# IFA 2, DAEDALUS AIRFIELD, LEE-ON-THE-SOLENT: ARCHAEOLOGICAL WATCHING BRIEF REPORT

Discharge of Condition 31 of Planning Permission P/16/0557/OA

Prepared for: IFA2 SAS and Morgan Sindall
Construction and Infrastructure Ltd



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## 1.0 Introduction

SLR Consulting Ltd (SLR) was commissioned by IFA2 SAS and Morgan Sindall Construction and Infrastructure Ltd to carry out an archaeological watching brief at the IFA2 SAS development site ('the Site') located at the former Daedalus Airfield, Lee-on-the-Solent, (**Figure 1** and **Drawing 1**). The land was monitored as part of development for construction of a converter station to form an electricity link between the United Kingdom and France (Planning Application Reference: P/16/0557/OA). Construction work on site was managed by Morgan Sindall and the basic archaeological monitoring was undertaken for MSI Ltd, but agreement was reached for any contingency work to investigate and record archaeological remains found during monitoring, to be covered under a different contract by the ultimate client IFA2 SAS Ltd.

An Environmental Assessment was produced as part of this application and Chapter 10 related to the historic environment<sup>1</sup>. Hampshire County Council's Senior Archaeologist, Neil Adam, highlighted the archaeological potential of the site and stated there was a requirement for archaeological works as a condition of planning consent (Condition 15). This report presents the work carried out during a watching brief at Daedalus Airfield. The work was undertaken between 11<sup>th</sup> December 2017 and end of September 2018 in accordance with the Written Scheme of Investigation (WSI) previously produced by Wessex Archaeology<sup>2</sup>. The site code was LOSBW18 for Lee-on-Solent, Broom Way 2018.

The arrangements for fieldwork, post-fieldwork assessment, reporting and archiving, archive deposition and report dissemination were included in the WSI document.

The majority of the watching brief occurred in late December 2017 and the early part of 2018, with intermittent periods of monitoring until November 2018. The principal archaeological result was the discovery of a dispersed Bronze Age settlement, represented by scatters of worked flint, at least two ditches/gullies, and several pits/post-pits, some of which might have formed part of a roundhouse (see section 4.6. Burnt flint and daub were found in the fills, as well as pottery (see sections 4.6.2, 4.6.3 and 4.6.5).



<sup>&</sup>lt;sup>1</sup> The Environment Partnership 2016 IFA2 Hampshire: Historic Environment Baseline Assessment

<sup>&</sup>lt;sup>2</sup> Wessex Archaeology 2017 IFA2 UK Onshore Development Daedalus Airfield Converter Station, Lee on Solent, Hampshire; Written Scheme of Investigation for Archaeological Strip, Map and Record

Figure 1
Site Location





## 2.0 The Site

The Site is approximately 3.5 Hectares (ha) in area, centred on NGR 456861, 102359 (**Drawings 1 and 2**). The drawings below show the location against existing OS mapping, and with a Google earth image overlain on historic mapping, to provide contextual information in understanding the nature of the site.

The Site is at the northern end of Daedalus Airfield approximately 8km west of the city of Portsmouth. The site was originally split by a north – south aligned field boundary, which has been moved as part of reconfiguration of the site. The area to the east of the boundary was previously used as arable land and the area to the west covered in short grass and formed part of the airfield.

A topographical survey is shown in **Figure 2** below, which includes the north-south field boundary, with a large spoil heap along its western side. Further areas of dumped deposit can be seen within the western half of the site. The red line boundary includes an area in the north which was subject to habitat and landscaping enhancement. **Figure 3** below shows the main areas of groundworks with the habitat area to the north.

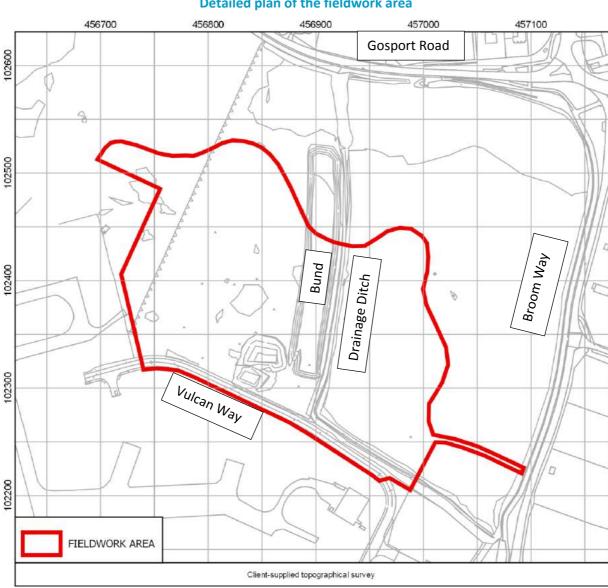


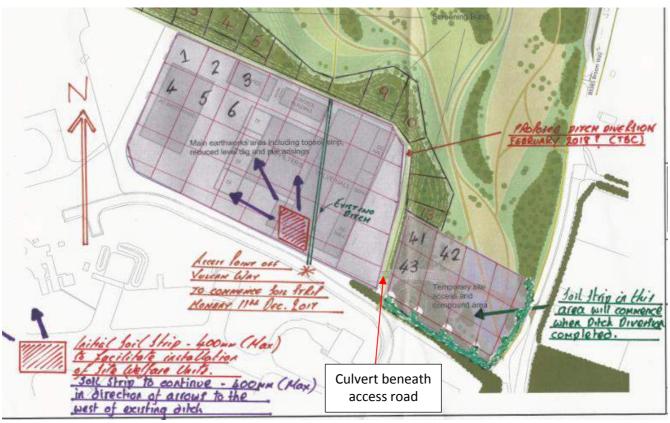
Figure 2
Detailed plan of the fieldwork area

## 2.1 Geology

Within the Site bedrock geology is of the Earnley and Marsh Farm Sand Formations. This is predominantly a sedimentary bedrock formed approximately 34 to 56 million years ago in the Palaeogene Period. It is indicative of a local archaic environment previously dominated by shallow seas.

Superficial deposits within the Site are made up of river terrace deposits comprising a sand, silt and clay matrix. These superficial deposits were formed up to 2 million years ago in the Quaternary Period. The local environment was previously dominated by rivers<sup>3</sup>.

Figure 3
Provisional plan for method of working, temporary compound and drainage ditch diversion



# 2.2 Archaeological Potential

A summary of an Environment Statement ('Summary') addressing the impacts of the development has been submitted<sup>4</sup>. A historic environment baseline assessment of the onshore development at Chilling and Daedalus ('Baseline') has also been submitted<sup>5</sup>, and forms Chapter 10 of the Environmental Statement.

The Baseline included the following conclusions in relation to the Daedalus site as a whole:



<sup>&</sup>lt;sup>3</sup> British Geological Survey, available from http://mapapps.bgs.ac.uk/geologyofbritain/home.html Accessed on 05/02/2016

<sup>&</sup>lt;sup>4</sup> Rte and National Grid, April 2016: IFA2 EIA Summary (document reference IFA2-ENV-SUM-0001

<sup>&</sup>lt;sup>5</sup> The Environment Partnership, May 2016: IFA2 Hampshire, Historic Environment Baseline Assessment

- "8.2 The site has high potential for the survival of yet undiscovered heritage assets dating to the modern period. These primarily relate to modern remains associated with the military air station. These assets are predicted to be of regional (moderate) heritage significance.
- 8.3 The site has low potential for the survival of yet undiscovered heritage assets from the prehistoric to post medieval periods. Whilst these heritage assets are well represented within the study there are few within the development site. Previous archaeological interventions as well as evidence from reports of maintenance of the site suggest that much of the archaeological horizons would have been disturbed or truncated away."

The Environmental Statement Summary contained the following conclusions:

"Summary 3.1.18: ...In areas affected by converter station and cable installation at Daedalus and cable installation at Chilling there are finds which indicate that the potential for as yet unknown heritage assets with archaeological interest is moderate to high for certain types of asset. Measures are proposed to mitigate the predicted negligible effect on known heritage assets within the development footprints, and the potential for effects on as yet unknown heritage assets with archaeological interest within the development areas.

Summary 3.1.20: No significant historic environment effects are predicted. However in relation to effects on heritage assets with archaeological interest, and to safeguard against effects on as yet undiscovered archaeological assets, a programme of mitigation is proposed, to comprise archaeological monitoring of topsoil stripping, and associated recording, reporting and dissemination of results. This could be secured as a condition of planning consent, and subject to an approved Written Scheme of Investigation."

Geotechnical survey recorded the topsoil thickness as an average of 0.1m thick overlying silty sand and gravel with isolated patches of made ground comprising firm brown clay mixed with brick and limestone fragments.



# 3.0 Aims, Objectives and Methodology

## 3.1 Aims

The aims set out in the WSI for this work were:

- To examine the archaeological resource within the site according to a framework of defined research objectives;
- To seek a better understanding of the resource;
- To compile a lasting record of the resource; and
- To analyse and interpret the results of the excavation, and disseminate them.

## 3.2 Objectives

The watching brief sought to address the following research objectives:

- Determine the date, nature and extent of prehistoric settlement within the Site;
- Determine the extent and nature of any medieval occupation within the Site; and
- Assess the potential for the recovery of prehistoric artefacts and other evidence

## 3.3 Methodology

The soil strip of the site was carried out using a toothless bucket under supervision of an archaeologist. All works were carried out as outlined in the WSI, but due to poor weather conditions and changing priorities in site work, the duration extended over an extended timeframe, with different areas being monitored weeks apart. **Drawing 3** shows which parts of the site were stripped and monitored at what dates during 2018.

#### 3.3.1 Monitoring

All archaeological work was monitored by the Hampshire County Council's Senior Archaeologist (HCCSA) Neil Adam via telephone / email conversations with SLR.

#### 3.3.2 Destination Museum

This report will be uploaded to the OASIS website.

#### 3.3.3 Reporting

Approved versions of this report will be circulated to:

- The Client;
- The HCCSA;
- The Local Planning Authority; and
- SLR Consulting Limited.



## 4.0 Results

## 4.1 Topsoil strip and monitoring

The watching brief was carried out on all groundworks across the site and took place from December 2017-March 2018, and again in September 2018. A provisional plan of working (**Figure 3**) was designed and largely followed, although changes occurred due to operational requirements which necessitated stops and starts, and rapid reallocation of resources in response.

The ground works in these areas generally ran consecutively, but when there were works in both the east and west sides of the site, two archaeologists were present on the watching brief to monitor the works. The topsoil was generally removed in strips approximately 10m wide from south to north with the subsoil then covered with geotextile and stone chippings (Figures 4 and 5).

Figure 4
Centre of site during topsoil strip looking north east







Figure 5
West of site during topsoil strip looking south

# 4.2 The Temporary Compound

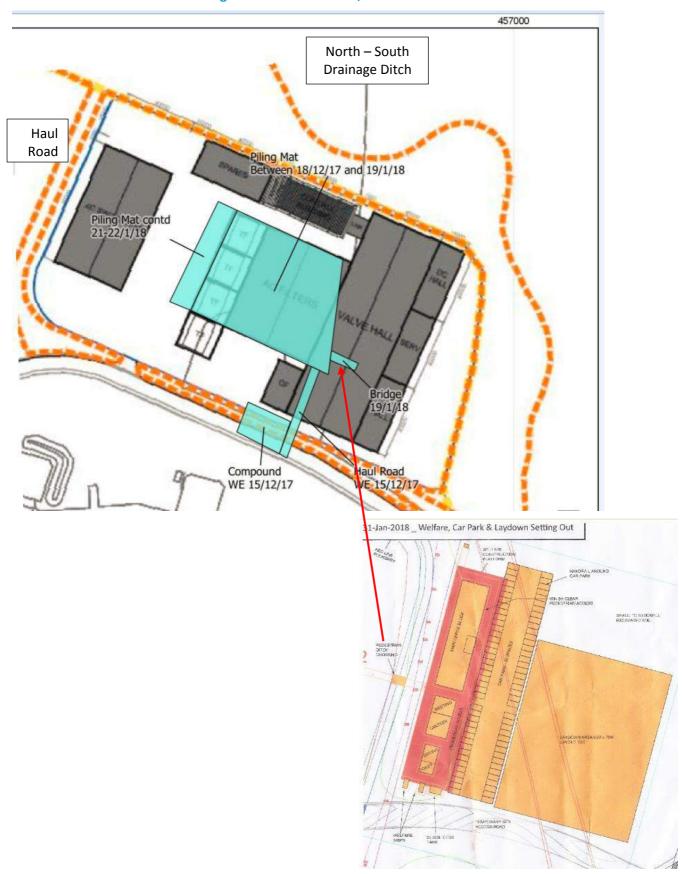
The ground works for the Temporary Compound, and the beginnings of the Pedestrian Access Road (west of the Drainage Ditch), were monitored from 11<sup>th</sup> - 20<sup>th</sup> December 2017 (**Figure 6**). These works involved the removal of 0.4m of topsoil and overburden before stoning-up. This zone included the remains of a recent earthwork bund that ran along the western side of the drainage ditch that was aligned north-south across the site.

No natural deposits were reached and no archaeological features or artefacts were observed during this work.

The stone for the temporary compound was removed 16th March 2018 as the compound was in conflict with the piling mat (see below). The temporary access road was removed 22nd March and taken down to the formation level for the piling mat (see below). Beneath this temporary access, remnants of made ground from the former bund survived in situ.



Figure 6
Piling mat location Phase 1, with Phase 2 beneath



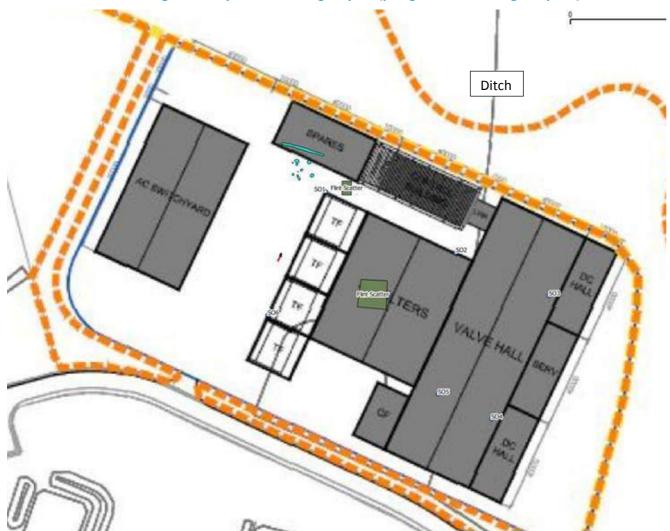


Figure 7
Archaeological finds plotted on design layout (piling mat for building footprint)

# 4.3 The Piling Mat and Drainage Ditch

The ground works for the Piling Mat were carried out in two phases, either side of the north-south aligned drainage ditch. As part of the construction work on site the existing drainage ditch needed to be diverted eastwards, although initially a temporary bridge over the existing drain was installed, until the new drainage ditch had been excavated, and the old one was infilled.

The coordinates for the piling mat were:

SO1	456852.436	102408.852 (west of ditch)
SO2	456908.841	102382.549 (west of ditch)
SO3	456949.015	102363.816
SO4	456924.123	102310.434
SO5	456901.067	102321.185 (west of ditch)
SO6	456827.544	102355.47 (west of ditch)



#### 4.3.1 Phase 1 West of the Drainage Ditch.

The ground works during Phase 1 took place between 8th January and 22nd February 2018. The works started in the east on a line between Point SO2 (456908.841, 102382.549) and Point SO5 (456901.067, 102321.185). This line was approximately 7m west of the drainage ditch.

The works continued until the western edge of the mat was reached (for the Valve, Reactor and AC Halls). The works then continued in the north on an extension along the northern edge (for a Storage and other buildings). The third area to be completed was the southeast corner (for the Control Building). Work was later completed in this area once the Temporary Welfare Units along Vulcan Way have been moved. Finally, the drainage ditch was cleared, and its western side was stripped to join up with the original works.

The works were carried out on the following dates (Figure 6 and Drawing 3):

Valve hall west of the line SO2-SO5:
 8th-17th January

Valve Hall east of the line SO2-SO5:
 7th-9th March

• Reactor Hall: 18th-25th January

AC Hall and Storage Building: 26th January- 8th February

Welfare Units
 1st – 6th February

16m Strip North of Valve and Reactor Halls: 5th-14th February

Control Building in South
 19th-22nd February

Laydown area for Piling Works 15th-16th March

• Under the Temporary Compound 16th March

Under temporary Access Road
 22nd March

Natural Deposits comprised orange-brown clay silts, but along the eastern edge of the area made ground, consisting of clay, brick, stone, tarmac and concrete was found. The thickness of this deposit was 0.8-1m (**Figure 8**), and its extent stretched for 30-35m along the ditch. This made-ground derived from a previously existing bund along the west edge of the drainage ditch and the residue from this earthwork bund was observed for a width of 25m west of the line SO2-SO5 (**Figures 7 and 9**). The made-ground continued east, up to the existing drainage ditch.





Figure 8
Deposit sequence

Beneath the made ground was a layer of grey-brown silty clay. This layer was 0.3m thick, and it is uncertain how this deposit accumulated. The made-ground contained large patches of decaying vegetation, yet there was none in the top of this layer, so it was probably not a buried soil. The deposit is not present west of the made-ground, so it seems unlikely to have been a subsoil. It is possible that the colouration of this layer was due to leaching of materials from the bund of made ground into natural deposits.

West of the made-ground the soil was very waterlogged and had been churned-up by dumper travel. The 30-ton dumper had to be replaced by 10-ton vehicles to cope with the conditions. In the far west of the area there were remains of demolished buildings and taxiways associated with the airfield that was previously situated on this part of the site. The north and southeast areas of the mat were subject to more disturbance and damage from water and plant movement.

The formation level for stoning-up the mat was 8.60m AOD.

The thickness of topsoil in this area was 0.4m and the natural superficial geological deposits comprised orange-brown clay silts with frequent flint and occasional other stone.

Three flint scatters were observed (Figures 7 and 9, Drawing 4):

- I. One approximately 10m square beneath the Valve Hall (108)
- II. One approximately 3m x 2m in size in the 16m strip north of the Reactor Hall (109)
- III. One approximately 2m in diameter beneath the Control Building (140)

Several groups of archaeological features were also observed (Figures 6 and 7, Drawing 4):

- I. Two Pits below the Reactor Hall [103] and [107] (c. 40cm diameter and 10cm deep) and a gully [105] (c. 4m long, 60cm wide and 40cm deep)
- II. A single Posthole below the storage building in the northwest [110]



- III. A ditch and several pits northwest of the Reactor Hall [112]-[135]
- IV. A ditch [139] and a possible pond under the Control Building (141)

Figure 9

Google Earth imagery with locations of archaeological remains and survey points



## 4.3.2 Phase 2 East of the Drainage Ditch.

A Laydown Area for Piling Works which measured c.37.5m (east-west) by 27m (north-south) was located against the original mat, with its north-western corner at SO6 (Figures 6 and 7). The ground works for the Piling mat in the east were carried out between 1st February and 7th March. The ground reduction for the Welfare Units took place 1st-6th February, for the Car Park 8th-13th February and for the Laydown Area between 23rd February and 7th March (**Figure 10**). Two parallel ditches were found during these works, contexts [202] and [204], c.0.8m wide and 0.1m deep with a rounded base, filled with firm brown slightly silty clay.

The works on grubbing-out the ditch began on 7th March 2018. The ditch north of the Pedestrian Access Road was cleared of tree stumps and roots. The Ditch was then cleaned with a 2m strip either side stripped of topsoil.



#### 4.3.3 The Pedestrian Access Road.

The Ground works for the Pedestrian Access Road (East of the Drainage Ditch) were carried out on 23rd and 24th January 2018. To create this road the topsoil was stripped down to the natural deposits in a 5m wide easement. The depth of the topsoil was 0.35m. The natural deposits were dark orange brown clay silts.

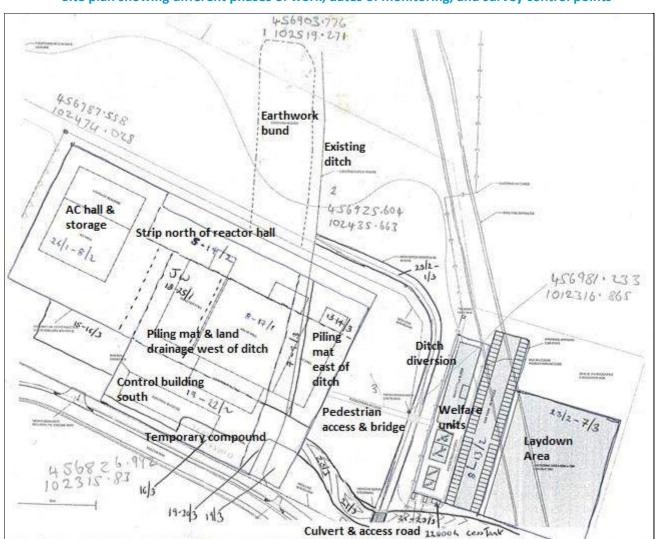


Figure 10
Site plan showing different phases of work, dates of monitoring, and survey control points

#### 4.3.4 The Ditch Diversion

The Ditch Diversion (north of the culvert) was excavated between 23rd February and 1st March 2018 (see location in **Figures 3 and 10**). The northern section was excavated, starting 3m north of the Pedestrian Access Road and continuing north then west to meet up with the present ditch. A 29m section was excavated between the Access Roads.

The Ditch was excavated by cutting a 1m wide trench along the centre line of the ditch. The depth of this trench was 0.6-0.7m. The sides of the ditch were shaped to give it a shallow flat-bottomed V-shaped profile. The final ditch was approximately 6m wide at the top 1m wide at its base and 0.65-0.85m deep.

#### 4.3.5 The Culvert

A trench was excavated for the culvert carrying the drainage ditch under the Access Road on 27th February and 6th-7th March (see **Figure 3** for location). This trench was 2m wide and 1.2m deep. After completion of the culvert, the ditch diversion was continued to connect with the present ditch along Vulcan Way.

#### 4.3.6 The Temporary Access Road

The route of the Temporary Access Road was stripped between 20<sup>th</sup> and 23rd March. The strip was approximately 5.8m wide and 0.25-0.45m deep. The depth of strip was deeper on the southern side of the road. Natural deposits were not reached between chain 180-200, nor on large parts of the northerly half of the strip. Where natural was encountered it was orange brown silty clay.

South of the Ditch Diversion natural deposits were sparse, with only a clear expanse east of the continuation of the easement over the service Drains (previously observed in the Laydown Area). The base of a field boundary was observed [211] as a continuation of Field Boundary [202/207]. A possible field boundary was observed further west [213] which could be a continuation of Field Boundary [204/209].

#### 4.3.7 The Land Drainage

Works on the Land Drain commenced on 12th March 2018. These works were required to ease drainage of the mat and involved the excavation of a 0.5m wide trench around the Piling Mat. The base of the trench was 0.2m below the base of the mat.

The trench rapidly filled with water, and due to this and the narrowness and shallowness of the trench, it was not deemed necessary to observe the whole length of the trench. The excavation of the trench along the north side of the Piling Mat was monitored as this was the area where archaeology was most likely to be encountered, but no archaeological features were observed.



Figure 11
South of haul road looking north east

#### 4.4 Haul Road at West of Site

The excavation works involved in the creation of a haul road excavated to 400mm in depth at the western perimeter of the site boundary, with a temporary stone road being put in place to allow National Grid's Open Space Contractor to move their equipment round the converter station to the northern perimeter of the site (**Figure 6**). These works were monitored during the last week of January 2018. The stratigraphy was the same as across the rest of the west of the site with up to 0.4m of mid grey brown clay silt topsoil covering yellow brown silt natural subsoil.

The only potential archaeological features observed during these works was an area or rubble (**Figure 11**) up to 0.3m thick which was covered by a thin layer of tarmac (0.04m). The bricks in the rubble appeared to be modern but no dating evidence was recovered. It appeared to represent an area of hardstanding. It ran for to 39m along the length of the haul road (**Figure 12**). Its shape in plan was not clear.

No other features were observed during these works.





# 4.5 IFA2 Cable installation 03/09/18 - 06/09/18

Approximately 150m of trenching was excavated to a depth of 950mm and 2.0m width, except where it had to go to a depth of 1750mm in order to run beneath an extant modern drainage ditch. Generally the deposits identified were 50mm of topsoil and 600mm of subsoil overlying clay and natural flints (**Figure 13**).

Figure 13 Plan and photographs of cable trench



# 4.6 Bronze Age Archaeology

The most significant archaeological remains comprised the evidence for Bronze Age activity. Pits and gully-ditches within the central part of the site produced Bronze Age pottery and a vessel associated with charcoal, interpreted as a potential cremation. This latter was lifted as a block sample of soil for excavation within laboratory conditions. The following specialist reports document the main evidence for settlement and related activities within the site during the Bronze Age.

#### 4.6.1 Significant archaeological results

On the west side of the piling mat two pits and a gully were identified towards the centre of the site (**Drawing 4** and **Figure 14**) when this area was excavated on  $21^{st} - 22^{nd}$  January 2018. The gully [105] measured 3.7m long and was orientated roughly north east – south west. It was 0.65m wide and 0.25m deep with steep sloping sides and a rounded base (**Figures 15 and 16**). It was filled by light grey clay silt (104). No dating evidence was recovered from its fill.

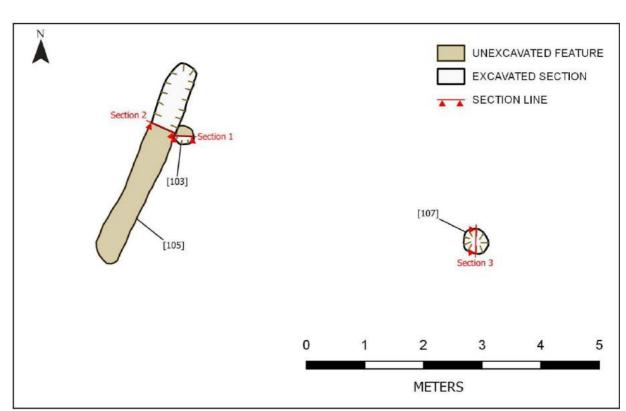


Figure 14
Plan of features at centre of site

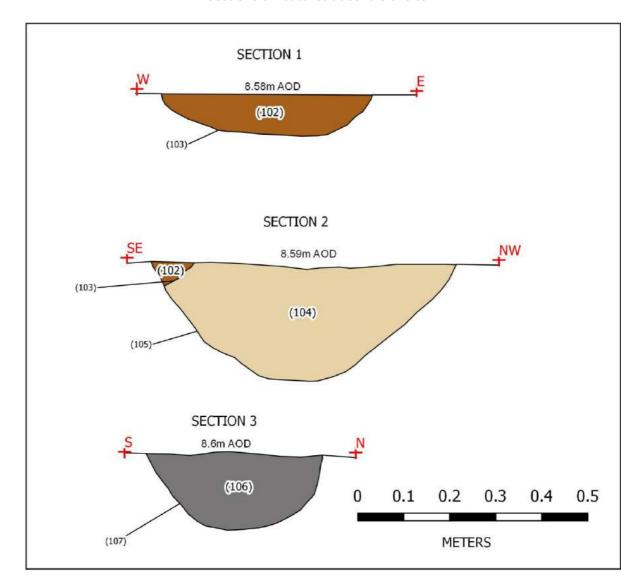


Figure 15
Sections of features at centre of site

The two pits were both sub-circular in plan and measured approximately 0.4m in diameter. Pit [103], the most westerly of the two, cut through fill (104). This pit was 0.1m deep with gradual sloping sides and a flat base and was filled by dark grey/black clay silt (102). Pit [107] was located approximately 5m to the east. It had steep sides and a rounded base, and was up to 0.15m deep (**Figure 17**). Its fill was a black mottled grey brown clay silt (106) which contained sherds of Bronze Age pot and worked flint.





Figure 17
Pit [107] or post-hole as excavated



Approximately 30m further north, a complex of other features were found at the end of January and early February 2018 (see **Drawing 4** and Appendices 1 and 4 for details). These consisted of a north-west – south-east aligned ditch [119/121/137/139] which was at least 12.5m length, 0.75m wide and up to 200mm in depth (**Figure 18**), nine pits/post-pits [112], [115], [123], [125], [127], [129], [131], [133], [135] and a tree bole (**Figure 19**). These were all circular or sub-circular features ranging in size from 0.3 – 1.34m diameter, 60mm - 250mm in depth, gently sloping sides and concave or flat bases (**Figure 20**). The fills of the ditch and pits were largely similar, with firm brown silty clays, or orange-brown clay, fire-cracked flint and charcoal inclusions. The fill (124) of pit [125], and (118) the fill of ditch [119], included fragments of fired-clay (daub) also, suggesting possible settlement-related structures.



Figure 18
Ditch 119/121 looking south-east



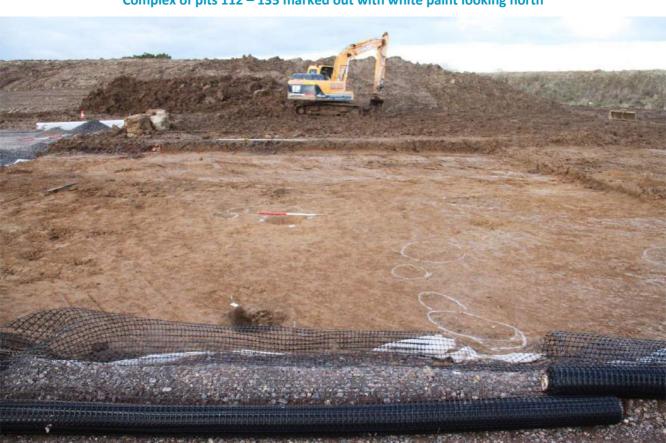


Figure 19
Complex of pits 112 – 135 marked out with white paint looking north

Figure 20
Pits 125 fully excavated and 129 southern-part excavated



Pit [115] contained two charcoal-rich fills (116) and (117) and parts of a ceramic vessel. Preliminary interpretation suggested that this feature might be a cremation burial, and so it was excavated as a soil monolith block for careful investigation under laboratory conditions (see 4.6.4 below) (**Figures 21 and 23**).

Figure 21
Pit 115 fully excavated (with 123 and 129 marked in white paint)

In addition to the complex of features described above, a single outlying but substantial post-hole was found in the north-western part of the site [110], 0.55m diameter and 240mm in depth. It was filled with a charcoal-rich firm clay (111), but no artefacts were found.

#### 4.6.2 The Prehistoric Pottery by Anna Doherty (pot from (106) added later)

A total of 113 sherds of Bronze Age pottery (plus c.30 very small fragments), weighing 782g, and originating from three or four different vessels, was recovered during the watching brief (Table 1). The majority of these came from a single, apparently placed vessel from the fill (117) of pit [115]. The remainder of the assemblage comprised rim fragments from a second vessel found unstratified and a single sherd from fill [126] of pit [127], and 10 sherds plus c.30 very small pieces from (106), the fill of Pit [107].

The prehistoric pottery assemblage is fragmentary and, with the exception of some unstratified rim sherds, lacking in any diagnostic features. Although the apparently deliberate deposition of the vessel in pit [115] is of interest from a wider archaeological point of view. The ceramics themselves have no significance or potential for further analysis. The following account is sufficient for an accurate descriptive record for this report.

Table 1
Pottery catalogue

Site Code	Context	Fabric	Form	Comments	Rim Dia	Weight (grams)
LOSBW18	Unstrat	FLIN2	Small urn/hook rim jar	30+ sherds down to crumb size; All appear to be from the rim of a DR/PDR small urn/hook-rim cup like form. Oxidised	120	106
LOSBW18	106 (Pit 107)			10 sherds (see example in <b>Figure 22</b> below) plus c.30 crumb size fragments		105
LOSBW18	117 (Pit 115)	FLIN1		52+ sherds (fragments of <5mm not counted in full)		507
LOSBW18	116 (Pit 115)	FLIN1		All sherds of main vessel recovered from sample <3>		41
LOSBW18	126 (Pit 127)	FLIN1		1 sherd		3

The pottery was examined with a x 20 binocular microscope. Two fabric types were defined, following guidelines of the Prehistoric Ceramics Research Group (2010, Table 2). The pottery was quantified by sherd count, weight and estimated vessel number on *pro forma* records and in a Microsoft Excel spreadsheet.

Table 2
Prehistoric pottery fabric definitions

Fabric	Description
FLIN1	Moderate to common, ill-sorted, calcined flint of 0.5-3mm, in a dense matrix which appears quartz-free at x 20 magnification
FLIN2	Common, ill-sorted, calcined flint, predominantly of 1-3mm with a few examples up to 5mm, in a dense matrix which appears quartz-free at x 20 magnification

The placed vessel in context (117), was block-lifted from pit [115] and micro-excavated to recover any potential human bone or pyre material; none was identified although a small amount of charcoal was recovered. The vessel, represented by 72 sherds, weighing 548g, appears to have been placed upright. Photographs of the micro-excavation process suggest that it had been severely truncated, with only around 30mm of the height surviving. The vessel was in an extremely friable condition and fragmented on excavation. Although the area where the base and wall join survives quite well, the central part of the base was degraded and difficult to differentiate from the surrounding soil matrix, probably due to the low fired-nature of the ceramic, combined with wet ground conditions.



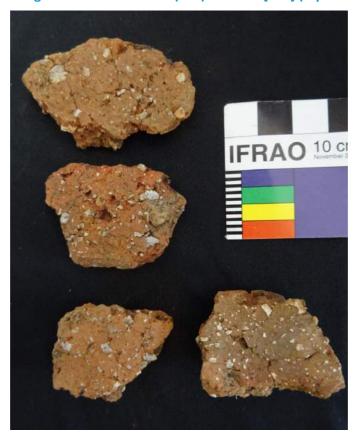


Figure 22
Example of Bronze Age ceramic fabric from (106) fill of Pit [107] (reproduced at 1:1 scale)

The vessel base is of around 170mm in diameter. It is difficult to determine whether it should be assigned to the Middle Bronze Age Deverel-Rimbury (DR) or the earlier part of the Late Bronze Age Post-Deverel-Rimbury (PDR) tradition. Although it is relatively thick-walled, a common trait in DR vessels, it is associated with fabric (FLIN1) which is only moderately coarse, most flint inclusions measuring below 3mm in size, a characteristic more typical of the PDR tradition.

A second unstratified vessel probably falls into a similar category. It is represented by 30 sherds, weighing 106g, and all appear to be from the rim and shoulder area of a moderately thick-walled small urn or jar of hook-rim profile, with a diameter of c. 120mm. Its fabric, FLIN2, is a little coarser than that from pit [115]. It may represent a relatively fine fabric for the DR tradition or a relatively coarse PDR one. Similarly, the rim profile is of a type that could occur in either tradition.

Another single bodysherd, weighing 3g, was recovered from fill (126) of pit [127]. Like other vessels from the site, it is moderately thick-walled and associated with a moderately coarse, flint-tempered fabric (FLIN1).

Assemblages of this type which combine elements of the DR and PDR traditions, such as moderately thick-walled vessel profiles and moderately coarse flint-tempered fabrics, often belong to the transitional Middle/Late Bronze Age period around the 13th-11th centuries BC. This is probably the case with the current assemblage although, given its small size and fairly undiagnostic nature, a slightly earlier or later date cannot be entirely ruled out.

The occurrence of an apparently placed vessel, which lacks any clear evidence for cremated bone or pyre material is of some interest. It has been noted that there is a localised tradition in Hampshire and West Sussex for the deposition of whole vessels containing burnt flint and other burnt material but lacking cremated



remains. Vessels of this type may have funerary associations or represent some other type of ritual practice (Seager Thomas 2010). Elsewhere, it has been suggested that the deposition of whole vessels may have been related to the mortuary rite or have served as cenotaphs in instances where the body was not or could not be buried (e.g. McKinley 2006, 32-35; Egging Dinwiddy & McKinley 2009).

#### 4.6.3 The Fired Clay by Anna Doherty

A small assemblage of fired clay was recovered from the watching brief, totalling 17 fragments, weighing 63g. The charcoal-rich fill of (124) from pit [125] contained 46g of abraded pieces which appear to have fragmented from the same piece of fired clay. The fabric is low-fired with a fine silty matrix, which is vesicular with common rounded voids of c. 1-2mm and rare examples of iron-rich and calcareous inclusions in a similar size range. Fill (118) of ditch [119] produced two conjoining pieces, weighing 17g. They have a fabric with a similar silty matrix with rare calcareous/iron-rich inclusions but which is noticeably less vesicular and more highly fired. This piece retains two flat surfaces at right angles but is otherwise undiagnostic. Fill (118) also contained fire-cracked flint.

#### 4.6.4 The "cremation" block sample excavation and flotation by Lucy Allott

During excavation work at the site a suspected urned cremation vessel [117] was block lifted as sample <3> [116] from pit [115] for subsequent excavation, sampling and assessment by Archaeology South-East. This work aimed to allow for detailed recording of the vessel and its contents and to maximise recovery of remains such as bone, charcoal, charred plant macrofossils and the fragile vessel. The following section assesses the contents from spit samples arising from the vessel and considers the potential of the environmental remains to provide information regarding the local vegetation environment, fuel use and selection.

#### Methodology

A string line was set up across the vessel to allow for half sectioning and planning (**Figure 23**). The excavation was undertaken in spits initially of 20mm, then 50mm once the vessel had been removed. The excavation provided four samples for processing (see Table 3) deriving from 2 spits and the surrounding sediment.

Samples were processed by flotation in their entirety; the flots and residues were captured on 250µm and 500µm meshes respectively and were air-dried. The dried residues were passed through graded sieves of 8, 4 and 2mm and each fraction sorted for environmental remains and artefacts (Table 3). The flots were scanned under a stereozoom microscope at 7-45x magnifications and their contents recorded (Table 3). Charcoal fragments were fractured by hand along three planes (transverse, radial longitudinal and tangential longitudinal) according to standardised procedures (Gale & Cutler 2000, Hather 2000). Specimens were viewed under a stereozoom microscope for initial grouping, and an incident light microscope at magnifications up to 400x to facilitate identification of the woody taxa present. Taxonomic identifications were assigned by comparing suites of anatomical characteristics visible with those documented in reference atlases (Hather 2000, Schoch *et al.* 2004, Schweingruber 1990). Identifications have been given to species where possible, however genera, family or group names are given where anatomical differences between taxa are not significant enough to permit satisfactory identification. Table 3 has Taxonomic identifications of charcoal.

#### Results

Spit 1 comprised an initial cleaning of the block to define the pot location, then subsequent excavation of sediment from within the vessel itself. The two components of spit 1 were retained and processed separately as samples <3.1> and <3.2> (see Table 3). The vessel was located off-centre within the excavated block and a small portion of the vessel was missing, presumably trimmed accidentally during block lifting. The ring of pot was severely truncated with approximately 30mm depth remaining and rootlets were very common throughout the spit and in the surrounding sediment. The main vessel was very soft and sometimes difficult to



distinguish and separate from the internal and surrounding sediment. A piece of pot, more orange in colour than the rest of the vessel, was recorded in the centre at the base of spit 1. It is consistent in fabric with the rest of the vessel and presumably represents a better preserved, more highly fired part of the pot base which is otherwise poorly preserved (Doherty 4.6.2 above). Both samples <3.1> and <3.2> from spit 1 produced very few environmental remains with only a few small flecks of charcoal, measuring <2mm in size, recovered in the flot from sample <3.2>. Uncharred, invasive rootlets were very common in the flots. No bone was present within the vessel and fragments of pot recovered from the sample residue are consistent with the main vessel.

LID Examination Gloves

LID Ex

Figure 23
Soil monolith excavation with pottery vessel 117 half sectioned

Spit 2 (assigned sample number <3.3>) was located immediately beneath the vessel and taken to a depth of 50mm to ensure all possible pot and charcoal fragments associated with the vessel were recovered. During excavation a patch of possible charcoal/darker sediment was noted in the central area beneath the vessel. Charcoal fragments, including a fragment identified as oak (*Quercus* sp.), were recovered from the sample, however, these were not abundant and much of the charcoal, visible during excavation, may have amounted to tiny flecks and staining of the sediment. The flot was dominated by uncharred rootlets with no seeds, bone or other environmental remains evident.

Soil surrounding the vessel was also retained and floated (sample <3.4>). This sample produced the largest quantity of wood charcoal including some fragments >4mm in size. Taxa identified include oak, ash (*Fraxinus excelsior*) and hazel/alder (*Corylus/Alnus* sp.). The flot was again dominated by uncharred invasive rootlets. No seeds, bone or other environmental remains were recorded and only a small quantity of pot fragments, consistent in fabric with the main vessel, were recovered from the residue.



#### Significance and potential

The predominance of fine rootlets suggests potential for low level of disturbance within the deposit through root action. No charred plant macrofossils were present in any of the samples and there was no evidence for cremated bone. Wood charcoal fragments were the only environmental remains recovered, the majority of which derive from deposits beneath and around, rather than within the vessel. As such, they may not be associated with the placement of the vessel or its contents directly but occur, perhaps incidentally, within the backfill of the feature. Oak, ash and hazel/alder are commonly found in funerary contexts at sites in the region (for example Gale 2006, Demicoli and Allott in prep.) although they are also frequently selected as fuel for other purposes or could equally derive from timber structures. No obvious twigs or roundwood fragments were noted and charcoal fragments were typically too small to assess with any certainty the original size of the wood from which they derive. This limited assemblage is of low significance, providing no potential to examine the range of woody taxa used (perhaps selected for fuel) or the association of charcoal with the vessel.

Table 3
Sample quantification (\* = 1-10, \*\* = 11-50, \*\*\* = 51-250, \*\*\*\* = >250) and weights in grams

Sample Number	Context	Spit	Context type	Sample Volume (Litres)	Flot Weight (grams)	Uncharred (%)	Sediment (%)	Charcoal >4mm (Residue and Flot)	Charcoal 2-4mm (Residue and Flot)	Charcoal <2mm (Flot)	Charcoal Identifications	Pot 2-4mm (from residue)	Weight (g)	Pot >4mm (from residue)	Weight (g)
3.1	116	1 initial cleaning of the block, defining the pot location	pot 117 in pit 115	0.5	0.1	98	<2					**	2	**	15.3
3.2	116	1 inner	pot 117 in pit 115	0.5	0.2	98	<2			**		**	1.2	**	20.8
3.3	116	2 beneath	pot 117 in pit 115	1	0.5	95	<5		*	**	Quercus sp. (1), Indeterminate vitrified fragments in flot	*	0.7		
3.4	116	soil around pot	pot 117 in pit 115	2	1.5	95	<5	*	**	**	Quercus sp. (2), Fraxinus excelsior (1), Corylus/Alnus sp. (3), Indeterminate - poor preservation of anatomical structures (2)			*	0.9

#### 4.6.5 The Worked and Fire-Cracked Flints by George Nash

An archaeological watching brief was undertaken during the ground works for the construction of the IFA2 Converter Station at Land off Vulcan Way, Lee-on-the-Solent, Hampshire (located at NGR SU 56836 02380). The watching brief took place between December 2017 and March 2018. From this programme of work, worked and burnt flint was recovered from three distinct areas of the site.

- One approximately 10m square beneath the Valve Hall (108)
- One approximately 3m x 2m in size in the 16m strip north of the Reactor Hall (109)
- One approximately 2m in diameter beneath the southern Control Building (140)

The site, located close to the northern shore line of the Solent has an area of approximately 3.5 Hectares (ha) in area and is at the northern end of Daedalus Airfield approximately 8km west of the city of Portsmouth. In terms of topography and geology, superficial Quaternary deposits comprise river terracing, made up of sand, silt and clay which overlie Earnley and Marsh Farm Sand Formations that extend across the whole of the site. The topography of the site and the surrounding landscape is relatively flat at around 8-9m AOD and c. 1800m north of the nearest present-day shoreline.

The three distinct lithic areas are found within the northern and western areas of the site, with the largest lithic scatter discovered beneath Valve Hall. In addition to the retrieval of flint, later prehistoric pottery was also found, along with archaeological features that included two linear ditches and a series of pits and post-holes, a selection of these may be contemporary with the recovered lithics (see Doherty 4.6.2 above).

Of the 20 archaeological contexts, ten contained worked flint and seven had burnt flint. A large part of the lithic assemblage was found to be burnt, represented mainly by cracked conchoidal-fractured opaque lustred grey surfaces – found in Contexts (108), (114), (126), (128), (130), (132) and (138). Within this small assemblage there were no diagnostics tools present, although there was a probable scraper and primary flaking and debitage found. It is probable that this material formed part of a hearth debris.

The majority of the lithic assemblage recovered derive from Contexts (108), (109) and (118) and date mainly to the Late Neolithic or Middle to Early Bronze Age periods (See **Figure 24** and **Plates 3 to 5**). The date-range is based on the retrieval of diagnostic tools such as blades and scrapers (**Table 4**). Absent from the assemblage was debitage (waste) material which suggests that the site was not utilised for tool production. The presence of blades, retouched blades, points and scrapers and a single microlith (microburin) plus the presence of hearth material implies a possible camp site. The presence of several diagnostic tools such as the microlith in Context (108) and macro blades from Context (109) suggests that the site (and the surrounding area) may have been in use for a considerable amount of time, probably originally in use during the Late Mesolithic/Early Neolithic periods (c. 4500 – 3500 BCE). Retrieved from the same site was a small assemblage of pottery which, according to the specialist report is Middle Bronze Age in date (Doherty [this report]). Much of the worked flint is more than likely contemporary with the pottery assemblage.

#### **Summary**

This assemblage probably represents the debris from an open-air encampment that more than likely has its origins in the Late Mesolithic, although much of the flint is Bronze Age in date, probably associated with hearth activity. This ascribed Bronze Age date is in association with the Middle Bronze Age pottery that was also recovered from the same site.

Multi-phased encampments utilising a foreshore environment such as Lee-on-the-Solent during this period of prehistory is not uncommon. I would expect to see a broad spread of diagnostic flint from the Mesolithic to the Bronze Age which indicates the abundant resources that would have drawn hunter/fisher/gatherers and mixed economy farming groups to use this site.



Figure 24
Assortment of lithic types (blades and scrapers) from Context 109 at 1:2 scale (drawings by Caroline Malim)

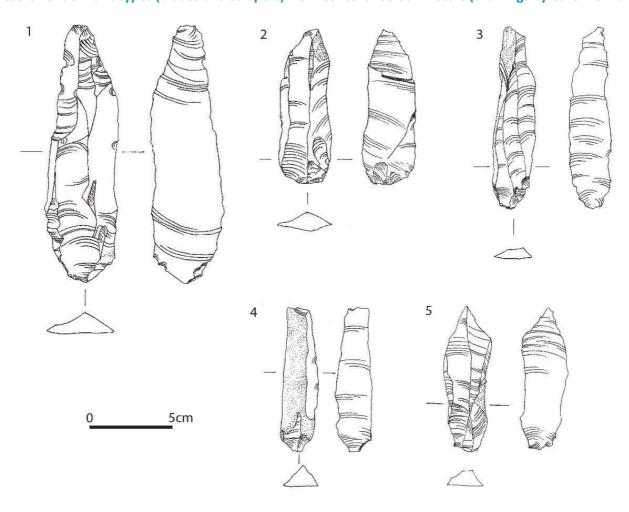
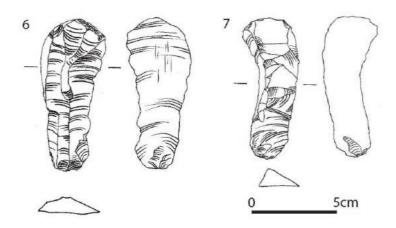


Figure 25
Scrapers from Context 140 at 1:2 scale (drawings by Caroline Malim)



**Table 4**Description of the flint assemblage

Find	Context	Weight	Lithic type	Discussion		
No.	No.	(g)				
2	108	622	Worked	One large mega-core made from a light grey to dark grey-blue cherty flint. At the distal-end is a platform, whilst at the proximal-end the core finishes at a pyramidal point. From the platform are a series of flaking scars which expose dense conchoidal-fractured chert veins.		
3	108	13	Worked	Two worked olive green to brown semi-translucent blades. One piece, measuring 46mm is missing its point; flake scars and small cortex on upper face; smooth underside.		
4	106	195	Worked	Three large worked flakes made from cherty-flint; one piece is a proximal end of a large blade with clear longitudinal flake scars and bulb. The othe two pieces are primary Stage 1 flakes, each with a bulb of percussion and one with cortex.		
5	108	31	Worked/ debitage	Six pieces of dark orange to brown translucent flint, five pieces being debitage (waste material), the other a primary [Stage 1] flake; all containing cortex.		
6	108	185	Worked	Seven pieces of worked flint, five of which is debitage; all pieces contain cortex. Two pieces show evidence flake scaring, one being the distal-end of a probable long blade. This piece is of semi-translucent brown flint with thick cortex on upper-face. Second worked piece may be the remains of a core; a clear platform and flake scaring are visible.		
7	108	173	Natural	Nine pieces of natural flint of varying colour and lustre; the majority shows evidence of natural rolling and haphazard fracturing.		
8	108	32	Worked	Four worked pieces, one of a semi-translucent brown and grey debitage piece. Two long blades, one of these is broken, both made from cherty-flint, light grey-blue to creamy-brown in colour and matt in lustre. The fourth piece is a microlith, measuring 23mm in length, forming part of a possible awl.		
9	108	145	Burnt	Five pieces of burnt natural flint and one possible scraper. All five pieces show varying degrees of burning (as reflected in the fragmentation surfaces of each). A scraper shows little evidence of burning but has cortex on upper and lower faces. At its proximal-end are several downward short flake scars that are indicative with scraper manufacturing.		
10	109	197	Worked	Nine diagnostic tools, seven of which are macro-blades; one bi-facial patinated piece measuring 155mm in length and showing evidence of clear retouch. At the distal-end the actual colour of the blade is exposed — dark grey. Overall, the nine pieces are of creamy white to light grey (varying shades of) cherty-flint and all blades with exception on one are bi-facial. One piece, a grey to blue mottled chert shows evidence of retouch with cortex on the upper face (Plate 4). All blades have points at their proximal ends. Three other pieces include three broken [proximal] blades using cream to white cherty-flint. Blade size and shape are consistent throughout this context. See Plate 5 and Figure 24.		
11	109	473	Worked	Three large cherty flint pieces, grey to white in colour; two pieces are worked — one mega-core and one flake. Primary flake, measuring 95mm has cortex and a bulb of percussion on its upper face, with smooth underside. The mega-core measuring 106mm in length has platform at its distal-end and a series of flake scars running towards its proximal—end. Probable fossil imperfection on its upper face, restricting continuous flaking.		
12	109	20	Worked	One semi-translucent creamy grey to brown flint blade with point, measuring 88mm in length. Smooth underside with bulb. Upper side with flake scars		

				and cortex.
13	114	4866	Burnt	Nine pieces of burnt chert, cherty-flint and flint; represented as part of complete natural stone nodules. Assemblage reveals varying intensity of heat (based on colour/ lustre/fragmentation of each piece).
16	118	4	Worked	One piece of worked translucent grey to brown flint with clear flake scars and bulb.
17	118	206	Burnt	Ten pieces of burnt flint/chert of varying size; probably all natural (no evidence of working).
25	126	151	Burnt	Four pieces of natural burnt flint, all with cortex. Several pieces may be and are therefore classified as debitage.
26	128	156	Burnt	Seven pieces of bunt natural flint, the majority possessing cortex. There is possible evidence of two pieces with worked faces (representing either debitage or primary flaking). Assemblage reveals varying intensity of heat (based on colour/lustre/fragmentation of each piece).
27	130	128	Burnt	Three pieces of bunt natural flint, all with cortex and no evidence of working.
28	132	20	Burnt	Three pieces of bunt natural flint, all with cortex and no evidence of working.
29	138	17	Burnt	One piece of burnt flint that shows evidence of being worked grey opaque in colour with matt lustre ( <b>Plate 2</b> ). Several faces has cortex present.
30	140	72	Worked	Four creamy-white to light grey diagnostic cherty-flint pieces, two of which are broken/incomplete. Two large long scraper, one measuring 88mm, blade on one edge; smooth underside with bulb. Scraper at distal-end creating half-moon ridged shape. Broken point at proximal-end. Other scraper made from large flake, no blade. Two broken/incomplete pieces made of creamy-white slightly grey mottled chert are bifacial long blades (similar to assemblage in Context (109). See <b>Figure 25</b> ).



 $<sup>^{\</sup>rm 6}$  Sample taken from the corresponding deposit

## Plates<sup>7</sup>



Plate 1. Scraper from Context 108 (Find bag No. 8)

Plate 2. Creamy chert debitage piece from Context 138 (Finds bag No. 29)



Plate 3. blade from Context 109 (Finds bag No. 10 - see drawing 2)



<sup>&</sup>lt;sup>7</sup> Scale in millimetres



Plate 4. long blade with cortex at proximal-end from Context 109 (Finds bag No. 10 - see drawing 3)



Plate 5. A selection of worked lithics from Context 109 (Finds bag No. 10)

### 5.0 Discussion and Conclusion

#### 5.1 Discussion

The archaeological monitoring of the groundworks at the IFA2 Convertor Station has recorded evidence for later prehistoric settlement. The survival and identification of buried archaeological remains was dispersed and incomplete, partially due to the nature of earth-moving operations during winter with very inclement weather conditions, and partially due to historic erosion of the remains including previous episodes of ground reduction when construction of the airfield occurred.

Towards the north-western end of the site a zone of activity was found consisting of a ditch just north of a group of pits, and these can be sub-divided into two parts, an eastern and a western group. The eastern group (comprising [123], [127], [135], [131], and [133] from north - south) could be post-pits representative of a curving structure, perhaps a roundhouse c.6.5m in diameter. The association of daub within the fills of some of the pits and ditch would be consistent with a Bronze Age building. The western group has a single pit [112] to the south and a cluster to the north which included a potential cremation (although no cremated bone was found) [115] and buried pot (117), as well as pits [125] and [129]. Although there are too few to form any coherent pattern, there is a possibility they could be part of an outer ring to the potential roundhouse, which would give an external diameter of c.8.5m. Fire-cracked flints were found in the fills of at least four of the pits and in the ditch to the north, which was a shallow feature but could be interpreted as the base of a possible trench for a fence line.

The two pits ([103], [107]) and gully [105] further south are too isolated to provide much scope for interpretation. Pit [107] provided direct dating evidence in the form of Bronze Age pottery and worked flint in its fill (106), which, together with ceramic remains from the northern pit complex, suggests that the settlement activity dates to the late 2<sup>nd</sup> millennium BC. The gully is aligned perpendicular to the ditch [119/121/137/139] further north, and it possible that these two features reflect the remnant of a co-axial field system.

Three concentrations of worked flints show that there were discrete activity areas and that these were not immediately adjacent to the structural features revealed by the pits and ditch/gullies. The absence of debitage could be attributed to difficulties in identification and collection during the topsoil strip, or might be due to the results of a functional application of the flint tools. If the former the flint scatters could be assumed to have been knapping floors, but the preponderance of blade tools and scrapers might indicate instead the preparation of hides, wood working, or food processing. In contrast fire-cracked flints were found in some of the structural features, pits and ditches, which suggests cooking hearth activity.

Charcoal from pit [115] included oak, ash and hazel/alder. This was found in the soil surrounding the buried vessel (117) rather than as part of the contents of the vessel. As no bone or seeds were found within the fill of the vessel, or the surrounding soil, the possibility of this deposit representing a cremation burial has been discounted. A tradition of such Middle Bronze Age vessel deposits without human remains is known from Hampshire (see Doherty 4.6.2 above), and this find would seem to fit the pattern, perhaps buried with ash and charcoal collected up from a hearth.

Other features included a pair of undated shallow parallel ditches towards the south-eastern end of the site ([202/211], [204/213]) set c.1m apart (see 4.3.2 and 4.3.6 above). This would have been too narrow for ditches either side of a trackway. A pond [141] further west was probably of relatively modern date.

#### 5.2 Conclusion

The long period of monitoring at the Convertor Station has successfully recorded a relatively dispersed collection of archaeological remains. The most significant of these remains were pits, ditches, and associated artefactual evidence, indicating settlement which dates to the Middle Bronze Age.



## 6.0 Bibliography and Acknowledgements

British Museum, 1975. Flint Implements: An account of stone age techniques & cultures. British Museum Press.

Demicoli, M. & Allott, L. Charcoal Analysis, in, A Margetts, On the verge of Wessex? A prehistoric landscape at Oldlands Farm, Bognor Regis, West Sussex. *Sussex Archaeological Collections*. ADS Supplementary Information

Egging Dinwiddy, K, and Mckinley, J, 2009, A potentially mortuary-related deposit at Star Lane. Manston, in Andrews, P, Egging Dinwiddy, K, Ellis, C, Hutcheson, A, Phillpotts, C, Powell, A, and Schuster, J, 2009 *Kentish Sites and Sites of Kent: a Miscellany of four archaeological excavations*, Wessex Archaeology Report 24, 81-82

Gale, R. & Cutler, D. 2000. Plants in Archaeology. Otley/London: Westbury/Royal Botanic Gardens, Kew.

Gale, R. 2006. Charcoal, in A. M. Chadwick, Bronze Age burials and settlement and an Anglo-Saxon settlement at Claypit Lane, Westhampnett, West Sussex. *Sussex Archaeological Collections*, 144 pp 39-41

Hather, J. G. 2000. The Identification of the Northern European Woods: A Guide for archaeologists and conservators. London: Archetype Publications Ltd.

Mckinley J, 2006, Human remains from Section 1 of the Channel Tunnel Rail Link, Kent, CTRL Schemewide Specialist Report Series. York: Archaeology Data Service [distributor] <a href="https://doi.org/10.5284/1000230">https://doi.org/10.5284/1000230</a>

PCRG, 2010 *The study of later prehistoric pottery: general policies and guidelines for analysis and publication.*Prehistoric Ceramic Research Group Occasional Papers 1&2, 3<sup>rd</sup> edition,
http://www.pcrg.org.uk/News\_pages/PCRG%20Gudielines%203rd%20Edition%20%282010%29.pdf

Schoch, W., Heller, I., Schweingruber, F. H., &Kienast, F. 2004. *Wood anatomy of central European Species*. Online version: <a href="https://www.woodanatomy.ch">www.woodanatomy.ch</a>

Schweingruber, F.H. 1990. *Microscopic Wood Anatomy*. 3<sup>rd</sup> edition Birmensdorf: Swiss Federal Institute for Forest, Snow and Landscape Research

Seager Thomas, M, 2010, Potboilers reheated, *Proceedings of the prehistoric society, 76,* 357-366. doi: 10.1017/S0079497X00000566

Stace, C. 1997. New Flora of the British Isles. Cambridge: University Press.

Wymer, J.J. and Bonsall, C.J., 1977. Gazetteer of Mesolithic sites in England and Wales with a gazetteer of Upper Palaeolithic sites in England and Wales CBA Research Report No 20: London.

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# **APPENDIX 01 Context Register**

Context Number	Туре	Fill of	Length (m)	Width (m)	Depth (m)	Description	Interpretation  Topsoil	
100	Deposit				0.4m	Brown grey clay silt		
101	Deposit					Orange brown silty clay.	Natural Clays	
102	Fill	103			0.11m	Soft, dark grey black clay silt. No inclusions.	Pit Fill	
103	Cut				0.11m	Circular cut, with gradual sloping sides & a rounded base.	Pit	
104	Fill	105			0.24m	Light grey clay silt	Fill of 105	
105	Cut		3.7m	0.65m	0.24m	Linear cut, with steep sloping sides & a rounded base	Gully	
106	Fill	107			0.18m	Black, mottled grey brown clay silt.	Pit Fill	
107	Cut				0.18m	Sub-circular cut, with steep sloping sides and a rounded base.	Pit	
108	Deposit			10m diam.		Scatter of worked flint. Centred at 0456873E,0102365N 8.658m.o.d.	Flint Scatter	
109	Deposit			2 x 3m area		Scatter of worked flint. Centred at 456861.746E 102410.420N. 8.658m.o.d.	Flint Scatter	
110	Cut				0.24m	Circular cut with steep, stepped sides and a concave base.	Posthole	
111	Fill	110			0.24m	Stiff black clay with frequent charcoal.	Posthole Fill	
112	Cut				0.23m	Oval, NE-SW orientated cut, with very steep sloping (60º) sides and a concave base.	Pit	
113	Fill	112			0.18m	Firm brown silty clay with 50% fire-cracked flint, frequent charcoal flecks and fragments (up to 10mm).	Pit Fill	
114	Fill	112			50mm	Firm dark yellow brown silty clay with occasional fragments of fire-cracked flint	Pit Fill	
115	Cut				0.15m	Circular cut with steep sloping (40º-50º) sides and a concave base.	Pit	
116	Fill	115			0.15m	Firm brown silty clay with occasional small fragments of stone (occasionally fire-cracked) up to 25mm, occasional flecks and fragments of charcoal (up to 5mm).	Backfill	
117	Deposit	115			18mm thick	Ceramic pot base- black in colour, 0.22m diameter, sides 18mm thick.	Pot	
118	Fill	119			<0.2m	Firm brown silty clay, with occasional fragments of fire-cracked flint, very occasional fragments of flint and other stone, very occasional charcoal flecks.	Single Ditch Fill	



Context Number	Туре	Fill of	Length (m)	Width (m)	Depth (m)	Description	Interpretation
119	Cut			0.75m	<0.2m	Linear E-W orientated cut with gently sloping (30º-40º) sides and a slightly concave base.	Ditch
120	Fill	121			0.11m	Same as (118)	Single Ditch Fill
121	Cut			0.65m	0.11m	Linear E-W orientated cut with gently sloping (30º-40º) sides and a slightly concave base.	Ditch
122	Fill	123			0.42m	Firm grey-orange brown clay.	Dump/Backfill
123	Cut				0.42m	Circular cut with very steep (60º-85º) sides, stepped (water-worn in places) and a flat base.	Pit
124	Fill	125			0.21m	firm dark brown silty clay with occ burnt clay fragments (POT?), occasional gravel (up to 5mm) and frequent charcoal flecks. 100% EXCAVATED.	Dump/Backfill
125	Cut				0.21m	Circular cut with very steep (70º) sides, and a flattish base.	Pit
126	Fill	127			0.18m	Medium orange brown clay with fire-cracked flint, occasional charcoal flecks.	Dump/Backfill
127	Cut				0.18m	Circular cut with very steep (60º) sides, and a flattish base. Bioturbation in South.	Pit
128	Fill	129			0.25m	Firm, grey-brown, orange clay with frequent fire- cracked flint and charcoal.	Dump/Backfill
129	Cut				0.25m	Oval, NE-SW orientated cut with steep sides and a flat base.	Pit
130	Fill	131			0.10m	Medium brown-orange clay with fire-cracked flint.	Dump/Backfill
131	Cut				0.10m	Oval NW-SE orientated cut with steep sloping sides and a flat base. Truncates [133]	Pit
132	Fill	133			60mm	Medium grey-orange clay with fire-cracked flint.	Dump/Backfill
133	Cut				60mm	Circular cut with gently sloping sides and a flat base. Truncated by [131].	Pit
134	Fill	135			0.13m	Medium grey-orange clay with fire-cracked flint.	Dump/Backfill
135	Cut				0.13m	Circular cut with gently sloping (40º) sides and a concave base.	Pit
136	Fill	137			70mm	Same as (118).	Single Ditch Fill
137	Cut			0.4m	70mm	East terminus of a linear E-W orientated cut with very gently sloping (10º-30º) sides and a slightly concave base.	Ditch Terminus
138	Fill	139			70- 100mm	Same as (118).	Single Ditch Fill
139	Cut			0.55- 0.6m	70- 100mm	Linear E-W orientated cut with gently sloping (30º-40º) sides and a slightly concave base.	Ditch



Context Number	Туре	Fill of	Length (m)	Width (m)	Depth (m)	Description	Interpretation
140	Deposit					Scatter of worked flint in an area approximately 2m in diameter	Flint Scatter
141	Deposit				up to 0.4m +	Waterlogged, grey, organic silty clay with occasional rounded flint. Smells anaerobic. Very disturbed by Plant movement. Brick, glass and metal in top of deposit.	Pond Sediment
142	Fill	143		2m		Very dark brown silty clay with occasional stone, CBM, Tarmac, Glass and other Debris.	Ditch Fill
143	Cut			2m	0.10m	Linear E-W orientated cut. NOT EXCAVATED.	Field Boundary Ditch
200	Deposit					Firm, dark brown silty clay, with occasional rounded and sub-rounded flint (up to 60mm)	Topsoil
201	Fill	202			0.13m	Firm, brown, slightly silty clay.	Ditch Fill
202	Cut			0.8- 0.85m	0.13m	Linear NW-SE orientated cut with gently sloping (30º) sides and a flattish/slightly concave base.	Field Boundary Ditch
203	Fill	204			0.1m	Firm, brown, slightly silty clay.	Ditch Fill
204	Cut			0.8- 0.85m	0.1m	Linear NW-SE orientated cut with gently sloping (30º) sides and a flattish/slightly concave base.	Field Boundary Ditch
205	Deposit					Firm, dark yellow brown, silty clay.	Natural Clays
206	Fill	207			80mm	Firm, brown, slightly silty clay, with occasional flint and small stones (up to 30mm).	Ditch Fill
207	Cut			0.6- 0.8m	80mm	Linear NW-SE orientated cut with gently sloping (20º-30º) sides and an uneven base.	Field Boundary Ditch
208	Fill	209			Not Excavated	Firm, brown, slightly silty clay. NOT EXCAVATED.	Ditch Fill
209	Cut			0.6- 0.8m	Not Excavated	Linear NW-SE orientated cut. NOT EXCAVATED.	Field Boundary Ditch
210	Fill	211			Not Excavated	Firm dark brown silty clay. NOT EXCAVATED.	Ditch Fill
211	Cut			0.6- 0.8m	Not Excavated	Linear NW-SE orientated cut. NOT EXCAVATED.	Field Boundary Ditch
212	Fill	213			Not Excavated	Firm dark brown silty clay. NOT EXCAVATED.	Ditch Fill
213	Cut	211		up to 0.8m	Not Excavated	Linear NW-SE orientated cut. NOT EXCAVATED.	Field Boundary Ditch



## **APPENDIX 02**

# **Artefacts Register**

Small find no.	Context number	Context type	Finds type	Number	Spot Date	Notes
1	100	Topsoil	Pot	1	Med	
2			Claypipe	1	Post-Med	
3	108	Scatter	Flint			
4	109	Scatter	Flint			
5			Flint			
6	114	Pit Fill	Burnt Flint			
7	117	Pot	Pot	1	BA?	Pot Deposited in Pit [115]
8	118	Ditch Fill	Pot		BA?	
9			Burnt Flint			
10	122	Pit Fill	Fe Horseshoe	1	Post-Med	
11			Pot		Post-Med	
12			Glass	1	Post-Med	
13	124	Pit Fill	Burnt Clay		Prehistoric	Pot/CBM?
14	126	Pit Fill	Burnt Flint			
15	128	Pit Fill	Burnt Flint			
16	130	Pit Fill	Burnt Flint			
17	132	Pit Fill	Burnt Flint			
18	138	Ditch Fill	Burnt Flint			
19	140	Scatter	Flint			
20	201	Ditch Fill	Pot/CBM		Post-Med	
21	206	Ditch Fill	Pot/CBM		Post-Med	





## **APPENDIX 03**

# **Sample Register**

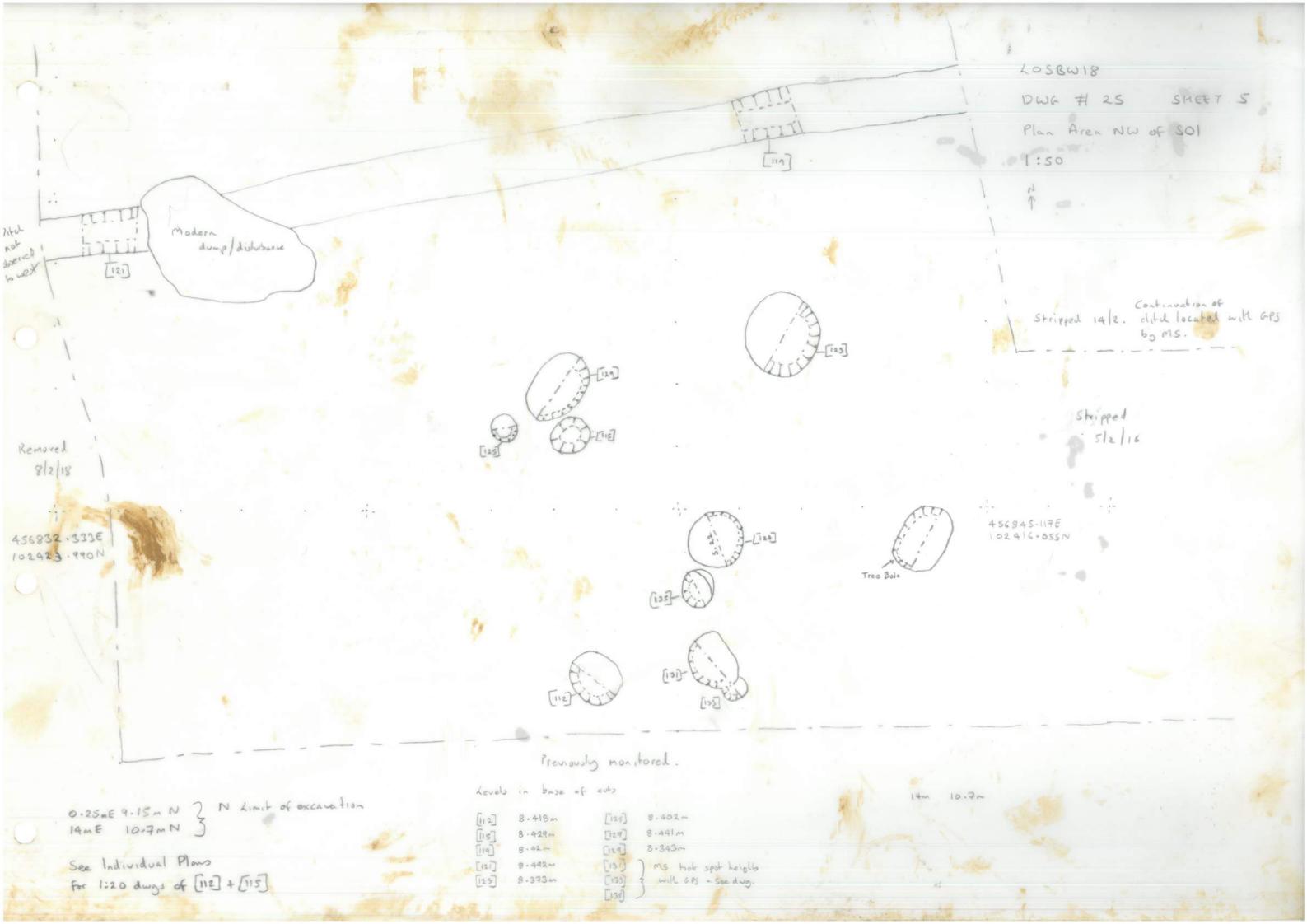
Sample No.	Context No.	Volume	Description	Initials Date	Spot Date	Notes
1				JW	ВА	
2	111	2 bags-30L	Fill of Posthole [110]. Black charcoal rich clay	MG 7/2/18		
3	116	2 bags-40L	100% sample: Backfill to Pot (117) in Pit [115].	RW 9/2/18	ВА	
4	114	1 bag-20L	Fill of Pit [112]. Brown charcoal rich clay, frequent burnt flint fragments.	RW 9/2/18	Prehistoric	
5	122	2 bags-40L	Fill of Pit [123]. Grey light brown- orange clay.	MG 12/2/18	POST-MED	Pot, Glass & Horseshoe
6	124	2 bags-40L	Fill of Pit [125]. Brown charcoal rich clay, frequent burnt clay/Pot.	RW 12/2/18	Prehistoric	Charcoal rich & Possible Pot
7	126	1 bag-20L	Fill of Pit [127]. Brown-orange charcoal rich clay, frequent burnt flint fragments.	MG 12/2/18		
8	128	1 bag-20L	Fill of Pit [129]. Grey-orange clay, frequent burnt flint fragments.	MG 12/2/18		
9	130	1 bag-20L	Fill of Pit [131]. Mid orange-brown clay, frequent burnt flint fragments.	MG 13/2/18		
10	132	1 bag-10L	Fill of Pit [133]. Mid orange-brown clay, frequent burnt flint fragments.	MG 13/2/18		
11	134	1 bag-20L	Fill of Pit [135]. Mid orange-brown clay, frequent burnt flint fragments.	MG 13/2/18		
12	138	2 bags-40L	Fill of Ditch [139]. Brown silty clay, occasional charcoal.	RW 14/2/18	ВА	Ditch fill
13	141	2 bags-40L	Pond Sediment. Organic grey silt, very occasional charcoal.	RW 21/2/18	Undated	

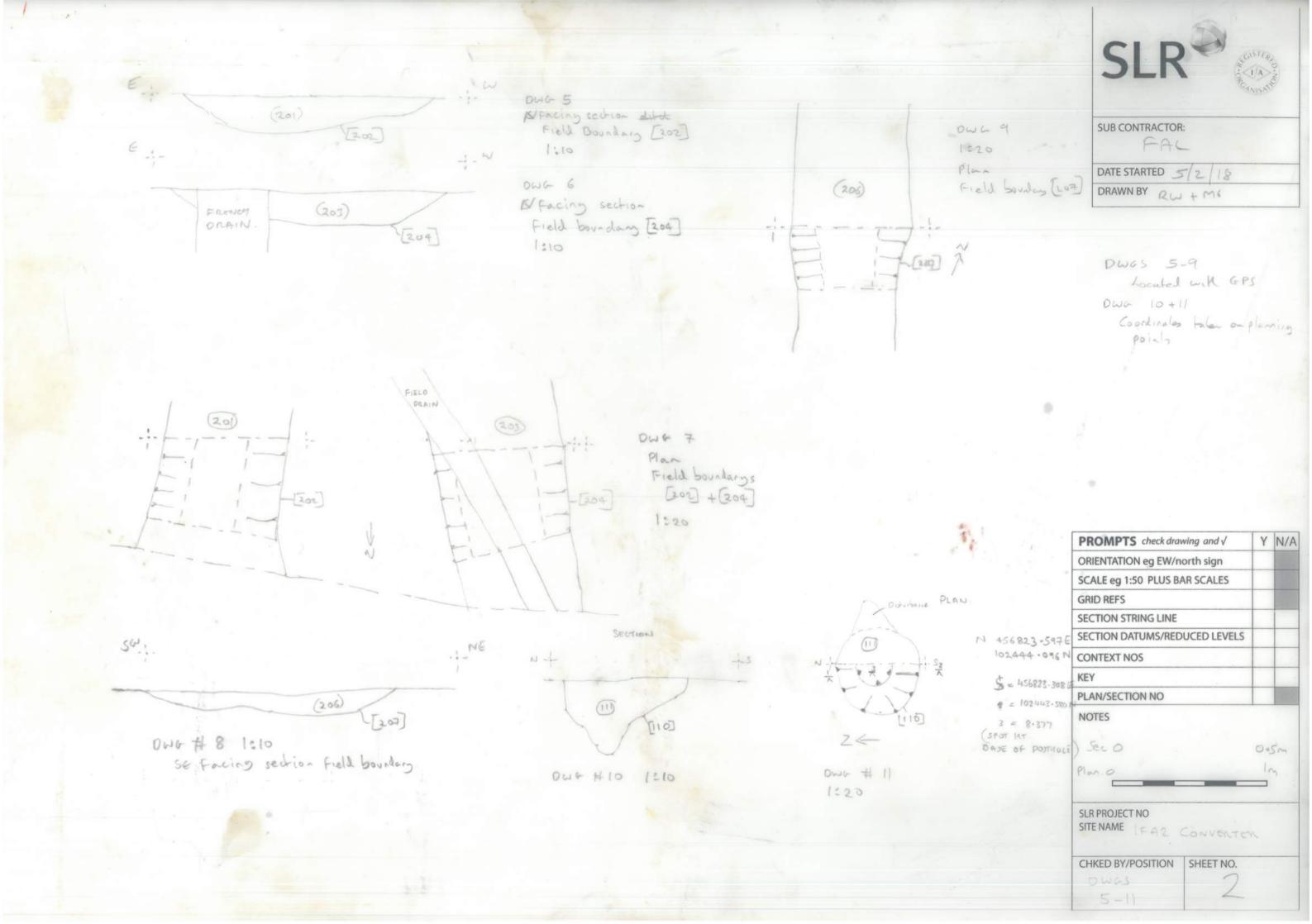
n.b. with the exception of Sample 3, all other samples were lost when the land-rover was stolen

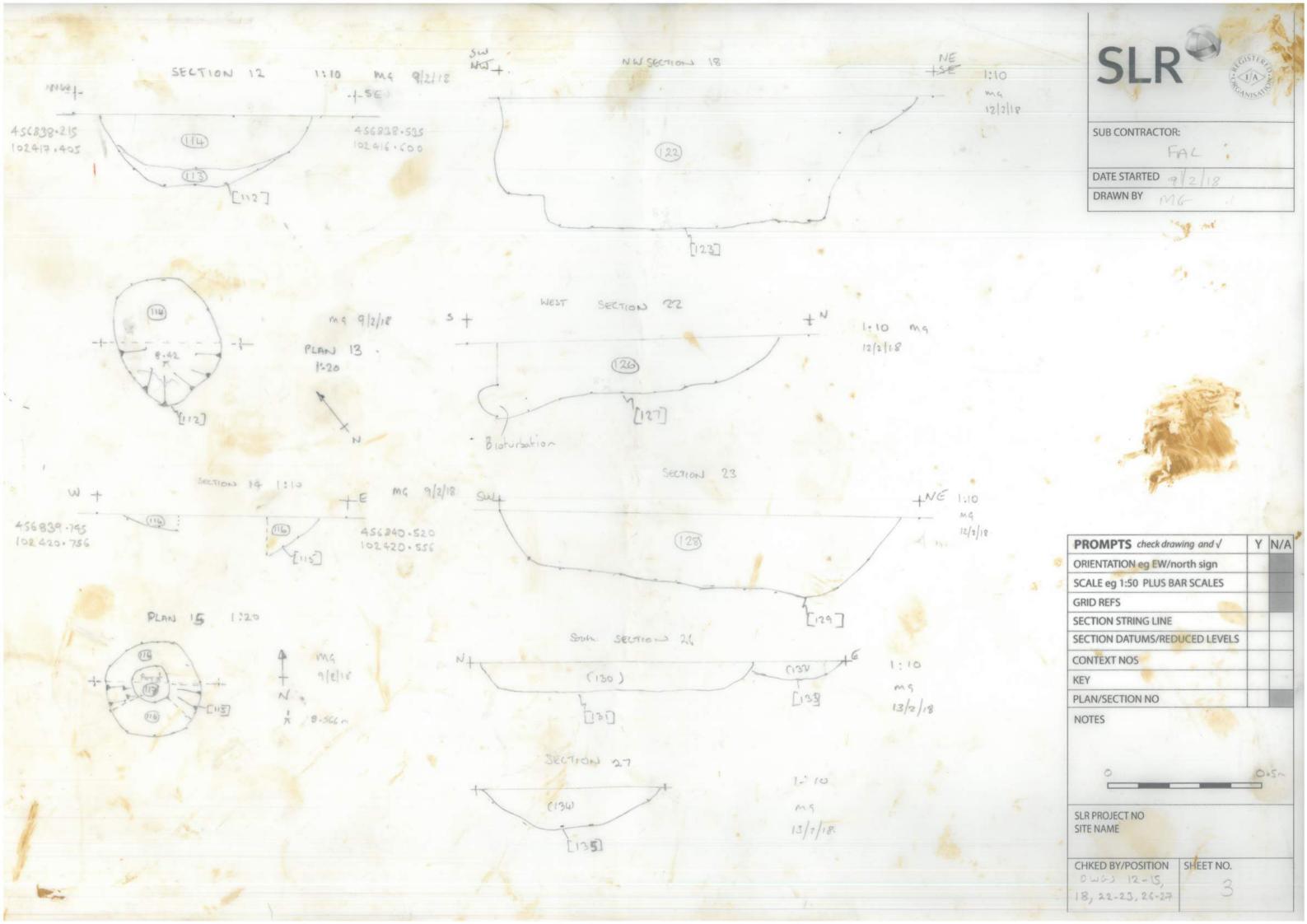


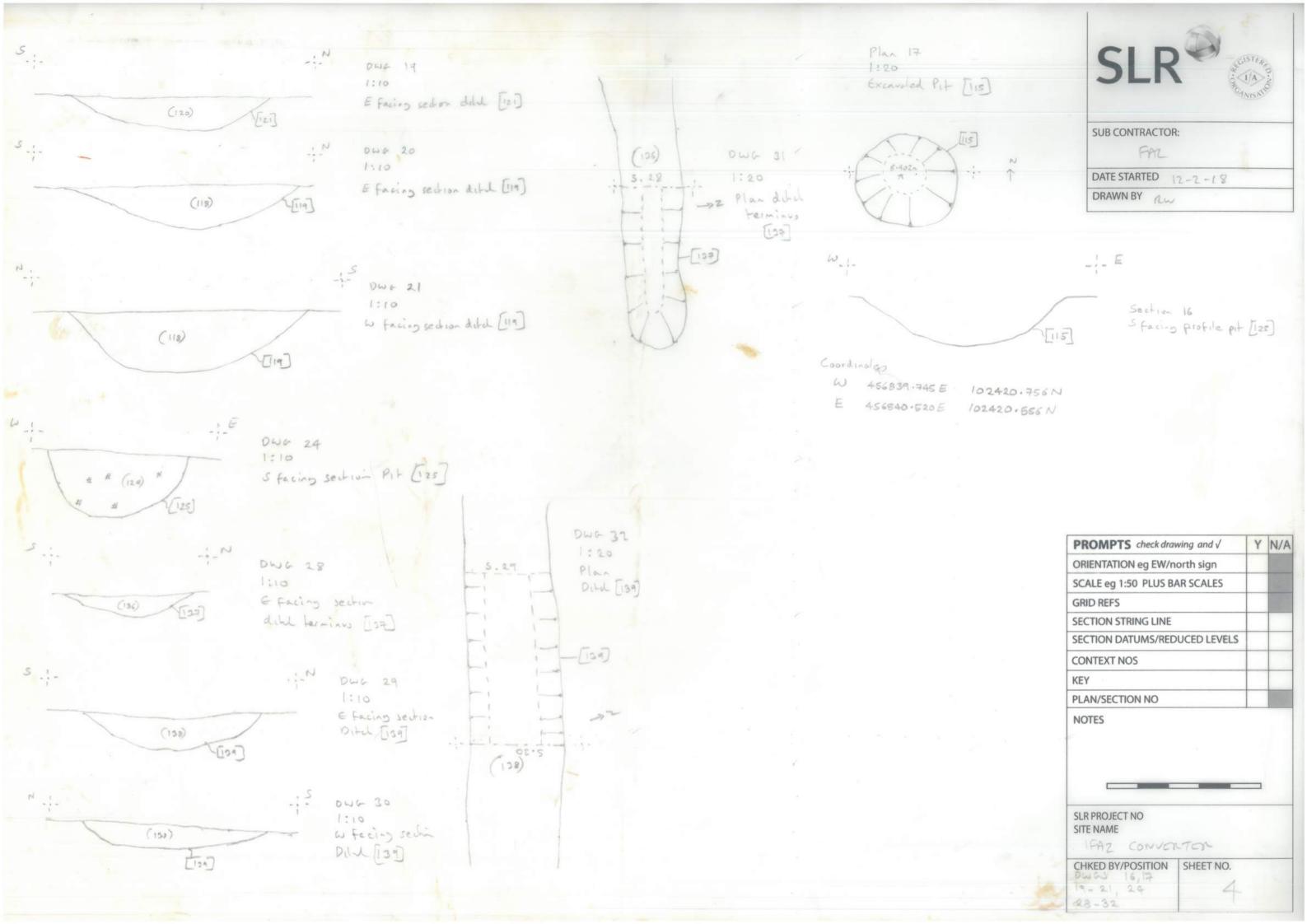
# APPENDIX 04 Plan and Section Drawings





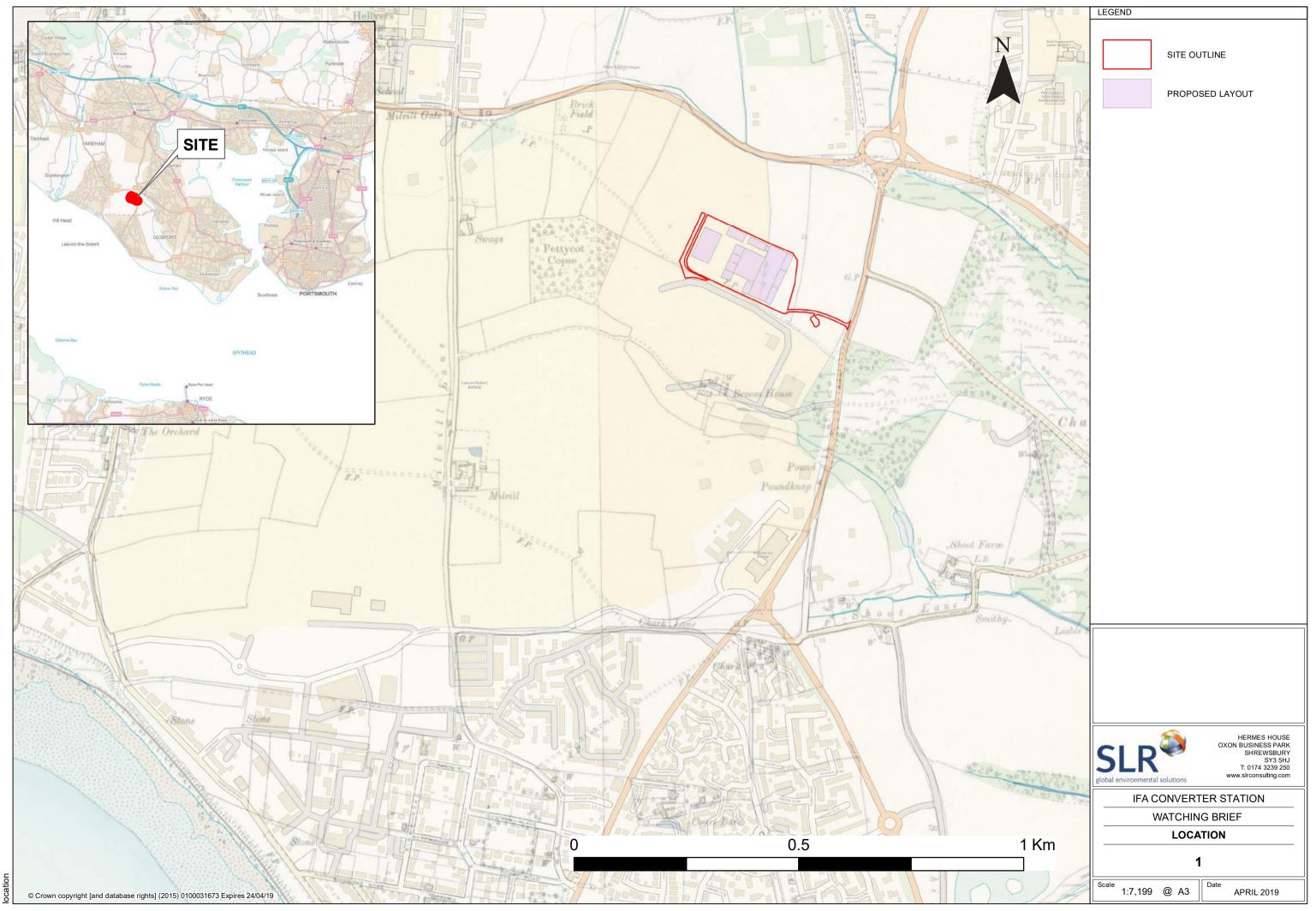


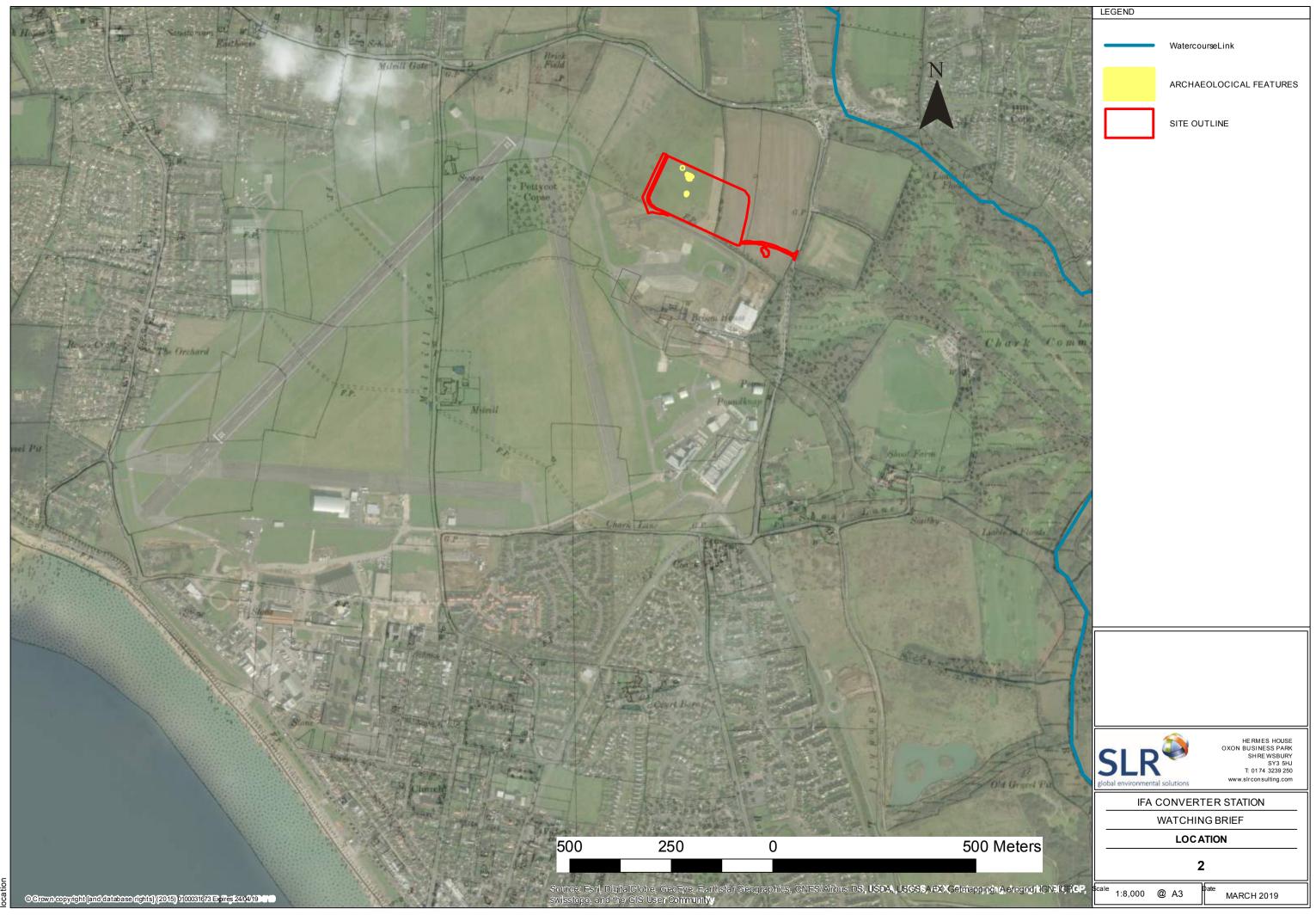


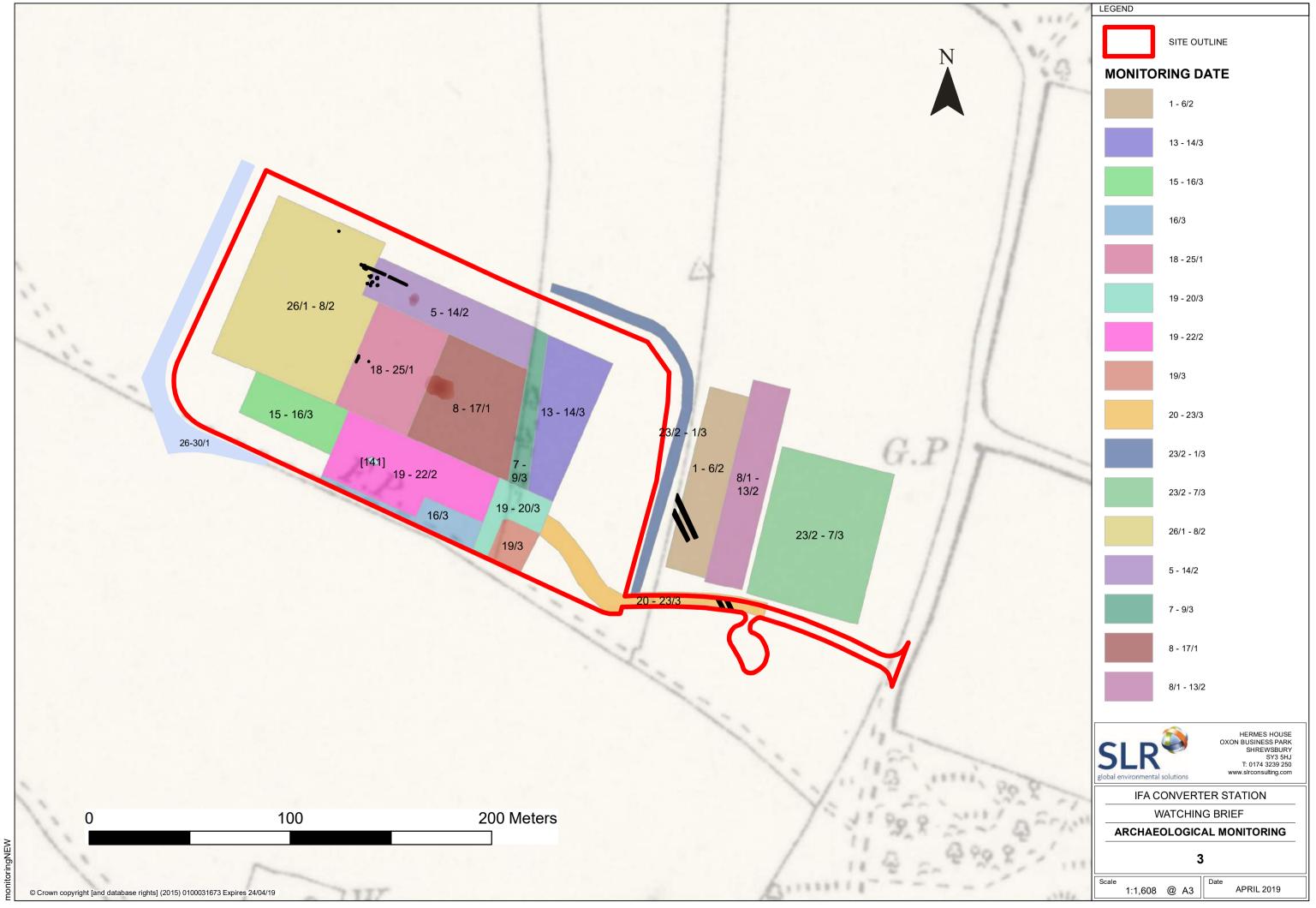


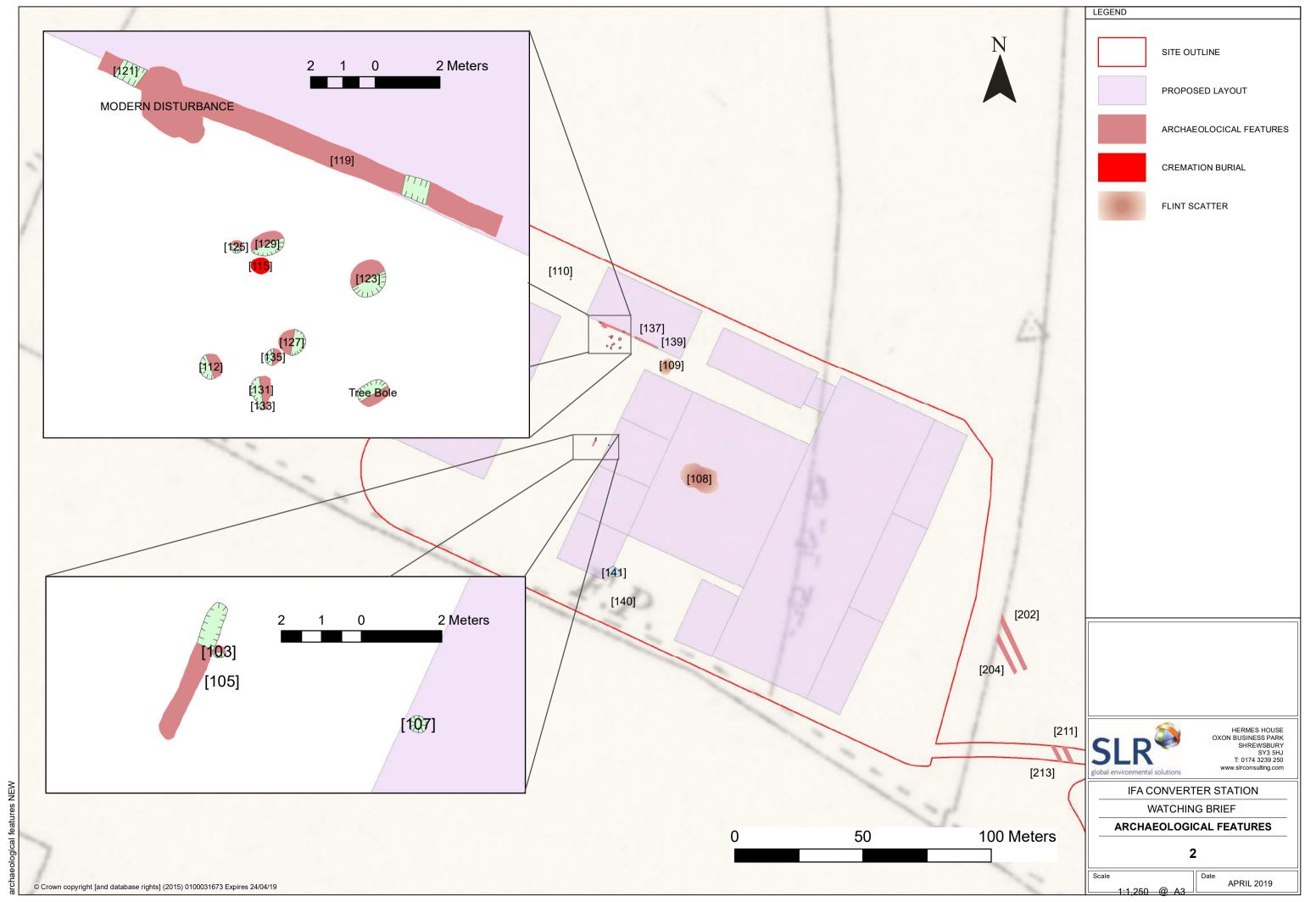
# **DRAWINGS**











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