB

Level: -

Scale

1:50

Client:

Dates: 13/07/2015

Logged By

dn

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.30		CONCRETE	
		0.60	D		0.60		MADE GROUND brown sandy coarse rounded gravel	
							MADE GROUND black ashy sandy gravel	
		1.20 1.20	SPT SPTLS	N=6 (1,1,1,2,1,2)	1.20		MADE GROUND soft brown and grey and black sandy gravelly clay	
		2.00 2.00 2.00	SPT D SPTLS	N=8 (3,3,3,2,2,1)	2.00		Firm orange brown sandy slightly gravelly CLAY. Gravel is fine to coarse sub-angular to sub-rounded flint	
		3.00 3.00 3.00	SPT D SPTLS	N=20 (2,3,3,4,6,7)	3.00		White weathered CHALK weak. Fractures very closely spaced infilled in excess of 10 mm with light brown comminuted chalk with occasional coarse flint gravel	
		4.00 4.00 4.00	SPT D SPTLS	N=42 (4,9,9,10,12,11)				
		5.00 5.00 5.00	SPT D SPTLS	N=21 (6,6,6,5,5,5)				
		6.00 6.00 6.00	SPT D SPTLS	N=18 (2,3,4,4,4,6)				
		7.00	D					
		7.50 7.50	SPT SPTLS	N=9 (1,2,1,1,2,5)	7.50		White fresh CHALK moderately strong. Fractures medium spaced clean and tight	
		8.00	D					
		9.00 9.00 9.00	SPT D SPTLS	N=17 (1,1,2,3,5,7)				
			Type	Results			End of borehole at 10.00 m	

Remarks:

Project Name

Grundon Ford CTP project (West Sussex)

Project No.

CRM.049.009

Co-ords: -

Hole Type

Cable

Location: Ford Road, Ford, Arundel, BN18 0DB

Level: -

Scale

1:50

Client:

Dates: 13/07/2015

Logged By

dn

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.20		CONCRETE	
					0.40		MADE GROUND lean mix concrete	
		0.50 0.50	ES D				MADE GROUND black ashy clayey sandy fine angular gravel with lumps of brown clay	
		1.20 1.20	SPT SPTLS	N=4 (1,1,1,1,1,1)				
		1.70	D					
		2.00 2.00	SPT SPTLS	N=7 (1,1,1,2,2,2)	2.00		Soft to firm orange brown sandy CLAY	
		2.50	D		2.50			
		3.00 3.00	SPT SPTLS	N=18 (1,1,3,5,5,5)			Firm to soft orange brown and yellow brown sandy gravelly CLAY. Gravel is fine to coarse sub-angular to sub-rounded flint	
		3.50	D					
		4.00 4.00	SPT SPTLS	N=5 (1,0,1,2,1,1)	4.20			
		4.40	D				White weathered CHALK weak. Fractures very closely spaced infilled in excess of 10 mm with light brown concretioned chalk with occasional coarse flint gravel	
		5.00 5.00	SPT SPTLS	N=26 (4,5,5,5,9,9)				
		5.50	D					
		6.50 6.50 6.50	SPT D SPTLS	N=24 (2,4,5,6,6,7)	7.00			
		7.50	D				White fresh CHALK moderately strong. Fractures medium spaced clean and tight	
		8.00 8.00	SPT SPTLS	N=29 (2,3,5,9,7,8)				
		8.50	D					
		9.50 9.50 9.50	SPT D SPTLS	N=18 (1,3,3,4,5,6)				
			Type	Results			End of Borehole at 10.00 m	

Remarks:

Project Name

Grundon Ford CTP project (West Sussex)

Project No.

CRM.049.009

Co-ords: -

Hole Type

Cable

Location: Ford Road, Ford, Arundel, BN18 0DB

Level: -

Scale

1:50

Client:

Dates: 14/07/2015

Logged By

dn

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.20		CONCRETE	
					0.30		MADE GROUND lean mix concrete	
		0.50	ES				MADE GROUND black ashy sandy fine angular gravel	
		0.80	D		0.80		Soft orange brown sandy CLAY	
		1.20	SPT	N=5				
		1.20	SPTLS	(2,2,1,1,1,2)				
		1.70	D					
		2.00	SPT	N=4				
		2.00	SPTLS	(1,2,1,1,1,1)				
		2.50	D		2.50			
		3.00	SPT	N=13			Medium dense orange brown and yellow brown clayey slightly gravelly medium SAND. Gravel is medium to coarse rounded flint and abundant fine chalk fragments.	
		3.00	SPTLS	(2,3,3,3,3,4)				
		3.50	D		3.50			
		4.00	SPT	N=27			White weathered CHALK weak. Fractures very closely spaced infilled in excess of 10 mm with light brown comminuted chalk with occasional coarse flint gravel.	
		4.00	SPTLS	(2,4,4,6,10,7)				
		4.50	D		4.50			
		5.00	SPT	N=39			White fresh CHALK moderately strong. Fractures medium spaced clean and tight.	
		5.00	SPTLS	(3,6,8,9,10,12)				
		5.50	D					
		6.50	SPT	N=16				
		6.50	D	(2,3,4,3,4,5)				
		6.50	SPTLS					
		7.50	D					
		8.00	SPT	N=22				
		8.00	SPTLS	(4,4,5,5,6,6)				
		8.50	D					
		9.50	SPT	N=23				
		9.50	D	(1,2,4,6,6,7)				
		9.50	SPTLS					
			Type	Results			End of Borehole at 10.00 m	

Remarks:



Borehole No

BH 6

Sheet 1 of 1

Project Name
Grundon Ford CTP project (West Sussex)

Project No.
CRM.049.009

Co-ords: -

Hole Type
Cable

Location: Ford Road, Ford, Arundel, BN18 0DB

Level: -

Scale
1:50

Client:

Dates: 14/07/2015

Logged By
dn

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.60	D				CONCRETE	
				0.20			MADE GROUND lean mix concrete	
				0.40			MADE GROUND black ashy sandy fine angular gravel	
				1.00			CONCRETE	
<p>End of Borehole at 1.00 m</p>								

Remarks: Concrete obstruction encountered at 1.00 m. Borehole abandoned



Project Name

Grundon Ford CTP project (West Sussex)

Project No.

CRM.049.009

Co-ords: -

Hole Type

Cable

Location: Ford Road, Ford, Arundel, BN18 0DB

Level: -

Scale

1:50

Client:

Dates: 14/07/2015

Logged By

dn

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20			0.20		CONCRETE	
		0.25			0.25		MADE GROUND lean mix concrete	
							MADE GROUND black ashy sandy fine angular gravel	
		1.20	SPT	N=11	1.20			
		1.20	SPTLS	(1,1,2,3,3,3)			Firm orange brown sandy CLAY	
		1.70	D					
		2.00	SPT	N=19	2.00			
		2.00	SPTLS	(1,3,3,4,5,7)			Orange brown and yellow brown slightly clayey slightly gravelly medium SAND. Gravel is medium to coarse rounded flint	
		2.50	D		2.50		Loose yellow brown clayey medium SAND	
		3.00	SPT	N=6				
		3.00	SPTLS	(1,1,1,2,2,1)				
		3.60	D		3.60			
		4.00	SPT	N=24				
		4.00	SPTLS	(3,5,5,6,6,7)			White weathered CHALK weak. Fractures very closely spaced infilled in excess of 10 mm with light brown comminuted chalk with occasional coarse flint gravel	
		4.50	D					
		5.00	SPT	N=29				
		5.00	SPTLS	(4,4,8,6,8,7)				
		5.50	D					
		6.50	SPT	N=15				
		6.50	D					
		6.50	SPTLS	(2,3,4,3,4,4)				
		7.50	SPT	50/195mm	7.50			
		7.50	D	195mm (2,7,19,19,12)			White fresh CHALK moderately strong. Fractures medium spaced clean and tight	
		8.00	SPTLS					
		8.50	D					
		9.50	SPT	N=19				
		9.50	D					
		9.50	SPTLS	(1,2,1,8,5,5)				
			Type	Results				

End of borehole at 10.00 m

Remarks: 50 mm diameter standpipe installed to 10.00 m

Project Name

Grundon Ford CTP project (West Sussex)

Project No.

CRM.049.009

Co-ords: -

Hole Type

Cable

Location: Ford Road, Ford, Arundel, BN18 0DB

Level: -

Scale

1:50

Client:

Dates: 14/07/2015

Logged By

dn

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.30		CONCRETE	
		0.60	D		0.60		MADE GROUND brown sandy coarse rounded gravel	
							Firm and locally soft orange brown sandy CLAY	
		1.20 1.20	SPT SPTLS	N=5 (1,0,1,1,1,2)				
		2.00 2.00 2.00	SPT D SPTLS	N=15 (2,3,3,4,4,4)				
		3.00 3.00 3.00	SPT D SPTLS	N=2 (1,0,1,0,1,0)	3.00		Soft to firm orange brown very sandy gravelly CLAY. Gravel is fine to coarse sub-angular to sub-rounded first	
		4.00 4.00 4.00	SPT D SPTLS	N=12 (2,3,3,3,2,4)	4.00		White weathered CHALK weak. Fractures very closely spaced infilled in excess of 10 mm with light brown comminuted chalk with occasional coarse first gravel	
		5.00 5.00 5.00	SPT D SPTLS	N=14 (3,3,3,4,3,4)				
		6.00 6.00 6.00	SPT D SPTLS	N=26 (3,3,4,7,7,8)				
		7.00	D					
		7.50 7.50	SPT SPTLS	N=12 (2,2,2,3,3,4)				
		8.00	D					
		9.00 9.00 9.00	SPT D SPTLS	N=15 (2,2,2,3,4,6)				
			Type	Results			End of borehole at 10.00 m	

Remarks: 50 mm diameter standpipe installed to 10.00 m

Project Name

Grundon Ford CTP project (West Sussex)

Project No.

CRM.049.009

Co-ords: -

Hole Type

Cable

Location: Ford Road, Ford, Arundel, BN18 0DB

Level: -

Scale

1:50

Client:

Dates: 14/07/2015

Logged By

dn

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.30		CONCRETE	
					0.50		MADE GROUND brown sandy coarse rounded gravel	
		0.60	D				Soft orange brown sandy gravelly CLAY. Gravel is coarse sub-rounded flint	
		1.20	SPT	N=2	1.20			
		1.20	SPTLS	(1,0,0,1,0,1)			Soft to firm orange brown sandy CLAY	
		2.00	SPT	N=7				
		2.00	D	(1,2,2,2,2,1)				
		2.00	SPTLS					
		3.00	SPT	N=22	3.00			
		3.00	D	(4,4,5,5,6,6)			White weathered CHALK weak. Fractures very closely spaced infilled in excess of 10 mm with light brown comminuted chalk with occasional coarse flint gravel	
		3.00	SPTLS					
		4.00	SPT	N=23				
		4.00	D	(3,3,4,5,6,8)				
		4.00	SPTLS					
		5.00	SPT	N=29				
		5.00	D	(4,4,6,6,8,8)				
		5.00	SPTLS					
		6.00	SPT	N=23				
		6.00	D	(4,6,6,8,9,10)				
		6.00	SPTLS					
		7.00	D					
		7.50	SPT	N=29				
		7.50	SPTLS	(2,1,2,5,9,13)				
		8.00	D		8.00		White fresh CHALK moderately strong. Fractures medium spaced clean and tight	
		9.00	SPT	N=45				
		9.00	D	(3,4,7,9,13,16)				
		9.00	SPTLS					
			Type	Results			End of borehole at 10.00 m	

Remarks: 50 mm diameter standpipe installed to 10.00 m

APPENDIX C – CHEMICAL TESTING

ELAB



Unit A2
Windmill Road
Ponswood Industrial Estate
St Leonards on Sea
East Sussex
TN38 9BY

Telephone: (01424) 718618

Facsimile: (01424) 729911

info@elab-uk.co.uk

THE ENVIRONMENTAL LABORATORY LTD

Analytical Report Number: 15-03053

Issue: 1

Date of Issue: 12/08/2015

Contact: Richard Hamilton

Customer Details: Enzygo - Cromhall
The Granary
Woodend Lane
Cromhall
Gloucestershire

Quotation No: Q14-00007

Order No: CRM.049.009

Customer Reference: CRM.049.009

Date Received: 23/07/2015

Date Approved: 12/08/2015

Details: Ford Arundel / CRM.049.009

Approved by:

A handwritten signature in blue ink, appearing to read 'J. Wilson', with a large flourish at the end.

John Wilson, Operations Manager

Any comments, opinions or interpretations expressed herein are outside the scope of UKAS accreditation (Accreditation Number 2683)



Sample Summary

Report No.: 15-03053

Elab No.	Client's Ref.	Date Sampled	Date Scheduled	Description	Deviations
34677	BH1 0.50	13/07/2015	05/08/2015	Sandy silty loam	
34678	BH2 1.00	13/07/2015	05/08/2015		
34679	BH3 0.60	13/07/2015	05/08/2015	Sandy clayey loam	
34680	BH4 0.50	13/07/2015	05/08/2015	Sand	
34681	BH5 0.50	14/07/2015	05/08/2015	Sandy silty loam	
34682	BH6 0.60	14/07/2015	05/08/2015	Sandy silty loam	
34683	BH7 0.60	14/07/2015	05/08/2015	Silty loam	
34684	BH8 0.60	14/07/2015	05/08/2015	Sandy silty loam	



Results Summary

Report No.: 15-03053

ELAB Reference	34677	34679	34680	34681	34682	34683
Customer Reference						
Sample ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location	BH1	BH3	BH4	BH5	BH6	BH7
Sample Depth (m)	0.50	0.60	0.50	0.50	0.60	0.60
Sampling Date	13/07/2015	13/07/2015	13/07/2015	14/07/2015	14/07/2015	14/07/2015

Determinand	Codes	Units	LOD						
Metals									
Arsenic	M	mg/kg	1	13.6	8.9	6.9	8.1	6.5	7.9
Cadmium	M	mg/kg	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chromium	M	mg/kg	5	32.5	23.1	16.9	23.8	24.2	19.3
Copper	M	mg/kg	5	35.1	20.8	32.0	22.0	22.4	18.5
Lead	M	mg/kg	5	29.2	12.7	15.2	12.8	9.4	13.2
Mercury	M	mg/kg	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nickel	M	mg/kg	5	34.3	18.5	25.0	18.8	16.8	14.1
Selenium	M	mg/kg	1	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc	M	mg/kg	45	88.5	52.0	59.9	51.1	< 45.0	< 45.0
Anions									
Water Soluble Sulphate	M	mg/l	20	n/t	n/t	n/t	n/t	n/t	99
Inorganics									
Hexavalent Chromium	N	mg/kg	0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Total Cyanide	M	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0
Miscellaneous									
Acid Neutralisation Capacity	N	mol/kg	0.1	n/t	n/t	0.1	n/t	n/t	n/t
Loss On Ignition (450°C)	M	%	0.01	n/t	n/t	1.68	n/t	n/t	n/t
Moisture Content	N	%	0.1	27.3	17.7	10.0	15.5	12.3	20.5
pH	M	units	0.1	9.6	10.5	10.7	10.4	11.5	10.2
Stones Content	N	%	0.1	19.2	25.4	45.2	28.9	31.7	15.0
Total Organic Carbon	N	%	0.01	4.0	1.3	2.2	0.99	0.77	1.1
Organics									
>C8-C10 BCB	N	mg/kg	1	<1.0	<1.0	<1.0	<1.0	<1.0	n/t
>C10-C12 BCB	N	mg/kg	1	<1.0	<1.0	<1.0	<1.0	<1.0	n/t
>C12-C16 BCB	N	mg/kg	1	<1.0	<1.0	<1.0	<1.0	<1.0	n/t
>C16-C21 BCB	N	mg/kg	1	<1.0	<1.0	<1.0	<1.0	<1.0	n/t
>C21-C35 BCB	N	mg/kg	1	1.5	<1.0	<1.0	<1.0	3.1	n/t
>C35-C40 BCB	N	mg/kg	1	<1.0	<1.0	<1.0	<1.0	<1.0	n/t
Total (>C8-C40) BCB	N	mg/kg	1	1.5	<1.0	<1.0	<1.0	3.1	n/t
Phenols									
Phenol	M	mg/kg	1	< 1	< 1	< 1	< 1	< 1	< 1
M,P-Cresol	N	mg/kg	1	< 1	< 1	< 1	< 1	< 1	< 1
O-Cresol	N	mg/kg	1	< 1	< 1	< 1	< 1	< 1	< 1
3,4-Dimethylphenol	N	mg/kg	1	< 1	< 1	< 1	< 1	< 1	< 1
2,3-Dimethylphenol	M	mg/kg	1	< 1	< 1	< 1	< 1	< 1	< 1
Trimethylphenol	M	mg/kg	1	< 1	< 1	< 1	< 1	< 1	< 1
Total Monohydric Phenols	N	mg/kg	5	< 5	< 5	< 5	< 5	< 5	< 5



Results Summary

Report No.: 15-03053

ELAB Reference	34677	34679	34680	34681	34682	34683
Customer Reference						
Sample ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location	BH1	BH3	BH4	BH5	BH6	BH7
Sample Depth (m)	0.50	0.60	0.50	0.50	0.60	0.60
Sampling Date	13/07/2015	13/07/2015	13/07/2015	14/07/2015	14/07/2015	14/07/2015

Determinand	Codes	Units	LOD						
Polyaromatic hydrocarbons									
Naphthalene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.3
Fluorene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.4
Phenanthrene	M	mg/kg	0.1	0.2	< 0.1	0.1	< 0.1	< 0.1	3.5
Anthracene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.8
Fluoranthene	M	mg/kg	0.1	0.2	0.1	0.1	< 0.1	0.1	3.3
Pyrene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1	2.4
Benzo (a) anthracene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.2	1.2
Chrysene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	1.5
Benzo (b) fluoranthene	M	mg/kg	0.1	< 0.1	< 0.1	1.6	0.5	< 0.1	1.7
Benzo (k) fluoranthene	M	mg/kg	0.1	< 0.1	< 0.1	0.4	< 0.1	< 0.1	1.0
Benzo (a) pyrene	M	mg/kg	0.1	0.2	< 0.1	< 0.1	< 0.1	0.3	1.3
Indeno (1,2,3-cd) pyrene	M	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1	0.7
Dibenzo(a,h)anthracene	M	mg/kg	0.1	< 0.1	0.1	< 0.1	< 0.1	< 0.1	0.2
Benzo(ghi)perylene	M	mg/kg	0.1	< 0.1	0.1	0.1	< 0.1	< 0.1	0.6
Total PAH(16)	M	mg/kg	0.4	1.1	0.4	2.8	0.7	1.0	19.0
Total PAH (Including Coronene)	N	mg/kg	2	n/t	n/t	3	n/t	n/t	n/t
BTEX									
Benzene	M	ug/kg	10	n/t	n/t	n/t	n/t	n/t	<10.0
Toluene	M	ug/kg	10	n/t	n/t	n/t	n/t	n/t	<10.0
Ethylbenzene	M	ug/kg	10	n/t	n/t	n/t	n/t	n/t	<10.0
Xylenes	M	ug/kg	10	n/t	n/t	n/t	n/t	n/t	<10.0
Total BTEX	M	mg/kg	0.01	n/t	n/t	<0.01	n/t	n/t	n/t
TPH CWG									
>C5-C6 Aliphatic	N	mg/kg	0.01	n/t	n/t	n/t	n/t	n/t	<0.01
>C6-C8 Aliphatic	N	mg/kg	0.01	n/t	n/t	n/t	n/t	n/t	<0.01
>C8-C10 Aliphatic	N	mg/kg	1	n/t	n/t	n/t	n/t	n/t	<1.0
>C10-C12 Aliphatic	N	mg/kg	1	n/t	n/t	n/t	n/t	n/t	<1.0
>C12-C16 Aliphatic	N	mg/kg	1	n/t	n/t	n/t	n/t	n/t	<1.0
>C16-C21 Aliphatic	N	mg/kg	1	n/t	n/t	n/t	n/t	n/t	<1.0
>C21-C35 Aliphatic	N	mg/kg	1	n/t	n/t	n/t	n/t	n/t	<1.0
>C35-C40 Aliphatic	N	mg/kg	1	n/t	n/t	n/t	n/t	n/t	<1.0
>C5-C7 Aromatic	N	mg/kg	0.01	n/t	n/t	n/t	n/t	n/t	<0.01
>C7-C8 Aromatic	N	mg/kg	0.01	n/t	n/t	n/t	n/t	n/t	<0.01
>C8-C10 Aromatic	N	mg/kg	1	n/t	n/t	n/t	n/t	n/t	<1.0
>C10-C12 Aromatic	N	mg/kg	1	n/t	n/t	n/t	n/t	n/t	<1.0
>C12-C16 Aromatic	N	mg/kg	1	n/t	n/t	n/t	n/t	n/t	1.3
>C16-C21 Aromatic	N	mg/kg	1	n/t	n/t	n/t	n/t	n/t	4.5
>C21-C35 Aromatic	N	mg/kg	1	n/t	n/t	n/t	n/t	n/t	7.3
>C35-C40 Aromatic	N	mg/kg	1	n/t	n/t	n/t	n/t	n/t	<1.0
Total (>C5-C40) Ali/Aro	N	mg/kg	1	n/t	n/t	n/t	n/t	n/t	13.1
Total Petroleum Hydrocarbons									
Mineral Oil	U	mg/kg	5	n/t	n/t	<5	n/t	n/t	n/t
PCB (ICES 7 congeners)									
PCB 28	M	mg/kg	0.01	n/t	< 0.01	n/t	n/t	n/t	n/t
PCB 52	M	mg/kg	0.01	n/t	< 0.01	n/t	n/t	n/t	n/t
PCB 101	M	mg/kg	0.01	n/t	< 0.01	n/t	n/t	n/t	n/t
PCB 118	M	mg/kg	0.01	n/t	< 0.01	n/t	n/t	n/t	n/t
PCB 153	M	mg/kg	0.01	n/t	< 0.01	n/t	n/t	n/t	n/t
PCB 138	M	mg/kg	0.01	n/t	< 0.01	n/t	n/t	n/t	n/t



Results Summary

Report No.: 15-03053

ELAB Reference	34677	34679	34680	34681	34682	34683
Customer Reference						
Sample ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location	BH1	BH3	BH4	BH5	BH6	BH7
Sample Depth (m)	0.50	0.60	0.50	0.50	0.60	0.60
Sampling Date	13/07/2015	13/07/2015	13/07/2015	14/07/2015	14/07/2015	14/07/2015

Determinand	Codes	Units	LOD						
PCB 180	M	mg/kg	0.01	n/t	< 0.01	n/t	n/t	n/t	n/t
PCB (Total of 7 Congeners)	M	mg/kg	0.03	n/t	< 0.03	< 0.03	n/t	n/t	n/t



Results Summary

Report No.: 15-03053

ELAB Reference	34684
Customer Reference	
Sample ID	
Sample Type	SOIL
Sample Location	BH8
Sample Depth (m)	0.60
Sampling Date	14/07/2015

Determinand	Codes	Units	LOD	
Metals				
Arsenic	M	mg/kg	1	12.6
Cadmium	M	mg/kg	0.5	< 0.5
Chromium	M	mg/kg	5	22.5
Copper	M	mg/kg	5	24.2
Lead	M	mg/kg	5	36.3
Mercury	M	mg/kg	0.5	< 0.5
Nickel	M	mg/kg	5	19.4
Selenium	M	mg/kg	1	< 1.0
Zinc	M	mg/kg	45	57.6
Anions				
Water Soluble Sulphate	M	mg/l	20	n/t
Inorganics				
Hexavalent Chromium	N	mg/kg	0.8	< 0.8
Total Cyanide	M	mg/kg	1	< 1.0
Miscellaneous				
Acid Neutralisation Capacity	N	mol/kg	0.1	n/t
Loss On Ignition (450°C)	M	%	0.01	n/t
Moisture Content	N	%	0.1	17.3
pH	M	units	0.1	9.3
Stones Content	N	%	0.1	17.9
Total Organic Carbon	N	%	0.01	0.87
Organics				
>C8-C10 BCB	N	mg/kg	1	<1.0
>C10-C12 BCB	N	mg/kg	1	<1.0
>C12-C16 BCB	N	mg/kg	1	<1.0
>C16-C21 BCB	N	mg/kg	1	<1.0
>C21-C35 BCB	N	mg/kg	1	2.3
>C35-C40 BCB	N	mg/kg	1	<1.0
Total (>C8-C40) BCB	N	mg/kg	1	2.3
Phenols				
Phenol	M	mg/kg	1	< 1
M,P-Cresol	N	mg/kg	1	< 1
O-Cresol	N	mg/kg	1	< 1
3,4-Dimethylphenol	N	mg/kg	1	< 1
2,3-Dimethylphenol	M	mg/kg	1	< 1
Trimethylphenol	M	mg/kg	1	< 1
Total Monohydric Phenols	N	mg/kg	5	< 5



Results Summary

Report No.: 15-03053

ELAB Reference	34684
Customer Reference	
Sample ID	
Sample Type	SOIL
Sample Location	BH8
Sample Depth (m)	0.60
Sampling Date	14/07/2015

Determinand	Codes	Units	LOD	
Polyaromatic hydrocarbons				
Naphthalene	M	mg/kg	0.1	< 0.1
Acenaphthylene	M	mg/kg	0.1	< 0.1
Acenaphthene	M	mg/kg	0.1	< 0.1
Fluorene	M	mg/kg	0.1	< 0.1
Phenanthrene	M	mg/kg	0.1	0.2
Anthracene	M	mg/kg	0.1	< 0.1
Fluoranthene	M	mg/kg	0.1	1.0
Pyrene	M	mg/kg	0.1	0.9
Benzo (a) anthracene	M	mg/kg	0.1	0.5
Chrysene	M	mg/kg	0.1	0.6
Benzo (b) fluoranthene	M	mg/kg	0.1	0.8
Benzo (k) fluoranthene	M	mg/kg	0.1	0.4
Benzo (a) pyrene	M	mg/kg	0.1	0.5
Indeno (1,2,3-cd) pyrene	M	mg/kg	0.1	0.6
Dibenzo(a,h)anthracene	M	mg/kg	0.1	0.2
Benzo(ghi)perylene	M	mg/kg	0.1	0.5
Total PAH(16)	M	mg/kg	0.4	6.4
Total PAH (Including Coronene)	N	mg/kg	2	n/t
BTEX				
Benzene	M	ug/kg	10	n/t
Toluene	M	ug/kg	10	n/t
Ethylbenzene	M	ug/kg	10	n/t
Xylenes	M	ug/kg	10	n/t
Total BTEX	M	mg/kg	0.01	n/t
TPH CWG				
>C5-C6 Aliphatic	N	mg/kg	0.01	n/t
>C6-C8 Aliphatic	N	mg/kg	0.01	n/t
>C8-C10 Aliphatic	N	mg/kg	1	n/t
>C10-C12 Aliphatic	N	mg/kg	1	n/t
>C12-C16 Aliphatic	N	mg/kg	1	n/t
>C16-C21 Aliphatic	N	mg/kg	1	n/t
>C21-C35 Aliphatic	N	mg/kg	1	n/t
>C35-C40 Aliphatic	N	mg/kg	1	n/t
>C5-C7 Aromatic	N	mg/kg	0.01	n/t
>C7-C8 Aromatic	N	mg/kg	0.01	n/t
>C8-C10 Aromatic	N	mg/kg	1	n/t
>C10-C12 Aromatic	N	mg/kg	1	n/t
>C12-C16 Aromatic	N	mg/kg	1	n/t
>C16-C21 Aromatic	N	mg/kg	1	n/t
>C21-C35 Aromatic	N	mg/kg	1	n/t
>C35-C40 Aromatic	N	mg/kg	1	n/t
Total (>C5-C40) Ali/Aro	N	mg/kg	1	n/t
Total Petroleum Hydrocarbons				
Mineral Oil	U	mg/kg	5	n/t
PCB (ICES 7 congeners)				
PCB 28	M	mg/kg	0.01	n/t
PCB 52	M	mg/kg	0.01	n/t
PCB 101	M	mg/kg	0.01	n/t
PCB 118	M	mg/kg	0.01	n/t
PCB 153	M	mg/kg	0.01	n/t
PCB 138	M	mg/kg	0.01	n/t



Results Summary

Report No.: 15-03053

ELAB Reference	34684
Customer Reference	
Sample ID	
Sample Type	SOIL
Sample Location	BH8
Sample Depth (m)	0.60
Sampling Date	14/07/2015

Determinand	Codes	Units	LOD	
PCB 180	M	mg/kg	0.01	n/t
PCB (Total of 7 Congeners)	M	mg/kg	0.03	n/t

Results Summary

Report No.: 15-03053

WAC Analysis					Landfill Waste Acceptance Criteria Limits		
Elab Ref:	34680				Inert Waste Landfill	Stable Non-reactive Hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Date:	13/07/2015						
Sample ID:	BH4						
Depth:	0.5						
Site:	Ford Arundel / CRM.D49.009						
Determinand	Code	Units					
Total Organic Carbon	N	%		2.20	3	5	6
Loss on Ignition	M	%		1.7	-	-	10
Total BTEX	M	mg/kg		< 0.01	6	-	-
Total PCBs (7 congeners)	M	mg/kg		< 0.03	1	-	-
TPH Total WAC	M	mg/kg		< 5	500	-	-
Total (of 17) PAHs	N	mg/kg		3.0	100	-	-
pH	M			10.7	-	>6	-
Acid Neutralisation Capacity	N	mol/kg		0.1	-	To evaluate	To evaluate
Eluate Analysis			2:1	8:1	10:1	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg	
		mg/l	mg/l	mg/kg			
Arsenic	N	< 0.005	< 0.005	< 0.05	0.5	2	25
Barium	N	0.014	0.009	0.10	20	100	300
Cadmium	N	< 0.001	< 0.001	< 0.01	0.04	1	5
Chromium	N	0.016	< 0.005	< 0.05	0.5	10	70
Copper	N	0.006	< 0.005	< 0.05	2	50	100
Mercury	N	< 0.005	< 0.005	< 0.01	0.01	0.2	2
Molybdenum	N	< 0.005	< 0.005	< 0.05	0.5	10	30
Nickel	N	0.004	0.002	< 0.05	0.4	10	40
Lead	N	< 0.001	< 0.001	< 0.05	0.5	10	50
Antimony	N	< 0.005	< 0.005	< 0.05	0.06	0.7	5
Selenium	N	< 0.005	< 0.005	< 0.05	0.1	0.5	7
Zinc	N	< 0.005	< 0.005	< 0.05	4	50	200
Chloride	N	39.000	5.000	107.00	800	15000	25000
Fluoride	N	< 1	< 1	< 10	10	150	500
Sulphate	N	76.000	32.000	388.00	1000	20000	50000
Total Dissolved Solids	N	290.000	150.000	1720.00	4000	60000	100000
Phenol Index	N	< 0.01	< 0.01	< 0.10	1	-	-
Dissolved Organic Carbon	N	8.860	10.200	100.00	500	800	1000
Leach Test Information							
Eluent Volume (ml)	N	282	1420				
pH	N	9.1	10.3				
Conductivity (µS/cm)	N	432	247				
Temperature (°C)	N	19	21				
Solid Information							
Dry mass of test portion (g)		178					
Moisture (%)		10.2					

Results are expressed on a dry weight basis, after correction for moisture content where applicable

Stated limits are for guidance only and ELAB cannot be held responsible for any discrepancies with current legislation

Results Summary

Report No.: 15-03053

Asbestos Qualitative Results

Analytical result only applies to the sample as submitted by the client. Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client.

Elab No	Depth (m)	Clients Reference	Description of Sample Matrix #	Result
34677	0.50	BH1	Sandy silty loam	No asbestos detected
34679	0.60	BH3	Sandy clayey loam	No asbestos detected
34680	0.50	BH4	Sand	No asbestos detected
34681	0.50	BH5	Sandy silty loam	No asbestos detected
34682	0.60	BH6	Sandy silty loam	No asbestos detected
34683	0.60	BH7	Silty loam	No asbestos detected
34684	0.60	BH8	Sandy silty loam	No asbestos detected

Method Summary

Report No.: 15-03053

Parameter	Codes	Analysis Undertaken On	Date Tested	Method Number	Technique
Soil					
Hexavalent chromium	N	As submitted sample	06/08/2015	110	Colorimetry
Aqua regia extractable metals	M	Air dried sample	07/08/2015	118	ICPMS
Phenols in solids	M	As submitted sample	06/08/2015	121	HPLC
Polyaromatic hydrocarbons (GC-FID)	M	As submitted sample	06/08/2015	133	GC-FID
Water soluble anions	M	Air dried sample	07/08/2015	172	Ion Chromatography
Total cyanide	M	As submitted sample	07/08/2015	204	Colorimetry
Aliphatic hydrocarbons in soil	N	As submitted sample	08/08/2015	214	GC-FID
Aliphatic/Aromatic hydrocarbons in soil	N	As submitted sample	10/08/2015	214	GC-FID
Aromatic hydrocarbons in soil	N	As submitted sample	08/08/2015	214	GC-FID
Low range Aliphatic hydrocarbons soil	N	As submitted sample	07/08/2015	214	GC-MS
Low range Aromatic hydrocarbons soil	N	As submitted sample	07/08/2015	214	GC-MS
Basic carbon banding in soil	N	As submitted sample	08/08/2015	218	GC-FID
Asbestos identification	U	As submitted sample	11/08/2015	PMAN	Microscopy
Leachate					
Arsenic*			11/08/2015	101	ICPMS
Cadmium*			11/08/2015	101	ICPMS
Chromium*			11/08/2015	101	ICPMS
Lead*			11/08/2015	101	ICPMS
Nickel*			11/08/2015	101	ICPMS
Copper*			11/08/2015	101	ICPMS
Zinc*			11/08/2015	101	ICPMS
Mercury*			11/08/2015	101	ICPMS
Selenium*			11/08/2015	101	ICPMS
Antimony			11/08/2015	101	ICPMS
Barium*			11/08/2015	101	ICPMS
Molybdenum*			11/08/2015	101	ICPMS
pH Value*			11/08/2015	113	c
Electrical Conductivity*			11/08/2015	138	Probe
Dissolved Organic Carbon			11/08/2015	102	analyser
Chloride*			11/08/2015	131	Chromatogr
Fluoride*			11/08/2015	131	Chromatogr
Sulphate*			11/08/2015	131	Chromatogr
Total Dissolved Solids			11/08/2015	144	Gravimetric
Phenol index			11/08/2015	121	HPLC
WAC Solids analysis					
pH Value**	dried		11/08/2015	113	c
Total Organic Carbon	dried		11/08/2015	210	IR
Loss on Ignition**	dried		11/08/2015	129	Gravimetric
Acid Neutralization Capacity to pH 7	dried		11/08/2015	NEN 737	c
Total BTEX**	submit		11/08/2015	181	GCMS
Mineral Oil**	submit		11/08/2015	117	GC/FID
Total PCBs (7 congeners)	dried		11/08/2015	120	GCMS
Total PAH (17)**	submit		11/08/2015	133	GC/FID

Tests marked N are not UKAS accredited



Report Information

Report No.: 15-03053

Key

U	hold UKAS accreditation
M	hold MCERTS and UKAS accreditation
N	do not currently hold UKAS accreditation
^	MCERTS accreditation not applicable for sample matrix
*	UKAS accreditation not applicable for sample matrix
S	Subcontracted to approved laboratory UKAS Accredited for the test
SM	Subcontracted to approved laboratory MCERTS/UKAS Accredited for the test
I/S	Insufficient Sample
U/S	Unsuitable sample
n/t	Not tested
<	means "less than"
>	means "greater than"

Soil sample results are expressed on an air dried basis

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

PCB congener results may include any coeluting PCBs

Uncertainty of measurement for the determinands tested are available upon request

Deviation Codes

a	No date of sampling supplied
b	No time of sampling supplied (Waters Only)
c	Sample not received in appropriate containers
d	Sample not received in cooled condition
e	The container has been incorrectly filled
f	Sample age exceeds stability time (sampling to receipt)
g	Sample age exceeds stability time (sampling to analysis)

Where a sample has a deviation code, the applicable test result may be invalid.

Sample Retention and Disposal

All soil samples will be retained for a period of one month

All water samples will be retained for 7 days following the date of the test report

Charges may apply to extended sample storage

ELAB



Unit A2
Windmill Road
Ponswood Industrial Estate
St Leonards on Sea
East Sussex
TN38 9BY

Telephone: (01424) 718618

Facsimile: (01424) 729911

info@elab-uk.co.uk

THE ENVIRONMENTAL LABORATORY LTD

Analytical Report Number: 15-03050

Issue: 1

Date of Issue: 12/08/2015

Contact: Richard Hamilton

Customer Details: Enzygo - Cromhall
The Granary
Woodend Lane
Cromhall
Gloucestershire

Quotation No: Q14-00007

Order No: CRM.049.009

Customer Reference: CRM.049.009

Date Received: 20/07/2015

Date Approved: 12/08/2015

Details: Ford Arundel / CRM.049.009

Approved by:

A handwritten signature in blue ink, appearing to read 'J. Wilson', written over a light blue background.

John Wilson, Operations Manager

Any comments, opinions or interpretations expressed herein are outside the scope of UKAS accreditation (Accreditation Number 2683)



Sample Summary

Report No.: 15-03050

Elab No.	Client's Ref.	Date Sampled	Date Scheduled	Description	Deviations
34619	TP1 0.50	13/07/2015	05/08/2015	Sandy silty loam	
34620	TP2 0.40	13/07/2015	05/08/2015	Sandy silty loam	
34621	TP3 0.20	13/07/2015	05/08/2015	Silty loam	
34622	TP5 0.20	13/07/2015	05/08/2015	Silty loam	
34623	TP6 0.30	13/07/2015	05/08/2015	Silty loam	
34624	TP7 0.20	14/07/2015	05/08/2015	Sandy silty loam	
34625	TP8 0.30	14/07/2015	05/08/2015	Silty loam	
34626	TP9 0.50	14/07/2015	05/08/2015	Sandy silty loam	
34627	TP9 1.00	14/07/2015	05/08/2015		
34628	TP9 1.50	14/07/2015	05/08/2015		
34629	TP10 0.80	14/07/2015	05/08/2015	Silty loam	
34630	TP11 0.50	14/07/2015	05/08/2015	Sandy silty loam	
34631	TP11 1.20	14/07/2015	05/08/2015		
34632	TP11 2.00	14/07/2015	05/08/2015		
34633	TP12 0.50	14/07/2015	05/08/2015	Sandy silty loam	
34634	TP14 0.65	14/07/2015	05/08/2015	Silty loam	
34635	TP15 0.50	13/07/2015	05/08/2015	Sandy silty loam	
34636	TP15 1.50	13/07/2015	05/08/2015		



Results Summary

Report No.: 15-03050

	ELAB Reference	34619	34620	34621	34622	34623	34624		
Customer Reference									
Sample ID									
Sample Type		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL		
Sample Location		TP1	TP2	TP3	TP5	TP6	TP7		
Sample Depth (m)		0.50	0.40	0.20	0.20	0.30	0.20		
Sampling Date		13/07/2015	13/07/2015	13/07/2015	13/07/2015	13/07/2015	14/07/2015		
Determinand	Codes	Units	LOD						
Metals									
Arsenic	M	mg/kg	1	16.2	12.3	9.9	10.1	12.0	11.3
Cadmium	M	mg/kg	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.9
Chromium	M	mg/kg	5	28.5	29.7	24.3	27.0	28.1	32.4
Copper	M	mg/kg	5	66.4	43.0	22.7	20.0	21.8	61.4
Lead	M	mg/kg	5	40.0	23.5	24.5	14.6	33.5	49.1
Mercury	M	mg/kg	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nickel	M	mg/kg	5	54.8	35.4	16.6	19.3	18.7	60.6
Selenium	M	mg/kg	1	1.8	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc	M	mg/kg	45	129	82.6	60.6	58.5	74.8	254
Anions									
Water Soluble Sulphate	M	mg/l	20	n/t	n/t	n/t	n/t	191	n/t
Inorganics									
Hexavalent Chromium	N	mg/kg	0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Total Cyanide	M	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Miscellaneous									
Acid Neutralisation Capacity	N	mol/kg	0.1	n/t	n/t	n/t	n/t	n/t	n/t
Loss On Ignition (450°C)	M	%	0.01	n/t	n/t	n/t	n/t	n/t	n/t
Moisture Content	N	%	0.1	19.3	17.8	17.7	21.0	17.8	23.3
pH	M	units	0.1	9.8	9.9	6.7	7.6	7.0	8.1
Stones Content	N	%	0.1	32.8	23.0	10.4	11.7	6.7	14.1
Total Organic Carbon	N	%	0.01	6.4	2.1	0.66	0.34	0.74	1.4
Organics									
>C8-C10 BCB	N	mg/kg	1	n/t	<1.0	<1.0	<1.0	n/t	n/t
>C10-C12 BCB	N	mg/kg	1	n/t	<1.0	<1.0	<1.0	n/t	n/t
>C12-C16 BCB	N	mg/kg	1	n/t	<1.0	<1.0	<1.0	n/t	n/t
>C16-C21 BCB	N	mg/kg	1	n/t	<1.0	<1.0	<1.0	n/t	n/t
>C21-C35 BCB	N	mg/kg	1	n/t	<1.0	1.8	2.1	n/t	n/t
>C35-C40 BCB	N	mg/kg	1	n/t	<1.0	<1.0	<1.0	n/t	n/t
Total (>C8-C40) BCB	N	mg/kg	1	n/t	<1.0	1.8	2.1	n/t	n/t
Phenols									
Phenol	M	mg/kg	1	c < 1	c < 1	c < 1	c < 1	c < 1	c < 1
M,P-Cresol	N	mg/kg	1	c < 1	c < 1	c < 1	c < 1	c < 1	c < 1
O-Cresol	N	mg/kg	1	c < 1	c < 1	c < 1	c < 1	c < 1	c < 1
3,4-Dimethylphenol	N	mg/kg	1	c < 1	c < 1	c < 1	c < 1	c < 1	c < 1
2,3-Dimethylphenol	M	mg/kg	1	c < 1	c < 1	c < 1	c < 1	c < 1	c < 1
Trimethylphenol	M	mg/kg	1	c < 1	c < 1	c < 1	c < 1	c < 1	c < 1
Total Monohydric Phenols	N	mg/kg	5	c < 5	c < 5	c < 5	c < 5	c < 5	c < 5



Results Summary

Report No.: 15-03050

ELAB Reference	34619	34620	34621	34622	34623	34624
Customer Reference						
Sample ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location	TP1	TP2	TP3	TP5	TP6	TP7
Sample Depth (m)	0.50	0.40	0.20	0.20	0.30	0.20
Sampling Date	13/07/2015	13/07/2015	13/07/2015	13/07/2015	13/07/2015	14/07/2015

Determinand	Codes	Units	LOD						
Polyaromatic hydrocarbons									
Naphthalene	M	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Acenaphthylene	M	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	M	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	M	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	M	mg/kg	0.1	c 0.1	<0.1	0.1	<0.1	<0.1	0.3
Anthracene	M	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Fluoranthene	M	mg/kg	0.1	0.1	0.1	0.4	<0.1	0.1	0.4
Pyrene	M	mg/kg	0.1	<0.1	<0.1	0.3	<0.1	<0.1	0.3
Benzo (a) anthracene	M	mg/kg	0.1	<0.1	<0.1	0.2	<0.1	<0.1	0.2
Chrysene	M	mg/kg	0.1	<0.1	<0.1	0.2	<0.1	<0.1	0.3
Benzo (b) fluoranthene	M	mg/kg	0.1	0.3	0.2	0.4	<0.1	0.3	0.4
Benzo (k) fluoranthene	M	mg/kg	0.1	<0.1	<0.1	0.2	<0.1	0.3	0.3
Benzo (a) pyrene	M	mg/kg	0.1	<0.1	<0.1	0.4	<0.1	0.3	0.4
Indeno (1,2,3-cd) pyrene	M	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	M	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	M	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total PAH(16)	M	mg/kg	0.4	1	0.5	2.1	0.4	1	3.1
Total PAH (Including Coronene)	N	mg/kg	2	n/t	n/t	n/t	n/t	n/t	n/t
BTEX									
Benzene	M	ug/kg	10	<10.0	n/t	n/t	n/t	<10.0	<10.0
Toluene	M	ug/kg	10	<10.0	n/t	n/t	n/t	<10.0	<10.0
Ethylbenzene	M	ug/kg	10	<10.0	n/t	n/t	n/t	<10.0	<10.0
Xylenes	M	ug/kg	10	<10.0	n/t	n/t	n/t	<10.0	<10.0
Total BTEX	M	mg/kg	0.01	n/t	n/t	n/t	n/t	n/t	n/t
TPH CWG									
>C5-C6 Aliphatic	N	mg/kg	0.01	<0.01	n/t	n/t	n/t	<0.01	<0.01
>C6-C8 Aliphatic	N	mg/kg	0.01	<0.01	n/t	n/t	n/t	<0.01	<0.01
>C8-C10 Aliphatic	N	mg/kg	1	<1.0	n/t	n/t	n/t	<1.0	<1.0
>C10-C12 Aliphatic	N	mg/kg	1	<1.0	n/t	n/t	n/t	<1.0	<1.0
>C12-C16 Aliphatic	N	mg/kg	1	<1.0	n/t	n/t	n/t	<1.0	<1.0
>C16-C21 Aliphatic	N	mg/kg	1	<1.0	n/t	n/t	n/t	<1.0	5.7
>C21-C35 Aliphatic	N	mg/kg	1	<1.0	n/t	n/t	n/t	1.3	34.2
>C35-C40 Aliphatic	N	mg/kg	1	<1.0	n/t	n/t	n/t	<1.0	1.8
>C5-C7 Aromatic	N	mg/kg	0.01	<0.01	n/t	n/t	n/t	<0.01	<0.01
>C7-C8 Aromatic	N	mg/kg	0.01	<0.01	n/t	n/t	n/t	<0.01	<0.01
>C8-C10 Aromatic	N	mg/kg	1	<1.0	n/t	n/t	n/t	<1.0	<1.0
>C10-C12 Aromatic	N	mg/kg	1	<1.0	n/t	n/t	n/t	<1.0	<1.0
>C12-C16 Aromatic	N	mg/kg	1	<1.0	n/t	n/t	n/t	<1.0	<1.0
>C16-C21 Aromatic	N	mg/kg	1	<1.0	n/t	n/t	n/t	<1.0	5
>C21-C35 Aromatic	N	mg/kg	1	2.1	n/t	n/t	n/t	1.4	29.4
>C35-C40 Aromatic	N	mg/kg	1	<1.0	n/t	n/t	n/t	<1.0	1.6
Total (>C5-C40) Ali/Aro	N	mg/kg	1	2.1	n/t	n/t	n/t	2.7	77.6



Results Summary

Report No.: 15-03050

ELAB Reference	34619	34620	34621	34622	34623	34624
Customer Reference						
Sample ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location	TP1	TP2	TP3	TP5	TP6	TP7
Sample Depth (m)	0.50	0.40	0.20	0.20	0.30	0.20
Sampling Date	13/07/2015	13/07/2015	13/07/2015	13/07/2015	13/07/2015	14/07/2015

Determinand	Codes	Units	LOD						
Total Petroleum Hydrocarbons									
Mineral Oil	U	mg/kg	5	n/t	n/t	n/t	n/t	n/t	n/t
PCB (ICES 7 congeners)									
PCB 28	M	mg/kg	0.01	n/t	n/t	n/t	n/t	n/t	n/t
PCB 52	M	mg/kg	0.01	n/t	n/t	n/t	n/t	n/t	n/t
PCB 101	M	mg/kg	0.01	n/t	n/t	n/t	n/t	n/t	n/t
PCB 118	M	mg/kg	0.01	n/t	n/t	n/t	n/t	n/t	n/t
PCB 153	M	mg/kg	0.01	n/t	n/t	n/t	n/t	n/t	n/t
PCB 138	M	mg/kg	0.01	n/t	n/t	n/t	n/t	n/t	n/t
PCB 180	M	mg/kg	0.01	n/t	n/t	n/t	n/t	n/t	n/t
PCB (Total of 7 Congeners)	M	mg/kg	0.03	n/t	n/t	n/t	n/t	n/t	n/t



Results Summary

Report No.: 15-03050

ELAB Reference	34625	34626	34629	34630	34633	34634
Customer Reference						
Sample ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location	TP8	TP9	TP10	TP11	TP12	TP14
Sample Depth (m)	0.30	0.50	0.80	0.50	0.50	0.65
Sampling Date	14/07/2015	14/07/2015	14/07/2015	14/07/2015	14/07/2015	14/07/2015

Determinand	Codes	Units	LOD						
Metals									
Arsenic	M	mg/kg	1	11.2	7.2	11.9	7.8	6.2	11.8
Cadmium	M	mg/kg	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chromium	M	mg/kg	5	26.7	36.2	32.1	31.0	20.0	26.8
Copper	M	mg/kg	5	26.0	30.9	24.2	28.8	20.7	25.7
Lead	M	mg/kg	5	28.4	29.9	18.2	15.7	18.7	32.3
Mercury	M	mg/kg	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nickel	M	mg/kg	5	19.6	21.2	22.0	21.2	14.2	18.2
Selenium	M	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc	M	mg/kg	45	87.6	470	88.5	210	122	77.9
Anions									
Water Soluble Sulphate	M	mg/l	20	n/t	n/t	n/t	n/t	n/t	n/t
Inorganics									
Hexavalent Chromium	N	mg/kg	0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Total Cyanide	M	mg/kg	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Miscellaneous									
Acid Neutralisation Capacity	N	mol/kg	0.1	n/t	n/t	< 0.1	n/t	n/t	< 0.1
Loss On Ignition (450°C)	M	%	0.01	n/t	n/t	1.93	n/t	n/t	2.97
Moisture Content	N	%	0.1	19.4	14.0	20.3	13.3	12.9	17.7
pH	M	units	0.1	7.0	8.5	9.2	8.8	10.3	7.3
Stones Content	N	%	0.1	14.0	35.1	15.9	25.2	25.0	8.4
Total Organic Carbon	N	%	0.01	1.0	1.6	0.48	0.46	0.48	0.89
Organics									
>C8-C10 BCB	N	mg/kg	1	n/t	n/t	n/t	n/t	<1.0	<1.0
>C10-C12 BCB	N	mg/kg	1	n/t	n/t	n/t	n/t	<1.0	<1.0
>C12-C16 BCB	N	mg/kg	1	n/t	n/t	n/t	n/t	<1.0	<1.0
>C16-C21 BCB	N	mg/kg	1	n/t	n/t	n/t	n/t	<1.0	<1.0
>C21-C35 BCB	N	mg/kg	1	n/t	n/t	n/t	n/t	1.2	<1.0
>C35-C40 BCB	N	mg/kg	1	n/t	n/t	n/t	n/t	<1.0	<1.0
Total (>C8-C40) BCB	N	mg/kg	1	n/t	n/t	n/t	n/t	1.2	<1.0
Phenols									
Phenol	M	mg/kg	1	c < 1	< 1	< 1	< 1	< 1	< 1
M,P-Cresol	N	mg/kg	1	c < 1	< 1	< 1	< 1	< 1	< 1
O-Cresol	N	mg/kg	1	c < 1	< 1	< 1	< 1	< 1	< 1
3,4-Dimethylphenol	N	mg/kg	1	c < 1	< 1	< 1	< 1	< 1	< 1
2,3-Dimethylphenol	M	mg/kg	1	c < 1	< 1	< 1	< 1	< 1	< 1
Trimethylphenol	M	mg/kg	1	c < 1	< 1	< 1	< 1	< 1	< 1
Total Monohydric Phenols	N	mg/kg	5	c < 5	< 5	< 5	< 5	< 5	< 5



Results Summary

Report No.: 15-03050

ELAB Reference	34625	34626	34629	34630	34633	34634
Customer Reference						
Sample ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location	TP8	TP9	TP10	TP11	TP12	TP14
Sample Depth (m)	0.30	0.50	0.80	0.50	0.50	0.65
Sampling Date	14/07/2015	14/07/2015	14/07/2015	14/07/2015	14/07/2015	14/07/2015

Determinand	Codes	Units	LOD						
Polyaromatic hydrocarbons									
Naphthalene	M	mg/kg	0.1	<0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	M	mg/kg	0.1	<0.1	0.2	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	M	mg/kg	0.1	<0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	M	mg/kg	0.1	<0.1	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	M	mg/kg	0.1	0.6	3.5	< 0.1	< 0.1	< 0.1	< 0.1
Anthracene	M	mg/kg	0.1	<0.1	1.2	< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	M	mg/kg	0.1	1.3	10.5	0.2	< 0.1	0.2	0.1
Pyrene	M	mg/kg	0.1	1	8.7	< 0.1	< 0.1	0.1	< 0.1
Benzo (a) anthracene	M	mg/kg	0.1	0.4	5.0	< 0.1	< 0.1	0.1	< 0.1
Chrysene	M	mg/kg	0.1	0.7	4.0	< 0.1	< 0.1	< 0.1	< 0.1
Benzo (b) fluoranthene	M	mg/kg	0.1	1.1	3.1	0.4	0.1	0.3	0.2
Benzo (k) fluoranthene	M	mg/kg	0.1	0.4	3.0	0.1	< 0.1	0.2	0.4
Benzo (a) pyrene	M	mg/kg	0.1	0.6	3.6	0.3	0.2	0.2	< 0.1
Indeno (1,2,3-cd) pyrene	M	mg/kg	0.1	0.7	1.7	< 0.1	< 0.1	< 0.1	< 0.1
Dibenzo(a,h)anthracene	M	mg/kg	0.1	0.3	0.6	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(ghi)perylene	M	mg/kg	0.1	0.5	1.9	< 0.1	0.2	< 0.1	0.1
Total PAH(16)	M	mg/kg	0.4	7.7	47.1	0.9	0.8	1.3	0.9
Total PAH (Including Coronene)	N	mg/kg	2	n/t	n/t	< 2	n/t	n/t	< 2
BTEX									
Benzene	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0	n/t	n/t
Toluene	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0	n/t	n/t
Ethylbenzene	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0	n/t	n/t
Xylenes	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0	n/t	n/t
Total BTEX	M	mg/kg	0.01	n/t	n/t	<0.01	n/t	n/t	<0.01
TPH CWG									
>C5-C6 Aliphatic	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	n/t	n/t
>C6-C8 Aliphatic	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	n/t	n/t
>C8-C10 Aliphatic	N	mg/kg	1	<1.0	<1.0	<1.0	<1.0	n/t	n/t
>C10-C12 Aliphatic	N	mg/kg	1	<1.0	18.8	<1.0	<1.0	n/t	n/t
>C12-C16 Aliphatic	N	mg/kg	1	<1.0	670	<1.0	<1.0	n/t	n/t
>C16-C21 Aliphatic	N	mg/kg	1	<1.0	4020	<1.0	<1.0	n/t	n/t
>C21-C35 Aliphatic	N	mg/kg	1	<1.0	6000	18.2	13.8	n/t	n/t
>C35-C40 Aliphatic	N	mg/kg	1	<1.0	43.9	<1.0	<1.0	n/t	n/t
>C5-C7 Aromatic	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	n/t	n/t
>C7-C8 Aromatic	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	n/t	n/t
>C8-C10 Aromatic	N	mg/kg	1	<1.0	<1.0	<1.0	<1.0	n/t	n/t
>C10-C12 Aromatic	N	mg/kg	1	<1.0	<1.0	<1.0	<1.0	n/t	n/t
>C12-C16 Aromatic	N	mg/kg	1	<1.0	118	<1.0	<1.0	n/t	n/t
>C16-C21 Aromatic	N	mg/kg	1	<1.0	839	1.4	1.5	n/t	n/t
>C21-C35 Aromatic	N	mg/kg	1	1.9	1400	12.4	13.8	n/t	n/t
>C35-C40 Aromatic	N	mg/kg	1	<1.0	<1.0	<1.0	<1.0	n/t	n/t
Total (>C5-C40) Ali/Aro	N	mg/kg	1	1.9	10300	31.9	29.1	n/t	n/t



Results Summary

Report No.: 15-03050

ELAB Reference	34625	34626	34629	34630	34633	34634
Customer Reference						
Sample ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location	TP8	TP9	TP10	TP11	TP12	TP14
Sample Depth (m)	0.30	0.50	0.80	0.50	0.50	0.65
Sampling Date	14/07/2015	14/07/2015	14/07/2015	14/07/2015	14/07/2015	14/07/2015

Determinand	Codes	Units	LOD						
Total Petroleum Hydrocarbons									
Mineral Oil	U	mg/kg	5	n/t	n/t	g < 5	n/t	n/t	g 6
PCB (ICES 7 congeners)									
PCB 28	M	mg/kg	0.01	<0.01	n/t	n/t	n/t	<0.01	<0.01
PCB 52	M	mg/kg	0.01	<0.01	n/t	n/t	n/t	<0.01	<0.01
PCB 101	M	mg/kg	0.01	<0.01	n/t	n/t	n/t	<0.01	<0.01
PCB 118	M	mg/kg	0.01	<0.01	n/t	n/t	n/t	<0.01	<0.01
PCB 153	M	mg/kg	0.01	<0.01	n/t	n/t	n/t	<0.01	<0.01
PCB 138	M	mg/kg	0.01	<0.01	n/t	n/t	n/t	<0.01	<0.01
PCB 180	M	mg/kg	0.01	<0.01	n/t	n/t	n/t	<0.01	<0.01
PCB (Total of 7 Congeners)	M	mg/kg	0.03	< 0.03	n/t	< 0.03	n/t	< 0.03	< 0.03



Results Summary

Report No.: 15-03050

ELAB Reference	34635
Customer Reference	
Sample ID	
Sample Type	SOIL
Sample Location	TP15
Sample Depth (m)	0.50
Sampling Date	13/07/2015

Determinand	Codes	Units	LOD	
Metals				
Arsenic	M	mg/kg	1	10.2
Cadmium	M	mg/kg	0.5	< 0.5
Chromium	M	mg/kg	5	41.1
Copper	M	mg/kg	5	52.4
Lead	M	mg/kg	5	15.8
Mercury	M	mg/kg	0.5	< 0.5
Nickel	M	mg/kg	5	28.2
Selenium	M	mg/kg	1	1.1
Zinc	M	mg/kg	45	340
Anions				
Water Soluble Sulphate	M	mg/l	20	n/t
Inorganics				
Hexavalent Chromium	N	mg/kg	0.8	< 0.8
Total Cyanide	M	mg/kg	1	< 1.0
Miscellaneous				
Acid Neutralisation Capacity	N	mol/kg	0.1	n/t
Loss On Ignition (450°C)	M	%	0.01	n/t
Moisture Content	N	%	0.1	17.3
pH	M	units	0.1	10.8
Stones Content	N	%	0.1	32.5
Total Organic Carbon	N	%	0.01	1.1
Organics				
>C8-C10 BCB	N	mg/kg	1	<1.0
>C10-C12 BCB	N	mg/kg	1	<1.0
>C12-C16 BCB	N	mg/kg	1	6.5
>C16-C21 BCB	N	mg/kg	1	61.4
>C21-C35 BCB	N	mg/kg	1	682
>C35-C40 BCB	N	mg/kg	1	23.2
Total (>C8-C40) BCB	N	mg/kg	1	774
Phenols				
Phenol	M	mg/kg	1	c < 1
M,P-Cresol	N	mg/kg	1	c < 1
O-Cresol	N	mg/kg	1	c < 1
3,4-Dimethylphenol	N	mg/kg	1	c < 1
2,3-Dimethylphenol	M	mg/kg	1	c < 1
Trimethylphenol	M	mg/kg	1	c < 1
Total Monohydric Phenols	N	mg/kg	5	c < 5



Results Summary

Report No.: 15-03050

ELAB Reference	34635
Customer Reference	
Sample ID	
Sample Type	SOIL
Sample Location	TP15
Sample Depth (m)	0.50
Sampling Date	13/07/2015

Determinand	Codes	Units	LOD	
Polyaromatic hydrocarbons				
Naphthalene	M	mg/kg	0.1	1.7
Acenaphthylene	M	mg/kg	0.1	0.8
Acenaphthene	M	mg/kg	0.1	0.2
Fluorene	M	mg/kg	0.1	<0.1
Phenanthrene	M	mg/kg	0.1	5.3
Anthracene	M	mg/kg	0.1	1.6
Fluoranthene	M	mg/kg	0.1	1.8
Pyrene	M	mg/kg	0.1	1.5
Benzo (a) anthracene	M	mg/kg	0.1	1.8
Chrysene	M	mg/kg	0.1	1.5
Benzo (b) fluoranthene	M	mg/kg	0.1	<0.1
Benzo (k) fluoranthene	M	mg/kg	0.1	<0.1
Benzo (a) pyrene	M	mg/kg	0.1	<0.1
Indeno (1,2,3-cd) pyrene	M	mg/kg	0.1	<0.1
Dibenzo(a,h)anthracene	M	mg/kg	0.1	<0.1
Benzo(ghi)perylene	M	mg/kg	0.1	<0.1
Total PAH(16)	M	mg/kg	0.4	16.1
Total PAH (Including Coronene)	N	mg/kg	2	n/t
BTEX				
Benzene	M	ug/kg	10	n/t
Toluene	M	ug/kg	10	n/t
Ethylbenzene	M	ug/kg	10	n/t
Xylenes	M	ug/kg	10	n/t
Total BTEX	M	mg/kg	0.01	n/t
TPH CWG				
>C5-C6 Aliphatic	N	mg/kg	0.01	n/t
>C6-C8 Aliphatic	N	mg/kg	0.01	n/t
>C8-C10 Aliphatic	N	mg/kg	1	n/t
>C10-C12 Aliphatic	N	mg/kg	1	n/t
>C12-C16 Aliphatic	N	mg/kg	1	n/t
>C16-C21 Aliphatic	N	mg/kg	1	n/t
>C21-C35 Aliphatic	N	mg/kg	1	n/t
>C35-C40 Aliphatic	N	mg/kg	1	n/t
>C5-C7 Aromatic	N	mg/kg	0.01	n/t
>C7-C8 Aromatic	N	mg/kg	0.01	n/t
>C8-C10 Aromatic	N	mg/kg	1	n/t
>C10-C12 Aromatic	N	mg/kg	1	n/t
>C12-C16 Aromatic	N	mg/kg	1	n/t
>C16-C21 Aromatic	N	mg/kg	1	n/t
>C21-C35 Aromatic	N	mg/kg	1	n/t
>C35-C40 Aromatic	N	mg/kg	1	n/t
Total (>C5-C40) Ali/Aro	N	mg/kg	1	n/t



Results Summary

Report No.: 15-03050

ELAB Reference	34635
Customer Reference	
Sample ID	
Sample Type	SOIL
Sample Location	TP15
Sample Depth (m)	0.50
Sampling Date	13/07/2015

Determinand	Codes	Units	LOD	
Total Petroleum Hydrocarbons				
Mineral Oil	U	mg/kg	5	n/t
PCB (ICES 7 congeners)				
PCB 28	M	mg/kg	0.01	n/t
PCB 52	M	mg/kg	0.01	n/t
PCB 101	M	mg/kg	0.01	n/t
PCB 118	M	mg/kg	0.01	n/t
PCB 153	M	mg/kg	0.01	n/t
PCB 138	M	mg/kg	0.01	n/t
PCB 180	M	mg/kg	0.01	n/t
PCB (Total of 7 Congeners)	M	mg/kg	0.03	n/t

Results Summary

Report No.: 15-03050

ELAB Reference	34619	34625	34626	34630
Customer Reference				
Sample D				
Sample Type	SO L	SOIL	SO L	SOIL
Sample Location	TP1	TP8	TP9	TP11
Sample Depth (m)	0.50	0.30	0.50	0.50
Sampling Date	13/07/2015	14/07/2015	14/07/2015	14/07/2015

Determinand	Codes	Units	LOD				
VOC							
MTBE	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
Heptane	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
Octane	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
Nonane	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
Benzene	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0
Toluene	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0
Ethylbenzene	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0
m+p-xylene	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0
o-xylene	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0
cis-1,2-dichloroethene	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0
1,1-Dichloroethane	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0
Chloroform	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0
Tetrachloromethane	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0
1,1,1-Trichloroethane	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0
Trichloroethylene	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0
Tetrachloroethylene	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0
1,1,1,2-Tetrachloroethane	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0
1,1,2,2-Tetrachloroethane	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0
Chlorobenzene	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0
Bromobenzene	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0
Bromodichloromethane	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0
Methylethylbenzene	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0
1,1-Dichloro-1-propene	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0
Trans - 1-2 -dichloroethylene	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
2,2-Dichloropropane	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
Bromochloromethane	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
1,2-Dichloroethane	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
Dibromomethane	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0
1,2-Dichloropropane	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0
cis-1,3-Dichloro-1-propene	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0
trans-1,3-Dichloro-1-propene	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0
1,1,2-Trichloroethane	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
Dibromochloromethane	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
1,3-Dichloropropane	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
Dibromoethane	M	ug/kg	10	<10.0	<10.0	<10.0	<10.0
Styrene	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
Propylbenzene	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
2-Chlorotoluene	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
1,2,4-Trimethylbenzene	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
4-Chlorotoluene	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
t-butylbenzene	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
1,3,5-Trimethylbenzene	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
1-methylpropylbenzene	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
o-cymene	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
1,3-Dichlorobenzene	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
Butylbenzene	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
1,2-Dibromo-3-chloropropane	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
Hexachlorobutadiene	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
1,2,3-Trichlorobenzene	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
Naphthalene	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
1,2,4-Trichlorobenzene	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
1,4-Dichlorobenzene	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
1,2-Dichlorobenzene	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0
Bromoform	N	ug/kg	10	<10.0	<10.0	<10.0	<10.0

Results Summary

Report No.: 15-03050

ELAB Reference	34619	34625	34626	34630
Customer Reference				
Sample ID				
Sample Type	SOIL	SOIL	SOIL	SOIL
Sample Location	TP1	TP8	TP9	TP11
Sample Depth (m)	0.50	0.30	0.50	0.50
Sampling Date	13/07/2015	14/07/2015	14/07/2015	14/07/2015

Determinand	Codes	Units	LOD				
SVOC							
Phenol	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Aniline	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Bis(2-chloroethyl)ether	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
2-Chlorophenol	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
1,3-Dichlorobenzene	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
1,4-Dichlorobenzene	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Benzyl Alcohol	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
1,2-Dichlorobenzene	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
2-Methylphenol	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Bis(2-chloroisopropyl)ether	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
3 and 4-methylphenol	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
N-Nitrosodi-n-propylamine	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Hexachloroethane	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Nitrobenzene	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Isophorone	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
2-Nitrophenol	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
2,4-Dimethylphenol	N	mg/kg	0.01	0.02	0.02	<0.01	<0.01
Bis(2-chloroethoxy)methane	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
2,4-Dichlorophenol	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
1,3,5-Trichlorobenzene	N	mg/kg	0.01	0.01	0.01	<0.01	0.01
Naphthalene	N	mg/kg	0.01	0.09	0.04	0.05	0.03
3-Chloroaniline	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Hexachloro-1,3-butadiene	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
4-Chloro-3-methylphenol	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
2-Methylnaphthalene	N	mg/kg	0.01	0.15	0.01	0.05	0.02
1-Methylnaphthalene	N	mg/kg	0.01	0.28	0.06	0.13	0.06
Hexachlorocyclopentadiene	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
2,4,6-Trichlorophenol	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
2,4,5-Trichlorophenol	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
1-Chloronaphthalene	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
2-Nitroaniline	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
1,4-Dinitrobenzene	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Dimethyl phthalate	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
1-3-dinitrobenzene	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
2-6-dinitrotoluene	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	N	mg/kg	0.01	0.02	0.02	0.17	0.01
1,2-Dinitrobenzene	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
3-Nitroaniline	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Acenaphthene	N	mg/kg	0.01	<0.01	0.02	<0.01	0.02
4-nitrophenol	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Dibenzofuran	N	mg/kg	0.01	0.11	0.01	<0.01	0.01
2,3,5,6-Tetrachlorophenol	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
2,3,4,6-Tetrachlorophenol	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Diethyl phthalate	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
1-chloro-4-phenoxybenzene	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Fluorene	N	mg/kg	0.01	<0.01	0.02	<0.01	<0.01
4-Nitroaniline	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Dinitro-o-cresol	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Diphenylamine	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Azobenzene	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
1-bromo-4-phenoxybenzene	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Hexachlorobenzene	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Pentachlorophenol	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01

Tests marked N are not UKAS accredited.



Results Summary

Report No.: 15-03050

ELAB Reference	34619	34625	34626	34630
Customer Reference				
Sample ID				
Sample Type	SOIL	SOIL	SOIL	SOIL
Sample Location	TP1	TP8	TP9	TP11
Sample Depth (m)	0.50	0.30	0.50	0.50
Sampling Date	13/07/2015	14/07/2015	14/07/2015	14/07/2015

Determinand	Codes	Units	LOD				
SVOC							
Phenanthrene	N	mg/kg	0.01	0.31	0.34	<0.01	0.05
Anthracene	N	mg/kg	0.01	0.03	0.04	<0.01	0.01
Carbazole	N	mg/kg	0.01	0.01	0.03	<0.01	<0.01
Dibutyl phthalate	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Fluoranthene	N	mg/kg	0.01	0.1	0.61	0.48	0.09
Pyrene	N	mg/kg	0.01	0.1	0.51	0.44	0.08
Butyl benzyl phthalate	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Bis-2-ethylhexyladipate	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Butyl benzyl phthalate	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Benzo(a)anthracene	N	mg/kg	0.01	0.06	0.16	0.22	0.03
Chrysene	N	mg/kg	0.01	0.09	0.26	0.22	0.05
Bis(2-ethylhexyl)phthalate	N	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01
Benzo(b)fluoranthene	N	mg/kg	0.01	0.05	0.22	0.29	0.06
Benzo(k)fluoranthene	N	mg/kg	0.01	0.05	0.19	0.17	0.03
Benzo(a)pyrene	N	mg/kg	0.01	0.03	0.16	0.16	0.03
Indeno(1,2,3-CD)pyrene	N	mg/kg	0.01	0.02	0.08	0.12	0.02
Dibenz(ah)anthracene	N	mg/kg	0.01	<0.01	0.02	0.02	<0.01
Benzo(ghi)perylene	N	mg/kg	0.01	0.03	0.12	0.18	0.03

Results Summary

Report No.: 15-03050

WAC Analysis					Landfill Waste Acceptance Criteria Limits		
Elab Ref:	34634				Inert Waste Landfill	Stable Non-reactive Hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Date:	14/07/2015						
Sample ID:	TP14						
Depth:	0.65						
Site:	Ford Arundel / CRM.D49.009						
Determinand	Code	Units					
Total Organic Carbon	N	%		0.89	3	5	6
Loss on Ignition	M	%		3.0	-	-	10
Total BTEX	M	mg/kg		< 0.01	6	-	-
Total PCBs (7 congeners)	M	mg/kg		< 0.03	1	-	-
TPH Total WAC	M	mg/kg		6	500	-	-
Total (of 17) PAHs	N	mg/kg		< 2	100	-	-
pH	M			7.3	-	>6	-
Acid Neutralisation Capacity	N	mol/kg		< 0.1	-	To evaluate	To evaluate
Eluate Analysis			2:1	8:1	10:1	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg	
		mg/l	mg/l	mg/kg			
Arsenic	N	0.005	< 0.005	< 0.05	0.5	2	25
Barium	N	0.087	0.015	0.23	20	100	300
Cadmium	N	< 0.001	< 0.001	< 0.01	0.04	1	5
Chromium	N	< 0.005	< 0.005	< 0.05	0.5	10	70
Copper	N	0.007	< 0.005	< 0.05	2	50	100
Mercury	N	< 0.005	< 0.005	< 0.01	0.01	0.2	2
Molybdenum	N	0.034	0.005	0.09	0.5	10	30
Nickel	N	0.003	0.003	< 0.05	0.4	10	40
Lead	N	0.001	< 0.001	< 0.05	0.5	10	50
Antimony	N	< 0.005	< 0.005	< 0.05	0.06	0.7	5
Selenium	N	< 0.005	< 0.005	< 0.05	0.1	0.5	7
Zinc	N	0.006	< 0.005	< 0.05	4	50	200
Chloride	N	15.000	< 5	< 50	800	15000	25000
Fluoride	N	< 1	< 1	< 10	10	150	500
Sulphate	N	320.000	62.000	912.00	1000	20000	50000
Total Dissolved Solids	N	630.000	< 10	717.00	4000	60000	100000
Phenol Index	N	< 0.01	< 0.01	< 0.10	1	-	-
Dissolved Organic Carbon	N	53.800	16.300	206.00	500	800	1000
Leach Test Information							
Eluent Volume (ml)	N	200	1390				
pH	N	7.6	7.4				
Conductivity (uS/cm)	N	779	167				
Temperature (°C)	N	19	20				
Solid Information							
Dry mass of test portion (g)		176					
Moisture (%)		18.2					

Results are expressed on a dry weight basis, after correction for moisture content where applicable

Stated limits are for guidance only and ELAB cannot be held responsible for any discrepancies with current legislation

Results Summary

Report No.: 15-03050

WAC Analysis					Landfill Waste Acceptance Criteria Limits		
Elab Ref:	34629				Inert Waste Landfill	Stable Non-reactive Hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample Date:	14/07/2015						
Sample ID:	TP10						
Depth:	0.8						
Site:	Ford Arundel / CRM.D49.009						
Determinand	Code	Units					
Total Organic Carbon	N	%		0.48	3	5	6
Loss on Ignition	M	%		1.9	-	-	10
Total BTEX	M	mg/kg		< 0.01	6	-	-
Total PCBs (7 congeners)	M	mg/kg		< 0.03	1	-	-
TPH Total WAC	M	mg/kg		< 5	500	-	-
Total (of 17) PAHs	N	mg/kg		< 2	100	-	-
pH	M			9.2	-	>6	-
Acid Neutralisation Capacity	N	mol/kg		< 0.1	-	To evaluate	To evaluate
Eluate Analysis			2:1	8:1	10:1	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg	
		mg/l	mg/l	mg/kg			
Arsenic	N	< 0.005	< 0.005	< 0.05	0.5	2	25
Barium	N	0.025	0.005	0.07	20	100	300
Cadmium	N	< 0.001	< 0.001	< 0.01	0.04	1	5
Chromium	N	< 0.005	< 0.005	< 0.05	0.5	10	70
Copper	N	< 0.005	< 0.005	< 0.05	2	50	100
Mercury	N	< 0.005	< 0.005	< 0.01	0.01	0.2	2
Molybdenum	N	< 0.005	< 0.005	< 0.05	0.5	10	30
Nickel	N	< 0.001	< 0.001	< 0.05	0.4	10	40
Lead	N	< 0.001	< 0.001	< 0.05	0.5	10	50
Antimony	N	< 0.005	< 0.005	< 0.05	0.06	0.7	5
Selenium	N	< 0.005	< 0.005	< 0.05	0.1	0.5	7
Zinc	N	< 0.005	< 0.005	< 0.05	4	50	200
Chloride	N	8.000	< 5	< 50	800	15000	25000
Fluoride	N	< 1	< 1	< 10	10	150	500
Sulphate	N	50.000	6.000	101.00	1000	20000	50000
Total Dissolved Solids	N	260.000	< 10	216.00	4000	60000	100000
Phenol Index	N	< 0.01	< 0.01	< 0.10	1	-	-
Dissolved Organic Carbon	N	13.000	15.100	149.00	500	800	1000
Leach Test Information							
Eluent Volume (ml)	N	148	1410				
pH	N	8	7.7				
Conductivity (uS/cm)	N	362	105				
Temperature (°C)	N	19	20				
Solid Information							
Dry mass of test portion (g)		179					
Moisture (%)		21.8					

Results are expressed on a dry weight basis, after correction for moisture content where applicable

Stated limits are for guidance only and ELAB cannot be held responsible for any discrepancies with current legislation

Results Summary

Report No.: 15-03050

Asbestos Qualitative Results

Analytical result only applies to the sample as submitted by the client. Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client.

Elab No	Depth (m)	Clients Reference	Description of Sample Matrix #	Result
34619	0.50	TP1	Sandy silty loam	No asbestos detected
34620	0.40	TP2	Sandy silty loam	No asbestos detected
34621	0.20	TP3	Silty loam	No asbestos detected
34622	0.20	TP5	Silty loam	No asbestos detected
34623	0.30	TP6	Silty loam	No asbestos detected
34624	0.20	TP7	Sandy silty loam	No asbestos detected
34625	0.30	TP8	Silty loam	No asbestos detected
34626	0.50	TP9	Sandy silty loam	No asbestos detected
34629	0.80	TP10	Silty loam	No asbestos detected
34630	0.50	TP11	Sandy silty loam	No asbestos detected
34633	0.50	TP12	Sandy silty loam	No asbestos detected
34634	0.65	TP14	Silty loam	No asbestos detected
34635	0.50	TP15	Sandy silty loam	No asbestos detected

Method Summary

Report No.: 15-03050

Parameter	Codes	Analysis Undertaken On	Date Tested	Method Number	Technique
Soil					
Hexavalent chromium	N	As submitted sample	06/08/2015	110	Colorimetry
Aqua regia extractable metals	M	Air dried sample	07/08/2015	118	ICPMS
Phenols in solids	M	As submitted sample	06/08/2015	121	HPLC
Polyaromatic hydrocarbons (GC-FID)	M	As submitted sample	06/08/2015	133	GC-FID
SVOC in solids	N	As submitted sample	06/08/2015	167	GC-MS
Water soluble anions	M	Air dried sample	07/08/2015	172	Ion Chromatography
VOC in solids	M	As submitted sample	06/08/2015	181	GC-MS
Total cyanide	M	As submitted sample	07/08/2015	204	Colorimetry
Aliphatic hydrocarbons in soil	N	As submitted sample	06/08/2015	214	GC-FID
Aliphatic/Aromatic hydrocarbons in soil	N	As submitted sample	10/08/2015	214	GC-FID
Aromatic hydrocarbons in soil	N	As submitted sample	06/08/2015	214	GC-FID
Low range Aliphatic hydrocarbons soil	N	As submitted sample	07/08/2015	214	GC-MS
Low range Aromatic hydrocarbons soil	N	As submitted sample	07/08/2015	214	GC-MS
Basic carbon banding in soil	N	As submitted sample	06/08/2015	218	GC-FID
Asbestos identification	U	As submitted sample	07/08/2015	PMAN	Microscopy
Leachate					
Arsenic*		07/08/2015	101	ICPMS	
Cadmium*		07/08/2015	101	ICPMS	
Chromium*		07/08/2015	101	ICPMS	
Lead*		07/08/2015	101	ICPMS	
Nickel*		07/08/2015	101	ICPMS	
Copper*		07/08/2015	101	ICPMS	
Zinc*		07/08/2015	101	ICPMS	
Mercury*		07/08/2015	101	ICPMS	
Selenium*		07/08/2015	101	ICPMS	
Antimony		07/08/2015	101	ICPMS	
Barium*		07/08/2015	101	ICPMS	
Molybdenum*		07/08/2015	101	ICPMS	
pH Value*		07/08/2015	113	c	
Electrical Conductivity*		07/08/2015	136	Probe	
Dissolved Organic Carbon		07/08/2015	102	analyser	
Chloride*		07/08/2015	131	Chromatogr	
Fluoride*		07/08/2015	131	Chromatogr	
Sulphate*		07/08/2015	131	Chromatogr	
Total Dissolved Solids		07/08/2015	144	Gravimetric	
Phenol index		07/08/2015	121	HPLC	
WAC Solids analysis					
pH Value**	dried	07/08/2015	113	c	
Total Organic Carbon	dried	07/08/2015	210	IR	
Loss on Ignition**	dried	07/08/2015	129	Gravimetric	
Acid Neutralization Capacity to pH 7	dried	07/08/2015	NEN 737	c	
Total BTEX**	submit	07/08/2015	181	GCMS	
Mineral Oil**	submit	07/08/2015	117	GC/FID	
Total PCBs (7 congeners)	dried	07/08/2015	120	GCMS	
Total PAH (17)**	submit	07/08/2015	133	GC/FID	

Tests marked N are not UKAS accredited



Report Information

Report No.: 15-03050

Key

U	hold UKAS accreditation
M	hold MCERTS and UKAS accreditation
N	do not currently hold UKAS accreditation
^	MCERTS accreditation not applicable for sample matrix
*	UKAS accreditation not applicable for sample matrix
S	Subcontracted to approved laboratory UKAS Accredited for the test
SM	Subcontracted to approved laboratory MCERTS/UKAS Accredited for the test
I/S	Insufficient Sample
U/S	Unsuitable sample
n/t	Not tested
<	means "less than"
>	means "greater than"

Soil sample results are expressed on an air dried basis

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

PCB congener results may include any coeluting PCBs

Uncertainty of measurement for the determinands tested are available upon request

Deviation Codes

a	No date of sampling supplied
b	No time of sampling supplied (Waters Only)
c	Sample not received in appropriate containers
d	Sample not received in cooled condition
e	The container has been incorrectly filled
f	Sample age exceeds stability time (sampling to receipt)
g	Sample age exceeds stability time (sampling to analysis)

Where a sample has a deviation code, the applicable test result may be invalid.

Sample Retention and Disposal

All soil samples will be retained for a period of one month

All water samples will be retained for 7 days following the date of the test report

Charges may apply to extended sample storage



Unit A2
Windmill Road
Ponswood Industrial Estate
St Leonards on Sea
East Sussex
TN38 9BY
Telephone: (01424) 718618
Facsimile: (01424) 729911
info@elab-uk.co.uk

THE ENVIRONMENTAL LABORATORY LTD

Analytical Report Number: 15-03365
Issue: 1
Date of Issue: 20/08/2015
Contact: Richard Hamilton
Customer Details: Enzygo - Cromhall
The Granary
Woodend Lane
Cromhall
Gloucestershire
Quotation No: Q14-00007
Order No: CRM1629
Customer Reference: CRM.049.009
Date Received: 17/08/2015
Date Approved: 20/08/2015
Details: Ford Arundel / CRM.049.009
Approved by:

Naomi Williams, Customer services officer

Any comments, opinions or interpretations expressed herein are outside the scope of UKAS accreditation (Accreditation Number 2683)



Sample Summary

Report No.: 15-03365

Elab No.	Client's Ref.	Date Sampled	Date Scheduled	Description	Deviations
36862	BH1 5.80	12/08/2015	17/08/2015		
36863	BH2 5.63	12/08/2015	17/08/2015		
36864	BH6 5.80	12/08/2015	17/08/2015		
36865	BH7 5.76	12/08/2015	17/08/2015		
36866	BH8 5.77	13/08/2015	17/08/2015		



Results Summary

Report No.: 15-03365

ELAB Reference	36862	36863	36864	36865	36866
Customer Reference					
Sample ID					
Sample Type	WATER	WATER	WATER	WATER	WATER
Sample Location	BH1	BH2	BH6	BH7	BH8
Sample Depth (m)	5.80	5.63	5.80	5.76	5.77
Sampling Date	12/08/2015	12/08/2015	12/08/2015	12/08/2015	13/08/2015

Determinand	Codes	Units	LOD					
Dissolved Metals								
Arsenic	U	ug/l	5	< 5	< 5	< 5	< 5	< 5
Boron	N	ug/l	5	158	156	79	110	145
Calcium	U	ug/l	100	97400	n/t	96700	n/t	95800
Cadmium	U	ug/l	1	< 1	< 1	< 1	< 1	< 1
Chromium	U	ug/l	5	< 5	< 5	< 5	< 5	< 5
Copper	U	ug/l	5	< 5	< 5	< 5	< 5	< 5
Mercury	U	ug/l	0.1	< 0.1	< 0.1	< 0.1	0.4	< 0.1
Magnesium	U	ug/l	100	10900	n/t	8120	n/t	9950
Nickel	U	ug/l	5	< 5	< 5	< 5	< 5	< 5
Lead	U	ug/l	1	< 1	< 1	< 1	< 1	< 1
Selenium	U	ug/l	5	< 5	< 5	< 5	< 5	< 5
Zinc	U	ug/l	5	20	59	37	77	23
Inorganics								
Hexavalent Chromium	U	ug/l	100	< 100	< 100	< 100	< 100	< 100
Total Cyanide	U	ug/l	5	< 5	< 5	< 5	< 5	< 5
Miscellaneous								
Dissolved organic carbon	U	mg/l	1.5	13	15	16	14	7.8
Hardness (CaCO3)	N	mg/l CaCO3	0.1	288	n/t	275	n/t	280
Phenols								
Total Monohydric Phenols	N	ug/l	1	< 1	< 1	< 1	< 1	< 1
Polyaromatic hydrocarbons								
Naphthalene GCMS	N	ug/l	0.01	0.08	0.17	0.09	0.54	0.21
Acenaphthylene GCMS	N	ug/l	0.01	< 0.01	0.03	0.01	2.19	0.62
Acenaphthene GCMS	N	ug/l	0.01	0.02	0.04	0.02	0.90	0.26
Fluorene GCMS	N	ug/l	0.01	0.03	0.07	0.02	1.41	0.31
Phenanthrene GCMS	N	ug/l	0.01	0.12	0.32	0.11	12.6	3.32
Anthracene GCMS	N	ug/l	0.01	0.02	0.07	0.03	6.26	1.74
Fluoranthene GCMS	N	ug/l	0.01	0.07	0.30	0.08	27.0	12.4
Pyrene GCMS	N	ug/l	0.01	0.05	0.24	0.07	21.9	11.1
Benzo (a) anthracene GCMS	N	ug/l	0.01	0.05	0.26	0.05	17.8	9.66
Chrysene GCMS	N	ug/l	0.01	0.02	0.16	0.03	11.8	5.47
Benzo (b) fluoranthene GCMS	N	ug/l	0.01	0.08	0.40	0.09	24.8	13.5
Benzo (k) fluoranthene GCMS	N	ug/l	0.01	0.01	0.09	0.02	7.04	3.40
Benzo (a) pyrene GCMS	N	ug/l	0.01	0.04	0.25	0.05	18.5	9.59
Indeno (1,2,3-cd) pyrene GCMS	N	ug/l	0.01	0.09	0.38	0.08	17.3	9.90
Dibenzo(a,h)anthracene GCMS	N	ug/l	0.01	0.05	0.15	0.02	6.86	3.34
Benzo(ghi)perylene GCMS	N	ug/l	0.01	0.04	0.25	0.05	14.2	7.49
Total PAH(16) GCMS	N	ug/l	0.01	0.77	3.16	0.81	191	92.3
BTEX								
Benzene	U	ug/l	1	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Toluene	U	ug/l	1	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Ethylbenzene	U	ug/l	1	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Xylenes	U	ug/l	1	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
MTBE	U	ug/l	1	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
TPH CWG								
>C5-C6 Aliphatic	N	ug/L	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
>C6-C8 Aliphatic	N	ug/L	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
>C8-C10 Aliphatic	N	ug/l	5	< 5.0	< 5.0	15.3	34.0	25.0
>C10-C12 Aliphatic	N	ug/l	5	< 5.0	< 5.0	< 5.0	5.4	< 5.0
>C12-C16 Aliphatic	N	ug/l	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
>C16-C21 Aliphatic	N	ug/l	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Tests marked N are not UKAS accredited.



Results Summary

Report No.: 15-03365

ELAB Reference	36862	36863	36864	36865	36866
Customer Reference					
Sample ID					
Sample Type	WATER	WATER	WATER	WATER	WATER
Sample Location	BH1	BH2	BH6	BH7	BH8
Sample Depth (m)	5.80	5.63	5.80	5.76	5.77
Sampling Date	12/08/2015	12/08/2015	12/08/2015	12/08/2015	13/08/2015

Determinand	Codes	Units	LOD					
>C21-C35 Aliphatic	N	ug/l	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
>C35-C40 Aliphatic	N	ug/l	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total (>C5-C40) Aliphatic	N	ug/l	5	< 5.0	< 5.0	15.3	39.4	25.0
>C5-C7 Aromatic	N	ug/L	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
>C7-C8 Aromatic	N	ug/L	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
>C8-C10 Aromatic	N	ug/l	5	< 5.0	11.4	30.1	33.3	23.6
>C10-C12 Aromatic	N	ug/l	5	< 5.0	< 5.0	6.5	6.1	5.7
>C12-C16 Aromatic	N	ug/l	5	< 5.0	< 5.0	5.2	6.6	7.4
>C16-C21 Aromatic	N	ug/l	5	< 5.0	< 5.0	< 5.0	5.4	6.3
>C21-C35 Aromatic	N	ug/l	5	18.4	< 5.0	< 5.0	< 5.0	9.7
>C35-C40 Aromatic	N	ug/l	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total (>C5-C40) Aromatic	N	ug/l	5	18.4	11.4	41.8	51.4	52.8
Total (>C5-C40) Ali/Aro	N	ug/l	5	18.4	11.4	57.1	90.8	77.7

Results Summary

Report No.: 15-03365

ELAB Reference	36865
Customer Reference	
Sample ID	
Sample Type	WATER
Sample Location	BH7
Sample Depth (m)	5.76
Sampling Date	12/08/2015

Determinand	Codes	Units	LOD	
VOC				
MTBE	U	ug/l	1	< 1
Heptane	N	ug/l	1	< 1
Octane	N	ug/l	1	< 1
Nonane	N	ug/l	1	< 1
Benzene	U	ug/l	1	< 1
Toluene	U	ug/l	1	< 1
Ethylbenzene	U	ug/l	1	< 1
m+p-xylene	U	ug/l	1	< 1
o-xylene	U	ug/l	1	< 1
cis-1,2-dichloroethene	U	ug/l	1	< 1
1,1-Dichloroethane	U	ug/l	1	< 1
Chloroform	U	ug/l	1	< 1
Tetrachloromethane	U	ug/l	1	< 1
1,1,1-Trichloroethane	U	ug/l	1	< 1
Trichloroethylene	N	ug/l	1	< 1
Tetrachloroethylene	U	ug/l	1	< 1
1,1,1,2-Tetrachloroethane	U	ug/l	1	< 1
1,1,2,2-Tetrachloroethane	N	ug/l	1	< 1
Chlorobenzene	U	ug/l	1	< 1
Bromobenzene	U	ug/l	1	< 1
Bromodichloromethane	U	ug/l	1	< 1
Methylethylbenzene	U	ug/l	1	< 1
1,1-Dichloro-1-propene	U	ug/l	1	< 1
Trans - 1-2 -dichloroethylene	U	ug/l	1	< 1
2,2-Dichloropropane	N	ug/l	1	< 1
Bromochloromethane	N	ug/l	1	< 1
1,2-Dichloroethane	U	ug/l	1	< 1
Dibromomethane	U	ug/l	1	< 1
1,2-Dichloropropane	U	ug/l	1	< 1
cis-1,3-Dichloro-1-propene	U	ug/l	1	< 1
trans-1,3-Dichloro-1-propene	U	ug/l	1	< 1
1,1,2-Trichloroethane	U	ug/l	1	< 1
Dibromochloromethane	U	ug/l	1	< 1
1,3-Dichloropropane	U	ug/l	1	< 1
Dibromoethane	U	ug/l	1	< 1
Styrene	U	ug/l	1	< 1
Propylbenzene	U	ug/l	1	< 1
2-Chlorotoluene	U	ug/l	1	< 1
1,2,4-Trimethylbenzene	U	ug/l	1	< 1
4-Chlorotoluene	U	ug/l	1	< 1
t-butylbenzene	U	ug/l	1	< 1
1,3,5-Trimethylbenzene	U	ug/l	1	< 1
1-methylpropylbenzene	U	ug/l	1	< 1
o-cymene	U	ug/l	1	< 1
1,3-Dichlorobenzene	U	ug/l	1	< 1
Butylbenzene	U	ug/l	1	< 1
1,2-Dibromo-3-chloropropane	U	ug/l	1	< 1
Hexachlorobutadiene	U	ug/l	1	< 1
1,2,3-Trichlorobenzene	U	ug/l	1	< 1
Naphthalene	U	ug/l	1	< 1
1,2,4-Trichlorobenzene	U	ug/l	1	< 1
1,4-Dichlorobenzene	U	ug/l	1	< 1
1,2-Dichlorobenzene	U	ug/l	1	< 1

Tests marked N are not UKAS accredited.



Results Summary

Report No.: 15-03365

ELAB Reference	36865
Customer Reference	
Sample ID	
Sample Type	WATER
Sample Location	BH7
Sample Depth (m)	5.76
Sampling Date	12/08/2015

Determinand	Codes	Units	LOD	
VOC				
Bromoform	U	ug/l	1	< 1

Results Summary

Report No.: 15-03365

ELAB Reference	36865
Customer Reference	
Sample ID	
Sample Type	WATER
Sample Location	BH7
Sample Depth (m)	5.76
Sampling Date	12/08/2015

Determinand	Codes	Units	LOD	
SVOC				
Phenol	N	ug/l	1	< 1.00
Aniline	N	ug/l	1	< 1.00
Bis(2-chloroethyl)ether	N	ug/l	1	< 1.00
2-Chlorophenol	N	ug/l	1	< 1.00
1,3-Dichlorobenzene	N	ug/l	1	< 1.00
1,4-Dichlorobenzene	N	ug/l	1	< 1.00
Benzyl Alcohol	N	ug/l	1	< 1.00
1,2-Dichlorobenzene	N	ug/l	1	< 1.00
2-Methylphenol	N	ug/l	1	< 1.00
Bis(2-chloroisopropyl)ether	N	ug/l	1	< 1.00
3 and 4-methylphenol	N	ug/l	1	< 1.00
N-Nitrosodi-n-propylamine	N	ug/l	1	< 1.00
Hexachloroethane	N	ug/l	1	< 1.00
Nitrobenzene	N	ug/l	1	< 1.00
Isophorone	N	ug/l	1	< 1.00
2-Nitrophenol	N	ug/l	1	< 1.00
2,4-Dimethylphenol	N	ug/l	1	< 1.00
Bis(2-chloroethoxy)methane	N	ug/l	1	< 1.00
2,4-Dichlorophenol	N	ug/l	1	< 1.00
1,3,5-Trichlorobenzene	N	ug/l	1	< 1.00
Naphthalene	N	ug/l	0.01	---
3-Chloroaniline	N	ug/l	1	< 1.00
Hexachloro-1,3-butadiene	N	ug/l	1	< 1.00
4-Chloro-3-methylphenol	N	ug/l	1	< 1.00
2-Methylnaphthalene	N	ug/l	1	< 1.00
1-Methylnaphthalene	N	ug/l	1	< 1.00
Hexachlorocyclopentadiene	N	ug/l	1	< 1.00
2,4,6-Trichlorophenol	N	ug/l	1	< 1.00
2,4,5-Trichlorophenol	N	ug/l	1	< 1.00
1-Chloronaphthalene	N	ug/l	1	< 1.00
2-Nitroaniline	N	ug/l	1	< 1.00
1,4-Dinitrobenzene	N	ug/l	1	< 1.00
Dimethyl phthalate	N	ug/l	1	< 1.00
1-3-dinitrobenzene	N	ug/l	1	< 1.00
2-6-dinitrotoluene	N	ug/l	1	< 1.00
Acenaphthylene	N	ug/l	0.01	---
1,2-Dinitrobenzene	N	ug/l	1	< 1.00
3-Nitroaniline	N	ug/l	1	< 1.00
Acenaphthene	N	ug/l	0.01	---
4-nitrophenol	N	ug/l	1	< 1.00
Dibenzofuran	N	ug/l	1	< 1.00
2,3,5,6-Tetrachlorophenol	N	ug/l	1	< 1.00
2,3,4,6-Tetrachlorophenol	N	ug/l	1	< 1.00
Diethyl phthalate	N	ug/l	1	< 1.00
1-chloro-4-phenoxybenzene	N	ug/l	1	< 1.00
Fluorene	N	ug/l	0.01	---
4-Nitroaniline	N	ug/l	1	< 1.00
Dinitro-o-cresol	N	ug/l	1	< 1.00
Diphenylamine	N	ug/l	1	< 1.00
Azobenzene	N	ug/l	1	< 1.00
1-bromo-4-phenoxybenzene	N	ug/l	1	< 1.00
Hexachlorobenzene	N	ug/l	1	< 1.00
Pentachlorophenol	N	ug/l	1	< 1.00



Results Summary

Report No.: 15-03365

ELAB Reference	36865
Customer Reference	
Sample ID	
Sample Type	WATER
Sample Location	BH7
Sample Depth (m)	5.76
Sampling Date	12/08/2015

Determinand	Codes	Units	LOD	
SVOC				
Phenanthrene	N	ug/l	0.01	---
Anthracene	N	ug/l	0.01	---
Carbazole	N	ug/l	1	< 1.00
Dibutyl phthalate	N	ug/l	1	< 1.00
Fluoranthene	N	ug/l	0.01	---
Pyrene	N	ug/l	0.01	---
Butyl benzyl phthalate	N	ug/l	1	< 1.00
Bis-2-ethylhexyladipate	N	ug/l	1	< 1.00
Butyl benzyl phthalate	N	ug/l	1	< 1.00
Benzo(a)anthracene	N	ug/l	0.01	---
Chrysene	N	ug/l	0.01	---
Bis(2-ethylhexyl)phthalate	N	ug/l	1	< 1.00
Benzo(b)fluoranthene	N	ug/l	0.01	---
Benzo(k)fluoranthene	N	ug/l	0.01	---
Benzo(a)pyrene	N	ug/l	0.01	---
Indeno(1,2,3-CD)pyrene	N	ug/l	0.01	---
Dibenz(ah)anthracene	N	ug/l	0.01	---
Benzo(ghi)perylene	N	ug/l	0.01	---

Method Summary

Report No.: 15-03365

Parameter	Codes	Analysis Undertaken On	Date Tested	Method Number	Technique
Water					
Aliphatic/Aromatic hydrocarbons in water	N		20/08/2015		GC-FID
Aromatic hydrocarbons in water	N		20/08/2015		GC-FID
Phenols in waters	N		18/08/2015		HPLC
Dissolved metals by ICP in waters	U		18/08/2015	101	ICPMS
Dissolved organic carbon	U		19/08/2015	102	IR
Chromium Hexavalent in waters	U		20/08/2015	123	Colorimetry
PAHs and/or PCBs in waters	N		18/08/2015	135	GC-MS
SVOC in waters	N		18/08/2015	167	GC-MS
BTEX in waters	U		20/08/2015	200	GC-MS
VOC in waters	U		18/08/2015	200	GC-MS
Cyanide in waters	U		18/08/2015	205	Colorimetry
Aliphatic hydrocarbons in water	N		17/08/2015	215	GC-FID
Aromatic hydrocarbons in water	N		17/08/2015	215	GC-FID
Low range Aliphatic hydrocarbons water	N		20/08/2015	215	GC-MS
Low range Aromatic hydrocarbons water	N		20/08/2015	215	GC-MS
Hardness in waters	N		19/08/2015	APHA	ICPMS

Tests marked N are not UKAS accredited



Report Information

Report No.: 15-03365

Key

U	hold UKAS accreditation
M	hold MCERTS and UKAS accreditation
N	do not currently hold UKAS accreditation
^	MCERTS accreditation not applicable for sample matrix
*	UKAS accreditation not applicable for sample matrix
S	Subcontracted to approved laboratory UKAS Accredited for the test
SM	Subcontracted to approved laboratory MCERTS/UKAS Accredited for the test
I/S	Insufficient Sample
U/S	Unsuitable sample
n/t	Not tested
<	means "less than"
>	means "greater than"

Soil sample results are expressed on an air dried basis

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

PCB congener results may include any coeluting PCBs

Uncertainty of measurement for the determinands tested are available upon request

Deviation Codes

- | | |
|---|--|
| a | No date of sampling supplied |
| b | No time of sampling supplied (Waters Only) |
| c | Sample not received in appropriate containers |
| d | Sample not received in cooled condition |
| e | The container has been incorrectly filled |
| f | Sample age exceeds stability time (sampling to receipt) |
| g | Sample age exceeds stability time (sampling to analysis) |

Where a sample has a deviation code, the applicable test result may be invalid.

Sample Retention and Disposal

All soil samples will be retained for a period of one month

All water samples will be retained for 7 days following the date of the test report

Charges may apply to extended sample storage

Human Health Assessment Reference Values

Contaminant	Units	GAC Value Residential					
		With Plant Uptake			Without Plant Uptake		
Arsenic	mg/kg	37			40		
Cadmium	mg/kg	11			15		
Chromium	mg/kg	910			910		
Chromium VI	mg/kg	6			6		
Lead	mg/kg	200			310		
Mercury	mg/kg	40			56		
Nickel	mg/kg	130			180		
Selenium	mg/kg	250			430		
Copper	mg/kg	1400			7100		
Zinc	mg/kg	3700			40000		
Cyanide	mg/kg	791			800		
SOM							
	%	1	2.5	6	1	2.5	6
Phenol	mg/kg	120	200	380	440	690	1200
Naphthalene	mg/kg	2.3	5.6	13	2.3	5.6	13
Acenaphthylene	mg/kg	170	420	920	2900	4600	6000
Acenaphthene	mg/kg	210	510	1100	3000	4700	6000
Fluorene	mg/kg	170	400	860	2800	3800	4500
Phenanthrene	mg/kg	95	220	440	1100	1500	1500
Anthracene	mg/kg	2400	5400	11000	31000	35000	37000
Fluoranthene	mg/kg	780	510	890	1500	1600	1600
Pyrene	mg/kg	620	1200	2000	3700	3800	3800
Benzo(a)Anthracene	mg/kg	7.2	11	13	11	14	15
Chrysene	mg/kg	15	22	27	30	31	32
Benzo(b)Flouranthene	mg/kg	2.6	3.3	3.7	3.9	4.0	4.0
Benzo(k)Flouranthene	mg/kg	77	93	100	110	110	110
Benzo(a)Pyrene	mg/kg	2.2	2.7	3.0	3.2	3.2	3.2
Indeno(1,2,3-cd)Pyrene	mg/kg	27	36	41	45	46	46
Dibenzo(a,h)Anthracene	mg/kg	0.24	0.28	0.3	0.31	0.32	0.32
Benzo(ghi)Perylene	mg/kg	320	340	350	360	360	360
TPH							
TPH C ₇ -C ₈ Aliphatic	mg/kg	42	78	160	42	78	160
TPH C ₉ -C ₁₀ Aliphatic	mg/kg	160	230	330	160	230	330
TPH C ₁₁ -C ₁₂ Aliphatic	mg/kg	27	85	150	27	85	150
TPH C ₁₀ -C ₁₁ Aliphatic	mg/kg	130	330	760	130	330	770
TPH C ₁₂ -C ₁₄ Aliphatic	mg/kg	1100	2400	4300	1100	2400	4400
TPH C ₁₆ -C ₁₉ Aliphatic	mg/kg	65000	92000	110000	65000	92000	110000
TPH C ₂₀ -C ₂₆ Aliphatic	mg/kg	65000	92000	110000	65000	92000	110000
TPH Aromatic							
TPH C ₇ -C ₈ Aromatic	mg/kg	70	140	300	370	690	1400
TPH C ₉ -C ₁₀ Aromatic	mg/kg	130	290	660	690	1800	3900
TPH C ₁₁ -C ₁₂ Aromatic	mg/kg	34	83	190	47	110	270
TPH C ₁₀ -C ₁₁ Aromatic	mg/kg	74	180	380	250	590	1200
TPH C ₁₂ -C ₁₄ Aromatic	mg/kg	140	330	680	1800	2300	2500
TPH C ₁₆ -C ₁₉ Aromatic	mg/kg	260	540	930	1900	1900	1900
TPH C ₂₀ -C ₂₆ Aromatic	mg/kg	1100	1500	1700	1900	1900	1900
TPH C ₂₀ -C ₂₆ Aromatic	mg/kg	1100	1500	1700	1900	1900	1900
Other							
Benzene	mg/kg	0.087	0.17	0.37	0.38	0.70	1.4
Toluene	mg/kg	130	290	660	880	1900	3900
Ethylbenzene	mg/kg	47	110	260	63	150	440
Xylene	mg/kg	56	130	310	79	180	480

Copyright Land Quality Management Ltd reproduced with permission Publication No 54UL3250. All rights reserved.

Contaminant	Units	GAC Value					
		Residential POS			Commercial		
Arsenic	mg/kg	79			640		
Cadmium	mg/kg	120			190		
Chromium	mg/kg	1500			8600		
Chromium VI	mg/kg	7.7			33		
Lead	mg/kg	630			2330		
Mercury	mg/kg	120			1100		
Nickel	mg/kg	230			980		
Selenium	mg/kg	1100			17000		
Copper	mg/kg	17000			68000		
Zinc	mg/kg	81000			730000		
Cyanide	mg/kg	N/A			16200		
SOM							
	%	1	2.5	6	1	2.5	6
Phenol	mg/kg	440	690	1300	440	690	1100
Naphthalene	mg/kg	4900	4900	4900	190	460	1100
Acenaphthylene	mg/kg	15000	15000	15000	61000	97000	100000
Acenaphthene	mg/kg	15000	15000	15000	64000	97000	100000
Flourene	mg/kg	9900	9900	9900	63000	68000	71000
Phenanthrene	mg/kg	8100	1100	1100	22000	22000	23000
Anthracene	mg/kg	74000	74000	74000	520000	540000	540000
Fluoranthene	mg/kg	3100	3100	3100	23000	23000	23000
Pyrene	mg/kg	7400	7400	7400	54000	54000	54000
Benzo(a)Anthracene	mg/kg	29	29	29	170	170	180
Chrysene	mg/kg	57	57	57	350	350	350
Benzo(b)Flouranthene	mg/kg	7.1	7.2	7.2	44	44	45
Benzo(k)Flouranthene	mg/kg	190	190	190	1200	1200	1200
Benzo(a)Pyrene	mg/kg	5.7	5.7	5.7	35	35	36
Indeno(1,23-cd)Pyrene	mg/kg	82	82	82	500	510	510
Dibenzo(a,h)Anthracene	mg/kg	0.57	0.57	0.58	3.5	3.6	3.6
Benzo(ghi)Perylene	mg/kg	640	640	640	3900	4000	4000
TPH							
TPH C ₇ -C ₈ Aliphatic	mg/kg	570000	590000	600000	3200	5800	12000
TPH C ₉ -C ₁₀ Aliphatic	mg/kg	600000	610000	620000	7800	12000	49000
TPH C ₁₁ -C ₁₂ Aliphatic	mg/kg	13000	13000	13000	2000	4800	11000
TPH C ₁₃ -C ₁₄ Aliphatic	mg/kg	13000	13000	13000	9700	23000	47000
TPH C ₁₅ -C ₁₆ Aliphatic	mg/kg	13000	13000	13000	59000	62000	90000
TPH C ₁₇ -C ₁₈ Aliphatic	mg/kg	250000	250000	250000	1600000	1700000	1800000
TPH C ₁₉ -C ₂₀ Aliphatic	mg/kg	250000	250000	250000	1600000	1700000	1800000
TPH Aromatic							
TPH C ₇ -C ₈ Aromatic	mg/kg	34000	56000	88000	26000	46000	86000
TPH C ₉ -C ₁₀ Aromatic	mg/kg	54000	50000	56000	54000	110000	180000
TPH C ₁₁ -C ₁₂ Aromatic	mg/kg	9400	5900	5000	3500	8100	17000
TPH C ₁₃ -C ₁₄ Aromatic	mg/kg	5000	5000	5000	16000	28000	54000
TPH C ₁₅ -C ₁₆ Aromatic	mg/kg	5100	5100	5000	38000	37000	38000
TPH C ₁₇ -C ₁₈ Aromatic	mg/kg	8800	3800	3800	28000	28000	28000
TPH C ₁₉ -C ₂₀ Aromatic	mg/kg	3800	3800	3800	28000	28000	28000
TPH C ₂₁ -C ₂₂ Aromatic	mg/kg	39400	39400	39400	28000	28000	28000
TPH Other							
Benzene	mg/kg	72	72	73	27	47	90
Toluene	mg/kg	56000	56000	56000	56000	110000	190000
Ethylbenzene	mg/kg	24000	24000	25000	5700	13000	27000
Xylene	mg/kg	41000	42000	43000	5900	14000	30000

Copyright Land Quality Management Ltd reproduced with permission Publication No S4UL3250. All rights reserved

Contaminant	Units	GAC Value					
		Park PDS			Allotments		
Arsenic	mg/kg	170			43		
Cadmium	mg/kg	512			1.9		
Chromium	mg/kg	39000			18000		
Chromium VI	mg/kg	220			1.8		
Lead	mg/kg	1300			80		
Mercury	mg/kg	240			19		
Nickel	mg/kg	800			53		
Selenium	mg/kg	1800			88		
Copper	mg/kg	44000			520		
Zinc	mg/kg	170000			620		
Cyanide	mg/kg						
SOM	%	1	2.5	6	1	2.5	6
Phenol	mg/kg	440	690	1300	23	42	83
Naphthalene	mg/kg	1700	1900	3000	4.1	10	24
Acenaphthylene	mg/kg	29000	80000	80000	28	69	160
Acenaphthene	mg/kg	29000	90000	90000	34	85	200
Flourene	mg/kg	20000	20000	20000	27	67	160
Phenanthrene	mg/kg	6200	6200	6300	15	38	90
Anthracene	mg/kg	150000	150000	150000	380	950	2200
Fluoranthene	mg/kg	6300	6300	6400	52	130	290
Pyrene	mg/kg	15000	15000	15000	110	270	620
Benzo(a)Anthracene	mg/kg	49	56	62	2.9	6.5	13
Chrysene	mg/kg	93	110	120	4.1	9.4	19
Benzo(b)Flouranthene	mg/kg	13	15	16	0.99	2.1	3.9
Benzo(k)Flouranthene	mg/kg	370	410	440	37	75	130
Benzo(a)Pyrene	mg/kg	11	12	13	0.97	2.0	3.5
Indeno(1,2,3-cd)Pyrene	mg/kg	150	170	180	9.5	21	49
Dibenzo(a,h)Anthracene	mg/kg	1.1	1.3	1.4	0.14	0.27	0.43
Benzo(ghi)Perylene	mg/kg	1400	1500	1600	290	470	640
TPH C ₇ -C ₈ Aliphatic	mg/kg	95000	110000	180000	730	1700	3900
TPH C ₉ -C ₁₀ Aliphatic	mg/kg	150000	220000	320000	2300	5600	13000
TPH C ₁₁ -C ₁₂ Aliphatic	mg/kg	14000	18000	21000	320	770	1700
TPH C ₁₃ -C ₁₄ Aliphatic	mg/kg	21000	23000	24000	2200	4400	7300
TPH C ₁₅ -C ₁₆ Aliphatic	mg/kg	25000	25000	26000	11000	13000	13000
TPH C ₁₇ -C ₁₈ Aliphatic	mg/kg	450000	480000	490000	260000	270000	270000
TPH C ₁₉ -C ₂₀ Aliphatic	mg/kg	450000	480000	490000	260000	270000	270000
TPH C ₇ -C ₉ Aromatic	mg/kg	79000	64000	53000	13	37	37
TPH C ₁₀ -C ₁₂ Aromatic	mg/kg	87000	95000	100000	32	51	120
TPH C ₁₃ -C ₁₅ Aromatic	mg/kg	72900	8500	9400	8.6	21	51
TPH C ₁₆ -C ₁₇ Aromatic	mg/kg	9200	9700	10000	13	31	74
TPH C ₁₈ -C ₁₉ Aromatic	mg/kg	10900	10000	10000	23	32	130
TPH C ₂₀ -C ₂₁ Aromatic	mg/kg	7600	7700	7800	46	110	300
TPH C ₂₂ -C ₂₃ Aromatic	mg/kg	7640	7800	7900	170	620	1600
TPH C ₂₄ -C ₂₆ Aromatic	mg/kg	7800	7800	7800	370	810	1540
Benzene	mg/kg	90	100	110	0.017	0.034	0.075
Toluene	mg/kg	87000	95000	100000	22	51	120
Ethylbenzene	mg/kg	17000	22000	27000	16	39	91
Xylene	mg/kg	17000	23000	31000	28	67	160

Copyright Land Quality Management Ltd reproduced with permission Publication No S4UL3250. All rights reserved

Controlled Waters Assessment Reference Values

Determinant	Unit	EQS Freshwater						UK DWS	WHO
		0-50	50-100	100-150	150-200	200-250	>250		
Hardness	mg/l	0-50	50-100	100-150	150-200	200-250	>250		
Arsenic	ug/l	50						10	10
Boron	ug/l	2000						1000	0.3
Cadmium	ug/l	5						5	3
Chromium	ug/l	2	10	10	20	20	20	50	50
Lead	ug/l	4	10	10	20	20	20	10	10
Mercury	ug/l	1						1	1
Selenium	ug/l							10	10
Copper	ug/l	0.5	3	3	3	8	12	20000	2000
Nickel	ug/l	8	20	20	40	40	40	20	70
Zinc	ug/l	8	15	15	50	50	50	5000	3000
Sulphate	mg/l	400						250	250
PAH	ug/l							0.1	
Anthracene	ug/l	0.02							
Napthalene	ug/l	10							
Benzo(a)Pyrene	ug/l	0.03							0.01
Fluoranthene	ug/l	0.02							
Benzene	ug/l	30						1	10
Toluene	ug/l	50							
Ethylbenzene	ug/l	20							
Xylene	ug/l	30							
C ₅ - C ₈ Aliphatic	ug/l								15000
C ₉ - C ₉ Aliphatic	ug/l								15000
C ₆ - C ₁₀ Aliphatic	ug/l								300
C ₁₀ - C ₁₂ Aliphatic	ug/l								300
C ₁₂ - C ₁₆ Aliphatic	ug/l								300
C ₁₆ - C ₃₆ Aliphatic	ug/l								N/A
C ₆ - C ₇ Aromatic	ug/l								10
C ₇ - C ₈ Aromatic	ug/l	50							10
C ₈ - C ₁₀ Aromatic	ug/l	20							300
C ₁₀ - C ₁₂ Aromatic	ug/l								1000
C ₁₂ - C ₁₆ Aromatic	ug/l								1000
C ₁₆ - C ₂₁ Aromatic	ug/l								90
C ₂₁ - C ₄₁ Aromatic	ug/l								90



Geosynthetics Soil & Steel Laboratories Ltd

Colden Trading Estate, Uselds Road, Bradley, Huddersfield, West Yorkshire HD5 8RD

T: +44 (0)1484 454100 F: +44 (0)1484 454101

E: info@geosynthetics-lab.com W: www.geosynthetics-lab.com

CONFIDENTIAL SOILS TEST REPORT

01 September 2015

FAO Mr Richard Hamilton

Enzygo Ltd
The Granary
Woodend Lane
Cromhall
Gloucestershire
GL12 8AA

Tel/Fax: +44 (0) 1454 269237

Dear Richard,

Thank you for consulting GSSL Ltd for your Geotechnical testing needs. GSSL Ltd is pleased to submit this **final interim** test report for laboratory testing.

Client Ref/Order No: CRM.1612
Test Report Number: GS-CRM.009
Contract Reference: CRM.049.009 Anusdel

Client ID, Visual Sample Descriptions: Page 2

Results: Page 3-8

Test(s) Requested;

Determination of Chemical properties of Soil	
Determination of Moisture Content Oven Drying Method	{BS 1377-2:1990 Cl.3.2}
Determination of the Liquid Limit – Cone Penetrometer (Definitive Method)	{BS 1377-2:1990 Cl. 4.3}
Determination of the Plastic Limit, Plasticity Index	{BS 1377-2:1990 Cl. 5}
Determination of the California Bearing Ratio (Lab CBR Un-soaked / Top & Bottom ends)	{BS 1377-4: 1990 Cl.7}
Determination of Particle Size Distribution by Dry sieving method	{BS 1377-2:1990 Cl. 9.3}

If you have any questions or require additional information, then please do not hesitate to contact us.

Yours Sincerely

Shazad Adam
Laboratory Manager

Any opinions and interpretations expressed within this report are outside the scope of our UKAS Accreditation.

This Test Report may not be reproduced other than in full, except with prior written approval of GSSL LTD
Page 1 of 8



Geosynthetics Soil & Steel Laboratories Ltd

Colder Trading Estate, Leeds Road, Bradley, Huddersfield, West Yorkshire HD5 0RD

T: +44 (0)1484 454100 F: +44 (0)1484 454101

E: info@geosynthetics-lab.com W: www.geosynthetics-lab.com

Summary of laboratory soil descriptions

Contract Ref: CRM.049.009 Arundel

Report Ref. No: GS-CRM.009

Client ID	Depth (m)	Description of Sample
TP5	1.00	Stiff brown sandy silty CLAY
TP5	2.00	Brown gravelly very sandy silty CLAY
BH5	2.50	
BH4	2.50	Stiff brown sandy CLAY
BH4	3.50	Very soft gravelly sandy silty CLAY
BH4	5.50	Soft to firm light brown slightly gravelly sandy silty CLAY
BH4	7.00	Brown slightly gravelly sandy silty CLAY
BH5	9.50	CHALK
TP1	1.00	Soft to firm brown slightly gravelly sandy silty CLAY
TP2	1.00	

Certification:

Test results reported herein do not apply to samples other than those supplied. GSSL Ltd neither accepts responsibility for nor makes claims as to the final use & purpose of the materials(s).

Approved Signatory:

Date Reported: 01/09/13



Geosynthetics Soil & Steel Laboratories Ltd

Colder Trading Estate, Leeds Road, Bradley, Huddersfield, West Yorkshire HD5 0RD

T: +44 (0)1484 454100 F: +44 (0)1484 454101

E: info@geosynthetics-lab.com W: www.geosynthetics-lab.com

Chemical properties of Soil Water Soluble Sulphate & Ph Value. BS 1377:1990: Part 3 cl.3-9.

Contract Ref: CRM.049.009 Arundel

Report Ref. No: GS-CRM.009

CLIENT ID	DEPTH (m)	Material passing 2mm BS Test Sieve (% dry mass of original sample)	Water Soluble Sulphate 2:1		pH Value
			Sulphate content as SO ₄ of 2:1 soil/water extract (g/g)	Sulphate content as SO ₄ of 2:1 soil/water extract (g/g)	
TP5	1.00	100	0.1	0.2	8.3
TP5	2.00				
BH5	2.50	100	0.2	0.3	8.6
BH4	3.50	100	0.2	0.3	8.6
BH4	7.00	100	0.2	0.3	8.7
BH5	9.50	100	0.1	0.2	8.9

Certification:-

Test results reported herein do not apply to samples other than those supplied. GSSL Ltd neither accepts responsibility for nor makes claim as to the final use & purpose of the material(s).

Approved Signatory:

Date Reported: 01/09/15



Geosynthetics Soil & Steel Laboratories Ltd

Colder Trading Estate, Leeds Road, Bradley, Huddersfield, West Yorkshire HD5 0RD

T: +44 (0)1484 454100 F: +44 (0)1484 454101

E: info@geosyntheticstest.com W: www.geosyntheticstest.com

Determination of Moisture Content & Atterberg Limits

Contract Ref:

CRM.049.009 Arundel

Report Ref. No: GS-CRM.009

Sample Preparation:

Specimens taken from their Wet State

Client ID	Depth (m)	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index %	% Passing 425µm test sieve	Remarks
TP5	1.00	25	48	24	24	81	Intermediate Plasticity
BH4	2.50	26	52	26	26	87	High Plasticity
BH4	3.50	28	47	24	23	76	Intermediate Plasticity
BH4	5.50	24	48	25	23	78	Intermediate Plasticity
TP1							
TP2	1.00	26	48	26	22	82	Intermediate Plasticity

Certification:-

Test results reported herein do not apply to samples other than those supplied. GSSL Ltd neither accepts responsibility for nor makes claim as to the final use & purpose of the material(s).

Approved Signatory:

Date Reported: 01/09/15



Geosynthetics Soil & Steel Laboratories Ltd

Colden Trading Estate, Lizard Road, Bradley, Huddersfield, West Yorkshire HD5 0RD

T: +44 (0)1484 454100 F: +44 (0)1484 454110

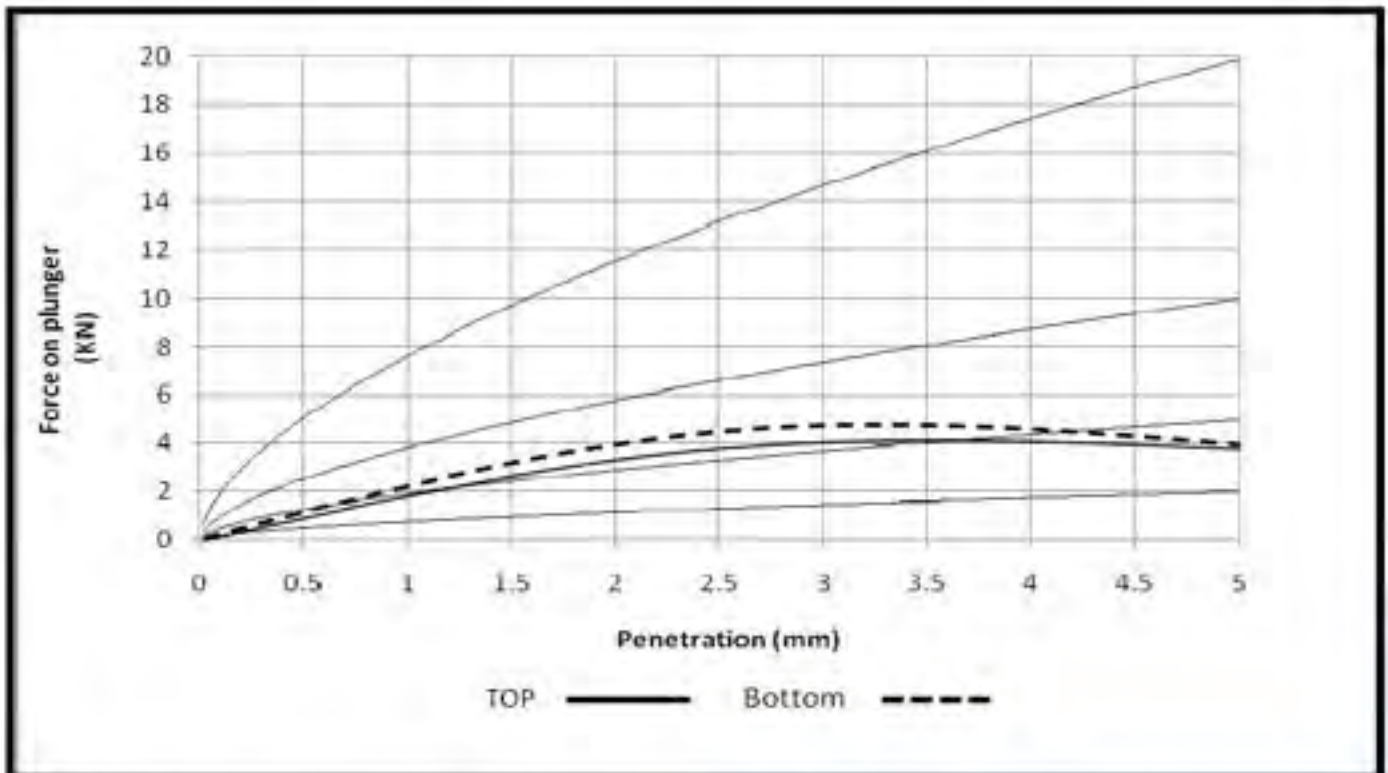
E: info@geosynthetics-lab.com W: www.geosynthetics-lab.com

Determination of California Bearing Ratio BS 1377: Part 4:1990

Contract Ref: CRM.049.009 Arundel
Sample description: Soft to firm brown slightly gravelly sandy silty CLAY
Client Sample ID: TP1 @ 1.00m & TP2 @ 1.00m

Report Ref. No: GS-CRM.009

INITIAL SAMPLE CONDITIONS		TEST CONDITIONS		Method of compaction:		2.5kg rammer
Moisture Content %:	26.0	Surcharge Kg:	13	Final Moisture Content %:		Calculated CBR Value %
Bulk Density (measured) Mg/m ³ :	1.95	Soaking Time hrs:	-	Sample Top	26.0	CBR @ 2.5mm = 30.2 CBR @ 5.0mm = 19.0
Dry Density (measured) Mg/m ³ :	1.82	Swelling mm:	-	Sample Bottom	26.0	CBR @ 2.5mm = 32.1 CBR @ 5.0mm = 20.8
Percentage retained on 20mm BS test sieve:	1	Remarks: Tested in accordance with BS1377: 1990 Part 4 Sample preparation method 2.5kg rammer				



Certification:-

Sample Preparation: in accordance with BS 1377-4: 1990 ; Clause 7.2.4.4. Moisture Content determined in accordance with BS 1377-2: 1990 Clause 3.2
 CBR Tested in accordance with BS 1377-4: 1990 Clause 7

Approved Signatory:

Date Reported: 01/09/15



Geosynthetics Soil & Steel Laboratories Ltd

Colden Trading Estate, Uselds Road, Bradley, Huddersfield, West Yorkshire HD5 0RD
T: +44 (0)1484 454100 F: +44 (0)1484 454101
E: info@geosynthetics-lab.com W: www.geosynthetics-lab.com

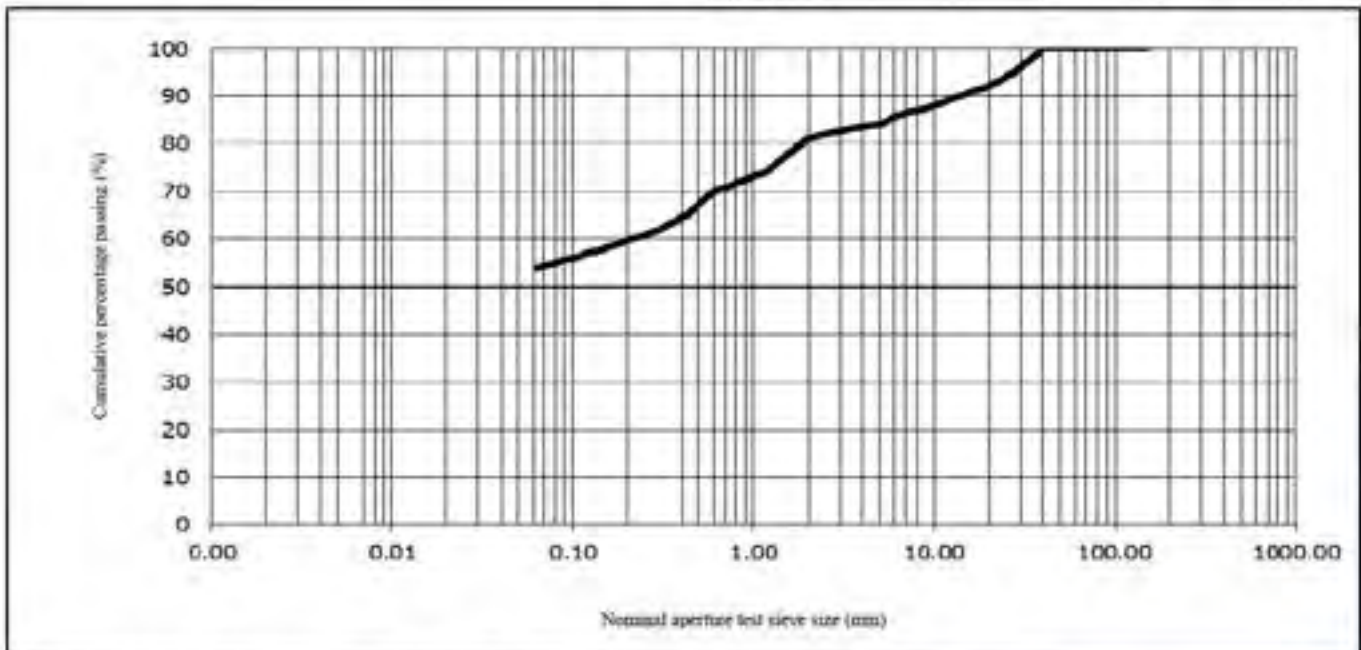
Determination of Particle Size Distribution (Dry Sieving)

Report Ref. No: GS-CRM.009

GSSL Sample ID: A1
Client ID: TPS @ 2.00m & BH5 @ 2.50m
Client: Enzygo Ltd
Site: CRM.049.009 Arundel
Date Sampled: N/A
Sampled from: -
Material Specification: N/A
Sample Description: Brown gravelly very sandy silty CLAY
Sample Type: Disturbed
Sampled by: Client
Date Sampled: N/A
Remarks: -

BS Test Sieve (mm)	% Material Passing
125	100
90	100
75	100
63	100
50	100
40	100
37.5	99
28	95
20	92
14	90
10	88
6.3	86
5	84
3.35	83
2	81
1.18	74
0.6	70
0.425	65
0.3	62
0.15	58
0.063	54

Soil Fraction	Total Percentage
COBBLES	-
GRAVEL	19
SAND	27
SILT / CLAY	54



Sample Preparation: In accordance with BS 1377-1 & 2:1990

Certification:-

Test results reported herein do not apply to samples other than those supplied. GSSL Ltd neither accepts responsibility for nor makes claim as to the final use & purpose of the material(s)

Approved Signatory:

Date Reported: 01/09/15

This Test Report may not be reproduced other than in full, except with prior written approval of GSSL LTD
Page 6 of 8



Geosynthetics Soil & Steel Laboratories Ltd

Colden Trading Estate, Lizards Road, Bradley, Huddersfield, West Yorkshire HD5 0RD

T: +44 (0)1484 454100 F: +44 (0)1484 454101

E: info@geosynthetics-lab.com W: www.geosynthetics-lab.com

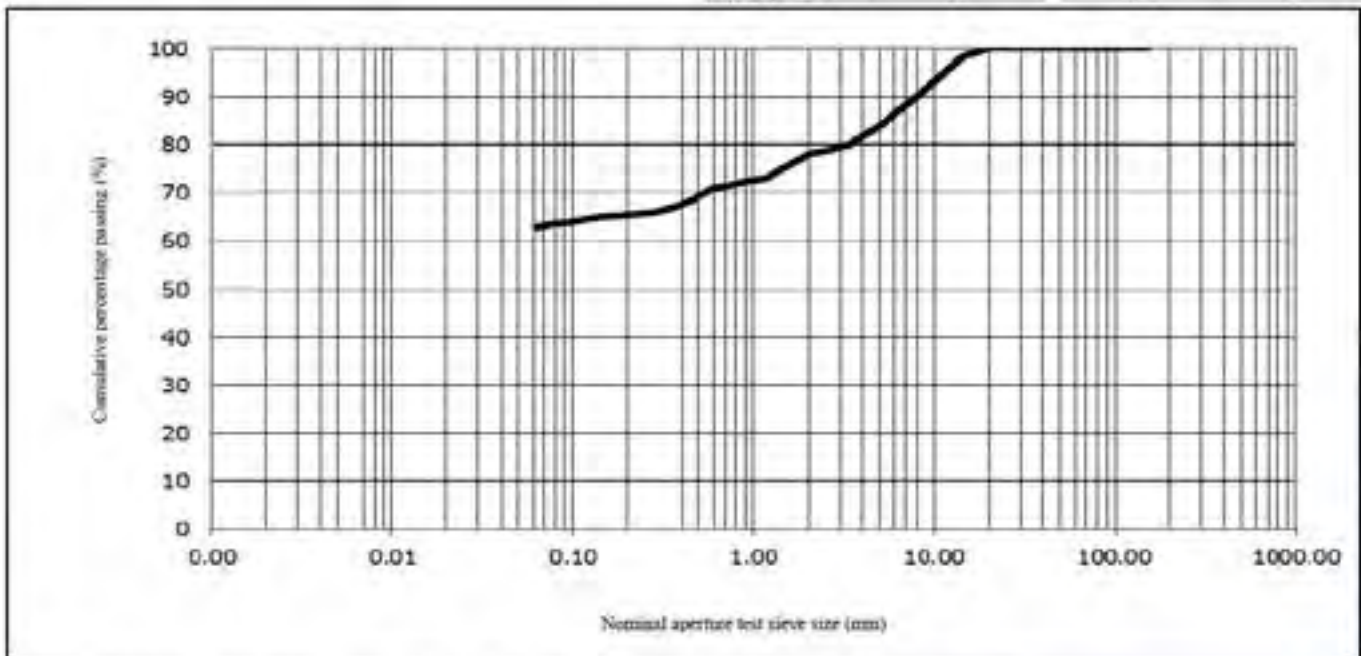
Determination of Particle Size Distribution (Dry Sieving)

Report Ref. No: GS-CRM.009

GSSL Sample ID: A2
 Client ID: BH4 @ 7.00m
 Client: Enzygo Ltd
 Site: CRM.049.009 Arundel
 Date Sampled: N/A
 Sampled from: -
 Material Specification: N/A
 Sample Description: Brown slightly gravelly sandy silty CLAY
 Sample Type: Disturbed
 Sampled by: Client
 Date Sampled: N/A
 Remarks: -

BS Test Sieve (mm)	% Material Passing
125	100
90	100
75	100
63	100
50	100
40	100
37.5	100
28	100
20	100
14	98
10	93
6.3	87
5	84
3.35	80
2	78
1.18	73
0.6	71
0.425	68
0.3	66
0.15	65
0.063	63

Soil Fraction	Total Percentage
COBBLES	-
GRAVEL	22
SAND	15
SILT / CLAY	63



Sample Preparation: In accordance with BS 1377-1 & 2:1990

Certification:-

Test results reported herein do not apply to samples other than those supplied. GSSL Ltd neither accepts responsibility for nor makes claim as to the final use & purpose of the material(s).

Approved Signatory:

Date Reported: 01/09/15

This Test Report may not be reproduced other than in full, except with prior written approval of GSSL LTD
Page 7 of 8



Geosynthetics Soil & Steel Laboratories Ltd

Colden Trading Estate, Lizards Road, Bradley, Huddersfield, West Yorkshire HD5 8RD

T: +44 (0)1484 454100 F: +44 (0)1484 454101

E: info@geosynthetics-lab.com W: www.geosynthetics-lab.com

Determination of Particle Size Distribution (Dry Sieving)

Report Ref. No: GS-CRM.009

GSSL Sample ID: A3
Client ID: TP1 @ 1.00m & TP2 @ 1.00m

Client: Enzygo Ltd
Site: CRM.049.009 Arundel

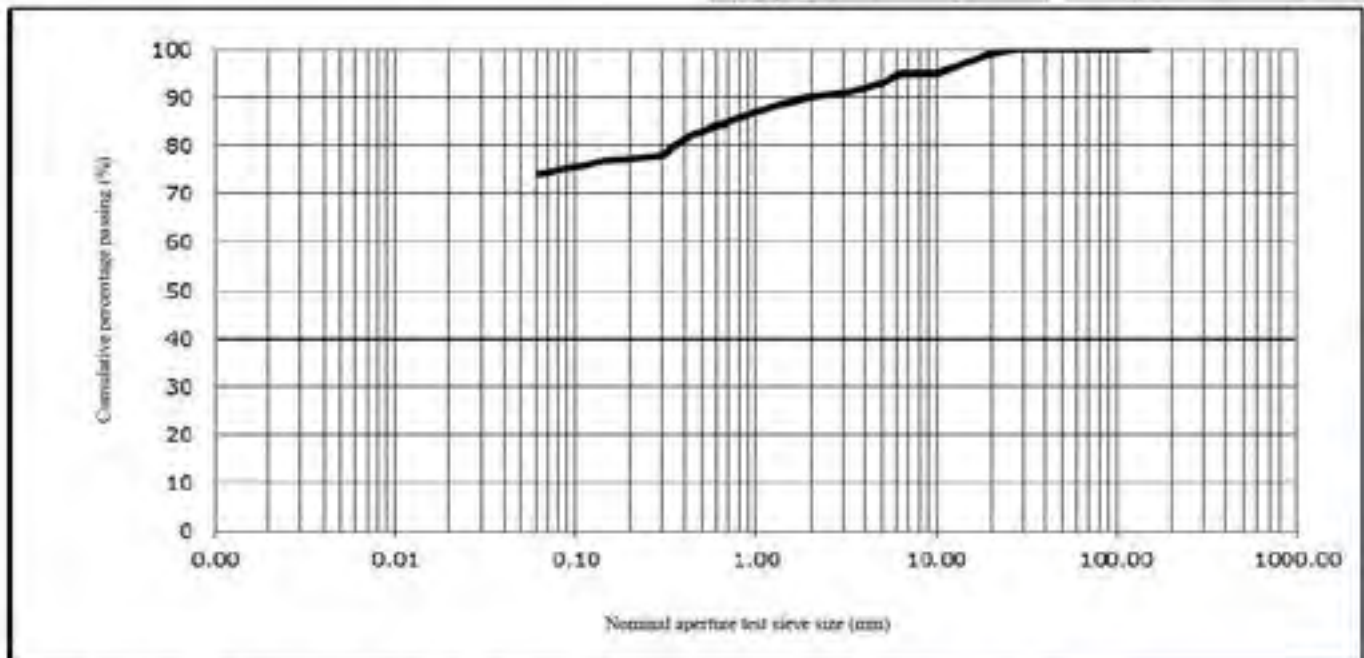
Date Sampled: N/A
Sampled from: -

Material Specification: N/A
Sample Description: Soft to firm brown slightly gravelly sandy silty CLAY
Sample Type: Disturbed
Sampled by: Client
Date Sampled: N/A

Remarks: -

BS Test Sieve (mm)	% Material Passing
125	100
90	100
75	100
63	100
50	100
40	100
37.5	100
28	100
20	99
14	97
10	95
6.3	95
5	93
3.35	91
2	90
1.18	88
0.6	84
0.425	82
0.3	78
0.15	77
0.063	74

Soil Fraction	Total Percentage
COBBLES	-
GRAVEL	10
SAND	16
SILT / CLAY	74



Sample Preparation: In accordance with BS 1377-1 & 2:1990

Certification:-

Test results reported herein do not apply to samples other than those supplied. GSSL Ltd neither accepts responsibility for nor makes claim as to the final use & purpose of the material(s)

Approved Signatory:

Date Reported: 01/09/15

This Test Report may not be reproduced other than in full, except with prior written approval of GSSL LTD
Page 8 of 8



Enzygo specialise in a wide range of technical services:

Property and Sites
Waste Planning
Waste Technologies and Renewables
Waste Technologies
Landscape Architecture
Environmental Co-ordination
Hydrology and Flood Risk
Waste Contract Procurement
Minerals Planning
Noise and Vibration
Permitting and Regulation
Environmental Planning
Ecology Services
Contaminated Land and Geotechnical

BRISTOL OFFICE

The Canary
Woodland Lane
Crownhill
Bristol GL12 8AA
Tel: 01454 388237
Fax: 01454 388760

kevla.parr@enzygo.com

SHEFFIELD OFFICE

STEP Business Centre
Worley Road
Deepcar
Sheffield S36 2UM
Tel: 0114 2908677
Fax: 0114 2908828

mail.kevla@enzygo.com

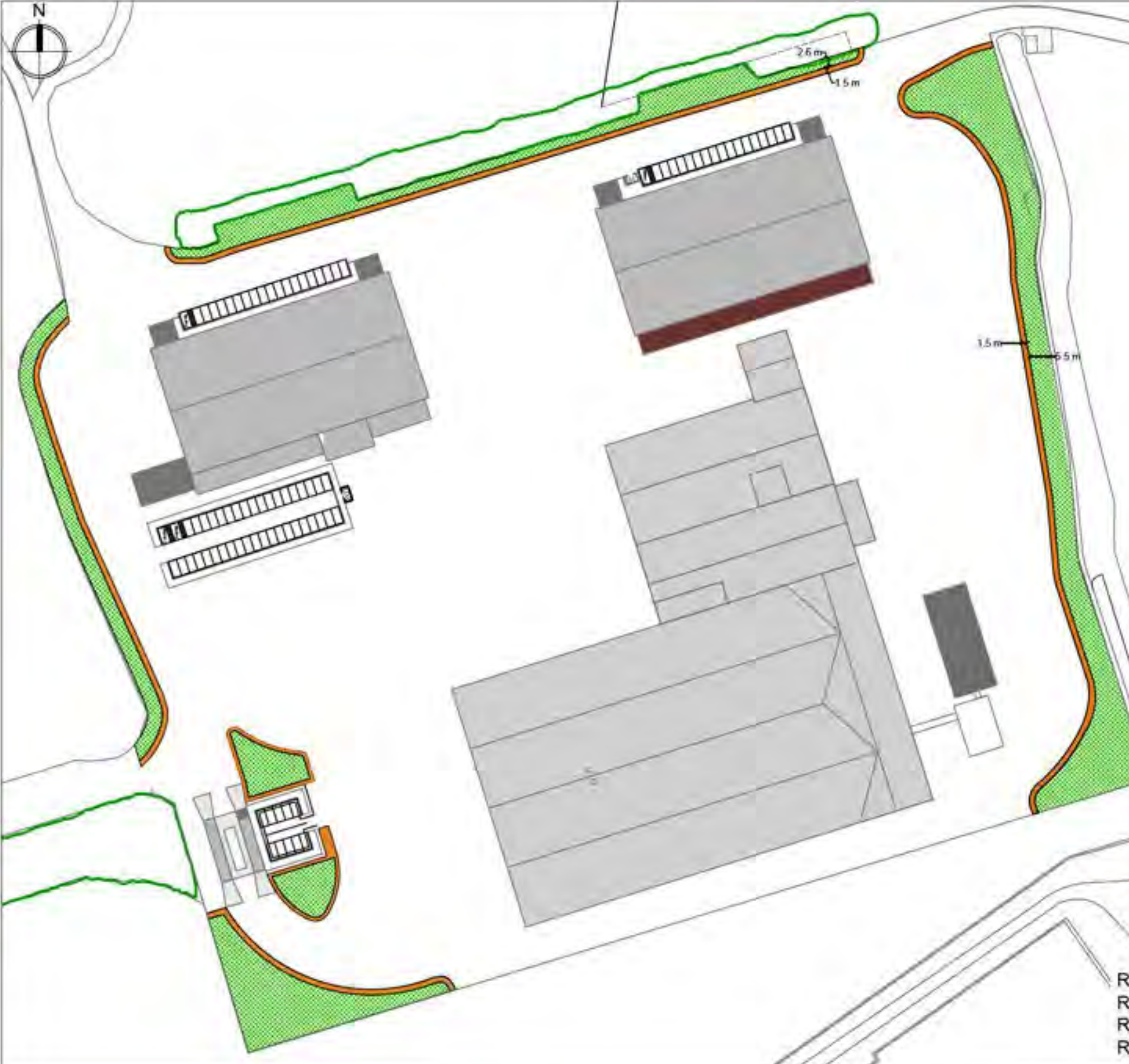
RODMOUTH OFFICE, WALES

Wingston Court Business Park
Winnaber Road
Mannouath
Morriston/Welsh 44328 5AA
Tel: 01600 714911
Fax: 01600 716744

chris.fornaggia@enzygo.com

Please visit our website for more information.

enzygo.com



PLANT SCHEDULES

Screen Woodland Mix - Area of 4810m², planted @ 3m centres

Common Name	Species	% of Mix	Form	Height (cm)	Root Type	Plant No's
Beech	<i>Fagus sylvatica</i>	4	Feathered (2X)	125-150	Bare Root	56
Beech	<i>Fagus sylvatica</i>	15	Transplant (1+1)	30-40	Bare Root	210
Field Maple	<i>Acer campestre</i>	2	Feathered (2X)	150-175	Bare Root	28
Field Maple	<i>Acer campestre</i>	15	Transplant (1+1)	80-100	Bare Root	210
Norway Maple	<i>Acer platanoides</i>	7	Transplant (1+1)	150-175	Bare Root	28
White Willow	<i>Salix alba</i>	20	Feathered (2X)	80-100	Bare Root	280
Alder	<i>Alnus glutinosa</i>	2	Transplant (1+1)	150-175	Bare Root	28
Whitebalm	<i>Sorbus aria</i>	10	Feathered (2X)	80-100	Bare Root	140
Oak	<i>Quercus robur</i>	20	Transplant (1+1)	80-100	Bare Root	280
Scotts Pine	<i>Pinus sylvestris</i>	10	Transplant (1+1)	20-30	Root Ball	140
Holly	<i>Ilex aquifolium</i>	10	Transplant (1+1)	2L Pot	Container	140

Groundcover Mix - Area of 4810m², Planted @ 1m centres

Common Name	Species	% of Mix	Form	Height (cm)	Root Type	Plant No's
Hawthorn	<i>Crataegus monogyna</i>	35	Transplant (1+1)	80-100	Bare Root	1685
Gulder Rose	<i>Viburnum opulus</i>	20	Transplant (1+1)	80-100	Bare Root	961
Native Dogwood	<i>Cornus sanguinea</i>	20	Transplant (1+1)	80-100	Bare Root	961
Hazel	<i>Corylus avellana</i>	20	Transplant (1+1)	80-100	Bare Root	961
Elder	<i>Sambucus nigra</i>	7	Transplant (1+1)	80-100	Bare Root	240

Woodland Edge & Shrub Mix - Area of 1350m², Planted @ 1m centres

Common Name	Species	% of Mix	Form	Height (cm)	Root Type	Plant No's
Hazel	<i>Corylus avellana</i>	25	Transplant (1+1)	80-100	Bare Root	337
Hawthorn	<i>Crataegus monogyna</i>	10	Transplant (1+1)	80-100	Bare Root	185
Crab Apple	<i>Malus sylvestris</i>	10	Transplant (1+1)	80-100	Bare Root	185
Dog rose	<i>Rosa canina</i>	25	Transplant (1+1)	60-80	Bare Root	337
Elder	<i>Sambucus nigra</i>	15	Transplant (1+1)	80-100	Bare Root	202
Blackthorn	<i>Prunus spinosa</i>	15	Transplant (1+1)	80-100	Bare Root	202

Revision Notes
 Rev A- 12/05/14- Landscape amended in line with comments from LPA
 Rev B- 24/11/15- Plant Schedule amended in line with comments from LPA
 Rev C- 16/03/16- Plant Schedule amended in line with comments from LPA



SCALE 1:1250 @ A3	PROJECT NO. SHF.049.004	PROJECT TITLE Former Tamas Topblock Site
DATE January 2014	DRAWING NO. 001	DRAWING TITLE Landscape Proposals
DRAWN LK	CHECKED PWB	CLIENT Grundon Waste Management



September 2012

PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

Former Tarmac Topblock Site, Ford, Arundel, West Sussex, BN18 0HY

Submitted to:
Grundon Waste Management
Thames House
Oxford Road
Benson
Oxfordshire
OX10 6LX

REPORT



Report Number. 12514190632.500/B.0

Distribution:

Grundon Waste Management - 2 copies (1 pdf)
Golder Associates (UK) Ltd - 1 copy





Executive Summary

Golder Associates (UK) Ltd. (Golder) was commissioned by Grundon Waste Management (Grundon) to prepare a Phase I Environmental Site Assessment for the former Tarmac Topblock Limited facility at Ford, Arundel, West Sussex BN18 0HY (hereafter known as 'the Site'). The works were required to assess the potential environmental liabilities associated with the Site as part of a due diligence exercise for the potential acquisition of the Site by Grundon.

The Site is located off Ford Road near Ford village, Arundel at National Grid Reference SU 9956 0342. The Site is believed to be owned by Tarmac Limited and covers an area of approximately 6.5 hectares. It is currently closed to all operational activities, and all the machinery, equipment and plant associated with the former works have been removed.

The Site visit for the Phase 1 Environmental Site Assessment was carried out by David Hybert from Golder. Mr Gary Langton (Zone Manager-South Coast) from Tarmac met Golder on Site, but did not accompany Golder during the Site walkover. Golder was escorted during the visit by the Site security representatives, who provided access to buildings where possible and some information regarding the Site.

Information regarding the history of the Site has been obtained from historical maps and information obtained on the Site visit. In the 1880s the Chichester and Arundel canal ran through the Site in a roughly southwest – northeast direction. In the 1940 - 1960s the site was part of Ford Airfield and a refuelling area was present in the north of the Site and a RAF bunker was present in the southeast of the Site. Following this the Tarmac Topblocks Works has been present at the Site, however the date the works started has not been provided but it is believed to have been decommissioned in 2010. During this time a variety of materials, including oils, aluminium, anhydrite, lime and cement, were stored at the Site and a registered landfill site was constructed, which appears to form a bund along the eastern perimeter.

The environmental data search indicates that the Quaternary Brickearth superficial deposits, which are present beneath the majority of the Site, are classified as a Secondary 'A' Aquifer. Such aquifers are described by the Environment Agency as having 'permeable layers capable of supporting water supplies at a local level and in some cases, forming an important source of base flow to rivers'. The Chalk bedrock is classified as a Principal Aquifer, which are defined by the Environment Agency as being aquifers with high intergranular and/or fracture permeability, meaning they usually provide a high level of water storage.

The Site is not located in an area defined as an SPZ. The nearest source protection zones (total catchment area) are located over 4 km northeast and northwest of the Site.

The nearest major surface watercourse is the River Arun, which is located to the east of the Site. At its closest the river is located approximately 950 m east of the Site and flows towards the south before discharging into the English Channel at Littlehampton approximately 4 km to the southeast of the Site.

Based on the historical use of the Site a number of Potential Areas of Concern have been identified as detailed in the table below and shown in Figure 6, Appendix A.



PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

PAOC	Name	Contaminant of Concern	Plate
PAOC 1	Former gas oil tank (60,000 litres)	Gas oil	2
PAOC 2	Above Ground Storage tank previously containing gas oil (2,500 litres)	Hydrocarbons	3
PAOC 3	Former oil stores	Hydrocarbons	4
PAOC 4	Aerated block plant containing soluble oil, mould oil storage vessels, and oil store, PFA silo and anhydrite silo	soluble oil, mould oil, oil store, PFA, aluminium and anhydrite silo	6
PAOC 5	Sub Station adjacent to Hangar 2	PCBs	7
PAOC 6	Manhole covers possibly indicating presence of interceptor or UST	Hydrocarbons	8
PAOC 7	Sub Station adjacent to Aerated Block Plant	PCBs	9
PAOC 8	In filled slurry pit and HCL store and delivery point	Various	9
PAOC 9	Former Autoclaves	Various	10
PAOC 10	Former gas oil tank (40,000 litres)	Gas oil	11
PAOC 11	historic landfill	Various	12, 13
PAOC 12	Former RAF refuelling area	Aviation fuel	15, 16
PAOC 13	Pallet storage area and possible former RAF bunker	Unknown	No plate
PAOC 14	Previous location of aboveground storage tank previously containing gas oil (2,500 litres)	Hydrocarbons	No plate

In addition, asbestos is known to be present in the fabric of the buildings and loose asbestos cement sheeting was stored close to the northwest corner of Hangar 1. It is considered that should the Site be purchased it would be necessary to ensure the Site has a written asbestos management plan and periodic inspections of the asbestos are undertaken in line with the Control of Asbestos Regulations 2012.

Whilst according to the Landmark Envirocheck[®] report the land has not been designated as Contaminated Land by the Local Council it is considered that prior to the purchase of the Site it would be prudent to investigate the areas of potential concern to provide baseline information. Should the Site be redeveloped a Site Investigation may be requested through the planning process. In addition Grundon may want to investigate whether the abstraction licences from the Site are still current and can be taken over by Grundon.



Study Limitations

IMPORTANT: This section should be read before reliance is placed on any of the opinions, advice, recommendations or conclusions herein set out.

- a) This report has been prepared for and at the request of Com Dev Europe (“the Client”) for the purpose of undertaking Phase I Environmental Site Assessment activities pursuant to its appointment of Golder Associates UK (Golder) to act as Consultant.
- b) Save for the Client no duty is undertaken or warranty or representation made to any party in respect of the opinions, advice, recommendations or conclusions herein set out.
- c) Regard should be had to the agreement between Golder and the Client dated 17 September 2012, when considering this report and reliance to be placed on it.
- d) All work carried out in preparing this report has used, and is based upon, Golder’s professional knowledge and understanding of the current, September 2012, relevant UK and European Community:
 - Standards and codes;
 - Technology; and
 - Legislation.
- e) Changes in the above may cause the opinion, advice, recommendations or conclusions set out in this report to become inappropriate or incorrect. However, in giving its opinions, advice, recommendations and conclusions, Golder has considered pending changes to environmental legislation and regulations of which it is currently aware. Following delivery of this report, Golder will have no obligation to advise the Client of any such changes, or of their repercussions.
- f) Golder acknowledges that it is being retained, in part, because of its knowledge and experience with respect to environmental matters. Golder will consider and analyse all information provided to it in the context of Golder’s knowledge and experience and all other relevant information known to Golder. To the extent that the information provided to Golder is not inconsistent or incompatible therewith, Golder shall be entitled to rely upon and assume, without independent verification, the accuracy and completeness of all such information and Golder shall have no obligation to verify the accuracy and completeness of such information.
- g) The content of this report represents the professional opinion of experienced environmental consultants. Golder does not provide specialist legal advice and the advice of lawyers will be required.
- h) If the scope of the work includes borings, test pits, or engineering interpretation of such information, attention is drawn to the fact that special risks occur whenever engineering and related disciplines are applied to identify subsurface conditions. Even a comprehensive sampling and testing programme implemented in accordance with a professional Standard of Care may fail to detect certain conditions. The environmental, geologic, geotechnical, geochemical and hydrogeologic conditions that Golder interprets to exist between sampling points may differ from those that actually exist. Passage of time, natural occurrences, and activities near the Site may substantially alter discovered conditions.
- i) In the Conclusions and Recommendations section of this report and in the Executive Summary, Golder has set out its key findings and provided a summary and overview of its advice, opinions and recommendations. However, other parts of this report will often indicate the limitations of the information obtained by Golder and therefore any advice, opinions or recommendations set out in the Conclusions and Recommendations section and in the Executive Summary ought not to be relied upon until considered in the context of the whole report.



Table of Contents

1.0 INTRODUCTION	1
1.1 The Brief and Documents Examined	1
1.2 The Golder Approach and Methodology	1
2.0 SITE SETTING AND OPERATIONS	2
2.1 Site Description	2
2.2 Site Setting	2
3.0 ENVIRONMENTAL SETTING	4
3.1 Site History Sources	4
3.2 Historical On-Site Activities	4
3.3 Historical Off-Site Activities (500 m)	5
3.3.1 Previous Surrounding Land uses	6
3.4 Surrounding Sensitive Areas	7
3.5 Topography	7
3.6 Geological Setting	7
3.7 Hydrogeological Setting	8
3.7.1 Groundwater Vulnerability	8
3.7.2 Groundwater Source Protection Zones	8
3.7.3 Groundwater Abstractions	8
3.7.4 Groundwater Discharges	9
3.7.5 Groundwater Levels and Flow Direction	9
3.7.6 Groundwater Quality	9
3.8 Surface Water and Hydrological Setting	9
3.8.1 Surface Watercourses and Drainage	9
3.8.2 Surface Water Abstractions	9
3.8.3 Discharges to Surface Water	9
3.8.4 Surface Water Quality	11
3.9 Radon Affected Areas	11
3.10 Pollution Incidents to Controlled Waters	11
3.11 Waste Facilities	11
4.0 SITE OBSERVATIONS AND FINDINGS	11
4.1 Site Inspection Reports	11



4.2 Main Aggregates Block Production Building 12

4.3 Hangar 2 Building 12

4.4 Aerated Block Plant 13

4.5 Weighbridge Office 13

4.6 External Yard Area 13

4.7 Former RAF Areas..... 14

4.8 Licences and Consents 14

4.9 Storage of Materials..... 14

4.10 Site Drainage 14

4.11 Water Supply 14

4.12 Electricity and Gas Supply 14

4.13 Wastes..... 15

4.14 Air Emissions 15

4.15 Deleterious Materials 15

4.15.1 Asbestos 15

4.15.2 Polychlorinated Biphenyls 16

4.15.3 Ozone Depleting Substances..... 16

4.16 Spills and Leaks..... 16

5.0 CONCLUSIONS AND RECOMMENDATIONS..... 17

TABLES

Table 1: Site Setting 2

Table 2: Current Off-Site Activities – Trade Directories within 500 m..... 3

Table 3: Historical On-Site Activities 4

Table 4: Historical Off-Site Activities (500 m) 5

Table 5: Historical Off-Site Activities – Trade Directories within 500 m 6

Table 6: Groundwater Abstractions within 1,000 m..... 8

Table 7: Discharge Consents within 500 m 10

Table 8: Pollution Incidents to Controlled Waters within 500 m..... 11

Table 9: Historic Landfill Sites within 500 m 11

Table 10: Licences and Consents for the Site 14

Table 11: Potential Areas of Concern 16



APPENDICES

APPENDIX A

Drawings and Plates

APPENDIX B

Landmark Envirocheck[®] Report



1.0 INTRODUCTION

1.1 The Brief and Documents Examined

Golder Associates (UK) Ltd. (Golder) was commissioned by Grundon Waste Management (Grundon) to prepare a Phase I Environmental Site Assessment for the former Tarmac Topblock Limited facility at Ford, Arundel, West Sussex, BN18 0HY (hereafter known as 'the Site'). The works are required to assess the potential environmental liabilities associated with the Site as part of a due diligence exercise for the potential acquisition of the Site by Grundon.

This Phase I Environmental Site Assessment report has been prepared in accordance with the detailed scope of works set out in the proposal P2514190632/1/V.0 dated 14 September 2012.

Using information gained from limited geological and hydrogeological sources, historical Ordnance Survey maps and a visit made to the Site on 18 September 2012, the objectives are to identify the following:

- Environmental issues which may give rise to, or relate to, liability; and
- The need for further investigation of potential contamination arising as a consequence of past and/or current activities at the Site.

Sources of material reviewed, consulted or examined for this report are given below:

- Environment Agency "What's in your backyard" (www.environment-agency.gov.uk) searched 17 September 2012;
- Geological Survey of Great Britain (England and Wales) 1:50,000 scale Geological Map, Sheet 317/332 for Chichester and Bognor (1996);
- Groundwater vulnerability Map of West Sussex and Surrey, Sheet 45 (1995);
- Institute of Geological Sciences and Southern Water Authority, 1:100,000 scale Hydrogeological Map of the South Downs and Adjacent Parts of the Weald (1978);
- Landmark Envirocheck[®] Report for Ford Airfield Estate, Arundel, BN18 0HY West Sussex, dated 14 September 2012 (reference 41399159_1_1);
- Aerial photograph and boundary plan sent by Grundon; and
- Information viewed by Golder during a Site visit on 18 September 2012.

1.2 The Golder Approach and Methodology

The methodology used by Golder in carrying out this work is as follows:

- To review published geological, hydrological and hydrogeological information relating to the Site and its immediate surrounds to ascertain the implication with regard to contaminated ground and or groundwater;
- To examine and review information collected and presented in a Landmark Envirocheck[®] Report (including historic maps) commissioned by Golder;
- To identify potentially sensitive receptors in the vicinity of the Site (e.g. aquifers, abstraction and human health receptors); and
- To use the information gathered during each of these activities to summarise the environmental issues associated with the Site in report form and to identify any need for further work or investigation.



The Site visit for the Phase 1 Environmental Site Assessment was carried out by David Hybert from Golder. Mr Gary Langton (Zone Manager-South Coast) from Tarmac met Golder on Site, but did not accompany Golder during the site walkover. He provided only limited and general information on historical activities because he had only recently taken on responsibility for the Site in a 'caretaker' role. Golder was escorted during the visit by the Site security representatives, who provided access to buildings where possible and some information regarding the Site.

2.0 SITE SETTING AND OPERATIONS

2.1 Site Description

The Site is located off Ford Road near Ford village, Arundel at National Grid Reference SU 9956 0342 (Drawing 1 and 2, Appendix A). The Site is believed to be owned by Tarmac Limited and covers an area of approximately 6.5 hectares. It is currently closed to all operational activities, and all the machinery, equipment and plant associated with the former works have been removed. The Site is effectively 'mothballed'.

The Site is accessed from the road via a concrete/aggregate construction roadway. The entrance has a locked barrier and there is a security fence surrounding the main Site (installed in 2011).

2.2 Site Setting

Information regarding the Site setting is provided in Table 1 below:

Table 1: Site Setting

Item	Detail
National Grid Reference:	SU 9956 0342
Freehold or Leasehold:	Information requested, but not provided at present.
Surrounding Land Uses:	The Site is surrounded by predominantly agricultural land in all directions. Southern Water Services have a sewage works located approximately 50 m to the south of the Site. Two warehouses are present 120 m to the southwest of the Site which appeared disused, although according to Google maps one is a children's play centre. Ford Lane Business Park is located 300 m to the north of the Site and Ford Airfield Industrial Estate is located 360 m to the southwest of the Site which comprises small business and industrial units respectively. Further information on the surrounding land use is provided in Table 2 which lists trade directory information provided in the Landmark Envirocheck® report for a 500 m radius of the Site.
(Drawing 2, 3, 4 and 5, Appendix A):	
Ground Cover	External yard and roadways are predominantly concrete hard standing. The expansion joints and other cracks are vegetated with weeds.
Site Drainage	Information requested, but not provided at present.



PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

Item	Detail
Tanks	<p>No underground storage tanks (USTs) were reported to be present at the Site. Several manhole covers were observed during the Site walkover, which may link to drain runs or could be related to underground structures such as oil-water interceptors or septic tanks.</p> <p>Only one above ground storage tank (AST) was observed during the Site walkover. This is adjacent to the north western boundary of Hangar 1. The tank is labelled Gas Oil (Tank 4) and is a Titan ES2500B, plastic, internally banded tank, with a capacity of 2,500 litres (550 gallons). It was reported that this has been drained down. The pipework was observed to be disconnected. The tank sits on concrete beams about 1.0 m above ground level.</p> <p>No other USTs or ASTs were observed during the Site. However, there was evidence of former tanks that is discussed in Section 4.</p>
Fencing	The Site is surrounded by a 2 m high steel chain link fence. Vehicular access is through a locked barrier.
Security	Security guards were present during the Site walkover, but there is not a 24 hour presence. Closed circuit television (CCTV) is operated at the Site.

Table 2: Current Off-Site Activities – Trade Directories within 500 m

Ref.	Company Name	Activity	Distance and Direction from Site (m)
56	Ring Powercraft	Boat builders and repairers	149 m northeast
57	Signet Locks	Lock suppliers and manufacturers	276 m northwest
57	Craft of Stone Ltd	Fireplaces and mantelpieces	310 m northwest
59	Marden Publications	Greeting card publishers and wholesalers	306 m north
59	G D Precision CNC	Precision engineers	311 m north
59	Hammond Concrete Testing & Services	Testing, inspection and calibration equipment manufacturers	311 m north
61	Orkney Boats Ltd	Boat builders and repairers	334 m north
62	John Booth Engineering Ltd	Sheet metal work	363 m west
63	Brewer Metal Craft Ltd	Metal products – fabricated	368 m north
63	Allsop & Francis Ltd	Laundry equipment – sales and service	380 m north
63	Tempcon Ltd	Temperature monitoring systems manufacturers	383 m north
64	K T Services Ltd	Commercial vehicle servicing, repairs, parts and accessories	370 m southwest
64	Besmoke Ltd	Manufacturers	385 m southwest
64	Arundel Brewery Ltd	Brewers	368 m southwest
64	CIS Laundry Ltd	Laundries and laundrettes	420 m southwest
65	Bleach of Lavant Ltd	Road haulage services	398 m west



Ref.	Company Name	Activity	Distance and Direction from Site (m)
66	T P Smart Ltd	Scrap metal merchants	447 m north
66	Arun Fastener Co Ltd	Nuts, bolts and fixings	447 m north
67	G T Products (Europe) Ltd	Packaging materials manufacturers and suppliers	419 m north
68	Classic Mantels	Fireplaces and mantelpieces	432 m west
70	Southdown Circuits Ltd	Printed circuit manufacturers	469 m southwest
71	Relish in Spice	Food products – manufacturers	468 m northwest
72	Ford Electro-plating Ltd	Metal finishing services	452 m west
73	Fire Extinguisher Valve Co Ltd	Fire fighting equipment	456 m, north
73	Ex-I Flow Measurement	Electronic equipment – manufacturers and assemblers	500 m north

3.0 ENVIRONMENTAL SETTING

3.1 Site History Sources

Information on the historical land use at the Site and in the area surrounding the Site was obtained from historical Ordnance Survey maps and is summarised below and reproduced in Appendix B. The following scale maps have been consulted:

- 1:2,500 scale 1876, 1897 - 1898, 1912, 1937 - 1939, 1974, 1978 - 1992, and 1994;
- 1:10,000 and 1:10,560 scale 1879 - 1880, 1899, 1913 - 1914, 1938 – 1951, 1980 - 1982, 1992-1993, 2000, 2006 and 2012.

3.2 Historical On-Site Activities

Table 3 summarises the historical activities at the Site.

Table 3: Historical On-Site Activities

Date	Source	Detail
1876	OS Maps 1:2,500	The Site is largely undeveloped and possibly in agricultural use. The Chichester and Arundel Canal and associated towpath crosses the Site running diagonally in an approximately southwest to northeast direction.
1879 - 1880	OS Maps 1:10,560	The canal is now marked as disused.
1897-1898	OS Maps 1:2,500	No significant change.
1899	OS Maps 1:10:560	No significant change.
1912	OS Maps 1:2,500	No significant change.
1913 - 1914	OS Maps 1:10,560	No significant change.
1937 - 1939	OS Maps 1:2,500	The disused canal is now shown as a footpath.
1938 - 1951	OS Maps 1:10,560	No significant change.
1947	Aerial photograph	No significant change.



PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

Date	Source	Detail
1974	OS Maps 1:2,500	The footpath is no longer marked. The Site is marked Works and comprises two large buildings, two conveyors and a tank. A few smaller buildings are shown but not annotated. The paths on the Site join to the paths in the area surrounding the Site that is marked Ford Aerodrome (disused).
1978 - 1992	OS Maps 1:2,500	The 'Works' are shown with tanks shown in the location where the autoclaves were known to have been and a water tank is marked where the slurry pit was reported to have been present. A number of conveyors and a travelling crane are also marked.
1980 - 1982	OS Maps 1:10,000	Two 'Works' buildings are shown on the Site area.
1992 - 1993	OS Maps 1:10,000	Three 'Works' buildings are shown on the Site.
1994	OS Maps 1:2,500	Two electrical substations are also marked within the Site area, with a 'gas governor' to the northeast. The southeastern corner of the Site has an observation post marked; this is close to the location of where a former RAF bunker was reported to have been located by the security personnel.
2000	OS Maps 1:10,000	The three main building are depicted and the 'conveyors' are noted.
2006	OS Maps 1:10,000	No significant change.
2012	OS Maps 1:10,000	No significant change.

No information has been provided by Tarmac as to when operations started or finished. Anecdotal information provided from the Site's security guards suggests that the Site was closed in 2009 and decommissioned in 2010. A drawing has been provided by Tarmac which shows the layout of the works when operational, see Drawing 4.

3.3 Historical Off-Site Activities (500 m)

Table 4 summarises the historical land uses, which are recorded as having taken place within 500 m of the Site boundary. This is also presented in the historical maps provided in the Landmark Envirocheck[®] report (Appendix B), activities present at 500 m to 1 km are also shown in the Landmark Envirocheck[®] report.

Table 4: Historical Off-Site Activities (500 m)

Date	Source	Detail
1876	OS Maps 1:2,500	The area immediately surrounding the Site is undeveloped, presumably in agricultural use. There is an unidentified building immediately adjacent to the north of the main body of the Site.
1879-1880	OS Maps 1:10,000	The land surrounding the Site is predominately open land presumably in agricultural use. The Chichester and Arundel Canal and associated towpath crosses the Site running diagonally in a roughly southwest to northeast direction but is marked as disused. A number of farms and houses are located within a 500 m radius.
1897-1898	OS Maps 1:2,500	The previously unidentified building is marked as Fordground Barn.
1899	OS Maps 1:10,000	No significant changes have occurred, old gravel pits are marked by farm buildings 500 m to the southeast of the Site.
1912	OS Maps 1:2,500	No significant change.
1913-1914	OS Maps 1:10,000	No significant changes are shown



PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

Date	Source	Detail
1938-1951	OS Maps 1:10,000	Three larger buildings, which may be hangars are present 500 m to the southwest of the Site, along with a number of other buildings that may be related to the Air Force but are not marked as such. At this stage, the airfield itself is not marked, but this may be due to war time covert mapping measures.
1947	Aerial Photograph	The photograph shows the land as agricultural, but it is most likely that the airfield is present and has been hidden for intelligence purposes.
1962-1967	OS Maps 1:10,000	The area is marked Ford Airfield. 700 m to the southeast a number of buildings are shown in the area that is later marked as Ford Prison. A residential area to the northeast is present close to the Site access road. This is later marked on 1980 map edition as 'Rodney Crescent'
1980-1982	OS Maps 1:10,000	Ford prison has been extended and lies approximately 300 m to the southeast of the Site.
1992	OS Maps 1:10,000	Two buildings are present in the area of the old runway approximately 120 m to the southwest of the Site.
2006	OS Maps 1:10,000	The sewage works is present approximately 50 m to the south of the Site.
2012	OS Maps 1:10,000	No significant change.

3.3.1 Previous Surrounding Land uses

The trade directories provide information regarding companies that have existed in the surrounding area in the past as listed in Table 5 below.

Table 5: Historical Off-Site Activities – Trade Directories within 500 m

Ref.	Company Name	Activity	Distance and Direction from Site (m)
57	Art of Stone Ltd.	Fireplaces and mantelpieces	310 m northwest
57	Technology in Seconds	Office furniture and equipment	318 m north
58	Arun Fastener Company	Nuts, bolts and fixings	293 m northwest
59	Constructive Evaluation	Testing, inspection and calibration equipment manufacturers	296 m north
59	Easterchem	Chemists and pharmacists suppliers and wholesalers	299 m north
60	D R Bailey Transport Ltd.	Road haulage services	330 m southwest
60	Bleach of Lavant	Road haulage services	330 m southwest
63	Prolube Oils Ltd.	Oil companies	386 m north
63	Mortley Sprague Ltd.	Manufacturers	387 m north
63	Onyx Cable Infrastructure	Cable and wire equipment manufacturers	387 m north
63	Baker Manufacturing	Electronic component manufacturers and distributors	387 m north
64	Euro Louvre Systems	Ventilators and ventilation systems	376 m southwest
64	Adur Ventilation	Ventilators and ventilation systems	405 m southwest



PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

Ref.	Company Name	Activity	Distance and Direction from Site (m)
64	B D Mantels Ltd.	Fireplaces and mantelpieces	406 m southwest
64	Byjingham	Road haulage services	408 m southwest
64	Antplace Plastics	Plastics – vacuum forming	413 m southwest
66	Sussex Catering Equipment Services Ltd.	Catering equipment	413 m north
68	Greenhill Finishers	Powder coatings	433 m southwest
68	Arun Circuits Ltd.	Printed circuit manufacturers	433 m southwest
68	Tarmac Topblock Ltd.	Concrete products	433 m southwest
68	Southern Drilling Services Ltd.	Drilling and boring equipment and supplies	435 m southwest
68	Airfield Crash Repairs Ltd.	Car body repairs	445 m southwest
69	Sussex Jag Centre	Used car dealers	438 m southwest
69	A J P Autos Ltd	Garage services	439 m southwest
69	J J B Wire	Coating specialists	444 m southwest
70	Sussex Jag Centre	Garage services	439 m southwest
71	Fuller	Boat builders and repairers	445 m northwest
73	Kedron Engineering	Engineering services	473 m north
74	Ocean Clean	Domestic cleaning services	468 m southwest

3.4 Surrounding Sensitive Areas

The Site is not located in an area of sensitive land use (i.e. within a nature reserve, park, conservation area, or area of special scientific interest). Nitrate vulnerable zones are located to approximately 300 m to the west and 900 m to the north east of the Site.

3.5 Topography

From the Ordnance Survey mapping of the area and the historical mapping provided as part of the Landmark Report, the Site lies at an elevation of approximately 5 m Above Ordnance Datum (AOD). The topography of the surrounding area is flat lying and gently decreases towards sea level (0 m AOD) in the direction of the River Arun to the east and the English Channel to the south.

3.6 Geological Setting

According to the British Geological Survey (BGS) Map for Chichester and Bognor, the Site is underlain Quaternary Brickearth superficial deposits. These are described on the BGS website as comprising silt to clay, which are usually yellow-brown and massive. The superficial deposits are underlain by the Cretaceous White Chalk Sub-Group (previously classified as part of the undifferentiated Middle and Upper Chalk). These are described on the BGS website as comprising chalk with flints, with discrete marl seams, nodular chalk, sponge-rich and flint seams throughout. There are no records provided of existing boreholes at the Site, therefore the underlying stratigraphy cannot be confirmed.

There are no records of faults or any other major geological structures at the Site. The nearest structure mapped is the Littlehampton anticline axis, which runs northeast-southwest runs northwest to southeast approximately 500 m north of the Site.

According to British Geological Survey (BGS) records, the Site does lie in an area 'that may not be affected by coal or surface mining'.



The BGS National Geoscience Information Service identifies that the Site is located on ground with low potential for collapsible ground stability hazards. The Site is not located on ground with potential compressible ground stability hazards. The potential for ground dissolution hazards is very low. The potential for running sand or for shrinking or swelling clay in the area is classified as being low. The potential for landslides is identified as being very low.

3.7 Hydrogeological Setting

3.7.1 Groundwater Vulnerability

The Environment Agency maps that identify the vulnerability of groundwater to contamination define Principal Aquifers (generally previously Major Aquifers), Secondary Aquifers (generally previously Minor Aquifers), and Unproductive Strata (generally previously Non-aquifers). Secondary Aquifers are subdivided into types A and B.

The Groundwater Vulnerability map and the Landmark Envirocheck® Report indicate that the underlying superficial geology is classified as a Secondary 'A' Aquifer. Such aquifers are described by the Environment Agency as having 'permeable layers capable of supporting water supplies at a local and in some cases forming an important source of base flow to rivers'. The Chalk bedrock is classified as a Principal Aquifer, which are defined by the Environment Agency as being aquifers with high intergranular and/or fracture permeability, meaning they usually provide a high level of water storage. Such aquifers may support water supply and/or river base flow on a strategic scale.

The soil vulnerability at the Site is classified as being of Intermediate (sub class I1) leaching potential. Soils with intermediate leaching potential are defined as having moderate ability to attenuate diffuse source pollutants or in which it is possible that some non-adsorbed diffuse source pollutants and liquid discharges could penetrate the soil layer. Sub class I1 denotes soils which can possibly transmit a wide range of pollutants.

3.7.2 Groundwater Source Protection Zones

The Environment Agency defines Source Protection Zones (SPZs) for groundwater sources (e.g. wells, boreholes and springs) used for public drinking water supply. These zones show the risk of contamination from activities that might cause pollution in the area; the closer the activity to the source the greater the risk. The maps show three main zones (inner, outer and total catchment) and a fourth zone of special interest, which the Environment Agency occasionally applies to a groundwater source.

The Site is not located in an area defined as an SPZ. The nearest source protection zones (total catchment area) are located over 4 km northeast and northwest of the Site.

3.7.3 Groundwater Abstractions

There are two groundwater abstractions licensed to Tarmac at the Site. Two further licences are registered within a 500 m radius of the Site and a further one registered within 1 km. Table 6 details the abstractions within 1 km of the Site. Information from the Landmark Envirocheck® Report indicates that the licences for the Site are for the abstraction of groundwater for process water at the works. There is no information to suggest these licences have been revoked.

Table 6: Groundwater Abstractions within 1,000 m

Ref.	Operator	Location	Abstraction Details	Distance and Direction from Site (m)
34	Tarmac Ltd	Ford Industrial Estate, Arundel	Construction: process water	0 m southwest
34	Tarmac Heavy Building Materials Ltd	Ford Industrial Estate, Arundel	Construction: process water	0 m southwest





Ref.	Operator	Location	Abstraction Details	Distance and Direction from Site (m)
35	R Hague Esq.	Newhouse Farm, Ford	Agriculture (general)	179 m northeast
36	Mr A Langmead	Wicks Farm, Yapton	General farming and domestic	363 m northwest
37	Keith Langmead Ltd	Wicks Farm, Ford	General agriculture: spray irrigation (direct)	627 m northwest

3.7.4 Groundwater Discharges

There are no known discharges to groundwater within 1 km of the Site.

3.7.5 Groundwater Levels and Flow Direction

The groundwater levels beneath the Site could not be determined from the information available. It should be noted that the proximity of the Site to the River Arun could lead to groundwater levels being close to the surface, with potential for tidal variation. The hydrogeological map of the South Downs and adjacent parts of the Weald indicates that Chalk groundwater levels in the vicinity of the Site could be between 0 m AOD and +5 m AOD. In the absence of local groundwater level information it is likely that groundwater flow follows the topography and flows towards the nearest watercourse, in this case the River Arun to the east of the Site.

3.7.6 Groundwater Quality

No site specific information is available on the groundwater quality beneath the Site.

3.8 Surface Water and Hydrological Setting

3.8.1 Surface Watercourses and Drainage

The Ordnance Survey mapping of the area presented in the Landmark Envirocheck[®] Report indicates that the nearest surface water feature is a drain located approximately 500 m to the east of the main part of the Site (150 m east of the Site entrance), adjacent to Ford Road. Drains are also present along the northern boundary of Ford Prison to the southeast of the Site and to the northeast of the Site beyond the village of Ford.

The nearest major surface watercourse is the River Arun, which is located to the east of the Site. At its closest the river is located approximately 950 m east of the Site and flows towards the south before discharging into the English Channel at Littlehampton approximately 4 km to the southeast of the Site.

3.8.2 Surface Water Abstractions

There are no licensed surface water abstractions identified within 1 km of the Site.

3.8.3 Discharges to Surface Water

The information presented in the Landmark Envirocheck[®] Report indicates that there was a discharge consent for process water discharges at the Site; however it was revoked in 2001. The nearest off-site discharge consent to surface water, for which no revocation date is supplied, is for discharge of treated sewage by a water company at the sewage treatment works located immediately to the south of the Site. The receiving water for the discharge is recorded as the English Channel. Table 7 below details the discharge consents within 500 m of the Site.



PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

Table 7: Discharge Consents within 500 m

Landmark Reference	Operator	Location	Discharge Type	Receiving Water	Distance and direction from Site
1, 7	Tarmac Topblock Ltd ⁽¹⁾	Ford Airfield Industrial Estate, Yapton, Arundel, West Sussex, BN18 0HY	Trade discharge – mineral workings then process water	River Arun	0 m
2	Southern Water Services Ltd	Ford Airfield Industrial Estate, Yapton, Arundel, West Sussex, BN18 0HY	Sewage discharges – final/treated effluent – water company	English Channel	129 m south
3	Southern Water Services Ltd ⁽²⁾	Ford Airfield Industrial Estate, Yapton, Arundel, West Sussex, BN18 0HY	Sewage discharges – final/treated effluent – water company	English Channel	142 m south
4	Mr P Hague	Newhouse Farm, Ford Lane, Nr. Arundel	Sewage discharges – final/treated effluent – not water company	Onto land	172 m northeast
5	Peter Hague	Bullock Yard, North Ford Lane, Arundel, West Sussex, BN180EF	Sewage discharges – final/treated effluent – not water company	Land/soakaway	233 m northeast
6	Mr S P Beeching	Ford Lane Business Park, Ford Lane, Arundel, West Sussex, BN18 0UZ	Sewage discharges – final/treated effluent – not water company	Tributary of the River Arun	293 m north
7	Tarmac Heavy Building Materials UK Ltd ⁽³⁾	Tarmac Topblock Ltd, Ford Airfield Industrial Estate, Yapton, Arundel, West Sussex, BN18 0HY	Trade discharge – process water	River Arun	364 m east
8	T P Smart Ltd	Ford Lane Industrial Estate, 20 Ford Lane, Nr, Arundel, West Sussex, BN18 0DF	Trade effluent discharge – site drainage	An adjacent small watercourse	458 m east
8	Beeching Ltd	18 New Business Units, Ford Lane Industrial Estate, Ford Arundel, West Sussex	Sewage discharges – final/treated effluent – not water company	Freshwater river	480 m north

⁽¹⁾ 9 permits held, first issues 6 January 1998, revoked 31 December 2001.

⁽²⁾ 6 permits held; first issued 22 September 2003, most recent issued 31 March 2010.

⁽³⁾ 9 permits held, first issued 6 January 1998, most recent issued 17 September 2001



3.8.4 Surface Water Quality

There is no surface water quality data available in the Landmark Envirocheck® Report or on the Environment Agency website.

3.9 Radon Affected Areas

The BGS National Geoscience Information Service identifies that the Site lies within an area where no radon protective measures are necessary in the construction of new dwellings and extensions.

3.10 Pollution Incidents to Controlled Waters

Pollution incidents that have occurred within 500 m of the Site are listed in Table 8 below, information is not provided by the Environment Agency regarding the name of the polluter.

Table 8: Pollution Incidents to Controlled Waters within 500 m.

Ref.	Property Type	Location	Pollutant	Incident Severity	Distance and Direction from Site (m)
31	Industrial – other	Field ditches/River Arun	Miscellaneous – inert suspended solids	Category 3 – minor incident	382 m east
32	Other general premises	Tributary of River Arun	Miscellaneous – unknown	Category 3 – minor incident	478 m northeast

3.11 Waste Facilities

A historic landfill and registered landfill site are recorded at the Site. The registered landfill site is recorded as having been licensed to R J Page & Sons Ltd in 1985 and is recorded as the 'lapsed, cancelled or superseded'. It was licensed to accept brick rubble, broken concrete, stone, chalk and soils. No further information is provided, see Table 9 below.

Table 9: Historic Landfill Sites within 500 m

Ref.	Licence Holder	Location	Specified Waste	Distance & Direction from Site (m)
38	R J Page & Sons Ltd	Ford, Sussex. Bank east of Hangar 2.	Deposited waste included inert waste	0 m east
39	R T & Sons Ltd	Ford, Sussex. Newhouse Farm	Deposited waste included inert waste	434 m northeast

4.0 SITE OBSERVATIONS AND FINDINGS

4.1 Site Inspection Reports

During the Site walkover, three documents relating to buildings and plant structural inspections, undertaken by Tarmac were examined. These documents, entitled Level 2 Inspections were prepared in May 2010. It is noted that the Site was closed at this point in time. Whilst structural matters are not included in the scope of works, these reports give an insight into historical activities undertaken in the buildings and the presence of tanks and pits.



4.2 Main Aggregates Block Production Building

This is an open plan building approximately 100 m (length) x 40 m (width) formerly housing the block production machinery, together with several internal buildings/structures. The report indicates that the building is approximately 40 years old (or more). The construction is steel portal frame, with a 3 m high block wall at ground level and concrete floor. Externally, this has corrugated cladding combined with brick rendering and steel framed windows. This is also known as Hangar 1 (Plate 1).

Historically, this building contained cement and PFA silos, mixers and feeders, the heated block curing chambers (ovens), a workshop, laboratory and canteen (small kitchen). A conveyor ran from the annex to this building into the main yard, where the finished products were stored.

An inspection of the building during the walkover, indicated that all machinery has been removed from this structure, and that there is no evidence of staining on the concrete flooring or infilled pits. The laboratory is empty of all components.

On the southern side of the building are the original production offices, which are a single-storey lean-to construction. The new office extension, also referred to as the Sales Office, was constructed in the mid-1980s. This is now the security guard office.

On the western side of this building was a former steam generation plant. This is understood to have been demolished in 2010. This was a steel framed building with external tin cladding and concrete floor. In the past, there was a 40,000 litre storage tank enclosed in a block bund, that contained heating oil adjacent to the boiler house (Plate 2). This has been removed and the concrete in the area of the bund did not show any visible signs of oil staining.

Only one above ground storage tank (AST) was observed during the Site walkover. This is adjacent to the north western boundary of Hangar 1. The tank is labelled Gas Oil (Tank 4) and is a Titan ES2500B, plastic, internally banded tank, with a capacity of 2,500 litres (550 gallons) (Plate 3). It was reported that this has been drained down. The pipework was observed to be disconnected. The tank sits on concrete beams approximately 1 m above ground level. It is thought that this tank may have been previously located on the south eastern corner of Hangar 1.

An oil store and steam cleaning bay are shown on the drawing viewed whilst on Site. The oil store was still in existence but was not accessible during the visit, the steam cleaning bay had been demolished (Plate 4).

4.3 Hangar 2 Building

This building is located to the east of Hangar 1 and is also a steel frame, cladded structure with a concrete floor. Access is via a door on the western gable end, other doors are welded shut as are the steel framed windows. The report indicates that the building is approximately 40 years old (or more). (Plate 5 and 6)

The electricity supply to this building has been isolated and access was limited to only one area, due to health and safety issues. In the area visited, it is reported by security that it was formerly a store for aluminium powder, which is a raw material used in the manufacture of aerated blocks. Rather than open plan, this building appeared to be separated into smaller units/workshops and offices.

There is a single storey lean-to building on the southern wall of Hangar 2, with brick clad walls and a cement sheet roof. No access was possible. On the northern side of Hangar 2 there are two separate, smaller single storey buildings of brick construction. These annexes are a former store and welfare office. Adjacent to the stores is an electricity sub-station, which is enclosed in a secure compound, surrounded by a 2 m high chain link fence (Plate 7). These structures were not accessed.

Outside the welfare office is a foundation/concrete plinth of a former building or structure. There are two manhole covers in this area, which can reasonably be assumed to be linked to an underground storage tank/oil-water interceptor (Plate 8).



4.4 Aerated Block Plant

An open plan building of similar construction and age to those detailed above, with external tin cladding and cement sheet cladding over the roof. There is a concrete floor and a 1 m high perimeter block wall. There are roller shutter doors on the northern and southern sides, with pedestrian access on all sides. There is an electricity sub-station on the north eastern corner of this building, (Plate 9), which is enclosed in a secure compound, surrounded by a 2 m high chain link fence. The electrical supply to this building has been isolated. This building is also known as Hangar 3.

All machinery and plant have been removed from within the building. Historically this building would have contained sand silos, an ash silo, a cement silo, a PFA silo and anhydrite silo. There was a ball mill, 5 slurry tanks, and an 80,000 litre above ground water tank. The supporting structure for the silos, mixer and feed system is still in place.

A series of channels, approximately 1 m deep are present in the concrete floor running through the building in west-east direction. These have been predominantly infilled using demolition waste, although this work has not been completed. A larger (areal extent) pit beneath the footprint of the mixer has also been infilled, though the infill is less rubble and more fines.

A historical plan examined at the Site indicates that previously there were mould oil and soluble oils storage tank in this building. These oils would have been used to remove the blocks from the moulds and are likely to have been solvent or hydrocarbon based oils. It is reported in the Tarmac Site Inspection that the mould oil tank had a capacity of approximately 10,000 litres, was steel plated and enclosed in a block bund.

A high level conveyor ran into Hangar 3 from a sand pit on the north western corner of this building. Adjacent to the conveyor was a single story block construction canteen. This has been demolished and the floor slab is intact.

To the east of Hangar 3, the historical drawings show that there is a 'slurry pit', a delivery point and store for hydrochloric acids. The slurry pit has been infilled with demolition waste from the Site, but may possibly have been used for the disposal of waste slurry, possibly comprising lime, sand, aluminium, oils and acids from the process. It is unclear if this pit acted as a soakaway or was concrete lined (Plate 9 foreground).

To the west of the building is the former autoclave area, which previously housed 12 autoclaves, used in the production of aerated blocks. The autoclaves are reported to have been approximately 1 m below ground level and this area has been infilled with demolition waste (Plate 10).

To the south of the building was a boiler house, which has been completely demolished to ground level. Historically, there was a 40,000 litre steel plate heating oil tank in a block bund adjacent to the boiler house. This has been removed from Site and the ground beneath the bund, had no visible evidence of staining (Plate 11). In addition to this tank, there was a similar capacity water storage tank.

4.5 Weighbridge Office

The weighbridge office is a portacabin style building construction on concrete plinth. This was adjacent to the weighbridge. No wheel wash facility is or was in place.

4.6 External Yard Area

The external yard is all laid to concrete (rough mix) and is generally in good condition. There is vegetation growing in expansion joints and in areas where the surface has cracked. The external yards were used for the storage of raw materials (sand and aggregate) and finished products. At the time of the Site walkover, all the storage bins, raw materials and products had been removed from the Site. Along the eastern boundary is an engineered mound of material which is recorded in Landmark as a registered historic landfill site (Plates 12 and 13).



4.7 Former RAF Areas

The historical maps indicate that on the south eastern corner of the Site, there is a pallet storage area. During the visit it was reported that this is in fact a former underground bunker that has been infilled over the years. This was not visible during the Site walkover.

To the north of the main access road is a former RAF re-fuelling area that was used by Tarmac for the storage on finished product. Immediately adjacent to this area is a former RAF pumping station, contained within a single storey block building below ground level. This building has a concrete floor and there are three 6" pipes with welded end caps. There are no visible signs of staining or contamination in this building (Plates 14, 15, and 16).

4.8 Licences and Consents

The following Table provides information regarding licences and consents that have previously been held with regards to the Site.

Table 10: Licences and Consents for the Site

Title and Reference Number	Issuing Authority	Date Obtained/Expires
Abstraction licence (27/196)	Environment Agency	Not provided
Discharge consent Tarmac Topblock Ltd/Tarmac Heavy Building Materials Ltd (P06572)	Environment Agency	Revoked 31 December 2001
Registered landfill (WRC 3800/8144/EAHLD20086/5/BJ/85)	Environment Agency	Licensed lapsed cancelled surrendered - 18 August 1985
Local Authority Pollution Prevention and Controls (ppc/2/04)	Arun District Council	Revoked 23 October 1992

4.9 Storage of Materials

No materials were stored at the Site at the time of the audit.

4.10 Site Drainage

No drawings have been made available. Foul drainage likely to go to mains as there is a sewage treatment plant adjacent to the site.

4.11 Water Supply

No information or drawings have been made available regarding water supply. One of the historical Site plans indicates that there is a mains water supply into the Site.

4.12 Electricity and Gas Supply

All buildings are reportedly isolated from the mains electrical supply, with the exception of the Sales Office, which is currently occupied by the security guard. There are 2 sub-stations on Site.

Mains gas supply enters the Site parallel the main vehicular access road on the north eastern boundary of the Site. There is a second gas supply governor in the former staff car park area adjacent to north western boundary of Hangar 1.



4.13 Wastes

During the Site walkover, wastes observed were as follows:

- A skip containing commercial and industrial waste, adjacent to the weighbridge office; and
- A number of cement bonded asbestos roof panels (some broken) adjacent to north western corner of Hangar 1 building. (Plate 17).

4.14 Air Emissions

The Site is closed and during the Site Walkover no emissions to air were observed by Golder and no odour was noted.

4.15 Deleterious Materials

4.15.1 Asbestos

A copy of a Type 2 Asbestos Containing Material (ACMs) Survey, commissioned by Tarmac in May 2004, is stored at the Site office. This was examined by Golder during the Site walkover.

The survey and report was prepared by the Stansfield Group Limited, Griffon Road, Quarry Hill Industrial Park, Ilkeston, Derbyshire, DE7 4RF.

The survey was undertaken in May 2004 and the report, entitled 'Type 2 Asbestos Containing Material Survey, Tarmac Topblock, Ford Aggregate, Ford Airfield Industrial Estate, Yapton, Arundel, BN18 0HY', (reference 8441), covered the main offices and plant buildings. Samples were taken and submitted for analysis at Monitor Environmental Services. The report contains a plan indicating survey areas.

Areas that were excluded from the survey include the electrical sub-stations, electrical switchgear, the main office boiler room, the first floor archive store and the aggregates hopper.

The report makes a number of recommendations as follows:

- Medium Risk - Hangar 2, Building A, ground floor insulation board has a positive identification of chrysotile, amosite and crocidolite. The material is described in the report as 'being in reasonable condition', but needing near term attention;
- Low Risk – Hangar 2, ground floor, asbestos cloth insulation identified as containing chrysotile and requiring regular inspection;
- Low Risk – Hangar 2, vinyl floor tiles, identified as containing chrysotile and requiring regular inspection;
- Low Risk – Hangar 2. Offices, profiled sheets and flashing, identified as containing chrysotile and requiring regular inspection; and
- Low Risk- Main Offices, floor tiles and textured wall coating, identified as containing chrysotile and requiring regular inspection.

The report notes that the only area identified with asbestos cement profiled sheets is to the offices adjacent to Hangar 2. In addition, it is stated that the roof of Hangar 2 has Georgian glass roof lights, which are strongly presumed to contain asbestos rope gaskets/seals.

It is considered that should the Site be purchased it would be necessary to ensure the Site has a written asbestos management plan and periodic inspections of the asbestos are undertaken in line with the Control of Asbestos Regulations 2012.



4.15.2 Polychlorinated Biphenyls

There are two sub-stations present on the Site. None were accessed during the Site walkover, but the Site Representative indicated that the utility supplier would have undertaken maintenance at some time in the past. There is no indication as to whether they contain any poly chlorinated biphenyls

4.15.3 Ozone Depleting Substances

No ozone depleting substances (ODS) were observed during the Site walkover.

4.16 Spills and Leaks

No information has been provided regarding any spills or leaks that occurred at the Site.

4.17 Previous Assessments

The Site representatives reported that no previous intrusive investigations relating to land contamination have been undertaken at the Site.

4.18 Potential Areas of Concern

The following Potential Areas of Concern (PAOC) have been identified following the desk study and site walkover as detailed in Table 11 below and shown on Figure 6.

Table 11: Potential Areas of Concern

PAOC	Name	Contaminant of Concern	Plate
PAOC 1	Former gas oil tank (60,000 litres)	Gas oil	2
PAOC 2	Above Ground Storage tank previously containing gas oil (2,500 litres)	Hydrocarbons	3
PAOC 3	Former oil stores	Hydrocarbons	4
PAOC 4	Aerated block plant containing soluble oil, mould oil storage vessels, and oil store, PFA silo and anhydrite silo	soluble oil, mould oil, oil store, PFA, aluminium and anhydrite silo	6
PAOC 5	Sub Station adjacent to Hangar 2	PCBs	7
PAOC 6	Manhole covers possibly indicating presence of interceptor or UST	Hydrocarbons	8
PAOC 7	Sub Station adjacent to Aerated Block Plant	PCBs	9
PAOC 8	In filled slurry pit and HCL store and delivery point	Various	9
PAOC 9	Former Autoclaves	Various	10
PAOC 10	Former gas oil tank (40,000 litres)	Gas oil	11
PAOC 11	historic landfill	Various	12, 13
PAOC 12	Former RAF refuelling area	Aviation fuel	15, 16
PAOC 13	Pallet storage area and possible former RAF bunker	Unknown	No plate
PAOC 14	Previous location of aboveground storage tank previously containing gas oil (2,500 litres)	Hydrocarbons	No plate



5.0 CONCLUSIONS AND RECOMMENDATIONS

Golder has undertaken a Phase I Environmental Site Assessment on behalf of Grundon of the former Tarmac Topblock facility at Ford, Arundel, BN18 0HY, West Sussex. The works are required to assess the potential environmental liabilities associated with the Site as part of a due diligence exercise for the potential acquisition of the Site by Grundon.

A review of published information in a Landmark Envirocheck[®] report and from information from the Site visit has shown that historically, the Site has been used as part of Ford Aerodrome and is understood to have been used during the Second World War and included a refuelling area and possibly a bunker. Following this the Site has been used by Tarmac to produce concrete blocks.

The environmental data search indicates that the Quaternary Brickearth superficial deposits, which are present beneath the majority of the Site, are classified as a Secondary 'A' Aquifer. Such aquifers are described by the Environment Agency as having 'permeable layers capable of supporting water supplies at a local level and in some cases, forming an important source of base flow to rivers'. The Chalk bedrock is classified as a Principal Aquifer, which are defined by the Environment Agency as being aquifers with high intergranular and/or fracture permeability, meaning they usually provide a high level of water storage.

The Site is not located in an area defined as an SPZ. The nearest source protection zones (total catchment area) are located over 4 km northeast and northwest of the Site.

The nearest major surface watercourse is the River Arun, which is located to the east of the Site. At its closest the river is located approximately 950 m east of the Site and flows towards the south before discharging into the English Channel at Littlehampton approximately 4 km to the southeast of the Site.

During the Site walkover a number of potential areas of environmental concern were identified as detailed below.

PAOC	Name	Contaminant of Concern	Plate
PAOC 1	Former gas oil tank (60,000 litres)	Gas oil	2
PAOC 2	Above Ground Storage tank previously containing gas oil (2,500 litres)	Hydrocarbons	3
PAOC 3	Former oil stores	Hydrocarbons	4
PAOC 4	Aerated block plant containing soluble oil, mould oil storage vessels, and oil store, PFA silo and anhydrite silo	soluble oil, mould oil, oil store, PFA, aluminium and anhydrite silo	6
PAOC 5	Sub Station adjacent to Hangar 2	PCBs	7
PAOC 6	Manhole covers possibly indicating presence of interceptor or UST	Hydrocarbons	8
PAOC 7	Sub Station adjacent to Aerated Block Plant	PCBs	9
PAOC 8	In filled slurry pit and HCL store and delivery point	Various	9
PAOC 9	Former Autoclaves	Various	10
PAOC 10	Former gas oil tank (40,000 litres)	Gas oil	11
PAOC 11	historic landfill	Various	12, 13
PAOC 12	Former RAF refuelling area	Aviation fuel	15, 16
PAOC 13	Pallet storage area and possible former RAF bunker	Unknown	No plate
PAOC 14	Previous location of aboveground storage tank previously containing gas oil (2,500 litres)	Hydrocarbons	No plate



PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

In addition, asbestos is known to be present in the fabric of the buildings and loose asbestos cement sheeting was stored close to the northwest corner of Hangar 1. It is considered that should the Site be purchased it would be necessary to ensure the Site has a written asbestos management plan and periodic inspections of the asbestos are undertaken in line with the Control of Asbestos Regulations 2012.

Whilst according to the Landmark Envirocheck[®] report the land has not been designated as Contaminated Land by the Local Council it is considered that prior to the purchase of the Site it would be prudent to investigate the areas of potential concern to provide baseline information. Should the Site be redeveloped a Site Investigation may be requested through the planning process. In addition Grundon may want to investigate whether the abstraction licences from the Site are still current and can be taken over by Grundon.



Report Signature Page

GOLDER ASSOCIATES (UK) LTD

A handwritten signature in black ink that reads "D. Hybert".

David Hybert
Senior Hydrogeologist

A handwritten signature in blue ink that reads "S. Wheeler".

Sophie Wheeler
Senior Environmental Consultant

Date: 21 September 2012

DH/SW/pr

Company Registered in England No.1125149

At Attenborough House, Browns Lane Business Park, Stanton-on-the-Wolds, Nottinghamshire NG12 5BL

VAT No. 209 0084 92


Golder, Golder Associates and the GA globe design are trademarks of Golder Associates Corporation.

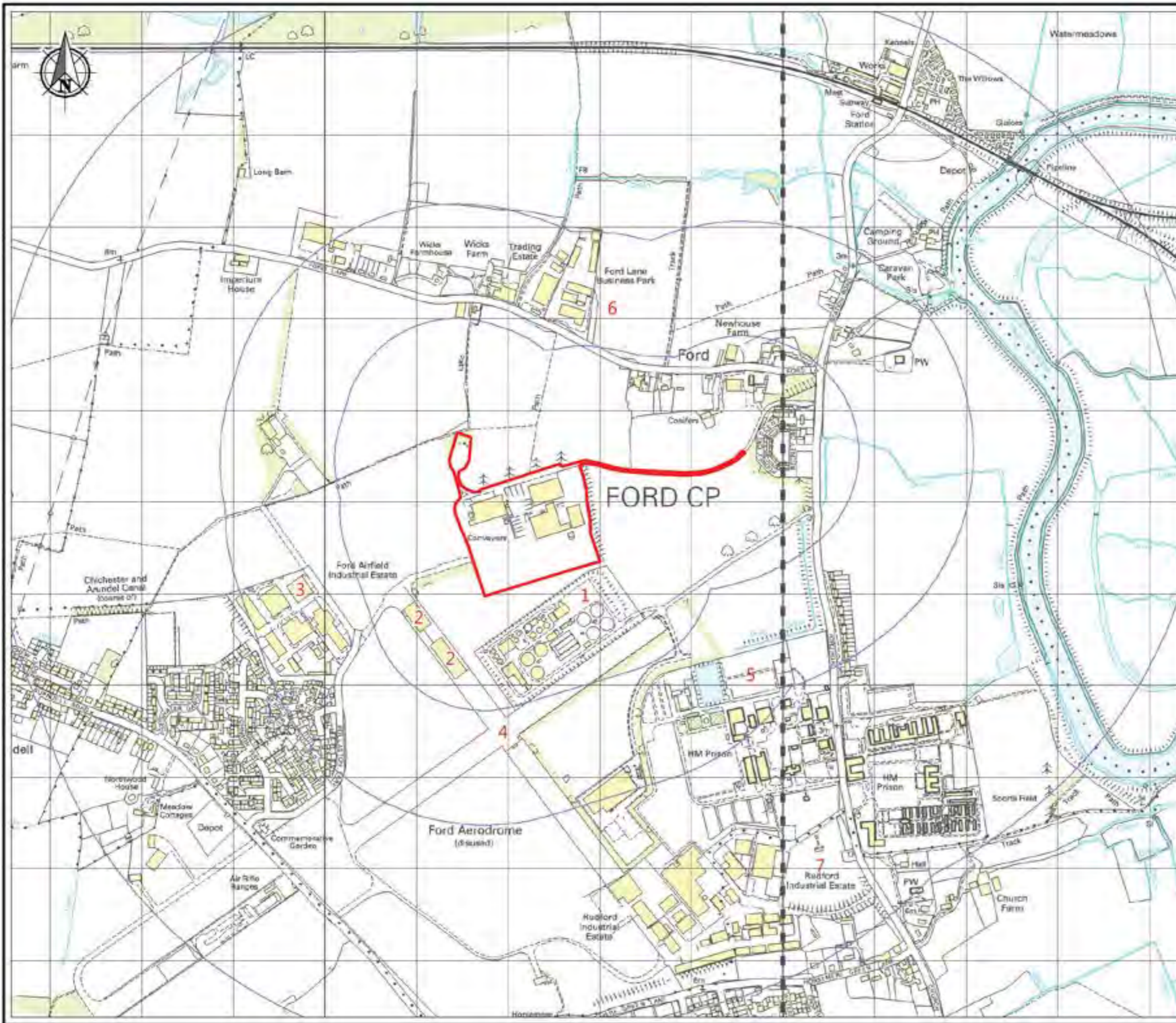


APPENDIX A

Drawings and Plates



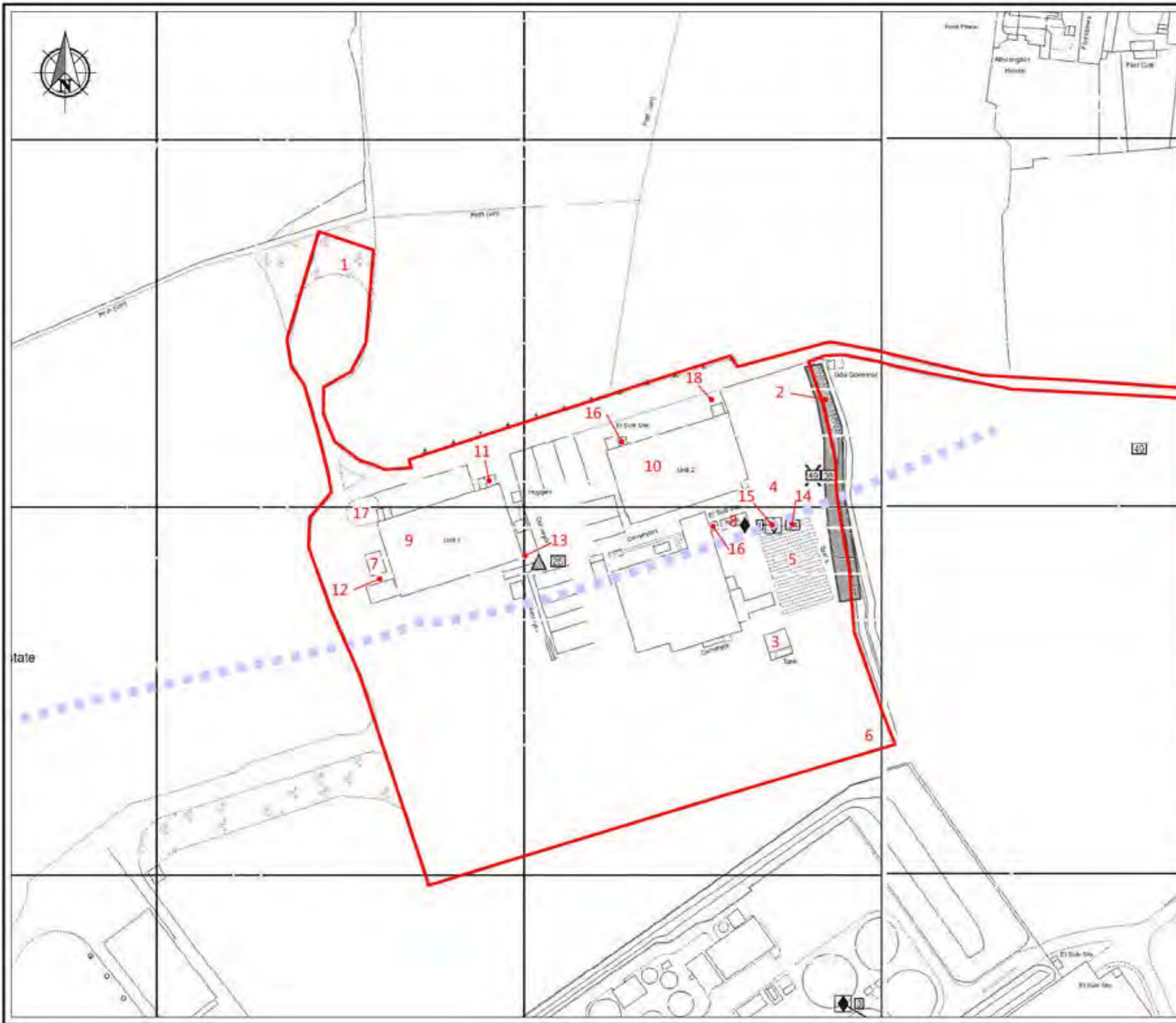
	Client	Grundon Waste Management				Drawn by	ECS	Checked by	SW	Proj Manager	SW	Approved	SW	Date	19/09/12
	Project	Former Tarmac Topblock, Ford, Arundel, West Sussex				File No.	519530			12514190632					
	Scale	Site Location Plan				Scale	A4 1:50,000			Report Issue					
	Page					Drawing Title	1								



- Legend**
- 1 Southern Water Services Limited
 - 2 Warehouses
 - 3 Ford Airfield Industrial Estate
 - 4 Former airfield runways
 - 5 Ford Prison
 - 6 Ford Lane Business Park
 - 7 Rudford Industrial Estate

Notes
 Crown Copyright. All Rights reserved. License No 10002432.

Client: Grundon Waste Management				
Project: Former Tarmac Topblock, Ford, Arundel, West Sussex				
Title: Site Vicinity Plan				
Drawn by:	Checked by:	Proj. Manager:	Reviewed:	Date:
ECS	SW	SW	SW	19/09/12
File No: 519531			Project No: 12514190632	
Scale:	Scale:	Status:		
A3	1:8,000	Report Issue		
Drawing No:		Rev:		
2		-		



Legend

- 1 Former RAF refuelling pumping station
- 2 Location of historical landfill
- 3 Former boiler house and associated former gas oil tank (60,000l)
- 4 Location of former slurry pit, aluminium store, hydrochloric acid store
- 5 Former autoclaves
- 6 Former pallet storage area and possible former RAF bunker
- 7 Former boiler house and associated gas oil tank (40,000l)
- 8 Aerated block plant formerly containing soluble oil, mould oil storage vessels, an oil store, PFA silo and anhydrite silo
- 9 Hangar 1
- 10 Hangar 2
- 11 Former oil stores
- 12 AST (2,500l)
- 13 Former location of AST gas oil (2,500l)
- 14 Location of abstraction point
- 15 Location of discharge point
- 16 Sub-stations
- 17 Location of asbestos sheeting
- 18 Manhole covers possibly indicating presence of interceptor or UST
- Site boundary
- Historical route of Arundel Canal

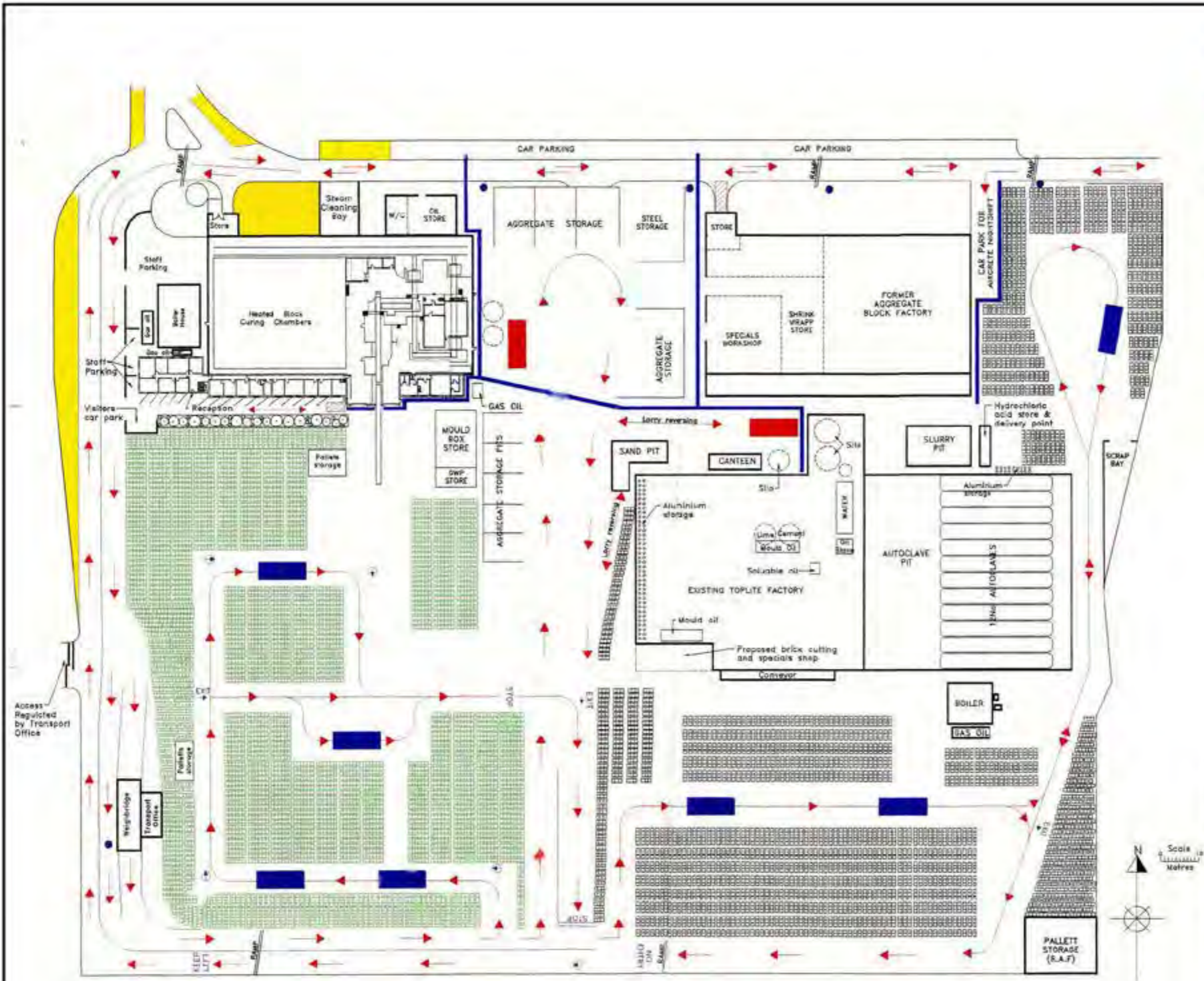
Notes

Crown Copyright. All Rights reserved. License No 100022432.

Client: Grundon Waste Management				
Project: Former Tarmac Topblock, Ford, Arundel, West Sussex				
Title: Site Layout Plan				
Created by:	Reviewed by:	Project Manager:	Revision:	Date:
ECS	SW	SW	SW	19/09/12
File No: 519532		Project No: 12514190632		
Scale: A3	Scale: 1:1,000	Status: Report Issue		
Drawing No: 3		Rev: -		
<small>© Golder Associates (UK) Ltd Caversham Mill Brunel End Business Park Caversham Road Reading RG4 0ET UK Tel: +44 (0)1135 811 811</small>				

Legend

- Lorry parking and netting down area
- Loading bays
- Lorries pumping materials into silos
- Unloading of factory parts for secondary collection
- Walkway in joint area
- Road dividing line (other permanent road signs, symbols etc, also shown in blue)
- Direction of traffic
- Toplite stock
- Aggregate block stock



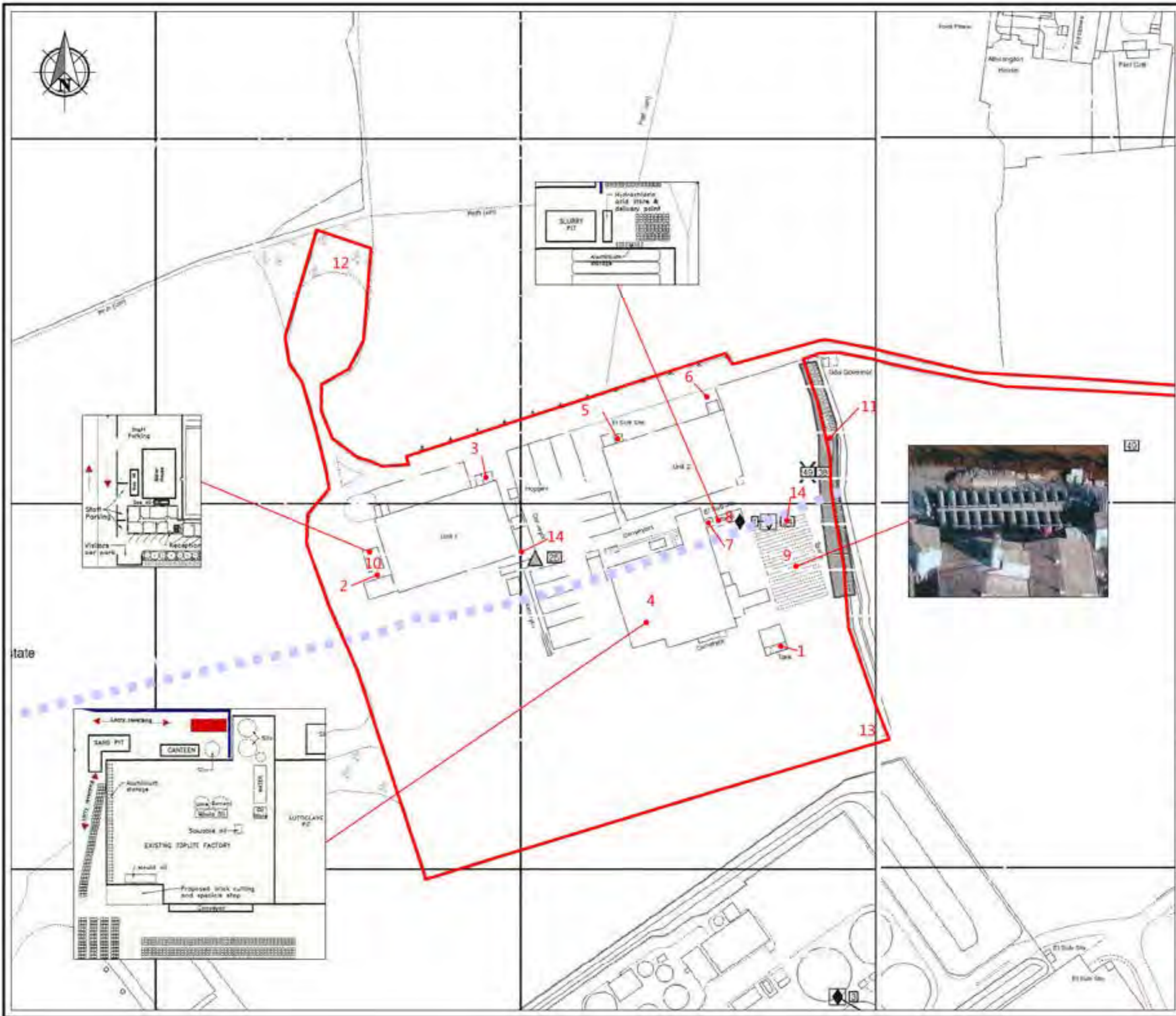
Client: Grundon Waste Management				
Project: Former Tarmac Topblock, Ford, Arundel, West Sussex				
File: Site Plan Provided by Tarmac				
Created By: CB	Reviewed By: SW	Prepared By: SW	Revision: SW	Date: 20/09/12
File No: 5234267		Project No: 12514190632		
Scale: A3	As shown	Status: Report Issue		
Drawing No: 4				Rev: -



Client	Grundon Waste Management			
Project	Former Tarmac Topblock, Ford, Arundel, West Sussex			
Title	Aerial Photograph (not dated)			
Created by	Requested by	Proj Manager	Reviewer	Date
CB	SW	SW	SW	20/09/12
File No.	Project No.			
5234268	12514190632			
Size	Scale	Status		
A3	As shown	Report Issue		
Drawing No.	Rev			
5	-			



Legend
 — Site boundary
 - - - Historical route of Arundel Canal



Notes
 Crown Copyright. All Rights reserved. License No 100022432.

Client: Grundon Waste Management				
Project: Former Tarmac Topblock, Ford, Arundel, West Sussex				
Title: Potential Areas of Concern				
Created by	Requested by	Proj. Manager	Revision	Date
CB	SW	SW	SW	21/09/12
File No: 5234269		Project No: 12514190632		
Scale: A3	Scale: 1:1,000	Status: Report Issue		
Drawing No: 6				Rev: -

Golder Associates (UK) Ltd
 Caversham House
 Bourne End Business Park
 Coles End Road
 Bourne End
 Buckinghamshire
 SL8 5AD
 +44 (0)1628 851 851



Plate 1: View looking West towards Hangar 1 along access road.



Plate 2: Location of Former boiler house gas oil tank (60,000 litres).



© Golder Associates (UK) Ltd

Client	Grundon Waste Management	Created by	CB	Requested by	SW	Proj Manager	SW	Reviewer	SW	Date	20/09/12
Project	Former Tarmac Topblock, Ford, Arundel, West Sussex	File No.	5234266			Project No.	12514190632				
Title	Photographs	Size	A4	Scale	N/A	Status	Report Issue				
		Pages	1&2								-



Plate 3: Above Ground Storage Tank previously containing gas oil (2,500 litres).



Plate 4: Building used as former oil stores on West side - Hangar 1.



© Golder Associates (UK) Ltd

Client	Grundon Waste Management	Created by	CB	Requested by	SW	Proj Manager	SW	Reviewer	SW	Date	20/09/12		
Project	Former Tarmac Topblock, Ford, Arundel, West Sussex	File No.	5234266			Project No.			12514190632				
Title	Photographs	Size	A4	Scale	N/A	Status			Report Issue				
							Pages			3&4		Rev	-



Plate 5: View of weighbridge looking North towards Hangar 1 - Aggregate Block Building.



Plate 6: View North West to Hangar 3 - Aerated Block Plant from South East corner.



© Golder Associates (UK) Ltd

Client	Grundon Waste Management					Created by	CB	Requested by	SW	Proj Manager	SW	Reviewer	SW	Date	20/09/12
Project	Former Tarmac Topblock, Ford, Arundel, West Sussex					File No.	5234266			Project No.			12514190632		
Title	Photographs					Scale	A4			Scale	N/A			Report Issue	
						Pages	5&6							Rev	-



Plate 7: Sub Station adjacent to Hangar 2.



Plate 8: Manhole covers possibly indicating presence of interceptor or UST adjacent to Hangar 2.


 © Golder Associates (UK) Ltd	Client	Grundon Waste Management	Created by	CB	Requested by	SW	Proj Manager	SW	Reviewer	SW	Date	20/09/12
	Project	Former Tarmac Topblock, Ford, Arundel, West Sussex	File No.	5234266		Project No.		12514190632				
	Title	Photographs	Scale	A4		N/A		Status		Report Issue		
				Pages		7&8		Notes		-		



Plate 9: Sub Station adjacent to Aerated Block Plant - Hangar 3 and area of former slurry pit in the foreground.



Plate 10: View from North over location of former autoclaves towards Hangar 2.



© Golder Associates (UK) Ltd

Client	Grundon Waste Management	Created by	CB	Requested by	SW	Proj Manager	SW	Reviewer	SW	Date	20/09/12
Project	Former Tarmac Topblock, Ford, Arundel, West Sussex	File No.	5234266				Project No.	12514190632			
Title	Photographs	Size	A4	Scale	N/A		Status	Report Issue			
		Tables	9&10								



Plate 11: Location of former boiler house and associated gas oil tank (40,000 litres).



Plate 12: Looking toward the eastern boundary where the recorded historic landfill is located.



© Golder Associates (UK) Ltd

Client	Grundon Waste Management	Created by	CB	Requested by	SW	Proj Manager	SW	Reviewer	SW	Date	20/09/12
Project	Former Tarmac Topblock, Ford, Arundel, West Sussex	File No.	5234266				Project No.	12514190632			
Title	Photographs	Size	A4	Scale	N/A	Status	Report Issue				
							Pages	11&12		Rev	-



Plate 13: Looking toward eastern boundary where the recorded historic landfill is located.



Plate 14: Former RAF refuelling area.



© Golder Associates (UK) Ltd

Client	Grundon Waste Management					Created by	CB	Requested by	SW	Proj Manager	SW	Reviewer	SW	Date	20/09/12
Project	Former Tarmac Topblock, Ford, Arundel, West Sussex					File No.	5234266			Project No.			12514190632		
Title	Photographs					Size	A4	Scale	N/A		Status	Report Issue			
						Plates	13&14					Page	-		



Plate 15: Former RAF refuelling pumping station.



Plate 16: Redundant pipework inside the former RAF refuelling pumping station.



 © Golder Associates (UK) Ltd	Client	Grundon Waste Management	Created by	CB	Requested by	SW	Proj Manager	SW	Reviewer	SW	Date	20/09/12
	Project	Former Tarmac Topblock, Ford, Arundel, West Sussex	File No.	5234266		Project No.		12514190632				
	Title	Photographs	Size	A4	Scale	N/A	Status	Report Issue				
				Pages	15&16							



Plate 17: Asbestos sheeting adjacent to North West corner - Hangar 1.

 © Golder Associates (UK) Ltd	Client	Grundon Waste Management	Created by	CB	Requested by	SW	Proj Manager	SW	Reviewer	SW	Date	20/09/12
	Project	Former Tarmac Topblock, Ford, Arundel, West Sussex	File No.	5234266		Project No.		12514190632				
	Title	Photographs	Size	A4	Scale	N/A	Status	Report Issue				
				Pages	17		-					



APPENDIX B

Landmark Envirocheck[®] Report

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

41399159_1_1

Customer Reference:

12514190632

National Grid Reference:

499560, 103420

Slice:

A

Site Area (Ha):

6.72

Search Buffer (m):

1000

Site Details:

Ford Airfield Estate

Ford

ARUNDEL

West Sussex

BN18 0HY

Client Details:

Ms S Wheeler

Golder Associates UK Ltd

Cavendish House

Bourne End Business Park

Cores End Road

Bourne End

Buckinghamshire

SL8 5AS

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	23
Hazardous Substances	-
Geological	29
Industrial Land Use	36
Sensitive Land Use	49
Data Currency	50
Data Suppliers	54
Useful Contacts	55

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client.

In the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

Copyright Notice

© Landmark Information Group Limited 2012. The Copyright on the information and data and its format as contained in this Envirocheck® Report ("Report") is the property of Landmark Information Group Limited ("Landmark") and several other Data Providers, including (but not limited to) Ordnance Survey, British Geological Survey, the Environment Agency and Natural England, and must not be reproduced in whole or in part by photocopying or any other method. The Report is supplied under Landmark's Terms and Conditions accepted by the Customer. A copy of Landmark's Terms and Conditions can be found with the Index Map for this report. Additional copies of the Report may be obtained from Landmark, subject to Landmark's charges in force from time to time. The Copyright, design rights and any other intellectual rights shall remain the exclusive property of Landmark and /or other Data providers, whose Copyright material has been included in this Report.

Natural England Copyright Notice

Site of Special Scientific Interest, National Nature Reserve, Ramsar, Special Protection Area, Special Conservation Area, Marine Nature Reserve data (derived from Ordnance Survey 1:10000 raster) is provided by, and used with the permission of, Natural England who retain the copyright and Intellectual Property Rights for the data.

Ove Arup Copyright Notice

The Data provided in this report was obtained on Licence from Ove Arup & Partners Limited (for further information, contact mining_review@arup.com). No reproduction or further use of such Data is to be made without the prior written consent of Ove Arup & Partners Limited. The information and data supplied in the product are derived from publicly available records and other third party sources and neither Ove Arup & Partners nor Landmark warrant the accuracy or completeness of such information or data.

Peter Brett Associates Copyright Notice

The cavity data presented has been extracted from the PBA enhanced version of the original DEFRA national cavity databases. PBA/DEFRA retain the copyright & intellectual property rights in the data. Whilst all reasonable efforts are made to check that the information contained in the cavity databases is accurate we do not warrant that the data is complete or error free. The information is based upon our own researches and those collated from a number of external sources and is continually being augmented and updated by PBA. In no event shall PBA/DEFRA or Landmark be liable for any loss or damage including, without limitation, indirect or consequential loss or damage arising from the use of this data.

Radon Potential dataset Copyright Notice

Information supplied from a joint dataset compiled by The British Geological Survey and the Health Protection Agency.

Report Version v47.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1	1	9	12	29
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control	pg 13		2		
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 14	1		2	2
Local Authority Pollution Prevention and Control Enforcements	pg 14			1	
Nearest Surface Water Feature	pg 15		Yes		
Pollution Incidents to Controlled Waters	pg 15			2	1
Prosecutions Relating to Authorised Processes					
Prosecutions Relating to Controlled Waters					
Registered Radioactive Substances					
River Quality	pg 15				1
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register					
Water Abstractions	pg 15	2	1	1	2 (*17)
Water Industry Act Referrals					
Groundwater Vulnerability	pg 21	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 21	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 21	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 21		Yes	n/a	n/a
Flooding from Rivers or Sea without Defences	pg 21		Yes	n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites	pg 23	1		1	2
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)	pg 23			3	2
Local Authority Recorded Landfill Sites	pg 25				2
Registered Landfill Sites	pg 25	1			3
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites	pg 27			3	1

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					
Geological					
BGS 1:625,000 Solid Geology	pg 29	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 29	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 34			1	
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
Brine Compensation Area			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 34	Yes	Yes	n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 34	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards				n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 34	Yes	Yes	n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 34	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 35	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 35	Yes	Yes	n/a	n/a
Radon Potential - Radon Affected Areas	pg 35	Yes	n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 36		1	54	84
Fuel Station Entries					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones	pg 49			1	1
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	<p>Discharge Consents</p> <p>Operator: Tarmac Topblock Ltd Property Type: Undefined Or Other Location: Tarmac Topblock Ltd Ford Airfield Industrial Est, Yapton, Arundel, West Sussex, Bn18 0hy Authority: Environment Agency, Southern Region Catchment Area: Old-unknown river Reference: P06572 Permit Version: 1 Effective Date: 13th September 1997 Issued Date: 13th September 1997 Revocation Date: 6th January 1998 Discharge Type: Trade Discharge - Mineral Workings Discharge: Not Supplied Environment: Receiving Water: Not Supplied Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 10m</p>	A10NE (SW)	0	1	499520 103390
2	<p>Discharge Consents</p> <p>Operator: Southern Water Services Ltd (S) Property Type: Sewage Disposal Works - Water Company Location: Ford Wwtw Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, Bn18 0hy Authority: Environment Agency, Southern Region Catchment Area: Coastal Offshore Reference: A00787 Permit Version: 4 Effective Date: 22nd September 2003 Issued Date: 22nd September 2003 Revocation Date: 21st December 2005 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Controlled Sea Environment: Receiving Water: English Channel Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Manually positioned within the geographical locality</p>	A10SE (S)	129	1	499496 103105
3	<p>Discharge Consents</p> <p>Operator: Southern Water Services Ltd (S) Property Type: Sewage Disposal Works - Water Company Location: Ford Wwtw Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, Bn18 0hy Authority: Environment Agency, Southern Region Catchment Area: Coastal Offshore Reference: A00787 Permit Version: 9 Effective Date: 31st March 2010 Issued Date: 31st March 2010 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Controlled Sea Environment: Receiving Water: English Channel Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p>	A10SE (S)	142	1	499590 103120
3	<p>Discharge Consents</p> <p>Operator: Southern Water Services Ltd (S) Property Type: Sewage Disposal Works - Water Company Location: Ford Wwtw Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, Bn18 0hy Authority: Environment Agency, Southern Region Catchment Area: Coastal Offshore Reference: A00787 Permit Version: 8 Effective Date: 30th March 2010 Issued Date: 30th March 2010 Revocation Date: 30th March 2010 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Controlled Sea Environment: Receiving Water: English Channel Status: Varied by Application - (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p>	A10SE (S)	142	1	499590 103120

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	<p>Discharge Consents</p> <p>Operator: Southern Water Services Ltd (S) Property Type: Sewage Disposal Works - Water Company Location: Ford Wwtw Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, Bn18 0hy</p> <p>Authority: Environment Agency, Southern Region Catchment Area: Coastal Offshore Reference: A00787 Permit Version: 7 Effective Date: 5th October 2009 Issued Date: 5th October 2009 Revocation Date: 29th March 2010 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Controlled Sea Environment: Receiving Water: English Channel Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to wi hin 10m</p>	A10SE (S)	142	1	499590 103120
3	<p>Discharge Consents</p> <p>Operator: Southern Water Services Ltd (S) Property Type: Sewage Disposal Works - Water Company Location: Ford Wwtw Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, Bn18 0hy</p> <p>Authority: Environment Agency, Southern Region Catchment Area: Coastal Offshore Reference: A00787 Permit Version: 6 Effective Date: 1st April 2009 Issued Date: 14th October 2008 Revocation Date: 4th October 2009 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Controlled Sea Environment: Receiving Water: English Channel Status: Consent Currently Under Appeal Positional Accuracy: Located by supplier to wi hin 10m</p>	A10SE (S)	142	1	499590 103120
3	<p>Discharge Consents</p> <p>Operator: Southern Water Services Ltd (S) Property Type: Sewage Disposal Works - Water Company Location: Ford Wwtw Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, Bn18 0hy</p> <p>Authority: Environment Agency, Southern Region Catchment Area: Coastal Offshore Reference: A00787 Permit Version: 5 Effective Date: 22nd December 2005 Issued Date: 22nd December 2005 Revocation Date: 31st March 2009 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Controlled Sea Environment: Receiving Water: English Channel Status: Consent Currently Under Appeal Positional Accuracy: Located by supplier to wi hin 10m</p>	A10SE (S)	142	1	499590 103120
3	<p>Discharge Consents</p> <p>Operator: Southern Water Services Ltd (S) Property Type: Sewage Disposal Works - Water Company Location: Ford Wwtw Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, Bn18 0hy</p> <p>Authority: Environment Agency, Southern Region Catchment Area: Coastal Offshore Reference: A00787 Permit Version: 4 Effective Date: 22nd September 2003 Issued Date: 22nd September 2003 Revocation Date: 21st December 2005 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Controlled Sea Environment: Receiving Water: English Channel Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to wi hin 10m</p>	A10SE (S)	142	1	499590 103120

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	<p>Discharge Consents</p> <p>Operator: Mr P Hague Property Type: Domestic Property (Single) Location: Newhouse Farm, Ford Lane, Ford, Nr Arundel Authority: Environment Agency, Southern Region Catchment Area: Not Supplied Reference: P09053 Permit Version: 1 Effective Date: 26th May 2000 Issued Date: 26th May 2000 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Onto Land Environment: Receiving Water: Onto Land Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 10m</p>	A11NE (NE)	172	1	499980 103670
5	<p>Discharge Consents</p> <p>Operator: Peter Hague Property Type: Domestic Property (Single) Location: Bullock Yard North Ford Lane Ford Bullock Yard, North Ford Lane, Ford, Arundel, West Sussex, BN18 0ef Authority: Environment Agency, Southern Region Catchment Area: Adur Estuary & Freshwater Tributaries Reference: P12971 Permit Version: 1 Effective Date: 10th January 2007 Issued Date: 10th January 2007 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Into Land Via Soakaway Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p>	A15SW (NE)	233	1	499860 103739
6	<p>Discharge Consents</p> <p>Operator: Mr S P Beeching Property Type: Industrial Parks & Estates Location: Ford Lane Business Park Arundel Ford Lane Business Park, Ford Lane, Arundel, West Sussex, BN18 0uz Authority: Environment Agency, Southern Region Catchment Area: Adur Estuary & Freshwater Tributaries Reference: P13199 Permit Version: 1 Effective Date: 5th October 2007 Issued Date: 5th October 2007 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Of Reiver Arun Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p>	A14SE (N)	293	1	499524 103780
7	<p>Discharge Consents</p> <p>Operator: Tarmac Heavy Building Materials UK Ltd Property Type: Undefined Or Other Location: Tarmac Topblock Ltd Ford Airfield Industrial Est, Yaption, Arundel, West Sussex, BN18 0hy Authority: Environment Agency, Southern Region Catchment Area: Old-unknown river Reference: P06572 Permit Version: 10 Effective Date: 1st October 2001 Issued Date: 17th September 2001 Revocation Date: 31st December 2001 Discharge Type: Trade Discharge - Process Water Discharge: Freshwater Stream/River Environment: Receiving Water: River Arun Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 10m</p>	A12NW (E)	364	1	500270 103420

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	<p>Discharge Consents</p> <p>Operator: Tarmac Heavy Building Materials Uk Ltd Property Type: Undefined Or Other Location: Tarmac Topblock Ltd Ford Airfield Industrial Est, Yapton, Arundel, West Sussex, Bn18 0hy Authority: Environment Agency, Southern Region Catchment Area: Old-unknown river Reference: P06572 Permit Version: 9 Effective Date: 1st July 2001 Issued Date: 29th June 2001 Revocation Date: 30th September 2001 Discharge Type: Trade Discharge - Process Water Discharge: Freshwater Stream/River Environment: Receiving Water: River Arun Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 10m</p>	A12NW (E)	364	1	500270 103420
7	<p>Discharge Consents</p> <p>Operator: Tarmac Heavy Building Materials Uk Ltd Property Type: Undefined Or Other Location: Tarmac Topblock Ltd Ford Airfield Industrial Est, Yapton, Arundel, West Sussex, Bn18 0hy Authority: Environment Agency, Southern Region Catchment Area: Old-unknown river Reference: P06572 Permit Version: 8 Effective Date: 1st January 2001 Issued Date: 22nd December 2000 Revocation Date: 30th June 2001 Discharge Type: Trade Discharge - Process Water Discharge: Freshwater Stream/River Environment: Receiving Water: River Arun Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 10m</p>	A12NW (E)	364	1	500270 103420
7	<p>Discharge Consents</p> <p>Operator: Tarmac Heavy Building Materials Uk Ltd Property Type: Undefined Or Other Location: Tarmac Topblock Ltd Ford Airfield Industrial Est, Yapton, Arundel, West Sussex, Bn18 0hy Authority: Environment Agency, Southern Region Catchment Area: Old-unknown river Reference: P06572 Permit Version: 7 Effective Date: 1st May 2000 Issued Date: 1st May 2000 Revocation Date: 31st December 2000 Discharge Type: Trade Discharge - Process Water Discharge: Freshwater Stream/River Environment: Receiving Water: River Arun Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 10m</p>	A12NW (E)	364	1	500270 103420
7	<p>Discharge Consents</p> <p>Operator: Tarmac Heavy Building Materials Uk Ltd Property Type: Undefined Or Other Location: Tarmac Topblock Ltd Ford Airfield Industrial Est, Yapton, Arundel, West Sussex, Bn18 0hy Authority: Environment Agency, Southern Region Catchment Area: Old-unknown river Reference: P06572 Permit Version: 5 Effective Date: 1st May 1999 Issued Date: 19th April 1999 Revocation Date: 31st October 1999 Discharge Type: Trade Discharge - Process Water Discharge: Freshwater Stream/River Environment: Receiving Water: River Arun Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 10m</p>	A12NW (E)	364	1	500270 103420

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	<p>Discharge Consents</p> <p>Operator: Tarmac Heavy Building Materials Uk Ltd Property Type: Undefined Or Other Location: Tarmac Topblock Ltd Ford Airfield Industrial Est, Yapton, Arundel, West Sussex, Bn18 0hy Authority: Environment Agency, Southern Region Catchment Area: Old-unknown river Reference: P06572 Permit Version: 6 Effective Date: 1st November 1999 Issued Date: 19th April 1999 Revocation Date: 30th April 2000 Discharge Type: Trade Discharge - Process Water Discharge: Freshwater Stream/River Environment: Receiving Water: River Arun Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to wi hin 10m</p>	A12NW (E)	364	1	500270 103420
7	<p>Discharge Consents</p> <p>Operator: Tarmac Heavy Building Materials Uk Ltd Property Type: Undefined Or Other Location: Tarmac Topblock Ltd Ford Airfield Industrial Est, Yapton, Arundel, West Sussex, Bn18 0hy Authority: Environment Agency, Southern Region Catchment Area: Old-unknown river Reference: P06572 Permit Version: 4 Effective Date: 30th October 1998 Issued Date: 30th October 1998 Revocation Date: 1st May 1999 Discharge Type: Trade Discharge - Process Water Discharge: Freshwater Stream/River Environment: Receiving Water: River Arun Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to wi hin 10m</p>	A12NW (E)	364	1	500270 103420
7	<p>Discharge Consents</p> <p>Operator: Tarmac Heavy Building Materials Uk Ltd Property Type: Undefined Or Other Location: Tarmac Topblock Ltd Ford Airfield Industrial Est, Yapton, Arundel, West Sussex, Bn18 0hy Authority: Environment Agency, Southern Region Catchment Area: Old-unknown river Reference: P06572 Permit Version: 3 Effective Date: 1st July 1998 Issued Date: 1st July 1998 Revocation Date: 30th October 1998 Discharge Type: Trade Discharge - Process Water Discharge: Freshwater Stream/River Environment: Receiving Water: River Arun Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to wi hin 10m</p>	A12NW (E)	364	1	500270 103420
7	<p>Discharge Consents</p> <p>Operator: Tarmac Heavy Building Materials Uk Ltd Property Type: Undefined Or Other Location: Tarmac Topblock Ltd Ford Airfield Industrial Est, Yapton, Arundel, West Sussex, Bn18 0hy Authority: Environment Agency, Southern Region Catchment Area: Old-unknown river Reference: P06572 Permit Version: 2 Effective Date: 6th January 1998 Issued Date: 6th January 1998 Revocation Date: 30th June 1998 Discharge Type: Trade Discharge - Process Water Discharge: Freshwater Stream/River Environment: Receiving Water: River Arun Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to wi hin 10m</p>	A12NW (E)	364	1	500270 103420

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
8	<p>Discharge Consents</p> <p>Operator: T P Smart Ltd Property Type: Dealing In Scrap Metals Location: T P Smart Ltd, Ford Lane Ind. Est. Ford Lane Industrial Estate, 20 Ford Lane, Nr Arundel, West Sussex, Bn18 0df Authority: Environment Agency, Southern Region Catchment Area: Adur Estuary & Freshwater Tributaries Reference: P12335 Permit Version: 1 Effective Date: 4th May 2005 Issued Date: 4th May 2005 Revocation Date: Not Supplied Discharge Type: Trade Effluent Discharge-Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: An Adjacent Small Watercourse Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p>	A14SE (N)	458	1	499501 103960
8	<p>Discharge Consents</p> <p>Operator: Beeching Ltd Property Type: Industrial Parks & Estates Location: 18 New Business Units, Ford Lane Industrial Estate, Ford Arundel, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Supplied Reference: P06893 Permit Version: 1 Effective Date: 22nd September 1997 Issued Date: 22nd September 1997 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Freshwater River Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p>	A14SE (N)	480	1	499510 103980
9	<p>Discharge Consents</p> <p>Operator: Littlehampton Boat House Assoc. Property Type: Domestic Property (Single) Location: Basin Of Old Portsmouth Canal, Littlehampton West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: P02524 Permit Version: 1 Effective Date: 29th August 1989 Issued Date: 29th August 1989 Revocation Date: 31st March 1997 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Into Land Environment: Receiving Water: Into Land Status: Lapsed (under Environment Act 1995, Schedule 23) Positional Accuracy: Located by supplier to within 100m</p>	A16SW (NE)	553	1	500350 103850
10	<p>Discharge Consents</p> <p>Operator: Heywood And Bryett Ltd Property Type: Public Houses & Bars Location: Ship & Anchor Public House, Ford, Arundel, West Sussex, Bn18 0bj Authority: Environment Agency, Southern Region Catchment Area: Adur Estuary & Freshwater Tributaries Reference: P11998 Permit Version: 1 Effective Date: 4th April 2004 Issued Date: 4th April 2004 Revocation Date: Not Supplied Discharge Type: Sewage And Trade Combined - Unspecified Discharge: Onto Land/Into Watercourse Environment: Receiving Water: Unnamed Trib.River Arun-Ditch Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p>	A16SW (NE)	640	1	500300 104020

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
11	<p>Discharge Consents</p> <p>Operator: Styropak (Uk) Ltd Property Type: Domestic Tip Location: Styropak Uk Ltd Unit A, Rudford Industrial Estate, Ford, Near Arundel, Bn18 0bd Authority: Environment Agency, Southern Region Catchment Area: Adur Estuary & Freshwater Tributaries Reference: P05662 Permit Version: 1 Effective Date: 10th August 1995 Issued Date: 10th August 1995 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Not Supplied Environment: Receiving Water: Not Supplied Status: New Consent, by Application (Water Resources Act 1991, Section 113 & Schedule 12) Positional Accuracy: Located by supplier to within 10m</p>	A7SW (S)	650	1	499790 102650
11	<p>Discharge Consents</p> <p>Operator: Rudford Industrial Estate Property Type: Industrial Parks & Estates Location: Rudford Industrial Estate, Ford Airfield, Ford, Arundel, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Old-Arun 70 Reference: P02171 Permit Version: 1 Effective Date: 1st April 1991 Issued Date: 1st April 1991 Revocation Date: 20th March 1996 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Saline Estuary Environment: Receiving Water: Saline Estuary Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 100m</p>	A7SW (S)	650	1	499790 102650
12	<p>Discharge Consents</p> <p>Operator: H M Prison Ford Property Type: Mixed Farming Location: H M Prison Ford, Ford, Arundel, West Sussex, Bn18 Authority: Environment Agency, Southern Region Catchment Area: Not Supplied Reference: App/So/40su Permit Version: 1 Effective Date: 1st April 1999 Issued Date: 1st April 1999 Revocation Date: Not Supplied Discharge Type: Trade Discharge - Process Water Discharge: Into Land Environment: Receiving Water: Into Land Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p>	A7NE (SE)	710	1	500140 102810
13	<p>Discharge Consents</p> <p>Operator: Rudford Industrial Estate Property Type: Industrial Parks & Estates Location: Rudford Industrial Estate, Ford Airfield, Ford, Arundel, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Old-Arun 70 Reference: P02171 Permit Version: 1 Effective Date: 1st April 1991 Issued Date: 1st April 1991 Revocation Date: 20th March 1996 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Saline Estuary Environment: Receiving Water: Saline Estuary Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 10m</p>	A7SW (S)	763	1	499735 102515

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	<p>Discharge Consents</p> <p>Operator: R T Page And Sons Ltd Property Type: Industrial Parks & Estates Location: Unit R, Rudford Industrial Estate, Ford Arundel, West Sussex, Bn18 0bs Authority: Environment Agency, Southern Region Catchment Area: Not Supplied Reference: P05668 Permit Version: 1 Effective Date: 12th May 1995 Issued Date: 12th May 1995 Revocation Date: 31st March 1997 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Canal Environment: Receiving Water: Canal Status: Lapsed (under Environment Act 1995, Schedule 23) Positional Accuracy: Located by supplier to within 10m</p>	A7SW (S)	766	1	499730 102510
13	<p>Discharge Consents</p> <p>Operator: The Rudford Estate Management Company Ltd Property Type: Undefined Or Other Location: Carte Blanche Greetings Ltd Unit S.1, Rudford Ind Est, Ford Nr Arundel, West Sussex, Bn18 0bs Authority: Environment Agency, Southern Region Catchment Area: Adur Estuary & Freshwater Tributaries Reference: P05661 Permit Version: 1 Effective Date: 10th August 1995 Issued Date: 10th August 1995 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Not Supplied Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 100m</p>	A7SW (S)	791	1	499750 102490
14	<p>Discharge Consents</p> <p>Operator: T W Rutter (Accessories) Ltd Property Type: Industrial Parks & Estates Location: Unit L, Rudford Industrial Estate, Ford Arundel, West Sussex, Bn18 0bd Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: P05669 Permit Version: 1 Effective Date: 12th May 1995 Issued Date: 12th May 1995 Revocation Date: 31st March 1997 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Freshwater River Status: Lapsed (under Environment Act 1995, Schedule 23) Positional Accuracy: Located by supplier to within 100m</p>	A7SW (S)	791	1	499900 102540
14	<p>Discharge Consents</p> <p>Operator: Farid Municipal Vehicles Ltd Property Type: Motor Vehicle Parts Location: Unit K, Rudford Industrial Estate, Ford Arundel, West Sussex, Bn18 0bd Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: P05663 Permit Version: 1 Effective Date: 12th May 1995 Issued Date: 12th May 1995 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Freshwater River Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 100m</p>	A7SW (S)	805	1	499890 102520

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	<p>Discharge Consents</p> <p>Operator: Photain Controls Ltd Property Type: Undefined Or Other Location: Unit 18, Hangar 3, Ford Airfield , Arundel West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Supplied Reference: P00217 Permit Version: 1 Effective Date: 16th December 1985 Issued Date: 16th December 1985 Revocation Date: 31st March 1995 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Freshwater River Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 100m</p>	A7SW (S)	828	1	499900 102500
14	<p>Discharge Consents</p> <p>Operator: Photain Controls Ltd Property Type: Undefined Or Other Location: Unit 18, Hangar 3, Ford Airfield , Arundel West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Supplied Reference: P00217 Permit Version: 1 Effective Date: 16th December 1985 Issued Date: 16th December 1985 Revocation Date: 31st March 1995 Discharge Type: Discharge Of Other Matter-Surface Water Discharge: Freshwater Stream/River Environment: Receiving Water: Freshwater River Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 100m</p>	A7SW (S)	828	1	499900 102500
14	<p>Discharge Consents</p> <p>Operator: D & D Bros. Double Glazing Property Type: Glass & Glassware Industry Location: Unit J3, Rudford Industrial Estate, Ford Arundel, West Sussex, Bn18 0bs Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: P05665 Permit Version: 1 Effective Date: 12th May 1995 Issued Date: 12th May 1995 Revocation Date: 31st March 1997 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Freshwater River Status: Lapsed (under Environment Act 1995, Schedule 23) Positional Accuracy: Located by supplier to within 100m</p>	A7SW (S)	865	1	499900 102460
15	<p>Discharge Consents</p> <p>Operator: Photain Controls Plc Property Type: Industrial Parks & Estates Location: Unit D, Rudford Industrial Estate, Ford Arundel, West Sussex, Bn18 0be Authority: Environment Agency, Southern Region Catchment Area: Not Supplied Reference: P05664 Permit Version: 1 Effective Date: 12th May 1995 Issued Date: 12th May 1995 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Freshwater River Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 10m</p>	A7SE (SE)	842	1	499960 102510

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
15	<p>Discharge Consents</p> <p>Operator: Rudford Industrial Estate Property Type: Industrial Parks & Estates Location: Rudford Industrial Estate, Ford Airfield, Ford, Arundel, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Old-Arun 70 Reference: P02171 Permit Version: 1 Effective Date: 1st April 1991 Issued Date: 1st April 1991 Revocation Date: 20th March 1996 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Saline Estuary Environment: Receiving Water: Saline Estuary Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 100m</p>	A7SE (SE)	842	1	499960 102510
15	<p>Discharge Consents</p> <p>Operator: Rudford Industrial Estate Property Type: Industrial Parks & Estates Location: Rudford Industrial Estate, Ford Airfield, Ford, Arundel, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Old-Arun 70 Reference: P02171 Permit Version: 1 Effective Date: 1st April 1991 Issued Date: 1st April 1991 Revocation Date: 20th March 1996 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Saline Estuary Environment: Receiving Water: Saline Estuary Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 10m</p>	A7SE (SE)	879	1	499960 102470
16	<p>Discharge Consents</p> <p>Operator: R Taylor Property Type: Industrial Parks & Estates Location: New Industrial Unit, Ford Railway Station Yd, Ford, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: P01814 Permit Version: 1 Effective Date: 20th October 1988 Issued Date: 20th October 1988 Revocation Date: Not Supplied Discharge Type: Non Water Company (Private) Sewage Discharge: Freshwater Stream/River Environment: Receiving Water: Freshwater River Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 100m</p>	A15NE (NE)	843	1	500070 104340
16	<p>Discharge Consents</p> <p>Operator: Elizabeth Yarnold Property Type: Domestic Property (Multiple) Location: 1-4 Old Station Cottages Ford Road, Ford, Arundel, West Sussex, Bn18 0bh Authority: Environment Agency, Southern Region Catchment Area: Adur Estuary & Freshwater Tributaries Reference: Npswqd009155 Permit Version: 1 Effective Date: 9th October 2009 Issued Date: 9th October 2009 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Tributary Of The River Arun Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p>	A15NE (NE)	849	1	500079 104344

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
16	<p>Discharge Consents</p> <p>Operator: Mr & Mrs J.Welch Property Type: Domes ic Property (Single) Location: 4 Old Station Cottages, Ford, Arundel, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: P02037 Permit Version: 1 Effective Date: 3rd February 1989 Issued Date: 3rd February 1989 Revocation Date: 31st March 1997 Discharge Type: Non Water Company (Private) Sewage Discharge: Saline Estuary Environment: Receiving Water: Saline Estuary Status: Lapsed (under Environment Act 1995, Schedule 23) Positional Accuracy: Located by supplier to wi hin 100m</p>	A15NE (NE)	855	1	500080 104350
17	<p>Discharge Consents</p> <p>Operator: W H Langridge & Son Property Type: Industrial Parks & Estates Location: W H Langridge & Son Unit V-1, Rudford Ind Est, Ford, Nr Arundel, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Adur Estuary & Freshwater Tributaries Reference: P05714 Permit Version: 1 Effective Date: 22nd August 1995 Issued Date: 22nd August 1995 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Not Supplied Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to wi hin 100m</p>	A7SW (S)	860	1	499790 102430
17	<p>Discharge Consents</p> <p>Operator: Rudford Industrial Estate Property Type: Industrial Parks & Estates Location: Rudford Industrial Estate, Ford Airfield, Ford, Arundel,West Sussex Authority: Environment Agency, Southern Region Catchment Area: Old-Arun 70 Reference: P02171 Permit Version: 1 Effective Date: 1st April 1991 Issued Date: 1st April 1991 Revocation Date: 20th March 1996 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Saline Estuary Environment: Receiving Water: Saline Estuary Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to wi hin 10m</p>	A7SW (S)	863	1	499799 102430
18	<p>Discharge Consents</p> <p>Operator: Corich Community Care Ltd Property Type: Domes ic Property (Multiple) Location: The Shaky Doo, Ford Road, Ford The Shaky Doo, Ford Road, Ford, Nr Arundel, West Sussex, Bn18 0bh Authority: Environment Agency, Southern Region Catchment Area: Adur Estuary & Freshwater Tributaries Reference: P12538 Permit Version: 1 Effective Date: 11th October 2005 Issued Date: 11th October 2005 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Groundwater Via Soakaway Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to wi hin 10m</p>	A16NW (NE)	865	1	500305 104282

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
19	<p>Discharge Consents</p> <p>Operator: Langridge Developments (Sussex) Ltd Property Type: Industrial Parks & Estates Location: W H Langridge & Son Unit M1, Rudford Industrial Estate, Nr Arundel, West Sussex, Bn18 0bs Authority: Environment Agency, Southern Region Catchment Area: Adur Estuary & Freshwater Tributaries Reference: P05713 Permit Version: 1 Effective Date: 22nd August 1995 Issued Date: 22nd August 1995 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Not Supplied Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 100m</p>	A7SE (SE)	882	1	500010 102490
20	<p>Discharge Consents</p> <p>Operator: Silk Tree Properties Limited Property Type: Undefined Or Other Location: The Willows Caravan Park, Ford The Willows, Ford Road, Ford, Littlehampton, West Sussex, Bn18 0bu Authority: Environment Agency, Southern Region Catchment Area: Adur Estuary & Freshwater Tributaries Reference: P04247 Permit Version: 1 Effective Date: 6th December 1993 Issued Date: 6th December 1993 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Freshwater Stream Or River Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 10m</p>	A16NW (NE)	899	1	500490 104200
21	<p>Discharge Consents</p> <p>Operator: Rudford Industrial Estate Property Type: Industrial Parks & Estates Location: Rudford Industrial Estate, Ford Airfield, Ford, Arundel, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Old-Arun 70 Reference: P02171 Permit Version: 1 Effective Date: 1st April 1991 Issued Date: 1st April 1991 Revocation Date: 20th March 1996 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Saline Estuary Environment: Receiving Water: Saline Estuary Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 10m</p>	A7SW (S)	915	1	499895 102405
21	<p>Discharge Consents</p> <p>Operator: F & G Plant Ltd Property Type: Other Mach & Mech Equipment Location: Units G11-G20, Rudford Industrial Estate, Ford Arundel, West Sussex, Bn18 0bs Authority: Environment Agency, Southern Region Catchment Area: Not Supplied Reference: P05667 Permit Version: 1 Effective Date: 12th May 1995 Issued Date: 12th May 1995 Revocation Date: 31st March 1997 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Freshwater River Status: Lapsed (under Environment Act 1995, Schedule 23) Positional Accuracy: Located by supplier to within 10m</p>	A7SW (S)	918	1	499890 102400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
22	<p>Discharge Consents</p> <p>Operator: F & G Plant Ltd Property Type: Other Mach & Mech Equipment Location: Units G1-G10, Rudford Industrial Estate, Ford Arundel, West Sussex, Bn18 0bs Authority: Environment Agency, Southern Region Catchment Area: Not Supplied Reference: P05666 Permit Version: 1 Effective Date: 12th May 1995 Issued Date: 12th May 1995 Revocation Date: 31st March 1997 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Freshwater River Status: Lapsed (under Environment Act 1995, Schedule 23) Positional Accuracy: Located by supplier to within 10m</p>	A7SE (SE)	954	1	500030 102420
22	<p>Discharge Consents</p> <p>Operator: Rudford Industrial Estate Property Type: Industrial Parks & Estates Location: Rudford Industrial Estate, Ford Airfield, Ford, Arundel, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Old-Arun 70 Reference: P02171 Permit Version: 1 Effective Date: 1st April 1991 Issued Date: 1st April 1991 Revocation Date: 20th March 1996 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Saline Estuary Environment: Receiving Water: Saline Estuary Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 10m</p>	A7SE (SE)	956	1	500035 102420
23	<p>Discharge Consents</p> <p>Operator: Nini-Hi Caravans Limited Property Type: Other Tourist/Short Stay Accommodation Location: Nini-Hi Caravan Site, Horsmere Green Lane, Climping West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: S01517 Permit Version: 1 Effective Date: 14th September 1966 Issued Date: 14th September 1966 Revocation Date: 31st March 1997 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Controlled Sea Environment: Receiving Water: Controlled Sea Status: Lapsed (under Environment Act 1995, Schedule 23) Positional Accuracy: Located by supplier to within 100m</p>	A2NE (S)	992	1	499530 102220
24	<p>Integrated Pollution Prevention And Control</p> <p>Name: Southern Water Services Limited Location: Ford Wtw Eaepk3130kxa001, Ford Wastewater Treatment Works, Ford, ARUNDEL, West Sussex, BN18 0HY Authority: Environment Agency, Southern Region Permit Reference: KP3130KX Original Permit Ref: Kp3130kx Effective Date: 30th November 2010 Status: Effective Application Type: Application App. Sub Type: New Positional Accuracy: Manually positioned to the address or location Activity Code: 1.1 A(1) (B) (I) Activity Description: Combustion; Recovered Oil Greater Or Equal To 3Mw But Less Than 50Mw Primary Activity: Y</p>	A6NE (S)	180	1	499419 103028

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
24	<p>Integrated Pollution Prevention And Control</p> <p>Name: Southern Water Services Limited Location: Ford Wtw Eaeprkp3130kxa001, Ford Wastewater Treatment Works, Ford, ARUNDEL, West Sussex, BN18 0HY Authority: Environment Agency - South East Region, Solent & South Downs Area Permit Reference: KP3130KX Original Permit Ref: Kp3130kx Effective Date: 30th November 2010 Status: Effective Application Type: Application App. Sub Type: New Positional Accuracy: Located by supplier to within 100m Activity Code: 1.1 A(1) (B) (I) Activity Description: Combustion; Recovered Oil Greater Or Equal To 3Mw But Less Than 50Mw Primary Activity: Y</p>	A6NE (S)	202	1	499400 103000
25	<p>Local Authority Pollution Prevention and Controls</p> <p>Name: Tarmac Topblock Ltd Location: Hangers 1 & 2, Ford Industrial Estate, Yapton Arundel, BN18 0BF Authority: Arun District Council, Environmental Health Department Permit Reference: Ppc/3/04 Dated: 23rd July 2004 Process Type: Local Authority Air Pollution Control Description: PG3/1Blending, packing, loading and use of bulk cement Status: Permitted Positional Accuracy: Manually positioned to the address or location</p>	A10SE (W)	0	2	499408 103369
26	<p>Local Authority Pollution Prevention and Controls</p> <p>Name: Complete Workwear Services Ltd Location: Unit 1 Block C, Ford Industrial Estate, Yapton, Arundel, BN18 0HY Authority: Arun District Council, Environmental Health Department Permit Reference: Not Supplied Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: Part B process (no specific reference) Status: Permitted Positional Accuracy: Manually positioned to the address or location</p>	A10SW (SW)	420	2	498927 103133
27	<p>Local Authority Pollution Prevention and Controls</p> <p>Name: Tarmac Topblock Ltd Location: Hangers 1 & 2, Ford Airfield Industrial Estate, Ford, ARUNDEL, West Sussex, BN18 0HY Authority: Arun District Council, Environmental Health Department Permit Reference: Ppc/2/04 Dated: 23rd October 1992 Process Type: Local Authority Pollution Prevention and Control Description: PG3/1Blending, packing, loading and use of bulk cement Status: Authorisation revokedRevoked Positional Accuracy: Manually positioned within the geographical locality</p>	A10SW (SW)	434	2	498932 103074
28	<p>Local Authority Pollution Prevention and Controls</p> <p>Name: F L Gamble & Sons Ltd Location: Unit 6 Hanger 3, Rudford Industrial Estate, Ford Road Ford, ARUNDEL, West Sussex, BN18 0BD Authority: Arun District Council, Environmental Health Department Permit Reference: Epa/1/94 Dated: 25th January 1993 Process Type: Local Authority Air Pollution Control Description: PG3/8 Quarry processes including roadstone plants and the size reduction of bricks, tiles and concrete Status: Authorisation revokedRevoked Positional Accuracy: Manually positioned to the address or location</p>	A7SW (S)	761	2	499749 102521
29	<p>Local Authority Pollution Prevention and Controls</p> <p>Name: Aus in Divall Location: Unit J Rudford Industrial Estate, Arundel, Bn18 0pf Authority: Lewes District Council, Environmental Health Department Permit Reference: Not Supplied Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG6/23 Coating of metal and plastic Status: Not Supplied Positional Accuracy: Manually positioned to the address or location</p>	A7SW (S)	886	3	499917 102444
30	<p>Local Authority Pollution Prevention and Control Enforcements</p> <p>Location: Hanger 1 Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, Bn18 0hy Type: Air Pollution Control Enforcement Notice Reference: EPA/3/92 Date Issued: 1st March 2001 Enforcement Date: Not Supplied Details: Not Supplied Positional Accuracy: Manually positioned within the geographical locality</p>	A6NW (SW)	349	2	499040 103033

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Nearest Surface Water Feature	A11NE (E)	176	-	500085 103393
31	Pollution Incidents to Controlled Waters Property Type: Industrial: Other Location: Field Ditches, /River Arun Authority: Environment Agency, Southern Region Pollutant: Miscellaneous - Inert Suspended Solids Note: Grey Deposit In Ditch; Industrial: Other Incident Date: 7th March 1994 Incident Reference: 884 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Industrial Chemicals Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12NW (E)	382	1	500290 103430
32	Pollution Incidents to Controlled Waters Property Type: Other General Premises Location: Tributary Of River Arun Authority: Environment Agency, Southern Region Pollutant: Miscellaneous - Unknown Note: Sewage Smell Some Dead Fish; Miscellaneous Premises: Unknown Incident Date: 16th September 1995 Incident Reference: 1421 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Miscellaneous/Other Pollution Type Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A15SE (NE)	478	1	500250 103850
33	Pollution Incidents to Controlled Waters Property Type: Private Sewage (Non-PLC): Sewage Treatment Works Location: Tributary Of River Arun, At Ford Station Authority: Environment Agency, Southern Region Pollutant: Sewage - Treated Effluent Note: Sewage Discharging To Watercourse Incident Date: 14th April 1996 Incident Reference: 1637 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Private Sewage Treatment Works Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A15NE (NE)	859	1	500100 104350
	River Quality Name: Not Supplied GQA Grade: Unclassified Tidal River Reach: Not Supplied Estimated Distance (km): Not Supplied Flow Rate: Not Supplied Flow Type: Not Supplied Year: 1995	A16SW (NE)	553	1	500333 103881
34	Water Abstractions Operator: Tarmac Ltd Licence Number: 27/198 Permit Version: 1 Location: Ford Industrial Estate, Arundel Authority: Environment Agency, Southern Region Abstraction: Construction: Process Water Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Outlined In Black On Attached Map Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 4th January 2001 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10NE (SW)	0	1	499530 103390

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
34	Water Abstractions Operator: Tarmac Heavy Building Materials Ltd Licence Number: 27/196 Permit Version: 1 Location: Ford Industrial Estate, Arundel Authority: Environment Agency, Southern Region Abstraction: Construction: Process Water Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Outlined On Licence Map Authorised Start: 13 March Authorised End: 31 December Permit Start Date: 13th March 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10NE (SW)	0	1	499530 103390
35	Water Abstractions Operator: R Hague, Esq Licence Number: 412001 Permit Version: Not Supplied Location: New House Farm, FORD Authority: Environment Agency, Southern Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Groundwater Daily Rate (m3): 9 Yearly Rate (m3): 1659.1 Details: H5 Chalk Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A11NW (NE)	179	1	499930 103690
36	Water Abstractions Operator: Mr A Langmead Licence Number: 10/41/412004 Permit Version: 100 Location: Wicks Farm, Yapton Authority: Environment Agency, Southern Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: See Licence Map Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 2nd April 1987 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A14SE (NW)	363	1	499330 103910
37	Water Abstractions Operator: Keith Langmead Ltd Licence Number: 10/41/412007 Permit Version: 101 Location: Wicks Farm, Ford Authority: Environment Agency, Southern Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: See Licence Map Authorised Start: 01 June Authorised End: 30 September Permit Start Date: 8th June 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A13SE (NW)	627	1	498790 103930

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
37	Water Abstractions Operator: Mr A C Langmead Esq Licence Number: 10/41/412007 Permit Version: 100 Location: Wicks Farm, Ford Authority: Environment Agency, Southern Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: See Licence Map Authorised Start: 01 June Authorised End: 30 September Permit Start Date: 30th May 1989 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A13SE (NW)	627	1	498790 103930
	Water Abstractions Operator: Keith Langmead Ltd Licence Number: 27/190 Permit Version: 102 Location: Point A On Binstead Rife, Wicks Farm, Yapton Authority: Environment Agency, Southern Region Abstraction: General Agriculture: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Shown Outlined In Red On Licence Map Authorised Start: 01 November Authorised End: 31 March Permit Start Date: 16th June 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	1073	1	498810 104510
	Water Abstractions Operator: Keith Langmead Ltd Licence Number: 27/190 Permit Version: 101 Location: Point A On Binstead Rife, Wicks Farm, Yapton Authority: Environment Agency, Southern Region Abstraction: General Agriculture: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Shown Outlined In Black On Licence Map Authorised Start: 01 November Authorised End: 31 March Permit Start Date: 1st April 2001 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	1073	1	498810 104510
	Water Abstractions Operator: A.C. Langmead Ltd Licence Number: 27/190 Permit Version: 100 Location: Point A On Binstead Rife, Wicks Farm, Yapton Authority: Environment Agency, Southern Region Abstraction: General Agriculture: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Shown Outlined In Black On Licence Map Authorised Start: 01 November Authorised End: 31 March Permit Start Date: 16th August 1996 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A17SE (NW)	1073	1	498810 104510

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: T Luckin & Son Licence Number: 10/41/411022 Permit Version: 1 Location: Tortington Drainage Ditches Authority: Environment Agency, Southern Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 8th June 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A19NW (N)	1341	1	499820 104850
	Water Abstractions Operator: T Luckin & Son Licence Number: 10/41/411022ca Permit Version: 100 Location: Drainage Ditches At Tortington Authority: Environment Agency, Southern Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): 55 Yearly Rate (m3): 12272.6 Details: See Licence Map Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 19th August 1985 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A19NW (N)	1341	1	499820 104850
	Water Abstractions Operator: Messrs T Luckin & Son Licence Number: 411022 Permit Version: Not Supplied Location: Drainage Ditches , TORTINGTON Authority: Environment Agency, Southern Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): 55 Yearly Rate (m3): 12272 Details: Tributary Of Arun Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A19NW (N)	1341	1	499820 104850
	Water Abstractions Operator: T Luckin & Son Licence Number: 10/41/411020 Permit Version: 100 Location: Internal Ditches At Tortington Authority: Environment Agency, Southern Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: See Licence Map Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 8th June 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A20NW (NE)	1465	1	500460 104870

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Mr A Clay Esq Licence Number: 10/41/411007 Permit Version: 100 Location: The Streddles, North End Road, Yapton Authority: Environment Agency, Southern Region Abstraction: Agriculture: Horticultural Watering Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: See Licence Map Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 18th July 1979 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(W)	1471	1	497840 103830
	Water Abstractions Operator: J A Longhurst, Esq Licence Number: 411010 Permit Version: Not Supplied Location: Reedy Rife, Church Farm, LYMINSTER Authority: Environment Agency, Southern Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): 655 Yearly Rate (m3): 13636.2 Details: Tributary Of Arun Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Unknown	(NE)	1504	1	500970 104580
	Water Abstractions Operator: Adviserate T/A Southdown Flowers Licence Number: 412002 Permit Version: Not Supplied Location: Adviserate Limited Authority: Environment Agency, Southern Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): 68 Yearly Rate (m3): 18181 Details: Todhurst Rife (Trib Arun) Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(NW)	1544	1	498000 104400
	Water Abstractions Operator: Tortington Manor Management Company Ltd Licence Number: 10/41/411009 Permit Version: 102 Location: Tortington Park, Arundel Authority: Environment Agency, Southern Region Abstraction: Private Water Undertaking: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Belonging To Tortington Manor Management Co Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 8th June 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(N)	1781	1	500250 105260

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Tortington Manor Management Company Ltd Licence Number: 10/41/411009 Permit Version: 101 Location: Tortington Park, Arundel Authority: Environment Agency, Southern Region Abstraction: Private Water Undertaking: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Belonging To Tortington Manor Management Co Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 20th January 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(N)	1781	1	500250 105260
	Water Abstractions Operator: Sea Containers Property Services Ltd Licence Number: 10/41/411009 Permit Version: 100 Location: Tortington Park, Arundel Authority: Environment Agency, Southern Region Abstraction: Private Water Undertaking: Water Bottling Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: See Licence Map Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 18th January 1999 Permit End Date: Not Supplied Positional Accuracy: Unknown	(N)	1781	1	500250 105260
	Water Abstractions Operator: A H Bowerman & Son Ltd Licence Number: 10/41/411003 Permit Version: 100 Location: Court Wick Park Littlehampton Authority: Environment Agency, Southern Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: See Licence Map Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(E)	1821	1	501720 103760
	Water Abstractions Operator: Fresh Acres Nurseries Ltd Licence Number: 10/41/412002 Permit Version: 100 Location: Todhurst Rife At Yapton Lane, Walberton Authority: Environment Agency, Southern Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): 68 Yearly Rate (m3): 18181.6 Details: See Licence Map Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 29th June 1998 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(NW)	1868	1	497730 104580

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Mr J L Baird Licence Number: 10/41/542009 Permit Version: 100 Location: Point A At New Barn, Climping Authority: Environment Agency, Southern Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Water Abstracted Shall Be Used On Area Outlined In Red On The Said Map Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 21st March 1977 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(S)	1907	1	499260 101290
	Water Abstractions Operator: Star Nurseries Ltd Licence Number: 27/176 Permit Version: 100 Location: Todhurst Rife At Star Nurseries, Barnham Authority: Environment Agency, Southern Region Abstraction: Horticulture and Nurseries: Spray Irrigation - Spray Irrigation Definition Order Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Outlined On Map Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 16th June 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(NW)	1961	1	497700 104700
	Groundwater Vulnerability Soil Classification: Soils of Intermediate Leaching Potential (I1) - Soils which can possibly transmit a wide range of pollutants Map Sheet: Sheet 45 West Sussex and Surrey Scale: 1:100,000	A10NE (SW)	0	1	499557 103417
	Drift Deposits None				
	Bedrock Aquifer Designations Aquifer Designation: Principal Aquifer	A10NE (SW)	0	4	499557 103417
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A10NE (SW)	0	4	499557 103417
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A11NW (E)	29	1	499920 103462
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A11NE (E)	84	1	500000 103452
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A10NE (NW)	130	1	499358 103667
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial/Tidal Models Boundary Accuracy: As Supplied	A11NE (E)	200	1	500115 103525
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A11NE (E)	44	1	499949 103478
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A11NE (E)	84	1	500000 103464

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A11NE (E)	92	1	499999 103468
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A14SE (NW)	210	1	499400 103735
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
38	Historical Landfill Sites Licence Holder: R J Page and Sons Limited Location: Ford, Sussex Name: Bank East of Hanger 2 Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD20086 First Input Date: 18th August 1985 Last Input Date: 17th August 1986 Specified Waste Deposited Waste included Inert Waste Type: EA Waste Ref: Not Supplied Regis Ref: Not Supplied WRC Ref: 3800/8139 BGS Ref: Not Supplied Other Ref: WD27/113, WD13/30	A10NE (E)	0	1	499563 103417
39	Historical Landfill Sites Licence Holder: R T and Sons Limited Location: Ford, Sussex Name: Newhouse Farm Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD20085 First Input Date: 1st November 1985 Last Input Date: 22nd September 1986 Specified Waste Deposited Waste included Inert Waste Type: EA Waste Ref: Not Supplied Regis Ref: Not Supplied WRC Ref: 3800/8141 BGS Ref: Not Supplied Other Ref: WD27/115, WD13/14	A15SE (NE)	434	1	499989 103939
40	Historical Landfill Sites Licence Holder: Not Supplied Location: Climping, Sussex Name: Ford Prison Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD20025 First Input Date: 31st December 1976 Last Input Date: 31st December 1977 Specified Waste Deposited Waste included Inert and Industrial Waste Type: EA Waste Ref: Not Supplied Regis Ref: Not Supplied WRC Ref: 3800/8140 BGS Ref: Not Supplied Other Ref: WD13/5/8, WD27/114	A12SW (E)	779	1	500548 103051
41	Historical Landfill Sites Licence Holder: A C Langmead Location: Yapton, Sussex Name: Disused Canal at Yapton Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD20084 First Input Date: 31st December 1980 Last Input Date: 26th March 1981 Specified Waste Deposited Waste included Inert Waste Type: EA Waste Ref: Not Supplied Regis Ref: Not Supplied WRC Ref: 3800/8018 BGS Ref: Not Supplied Other Ref: WD27/243, WD13/66	A9SW (W)	858	1	498451 103169
42	Licensed Waste Management Facilities (Locations) Licence Number: 19756 Location: 20 Ford Lane, Ford, Arundel, West Sussex, BN18 0DF Operator Name: T P Smart Ltd Operator Location: Not Supplied Authority: Environment Agency - South East Region, Solent & South Downs Area Site Category: Metal Recycling Sites (Mixed) Licence Status: Modified Issued: 27th February 1995 Last Modified: 27th April 2006 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 100m	A14SE (N)	317	1	499500 103800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
43	Licensed Waste Management Facilities (Locations) Licence Number: 100630 Location: Ford Airfield, Ford Road, Ford, Arundel, West Sussex, BN18 0FL Operator Name: Viridor Waste Management Ltd Operator Location: Not Supplied Authority: Environment Agency - South East Region, Solent & South Downs Area Site Category: Material Recycling Treatment Facilities Licence Status: Modified Issued: 23rd January 2009 Last Modified: 13th June 2012 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A7NW (S)	407	1	499696 102875
44	Licensed Waste Management Facilities (Locations) Licence Number: 10148 Location: Ford Lane Industrial Estate, Ford Lane, Ford, Arundel, West Sussex, BN18 0DF Operator Name: T P Smart Ltd Operator Location: Not Supplied Authority: Environment Agency - South East Region, Solent & South Downs Area Site Category: Metal Recycling Sites (Mixed) Licence Status: Modified Issued: 27th April 2006 Last Modified: 31st March 2009 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14SE (N)	478	1	499529 103969
45	Licensed Waste Management Facilities (Locations) Licence Number: 100156 Location: Hanger No8, Northwood Farm, Burndell Road, Yapton, West Sussex, BN18 0HR Operator Name: T J Waste & Recycling Ltd Operator Location: Not Supplied Authority: Environment Agency - South East Region, Solent & South Downs Area Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Transferred Issued: 28th January 2008 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A5NW (SW)	916	1	498471 102930
46	Licensed Waste Management Facilities (Locations) Licence Number: 19754 Location: Jones And Co, Burndell Road, Yapton, West Sussex, BN18 0HP Operator Name: Jones P H Operator Location: Not Supplied Authority: Environment Agency - South East Region, Solent & South Downs Area Site Category: Metal Recycling Sites (Mixed) Licence Status: Issued Issued: 31st March 1994 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 100m	A5NW (SW)	936	1	498500 102800
	Local Authority Landfill Coverage Name: Arun District Council - Has no landfill data to supply		0	8	499557 103417
	Local Authority Landfill Coverage Name: West Sussex County Council - Has supplied landfill data		0	5	499557 103417

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
47	Local Authority Recorded Landfill Sites Location: Newhouse Farm, Ford Reference: F/10/94 Authority: West Sussex County Council, Environment & Development Last Reported Status: Unknown Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Located by supplier to within 100m Boundary Quality: Not Applicable	A14NE (N)	589	5	499500 104100
48	Local Authority Recorded Landfill Sites Location: Old Canal, East Of Downview Road, Yapton Reference: Y/50/79 Authority: West Sussex County Council, Environment & Development Last Reported Status: Unknown Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Located by supplier to within 100m Boundary Quality: Not Applicable	A9SW (W)	901	5	498400 103200
49	Registered Landfill Sites Licence Holder: R T Page & Sons Ltd Licence Reference: 5/BJ/85 Site Location: East Of Tarmac Topblock Plant, No 2 Hangar, Ford, Arundel, West Sussex Licence Easting: 499500 Licence Northing: 103500 Operator Location: 47 Pier Road, Littlehampton, West Sussex Authority: Environment Agency - Southern Region, Sussex Area Site Category: Landfill Max Input Rate: Undefined Waste Source: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 18th August 1985 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Approximate location provided by supplier Boundary Accuracy: Not Applicable Authorised Waste: Brick Rubble,Broken Concrete Stone,Chalk,Soils Totally Inert Solid Waste Prohibited Waste: Any Waste Not Totally Inert Asbestos Grass Cuttings Paper Vegetable Matter Waste Ex Sites Cont.Hazardous Material Waste Ex Sites Cont.Polluting Mater'L Wood	A10NE (SW)	0	1	499557 103417

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
50	<p>Registered Landfill Sites</p> <p>Licence Holder: R T Page & Sons Ltd Licence Reference: 5/BG/85 Site Location: Newhouse Farm (Os 0001, 0008), Ford, Arundel, West Sussex Licence Easting: 500000 Licence Northing: 104050 Operator Location: 47 Pier Road, Littlehampton, West Sussex Authority: Environment Agency - Southern Region, Sussex Area Site Category: Landfill Max Input Rate: Undefined Waste Source: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 8th August 1985 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Brick Rubble, Broken Concrete Stone, Chalk, Soils Totally Inert Solid Waste Prohibited Waste: Any Waste Not Totally Inert Asbestos Grass Cuttings Paper Vegetable Matter Waste Ex Sites Cont. Hazardous Material Waste Ex Sites Cont. Polluting Material Wood</p>	A15NE (NE)	545	1	500000 104050
51	<p>Registered Landfill Sites</p> <p>Licence Holder: L H Hutchins Licence Reference: 5/AJ/78 Site Location: Wick Farm (Os 60), Empty Pond Between River Arun & Railway, Littlehampton, West Sussex Licence Easting: 500650 Licence Northing: 103100 Operator Location: 36 Lyminster Road, Littlehampton, West Sussex Authority: Environment Agency - Southern Region, Sussex Area Site Category: Landfill Max Input Rate: Undefined Waste Source: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 12th March 1979 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the road within the address or location Boundary Accuracy: Not Applicable Authorised Waste: Excavated Natural Materials Prohibited Waste: Construction And Demolition Wastes Contaminated Soil Hardcore And Rubble</p>	A12SW (E)	589	1	500410 103169
52	<p>Registered Landfill Sites</p> <p>Licence Holder: A C Langmead Licence Reference: 5/AP/79 Site Location: Disused Chichester/Arundel Canal, North Of Burndell Road, Yapton, Arundel, West Sussex Licence Easting: 498400 Licence Northing: 103160 Operator Location: Wicks Farm, Yapton, Arundel, West Sussex Authority: Environment Agency - Southern Region, Sussex Area Site Category: Landfill Max Input Rate: Undefined Waste Source: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 10th December 1979 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Construction And Demolition Wastes Excavated Natural Materials Prohibited Waste: Contaminated Rubble Contaminated Soil</p>	A9SW (W)	910	1	498400 103160

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
53	<p>Registered Waste Treatment or Disposal Sites</p> <p>Licence Holder: T P Smart Licence Reference: WSX/L1/0124/1 Site Location: Ivor Green Industrial Estate, 20 Ford Lane, Ford, ARUNDEL, West Sussex, BN18 0DF</p> <p>Operator Location: 20 Cheviot Close, WORTHING, West Sussex, BN18 0DF Authority: Environment Agency - Southern Region, Sussex Area Site Category: Scrapyard Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Operational as far as is known Dated: 25th June 1997 Preceded By: WSX/L1/0124 Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Elec/Electronic Comps/Fit/Fix/Apps Max.Waste Permitted By Licence Scrap Metals</p> <p>Prohibited Waste: Asbestos - All Chemical Forms Domestic Electrical Appliances Liquid Wastes Metallic Powders Motor Vehicles Percussive/Explosive/Similar Waste Pumpable Sludge Wastes Spec.Waste (Epa'90:S62/1996 Regs) Sub'S Control. Radioactive Subs Act'60 Waste Contain Pcb's Waste N.O.S. Waste Reacts Violently With Water Or Air</p>	A14SE (N)	382	1	499530 103870
53	<p>Registered Waste Treatment or Disposal Sites</p> <p>Licence Holder: T P Smart Licence Reference: WSX/L1/0124 Site Location: Ivor Green Industrial Estate, 20 Ford Lane, Ford, ARUNDEL, West Sussex, BN18 0DF</p> <p>Operator Location: 20 Cheviot Close, WORTHING, West Sussex, BN18 0DF Authority: Environment Agency - Southern Region, Sussex Area Site Category: Scrapyard Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Record superseded Dated: 27th February 1995 Preceded By: WSX/L1/0022 Licence: Superseded By: WSX/L1/0124/1 Licence: Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Comp' Gas Cylinders-Empty/Made Safe Ferrous Metal Scrap In Solid Forms Max.Waste Permitted By Licence Non-Ferrous Metal Scrap In Solid Forms Scrap Metal/Oxides/Manuf.Items</p> <p>Prohibited Waste: All Forms Asbestos Liquid/Slurry/Sludge Wastes Mat'L React Violently With Water, Air Mat'L With Pcb's > 50 Ppm Metallic Powders Motor Vehicles Percussive/Explosive/Similar Waste Special Wastes Sub'S Control. Radioactive Subs Act'60 Waste N.O.S.</p>	A14SE (N)	382	1	499530 103870

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
53	<p>Registered Waste Treatment or Disposal Sites</p> <p>Licence Holder: T P Smart Licence Reference: WSX/L1/0022 Site Location: Ivor Green Industrial Estate, 20 Ford Lane, Ford, ARUNDEL, West Sussex, BN18 0DF</p> <p>Operator Location: 20 Cheviot Close, WORTHING, West Sussex, BN18 0DF Authority: Environment Agency - Southern Region, Sussex Area Site Category: Scrapyard Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Record supersededSuperseded Dated: 1st March 1994 Preceded By: Not Given Licence: Superseded By: WSX/L1/0124 Licence: Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Electric/Electronic Fitt/Fix/Appliance Electrical/Electronic Components Ferrous Metal Scrap Max.Waste Permitted By Licence Non-Ferrous Metal Scrap</p> <p>Prohibited Waste: Asbestos Domestic Electrical Appliances Liquid/Slurry/Sludge Wastes Metallic Powders Motor Vehicles Pcb'S And Analogues Percussive/Explosive/Similar Waste Special Wastes Sub'S Control. Radioactive Subs Act'60 Waste N.O.S. Waste React.Violently W/Water Or Air</p>	A14SE (N)	382	1	499530 103870
54	<p>Registered Waste Treatment or Disposal Sites</p> <p>Licence Holder: Landtech International Ltd Licence Reference: 5/BZ/92 Site Location: South West Of Yapton Road, Ford Airfield, Ford, Arundel, West Sussex Operator Location: Landtech House, Faren Court, Cowfold, HORSHAM, West Sussex, RH13 8BP</p> <p>Authority: Environment Agency - Southern Region, Sussex Area Site Category: Composting Max Input Rate: Small (Equal to or greater than 10,000 and less than 25,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st August 1992 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Unknown Boundary Quality: Not Supplied Authorised Waste: Any Waste Approved By Licensing Auth. Grass Cuttings,Leaves,Branches,Plants Max.Storage Unprocessed Waste Otheswaste Norm'Y Assoc. Park/Garden Similar From Parks & Gardens</p>	A5SE (SW)	982	1	498609 102549

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Chalk including Red Chalk	A10NE (SW)	0	4	499557 103417
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A10SE (S)	0	6	499557 103263
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A10NE (SW)	0	6	499557 103417
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A11NE (E)	40	6	499944 103457
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A11NE (E)	84	6	500000 103443
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A11NE (E)	97	6	500000 103555
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A11NE (E)	105	6	500000 103417

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A10NE (NW)	113	6	499358 103671
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A6NE (S)	195	6	499557 103000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A11NE (E)	238	6	500150 103553
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A11SE (E)	254	6	500000 103258
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A10NW (W)	272	6	499000 103417
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A11SE (E)	296	6	500068 103243

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A10SW (W)	304	6	499000 103268
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A6NW (SW)	400	6	499000 103000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A15SE (NE)	445	6	499996 103949
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14SE (NW)	450	6	499306 104000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14SE (N)	451	6	499557 104000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7NE (SE)	483	6	500000 103000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14SE (N)	492	6	499535 104027
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A15SE (NE)	496	6	500000 104000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7NE (SE)	503	6	500035 103000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14SW (NW)	535	6	499000 104000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7NE (SE)	607	6	500227 102982
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8NW (SE)	617	6	500276 103000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7NE (SE)	639	6	500000 102774
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A15NE (NE)	712	6	500139 104198
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8NW (SE)	714	6	500419 103000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NW (NW)	754	6	499000 104246
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8NW (SE)	811	6	500550 103000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NW (NW)	880	6	499000 104381

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
55	BGS Recorded Mineral Sites Site Name: Farm Barns Gravel Pit Location: , Climping, Littlehampton, West Sussex Source: British Geological Survey, National Geoscience Information Service Reference: 157581 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Quaternary Geology: River Terrace Deposits (Undifferentiated) Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A7NE (SE)	475	4	500002 103018
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A10NE (SW)	0	4	499557 103417
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	85	4	500002 103417
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A10NE (SW)	0	4	499557 103417
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	42	4	499946 103454
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	85	4	500002 103440
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	97	4	500002 103552
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	108	4	500002 103417
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NE (NW)	111	4	499360 103669
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10NE (SW)	0	4	499557 103417
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	85	4	500002 103417
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NE (SW)	0	4	499557 103417
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10SE (S)	0	4	499553 103316
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	85	4	500002 103417
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10SW (SW)	148	4	499223 103117
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NE (SW)	0	4	499557 103417

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	85	4	500002 103417
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A10NE (SW)	0	4	499557 103417
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	42	4	499946 103454
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	85	4	500002 103440
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	97	4	500002 103552
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	108	4	500002 103417
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NE (NW)	111	4	499360 103669
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A10NE (SW)	0	4	499557 103417
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	42	4	499946 103454
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	85	4	500002 103440
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	97	4	500002 103552
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	108	4	500002 103417
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10NE (NW)	111	4	499360 103669
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A11NW (E)	0	4	499876 103417
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A10NE (SW)	0	4	499557 103417
	Radon Potential - Radon Affected Areas Affected Area: The property is in a radon affected area, as between 1 and 3% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A11NW (E)	0	4	499876 103417
	Radon Potential - Radon Affected Areas Affected Area: The property is in a lower probability radon area, as less than 1% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A10NE (SW)	0	4	499557 103417

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
56	Contemporary Trade Directory Entries Name: Ring Powercraft Location: Newhouse Farm Barns, Ford La, Ford, Arundel, West Sussex, BN18 0EF Classification: Boatbuilders & Repairers Status: Active Positional Accuracy: Manually positioned to the address or location	A11NE (NE)	149	-	499954 103655
57	Contemporary Trade Directory Entries Name: Signet Locks Location: Wicks Farm, Ford La, Ford, Arundel, West Sussex, BN18 0DF Classification: Lock Suppliers and Manufacturers Status: Active Positional Accuracy: Manually positioned within the geographical locality	A14SE (NW)	276	-	499326 103823
57	Contemporary Trade Directory Entries Name: Art Of Stone Ltd Location: Ford Lane, Ford, Arundel, West Sussex, BN18 0DF Classification: Fireplaces & Mantelpieces Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (NW)	310	-	499354 103853
57	Contemporary Trade Directory Entries Name: Craft Of Stone Ltd Location: The Old Barn, Ford Lane, Ford, Arundel, West Sussex, BN18 0DF Classification: Fireplaces & Mantelpieces Status: Active Positional Accuracy: Automatically positioned to the address	A14SE (NW)	310	-	499354 103853
57	Contemporary Trade Directory Entries Name: Technology In Seconds Location: Unit C, Ford Lane, Ford, Arundel, West Sussex, BN18 0DF Classification: Office Furniture & Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (N)	318	-	499376 103856
58	Contemporary Trade Directory Entries Name: Arun Fastener Company Location: Unit 2-3, Ford La, Ford, Arundel, West Sussex, BN18 0DF Classification: Nuts, Bolts & Fixings Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A14SW (NW)	293	-	499248 103840
59	Contemporary Trade Directory Entries Name: Constructive Evaluation Location: Unit A4, Ford La, Ford, Arundel, West Sussex, BN18 0DF Classification: Testing, Inspection & Calibration Equipment Manufacturers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A14SE (N)	296	-	499467 103796
59	Contemporary Trade Directory Entries Name: Easterchem Location: Unit C, Ford La, Ford, Arundel, West Sussex, BN18 0DF Classification: Chemists' & Pharmacists' Suppliers & Wholesalers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A14SE (N)	299	-	499484 103788
59	Contemporary Trade Directory Entries Name: Marden Publications Location: Unit A1, Ford Lane, Ford, Arundel, West Sussex, BN18 0DF Classification: Greeting Card Publishers & Wholesalers Status: Active Positional Accuracy: Automatically positioned to the address	A14SE (N)	306	-	499437 103822
59	Contemporary Trade Directory Entries Name: G D Precision Cnc Location: Unit A3, Ford Lane, Ford, Arundel, West Sussex, BN18 0DF Classification: Precision Engineers Status: Active Positional Accuracy: Automatically positioned to the address	A14SE (N)	311	-	499464 103815
59	Contemporary Trade Directory Entries Name: Hammond Concrete Testing & Services Location: Unit A4, Ford Lane, Ford, Arundel, West Sussex, BN18 0DF Classification: Testing, Inspection & Calibration Equipment Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A14SE (N)	311	-	499464 103815
60	Contemporary Trade Directory Entries Name: D R Bailey Transport Ltd Location: Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, BN18 0HY Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A10SW (SW)	330	-	499035 103093

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
60	Contemporary Trade Directory Entries Name: Bleach Of Lavant Location: Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, BN18 0HY Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A10SW (SW)	330	-	499035 103093
61	Contemporary Trade Directory Entries Name: Orkney Boats Ltd Location: Unit 1, Ford Lane Business Park, Ford, Arundel, West Sussex, BN18 0UZ Classification: Boatbuilders & Repairers Status: Active Positional Accuracy: Automatically positioned to the address	A14SE (N)	334	-	499520 103821
62	Contemporary Trade Directory Entries Name: John Booth Engineering Ltd Location: Block A1, Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, BN18 0HY Classification: Sheet Metal Work Status: Active Positional Accuracy: Automatically positioned to the address	A10SW (W)	363	-	498955 103218
63	Contemporary Trade Directory Entries Name: Brewer Metal Craft Ltd Location: Unit 3d, Ford Lane, Ford, Arundel, West Sussex, BN18 0DF Classification: Metal Products - Fabricated Status: Active Positional Accuracy: Automatically positioned to the address	A14SE (N)	368	-	499491 103865
63	Contemporary Trade Directory Entries Name: Allsop & Francis Ltd Location: Unit 18, Ford Lane Business Park, Ford, ARUNDEL, West Sussex, BN18 0UZ Classification: Laundry Equipment - Sales & Service Status: Active Positional Accuracy: Automatically positioned to the address	A14SE (N)	380	-	499552 103870
63	Contemporary Trade Directory Entries Name: Tempcon Ltd Location: Unit 19, Ford La Business Pk, Ford, Arundel, West Sussex, BN18 0UZ Classification: Temperature Monitoring Systems Manufacturers Status: Active Positional Accuracy: Manually positioned to the address or location	A14SE (N)	383	-	499542 103872
63	Contemporary Trade Directory Entries Name: Prolube Oils Ltd Location: Mortley Ho, Ford La Business Pk, Ford, Arundel, West Sussex, BN18 0UZ Classification: Oil Companies Status: Inactive Positional Accuracy: Manually positioned to the address or location	A14SE (N)	386	-	499534 103874
63	Contemporary Trade Directory Entries Name: Mortley Sprague Ltd Location: Unit 20, Ford Lane Business Park, Ford, Arundel, West Sussex, BN18 0UZ Classification: Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (N)	387	-	499534 103875
63	Contemporary Trade Directory Entries Name: Onyx Cable Infrastructure Location: Unit 20, Ford Lane Business Park, Ford, Arundel, West Sussex, BN18 0UZ Classification: Cable & Wire Equipment Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (N)	387	-	499534 103875
63	Contemporary Trade Directory Entries Name: Baker Manufacturing Location: Unit 20, Ford Lane Business Park, Ford, Arundel, West Sussex, BN18 0UZ Classification: Electronic Component Manufacturers & Distributors Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (N)	387	-	499534 103875
64	Contemporary Trade Directory Entries Name: K T Services Ltd Location: Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, BN18 0HY Classification: Commercial Vehicle Servicing, Repairs, Parts & Accessories Status: Active Positional Accuracy: Automatically positioned to the address	A10SW (SW)	370	-	498995 103087

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
64	Contemporary Trade Directory Entries Name: Euro Louvre Systems Location: Ford Airfield Ind Est, Ford, Arundel, West Sussex, BN18 0HY Classification: Ventilators & Ventilation Systems Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A10SW (SW)	376	-	498963 103164
64	Contemporary Trade Directory Entries Name: Besmoke Ltd Location: Unit B1, Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, BN18 0HY Classification: Manufacturers Status: Active Positional Accuracy: Manually positioned within the geographical locality	A10SW (SW)	385	-	498968 103119
64	Contemporary Trade Directory Entries Name: Arundel Brewery Ltd Location: Unit C7, Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, BN18 0HY Classification: Brewers Status: Active Positional Accuracy: Automatically positioned to the address	A10SW (SW)	388	-	498961 103130
64	Contemporary Trade Directory Entries Name: Palletways Location: Ford Airfield Ind Est, Ford, Arundel, West Sussex, BN18 0HY Classification: Distribution Services Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A10SW (SW)	402	-	498963 103080
64	Contemporary Trade Directory Entries Name: Adur Ven ilation Location: C6, Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, BN18 0HY Classification: Ventilators & Ventilation Systems Status: Inactive Positional Accuracy: Automatically positioned to the address	A10SW (SW)	405	-	498944 103129
64	Contemporary Trade Directory Entries Name: B D Mantels Ltd Location: Unit B2 Ford Airfield Indust Est, Ford, Arundel, West Sussex, BN18 0HY Classification: Fireplaces & Mantelpieces Status: Inactive Positional Accuracy: Manually positioned to the address or location	A10SW (SW)	406	-	498943 103128
64	Contemporary Trade Directory Entries Name: Byjingham Location: Ford Airfield Ind Est, Ford, Arundel, West Sussex, BN18 0HY Classification: Road Haulage Services Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A10SW (SW)	408	-	498960 103072
64	Contemporary Trade Directory Entries Name: Antplace Plas ics Location: C9, Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, BN18 0HY Classification: Plastics - Vacuum Forming Status: Inactive Positional Accuracy: Automatically positioned to the address	A10SW (SW)	413	-	498943 103107
64	Contemporary Trade Directory Entries Name: Cls Laundry Ltd Location: Unit C1, Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, BN18 0HY Classification: Laundries & Launderettes Status: Active Positional Accuracy: Manually positioned to the address or location	A10SW (SW)	420	-	498927 103133
65	Contemporary Trade Directory Entries Name: Bleach Of Lavant Ltd Location: Ford Lane, Ford, Arundel, West Sussex, BN18 0DF Classification: Road Haulage Services Status: Active Positional Accuracy: Automatically positioned to the address	A9NE (W)	398	-	498885 103583
66	Contemporary Trade Directory Entries Name: Sussex Catering Equipment Services Ltd Location: Unit E, Ford Lane, Ford, Arundel, West Sussex, BN18 0DF Classification: Catering Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (N)	413	-	499506 103908

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
66	<p>Contemporary Trade Directory Entries</p> <p>Name: T P Smart Ltd Location: Unit F, Ford Lane, Ford, Arundel, West Sussex, BN18 0DF Classification: Scrap Metal Merchants Status: Active Positional Accuracy: Automatically positioned to the address</p>	A14SE (N)	447	-	499519 103940
66	<p>Contemporary Trade Directory Entries</p> <p>Name: Arun Fastener Co Ltd Location: Units 2-3, Ford Lane, Ford, Arundel, West Sussex, BN18 0DF Classification: Nuts, Bolts & Fixings Status: Active Positional Accuracy: Automatically positioned to the address</p>	A14SE (N)	447	-	499519 103940
67	<p>Contemporary Trade Directory Entries</p> <p>Name: G T Products (Europe) Ltd Location: Unit 14, Ford Lane Business Park, Ford, Arundel, West Sussex, BN18 0UZ Classification: Packaging Materials Manufacturers & Suppliers Status: Active Positional Accuracy: Automatically positioned to the address</p>	A14SE (N)	419	-	499589 103908
68	<p>Contemporary Trade Directory Entries</p> <p>Name: Classic Mantels Location: Block B2, Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, BN18 0HY Classification: Fireplaces & Mantelpieces Status: Active Positional Accuracy: Automatically positioned to the address</p>	A9SE (W)	432	-	498902 103167
68	<p>Contemporary Trade Directory Entries</p> <p>Name: Greenhill Finishers Location: Block A4, Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, BN18 0HY Classification: Powder Coatings Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9SE (SW)	433	-	498915 103125
68	<p>Contemporary Trade Directory Entries</p> <p>Name: Arun Circuits Ltd Location: Block A4, Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, BN18 0HY Classification: Printed Circuit Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9SE (SW)	433	-	498915 103125
68	<p>Contemporary Trade Directory Entries</p> <p>Name: Tarmac Topblock Ltd Location: Block A4, Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, BN18 0HY Classification: Concrete Products Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9SE (SW)	433	-	498915 103125
68	<p>Contemporary Trade Directory Entries</p> <p>Name: Southern Drilling Services Ltd Location: C2, Ford Airfield Ind Est, Ford, Arundel, West Sussex, BN18 0HY Classification: Drilling & Boring Equipment & Supplies Status: Inactive Positional Accuracy: Manually positioned to the address or location</p>	A9SE (SW)	435	-	498914 103124
68	<p>Contemporary Trade Directory Entries</p> <p>Name: Airfield Crash Repairs Ltd Location: Ford Airfield Ind Est, Ford, Arundel, West Sussex, BN18 0HY Classification: Car Body Repairs Status: Inactive Positional Accuracy: Manually positioned within the geographical locality</p>	A9SE (SW)	445	-	498915 103090
69	<p>Contemporary Trade Directory Entries</p> <p>Name: Sussex Jag Centre Location: D4, Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, BN18 0HY Classification: Car Dealers - Used Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A10SW (SW)	438	-	498940 103036
69	<p>Contemporary Trade Directory Entries</p> <p>Name: A J P Autos Ltd Location: Unit D3, Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, BN18 0HY Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A10SW (SW)	439	-	498937 103042

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
69	<p>Contemporary Trade Directory Entries</p> <p>Name: J J B Wire Location: Block D1, Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, BN18 0HY Classification: Coating Specialists Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A10SW (SW)	444	-	498927 103056
70	<p>Contemporary Trade Directory Entries</p> <p>Name: Sussex Jag Centre Location: Unit 4d Ford Airfield Indust Est, Ford, Arundel, West Sussex, BN18 0HY Classification: Garage Services Status: Inactive Positional Accuracy: Manually positioned to the address or location</p>	A6NW (SW)	439	-	498940 103034
70	<p>Contemporary Trade Directory Entries</p> <p>Name: Southdown Circuits Ltd Location: Unit E1-E2, Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, BN18 0HY Classification: Printed Circuit Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address</p>	A9SE (SW)	469	-	498907 103038
71	<p>Contemporary Trade Directory Entries</p> <p>Name: Fuller Location: Ford La, Ford, Arundel, West Sussex, BN18 0DF Classification: Boatbuilders & Repairers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location</p>	A14SW (NW)	445	-	499020 103904
71	<p>Contemporary Trade Directory Entries</p> <p>Name: Relish In Spice Location: Wicks Farm, Ford Lane, Ford, Arundel, West Sussex, BN18 0DF Classification: Food Products - Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address</p>	A14SW (NW)	468	-	499020 103932
72	<p>Contemporary Trade Directory Entries</p> <p>Name: Ford Electro-Plating Ltd Location: Block B4, Ford Airfield Industrial Estate, Ford, Arundel, West Sussex, BN18 0HY Classification: Metal Finishing Services Status: Active Positional Accuracy: Automatically positioned to the address</p>	A9SE (W)	452	-	498874 103183
73	<p>Contemporary Trade Directory Entries</p> <p>Name: Fire Extinguisher Valve Co Ltd Location: Unit 10, Ford Lane Business Park, Ford, Arundel, West Sussex, BN18 0UZ Classification: Firefighting Equipment Status: Active Positional Accuracy: Automatically positioned to the address</p>	A14SE (N)	456	-	499593 103944
73	<p>Contemporary Trade Directory Entries</p> <p>Name: Kedron Engineering Location: Unit 8, Ford La Business Pk, Ford, Arundel, West Sussex, BN18 0UZ Classification: Engineering Services Status: Inactive Positional Accuracy: Manually positioned to the address or location</p>	A15SW (N)	473	-	499597 103962
73	<p>Contemporary Trade Directory Entries</p> <p>Name: Ex-1 Flow Measurement Location: Unit 22, Ford Lane Business Park, Ford, Arundel, West Sussex, BN18 0UZ Classification: Electronic Equipment - Manufacturers & Assemblers Status: Active Positional Accuracy: Automatically positioned to the address</p>	A15SW (N)	500	-	499601 103988
74	<p>Contemporary Trade Directory Entries</p> <p>Name: Ocean Clean Location: 20, Sproule Close, Ford, Arundel, West Sussex, BN18 0NX Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A6NW (SW)	468	-	499017 102865
75	<p>Contemporary Trade Directory Entries</p> <p>Name: John Hyams Location: 18, Johnson Way, Ford, Arundel, West Sussex, BN18 0TD Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A5NE (SW)	563	-	498904 102850

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
76	<p>Contemporary Trade Directory Entries</p> <p>Name: Chiviot Tools Ltd Location: Unit C1, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Machinery - Industrial & Commercial Status: Active Positional Accuracy: Automatically positioned to the address</p>	A7SW (SE)	704	-	499922 102645
76	<p>Contemporary Trade Directory Entries</p> <p>Name: Dudman Group Of Companies Location: Unit H6, Rudford Industrial Estate, Ford Road, Ford, ARUNDEL, West Sussex, BN18 0BD Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7SE (SE)	740	-	499993 102645
76	<p>Contemporary Trade Directory Entries</p> <p>Name: D & S Services Location: Unit H3, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Tanks, Vats & Cisterns Status: Active Positional Accuracy: Automatically positioned to the address</p>	A7SE (SE)	749	-	499960 102614
76	<p>Contemporary Trade Directory Entries</p> <p>Name: Dudman Haulage Ltd Location: Unit H6, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7SE (SE)	749	-	499960 102614
76	<p>Contemporary Trade Directory Entries</p> <p>Name: Denber Trading Co Location: Unit H17, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Rubber & Plastic Products - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7SE (SE)	749	-	499960 102614
77	<p>Contemporary Trade Directory Entries</p> <p>Name: Styropack (Uk) Ltd Location: Unit A, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Packaging Materials Manufacturers & Suppliers Status: Active Positional Accuracy: Automatically positioned to the address</p>	A7SW (S)	709	-	499788 102588
78	<p>Contemporary Trade Directory Entries</p> <p>Name: Rossetts Commercials Location: Unit R, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BF Classification: Commercial Vehicle Dealers Status: Inactive Positional Accuracy: Manually positioned to the address or location</p>	A7SW (S)	761	-	499750 102522
78	<p>Contemporary Trade Directory Entries</p> <p>Name: Airfield Commercial Vehicles Ltd Location: Unit R, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BF Classification: Commercial Vehicle Servicing, Repairs, Parts & Accessories Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7SW (S)	761	-	499750 102522
79	<p>Contemporary Trade Directory Entries</p> <p>Name: Smi hs Electrical Location: 54, Fordwater Gardens, Yapton, Arundel, West Sussex, BN18 0HU Classification: Washing Machines - Servicing & Repairs Status: Active Positional Accuracy: Automatically positioned to the address</p>	A5NE (SW)	764	-	498628 102943
80	<p>Contemporary Trade Directory Entries</p> <p>Name: Farid Municipal Vehicles Ltd Location: Unit K, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BF Classification: Commercial Vehicle Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7SW (S)	784	-	499849 102528

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
80	<p>Contemporary Trade Directory Entries</p> <p>Name: Farid Uk Ltd Location: Unit K, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BF Classification: Commercial Vehicle Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address</p>	A7SW (S)	784	-	499849 102528
81	<p>Contemporary Trade Directory Entries</p> <p>Name: Sport Warehouse Location: Rudford Ind Est, Ford Rd, Ford, Arundel, West Sussex, BN18 0BD Classification: Sports Equipment Manufacturers & Distributors Status: Inactive Positional Accuracy: Manually positioned within the geographical locality</p>	A7SE (SE)	786	-	499950 102568
81	<p>Contemporary Trade Directory Entries</p> <p>Name: European Print Ltd Location: Caxton House, Rudford Ind Est, Ford Rd, Ford, Arundel, West Sussex, BN18 0BF Classification: Printers Status: Inactive Positional Accuracy: Manually positioned within the geographical locality</p>	A7SE (SE)	801	-	499961 102556
81	<p>Contemporary Trade Directory Entries</p> <p>Name: Boxall & Clinch Location: Unit N, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BF Classification: Caravans - Servicing & Repairs Status: Active Positional Accuracy: Automatically positioned to the address</p>	A7SE (SE)	832	-	499985 102534
81	<p>Contemporary Trade Directory Entries</p> <p>Name: Harringshaw Engineering Ltd Location: Unit E3, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Engineers - General Status: Active Positional Accuracy: Automatically positioned to the address</p>	A7SE (SE)	871	-	499976 102486
81	<p>Contemporary Trade Directory Entries</p> <p>Name: Top Turf Irrigation Engineering Location: Unit E4-E5, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7SE (SE)	873	-	499982 102486
82	<p>Contemporary Trade Directory Entries</p> <p>Name: Hammonds (Commercials) Ltd Location: Unit S1, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BF Classification: Commercial Vehicle Servicing, Repairs, Parts & Accessories Status: Inactive Positional Accuracy: Manually positioned to the address or location</p>	A7SW (S)	808	-	499733 102468
82	<p>Contemporary Trade Directory Entries</p> <p>Name: Hammonds Commercials Ltd Location: Unit S1, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BF Classification: Commercial Vehicle Servicing, Repairs, Parts & Accessories Status: Active Positional Accuracy: Automatically positioned to the address</p>	A7SW (S)	808	-	499733 102468
82	<p>Contemporary Trade Directory Entries</p> <p>Name: Lmd Location: Unit S2, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BF Classification: Car Body Repairs Status: Active Positional Accuracy: Automatically positioned to the address</p>	A7SW (S)	832	-	499751 102448
82	<p>Contemporary Trade Directory Entries</p> <p>Name: Interact The Service Co Location: Unit S6,S7, Rudford Ind Est, Ford Rd, Ford, Arundel, West Sussex, BN18 0BF Classification: Cleaning Materials & Equipment Status: Inactive Positional Accuracy: Manually positioned to the address or location</p>	A7SW (S)	854	-	499766 102429

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
83	<p>Contemporary Trade Directory Entries</p> <p>Name: C D Tarpaulins Location: Unit W South, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Tarpaulins Status: Inactive Positional Accuracy: Manually positioned within the geographical locality</p>	A7SW (S)	833	-	499848 102476
83	<p>Contemporary Trade Directory Entries</p> <p>Name: Victorian Lace Ltd Location: Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BF Classification: Ornamental Metalwork Status: Inactive Positional Accuracy: Automatically positioned in the proximity of the address</p>	A7SW (S)	854	-	499845 102454
84	<p>Contemporary Trade Directory Entries</p> <p>Name: T A Tooling Location: Unit 8/9, Gaugemaster Way, Ford, Arundel, West Sussex, BN18 0RX Classification: Tool Design, Manufacturers & Makers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A15NE (NE)	837	-	500196 104299
85	<p>Contemporary Trade Directory Entries</p> <p>Name: Pressprint Sales Ltd Location: Unit 11, Gaugemaster Way, Ford, Arundel, West Sussex, BN18 0RX Classification: Tool Design, Manufacturers & Makers Status: Active Positional Accuracy: Automatically positioned to the address</p>	A15NE (NE)	840	-	500170 104311
85	<p>Contemporary Trade Directory Entries</p> <p>Name: F D Technical Services Location: Unit 10, Gaugemaster Way, Ford, Arundel, West Sussex, BN18 0RX Classification: Electronic Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A15NE (NE)	840	-	500180 104308
85	<p>Contemporary Trade Directory Entries</p> <p>Name: Future Display Technology Ltd Location: Unit 10, Gaugemaster Way, Ford, Arundel, West Sussex, BN18 0RX Classification: Electronic Engineers Status: Active Positional Accuracy: Automatically positioned to the address</p>	A15NE (NE)	840	-	500180 104308
85	<p>Contemporary Trade Directory Entries</p> <p>Name: Future Display Technology Ltd Location: Unit 10, Gaugemaster Way, Ford, Arundel, West Sussex, BN18 0RX Classification: Lawnmowers & Garden Machinery - Sales & Service Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A15NE (NE)	840	-	500180 104308
85	<p>Contemporary Trade Directory Entries</p> <p>Name: Arian Ltd Location: Unit 14, Gaugemaster Way, Ford, Arundel, West Sussex, BN18 0RX Classification: Telecommunications Equipment & Systems Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A15NE (NE)	841	-	500139 104321
85	<p>Contemporary Trade Directory Entries</p> <p>Name: C & W Seals Location: Unit 5, Gaugemaster Way, Ford, Arundel, West Sussex, BN18 0RX Classification: Seal & Joint Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address</p>	A15NE (NE)	863	-	500164 104337
86	<p>Contemporary Trade Directory Entries</p> <p>Name: New Life Paints Location: Unit D5-D6, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Manufacturers Status: Active Positional Accuracy: Manually positioned to the address or location</p>	A7SW (S)	846	-	499927 102491
86	<p>Contemporary Trade Directory Entries</p> <p>Name: Jemic Location: Unit D3, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Cladding Suppliers & Installers Status: Active Positional Accuracy: Automatically positioned to the address</p>	A7SE (S)	852	-	499940 102490

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
86	<p>Contemporary Trade Directory Entries</p> <p>Name: Rgm Joinery (Sussex) Ltd Location: D2,Unit,Rudford Ind Est,Ford Rd, Ford, Arundel, West Sussex, BN18 0BD Classification: Joinery Manufacturers Status: Active Positional Accuracy: Manually positioned within the geographical locality</p>	A7SE (SE)	856	-	499951 102491
86	<p>Contemporary Trade Directory Entries</p> <p>Name: Grays Garage Location: Unit 2,Unit,Rudford Ind Est,Ford Rd, Ford, Arundel, West Sussex, BN18 0BD Classification: Mot Testing Centres Status: Active Positional Accuracy: Manually positioned within the geographical locality</p>	A7SE (SE)	856	-	499951 102491
86	<p>Contemporary Trade Directory Entries</p> <p>Name: Hendsigns Location: S 5,Rudford Ind Est,Ford Rd, Ford, Arundel, West Sussex, BN18 0BD Classification: Energy Efficient Products and Services Status: Active Positional Accuracy: Manually positioned within the geographical locality</p>	A7SE (SE)	856	-	499951 102491
86	<p>Contemporary Trade Directory Entries</p> <p>Name: Beaumont Office Services Location: Unit J, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BF Classification: Copying & Duplicating Machines & Supplies Status: Inactive Positional Accuracy: Manually positioned to the address or location</p>	A7SE (S)	882	-	499935 102456
86	<p>Contemporary Trade Directory Entries</p> <p>Name: L & J Williams Location: Unit M3, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BF Classification: Road Haulage Services Status: Active Positional Accuracy: Automatically positioned to the address</p>	A7SE (SE)	892	-	499961 102456
86	<p>Contemporary Trade Directory Entries</p> <p>Name: Photon Technology Location: Unit M1,Rudford Ind Est,Ford Rd, Ford, Arundel, West Sussex, BN18 0BF Classification: Scientific Apparatus & Instruments - Manufacturers Status: Inactive Positional Accuracy: Manually positioned to the address or location</p>	A7SE (SE)	901	-	499980 102454
86	<p>Contemporary Trade Directory Entries</p> <p>Name: Active Pump Services Ltd Location: Unit G17-G18, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Waste Disposal Services Status: Active Positional Accuracy: Automatically positioned to the address</p>	A7SW (S)	913	-	499912 102414
86	<p>Contemporary Trade Directory Entries</p> <p>Name: Atlantic Garage Location: G18-20, Unit, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Mot Testing Centres Status: Active Positional Accuracy: Automatically positioned to the address</p>	A7SW (S)	913	-	499912 102414
86	<p>Contemporary Trade Directory Entries</p> <p>Name: Roadspeed Location: G18-20, Unit, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7SW (S)	913	-	499912 102414
86	<p>Contemporary Trade Directory Entries</p> <p>Name: Enamco Ltd Location: G18-20, Unit, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Spraying - Paint & Coatings Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7SW (S)	913	-	499912 102414
86	<p>Contemporary Trade Directory Entries</p> <p>Name: Sandy Bruce Trucking Ltd Location: G18-20, Unit, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7SW (S)	913	-	499912 102414

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
86	<p>Contemporary Trade Directory Entries</p> <p>Name: Hersham Valves Ltd Location: G18-20, Unit, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Exhaust System Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7SW (S)	913	-	499912 102414
86	<p>Contemporary Trade Directory Entries</p> <p>Name: The West Group Ltd Location: Unit G16, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Hydraulic Equipment & Accessories - Sales & Service Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7SW (S)	914	-	499918 102415
86	<p>Contemporary Trade Directory Entries</p> <p>Name: Page Group Location: Unit G16, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7SW (S)	914	-	499918 102415
86	<p>Contemporary Trade Directory Entries</p> <p>Name: Quadrant Technical Services Location: Unit G14, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Printed Circuit Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7SE (S)	920	-	499942 102417
86	<p>Contemporary Trade Directory Entries</p> <p>Name: K & S Metal Polishers Location: Unit G12, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Metal Finishing Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7SE (S)	924	-	499953 102418
86	<p>Contemporary Trade Directory Entries</p> <p>Name: Beaumont Engineering Location: Unit G11, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Engineers - General Status: Active Positional Accuracy: Automatically positioned to the address</p>	A7SE (S)	926	-	499960 102418
87	<p>Contemporary Trade Directory Entries</p> <p>Name: Ryan Cars Ltd Location: Burndell Rd, Yapton, Arundel, West Sussex, BN18 0HP Classification: Car Dealers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location</p>	A5NW (SW)	847	-	498546 102924
87	<p>Contemporary Trade Directory Entries</p> <p>Name: T J Waste & Recycling Location: Northwood farm, Burndell Rd, Yapton, Arundel, West Sussex, BN18 0HR Classification: Tyre Disposal Status: Active Positional Accuracy: Manually positioned to the road within the address or location</p>	A5NW (SW)	851	-	498542 102924
88	<p>Contemporary Trade Directory Entries</p> <p>Name: Sita Location: Rudford Ind Est, Ford Rd, Ford, Arundel, West Sussex, BN18 0BD Classification: Waste Disposal Services Status: Inactive Positional Accuracy: Manually positioned within the geographical locality</p>	A7SE (SE)	854	-	500049 102545
89	<p>Contemporary Trade Directory Entries</p> <p>Name: Fox Ltd Location: Unit 1/2, Gaugemaster Way, Ford, Arundel, West Sussex, BN18 0RX Classification: Lawnmowers & Garden Machinery - Sales & Service Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A15NE (NE)	861	-	500196 104325
89	<p>Contemporary Trade Directory Entries</p> <p>Name: N R G Developments Ltd Location: Meridian House, Ford Road, Ford, Arundel, West Sussex, BN18 0BH Classification: Lubricating Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A15NE (NE)	887	-	500231 104340

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
89	Contemporary Trade Directory Entries Name: W & H Supplies Location: Meridian House, Ford Road, Ford, Arundel, West Sussex, BN18 0BH Classification: Fireplaces & Mantelpieces Status: Active Positional Accuracy: Manually positioned to the address or location	A15NE (NE)	887	-	500231 104340
89	Contemporary Trade Directory Entries Name: W & H Supplies Location: Meridian House, Ford Road, Ford, Arundel, West Sussex, BN18 0BH Classification: Fireplaces & Mantelpieces Status: Inactive Positional Accuracy: Manually positioned to the address or location	A15NE (NE)	887	-	500231 104340
90	Contemporary Trade Directory Entries Name: Yellowboxes Co Uk Ltd Location: Unit T6, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BF Classification: Computer Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SW (S)	870	-	499847 102438
90	Contemporary Trade Directory Entries Name: N & L Seals Location: Unit T4, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BF Classification: Engineers - General Status: Active Positional Accuracy: Automatically positioned to the address	A7SW (S)	870	-	499860 102442
90	Contemporary Trade Directory Entries Name: Genie Care Ltd Location: Unit T6, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BF Classification: Disability Equipment - Manufacturers & Suppliers Status: Active Positional Accuracy: Automatically positioned to the address	A7SW (S)	870	-	499847 102438
90	Contemporary Trade Directory Entries Name: House Of Furniture Location: T1-U7, Unit, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BF Classification: Furniture Manufacturers - Home & Office Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SW (S)	870	-	499877 102447
90	Contemporary Trade Directory Entries Name: I C S Electronics Ltd Location: Unit V, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BF Classification: Radio Communication Equipment Status: Active Positional Accuracy: Automatically positioned to the address	A7SW (S)	870	-	499831 102432
90	Contemporary Trade Directory Entries Name: Industrial Engineering Supplies Ltd Location: Unit T3, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BF Classification: Hydraulic Engineers Status: Active Positional Accuracy: Automatically positioned to the address	A7SW (S)	870	-	499866 102443
90	Contemporary Trade Directory Entries Name: Hersham Valves Ltd Location: T1-U7, Unit, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BF Classification: Brake & Clutch Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SW (S)	870	-	499877 102447
90	Contemporary Trade Directory Entries Name: Sandy Bruce Trucking Location: Unit T2, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BF Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SW (S)	870	-	499872 102445

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
90	<p>Contemporary Trade Directory Entries</p> <p>Name: Transvac Systems Location: Unit U3, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BF Classification: Marine Equipment & Supplies Status: Active Positional Accuracy: Manually positioned to the address or location</p>	A7SW (S)	909	-	499864 102401
90	<p>Contemporary Trade Directory Entries</p> <p>Name: Roadspeed Location: Unit U2, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BF Classification: Breakdown and Recovery Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7SW (S)	909	-	499874 102404
90	<p>Contemporary Trade Directory Entries</p> <p>Name: The Little Experience Location: Unit U3, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BF Classification: Toys, Games & Sporting Goods - Manufacturers Status: Inactive Positional Accuracy: Manually positioned to the address or location</p>	A7SW (S)	909	-	499864 102401
90	<p>Contemporary Trade Directory Entries</p> <p>Name: Around The Benz Location: Unit G19, Rudford Ind Est, Ford Rd, Ford, Arundel, West Sussex, BN18 0BD Classification: Garage Services Status: Active Positional Accuracy: Manually positioned to the address or location</p>	A7SW (S)	912	-	499906 102412
91	<p>Contemporary Trade Directory Entries</p> <p>Name: Bignall Surgical Instruments Ltd Location: Unit E8, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Medical Instruments - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7SE (SE)	889	-	500006 102481
91	<p>Contemporary Trade Directory Entries</p> <p>Name: Vans 4 U Location: Unit W North, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Commercial Vehicle Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7SE (SE)	909	-	500052 102482
91	<p>Contemporary Trade Directory Entries</p> <p>Name: C D Tarpaulins Ltd Location: Unit W, South, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Tarpaulins Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7SE (SE)	941	-	500068 102456
91	<p>Contemporary Trade Directory Entries</p> <p>Name: C.D Tarpaulins Location: Unit W South, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Tarpaulins Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7SE (SE)	941	-	500068 102456
91	<p>Contemporary Trade Directory Entries</p> <p>Name: C.D Tarpaulins Location: Unit W South, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Tarpaulins Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7SE (SE)	941	-	500068 102456
91	<p>Contemporary Trade Directory Entries</p> <p>Name: C D Tarpaulins Location: Unit W South, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Tarpaulins Status: Active Positional Accuracy: Automatically positioned to the address</p>	A7SE (SE)	941	-	500068 102456

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
92	Contemporary Trade Directory Entries Name: Arundel Motor Co Location: Unit U8, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Car Dealers - Used Status: Inactive Positional Accuracy: Manually positioned to the address or location	A7SW (S)	908	-	499806 102385
92	Contemporary Trade Directory Entries Name: D & D Double Glazing Ltd Location: Unit U9, Rudford Ind Est, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Fascias and Soffits Status: Inactive Positional Accuracy: Manually positioned to the address or location	A7SW (S)	909	-	499792 102380
92	Contemporary Trade Directory Entries Name: Sussex Vehicle Repairs Location: Unit U10, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BF Classification: Car Body Repairs Status: Active Positional Accuracy: Automatically positioned to the address	A7SW (S)	910	-	499775 102374
92	Contemporary Trade Directory Entries Name: Speedboard Circuitboards Location: Unit U10 Rudford Indust Est, Ford, Arundel, West Sussex, BN18 0BS Classification: Printed Circuit Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SW (S)	912	-	499770 102370
93	Contemporary Trade Directory Entries Name: Atlantic Location: Unit G6-G7, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Car Body Repairs Status: Active Positional Accuracy: Automatically positioned to the address	A7SE (SE)	936	-	499994 102422
93	Contemporary Trade Directory Entries Name: Sign City Location: Unit G4, Rudford Industrial Estate, Ford Road, Ford, Arundel, West Sussex, BN18 0BD Classification: Printers Status: Active Positional Accuracy: Automatically positioned to the address	A7SE (SE)	943	-	500012 102424
93	Contemporary Trade Directory Entries Name: Ceetel Location: G4 Rudford Indust Est, Ford Rd, Ford, Arundel, West Sussex, BN18 0BD Classification: Refrigeration Equipment - Commercial Status: Inactive Positional Accuracy: Manually positioned to the address or location	A7SE (SE)	943	-	500012 102423
94	Contemporary Trade Directory Entries Name: Jooles Location: Rudford Ind Est, Ford Rd, Ford, Arundel, West Sussex, BN18 0BD Classification: Greeting Card Publishers & Wholesalers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A7SE (SE)	950	-	500212 102545
95	Contemporary Trade Directory Entries Name: Southdown Tractors Location: Burndell Road, Yapton, ARUNDEL, West Sussex, BN18 0HR Classification: Agricultural Machinery - Sales & Service Status: Inactive Positional Accuracy: Automatically positioned to the address	A5SE (SW)	983	-	498583 102578
96	Contemporary Trade Directory Entries Name: T H Caravan Services Location: 3, Apple Tree Walk, Climping, Littlehampton, West Sussex, BN17 5QN Classification: Caravans - Servicing & Repairs Status: Active Positional Accuracy: Automatically positioned to the address	A3NW (S)	992	-	499831 102305

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
97	Nitrate Vulnerable Zones Name: Not Supplied Description: NVZ Area Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	A10NW (W)	312	7	498967 103421
98	Nitrate Vulnerable Zones Name: Not Supplied Description: NVZ Area Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	A16NW (NE)	899	7	500558 104137













Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Arun District Council - Environmental Health Department	July 2012	Annual Rolling Update
Discharge Consents Environment Agency - Southern Region	July 2012	Quarterly
Enforcement and Prohibition Notices Environment Agency - Southern Region	September 2012	Quarterly
Integrated Pollution Controls Environment Agency - Southern Region	October 2008	Not Applicable
Integrated Pollution Prevention And Control Environment Agency - South East Region - Solent & South Downs Area Environment Agency - Southern Region	July 2012 July 2012	Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control Arun District Council - Environmental Health Department	May 2012	Annual Rolling Update
Local Authority Pollution Prevention and Controls Arun District Council - Environmental Health Department Lewes District Council - Environmental Health Department	May 2012 September 2011	Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Arun District Council - Environmental Health Department	May 2012	Annual Rolling Update
Nearest Surface Water Feature Ordnance Survey	July 2012	Quarterly
Pollution Incidents to Controlled Waters Environment Agency - Southern Region	December 1999	Not Applicable
Prosecutions Relating to Authorised Processes Environment Agency - Southern Region	September 2012	Monthly
Prosecutions Relating to Controlled Waters Environment Agency - Southern Region	September 2012	Monthly
Registered Radioactive Substances Environment Agency - Southern Region	July 2012	Quarterly
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register Environment Agency - Southern Region - Solent and South Downs Environment Agency - Southern Region - Sussex Area	July 2012 July 2012	Quarterly Quarterly
Water Abstractions Environment Agency - Southern Region	July 2012	Quarterly
Water Industry Act Referrals Environment Agency - Southern Region	July 2012	Quarterly
Groundwater Vulnerability Environment Agency - Head Office	January 2011	Not Applicable
Drift Deposits Environment Agency - Head Office	January 1999	Not Applicable
Bedrock Aquifer Designations British Geological Survey - National Geoscience Information Service	September 2011	Annually
Superficial Aquifer Designations British Geological Survey - National Geoscience Information Service	September 2011	Annually
Source Protection Zones Environment Agency - Head Office	July 2012	Quarterly

Agency & Hydrological	Version	Update Cycle
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	July 2012	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	July 2012	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	July 2012	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	July 2012	Quarterly
Flood Defences Environment Agency - Head Office	July 2012	Quarterly
Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites Environment Agency - Southern Region - Solent and South Downs Environment Agency - Southern Region - Sussex Area	July 2012 July 2012	Quarterly Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - Southern Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - Southern Region - Solent and South Downs Environment Agency - Southern Region - Sussex Area	July 2012 July 2012	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency - South East Region - Solent & South Downs Area Environment Agency - Southern Region - Solent and South Downs Environment Agency - Southern Region - Sussex Area	July 2012 July 2012 July 2012	Quarterly Quarterly Quarterly
Local Authority Landfill Coverage Arun District Council - Technical Support Unit West Sussex County Council - Environment & Development	May 2000 May 2000	Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Arun District Council - Technical Support Unit West Sussex County Council - Environment & Development	May 2000 May 2000	Not Applicable Not Applicable
Registered Landfill Sites Environment Agency - Southern Region - Sussex Area	March 2003	Not Applicable
Registered Waste Transfer Sites Environment Agency - Southern Region - Sussex Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites Environment Agency - Southern Region - Sussex Area	March 2003	Not Applicable

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	May 2012	Bi-Annually
Explosive Sites Health and Safety Executive	June 2012	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements Arun District Council - Technical Support Unit West Sussex County Council - Environment & Development	August 2012 October 2006	Annual Rolling Update Annual Rolling Update
Planning Hazardous Substance Consents Arun District Council - Technical Support Unit West Sussex County Council - Environment & Development	August 2012 October 2006	Annual Rolling Update Annual Rolling Update
Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	August 1996	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	January 2010	Variable
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	April 2012	Bi-Annually
Brine Compensation Area Cheshire Brine Subsidence Compensation Board	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Mining Report Service	January 2012	As notified
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	February 2011	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	February 2011	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	February 2011	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	February 2011	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	February 2011	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	February 2011	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	February 2011	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	As notified
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	As notified
Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	May 2012	Quarterly
Fuel Station Entries Catalist Ltd - Experian	May 2012	Quarterly

Sensitive Land Use	Version	Update Cycle
Areas of Outstanding Natural Beauty Natural England	July 2012	Bi-Annually
Environmentally Sensitive Areas Natural England	February 2012	Annually
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Natural England	February 2012	Bi-Annually
Marine Nature Reserves Natural England	August 2012	Bi-Annually
National Nature Reserves Natural England	February 2012	Bi-Annually
National Parks Natural England	August 2012	Bi-Annually
Nitrate Sensitive Areas Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	February 2012	Not Applicable
Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	February 2012	Annually
Ramsar Sites Natural England	August 2012	Bi-Annually
Sites of Special Scientific Interest Natural England	August 2012	Bi-Annually
Special Areas of Conservation Natural England	August 2012	Bi-Annually
Special Protection Areas Natural England	August 2012	Bi-Annually

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	 British Geological Survey <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small>
Centre for Ecology and Hydrology	 Centre for Ecology & Hydrology <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small>
Countryside Council for Wales	 CYNGOR CEFN GWLAD CYMRU COUNTRYSIDE COUNCIL FOR WALES
Scottish Natural Heritage	
Natural England	
Health Protection Agency	
Ove Arup	
Peter Brett Associates	

Contact	Name and Address	Contact Details
1	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 08708 506 506 Email: enquiries@environment-agency.gov.uk
2	Arun District Council - Environmental Health Department Civic Centre, Maltravers Road, Littlehampton, Sussex, BN17 5LF	Telephone: 01903 737696 Fax: 01903 723936 Email: Environment@arun.gov.uk Website: www.arun.gov.uk
3	Lewes District Council - Environmental Health Department Southover House, Southover Road, Lewes, East Sussex, BN7 2LX	Telephone: 01273 471600 Fax: 01273 484451 Email: Ehealth@lewes.gov.uk Website: www.lewes.gov.uk
4	British Geological Survey - Enquiry Service British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
5	West Sussex County Council - Environment & Development County Hall, Tower hall, Chichester, West Sussex, PO19 1RH	Telephone: 01243 777100 Website: www.westsussex.gov.uk
6	Landmark Information Group Limited 5 - 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Telephone: 01392 441761 Fax: 01392 441709 Email: cssupport@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk
7	Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) Government Buildings, Otley Road, Lawnswood, Leeds, West Yorkshire, LS16 5QT	Telephone: 0113 2613333 Fax: 0113 230 0879
8	Arun District Council - Technical Support Unit Civic Centre, Maltravers Road, Littlehampton, Sussex, BN17 5LF	Telephone: 01903 737500 Fax: 01903 730442 Website: www.arun.gov.uk
-	Health Protection Agency - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@hpa.org.uk Website: www.hpa.org.uk
-	Landmark Information Group Limited The Smith Centre, Henley On Thames, Oxfordshire, RG9 6AB	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

Please note that the Environment Agency / SEPA have a charging policy in place for enquiries.

Groundwater Vulnerability

General

- Site File
- Site Data Entry
- Display Individual Data
- Site
- Map D

Agency and Hydrological

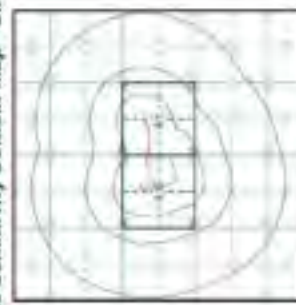
Geological Classes

- Best Aquifer (Highly Permeable)**
 - High (H) (1, 2, 3, 4)
 - Intermediate (I) (1, 2)
 - Low
- Minor Aquifer (Moderately Permeable)**
 - High (H) (1, 2, 3, 4)
 - Intermediate (I) (1, 2)
 - Low
- Non Aquifer (Slightly Permeable)**
- Water at Sea**
- Soil Depress**

Soil Classes

- High (H) (1, 2, 3, 4)
- Intermediate (I) (1, 2)
- Low

Site Sensitivity Context Map - Slice A

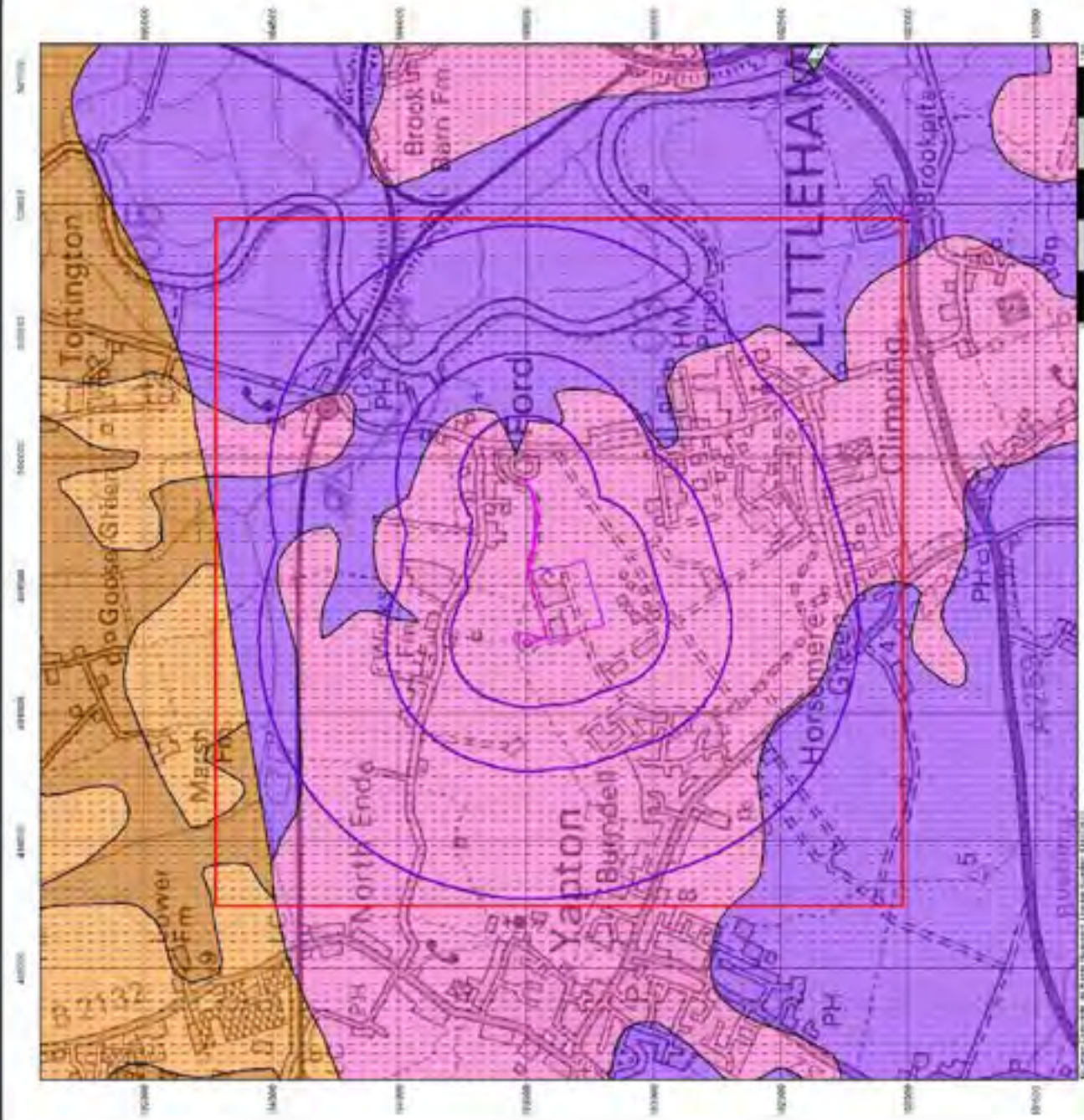


Order Details

Order Number: 41300150_1_1
 Customer Ref: 12514100832
 National Grid Reference: 496660, 109400
 Scale: A
 Site Area (Ha): 0.72
 Search Buffer (m): 1000

Site Details

Ford Airfield Estate, Ford Airfield, West Sussex, BN16 0JY



Bedrock Aquifer Designation

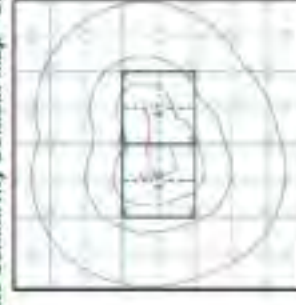
General
 Site Visit File Site Visit Summary Drawing Information (Date)
 Site Map Map D

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary 3. Aquifer
- Secondary 2. Aquifer
- Secondary 1. Aquifer
- Secondary Unproductive
- Unproductive Zone
- Unknown

Site Sensitivity Context Map - Slice A

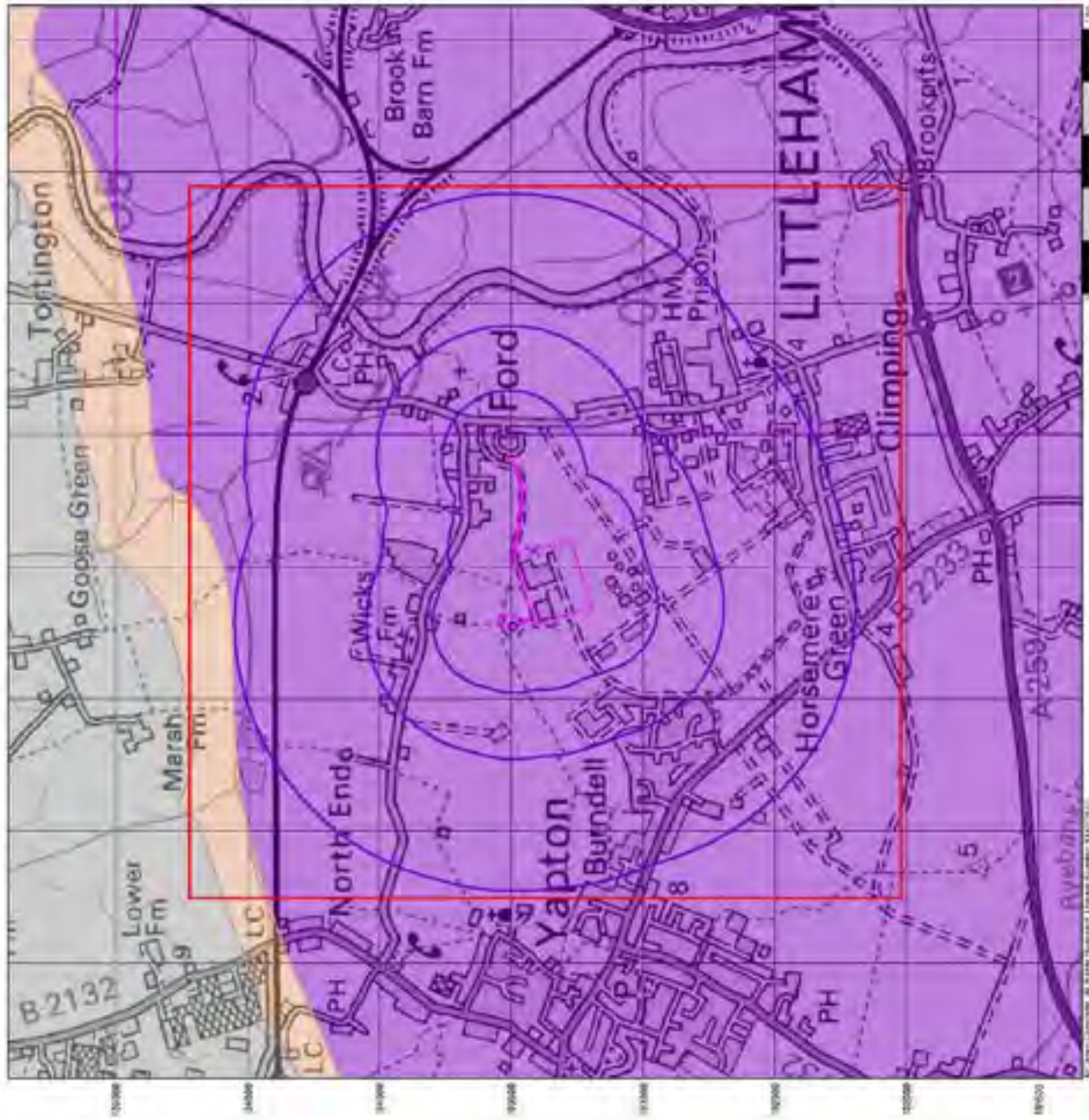


Order Details

Order Number: 41399150
 Order Date: 12/14/2012
 Customer Ref: 499560, 103400
 National Grid Reference: A 499560, 103400
 Scale: A
 Site Area (Hect): 0.72
 Search Buffer (m): 1000

Site Details

Ford Airfield Estate, Ford, ARLUNDEL, West Sussex, BN16 0JY



Superficial Aquifer Designation

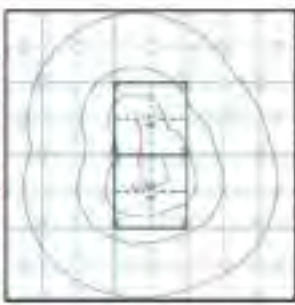
General
 Site File Site Data Objects Design Release Date
 Site Map D

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary 3. Aquifer
- Secondary 2. Aquifer
- Secondary 1. Aquifer
- Unproductive Strata
- Unknown

Site Sensitivity Context Map - Slice A

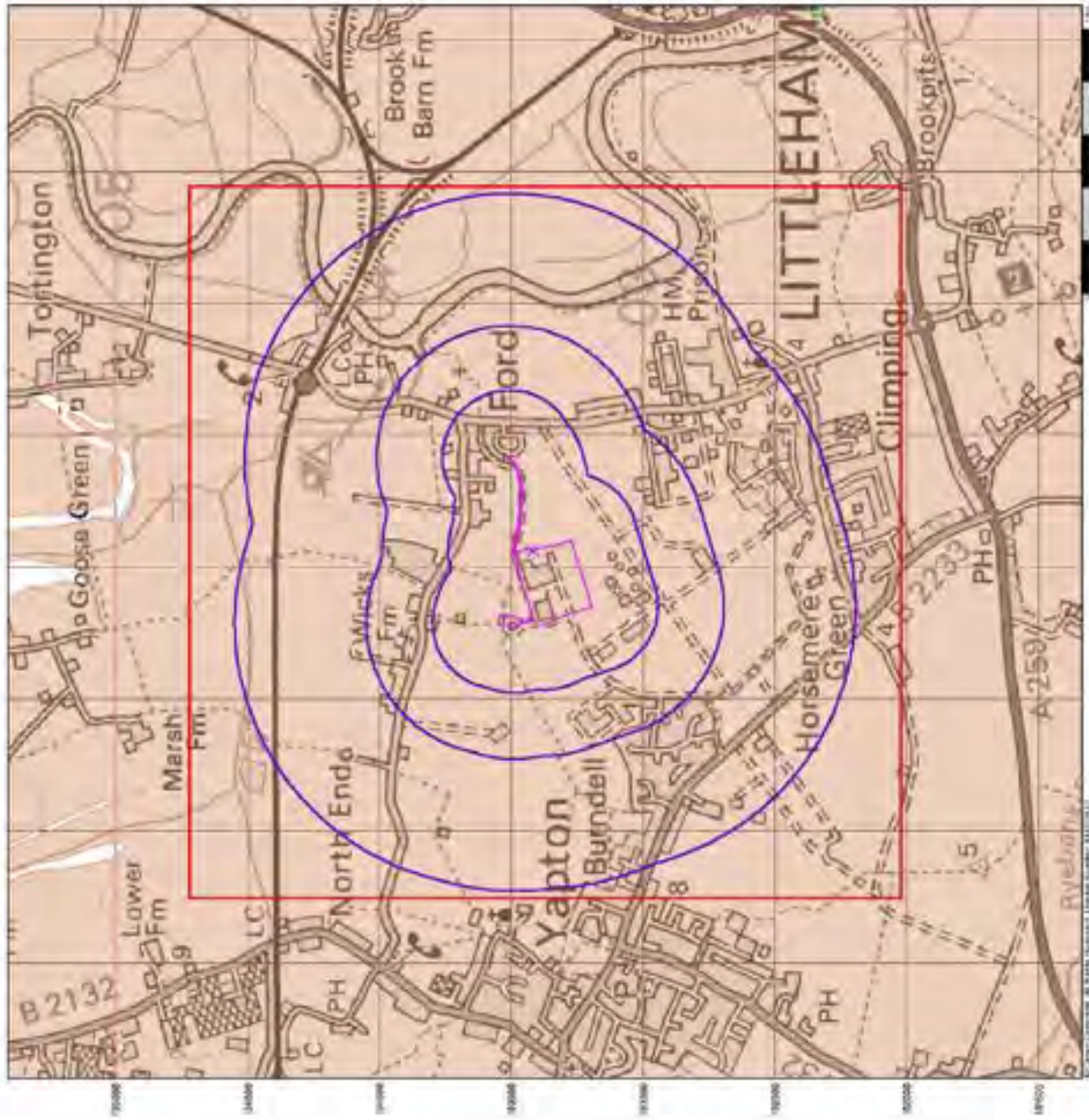


Order Details

Order Number: 41399150
 Customer Ref: 1251410002
 National Grid Reference: 496660, 109400
 Site Area (Ha): 0.72
 Search Buffer (m): 1000

Site Details

Ford Airfield Estate, Ford, ARL4DEL, West Sussex, BN16 0JY



Source Protection Zones

- General**
- Sewerage
 - Surface Water
 - Drinking Water
 - Air
 - Noise
- Agency and Hydrological**
- Interception Zone
 - Source Protection Zone A
 - Source Protection Zone B
 - Interception Tunnel
 - Source Protection Zone Boundary

Site Sensitivity Context Map - Slice A

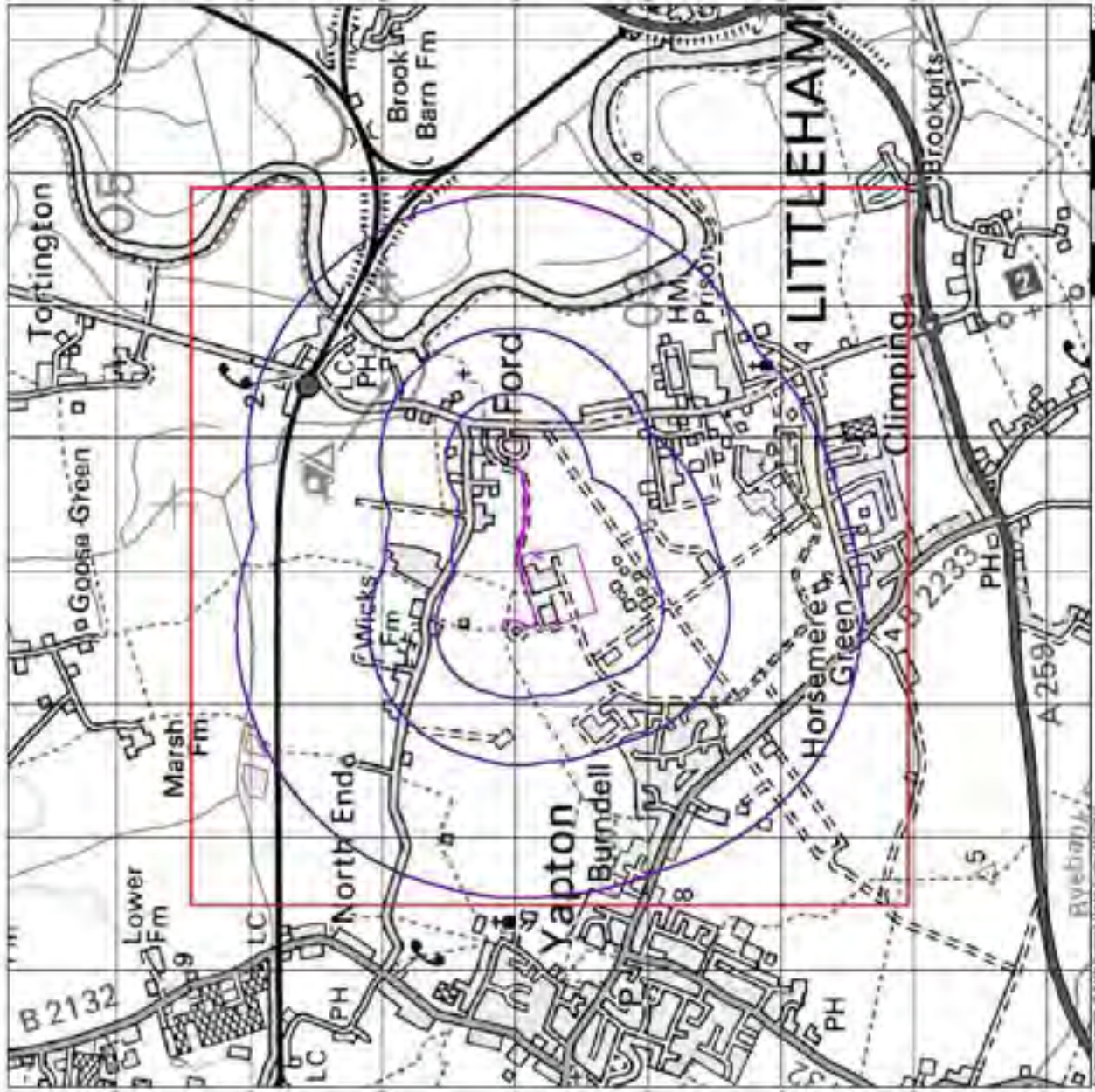


Order Details

41500101_1_Y
 Order Number: 1251410002
 Customer Ref: 400660_103400
 National Grid Reference: A 72
 Scale: 1:72
 Site Area (Ha): 1000
 Search Radius (m): 1000

Site Details

First Author/Client: Ford AP/4002, West Sussex, BN16 0 1Y



Sensitive Land Uses

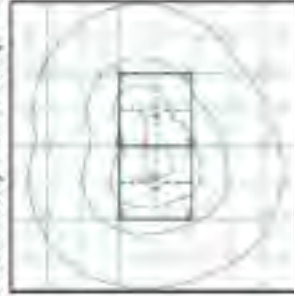
General

- Open Area
- Green Belt
- Air Quality Sensitive Area
- Flood
- Noise

Sensitive Land Uses

- Areas of Archaeological Interest
- Areas of Outstanding Natural Beauty
- Statutory Nature Reserves
- Flood Plain
- Local Nature Reserves
- Mineral Reserves
- Areas of Ancient Woodland
- Areas of Special Scientific Interest
- Sites of Special Scientific Interest
- National Parks
- Areas of Local Nature Conservation
- Sites of Special Interest (Wildlife)
- Sites of Special Interest (Geology)
- Local Planning Objectives

Site Sensitivity Context Map - Slice A

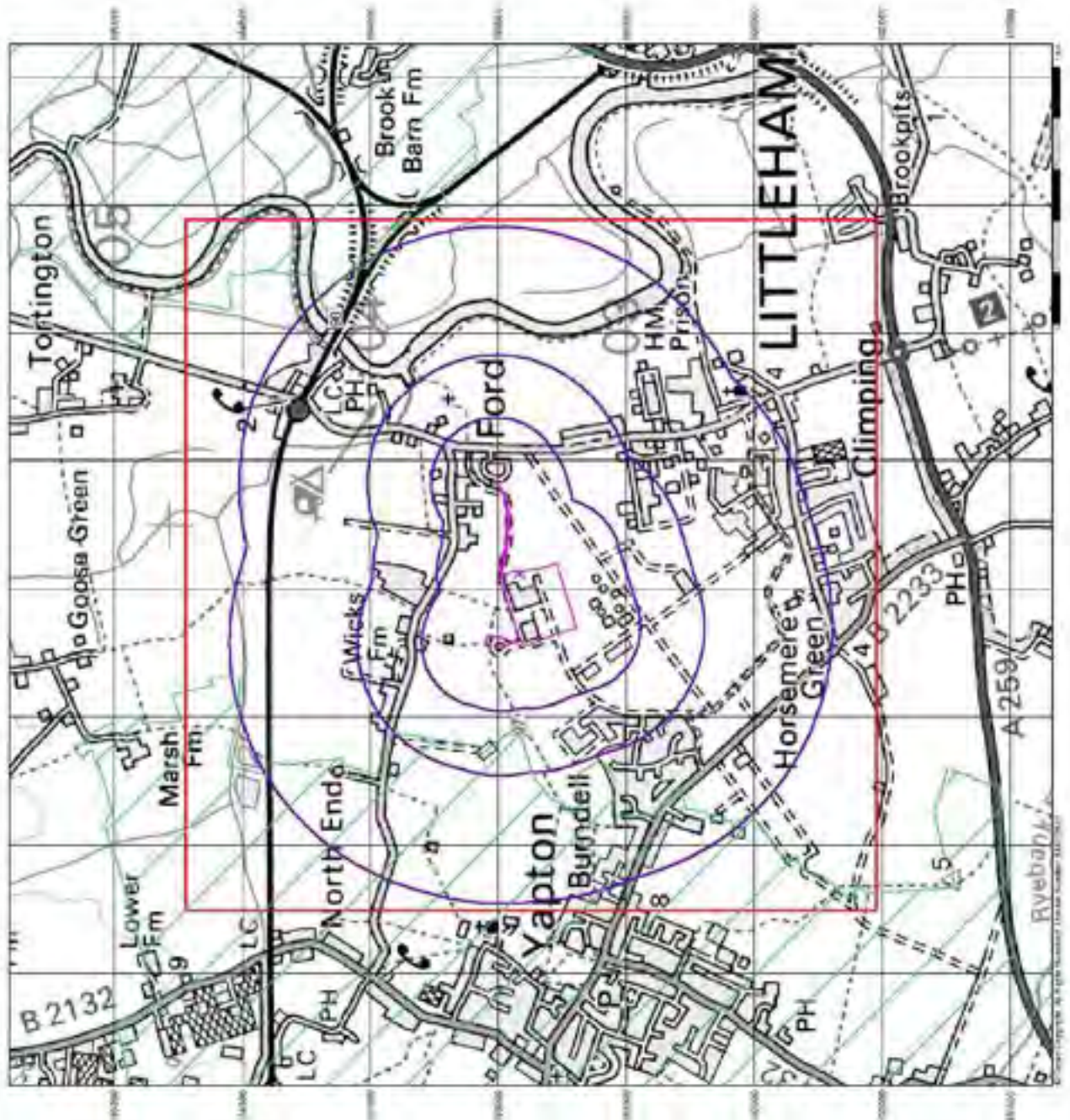


Order Details

Order Number: 41300154
 Customer Ref: 1251410002
 National Grid Reference: 496660, 103400
 Scale: A
 Site Area (Hectares): 0.72
 Search Buffer (m): 1000

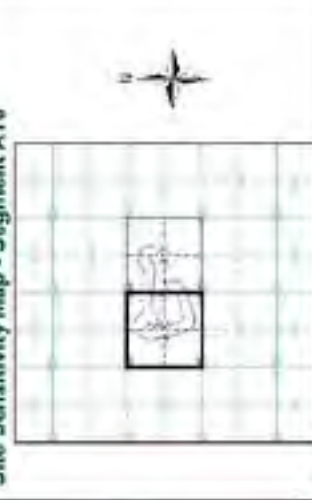
Site Details

Ford Afters Estate, Ford Afters, West Sussex, BN16 0YH



- General**
- Open water
 - Temporary Site Access
 - Site
 - Contaminated
 - Superfund Site
- Agency and Hydrological**
- Agency
 - Hydrological
 - Contaminated
 - Superfund Site
 - Agency
 - Hydrological
 - Contaminated
 - Superfund Site
 - Agency
 - Hydrological
 - Contaminated
 - Superfund Site
- Waste**
- Hazardous Waste
 - Non-Hazardous Waste
 - Landfill
 - Storage
 - Treatment
 - Incineration
 - Landfill
 - Storage
 - Treatment
 - Incineration
- Hazardous Substances**
- PCBs
 - Lead
 - Mercury
 - Arsenic
 - Cadmium
 - Chromium
 - Copper
 - Nickel
 - Silver
 - Zinc
 - Manganese
 - Selenium
 - Vanadium
 - Molybdenum
 - Barium
 - Boron
 - Bismuth
 - Cobalt
 - Gallium
 - Germanium
 - Indium
 - Iridium
 - Lithium
 - Magnesium
 - Manganese
 - Molybdenum
 - Nickel
 - Niobium
 - Osmium
 - Potassium
 - Rhenium
 - Rubidium
 - Strontium
 - Tellurium
 - Thallium
 - Tin
 - Vanadium
 - Xenon
 - Yttrium
 - Zirconium

Site Sensitivity Map - Segment A10

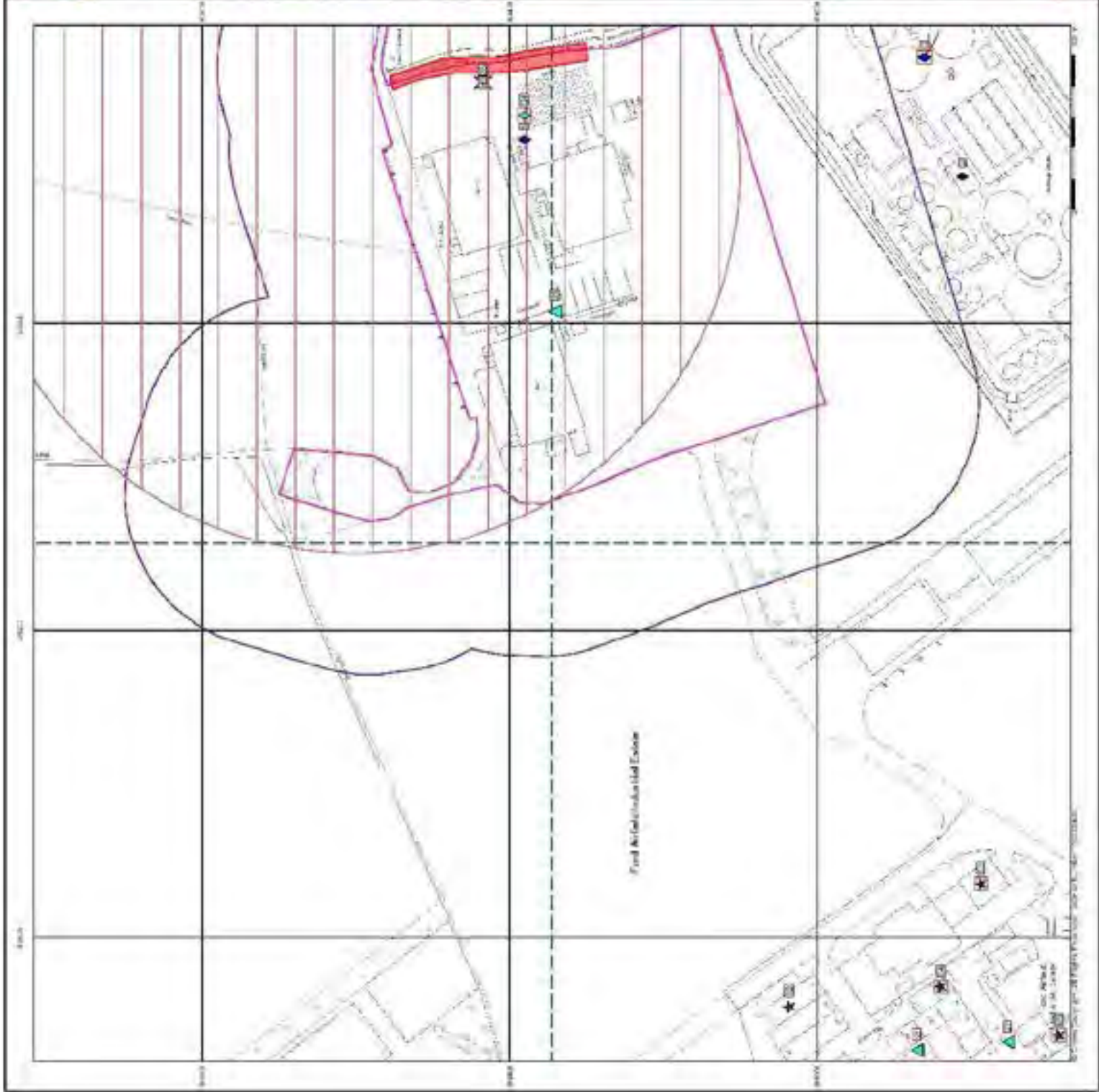


Order Details

Order Number: 41289159
 Customer Ref: 12514190552
 National Grid Reference: 499560, 103400
 Site Area (Ha): 6.72
 Plot Buffer (m): 100

Site Details

Ford Adfield Estate, Ford, ARUNDEL, West Sussex, BN18 0HY



General

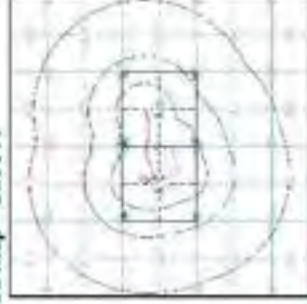
- Special Category
- ✗ Emergency Plan

Agency and Hydrological (Flood)

- Blue: Floodable Area (Source: Environment Agency)
- Light Blue: Floodable Area (Source: Environment Agency)
- Dark Blue: Floodable Area (Source: Environment Agency)
- Green: Floodable Area (Source: Environment Agency)
- Red: Floodable Area (Source: Environment Agency)
- Yellow: Floodable Area (Source: Environment Agency)
- Orange: Floodable Area (Source: Environment Agency)
- Purple: Floodable Area (Source: Environment Agency)
- Black: Floodable Area (Source: Environment Agency)
- Grey: Floodable Area (Source: Environment Agency)
- White: Floodable Area (Source: Environment Agency)



Flood Map - Slice A



Order Details

Order Number: 41399159
 Customer Ref: 12514190552
 National Grid Reference: 499560, 103400
 Site Area (Ha): 6.72
 Search Buffer (m): 1000

Site Details

Ford Ashale Estate, Fore, ARUNDEL, West Sussex, BN18 0HY

Genra

- Environmental
- Environmental
- Environmental
- Environmental
- Environmental

Agency and Hydrological (Boreholes)

- Borehole (A)
- Borehole (B)
- Borehole (C)
- Borehole (D)
- Borehole (E)

For Borehole information please refer to the Borehole - Key file which accompanied this slice.

A copy of the BGS Borehole Griding Form is available to download from the Support section of www.envirocheck.co.uk

Borehole Map - Slice A

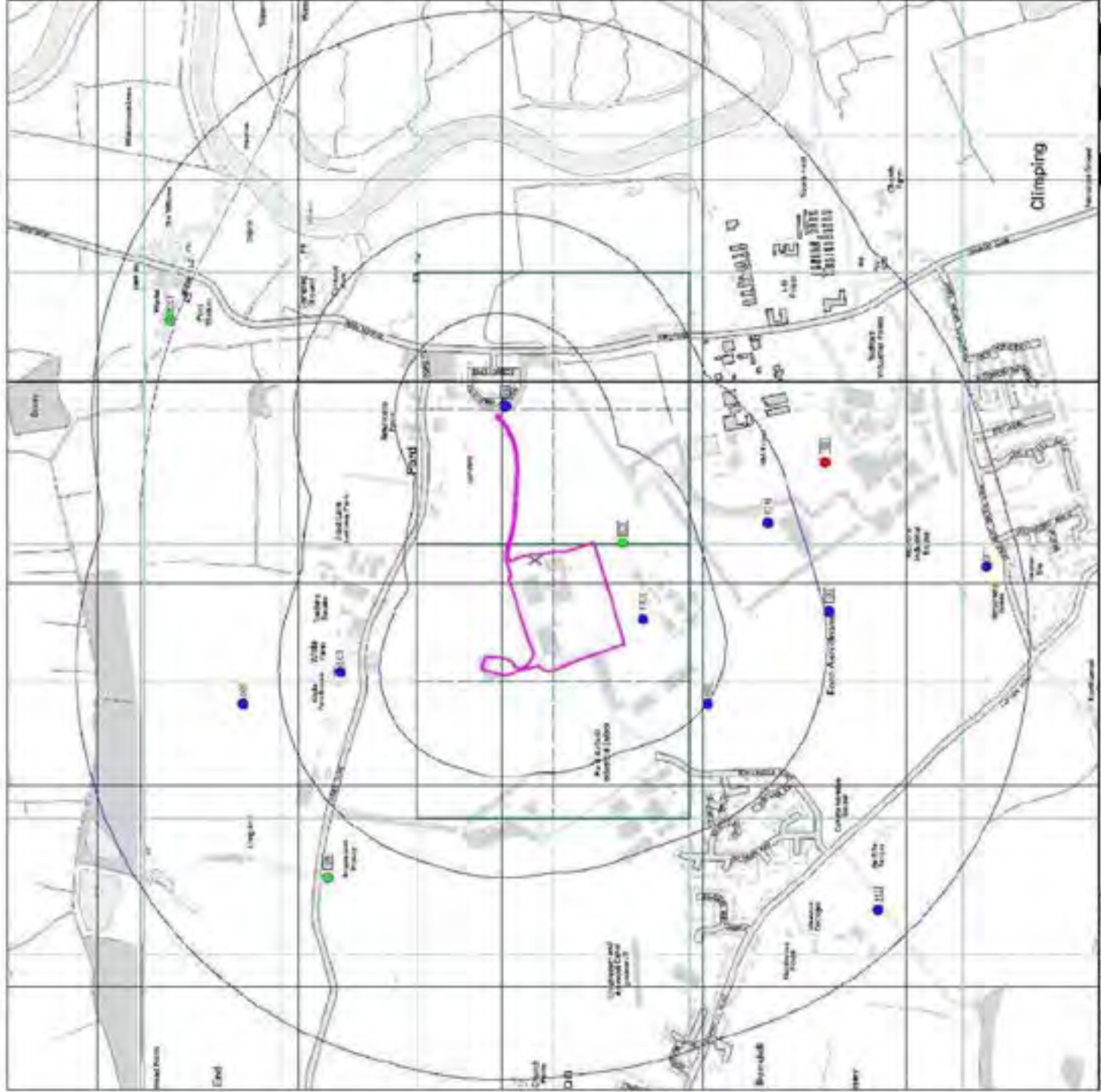


Order Details

Order Number: 41289159
 Customer Ref: 12514190552
 National Grid Reference: 499560, 103400
 Slice: A
 Site Area (ha): 6.72
 Search Buffer (m): 1000

Site Details

Ford Adults Estate, Fore, ARUNDEL, West Sussex, BN18 0HY

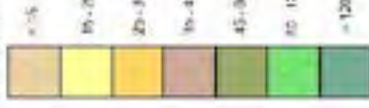


General

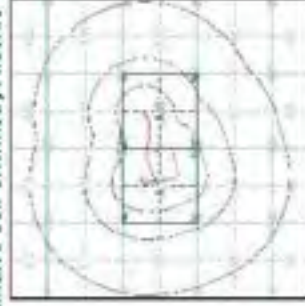
Services
 Site Investigation
 Remediation

Estimated Soil Chemistry Arsenic

Arsenic Concentrations (mg/kg)



Estimated Soil Chemistry Arsenic - Slice A

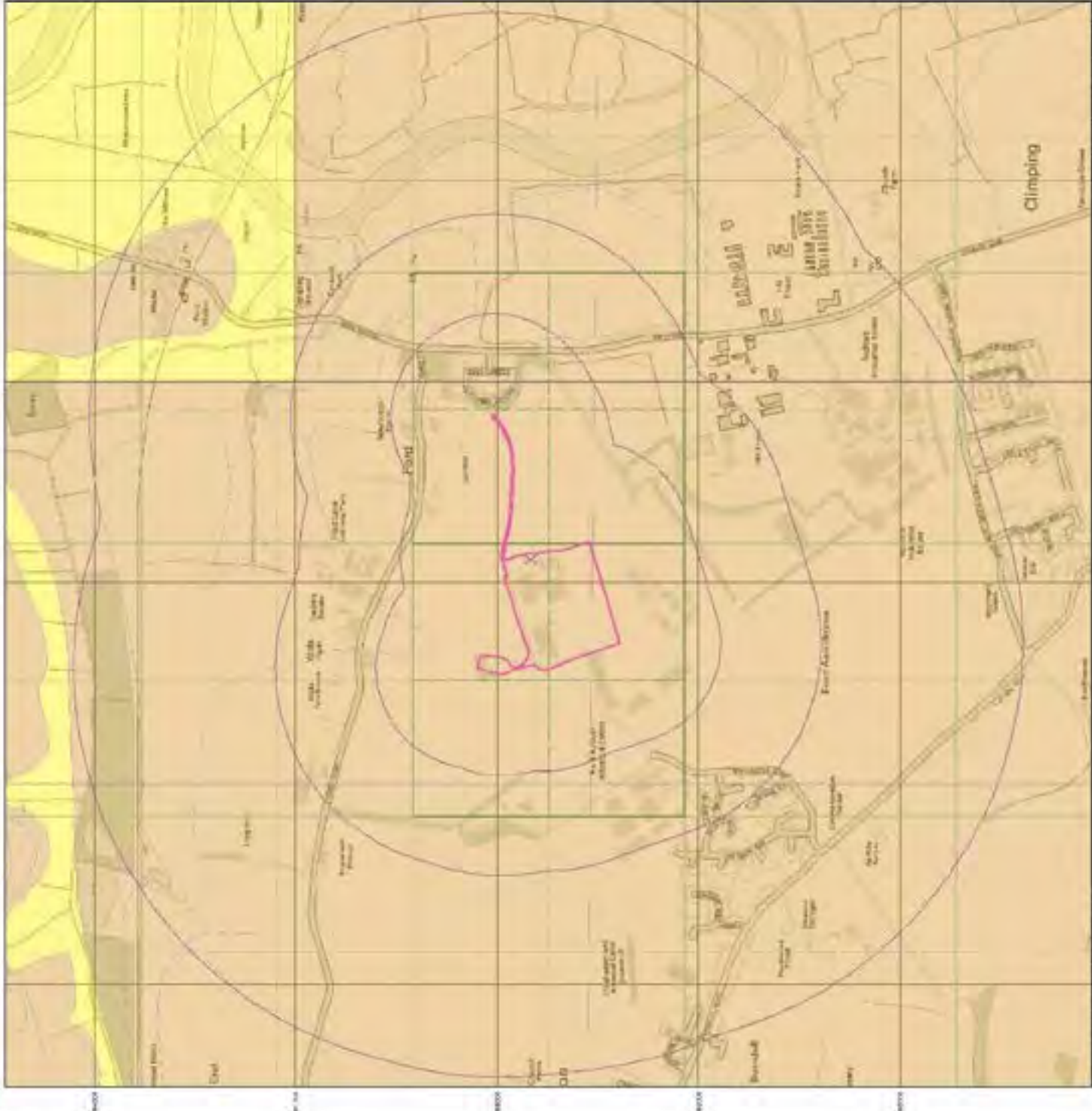


Order Details

Order Ref: 41399159
 Customer Ref: 12514190552
 National Grid Reference: 499560, 103400
 Slice: A
 Site Area (Ha): 6.72
 Search Buffer (m): 1000

Site Details

Ford Asfield Estate, Ford, ARUNDEL, West Sussex, BN18 0HY



General

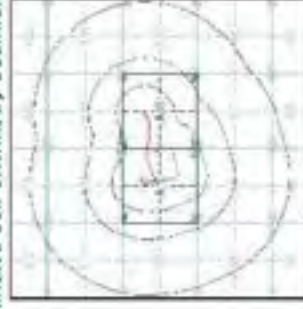
SI Service: Free Service Standard Service

Estimated Soil Chemistry Cadmium

Cadmium Concentration (mg/kg)



Estimated Soil Chemistry Cadmium - Slice A



Order Details

Order Ref: 41399159
 Customer Ref: 12514190532
 National Grid Reference: 499560, 103400
 Slice: A
 Site Area (Ha): 6.72
 Search Buffer (m): 1000

Site Details

Ford Asfield Estate, Ford, ARUNDEL, West Sussex, BN18 0HY

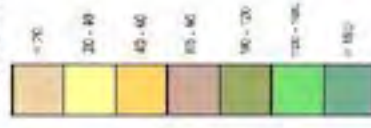


General

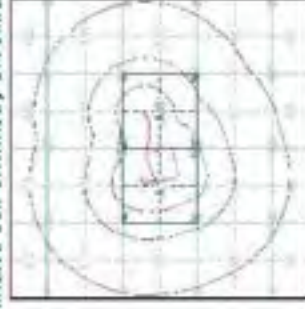
SI Service: Soil Chemistry X Site (Subsidiary)

Estimated Soil Chemistry Chromium

Chromium Concentration (mg/kg)



Estimated Soil Chemistry Chromium - Slice A

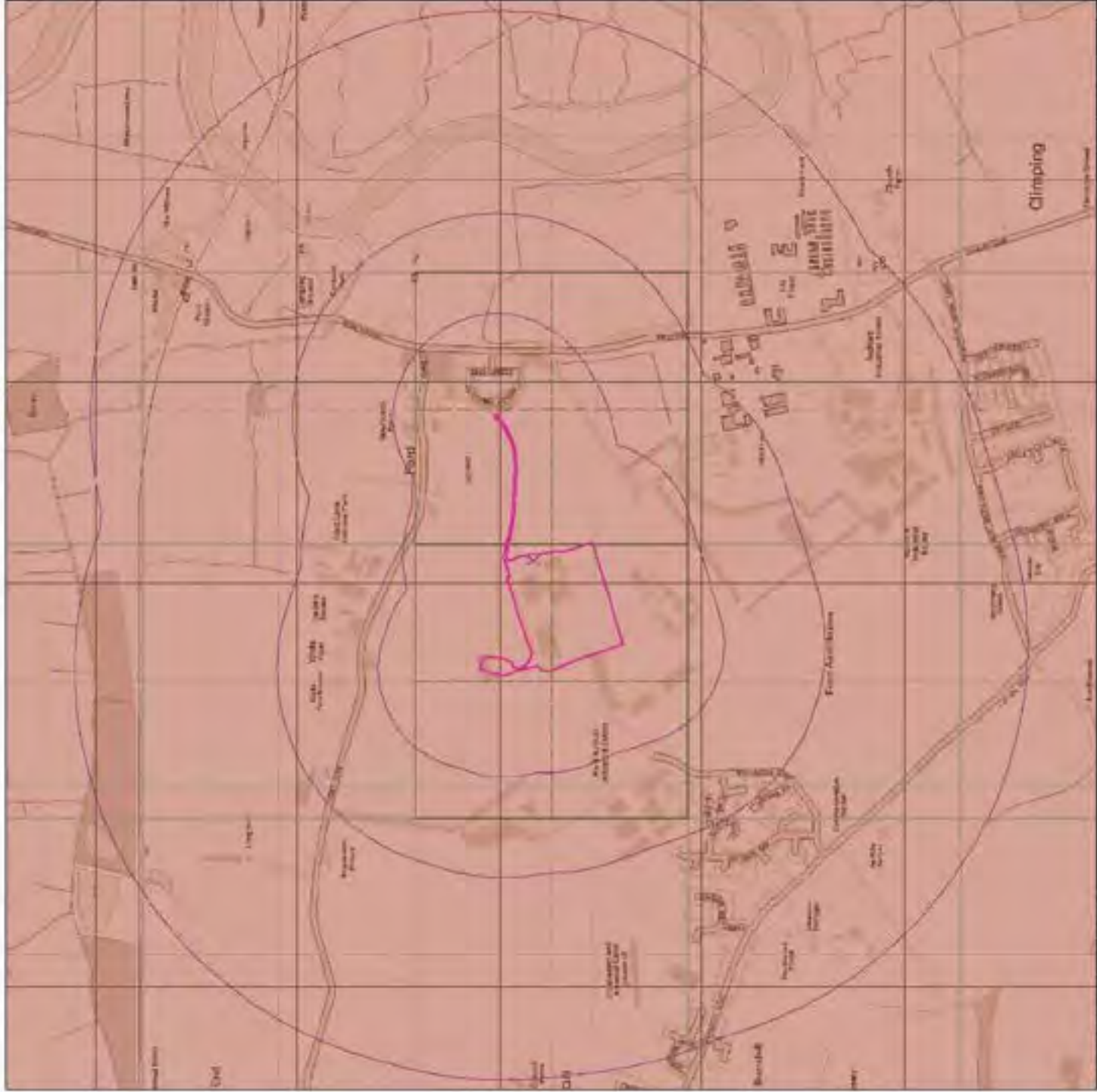


Order Details

Order Details: 41399159 1 F
 Customer Ref: 12514190552
 National Grid Reference: 499560, 103400
 Site: A
 Site Area (Ha): 6.72
 Search Buffer (m): 1000

Site Details

Ford Asfield Estate, Ford, ARUNDEL, West Sussex, BN18 0HY



General

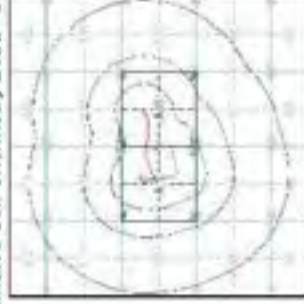
15/06/2016 12:30:00 AM X:envirocheck

Estimated Soil Chemistry Lead

1:000 Contour Interval



Estimated Soil Chemistry Lead - Slice A



Order Details

Order Ref: 41399159
 Customer Ref: 12514190532
 National Grid Reference: 499560, 103400
 Site: A
 Site Area (Ha): 6.72
 Search Buffer (m): 1000

Site Details

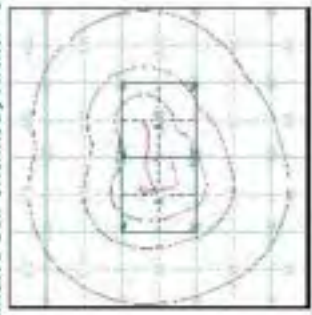
Ford Asfield Estate, Ford, ARUNDEL, West Sussex, BN18 0HY



BLM/CAL Color Scale (mg/kg)



Estimated Soil Chemistry Nickel - Slice A

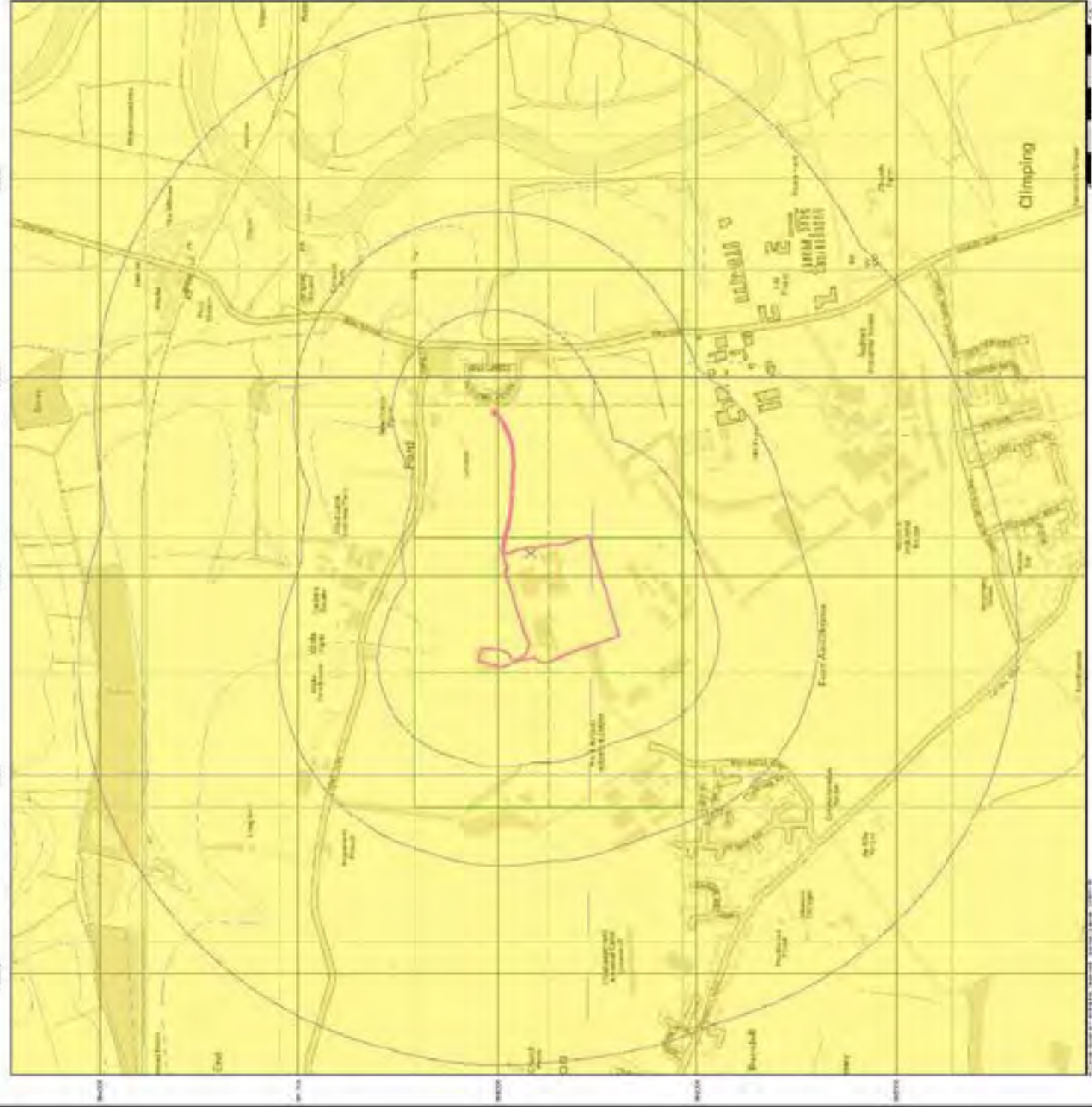


Order Details

Order Details:
 41399159 1 1
 Customer Ref: 12514190552
 National Grid Reference: 499560, 103400
 Slice: A
 Site Area (Ha): 6.72
 Search Buffer (m): 1000

Site Details

Ford Asfield Estate, Ford, ARUNDEL, West Sussex, BN18 0HY



Historical Mapping & Photography included:

Map Scale	Scale	Year
1:2,500	1:2,500	1976
1:2,500	1:2,500	1977
1:2,500	1:2,500	1978
1:2,500	1:2,500	1979
1:2,500	1:2,500	1980
1:2,500	1:2,500	1981
1:2,500	1:2,500	1982
1:2,500	1:2,500	1983
1:2,500	1:2,500	1984
1:2,500	1:2,500	1985
1:2,500	1:2,500	1986
1:2,500	1:2,500	1987
1:2,500	1:2,500	1988
1:2,500	1:2,500	1989
1:2,500	1:2,500	1990
1:2,500	1:2,500	1991
1:2,500	1:2,500	1992
1:2,500	1:2,500	1993
1:2,500	1:2,500	1994
1:2,500	1:2,500	1995
1:2,500	1:2,500	1996
1:2,500	1:2,500	1997
1:2,500	1:2,500	1998
1:2,500	1:2,500	1999
1:2,500	1:2,500	2000
1:2,500	1:2,500	2001
1:2,500	1:2,500	2002
1:2,500	1:2,500	2003
1:2,500	1:2,500	2004
1:2,500	1:2,500	2005
1:2,500	1:2,500	2006
1:2,500	1:2,500	2007
1:2,500	1:2,500	2008
1:2,500	1:2,500	2009
1:2,500	1:2,500	2010
1:2,500	1:2,500	2011
1:2,500	1:2,500	2012
1:2,500	1:2,500	2013
1:2,500	1:2,500	2014
1:2,500	1:2,500	2015
1:2,500	1:2,500	2016
1:2,500	1:2,500	2017
1:2,500	1:2,500	2018
1:2,500	1:2,500	2019
1:2,500	1:2,500	2020
1:2,500	1:2,500	2021
1:2,500	1:2,500	2022

Historical Mapping Legends

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

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

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

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

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

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

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

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

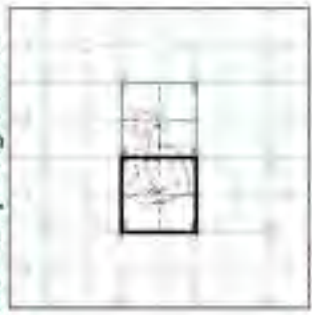
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500

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

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

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

Historical Map - Segment A10



Order Details

Order Number: A1366150
 Customer Ref: 1251436532
 National Grid Reference: 490650 103420
 Sheet: A
 S&P Area (H&L): 5 x 2
 Search Buffer (m): 100

Site Details

Ford Ash Estate, Farm, ARUNDEL, West Sussex, BN15 0JY

Map Scale	Scale	Year
1:2,500	1:2,500	1976
1:5,000	1:5,000	1976
1:10,000	1:10,000	1976
1:20,000	1:20,000	1976
1:40,000	1:40,000	1976
1:80,000	1:80,000	1976
1:160,000	1:160,000	1976
1:320,000	1:320,000	1976

Historical Mapping Legends

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

	Quarry		Gravel		Sand
	Clay Pit		Gravel		Sand
	Clay Pit		Gravel		Sand
	Clay Pit		Gravel		Sand
	Clay Pit		Gravel		Sand

	Active Quarry		Clay Pit
	Clay Pit		Clay Pit
	Clay Pit		Clay Pit
	Clay Pit		Clay Pit
	Clay Pit		Clay Pit

	Road		Road
	Road		Road
	Road		Road
	Road		Road
	Road		Road

	Road		Road
	Road		Road
	Road		Road
	Road		Road
	Road		Road

	Road		Road
	Road		Road
	Road		Road
	Road		Road
	Road		Road

	Road		Road
	Road		Road
	Road		Road
	Road		Road
	Road		Road

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

	Active Quarry		Clay Pit
	Clay Pit		Clay Pit
	Clay Pit		Clay Pit
	Clay Pit		Clay Pit
	Clay Pit		Clay Pit

	Road		Road
	Road		Road
	Road		Road
	Road		Road
	Road		Road

	Road		Road
	Road		Road
	Road		Road
	Road		Road
	Road		Road

	Road		Road
	Road		Road
	Road		Road
	Road		Road
	Road		Road

	Road		Road
	Road		Road
	Road		Road
	Road		Road
	Road		Road

	Road		Road
	Road		Road
	Road		Road
	Road		Road
	Road		Road

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

	Road		Road
	Road		Road
	Road		Road
	Road		Road
	Road		Road

	Road		Road
	Road		Road
	Road		Road
	Road		Road
	Road		Road

	Road		Road
	Road		Road
	Road		Road
	Road		Road
	Road		Road

	Road		Road
	Road		Road
	Road		Road
	Road		Road
	Road		Road

	Road		Road
	Road		Road
	Road		Road
	Road		Road
	Road		Road

	Road		Road
	Road		Road
	Road		Road
	Road		Road
	Road		Road

Historical Map - Segment A11



Order Details

Order Number: A1366150
 Customer Ref: 12514196532
 National Grid Reference: 490650 103420
 S109
 S109 Area (Hk): 6.72
 Search Buffer (m): 100

Site Details

Ford Ash Hill Estate, Farm, ARUNDEL, West Sussex, BN15 0HY

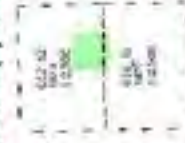
Sussex

Published 1876

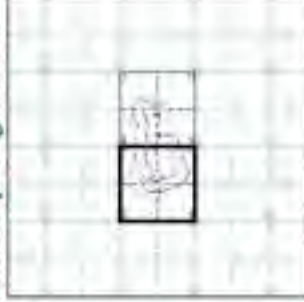
Source map scale - 1:2,500

The historical map shows what is reproduced in this publication, as well as any amendments made to the original map. The original map was published in 1876, and the 1:2,500 scale was used for the original map. The original map was published in 1876, and the 1:2,500 scale was used for the original map. The original map was published in 1876, and the 1:2,500 scale was used for the original map.

Map Name(s) and Date(s)



Historical Map - Segment A10

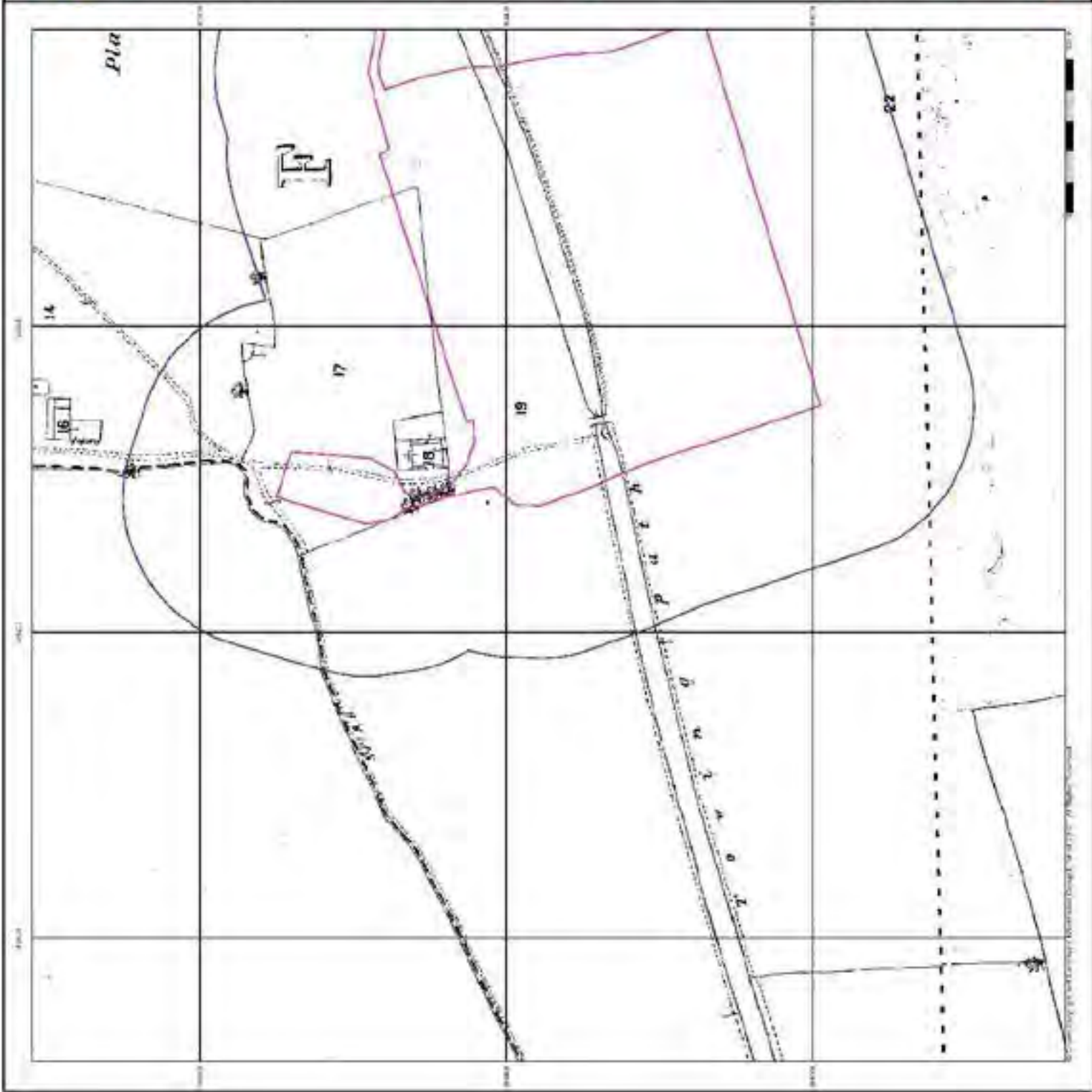


Order Details

Order Number: 41366158_L1
 Customer Ref: 12514196532
 National Grid Reference: 490560, 103420
 Site: A
 Site Area (m²): 5.22
 Search Buffer (m): 100

Site Details

Ford Ashfield Estate, Ford, ARUNDEL, West Sussex, BN18 0HY



Sussex

Published 1876

Source map scale - 1:2,500

The historical maps shown on this page are reproduced on maps produced by the Ordnance Survey for the Ordnance Survey, or are reproduced on maps produced by the Ordnance Survey for the Ordnance Survey, or are reproduced on maps produced by the Ordnance Survey for the Ordnance Survey. The Ordnance Survey maps are reproduced on maps produced by the Ordnance Survey for the Ordnance Survey, or are reproduced on maps produced by the Ordnance Survey for the Ordnance Survey. The Ordnance Survey maps are reproduced on maps produced by the Ordnance Survey for the Ordnance Survey, or are reproduced on maps produced by the Ordnance Survey for the Ordnance Survey.

Map Name(s) and Date(s)



Historical Map - Segment A11



Order Details

Order Number: 41366158
 Customer Ref: 12514196532
 National Grid Reference: 490650 103420
 Size: A
 Site Area (m²): 5.72
 Search Buffer (m): 100

Site Details

Field Adress (Title, Postcode): ARUNDEL, West Sussex, BN18 0HY



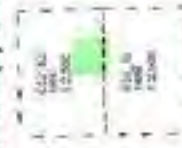
Sussex

Published 1897 - 1898

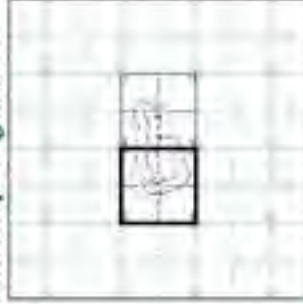
Source map scale - 1:2,500

The historical map shows main roads and other prominent features. It is not a detailed plan and is not intended to be used as a legal document. The published data does not show other features that may have been present at the time of the map. The map is a reproduction of the original map and is not a new survey. The map is a reproduction of the original map and is not a new survey. The map is a reproduction of the original map and is not a new survey.

Map Name(s) and Date(s)



Historical Map - Segment A10

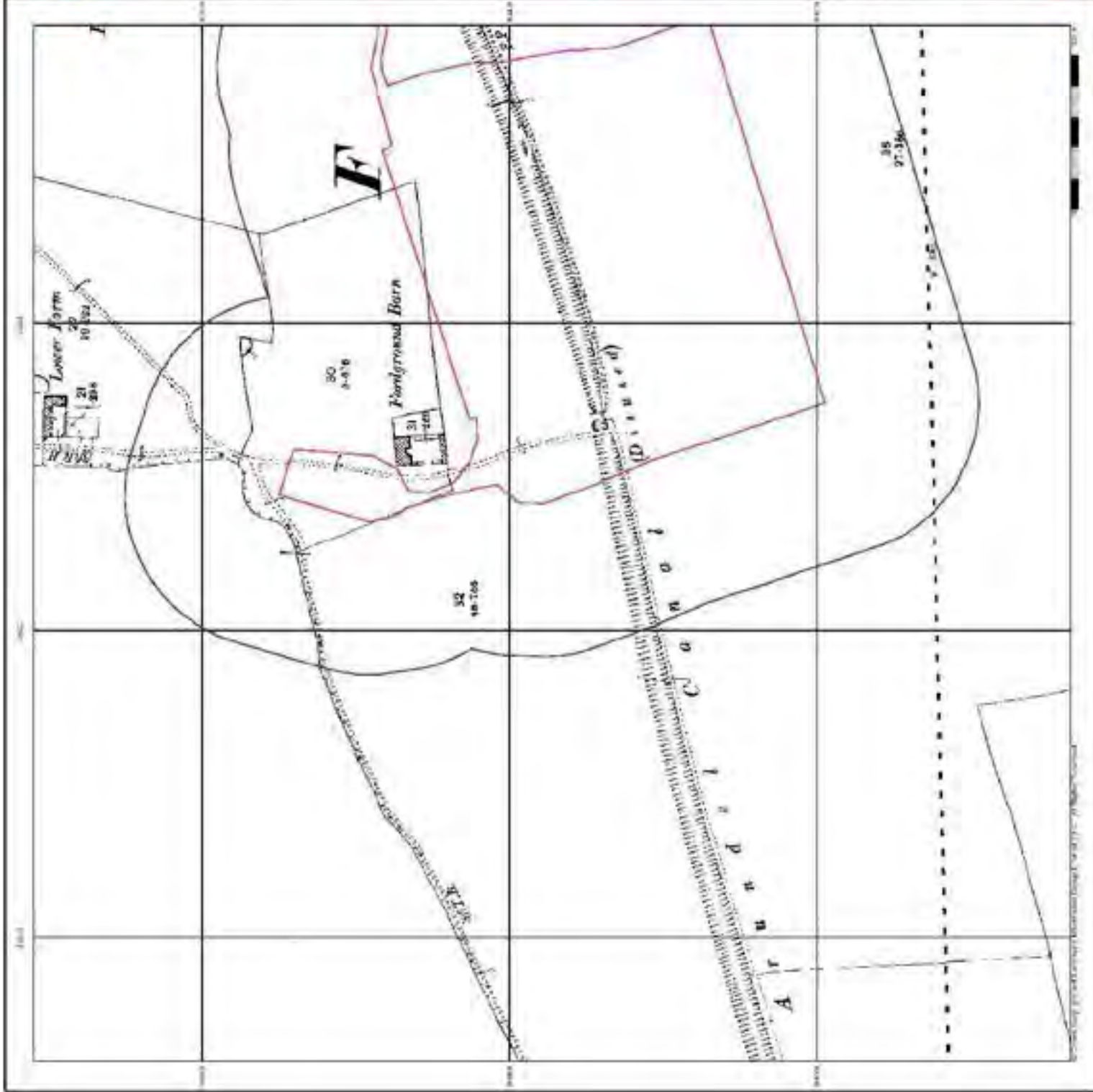


Order Details

Order Number: 41366158_L1
 Customer Ref: 12514196532
 National Grid Reference: 490650, 103420
 Site: A
 Site Area (ha): 5.22
 Search Buffer (m): 100

Site Details

Ford Ashfield Estate Farm, ARUNDEL, West Sussex, BN18 0HY



Sussex

Published 1897 - 1898

Source map scale - 1:2,500

The historical maps shown on this page are reproduced on paper produced by the British Library. The original maps were published by the Ordnance Survey in 1897. The original maps were published by the Ordnance Survey in 1897. The original maps were published by the Ordnance Survey in 1897.

Map Name(s) and Date(s)



Historical Map - Segment A11

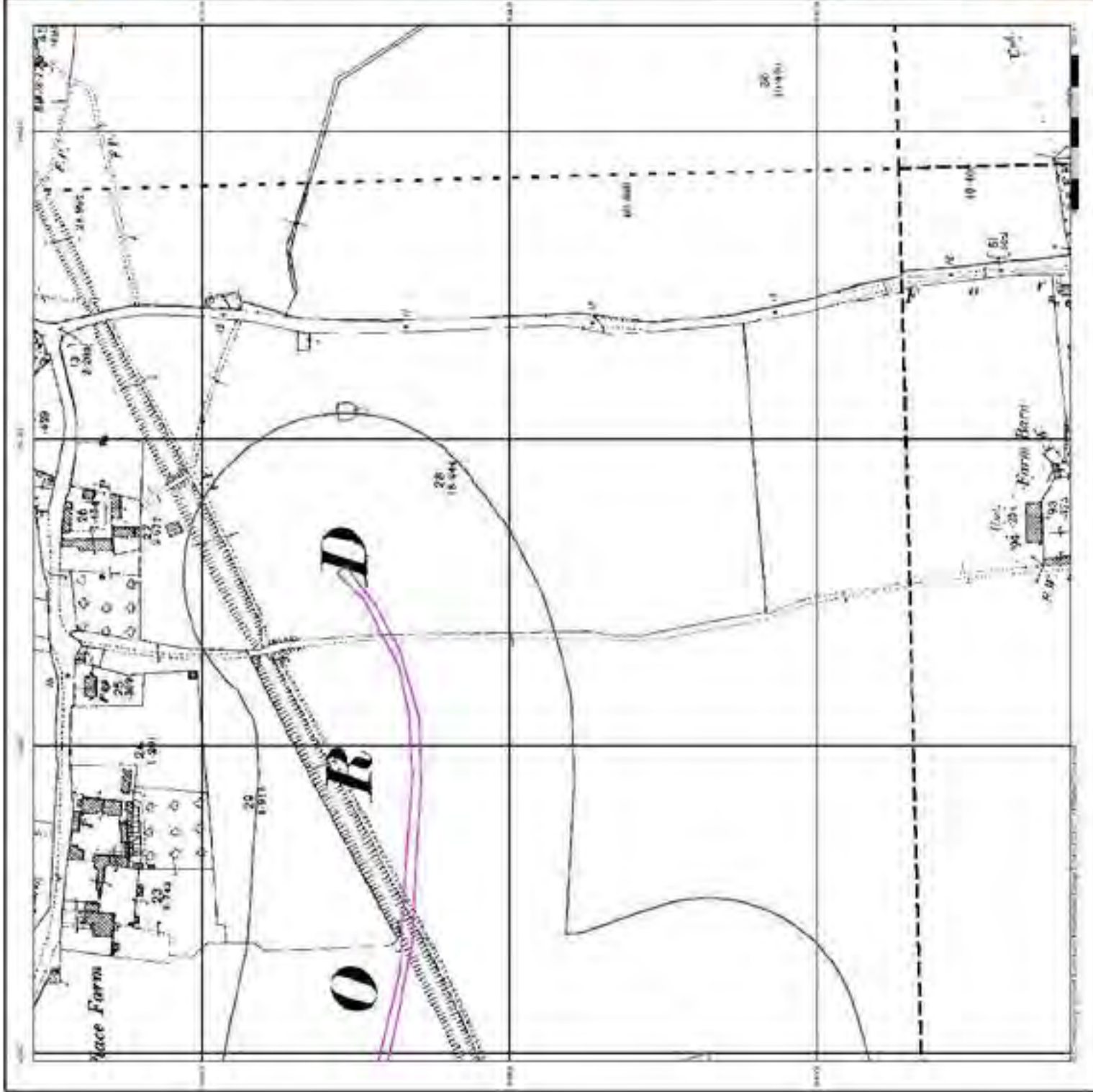


Order Details

Order Number: 41366158
 Customer Ref: 12514196532
 National Grid Reference: 490560 103420
 Site: A
 Site Area (m²): 5.72
 Search Buffer (m): 100

Site Details

Ford Adami Estate, Farm, ARUNDEL, West Sussex, BN15 0HY



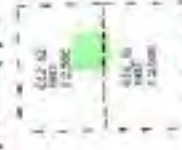
Sussex

Published 1912

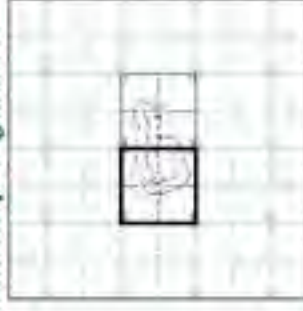
Source map scale - 1:2,500

The historical map shows each registered plot, cadastral production, and other details for the period, or year, as indicated in the title. It is a 1:2,500 scale map, printed on a grid, and is a reproduction of the original. The original data were taken from the original maps of the period, and are not a reproduction of the original. The original maps were taken from the original maps of the period, and are not a reproduction of the original. The original maps were taken from the original maps of the period, and are not a reproduction of the original.

Map Name(s) and Date(s)



Historical Map - Segment A10

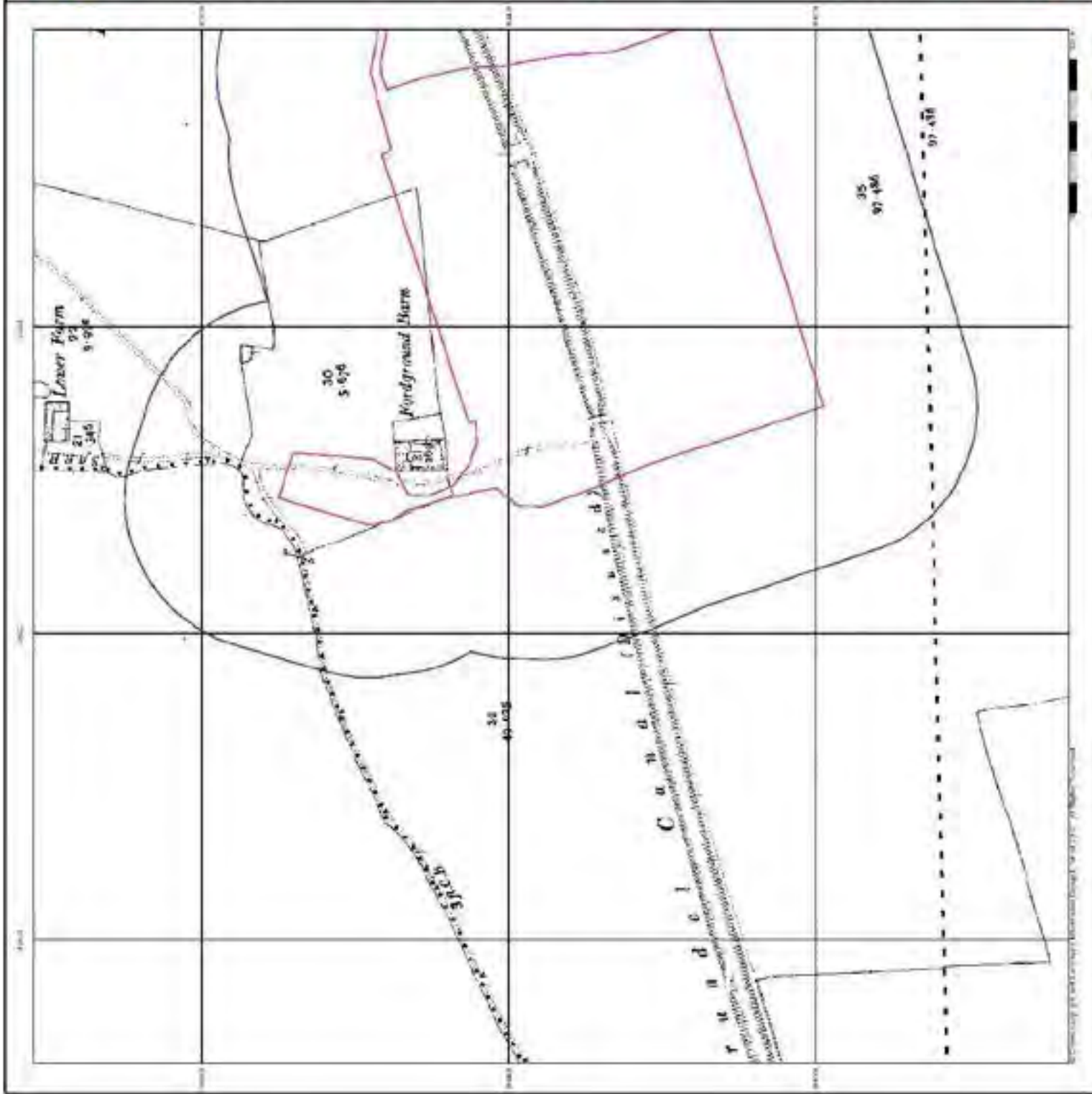


Order Details

Order Number 41366158_L1
 Customer Ref. 12514196532
 National Grid Reference 490560, 103420
 Size A
 Site Area (Ha) 5.22
 Search Buffer (m) 100

Site Details

Ford Ashfield Estate, Farn, ARUNDEL, West Sussex, BN18 0HY



Sussex

Published 1911 - 1912

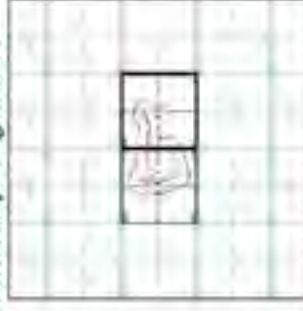
Source map scale - 1:2,500

The historical maps shown were reproduced from original maps held at the Ordnance Survey office, or are derived from the Ordnance Survey 1:25,000 aerial photograph archive for the area and are shown at their original scale. The published data were taken from the original maps and the Ordnance Survey 1:25,000 aerial photograph archive. The original maps were produced with the aid of a computer and the original maps were scanned at a resolution of 300 dots per inch. The published data were taken from the original maps and the Ordnance Survey 1:25,000 aerial photograph archive.

Map Name(s) and Date(s)



Historical Map - Segment A11

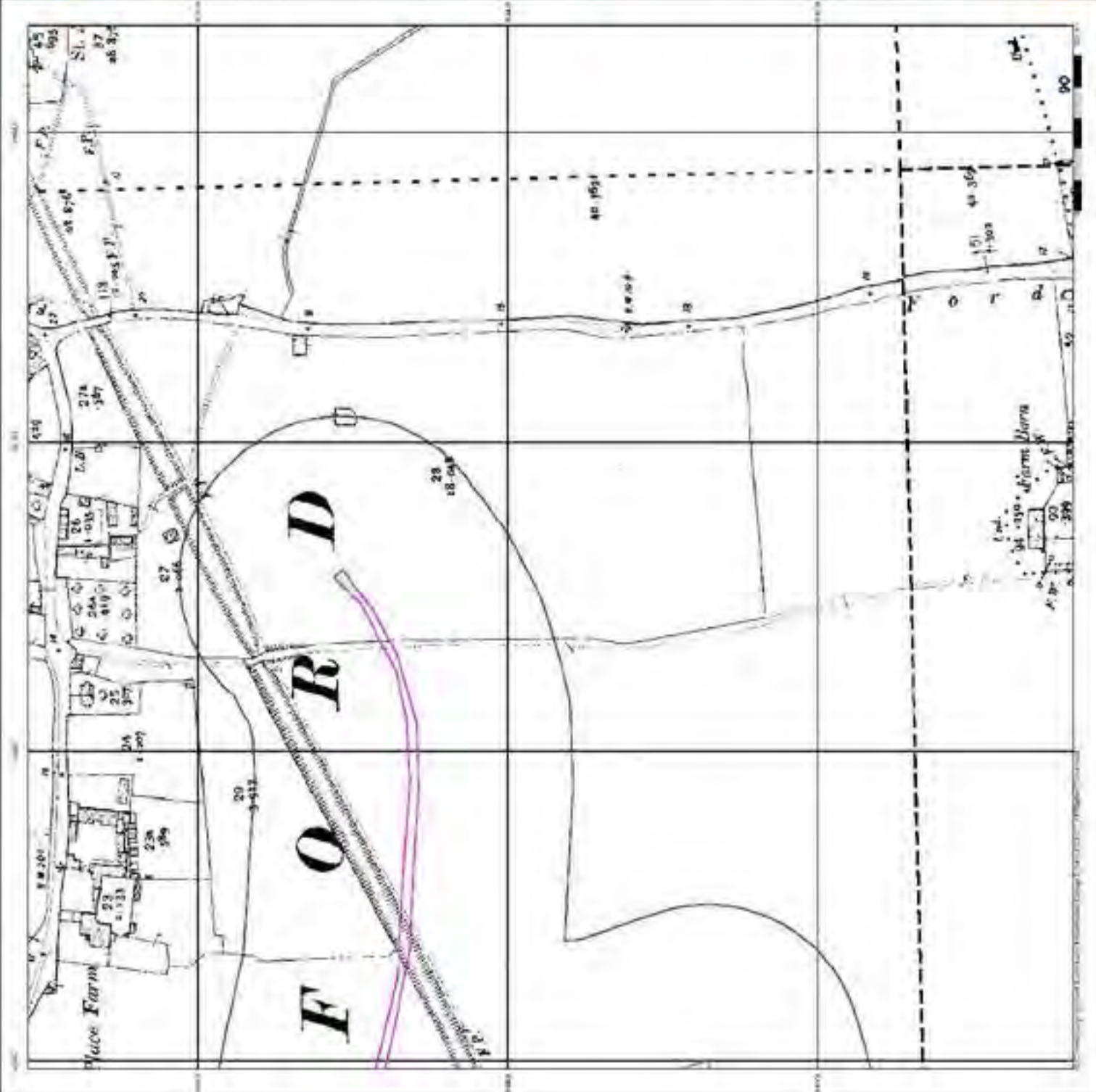


Order Details

Order Number: 41366158
 Customer Ref: 12514196532
 National Grid Reference: 490560, 103420
 Site: A
 Site Area (ha): 5.72
 Search Buffer (m): 100

Site Details

Ford Adami Estate Farm, ARUNDEL, West Sussex, BN15 0HY



Sussex

Published 1937 - 1939

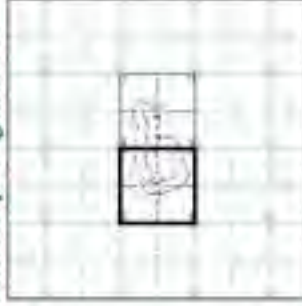
Source map scale - 1:2,500

The historical map shows main roads, buildings, water features, and other details. It is a black and white map with some areas highlighted in pink. The map shows a grid system and various features like roads, buildings, and water bodies. The map is titled 'Historical Map - Segment A10'.

Map Name(s) and Date(s)

Map Name	Date
1	1937-1939
2	1937-1939
3	1937-1939
4	1937-1939
5	1937-1939
6	1937-1939
7	1937-1939
8	1937-1939
9	1937-1939
10	1937-1939

Historical Map - Segment A10

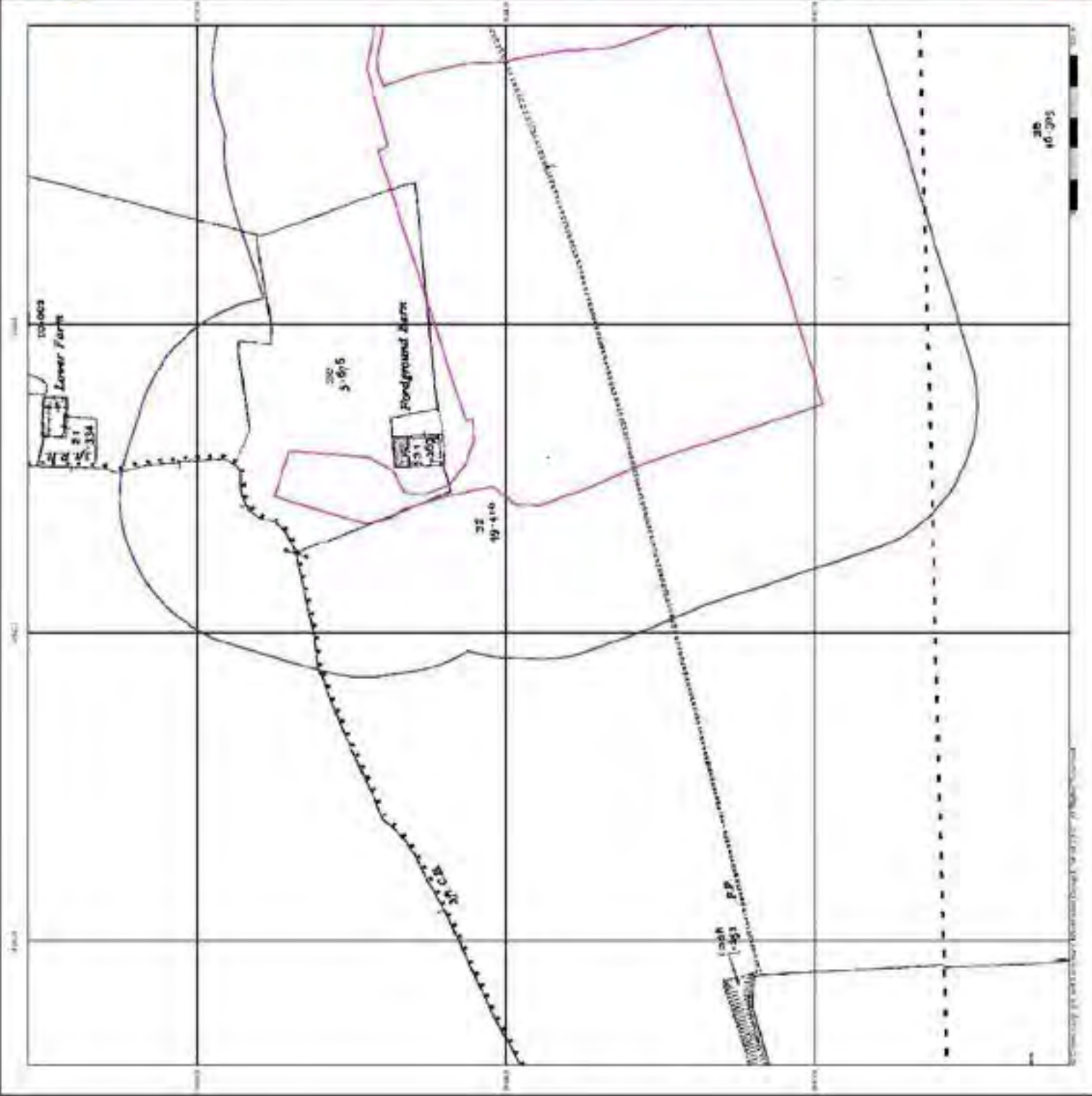


Order Details

Order Number: 41366158_L1
 Customer Ref: 12514196532
 National Grid Reference: 490650, 103420
 Site: A
 Site Area (m²): 5.22
 Search Buffer (m): 100

Site Details

Ford Ashfield Estate, Ford, ARUNDEL, West Sussex, BN18 0HY



Sussex

Published 1932 - 1939

Source map scale - 1:2,500

The information on this map is based on the original maps and plans deposited with the Ordnance Survey Office in 1932-1939, and is not updated to reflect changes in the landscape since that time. The Ordnance Survey Office is not responsible for any errors or omissions on this map. The Ordnance Survey Office is not responsible for any errors or omissions on this map. The Ordnance Survey Office is not responsible for any errors or omissions on this map.

Map Name(s) and Date(s)



Historical Map - Segment A11

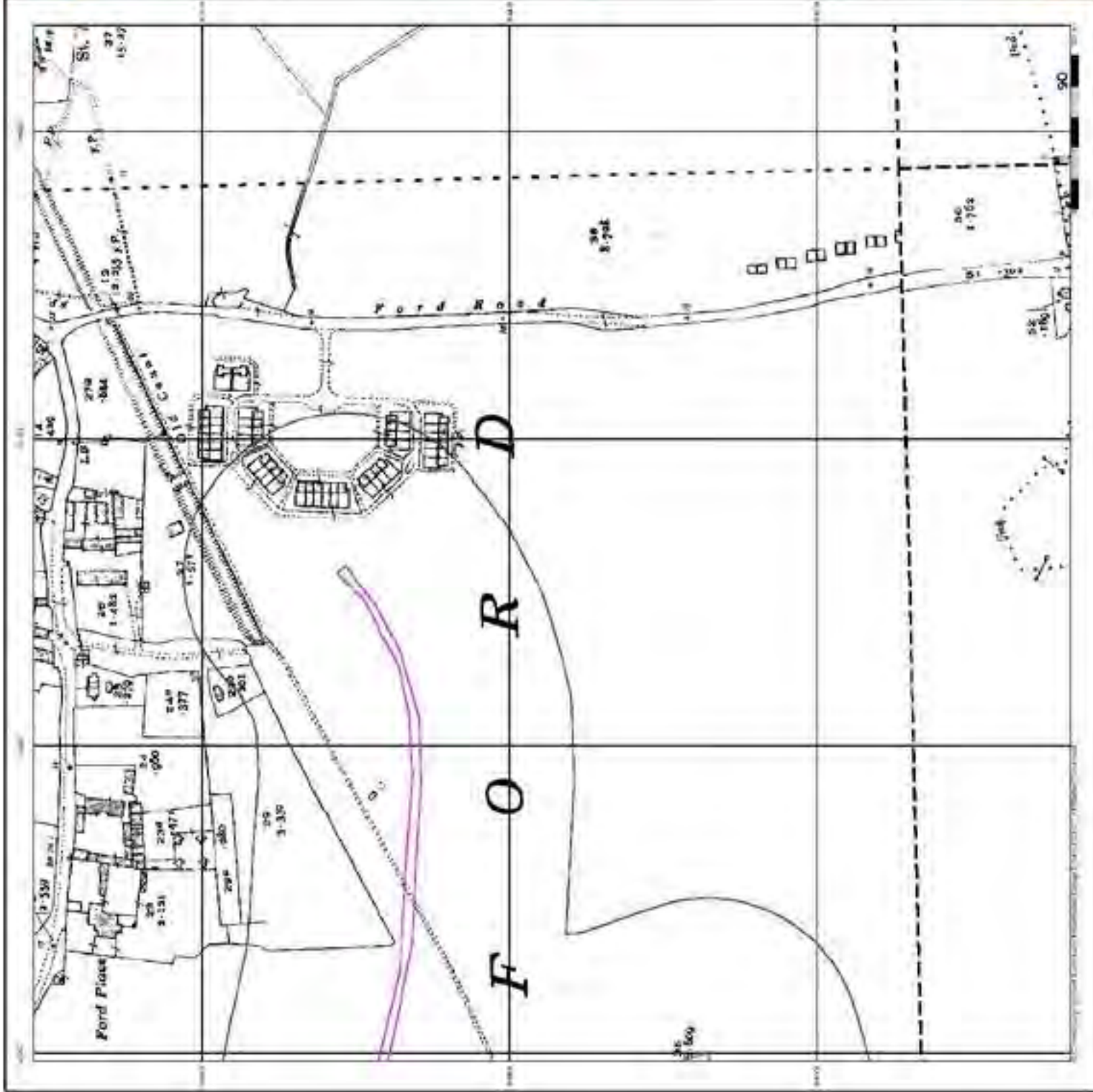


Order Details

Order Number: 41366139
 Customer Ref: 12514196532
 National Grid Reference: 490560 103420
 Site: A
 Site Area (m²): 5.72
 Search Buffer (m): 100

Site Details

Ford Road Estate, Ford, ARUNDEL, West Sussex, BN15 0HY



**Ordnance Survey Plan
Published 1974**

Source map scale - 1:2,500

The information on this plan shows what is reproduced in our products, published at the time of publication. It is not intended to be used as a substitute for a professional survey. The Ordnance Survey is not responsible for any errors or omissions in this plan, or for any loss or damage arising from its use. The Ordnance Survey is not responsible for any errors or omissions in this plan, or for any loss or damage arising from its use. The Ordnance Survey is not responsible for any errors or omissions in this plan, or for any loss or damage arising from its use.

Map Name(s) and Date(s)

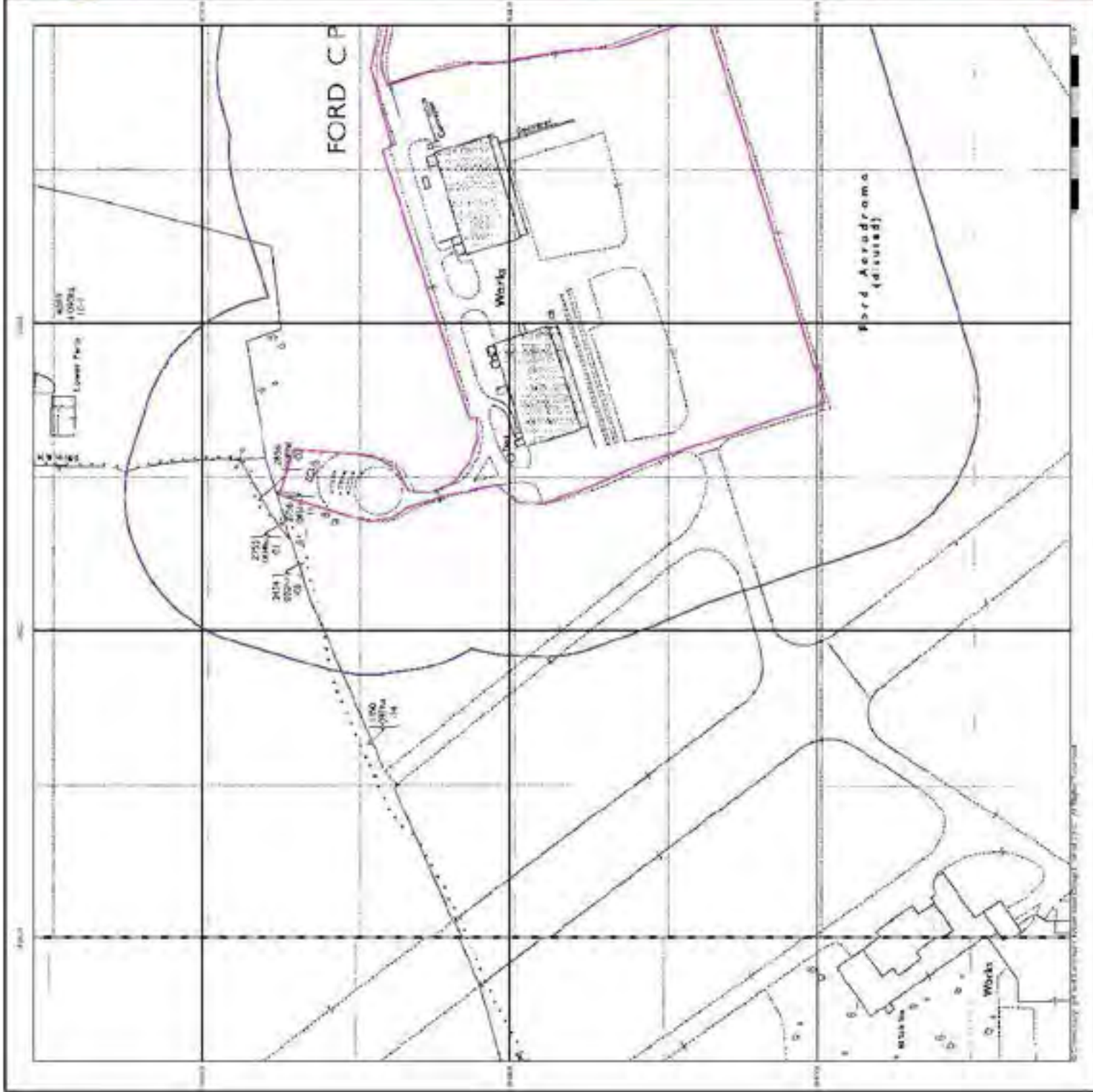


Order Details

Order Number: 41366158_L1
 Customer Ref: 12514196532
 National Grid Reference: 490650, 103420
 Size: A
 Site Area (m²): 5.22
 Search Buffer (m): 100

Site Details

Ford Ashfield Estate, Ford, ARUNDEL, West Sussex, BN18 0HY

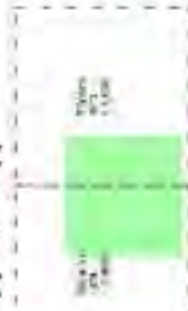


**Ordnance Survey Plan
Published 1973 - 1974**

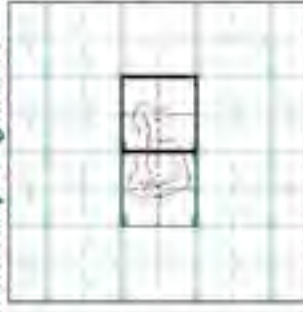
Source map scale - 1:2,500

The information on this page is derived from the Ordnance Survey map published in 1973-1974. It is not intended to be used for any other purpose. The Ordnance Survey map is published in the Ordnance Survey series of maps. The Ordnance Survey map is published in the Ordnance Survey series of maps. The Ordnance Survey map is published in the Ordnance Survey series of maps.

Map Name(s) and Date(s)



Historical Map - Segment A11



Order Details

Order Number: 41366158_L1
 Customer Ref: 12514196532
 National Grid Reference: 490650, 103420
 Size: A
 Site Area (sqm): 57.2
 Search Buffer (m): 100

Site Details

Ford Ash Hill Estate, Ford, ARUNDEL, West Sussex, BN18 0HY



Additional SIMS

Published 1978 - 1992

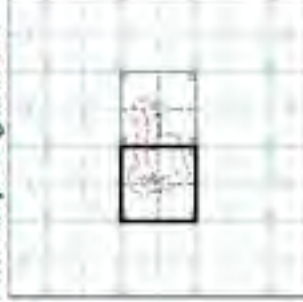
Source map scale - 1:2,500

The SIMS (Soil Investigation Maps) Series of publications is Mandatory A14 (Public Health) under the Environmental Protection Act 1992 and is published by the Environment Agency. It is a statutory requirement under the Environmental Protection Act 1992 that all sites which are subject to a Site Investigation must be included in the SIMS. These maps were produced at a scale of 1:2,500 and are 1:2,500 scale.

Map Name(s) and Date(s)



Historical Map - Segment A10

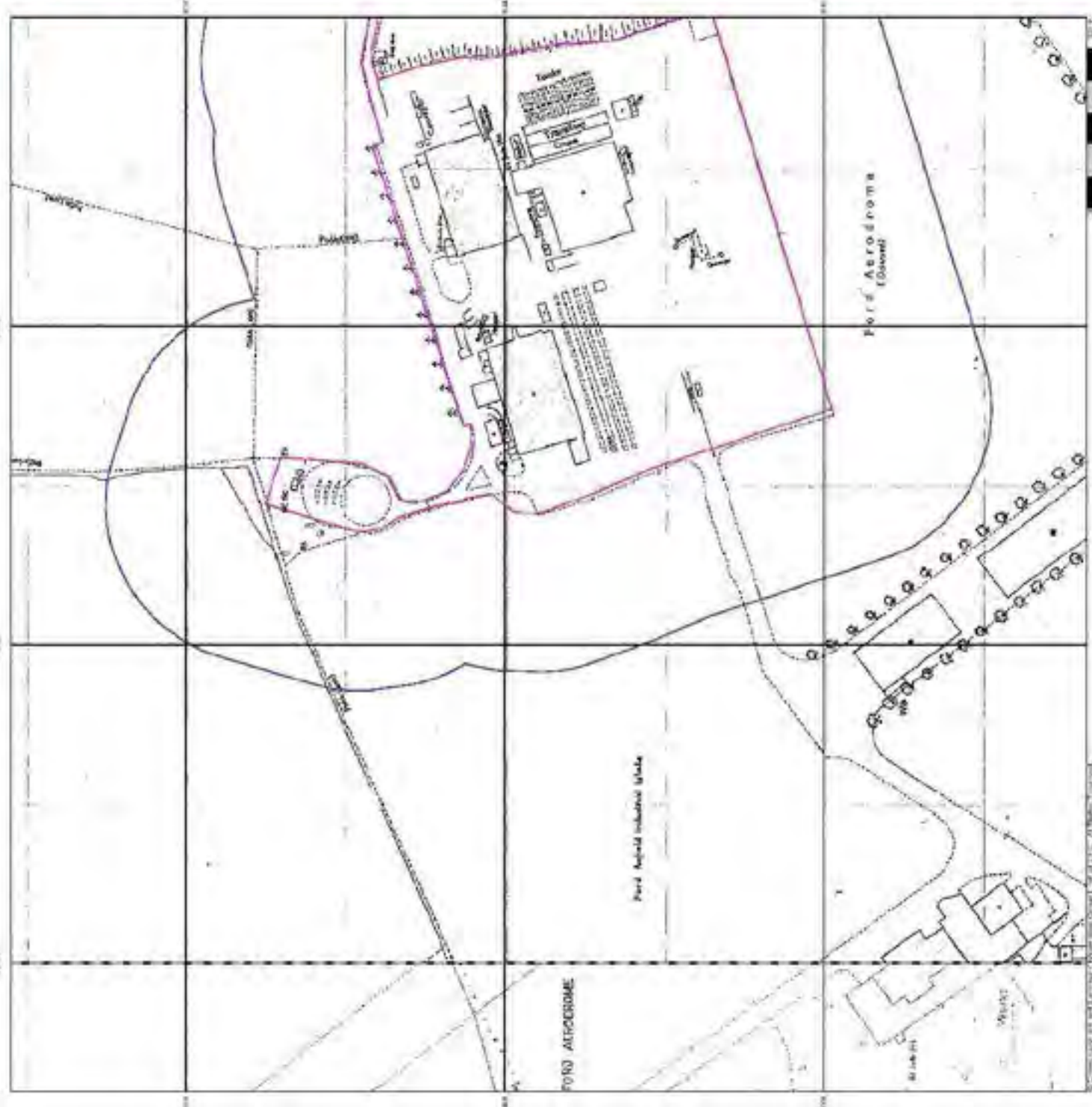


Order Details

Order Number: 41366158 L1
 Customer Ref: 12514196532
 National Grid Reference: 490560, 103420
 Size: A
 Site Area (sq): 5.22
 Search Buffer (m): 100

Site Details

Ford Ashfield Estate, Ford, ARUNDEL, West Sussex, BN18 0HY

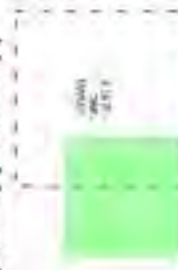


**Ordnance Survey Plan
Published 1980**

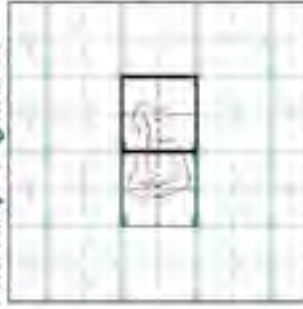
Source map scale - 1:2,500

The information on these maps is reproduced in digital form and is available in a variety of formats. It is not intended to be used as a substitute for a printed map. The published data shown on these maps are for general information only. The Ordnance Survey does not accept any liability for errors or omissions. The information is provided as a guide only and is not intended to be used as a substitute for a printed map. The Ordnance Survey does not accept any liability for errors or omissions. The information is provided as a guide only and is not intended to be used as a substitute for a printed map.

Map Name(s) and Date(s)



Historical Map - Segment A11



Order Details

Order Number: 41396159_L_1
 Customer Ref: 12514196532
 National Grid Reference: 490650, 103420
 Site: A
 Site Area (ha): 5.72
 Search Buffer (m): 100

Site Details

Ford Adami Estate, Ford, ARUNDEL, West Sussex, BN15 0HY



Additional SIMs

Published 1982

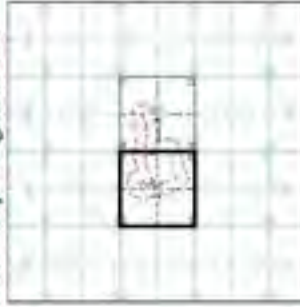
Source map scale - 1:2,500

The SIMs (Site Investigation Maps) are produced in Microsoft A14 format. These are available in a separate package and can be viewed in a separate package. The SIMs are available in a separate package. These maps were produced at a scale of 1:2,500 and 1:2,500.

Map Name(s) and Date(s)



Historical Map - Segment A10

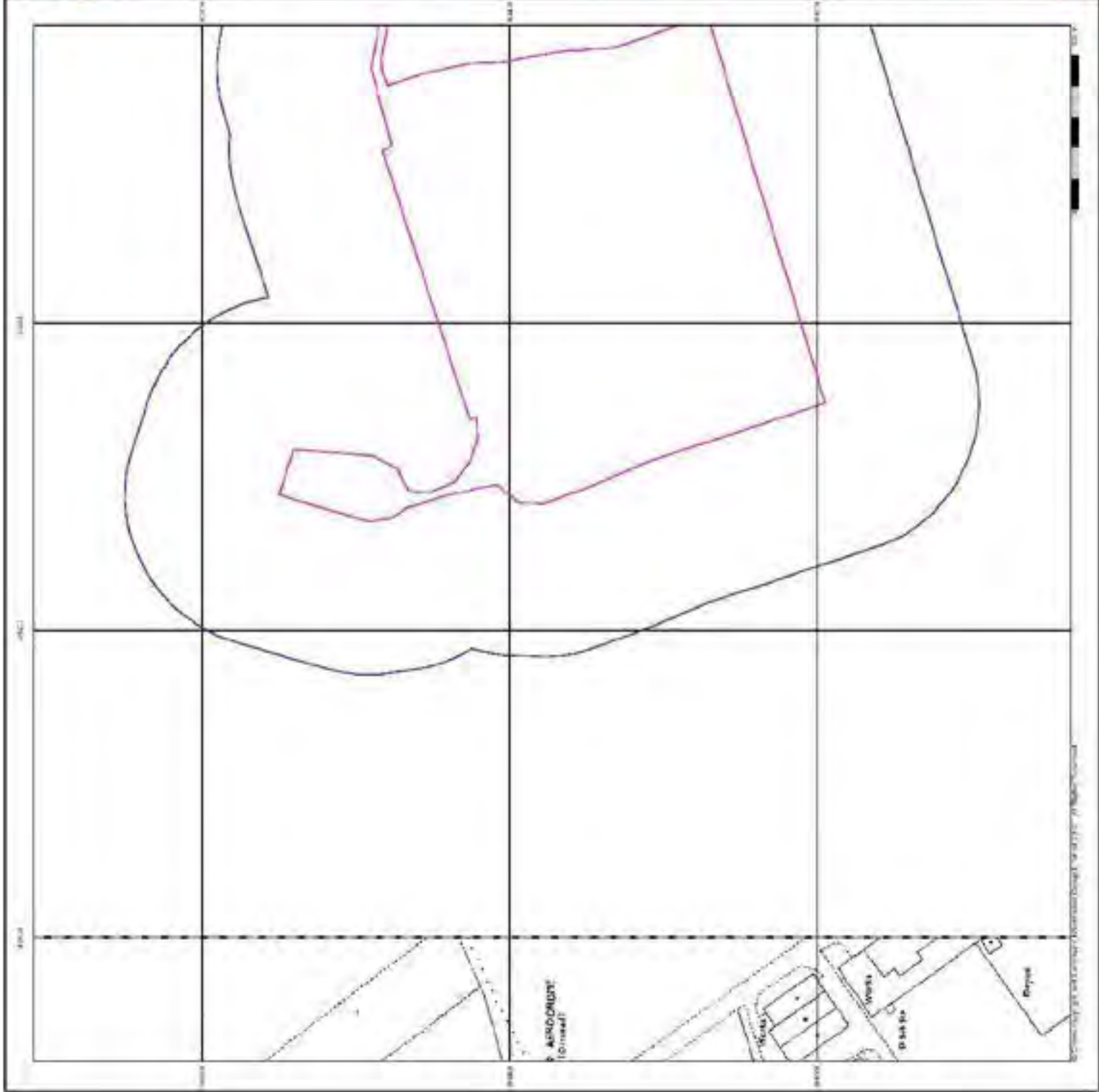


Order Details

Order Number: 41369159_L1
 Customer Ref: 12514190532
 National Grid Reference: 490560, 103420
 Site: A
 Site Area (Ha): 5.22
 Search Buffer (m): 100

Site Details

Ford Ashfield Estate, Ford, ARUNDEL, West Sussex, BN18 0HY



Additional SIMs

Published 1987

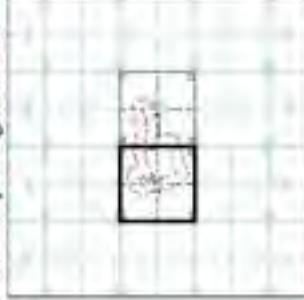
Source map scale - 1:2,500

The SIM (and 3D Analysis Surveys) Survey information is Mandatory A14
 For the purpose of this report, the SIM has been reviewed and published as
 a reference only. It is not intended to be used as a planning tool. It is
 published for information only. It is not intended to be used as a planning tool.
 These maps were produced at a scale of 1:2,500 and 1:250 (road).

Map Name(s) and Date(s)



Historical Map - Segment A10

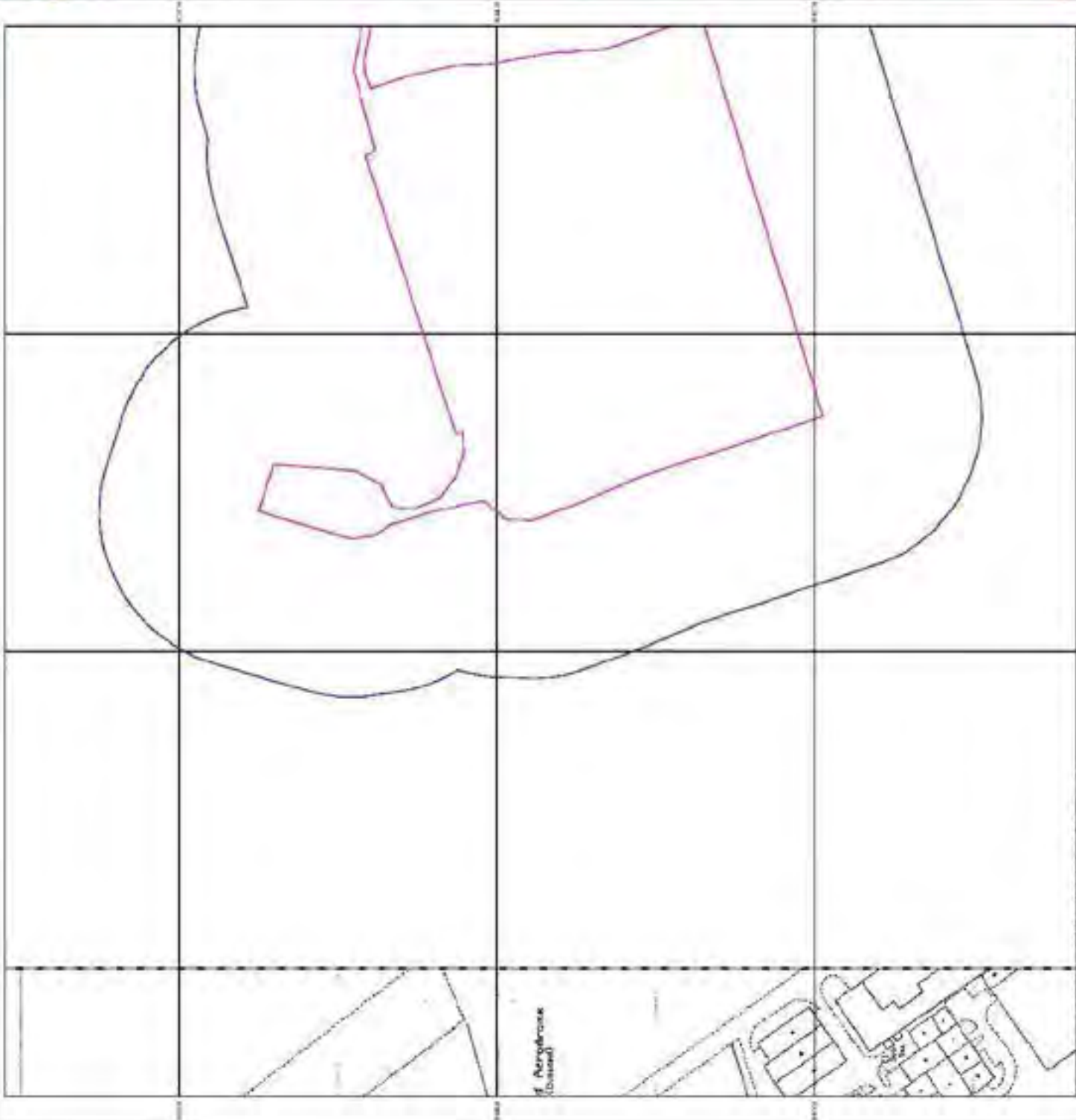


Order Details

Order Number 41366158 L1
 Customer Ref. 12514190532
 National Grid Reference 490560, 103420
 Size: A
 Site Area (m²): 572
 Search Buffer (m): 100

Site Details

Ford Ashfield Estate, Ford, ARUNDEL, West Sussex, BN18 0HY



Envirocheck
 (Online)

Additional SIMs

Published 1992

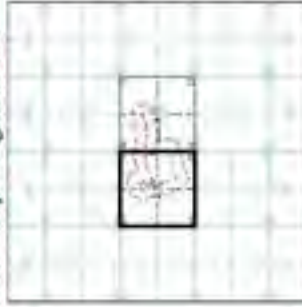
Source map scale - 1:2,500

The SIM (and 3D Analysis Surveys) Survey information is Mandatory A14
 For the purpose of the A14 project, the information is published in
 digital form and is available on the project website. The information
 is published in digital form and is available on the project website.
 These maps were produced at a scale of 1:2,500 and 1:2,500 (not).

Map Name(s) and Date(s)



Historical Map - Segment A10

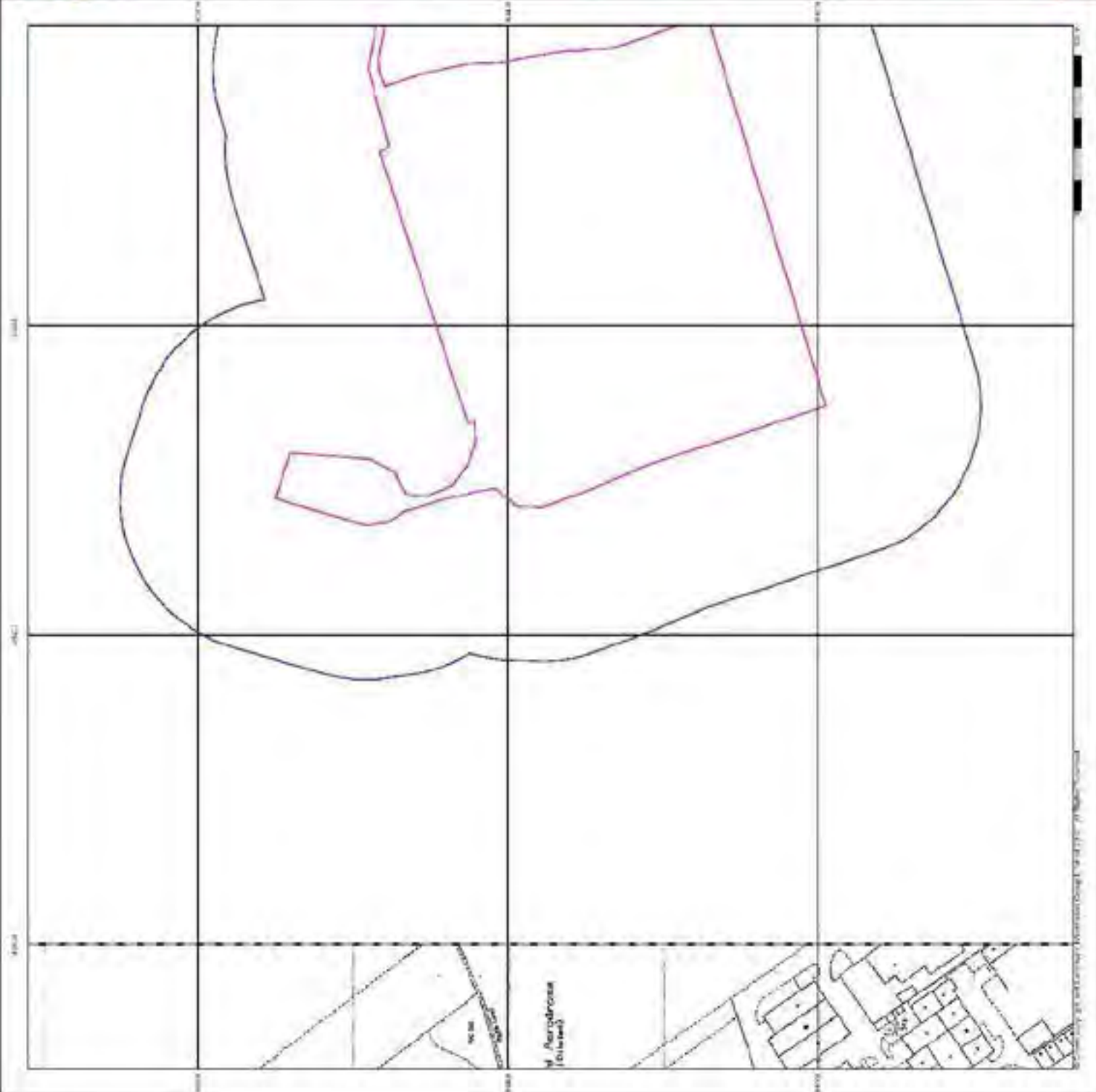


Order Details

Order Number: 41366158_L1
 Customer Ref: 12514190532
 National Grid Reference: 490650, 103420
 Site: A
 Site Area (Ha): 5.22
 Search Buffer (m): 100

Site Details

Ford Ashfield Estate, Ford, ARUNDEL, West Sussex, BN18 0HY



M. Perry (London)
 (London)

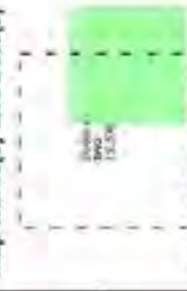
Additional SIMS

Published 1992

Source map scale - 1:2,500

The SIMS (Soil Investigation Method) is a technique for identifying areas of potential contamination. It is based on the principle that areas of high ground water table are likely to be contaminated by surface water. Areas of high ground water table are likely to be contaminated by surface water. These maps were produced at a scale of 1:2,500 and are 1:2,500 scale.

Map Name(s) and Date(s)



Historical Map - Segment A11



Order Details

Order Number: 41366150, L1
 Customer Ref: 12514196532
 National Grid Reference: 490650, 103420
 Size: A
 Site Area (m²): 57.2
 Search Buffer (m): 100

Site Details

Ford Ashall Estate, Park, ARUNDEL, West Sussex, BN18 0HY

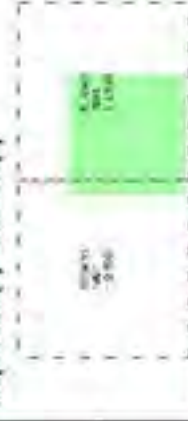


**Large-Scale National Grid Data
Published 1994**

Source map scale - 1:2,500

Large Scale National Grid Data is provided by Ordnance Survey. It is derived from aerial photography taken in 1994, and is published in 1:2,500 scale. The map is intended for use in conjunction with the Ordnance Survey National Grid. It is not intended for use in conjunction with other maps or data. It is not intended for use in conjunction with other maps or data. It is not intended for use in conjunction with other maps or data.

Map Name(s) and Date(s)



Historical Map - Segment A10

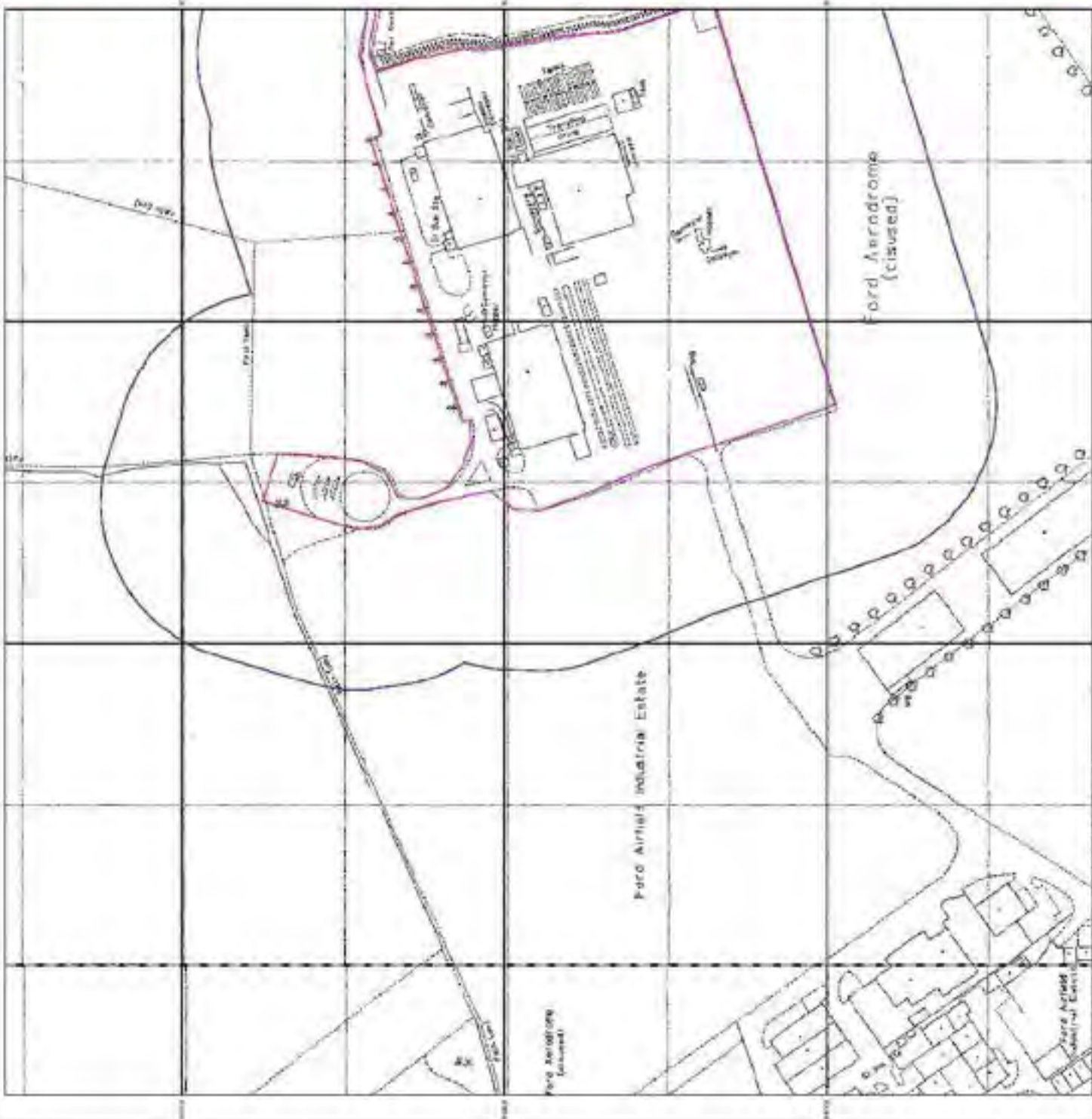


Order Details

Order Number: 41366158 L1
 Customer Ref: 12514196532
 National Grid Reference: 490650, 103420
 Size: A
 Site Area (m²): 5.22
 Search Buffer (m): 100

Site Details

Ford Airfield Estate, Ford, ARUNDEL, West Sussex, BN18 0HY

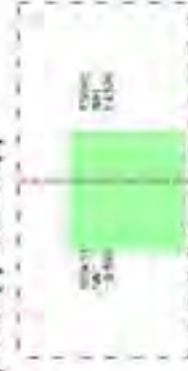


**Large-Scale National Grid Data
Published 1994**

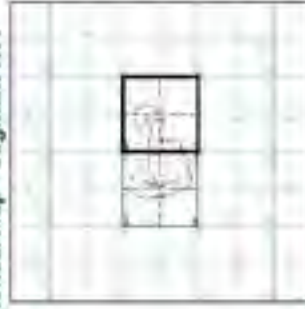
Source map scale - 1:2,500

Large-Scale National Grid Data is generated from aerial (Oblique) imagery taken in November and December 1993, and processed to 1:2,500 scale. The imagery is used to generate a vector map of the site and its surroundings. The map is published in a vector format, which allows the user to zoom in on the map to view details such as buildings, roads, and vegetation. The map is published at a scale of 1:2,500 and is suitable for use in a GIS environment.

Map Name(s) and Date(s)



Historical Map - Segment A11

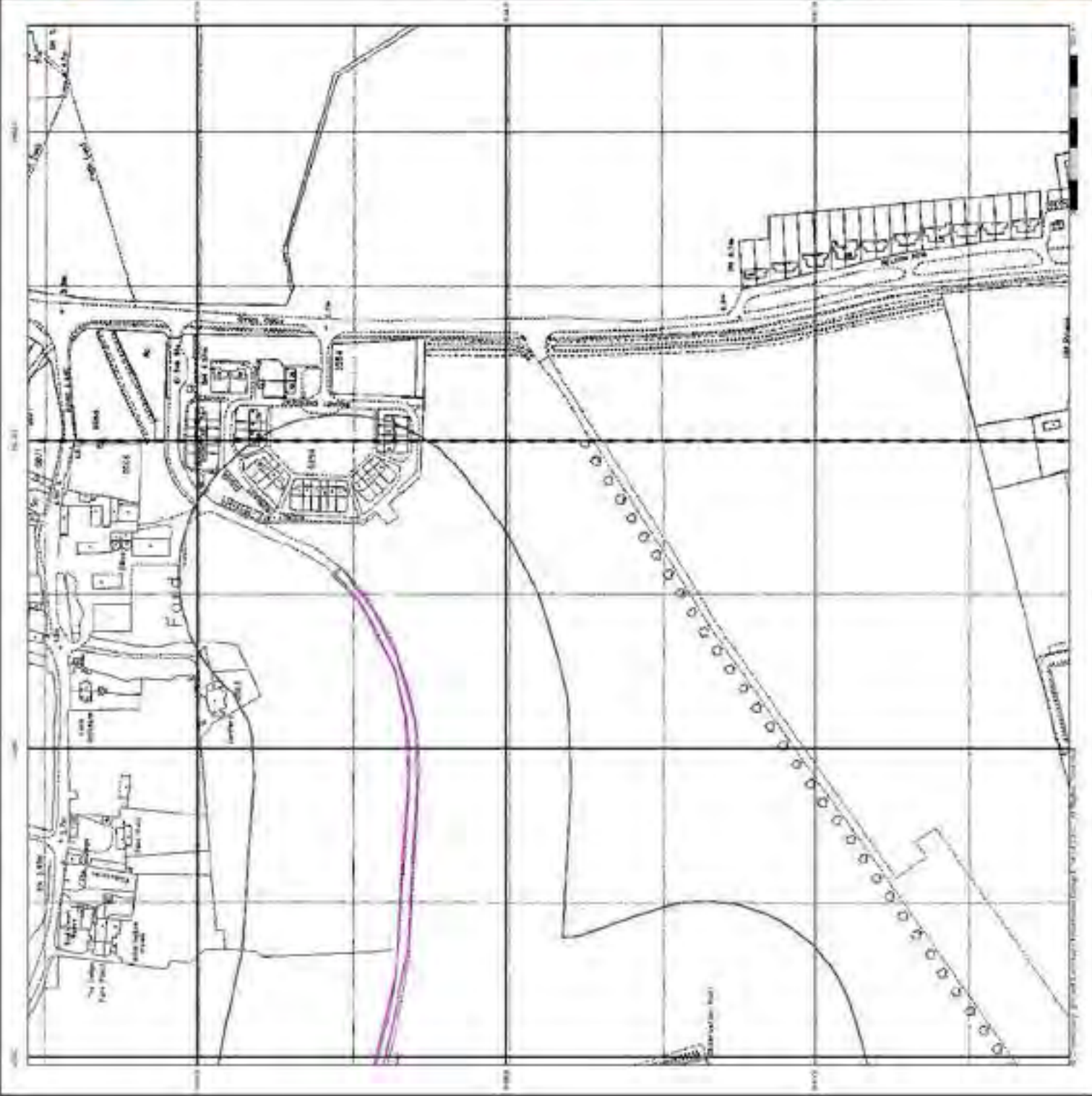


Order Details

Order Number: 41366150
 Customer Ref: 12514196532
 National Grid Reference: 490650, 103420
 Site: A
 Site Area (ha): 5.72
 Search Buffer (m): 100

Site Details

Ford Adair Estate, Ford, ARUNDEL, West Sussex, BN15 0HY



Historical Mapping Legends

Ordnance Survey County Series 1:10,500

Ordnance Survey Plan 1:10,000

1:10,000 Raster Mapping



Historical Mapping & Photography included:

Ordnance Survey Plan 1:10,000	1:10,000
Ordnance Survey Plan 1:25,000	1:25,000
Ordnance Survey Plan 1:50,000	1:50,000
Ordnance Survey Plan 1:62,500	1:62,500
Ordnance Survey Plan 1:75,000	1:75,000
Ordnance Survey Plan 1:100,000	1:100,000
Ordnance Survey Plan 1:125,000	1:125,000
Ordnance Survey Plan 1:150,000	1:150,000
Ordnance Survey Plan 1:200,000	1:200,000
Ordnance Survey Plan 1:250,000	1:250,000
Ordnance Survey Plan 1:500,000	1:500,000
Ordnance Survey Plan 1:1,000,000	1:1,000,000
Ordnance Survey Plan 1:2,000,000	1:2,000,000
Ordnance Survey Plan 1:5,000,000	1:5,000,000
Ordnance Survey Plan 1:10,000,000	1:10,000,000
Ordnance Survey Plan 1:20,000,000	1:20,000,000
Ordnance Survey Plan 1:50,000,000	1:50,000,000
Ordnance Survey Plan 1:100,000,000	1:100,000,000
Ordnance Survey Plan 1:200,000,000	1:200,000,000
Ordnance Survey Plan 1:500,000,000	1:500,000,000
Ordnance Survey Plan 1:1,000,000,000	1:1,000,000,000

Historical Map - Slice A



Order Details

Order Number: A1366158
 Customer Ref: 12514196532
 National Grid Reference: 490650 103420
 Site: A
 Site Area (Hk): 6.72
 Search Buffer (m): 1000

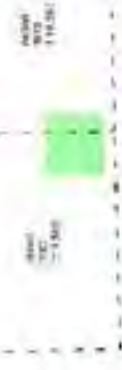
Site Details

Ford Ash Hill Estate, Farm, ARUNDEL, West Sussex, BN15 0JH

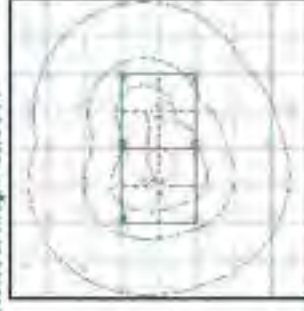


The historical maps shown were reproduced from maps produced and published at the time of the original survey or at a later date. The maps are published in the original scale and are not intended to be used as a source of information for any other purpose. The maps are published in the original scale and are not intended to be used as a source of information for any other purpose. The maps are published in the original scale and are not intended to be used as a source of information for any other purpose.

Map Name(s) and Date(s)



Historical Map - Slice A

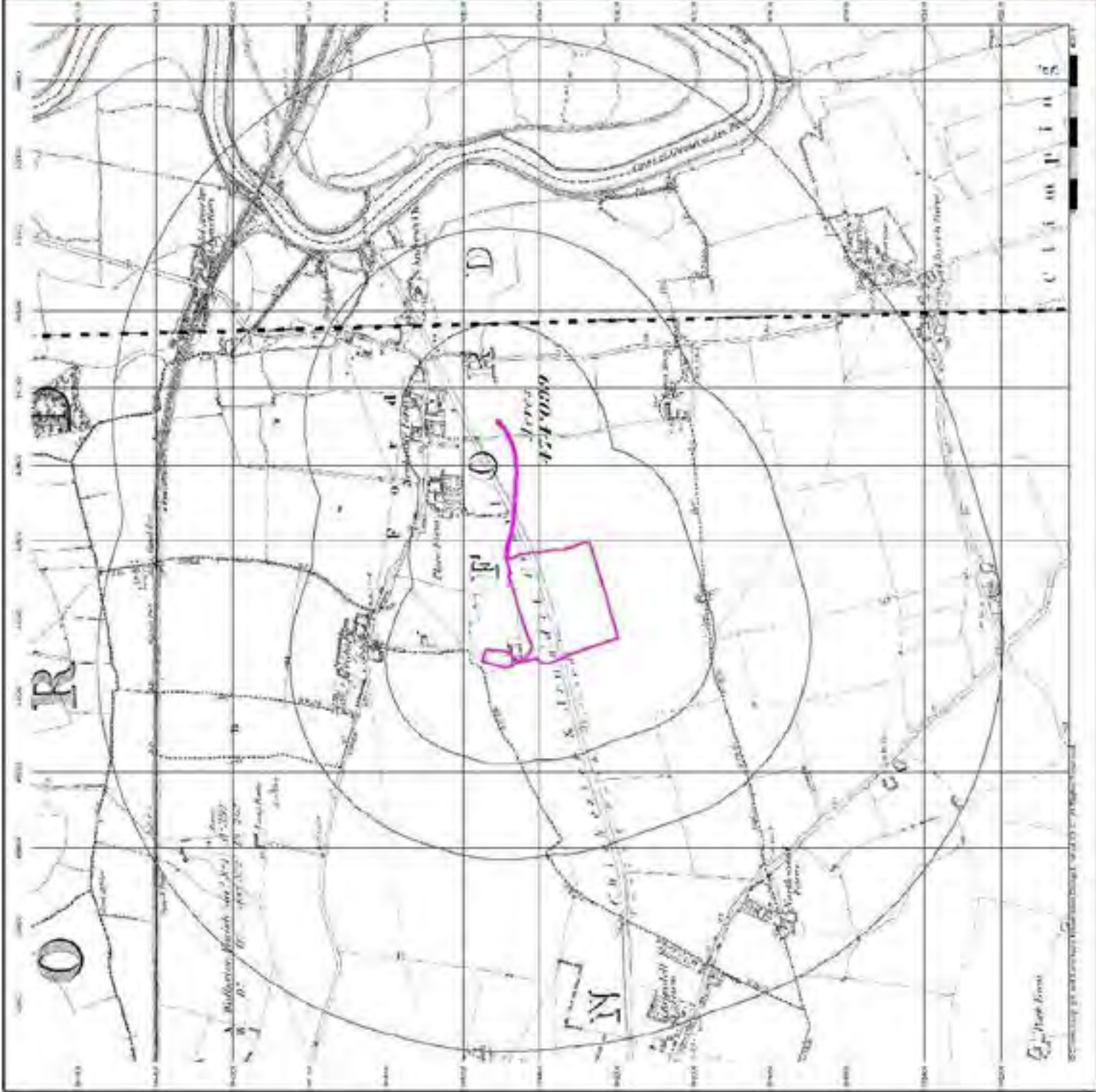


Order Details

Order Number 41366158_L1
 Customer Ref. 12514196532
 National Grid Reference 490650, 103420
 Size A
 Site Area (Ha) 5.22
 Search Buffer (m) 1000

Site Details

Ford Ashfold Estate, Ford, ARUNDEL, West Sussex, BN18 0HY



Sussex

Published 1899

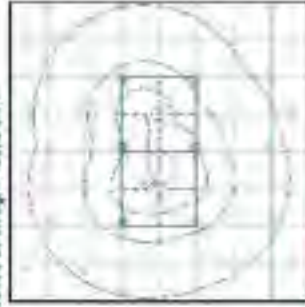
Source map scale - 1:10,560

The historical maps shown were reproduced from maps produced and published at the Ordnance Survey office in Southampton in 1899. The maps were produced for the Ordnance Survey office in Southampton in 1899. The maps were produced for the Ordnance Survey office in Southampton in 1899. The maps were produced for the Ordnance Survey office in Southampton in 1899.

Map Name(s) and Date(s)



Historical Map - Slice A

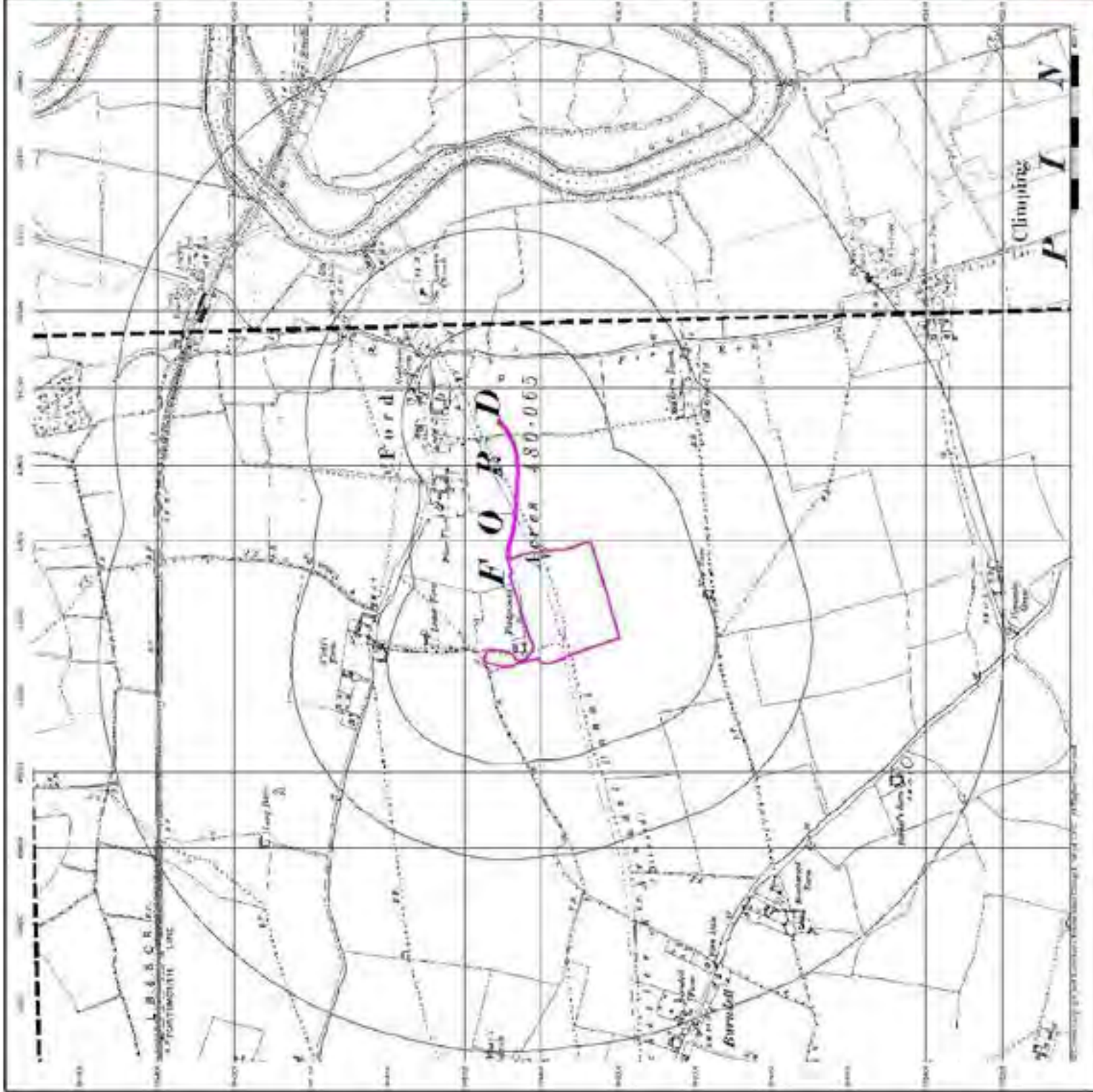


Order Details

Order Number 41366159_L1
 Customer Ref 12514196532
 National Grid Reference 490650, 103420
 Site A
 Site Area (Ha) 5.72
 Search Buffer (m) 1000

Site Details

Ford Adwell Estate, Ford, ARUNDEL, West Sussex, BN18 0HY



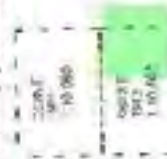
Sussex

Published 1913 - 1914

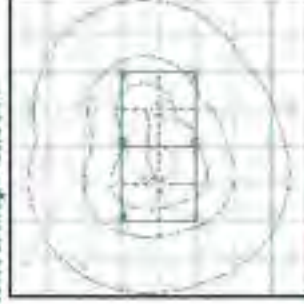
Source map scale - 1:10,560

The historical maps shown were reproduced from maps produced and held at the National Archives, or are derived from copies held at the National Archives. The maps shown are not to be used for any purpose other than that for which they were produced. The maps shown are not to be used for any purpose other than that for which they were produced. The maps shown are not to be used for any purpose other than that for which they were produced.

Map Name(s) and Date(s)



Historical Map - Slice A

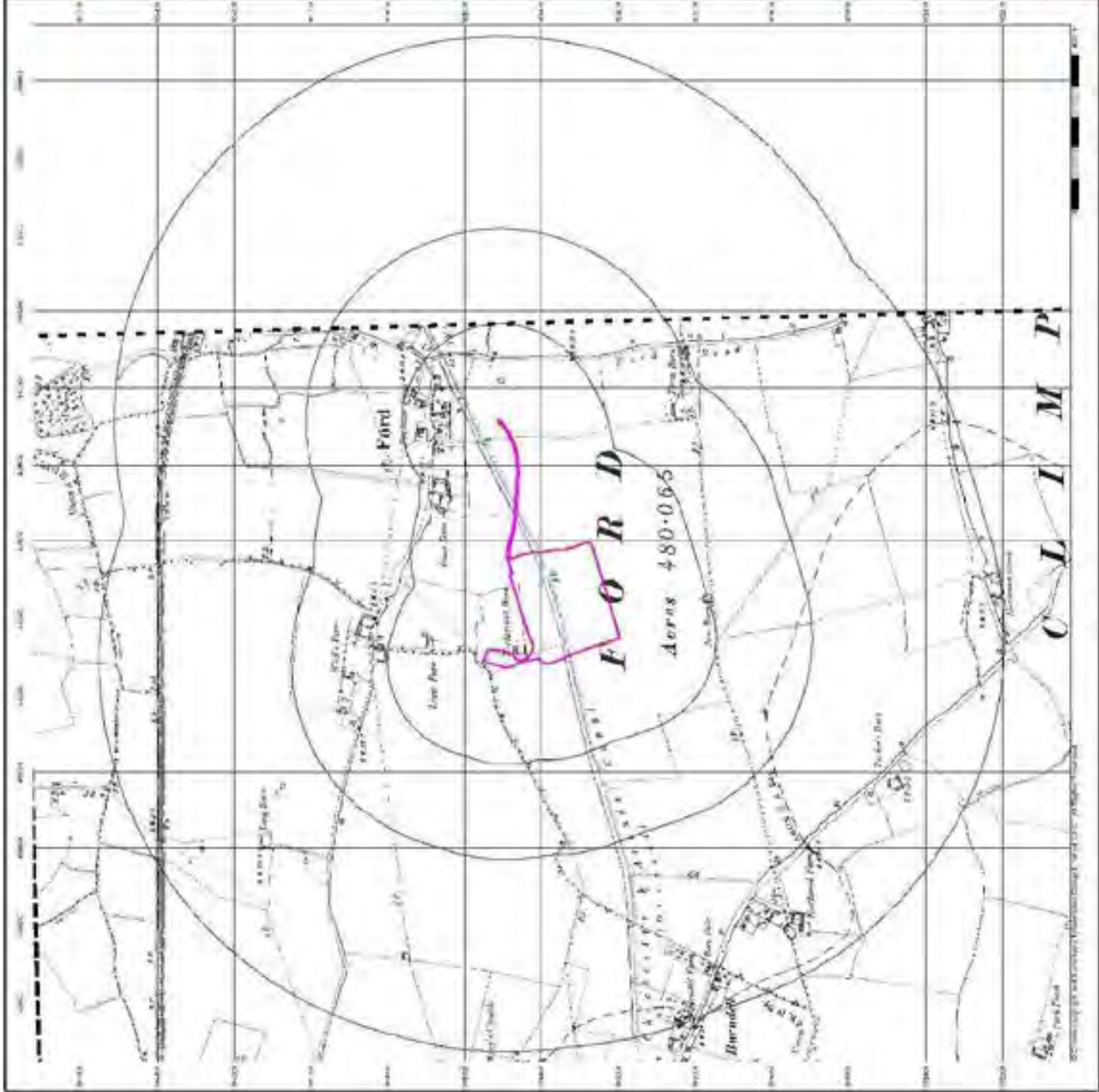


Order Details

Order Number: 41366158_L1
 Customer Ref: 12514196532
 National Grid Reference: 490650, 103420
 Size: A
 Site Area (Ha): 5.72
 Search Buffer (m): 1000

Site Details

Ford Ashfield Estate, Ford, ARUNDEL, West Sussex, BN18 0HY



Sussex

Published 1914

Source map scale - 1:10,560

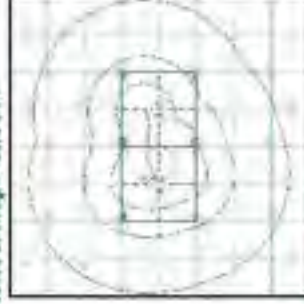
The historical maps shown were reproduced from maps produced and held at the National Library for England, Wales and Scotland in the years 1914-1915. These maps were produced for military purposes and were not intended for general use. The maps were produced by the Ordnance Survey and are held at the National Library for England, Wales and Scotland. The maps were produced by the Ordnance Survey and are held at the National Library for England, Wales and Scotland. The maps were produced by the Ordnance Survey and are held at the National Library for England, Wales and Scotland.

Map Name(s) and Date(s)

- 1. OS 10500
- 2. OS 10500
- 3. OS 10500



Historical Map - Slice A

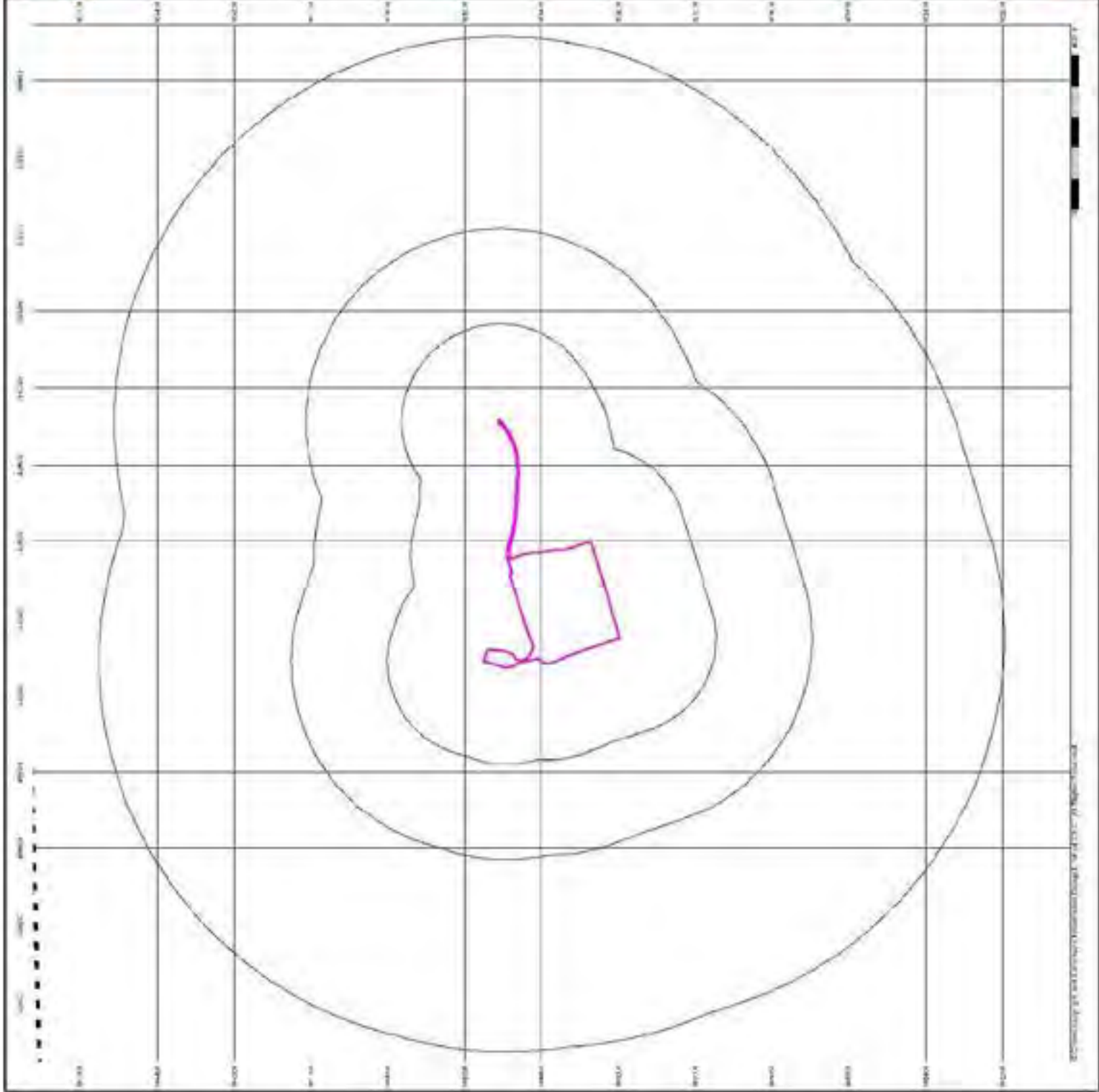


Order Details

Order Number: 41366158_L1
 Customer Ref: 12514196532
 National Grid Reference: 490650, 103420
 Size: A
 Site Area (Ha): 5.72
 Search Buffer (m): 1000

Site Details

Ford Ashfield Estate, Ford, ARUNDEL, West Sussex, BN18 0HY



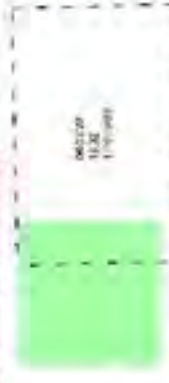
Sussex

Published 1932

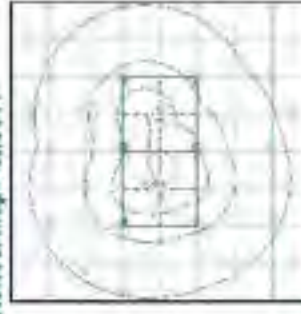
Source map scale - 1:10,560

The historical map shows main roads, rivers, and other features as they were at the time of publication. It does not show modern features such as buildings, roads, and other infrastructure. The map is a black and white line drawing. The map shows a large area with a grid overlay. A dashed line indicates a search buffer. A pink rectangle highlights a specific area within the search buffer. The map is titled 'Sussex' and 'Published 1932'. The source map scale is 1:10,560. The map shows a large area with a grid overlay. A dashed line indicates a search buffer. A pink rectangle highlights a specific area within the search buffer. The map is titled 'Sussex' and 'Published 1932'. The source map scale is 1:10,560.

Map Name(s) and Date(s)



Historical Map - Slice A

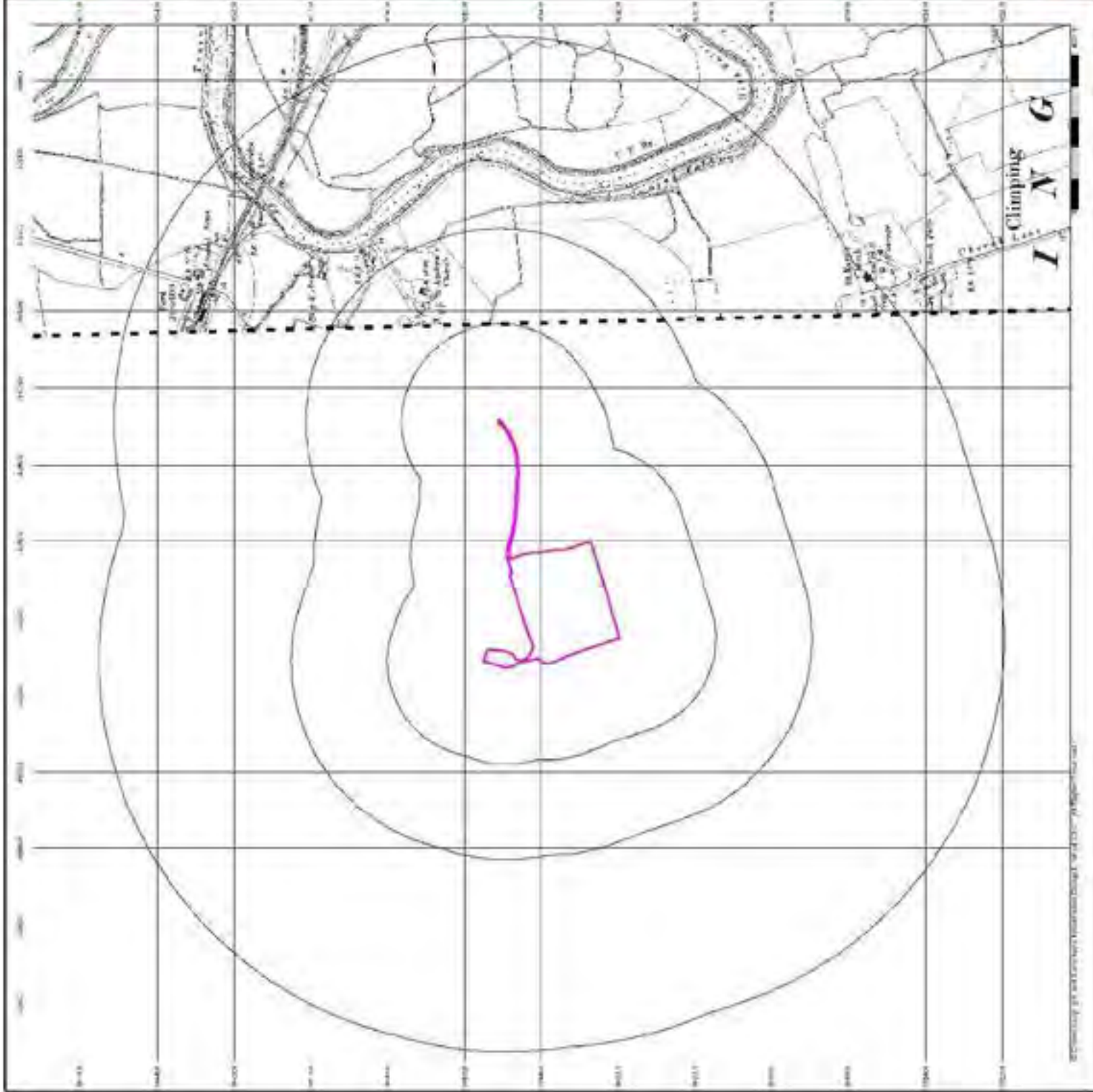


Order Details

Order Number: 41366159_L1
 Customer Ref: 12514196532
 National Grid Reference: 490650, 103420
 Size: A
 Site Area (m²): 5.22
 Search Buffer (m): 1000

Site Details

Ford Ashfield Estate, Fare, ARUNDEL, West Sussex, BN18 0HY



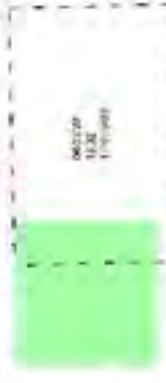
Sussex

Published 1932

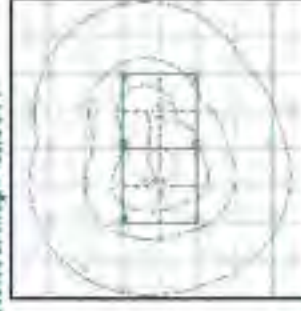
Source map scale - 1:10,560

The historical map shows main roads, rivers, and other features as they were at the time of publication. It does not show modern features such as buildings, roads, and other infrastructure. The map is a black and white line drawing. The map shows a large area with a grid overlay. A dashed line indicates the location of the site. A red rectangle highlights the site location. The map is titled 'Sussex' and 'Published 1932'. The source map scale is 1:10,560.

Map Name(s) and Date(s)



Historical Map - Slice A

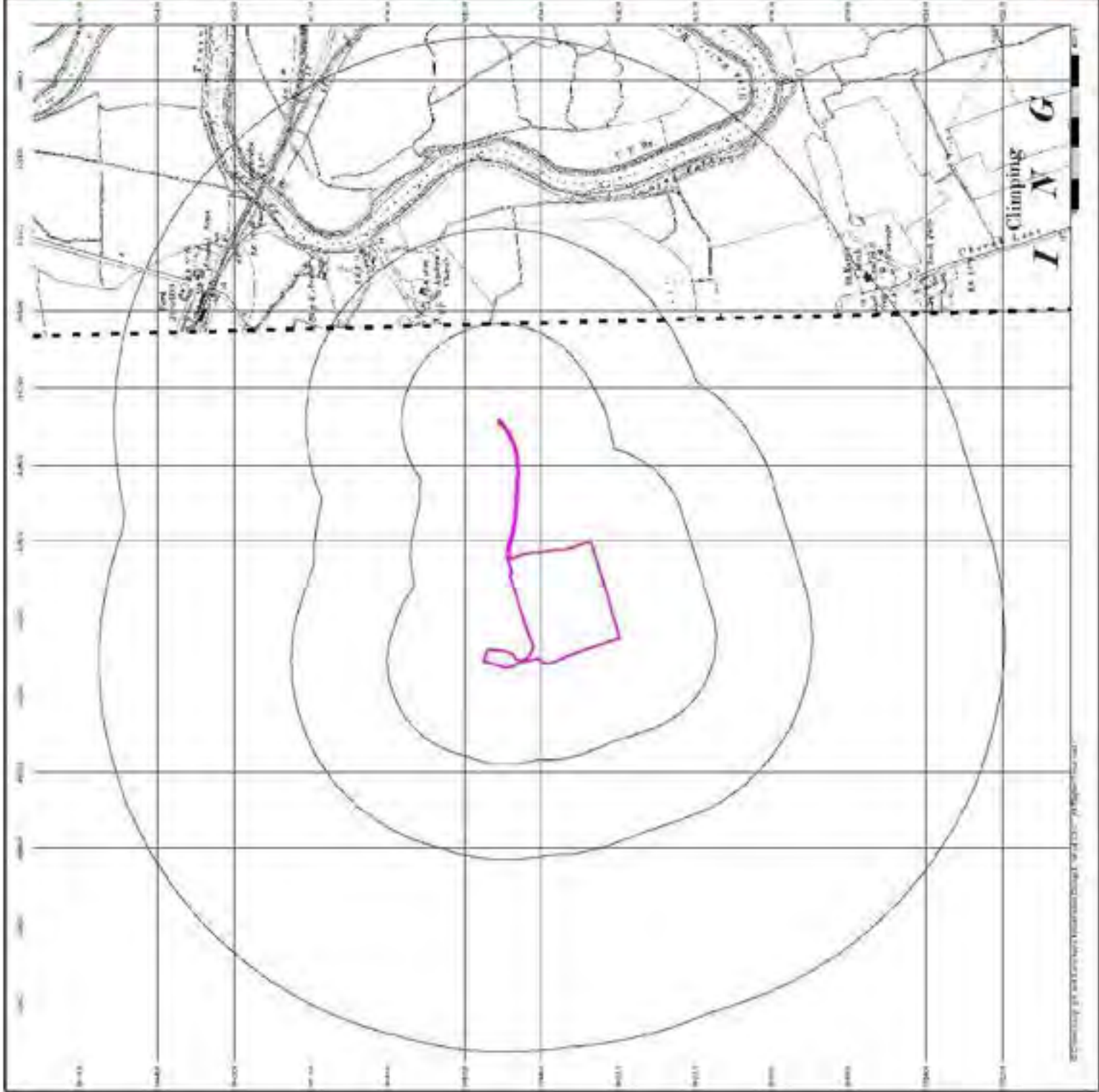


Order Details

Order Number: 41366159_L1
 Customer Ref: 12514196532
 National Grid Reference: 490650, 103420
 Size: A
 Site Area (m²): 5.22
 Search Buffer (m): 1000

Site Details

Ford Ashfield Estate, Ford, ARUNDEL, West Sussex, BN18 0HY



Historical Aerial Photography Published 1947

Source map scale - 1:10,560

The historical photos were produced by the Ordnance Survey at a scale of 1:50,000 and 1:10,560 scale for their photography. They were prepared between 1944 and 1951 at an approximate, positive horizontal accuracy to the 1950 datum. The aerial photography was conducted by a combination of aerial photography and the use of a ground-based camera. The images were then processed to create a final product. The crop of photos were sub-optimal and only later made available after a number of years, although due to the accuracy of the editing, subsequent maps made from this set are not easy to read. Where available, Landmark files include both versions.

© Landmark Information Group Services Ltd (2012)

Map Name(s) and Date(s)



Historical Aerial Photography - Slice A



Order Details

Order Number 41369159_1_1
 Customer Ref 12514190632
 National Grid Reference 490560, 103420
 Slice: A
 Site Area (ha) 5.72
 Search Buffer (m) 1000

Site Details

Ford Adfield Estate, Ford, ARUNDEL, West Sussex, BN18 0HY

**Ordnance Survey Plan
Published 1962**

Source map scale - 1:10,000

The historical map shows what is reproduced on maps produced by the Ordnance Survey for the British, or other, military operations. In 1962 the Ordnance Survey published a new edition of the map, which was a 1:10,000 scale map. The map was published in 1962, and the Ordnance Survey has since then published a new edition of the map, which was a 1:10,000 scale map. The map was published in 1962, and the Ordnance Survey has since then published a new edition of the map, which was a 1:10,000 scale map. The map was published in 1962, and the Ordnance Survey has since then published a new edition of the map, which was a 1:10,000 scale map.

Map Name(s) and Date(s)



Historical Map - Slice A

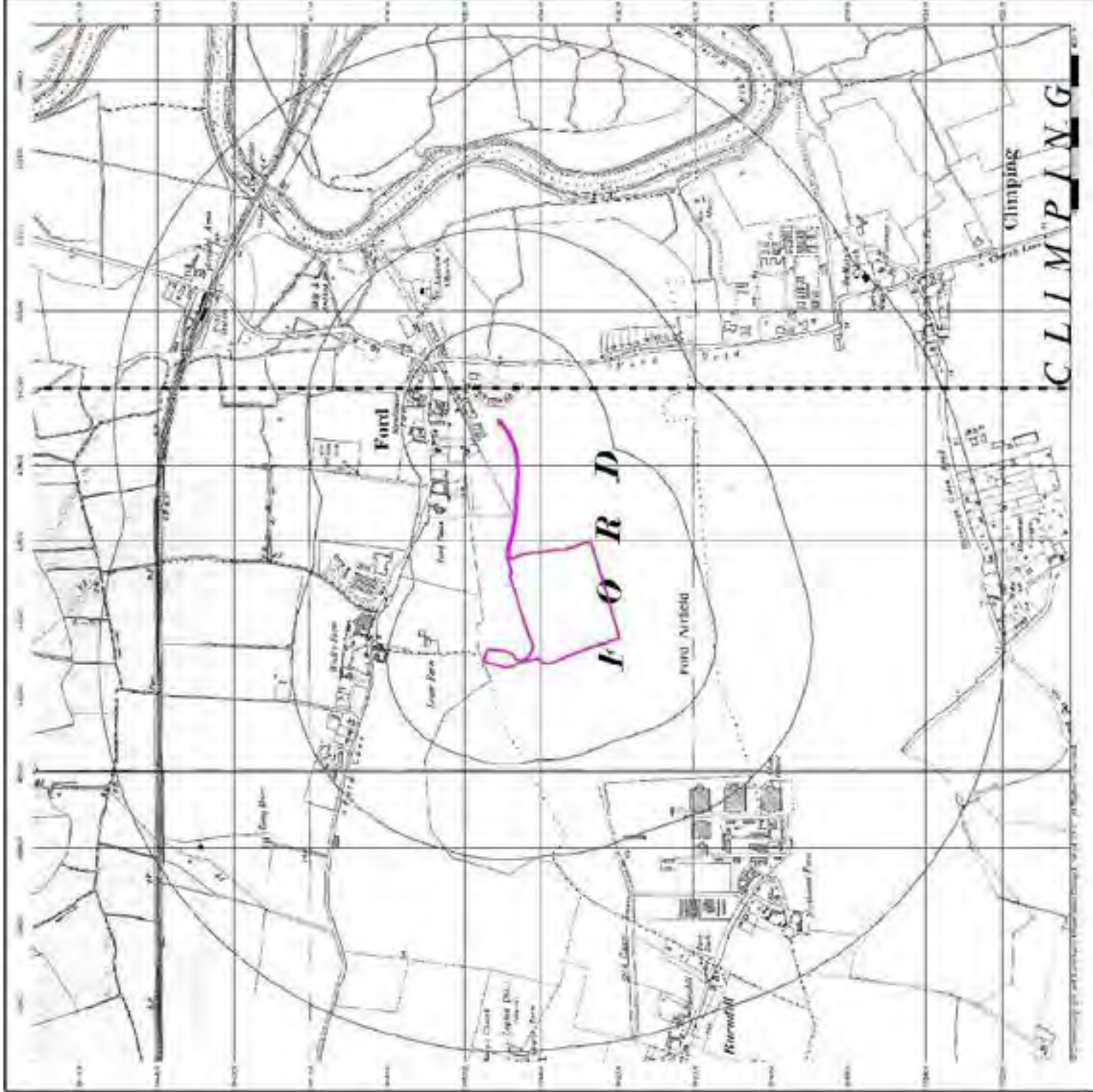


Order Details

Order Number: 41366158_L1
 Customer Ref: 12514196532
 National Grid Reference: 490650, 103420
 Size: A
 Site Area (ha): 5.22
 Search Buffer (m): 1000

Site Details

Ford Airfield Estate, Ford, ARUNDEL, West Sussex, BN18 0HY



CLIMPING

**Ordnance Survey Plan
Published 1962 - 1967**

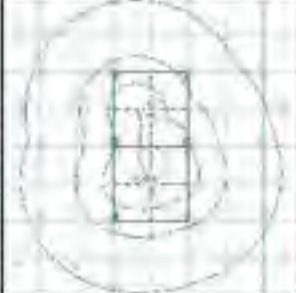
Source map scale - 1:10,000

The historical map shows main roads and other features as they were at the time of publication. It does not show any changes that have taken place since the map was published. The map is a planimetric map, which means it shows the ground as it is, without any relief or shading. The map is a black and white line drawing, which means it does not show any colour. The map is a planimetric map, which means it shows the ground as it is, without any relief or shading. The map is a black and white line drawing, which means it does not show any colour. The map is a planimetric map, which means it shows the ground as it is, without any relief or shading. The map is a black and white line drawing, which means it does not show any colour.

Map Name(s) and Date(s)



Historical Map - Slice A

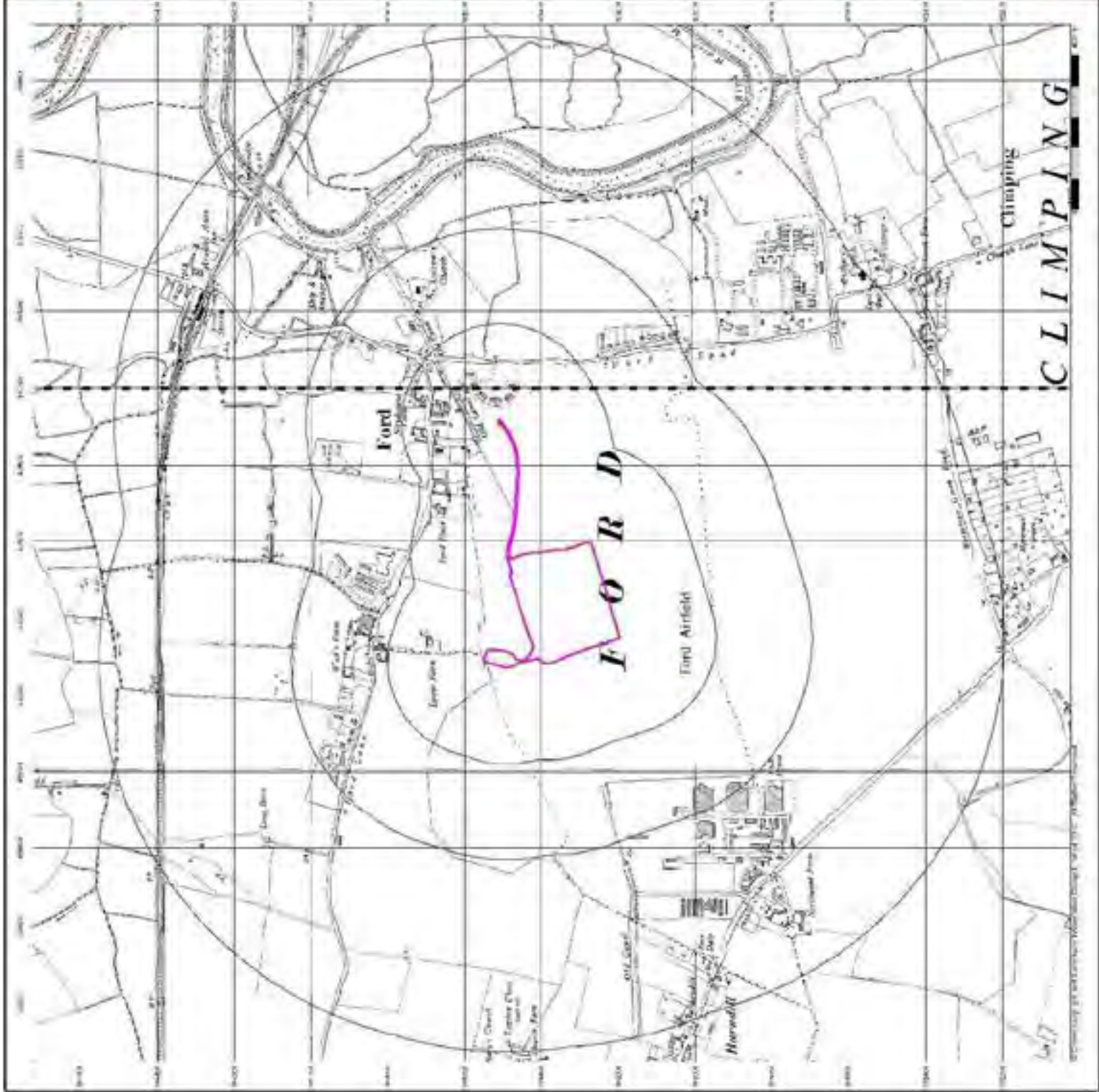


Order Details

Order Number: 41366158_L1
 Customer Ref: 12514196532
 National Grid Reference: 490650, 103420
 Site: A
 Site Area (Ha): 5.22
 Search Buffer (m): 1000

Site Details

Ford Airfield Estate, Ford, ARUNDEL, West Sussex, BN18 0HY



**Ordnance Survey Plan
Published 1992 - 1993**

Source map scale - 1:10,000

The historical maps shown were reproduced in maps published by the Ordnance Survey for the first time in 1992. The maps were published in 1992 to mark the 50th anniversary of the Ordnance Survey's centenary. The maps were published in 1992 to mark the 50th anniversary of the Ordnance Survey's centenary. The maps were published in 1992 to mark the 50th anniversary of the Ordnance Survey's centenary.

Map Name(s) and Date(s)



Historical Map - Slice A

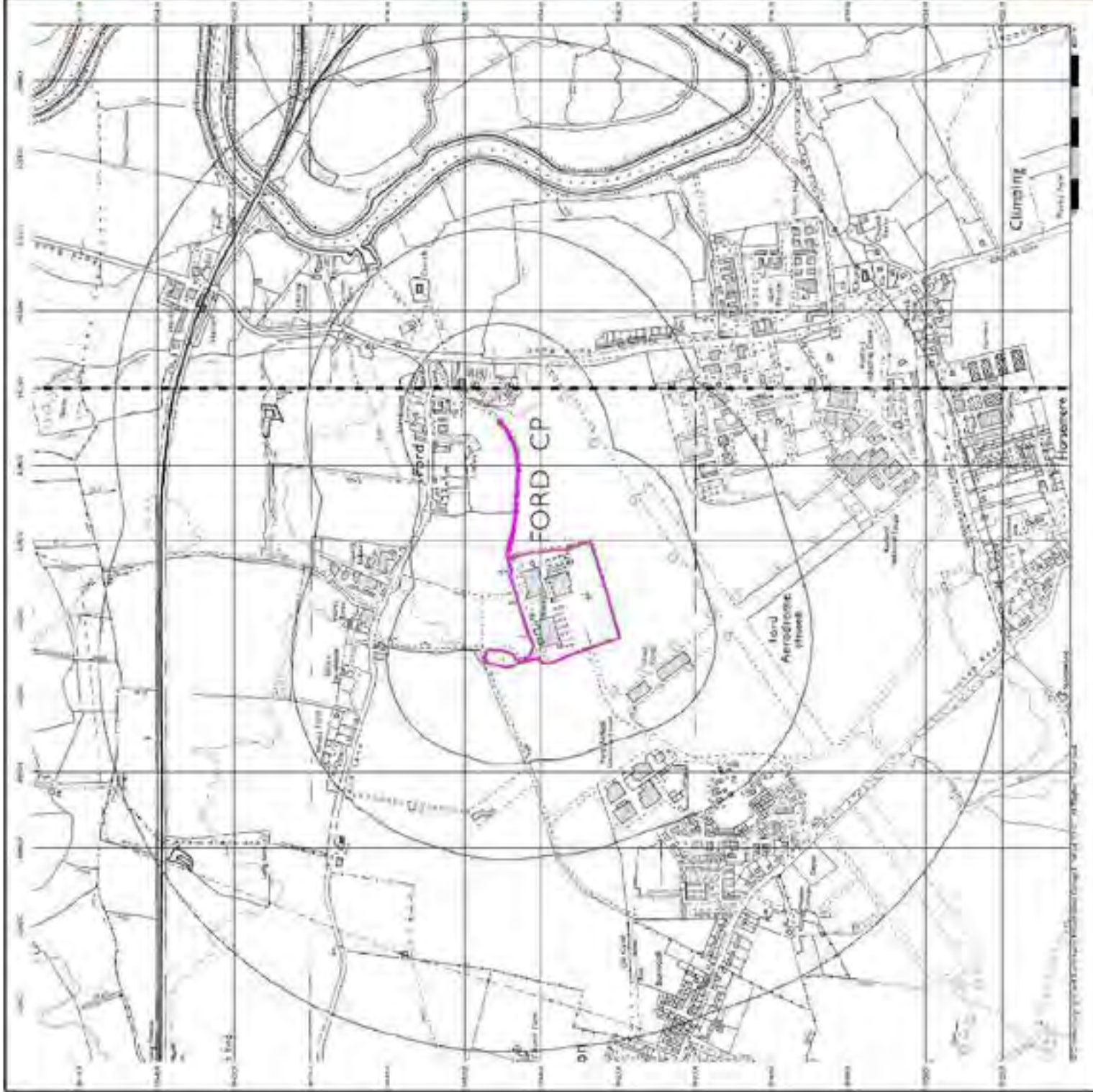


Order Details

Order Number: 41366158 E 1
 Customer Ref: 12514196532
 National Grid Reference: 490650, 103420
 Sheet: A
 Site Area (m²): 5.72
 Search Buffer (m): 1000

Site Details

Ford Aerodrome, Ford, ARUNDEL, West Sussex, BN18 0HY

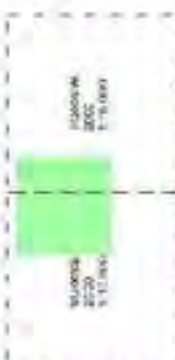


**10k Raster Mapping
Published 2000**

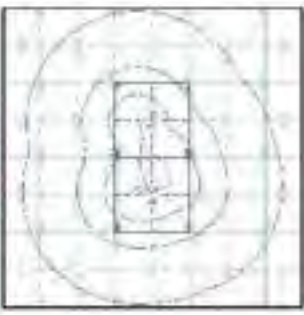
Source map scale - 1:10,000

The information on this sheet was produced from the Ordnance Survey's 1:10,000 vector source map. These maps are derived from aerial photography and are available in 1:10,000 map grid squares. The 1:10,000 map grid squares are available in 1:10,000 map grid squares. The 1:10,000 map grid squares are available in 1:10,000 map grid squares. The 1:10,000 map grid squares are available in 1:10,000 map grid squares.

Map Name(s) and Date(s)



Historical Map - Slice A

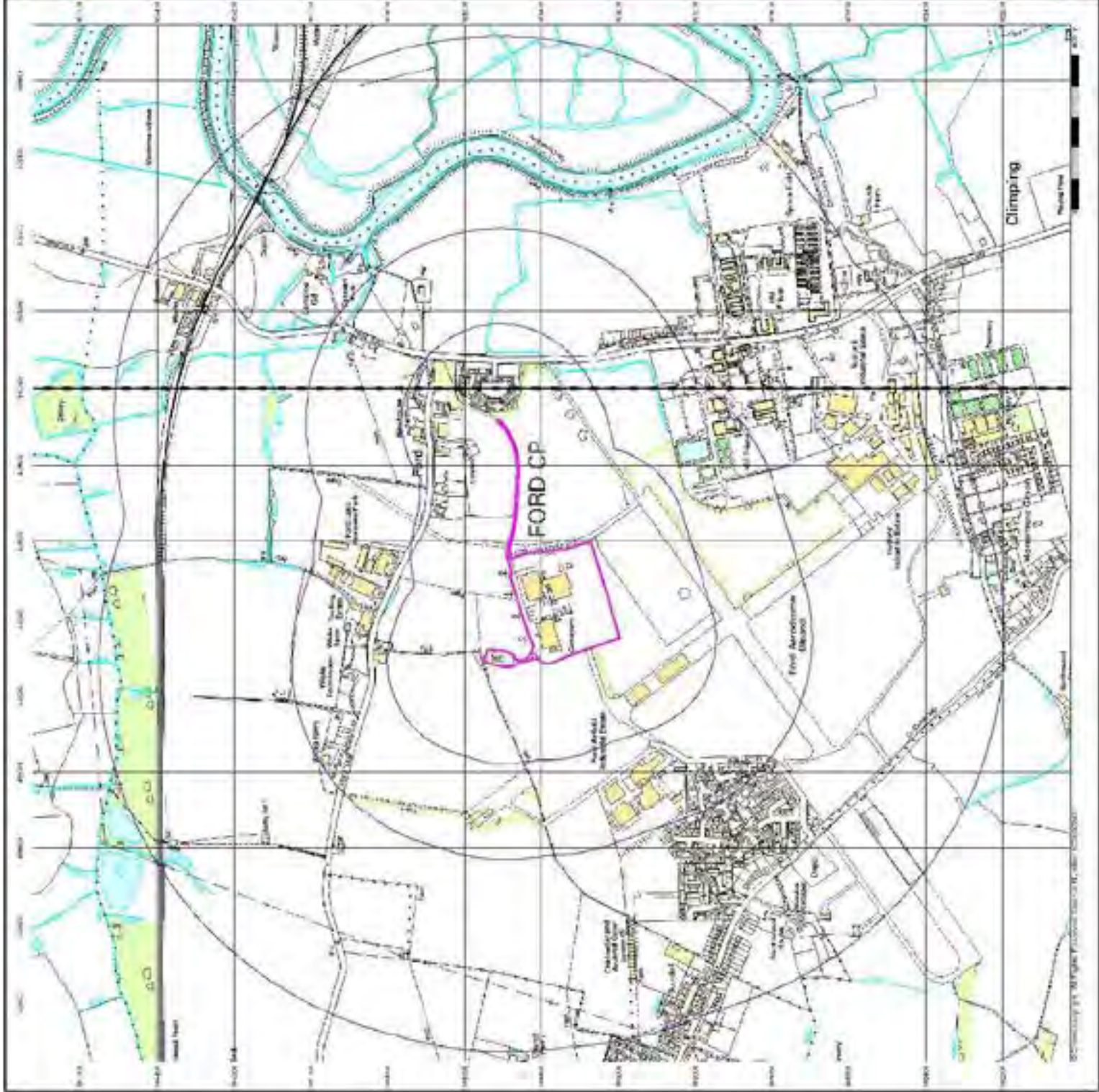


Order Details

Order Number 41366158 - L1
Customer Ref 12514196532
National Grid Reference 490560, 103420
Sheet A
Site Area (Ha) 5.22
Search Buffer (m) 1000

Site Details

Ford Ashfield Estate, Ford, ARUNDEL, West Sussex, BN18 0HY

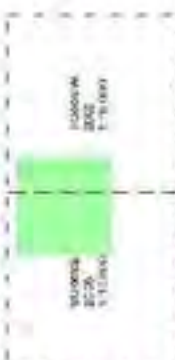


10k Raster Mapping
Published 2006

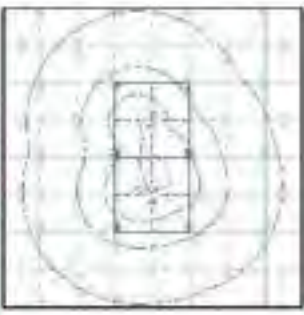
Source map scale - 1:10,000

The information on this sheet was produced from the Ordnance Survey's 1:10,000 raster maps. These maps are derived from survey data collected in 1979, 1984 and 1991. The maps are not updated and do not show any changes to the ground since the survey. The maps are not suitable for use in areas where there has been significant development since the survey. The maps are not suitable for use in areas where there has been significant development since the survey.

Map Name(s) and Date(s)



Historical Map - Slice A

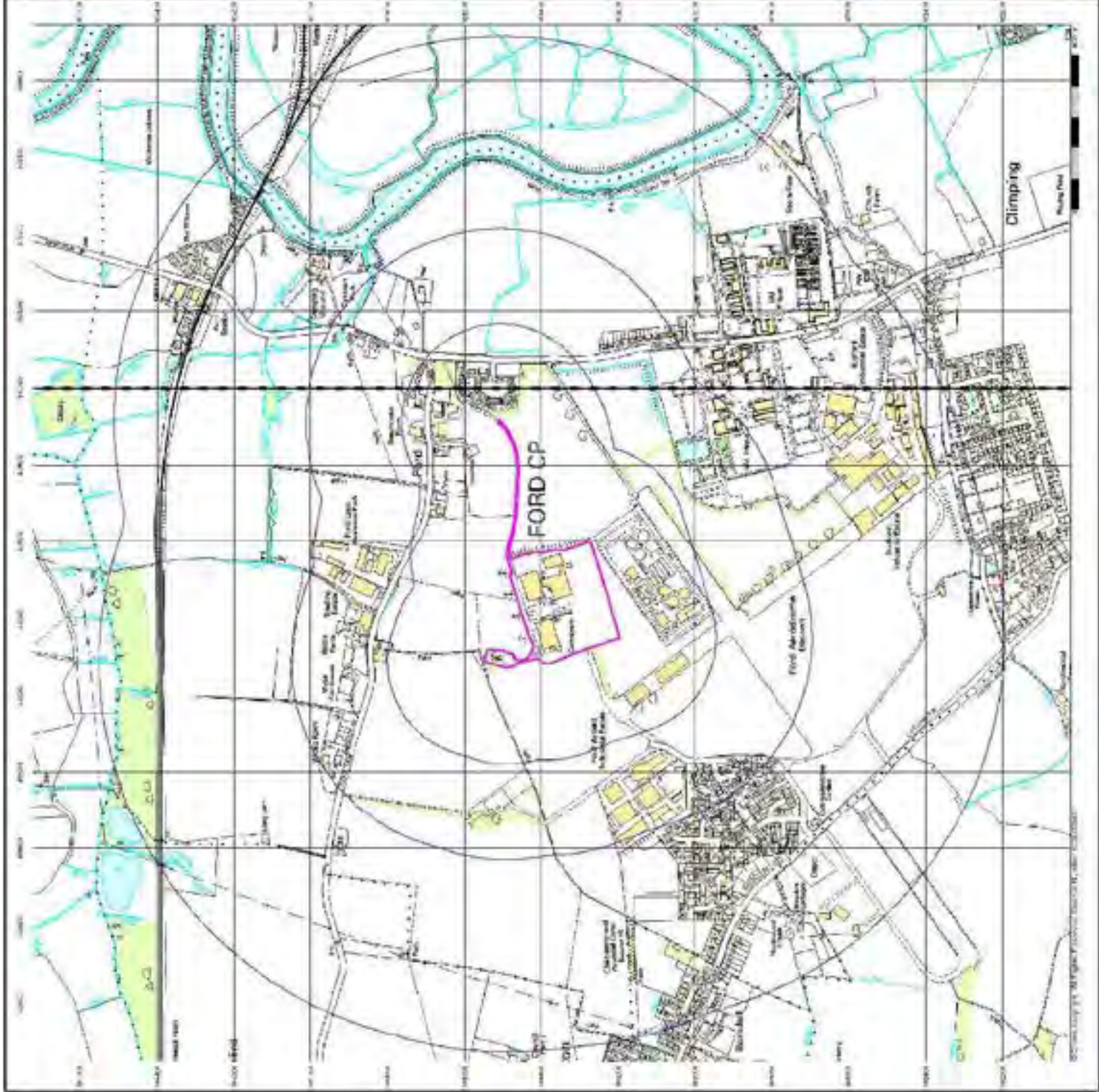


Order Details

Order Number: 41366158 - L1
 Customer Ref: 12514196532
 National Grid Reference: 490650, 103420
 Sheet: A
 Site Area (Ha): 5.22
 Search Buffer (m): 1000

Site Details

Ford Ashfield Estate, Ford, ARUNDEL, West Sussex, BN18 0HY

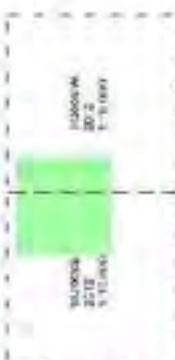


**10k Raster Mapping
Published 2012**

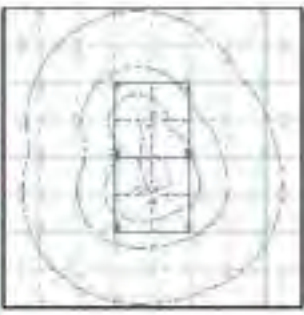
Source map scale - 1:10,000

The information on this sheet was produced from the Ordnance Survey's 10k vector raster maps. These maps are derived from the original vector data at a scale of 1:10,000 and are published in a 10k raster format. The maps are published in a 10k raster format and are not intended to be used as a substitute for the original vector data. The maps are published in a 10k raster format and are not intended to be used as a substitute for the original vector data.

Map Name(s) and Date(s)



Historical Map - Slice A

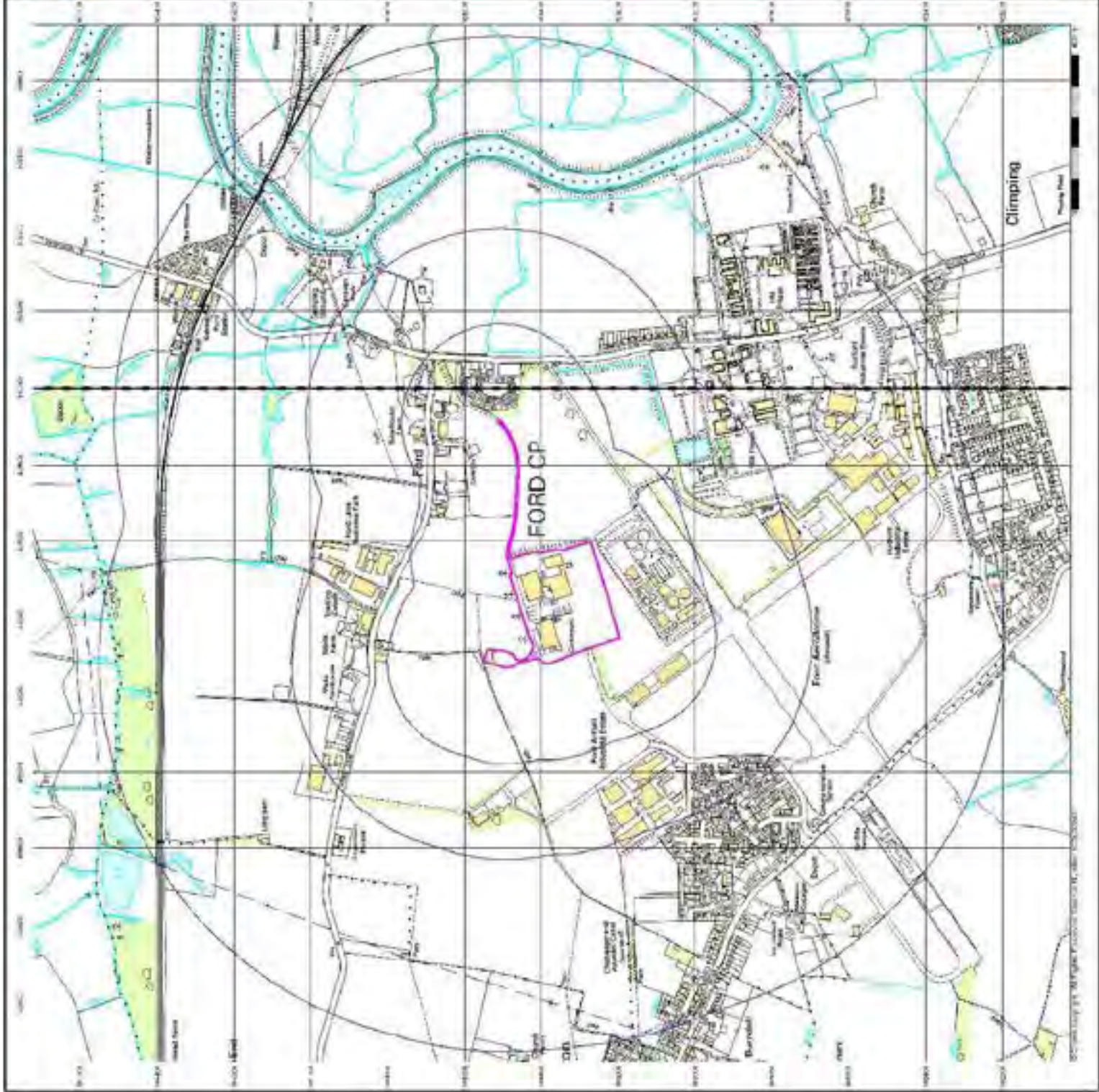


Order Details

Order Number: 41366158 - L1
 Customer Ref: 12514196532
 National Grid Reference: 490650, 103420
 Site: A
 Site Area (Ha): 5.22
 Search Buffer (m): 1000

Site Details

Ford Ashfield Estate, Ford, ARUNDEL, West Sussex, BN18 0HY



At Golder Associates we strive to be the most respected global company providing consulting, design, and construction services in earth, environment, and related areas of energy. Employee owned since our formation in 1960, our focus, unique culture and operating environment offer opportunities and the freedom to excel, which attracts the leading specialists in our fields. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees who operate from offices located throughout Africa, Asia, Australasia, Europe, North America, and South America.

Africa	+ 27 11 254 4800
Asia	+ 86 21 6258 5522
Australasia	+ 61 3 8862 3500
Europe	+ 356 21 42 30 20
North America	+ 1 800 275 3281
South America	+ 55 21 3095 9500

solutions@golder.com
www.golder.com

Golder Associates (UK) Ltd
Cavendish House
Bourne End Business Park
Cores End Road
Bourne End
Buckinghamshire
SL8 5AS
UK
T: [+44] (0) 1628 851851

