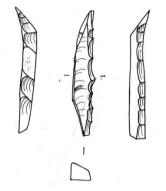
## The Mesolithic of the wetland / dryland edge in the Somerset Levels Revised Report November 2015



**Appendices 1-6** 

**Historic England Reference 6624** 







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## Mesolithic of the wetland edge in the Somerset Levels

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## Appendix 1: Shapwick Burtle lithic assemblages by Clive Jonathan Bond

This appendix formed part of a longer 63 page briefing document prepared by C.J. Bond for the Somerset Heritage Service as a background document to the present survey. This document draws on research done as part of Bond's PhD thesis at Winchester University, but not all the Mesolithic evidence was included in the submitted thesis (Bond 2006). Bond's briefing document informed the Mesolithic summary in Chapter 3 and contributed to the enhancement of the Somerset HER as part of the present project. The complete briefing document is lodged with Somerset HER. The extract here concerns finds from Shapwick Burtle and test pits done as part of the Shapwick Project (Gerrard and Aston, 1997). This extract is particularly relevant to the investigations reported in Chapters 6 and 7.

#### Shapwick Burtle: non-systematic survey and shovel test pit survey (1994) lithic assemblages

This appendix covers long-term and repeated non-systematic survey and shovel test pit investigation of lithic scatters from the vicinity of Shapwick Burtle, Shapwick. Field methods and assemblages are compared. This account is extracted from Bond's thesis (2006, DVD, supporting notes, ii.3).

The form of Shapwick Burtle, c.1km north of Shapwick village in the Brue Valley was initially described by Bulleid and Jackson as 'a long narrow ridge' (1938, 176). It is a sand island, reaching 5m O.D. (Coles *et al.* 1973, fig. 1) part of the Burtle Formation of marine interglacial origins (Campbell *et al.* 1999, 293, 295) and has long been walked when ploughed and in pasture, with molehills yielding lithics. Lithics from both the west and east part of the island, divided by the north-south Station Road have been documented by Bennett, Dewar and Bulleid (Bulleid and Jackson 1938, 176, 195; Clark 1933, 63; Wainwright 1960, 195). Later lithic collection was by Coles and Coles in 1980 and 1992, some indexed as no. 020 in Coles (1989, 34); Clements , in 1970; and, in more recent years, Hayes , in the 1990s and 2002; Brunning in 1993; and Bond in 2000. The excavation of Site B, the terminal of the Sweet and Post Track, also has been documented but produced mainly wood on the northern slope of the eastern part (Brown 1986, table 4; Coles *et al.* 1973). This history of fieldwork prompted a shovel test pit survey in 1994, part of the Shapwick Project. The aim was to use this feature as a way of evaluating the shovel test method and also accessing information on the nature of concentrations in the area (Smith and Thorpe 1995, 73-74).

#### Introduction

No systematic artefact collection on the island had been completed prior to the shovel test pit survey. Importantly, the extent of the Burtle Bed, above the peat surface remains unmapped (Booth pers comm, 2003; data in BGS 2005). From a borehole survey in 1998 Wilkinson (1998, 89-90, BH4 to B15 in fig. 1) established that the profile of the island extending below the peat was steep, particularly to the north, different from the gradual slope observed in the field (Fig. 1).

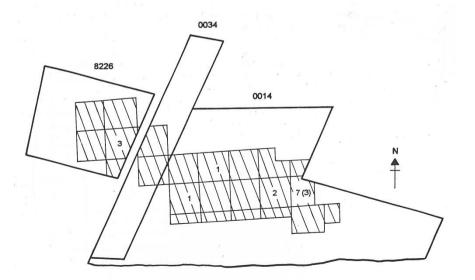
The field was in pasture at the time of survey, three fields were recorded, 8226 to the west of Station Road, 0034 and 0014 (Fig. 2). Across all fields a total of 12 complete squares were recorded, giving 60 shovel tests. Others squares were part recorded relating to the pragmatic approach adopted in the field and also the proximity to the sand/peat interface. These provided additionally 25 shovel test samples.



Fig. 1 Two views of Shapwick Burtle. Left: The intersection of the island, showing both west and east parts either side Station Road, photograph taken from the south in field 0014. Right: Close view of the road-cutting the slope in field 0014. Scale in metres. (Photo: Bond 2000).



Fig. 2. Shapwick Burtle, three fields 8226, 0034 and 0014: set-up of 50mx50m squares and recovery of artefacts. For incomplete squares the number of tests completed is in brackets (after Smith and Thorpe 1995, fig. 3.2).



#### Method

The method adopted for shovel test pitting was a sample frame was set out in 50mx50m squares, 5 tests, providing a 0.0003% sample of the ploughsoil per square (Fig. 2). The sod was scraped of earth for recovery of lithics.

#### Results

A number of artefacts were recovered; slag, brick/tile, mortar, stone, coal and charcoal, together with 19 lithics and 1 surface find (Table 1). The lithic yielding shovel tests are mapped (Fig. 3).

Artefact	Field 0014	Field 0014, Surface find	Field 8226	Total
Chips	1	_	_	1
Flakes	3	_	4	7
Core rejuvenation flakes	8	_	1	9
Blades	1	_	_	1
End and side scrapers	_	1	_	1
Leaf-shaped arrowheads	1			1
Total	14	1	5	20

Table 1. Quantification of lithic assemblage recovered in the shovel test pit survey.

The lack of material in field 0034 may be real, but also may be related to the closeness of this field to the cutting of the road and also the deposition of mud from the rhyme beside the road seasonally on the surface. Field 0034 produced a high slag count, perhaps reflecting its proximity to a metalled surface. Chalk was common in field 8226, perhaps indicative of practice of marling, improving the ploughed surface (Gerrard and Aston 1997).

Lithics: A total of 20 lithics were recovered between two fields, 8226, west of Station Road and field 0014, to the east of the road (Figs. 2 and 3). All are flint, save 1 chert flake, early Mesolithic in date. Most artefacts are snapped (n=13), with patina, but in fresh condition. Initially the assemblage was attributed to a predominant Mesolithic date, with a single earlier Neolithic leaf-shaped arrowhead (Smith and Thorpe 1995, 75). Lithics analysed here give a broader date; 11 support assignment to an earlier Neolithic date, including the surface find, a snapped end and side scarper (F0014, 4215E/4010N) and a snapped blade (F0014, 4215E/4010N/NW(B1). Also two contemporary core rejuvenation flakes are noted, each ascribed to different data filters: later Mesolithic and/or earlier Neolithic and earlier Neolithic and/or middle Neolithic). Four flakes/core rejuvenation flakes are suggested to be Mesolithic, three early, one later. These totals included 2 burnt flakes.

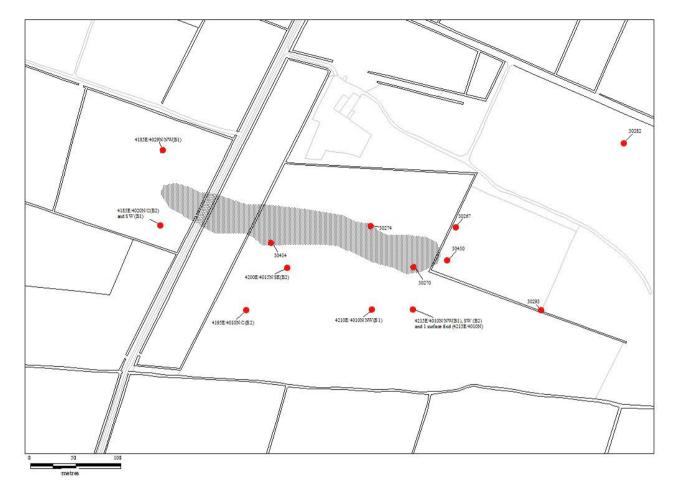


Fig. 3. The shovel test pit samples that yielded prehistoric material. Note, the area of Shapwick Burtle is reconstructed on the 5m OD contour (Ordnance Survey 1998), but its full extent above the peat extends c.10m-c.50m beyond that area. The Burtle Bed has not been subject to an accurate survey. Key: red dots – lithic scatter, labelled with PRN; grey lines – field boundaries, road and buildings; black lines – rhymes and ditches. Note, Bulleid's collection of c.1916 is not mapped.

Distribution: The fine leaf-shaped arrowhead, snapped at both ends was recorded, c.50m south of the mapped island (0014, 4195E/4010N/C(B2) in Fig. 3). The blade and end and side scraper with the two burnt flakes were also both recorded south of the island (4215E/4010NW(B1) and SW(B2) in Fig. 3). A comparable location, to the south was also mapped for Mesolithic lithics, save a single flake in field 8226 (4185E/4020N/C(B2) in Fig. 3). The distribution of the lithics was argued by Smith and Thorpe (1995, 75) to approximate to the distribution of Dewar's collecting. But, when plotting the known lithic scatters across the field it may be that either more discrete clusters occurred, or that lithic collection is sampling a dense scatter extending northwards to the highest part of the island (Fig. 3). The shovel test result extended lithics south towards the sand/peat interface. Moreover, there is a slight indication in the south-east of burning, perhaps hearth activity (burnt lithics), but also confirmation of previously overlooked element: an earlier Neolithic component to the Shapwick Burtle assemblage.

#### Interpretation

Here lithic collections that may be attributed to a National Grid Reference or recorded as most probably from Shapwick Burtle have been grouped and analysed (Table 2). This corpus of lithics, its size and composition can now be contrasted with the shovel test pit results.

	Cores	Irregular waste	Core trimming flakes	Flakes	Blades	Retouched forms	Totals
?Prehistoric	_		_	1	_	_	1
	0%	0%	0%	100%	0%	0%	
Prehistoric	_	4	_	64	_	_	68
	0%	5.8%	0.0%	94.1%	0%	0%	
Mesolithic		3	1	105	7	_	116
	0%	2.5%	0.8%	90.5%	6%	0%	
Early Mesolithic	6	3	176	470	7	7	669
	0.8%	0.4%	26.3%	70.2%	1%	1%	
Later Mesolithic	5	_	48	131	24	16	224
	2.2%	0%	21.4%	58.4%	10.7%	7.1%	
Later Mesolithic &/or earlier Neolithic	2	2	32	126	4	4	170
	1.1%	1.1%	18.8%	74.1%	2.3%	2.3%	
Earlier Neolithic	3	1	40	71	2	15	132
	2.2%	0.7%	30.3%	53.7%	1.5%	11.3%	
Earlier Neolithic &/or middle Neolithic	1		5	19	_		25
	4%	0%	20%	76%	0%	0%	
Middle Neolithic &/or later Neolithic			1		_		1
	0%	0%	100%	0%	0%	0%	
Later Neolithic				1	_		1
	0%	0%	0%	100%	0%	0%	
Beaker					_		
	0%	0%	0%	0%	0%	0%	
Indeterminate later Neolithic or early Bronze Age	_	_	_				
•	0%	0%	0%	0%	0%	0%	
Indeterminate early Bronze Age or middle Bronze Age						_	_
, ,	0%	0%	0%	0%	0%	0%	
Indeterminate middle Bronze Age or later Bronze Age	_	_		1_	_		
J	0%	0%	0%	0%	0%	0%	
Totals	17	13	303	988	44	42	1407
	1.2%	0.9%	21.5%	70.2%	3.1%	2.9%	

Table 2. The combined quantification of five assemblages from Shapwick Burtle; PRN 30434, 30430, 30270, 30274 and Bulleid's lithics from 'surface of sandhill'.

The area up to the observed in-field sand/peat interface was covered by shovel tests (Smith and Thorpe 1995, caption to fig. 3.2). A total of 26 squares were completed. This represents a sample of the ploughsoil, 0.0078%. This would indicate that 99.9922% of lithics remain in the ploughsoil. However, given the size of the already collected assemblage, much of this may have been recovered.

The known quantity of lithics, 1407, together with 1 leaf-shaped arrowhead recorded by Bennett in June 1914 from field 8226 (Bulleid and Jackson 1938, 176). For such a small area, this must reflect a very high recovery rate, certainly indicating that the composition of lithics from Shapwick Burtle is a sizable sample of past activity. The character of activity, its date and function can be understood. Amateur walkers, it is argued were efficient and most able in identifying lithics in the ploughsoil and molehills (six collectors: Bennett, Dewar, Bulleid, Clements, Coles and Coles and Hayes). The quality of fieldwork is confirmed by five collectors recovering microliths, a total of 27 are recorded. Other small artefacts include: micro-burins, fine blades/bladelets and chips. Between most collections, waste, cores and retouched forms are equally presented, also supporting a quality of recovery (see PRN 30434, 30430, 30270, 30274 in Bond 2006, DVD, iv).

Previous comments on Shapwick Burtle have mentioned the importance of the lithic assemblages for the obliquely blunted point microlith typologies, reflecting Maglemosian affinities (Wainwright 1960, 201) or frequently visited hunting stand (Norman 1982, 2003). However, the degree to which this specific Burtle Bed was frequented was not understood.

The shovel test pit lithics and the analysis of the known lithic collections have demonstrated that Shapwick Burtle is a complex palimpsest of activity (Tables 1 and 2). Whilst 669 lithics (47.5%) are attributed to the early Mesolithic, a smaller proportion is given over to the later Mesolithic (224, 15.9%). The earlier Neolithic equates to 133 (9.4%) lithics. Other material is recorded, either as a transitional data quality and period filter (n=170), or lithics with less chronological resolution (n=25). This broadly earlier Neolithic element can be ascribed to 328 (23.2%) lithics (excluding the shovel test pit lithics). Lithic densities are high at Shapwick Burtle, as demonstrated by both non-systematic fieldwalked lithics and the shovel test pitting lithics. This locality most probably represented a suite of re-used locales, a memorable place with an extended biography (Bond 2013b). The density of lithics, the re-visiting over generations, may be argued to have attributed to the establishment of the Post and Sweet Track on the northern and eastern slope of the burtle in the earlier Neolithic (*cf.* Bond 2004b). The amateur surface collections over 91 years, from 1914 to the present (J. W. P. Hayes collection), together with the shovel test pit data equally reflect this intensity of use.

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### Appendix 2: Gazeteer of Mesolithic sites in Somerset by J. Grove

SHER	Bond (2006) PRN	Site Name	NGR(E)	NGR(N)	ME	EM	LM	LM /EN	EN	Total	Interpretation	Museum	Ref
NEW on site of 10058	30206	Callow Hill	343600	155800	0	0	14	21	56	91	At 223 m O.D. Callow Hill is a viewpoint, giving views south, north, west and east into Mendip. A LM element, including waste, flakes and blades (without cortex), with a single retouched form, is suggestive of a short stay event. The LM/EN and EN includes core-related material, with further knapping waste. Smaller proportions of lithics extend into the EN/MN, MN/LN-LN/EB and EB/MB		
25797	25797	Beaker Site/Holly Tree	353200	149500	3	0	6	15	417	441	On the Mendip plateau, a sizable scatter giving a slight LM component. This has 3 retouched forms, most likely indicating a moment of loss, or pause during a forary. The scatter continues into the LM/EN, but particularly in the EN with good proportions of core-related and knapping waste materials. In the EN, knapping pre-formed cores and/or blanks may be implied by the high levels of partly and non-cortical flakes. Flaking and the use of tools (n=69) for domestic tasks is implied. As the site name suggests the scatter continues to be used in later prehistory, including, yielding BK, LN/EB and EB/MB lithics		
NEW near to 26191	30212	Field South of Priddy Long Mound	351600	153200	1	0	13	18	38	70	A Mendip plateau, near dry river valley slope location, with a small LM component: mostly knapping waste and a single retouched form. Perhaps a short stay activity, a moment flaking a core, before moving onto the plateau or into the dry valley. LM/EN and EN material is also recorded, with, in the EN, a high in partially cortical and non-cortical flakes. Flaking cores is implied, possibly some prepared, before the visit elsewhere. Lithics continue to be discarded, EN/MN, MN/LN, LN/EB and into the EB/MB		
18338	30217	B. Hack's Sites: ST508 525 & ST508 527	350800	152500	1	0	6	4	41	52	A few LM lithics are noted, but the main component is EN, with flaking debris, mostly non-cortical. Rediction of cores, flaking of already de-corticated cores or prepared blanks is suggested. Retouched forms are also present, implying tasks are completed, with knapping in the vicinity		
44949	30218	B. Hack Site	350800	152700	2	0	33	37	301	373	A Mendip plateau site, with a sound LM component: cores are present, waste from flaking (without cortex) and retouched forms. A story stay, part of a round, a forary, working stone, but also carrying and using tools is suggested by this assemblage. The EN component is the biggest aspect: mostly cores and waste, with tools (high levels of non-cortical flakes indicating knapping or prepared cores and blanks). Other lithics are noted, EN/MN, MN/LN, to EB/MB		

25967	25967	B. Hack Site	351800	150100	3	0	8	10	110	131	A small LM assemblage, with core-related and waste, which is then is extended with later lithics: LM/EN, EN. Smaller numbers of lithics continue into the MN/LN, LN and EB/MB with some waste, but more tools	
25796	25796	Priddy Hill Farm, Mesolithic Site (B. Hack)	351200	153000	0	0	11	15	125	151	A small LM assemblage, with a core, flakes and 6 retouched forms. This scatter is extended with later lithics: LM/EN, EN. Smaller numbers of lithics continue into the MN/LN, LN and EB/MB with some waste, but more tools	
NEW on site of 25698	30228	Priddy Hill Farm	351600	153000	0	0	0	3	60	63	No ME, or LM component is present. EN is key: dominated by cores and flakes, with a smaller sum of tools. Near equal values of waste with or without cortex, may suggest working of nodules in situ. Smaller numbers of lithics continue, into the MN/LN, LN, LN/EB and EB/MB data filters	
25795	30229	Priddy Hill Long Mound (B. Hack)	351400	153400	0	0	12	17	386	415	A small LM assemblage is noted at this Mendip plateau location: flakes and blades, with a few retouched forms. A small scatter, indicating a moment, part of a forary onto the plateau. The larger component is the EN: cores (n=40), quantities of flakes and blades and some tools. Knapping (mostly prepared cores: little cortex on flakes), with task-centred activities, e.g. using scrapers is suggested, part of domestic routines. Other, smaller proportions of lithics continue into the EN/MN, MN/LN, LN, LN/EB and EB/MB data filters	
11445	30233	Long Wood	348800	155650	0	0	90	131	488	709	With 90 LM lithics, above the dry valley near Long Wood, off Cheddar Head, this is an important locale. Cores (n=5), quantities of flakes and blades and retouched forms (n=9), imply a preferred location. Knapping cores, tool maintenance, production and domestic, camp-site related activities may be implied by this location and assemblage composition. In the EN, further lithics are discarded (knapped waste - high numbers of partly cortical flakes), indicating a continuation of similar activity. Smaller sums of lithics continue into later prehistory	
11412	11412	Callow Hill	344110	155800	2	14	8	16	380	420	A small scatter with a rare EM element, all waste, including one blade core. It is also noteworthy, this scatter yielded LUP material (long-blade like material). The EN element is the largest component: 13 cores, quantities of waste (mostly non-cortical) and 50 tools. Smaller sums of lithics continue into MN/LN, LN, BK, LN/EB and EB/MB data filters	
11412	30234	Callow Hill	344120	156000	0	0	0	4	56	60	A linked, smaller scatter, centred on LM/EN and EN material. This scatter also contained 3 LUP flakes. A few artefacts continue to be discarded in the MN/LN, BK, LN/EB and EB/MB	

24450	24450 (B1)	Ebbor Grove Farm, Scatter B1	352950	149380	68	5	58	270	116	1564	One of the fields, with scatter B1, above Ebbor Gorge, overlooking the dry river valley that feeds the gorge. A small number of EM lithics, mostly retouched forms are present (evidence of hunting?). The LM continues this trend, with flaking debris and almost equal numbers of retouched forms. The main element of the scatter is EN: cores, flakes, blades and retouched forms. Waste is mostly from preformed cores or blanks (few cortical flakes). Later lithics are also noted, after EN/MN, MN/LN, into the LN, BK, LN/EB and EB/MB data
24450	24450 (B2)	Ebbor Grove Farm, Scatter B2	353050	149320	14	0	13	6	55	88	Some ME lithics, then LM lithics are noted, mostly tools. The EN component is largest, with cores, waste and retouched forms, indicating knapping and domestic activity. Other lithics indicate marginal and limited activity into later prehistory:  MN/LN, LN, BK, LN/EB, EB/MB
24450	24450 (B3)	Ebbor Grove Farm, Scatter B3	352880	149300	23	2	17	35	517	594	A few EM lithics are noted (tools - evidence of hunting?), set against a background of 23 ME (generic) lithics. A further LM element is demonstrated, suggesting core reduction and retouched forms, in near equal numbers. This may represent a momentary stay, part of a forary onto the plateau or back into Ebbor Gorge. The main element of the assemblage is EN: cores, waste (with high numbers of partially cortical and noncortical flakes) and tools. Core reduction, in number, with tasks part of a domestic routine is implied. Later lithics are also noted at this scatter, extending in small numbers a presence, MN/LN, LN, BK, LN/EB and EB/MB
24450	24450 (D)	Ebbor Grove Farm, Scatter D	352600	149000	0	0	0	2	60	62	This scatter yielded only LM/EN and EN material. The EN lithics include a core, waste and tools, with some quantity extending into the next data filter EN/MN. Thereafter, only small numbers of lithics register into later prehistory
24450	24450 (A)	Ebbor Grove Farm, Scatter A	352650	149250	89	9	38	33	574	743	Quantities of ME, some EM (blades, n =2; tools, n=7) and LM lithics are recorded. In the LM, retouched forms dominate, suggesting this relates to evidence of a discrete task, e.g. Preparation for hunting, or processing hide, etc after a hunt.  The EN is the largest component: with cores, waste and tools. The waste, with few cortical flakes, implies prepared core or blank reduction. Later material, EN/MN, MN/LN is present in some numbers, but then is reduced, in the other data filters: LN, BK, LN/EB, EB/MB
NEW	30248	Field Above Holly Tree	353530	149670	2	0	5	8	40	55	A few ME lithics, then a LM element, all waste. The main element is EN, with a single core, flakes, blades and retouched forms. The EN waste has near equal cortical, partly cortical and non-cortical flakes (N=32), suggesting core reduction, with more complete, nodules/cores nearby. Later lithics are also recorded at the scatter in small numbers, MN/LN, LN, BK, LN/EB, EB/MB

NEW on site of 10033	30270	Shapwick Burtle	342150	140150	32	91	17	5	36	181	A large sand island with a sound and substantial ME element, phased with EM, including obliquely blunted points and other retouched forms and a smaller LM element (including microliths). A smaller EN presence is also noted: cores, waste and retouched forms. Few later lithics are noted at this locale	
NEW on site of 10033 /2935 9	30274	Shapwick Burtle (General NGR)	342100	140200	65	457	102	88	45	757	A generic NGR for the sand island, giving ME, quantities of EM, including the classic microlith projectile points, microburins, scrapers and a LM element (straight, thin rod obliquely blunted points; basally blunted forms). A slight EN component is also noted. In the EM lithic industry on the island, cores and waste dominate, whereas, in the LM, retouched forms take up a higher percentage. A 'middle' Mesolithic element may be present	
NEW on site of 24224 /4495 4	30419	South-East of Beaker Site (B. Hack)	353250	149450	0	0	0	0	54	54	A Mendip plateau assemblage, dominated by EN lithics: a few cores, mostly waste and (n=7) retouched forms. The flakes are dominated by non-cortical types, with some partialy cortical flakes, indicating flaking of prepared cores on site. Some later lithics are noted, but only a few after the EN/MN data filter.	
NEW	30420	Field North-West of Pelting Drove/Moor View	352080	149570	0	0	3	1	53	57	A western flank, Mendip location overlooking the Axe Valley and Wedmore at 261m O.D. A very slight LM component, a blade-core and 2 blades. This represents perhaps a moment's stay, flaking stone, prior to moving onto the plateau. The main component is EN, a single core, mostly waste and 2 retouched forms. The flakes are dominated by non-cortical flakes, indicating working of reduced, prepared cores. Later lithics are noted, but only register a few artefacts each, MN/LN, LN, BK, LN/EB and into EB/MB	
NEW on site of 10033	30430	J. W. P. Hayes Collection, Shapwick Burtle	342190	140160	19	1	102	76	42	240	Hayes' collection is in private possession, representing rewalks across the sand island over many years, over the late 1980s-90s. The assemblage has been recovered from badger and mole hills, particularly at the higher land, crest and to the east of the island. ME material is abundant, including flakes, blades, micro-burins and microliths (mostly slender, thin and small obliquely blunted points). The LM waste indicates knapping off site (limited cortical flakes) and fits similar material, flint raw material and condition elsewhere in Shapwick. There is also a single EM artefact. The EN is demonstrated with waste and retouched forms, possibly indicative of the close proximity of the Sweet Track terminal on the island. A few lithics are attributed to the EN/MN, but later lithics are absent	

NEW adjac ent 28714	30496	U. F. Site (B. Hack)	350700	155800	0	29	8	0	73	110	A Mendip plateau location near Velvet Bottom and Cheddar Head with a significant EM component. The EM cores, flakes, blades and few retouched items (n=4) are with white patina, distinctly different to LM and other lithics from Mendip. This assemblage has cores, with waste and a few tools, suggestive of a knapping camp with a few discrete tasks near to the routes on and off the plateau. A smaller LM element is present, but the main component is EN. Cores, flakes and tools are recorded in the EN; a waste dominated assemblage. Near partly cortical and non-cortical flakes suggest knapping of nodules, not prepared on site. Later lithics are noted, but only as a single or a few artefacts per data filter: MN/LN, LN, BK, LN/EB and EB/MB		
NEW site of 25798	30192	Stone Age Field by Cross Swallet Filed No. 194 (Westbury)	351400	150200				5	328		5 bags of N Hawkes collection; predominantly Neolithic (LM/EN 5; EN/MN 328; MN/LN 88)		
NEW	30193	Field with Cave in above topsoil field opposite side of track	352200	150400					66		N Hawkes collection, EN/MN(66); MN/LN(4)		
NEW on site of 24870	30197	Field opposite side of Brimble Pit Pool	350100	150900				5	26		N Hawkes collection, predominantly Neolithic (LM/EN 5; EN 26; EN/MN 84; MN/LN 34; LN 10)		
NEW on site of 24870	30198	One field near to Brimble Pool	350300	150800				1	5		N Hawkes collection predominantly Neolithic (LM/EN 2; EN/MN 8; MN/LN 50; LN/EB,BK 6)		
NEW c.256 93/44 947	30199	Field on far side of glacial 'lake'	351800	150000				1	64		N Hawkes collection; LM/EN(2); EN, EN/MN(93), MN/LN, LN(4)		
NEW	30203	Flint from Priddy (?Hunters Lodge Henge)	355980	149850					7		A Everton collection predominantly Neolithic; EN 7; EN/MN 79; MN/LN11; LN/EB,BK 10		
NEW	30435	Field 1334 (amalgamation of 5 spots)	357200	148400			18		644		P Kirkby collection predominantly Neolithic; LM 18; EN 644; EN/MN 111; LN/BK 142		
NEW	30436	Big Bob's Field	357000	147300					38		P Kirkby collection; EN/MN 38; LN/BK 21		
NEW	30207	Field 2600	357100	147800					53		P Kirkby collection; EN/MN 53; LN/BK 29		
NEW		Bishop's Lydeard (Q. Bishpool, Barns Close)	319620	134160	х						ME, NE, BK, LN/EB: knapping waste, with scrapers, other tools, indicating domestic activity nearby; lithic scatter may indicate presence of a larger, more extensive and multi-period scatter (mostly LN-EB in date); total of 54 items. NGR attributed from Tithe Map of Barns Close 1126 at ST19623416 and 1161 at ST19503404, both of which are by Bishpool Farm and Cottages.	SCM Acc. No. 82/1991/13	

NEW site of 43034	Cothelstone Hill circular track	318800	132700	X						CM Acc. No. 2/1995/26	
NEW	Cotlake Hill	322500	122800	Х			х		A collection of flakes, indicative of knapping nearby to this location, broadly attributed to the ME-NE, possibly LM onwards. C.50 in total.		
10617	Greenway Farm, North Petherton	329000	130400		х						Norman 1975, 26- 30; Norman 1982, 17- 18
10617	Greenway Farm, North Petherton	329000	130400		x					CM Acc. No. /AA/94	Norman 1975, 26- 30
43399	Norton Fitzwarren Hillfort	319620	126260			x		х	A small element of ME, perhaps a LM blade component, with EN cores, waste and scrapers, indicative of knapping and domestic occupation. Proportionately, a larger BK and LN/EB element, covering knapping of flakes and task-centred working: scrapers domestic activity. Total of 317.  76// No. A23 No. Acc Acc Acc A25		Saville 1989, 18- 21
15025	Parchey, P1, Chedzoy	335000	137400	x		x		х	The majority of this assmeblage appears to be ME, especially LM (however, note, the presence of Horsham points, and other obliquely basally blunted points, have been suggested to indicate a possible 'middle Mesolithic' element. Blade production, including the products (microlith projectile points) is evidenced: blade-cores; truncations, micro-burins. A further component refers to an EN, and BK, LN/EB lithic industry. Some c.20 sherds of Trevisker pottery. MBA, with hamerstones and a chert axe hammer is also noted. 5000 items in total.		Bond 2009a, b; Norman 1982, 18- 19; Norman 2003
15025	Parchey, P2, Chedzoy	335080	137480			х			This location is a continuation of P1 scatter, but an outlier with much less dense lithic concentration. LM; BK; LN/EB, 50 items.		Bond 2009a, b; Norman 1982, 18- 19; Norman 2003

10239		Westleigh Farm, Broomfield	321780	132290			x	X		Mostly ME, especially LM knapping waste: cores; blades, with scrapers and burins, characteristic of domestic working and preparation for hunting. Later lithics, EN, to BK, LN/EB, indicate occupation and knapping, as with a domestic settlement location in the vicinity. Different elements of the assemblage include: 20 microliths (EM and LM types; 30 retouched pieces and over c.1,000 waste recovered from the area centred on ST2178 3229	C. Norman Personal Collection; in Personal Possession, 2001	Norman 1975, 30- 32
NEW	30196	Field by Monks Wood and Long Wrangle Plantation	357400	151400				103		N Hawkes collectionEN/MN(103); MN/LN(6)+L24	HER from source is confused - this the most probable.	
NEW	30195	Chewton Mendip, First A Head Field	356600	151800				8 (+97 ?)		N Hawkes collection - EN (8); EN/MN (97); MN/LN (55); LN/BA (1)	HER from source is confused - this the most probable.	
NEW near to 26188	30200	Field with barn in corner next to 1st Topsoil field	351850	151010			1	52		N Hawkes collection LM/EN (1); EN/MN (52); MN/LN (3)		
10033		S of Shapwick Drove	342100	140100	Х					in Taunton Museum'. 'Industry' at st421401, 22+ at st423402		
10034		N of Lippetts Way, Shapwick	340190	13860	Х					not retained		
10058		Fry's Hill, Axbridge	343170	155740	х				20	SALSA 2cores and some blades could be mesolithic	Axbridge 85/AX/422L	
10073		Cave, Axbridge Hill, Axbridge	343140	155010	х				1	SALSA 1 blade core	Axbridge 75/AX/121-35	
10239		Westleigh Farm, Broomfield	321800	132300	х					assemblage	TTNCM 2/1999	
10296		Brymore House, Cannington	324660	139370	х				19	alleged site; 1 core, 17 blades/flakes, 1 microlith; possibly from Cleeve Hill, Watchet	TTNCM 57.A.4- 10	
10327		Lippetts Way, Catcott	339660	138510	Х					worked flint in HSL Dewar's collection		
10349		Totty Pot cave, Cheddar	348250	153560	х					burials; many flints		
10398		Gough's Cave, Cheddar	346700	153910		х			2022	Cheddar Man, c7130BC upper pal or early meso	OXFPR 1940.12.6 41.1- .11	
10424		Neolithic flint scatter, Middledown Drove, Cheddar	349180	152750			Х			Suggestion of meso date not backed up by fieldwork		
10507		Mesolithic flint, Edington	339500	141300					1		SCM acc no. 50.A.20	

10568	Burials and flint finds Greylade Sand Quarry	339250	133520		х	91	1 tranchet axe, 26 blades/flakes, 53 scrapers, 3 gravers, 8 microliths. Mesolithic cemetery, skulls dated.	TTNCM 47.A.1-6 TTNCM A.936-8 TTNCM 23/1997 TTNCM 46.A.3 & 46.A.40 TTNCM 78.AA.289	
10570	Greylake quarry no 2	338390	133730	х			Mesolithic chipping site	BRWAB [number unknown]. Stored at Blake Museum, Bridgwater (boxes 101 & 102)	
10617	Greenway Farm	328950	130450			2500	M5 site		Norman, C. PSANHS 119 (1975), 26-37
10670	Over Stowey	315300	138200				No positive meso id.		
10711	Longfield, Puriton	331600	142100			5	No positive meso id. 'in Taunton museum,'		
10767	Rowberrow Cavern	345950	158020				no specific meso finds 'late use of microliths	UBSS	
11318	Bog oak finds SE of Stileway, Meare	346400	140800				Bog oak		
11322	Patcombe	324850	133760	х		2			
11412	Callow Hill, Cheddar	344110	155800	х		10	2% of 510 pieces are meso; rest is BA/NEO or 'prehistoric'	75/AX/16 1-116 (510) 83/AX/343L (20) 77/AX/209 (80) 83/AX/352L (34) 83/AX/353L (30)	
11424	Gorsey Bigbury	348400	155800	Х			From excavation 11439		
11445	Long Wood	348800	155700	х		188	20% is meso, 188 of 919; a minor mesolithic element	86/AX/450L	
11702	south of Summerclose Drove, Catcott	340300	140500	х		4	SLP	TTNCM 130/1986/1963- 5 TTNCM 130/1986/2297	

11706	Chilton Moor, Burtle	338600	143800	х	2		TTNCM	
	, in the second						130/1986/1962	
11711		339000	143000	х	2	1% of 259	TTNCM	
							130/1986/2614	
11719	Edington Moor	339510	141320	х	1		TTNCM	
							130/1986/1987	
11728	SW side of Chedzoy island	334310	136200	х		SLP - 2 mesolithic concentrations		
11735	north slopes of the Polden, Ashcott	344000	138400	х	8	SLP	TTNCM 130/1986/1881-	
							4	
11736	Flint and pottery off	344330	137520	х	1	SLP prehistoric collection, one id as mesolithic	TTNCM	
	Stagman Lane						130/1986/2010- 11 and	
							130/1986/1838-	
							40	
11740	North of Ashcott	343280	137550	х		SLP - small collection - mesolithic and later	TTNCM	
							130/1986/1832	
11763	Flint finds, west of	338150	133830	Х	1	SLP	TTNCM	
	Greylake, Middlezoy						130/1986/2241- 3	
11773	Flint finds, North Newton, North Petherton	330300	131700	х	1	SLP not definite id	TTNCM 130/1986/1929-	
	Newton, North Petherton						32	
11780	Flint and pottery finds, High St, Shapwick	341330	137830	X	2	SLP 2 flakes		
11781	flint core and pottery	340700	138400	х	1	SLP		
	finds, Manor Farm, Shapwick							
11782	West of Ken Drove,	340680	139220	х	3	SLP		
44704	Shapwick	0.40000	400500			CLD receible detire		
11794	N of 15 Acre Copse, Shapwick	343600	138500	X	3	SLP - possible dating		
11797	Addermead, Shapwick	342200	139600	х		Mesolithic chips		
12057	Mesolithic animal bones, Shapwick Heath	343430	139800			SLP - possible red deer foot bone		
12072	Brickyard Farm, Burtle	341100	140400			? SLP ?29 of possible meso or neo		
12073	Canada Farm, Burtle	341700	140700	х		SLP - a scatter		
12107	Westonzoyland Airfield	336400	134100	х	1	SLP - SALSA - 1 possible meso core	TTNCM 130/1986/2360	
12127	East of Buscott	344980	138170	Х	3	SLP - 3 possible meso flint chips	TTNCM	
							130/1986/1972	

12128	East of Buscott	344800	138220	Х				1	1	SLP	TTNCM 130/1986/1898	
12302	Flint finds, Shapwick	342200	138100							SLP no.3 ?id		
12303	Flint finds, Buscott	343350	139050							SLP no.5 ?id		
12308	Mesolithic animal bones, Shapwick Heath	343450	139050							SLP animal bone, probably deer		
14280	Langley's Lane, Ston Easton	364500	154400				Х			Excavation PRN 16982		Past 49 (2005), 7- 8
15025	Parchey Sand Batch, Chedzoy	335050	137480	х				4	120	PRN30198 fieldwalking, 75% of weight was mesolithic. V large collection.	TTNCM 26/1997	
15167	Crescentic microlith, Se of Charterhouse Farm	348480	155550	х				1	1			
15515	East of Chapel Cleeve	304670	142910	Х						a few flakes and cores, probably mesolithic'		
15768	Mesolithic flint scatter, Charterhouse	350600	155900	х						Excavation 15798 'large assemblage'		
16111	Flint scatter and pottery finds near Doniford	308530	142950		)	K				C&N Hollinrake WB		
16117	Mesolithic, Neolithic and EBA flint scatter near Ebbor Gorge	352900	149400	Х						Meso mostly from field B; Everton collection 1460 flints, plus 11kg of waste		
16119	Flint scatter, Middle Down Drove, Cheddar	348380	152710	х						PRN 18799 - some mesolithic elements to the assemblage		
17855	Mesolithic occupation, Star roman villa	343530	158700	х				3	30	2 concentrations found during villa excavation		
18249	Flint scatter, Lower Ellick Wood, Priddy	348320	158060	Х						27 artefacts 'most' appear to be mesolithic		
23288	Stone macehead, E of Island Plantation, Chewton Mendip	358000	151310	X						? date	Axbridge Museum	
23307	Mesolithic flint, Stock Hill, Chilcompton	364000	150000	х				1	1	obliquely blunted microlith	TTNCM A.2110	
23365	Pebble macehead, Croscombe	361000	147100	х						macehead	TTNCM 50.A.50	
23768	Blade or flake, Lullington	377000	153000	х				1	1	William Pengelly Cave Studies Centre, Buckfastleigh		
23965	Mesolithic and later site, Lower Pitts Farm, Priddy	354000	150000	925			х	( 4	1829	Possible meso structure; excavations; Faxon field walking 23965. PRNs 18293, 18294, 18295, 18296, 18297. High number of flints recovered for Neolithic and EBA.		
24224	Flint scatter, Durston Drove, Priddy	353700	149300							SALSA suggests Neo date		
24354	Badger Hole cave, Wookey Hole	353240	147950							Mesolithic burial (or is it RB?)		
24390	Dursden deserted farm, N of Ebbor Wood, St Cuthbert Out	352700	149300	х								
24450	Flint scatter, n of Ebbor	352300	149100	344								

	Gorge						
24999	Flint scatter, Stratton on the Fosse	365000	150000	10			TTNCM A.2310, A.2424, A.2465, A.2549
25218	Lias island, West Waste, Meare	347220	141170		х	44756 pipeline	TTNCM 84/1998
25225	Flint scatters and mound, Peacock Farm, Meare	344400	143000	4		SCOM?	
25228	Flint finds, Honeygar Burtle, Meare	342600	143100			SLP_ mesolithic flint flakes	
25235	Mesolithic finds, Westhay Level, Meare	342330	142320			SLP - Shell	
25254	Flint find, S of Meare	345280	140920	1		SLP	
25265	Lias island and finds, West Waste, Godney	347400	141400	2		SLP - upper pal/early meso	
25289	Flint and pottery, N slope of Polen, Sharpham	345750	137730	1		SLP - core	
25376	Flint scatter & possible barrows, No of Cloford	372360	144850	х		17752 - meso to BA	TTNCM 142/2004
25486	Flint scatter N of Blackmoor, Charterhouse	350600	156300	х		scatter of mesolithic character	
25699	meso flint finds, N of Priddy Hill Farm, Priddy	351400	153100	2		1 core, 1 core tool	
25700	Flint and stone implement finds W of Green Ore	356300	150500	1		?2 flake axe/s	
25701	Flint axe and scraper, SW of Priddy	351800	150300	1		tranchet axe	
25795	Neolithic flint scatter, N of Priddy Hill Farm	351400	153400	1		core axe	
25796	meso flint scatter, W of Priddy Hill Far,	351200	153000	4		SALSA id of 4 cores,	85/AX/41/7L
25798	meso flint scatter, SW of Priddy	351470	150200	х		mesolithic material - Maglemosian'	
25939	Neolithic flint scatter, north of Charterhouse	349740	156830	1		SALSA	
25940	meso flint, Priddy	353370	154470	х		concentration'	
25960	meso flint, SW of Priddy	351850	150070	1			
26012	worked flint & stone, w of Sharpham Park, Walton	351850	150070	1			
26015	Flint finds, Honeygar Burtle, Meare	342400	142700	х		SLP	

26016	Flint finds, south of Whitley Wood, Walton	344700	136900	1	SLP	TTNCM 130/1986/1834 &
						130/1986/1835
26040	whetstone and flint, Westhay, Meare	343040	142250	х	1? SLP	
26064	Flint finds, Sharpham	346550	140130	х	2? SLP	
26068	flint flakes, w of Sharpham Park, Walton	345400	138400	х	4? SLP	TTNCM 130/1986/1984- 6
26069	flint finds, west of Sharpham Park, Walton	345500	138200	х	2? SLP	TTNCM 130/1986/1975
26071	Flint finds, Honeygar Burtle, Meare	342100	142700	х	SLP - mesolithic flints	TTNCM 130/1986/1800- 2
26072	Flint finds, Honeygar Burtle, Meare	342700	142800	х	SLP - mesolithic flints	TTNCM 130/1986/1800- 2
26183	Flint scatter, n of Brimble Pool, Westbury	350850	150890	3	3+ blade cores and possible microlith	83/AX/338
26202	Flint blade, no of Ebbor Grove, Priddy	352300	149300	х	1?	Axbridge Museum
26258	flint scatter, e of Sandpit Hole, Priddy	353500	149900	4	Faxon - large assemblage but only 4 of meso date	
26259	flint scatter, n of Higher Pitts Farm, Priddy	353660	149610	5	Faxon - cores within larger Neolithic assemblage	
26264	lithic scatter, Nine Barros Lane, Chewton Mendip	353400	152100	21	Faxon - 4.9% of assemblage is meso	
28267	prehistoric occupation, Lyde Rd, Yeovil	357700	117700	х	archaeological fieldwork provided limited evidence	TTNCM 129/2009
28287	prehistoric and Roman activity, se of Cannington	326670	138830	х	meso material in later prehistoric features	TTNCM 16/2009
28583	mesolithic flint, E of Brewham Lodge Farm	374890	136570	1		
28714	mesolithic flint scatter, Blackmoor, Charterhouse	350590	155380	х	small scatter	TTNCM 100/2003
28766	prehistoric flint finds, Castle Neroche, Curland	327150	115830	х	tentative assignation	TTNCM 150/2008
31477	mesolithic flint, Cotlake Hill, Trull	322500	122500	х	worked chert	
31478	mesolithic flint, Churchill Way, Taunton	322500	123500	х	chert flakes	

33339	Flint finds, above Weacombe combe, West Quantoxhead	311600	140700	х		scrapers and microliths in AL Wedlake collection		
33782	stone tool finds, Minehead	298730	147150	Х		in association with submerged forest		
33892	mesolithic site and Roman fibula find, E of Blue Anchor	303720	143500		1000	Thousands - Number of specific locations - ST03624346, ST03724350, ST03834346, ST04664292, ST040440	Taunton Museum - Welake collection	
34189	mesolithic flint scatter, Doniford camp, Doniford	309400	143300	237		Wedlake cliff site		
34190	prehistoric flint scatter, W side of Doniford Stream, Williton	309030	143240	х		Chance meso finds from Doniford stream		
34192	flint scatter, N of Battle Gore, Williton	307400	142100	х		scrapers and flakes, b&t arrowhead at ST07514236	Wedlake	
34193	flint scatter, E of Egrove Farm, Williton	308900	141900	х			Wedlake	
34569	mesolithic and BA finds, Black Hill, Holford	314800	138500	х				
34572	flint scatter, Cleeve Hill, Old Cleeve	306000	143000	х			TTNCM 52.A.31 - 52.A.41	
34575	mesoltihic finds, NW of Kilton Park Wood, Stringston	315000	144500	х		chance finds		
34576	Early prehistoric finds, West Quantoxhead	311000	143500	Х		in Taunton Museum		
35241	Litthic finds, Minehead	296100	145100	х			Cornish collection inTaunton Museum	
35243	Lithic finds, Minehead	295120	145400	Х			TTNCM 43.A.1 -43.A.9 TTNCM A.3370	
35244	Lithic finds, Minehead	296510	146000	1				
35385	Mesolithic Axe find, Minehead	297000	146000	1				
43328	Mesolithic flint scatter, Loundshay Barn, Milverton	313100	125950	394		predominantly mesolithic	TTNCM 243/2005/1	
43362	Mesolithic site, Fideoak Park, Bishops Hull	319200	124800	х		mesolithic chipping floor	TTNCM 50.A.24-48; TTNCM 50A.63094	
43411	flake, School House, Norton Fitzwarren	319400	125910	1			TTNCM A.2513	

44417	Mesolithic flint find, Compass Hill, Taunton	322300	124300	1								
44432	Mesolithic flint find, Taunton	322000	124000	1								
44947	Neolithic & BA flints, NW of Moorview, Priddy	351850	150000	1						Faxon - possible meso micro burin		
44948	Flint scatter, north of Dundon Drove Farm, Priddy	355120	149210	х						flints of meso and neo character		
44949	Flint finds, SW of Priddy Hill Farm	350800	152700	6						cores - SALSA		
44953	Flint finds, south of Sandpit Hole, Priddy	353200	149600	х						mesoltihic to BA date		
53130	Mesolithic flake finds, N or Castle Farm, Buckland St Mary	327420	115670	3							52.A.63	
54340	Mesolithic blade find, Mudford	357000	119000	1							Birmingham Museum	
54808	Cadbury Castle, Mesolithic flint finds, South Cadbury	362800	125100	720						Bennett Collection from 1890 is in Taunton Museum	Taunton Museum	
55944	Mesolithic finds, E of Sock Farm, Chilthorne Domer	351420	119500	х						large quantity	TTNCM 183/1992	
55947	Mesolithic finds, SW of Sock Farm, Chilthorne Domer	351420	119230	х						large quantity	TTNCM 183/1992	
57065	Mesolithic & neolithic flint scatter, W of North Perrott	346250	109780	Х							TTNCM 25/1999; TTNCM 26/1999	
18838		351000	152600	60						SALSA - 10% of 592	Axbridge Museum	
25698		351700	153000	2						SALSA		
24870		350400	150800	1						SALSA		
29524	Shapwick, general background mesolithic	342000	139000	3	47	4	12	408	475	Shapwick - individual NGRs for sites which have produced over 10 mesolithic flints. One entry for rest, some 19 collection areas, totalling 67 meso flints. PRN 29524.		Gerrard & Aston 'The Shapwick Project'
29524	Shapwick field no 3553, Mid West Slope	340350	138520		20	2	4	84	110	East of Field 1264, nearer the stream line of Holy Brook, a dense scatter, in total 126 lithics were recorded. EM lithics consist of a core, flakes, all indicating in-situ knapping, distributed across the field in clusters. LM yielded a flake and a core, widely separated. The EN material, gave core fragments, no core, but mostly flakes. Retouched forms included: a knife; end scraper and polished axe flake, all indicative of domestic activity, with working stone in the vicinity		

29524	Shapwick, field no 4974, Mid slope west	340500	138750	2	21	7	5	106	141	Down slope, north, Field 4974 gave in total 169 lithics. An EM component yielded a scraper, a blade and flakes. A smaller LM component gave, two scarpers, a blade and flakes. Knapping, whilst on forays up slope, may be implied for both EM and LM. The EN gave a sizable assemblage, with two cores, fragments, flakes, but also scrapers, a knife and miscellaneous retouched flakes. An end scraper was re-used, suggesting re-visiting the scatter curation of previously discarded lithics
29524	Shapwick, field EPC, Mid Slope West	340750	138780		24	2	7	21	54	This small field is to the east, more closely related to the stream. In total, it gave 58 lithics. The EM assemblage is dominated by flakes, with core-related material indicative of knapping. Two round scrapers record the LM. The EN component gave: two cores, flakes and scrapers, mixing evidence of both knapping and domestic activity
29524	Shapwick field 8869, mid slope West	340920	138650	1	20	4	2	11	38	East of the Holy Brook, adjacent Field EPC, Field 8869 gave a total of 43 lithics. The EM component is exclusively flake-based suggesting knapping across the field. The LM component is slight giving an end scraper and flakes, continuing the flaking, with a lost tool. The EN element yielded evidence of knapping, but also a retouched flake and a polished axe flake. Specialised activities, breaking down an axe, perhap re-worked, or the use of a retouched flake implies domestic camp-related actions
29524	Shapwick, field 7951, mid slope west	340800	138510		11		6	8	25	Up slope from Field 8869, a few hundred meters is Field 7951.  This generated 32 lithics in total. A continuation south, up slope from Field 8869, is the EM flake assemblage. More flakes are recorded of LM/EN and then EN. Flaking, core reduction is implied in the vicinity
29524	Shapwick, field 5033, mid slope west	340650	138350		35	3	3	18	59	Further south, up slope and adjacent to Field 7951 is Field 5033. This yielded 72 lithics in total. EM material is distributed in clusters across the field: a core, fragments, flakes and an end and side scraper. The LM component is slight: scrapers and a blade. Flaking at set points in the field is implied, adjacent the stream in the EM. Whilst, the LM is more a casual loss. The EN component yielded: a core, flakes, an polished axe flake and scrapers. All imply knapping, but also domestic activity adjacent the stream
29524	Shapwick, field 2700, central mid slope	342260	138000		10			3	13	South-west, up slope, to Field 4016, Field 2700 yielded 15 lithics. This material is dominated by the EM: flakes. Two EN lithics, a core and flake are also recorded - transient, losses, whilst traversing the Polden Hill slopes on forays
29524	Shapwick, field 553, central mid slope	343000	138600		17	1	1		19	Further east, some c.600-900m Field 0553 yielded 25 lithics. A small, but discrete group mapped across the field gives EM material: flakes. A single LM lithic, a bipolar core indicates a loss during a foray, whilst on the move
29524	Shapwick, field 1216, central mid slope	343140	138120	1	9		1	28	39	An up slope, c.30-40m O.D. rise, is Field 1216. This gave in total 42 lithics. A single ME retouched flake, and then, EM flakes, imply knapping. A single LM/EN flake, then EN flakes and a single end and side scraper, imply further flaking of stone, with a casual loss of a tool

Shapwick fi upper slope	*	137850	23	3	1	39	66	Lower down slope, adjacent to Field 4200, Field 5700 yielded in total 83 lithics. The EM component is significant: flakes indicating knapping, a notched flake and an adze thinning flake, indicating re-sharpening a tool when on a foray up slope. For the LM: a flake, a retouched flake and a adze fragment, continues similar woodland activity. The EN component is dominated by flakes, with three cores and core fragments. Scrapers and miscellaneous retouched flakes are also recorded, suggesting camp-like activity and tasks together with flaking stone. This continues the EN activity in Field 5160 and the eastern edge of Field 4200		
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# Appendix 2a: Location of the Boreholes at Greylake by K. Wilkinson

Borehole	Easting	Northing	Elevation	Total
			(m OD)	depth (m)
GY BH1	339183.48	133669.22	5.33	0.57
GY BH2	339181.99	133673.66	4.75	0.50
GY BH3	339181.32	133678.66	4.11	1.10
GY BH4	339179.31	133683.74	3.98	3.00
GY BH5	339176.95	133694.14	3.92	3.65
GY BH6	339173.88	133704.42	3.85	4.30
GY BH7	339171.14	133714.90	3.83	5.00
GY BH8	339168.33	133724.79	3.83	5.00
GY BH9	339162.79	133745.38	3.75	6.00
GY BH10	339157.12	133766.38	3.82	5.00
GY BH11	339152.06	133786.70	3.74	4.63
GY BH12	339144.35	133816.66	3.85	5.00
GY BH13	339139.42	133612.61	5.35	0.55
GY BH14	339134.61	133611.55	4.69	0.60
GY BH15	339129.78	133610.53	4.15	1.40
GY BH16	339119.51	133608.49	3.96	3.10
GY BH17	339109.33	133606.41	3.91	4.50
GY BH18	339088.19	133602.13	3.87	5.50
GY BH19	339066.75	133597.82	3.80	5.50
GY BH20	339045.49	133593.53	3.83	5.50
GY BH21	338987.42	133580.09	4.06	5.00
GY BH22	338966.92	133576.21	3.93	5.00
GY BH23	338945.22	133572.01	3.98	5.00
GY BH24	338928.07	133569.23	4.15	4.56
GY BH25	339040.75	133592.42	3.83	7.80
GY BH26	339127.80	133914.56	3.44	9.55
GY BH27	339090.71	134126.84	3.58	12.00
GY BH28	339036.05	133591.20	3.90	8.63
GY BH29	339129.40	133869.57	3.56	1.00
GY BH30	339091.55	134136.54	3.44	3.10

# Appendix 3: Lithological descriptions of the Greylake boreholes by K.Wilkinson

Bore	Top (m)	Base (m)	Lithology	Description
BH1	0.00	0.25	Soil	7.5 YR 3/2 Dark brown silt/clay with occasional fine sand-sized mineral grains and frequent roots. Poorly developed
				fine granular crumb structure. Sharp boundary to:
	0.25	0.51	Iron-stained	7.5 YR 4/4 Brown silt/clay with occasional fine sand-sized mineral grains. Heavily bioturbated. Rare sub-angular
			clay	sandstone granules. Diffuse boundary to:
	0.51	0.57	Sandstone	10 YR 4/6 Dark yellowish brown clayey sand of medium sized grains. Occasional sub rounded sandstone pebbles.
BH2	0.00	0.29	Soil	7.5 YR 3/1 Very dark grey silt/clay with occasional fine sand-sized mineral grains and frequent roots. Poorly
				developed fine granular crumb structure. Rare granular-sized quartz clasts. Unknown boundary to:
	0.29	0.35	Iron-stained	7.5 YR 2.5/2 Very dark brown silt/clay with occasional fine sand-sized mineral grains and roots. Rare granular-sized
			clay	organic fragments (reed?). Sharp boundary to:
	0.35	0.50	Sandstone	10 YR 5/4 Yellowish brown medium sand with occasional silt/clay. Biotubated at top. Iron stain mottles and rare iron
				pan granules.
BH3	0.00	0.20	Soil	10 YR 2/1 Black silt/clay with rare very fine sand-sized mineral grains. Frequent roots. Poorly developed fine granular
				crumb structure. Unknown boundary to:
	0.20	0.50	Herbaceous	2.5 Y 2.5/1 Black moderately-highly humified peat with moderate fibrous/rooty plant macrofossils (vertically
			peat	orientated) (T-S Dg2 Th1 Sh1 Ag+). Diffuse boundary to:
	0.50	0.85	Wood Peat	2.5 Y 2.5/1 Black moderately humified with frequent granular to pebble-sized woody plant remains in a fibrous matrix
				(T-S TI1 Dg2 Dh1). Sharp boundary to:
	0.85	1.10	Sandstone	5 Y 4/1 Dark grey becoming towards base 2.5 Y 5/1 Grey medium-fine well sorted sand. (T-S Ga4). Hole abandoned
				at 1.10m
BH4	0.00	0.66	Herbaceous	2.5 Y 2.5/1 Black moderately-highly humified peat with moderate fibrous/rooty plant macrofossils (vertically
			peat	orientated) (T-S Dg2 Th1 Sh1 Ag+). Diffuse boundary to:
	0.66	1.25	Wood peat	2.5 Y 2.5/1 Black moderately humified with frequent granular to pebble-sized woody plant remains in a fibrous matrix
				(T-S TI1 Dg2 Dh1). Diffuse boundary to:
	1.25	1.50	Wood peat	7.5 YR 4/4 Brown oxidising to 2.5 Y 2.5/1 Black on exposure to air, slightly humified wood peat with frequent wood
				fragments to pebble size. Fibrous matrix (T-S Dl2 Dg1 Dh1). Diffuse boundary to:
	1.50	1.77	Reed peat	7.5 YR 4/4 Brown slightly humified peat with occasional pebble to granular-sized reed inclusions in a fibrous matrix
				(T-S Dh1 Dg3). Diffuse boundary to:
	1.77	1.82	Wood peat	7.5 YR 4/4 Brown slightly humified wood peat of frequent coarse pebble sized wood fragments in a fibrous matrix (T-L
				DI3 Dg1). Sharp boundary to:
	1.82	1.94	Wood peat	7.5 YR 2.5/2 Very dark brown moderately humified peat of granular to pebble-sized wood in a fibrous matrix (T-S DI2
				Dg2). Sharp boundary to:
BH4	1.94	2.00	Sand	5 Y 4/2 Olive grey bedded fine-medium sand with occasional fine pebble and granular-sized wood fragments. Well-
				moderately sorted (T-S Ga3 Ag1 DI+ Dh+). Unknown boundary to:
	2.00	2.28	Wood peat	7.5 YR 4/4 Brown wood peat with frequent pebble-sized wood fragments in a fibrous matrix (T-S DI2 Dg2). Sharp
				boundary to:
	2.28	2.40	Sand	5 Y 4/2 Olive grey well sorted medium and fine sand (T-S Ga4). Sharp boundary to:

	2.40	2.50	Wood peat	10 YR 3/1 Very dark grey moderately humified peat with moderate granular-sized fibrous plant remains and moderate
			'	fine-medium sand (T-S Dg2 Dh1 Ga1). Unknown boundary to:
	2.50	2.55	Sand	5 Y 4/2 Olive grey medium-fine sand (T-S Ga4). Sharp boundary to:
	2.55	3.00	Sandstone	2.5 Y 4/2 Dark greyish brown fine-medium sand. Well sorted (T-S Ga4). Hole abandoned at 3.00m
BH5	0.00	0.10	Soil	10 YR 2/1 Black silt/clay/highly humified peat with rare very fine sand-sized mineral grains. Frequent roots. Poorly
				developed fine granular crumb structure. Gradual boundary to:
	0.10	0.35	Herbaceous	2.5 Y 2.5/1 Black highly humified peat of herbaceous/fibrous plant remains (T-S Dh1 Dg3 Th+). Gradual boundary to:
			peat	
	0.35	1.00	Herbaceous	5 YR 3/3 Dark reddish brown oxidizing to 2.2 Y 2.5/1 Black moderately humified peat of herbaceous/fibrous plant
			peat	remains (reed?). Unknown boundary to:
	1.00	2.10	Wood Peat	5 YR 3/3 Dark reddish brown poorly humified peat with granular-sized plant remains and frequent pebble-sized wood
				fragments throughout unit.
	2.10	2.38	No Recover	Void
	2.38	3.13	Wood Peat	5 YR 3/3 Dark reddish brown poorly humified peat with frequent fibrous plant remains and wood fragments in pebble-
				sized lenses interbedded with 5 Y 4/1 dark grey fine sand also in pebble-sized lenses. Irregular mixed structure to
				unit.
	3.13	3.30	Wood Peat	5 YR 3/3 Dark reddish brown poorly humified peat of pebble-sized wood fragments in a fibrous matrix. (T-S DI1 Dh1
				Dg2). Sharp boundary to:
	3.30	3.65	Sandstone	5 Y 4/1 Dark grey clayey medium sand. Clay content gradually increases towards base and colour becomes 10 YR
				5/2 Greyish brown. Compact. Hole abandoned at 3.65m
BH6	0.00	0.10	Soil	2.5 Y 2.5/1 Black highly humified peat with frequent fibrous plant remains and roots to pebble size (T-S Th1 Dg3).
				Diffuse boundary to:
	0.10	0.50	Herbaceous	2.5 Y 2.5/1 Black highly humified peat of herbaceous/fibrous plant remains (T-S Dh1 Dg3 Th+ at top). Diffuse
			peat	boundary to:
	0.50	1.10	Wood peat	2.5 Y 2.5/1 Black moderately humified peat of pebble-sized wood in a fibrous matrix (T-S DI1 Dg3 Dh+). Diffuse
				boundary to:
	1.10	3.77	Wood peat	7.5 YR 4/4 Brown slightly humified wood peat with frequent pebble-sized wood fragments in a fibrous matrix (T-S DI1
				Dh1 Dg2). Sharp boundary to:
	3.77	4.20	Homogeneou	5 Y 5/1 Grey well sorted silt/clay (T-S Ag3 As1). Sharp boundary to:
			s silt/clay	
	4.20	4.30	Sandstone	2.5 Y 5/2 Greyish brown fine-medium sand. Well sorted. Compact. Hole abandoned at 4.30m
BH7	0.00	0.10	Soil	10 YR 2/1 Black silt/clay/highly humified peat with rare very fine sand-sized mineral grains. Frequent roots. Poorly
				developed fine granular crumb structure. Gradual boundary to:
BH7	0.10	0.40	Iron-stained	10 YR 3/2 Very dark greyish brown silt/clay with rare fine sand-sized mineral grains. Frequent red, orange, yellow and
			clay	black mottles (clay inclusions?). Occasional roots. Gradual boundary to:
	0.40	0.80	Herbaceous	2.5 Y 2.5/1 Black highly humified peat of herbaceous/fibrous plant remains (T-S Dh1 Dg3 Th+ ). Rare granular-sized
			peat	quartz clast. Diffuse boundary to:
	0.80	3.95	Wood Peat	7.5 YR 4/4 Brown slightly humified wood peat with frequent pebble-sized wood fragments in a fibrous matrix (T-S DI1
	1	1	1	Dh1 Dg2). Sharp boundary to:
	3.95	4.80	Homogeneou	5 Y 5/1 Grey well sorted silt/clay. Occasional black humified plant remains and rare fine sand-sized mineral grains.
		1	s silt/clay	Gradual boundary to:
	4.80	5.00	Sandstone	10 YR 4/2 Dark greyish brown silt/clay with frequent medium-sized mineral grains and rare granular-sized angular

	1	-		
				quartz clasts. Hole abandoned at 5.00m
BH8	0.00	0.10	Soil	10 YR 2/1 Black silt/clay/highly humified peat with rare very fine sand-sized mineral grains. Frequent roots. Poorly
				developed fine granular crumb structure. Gradual boundary to:
	0.10	0.42	Iron-stained	10 YR 3/2 Very dark greyish brown silt/clay with rare fine sand-sized mineral grains. Frequent red, orange, yellow
			clay	and black mottles (Clay inclusions?). Occasional roots. Gradual boundary to:
	0.42	0.80	Herbaceous	2.5 Y 2.5/1 Black highly humified peat of herbaceous/fibrous plant remains (T-S Dh1 Dg3 Th+ ). Rare sand-sized
			peat	shell fragments. Diffuse boundary to:
	0.80	3.54	Wood Peat	7.5 YR 4/4 Brown slightly humified wood peat with frequent pebble-sized wood fragments in a fibrous matrix (T-S DI1
				Dh1 Dg2). Gradual boundary to:
	3.54	3.70	Homogeneou	5 Y 4/2 Olive grey well sorted silt/clay. Occasional black humified plant remains and rare fine sand-sized mineral
			s silt/clay	grains. Sharp boundary to:
	3.70	5.00	Homogeneou	5 Y 4/1 Dark grey silt/clay with frequent granular-sized plant remains and black humic stains. Rare pebble-sized wood
			s silt/clay	fragment. Hole abandoned at 5.00m
BH9	0.00	0.10	Soil	10 YR 2/1 Black silt/clay/highly humified peat with rare very fine sand-sized mineral grains. Frequent roots. Poorly
				developed fine granular crumb structure. Gradual boundary to:
	0.10	0.27	Subsoil	10 YR 3/2 Very dark greyish brown silt/clay with rare fine sand-sized mineral grains. Frequent red, orange, yellow
				and black mottles (Clay inclusions?). Occasional roots. Gradual boundary to:
	0.27	0.50	Herbaceous	2.5 Y 2.5/1 Black highly humified peat of herbaceous/fibrous plant remains (T-S Dh1 Dg3 Th+ ). Diffuse boundary to:
			peat	
	0.50	1.38	Wood Peat	7.5 YR 4/4 Brown slightly humified wood peat with frequent pebble-sized wood fragments in a fibrous matrix (T-S DI1
				Dh1 Dg2). Sharp boundary to:
	1.38	1.60	Homogeneou	10 YR 3/2 very dark greyish brown, compact, silt/clay with rare fine san-sized mineral grains and orange clay lenses
			s silt/clay	
	1.60	3.89	Wood Peat	5 YR 4/3 Reddish brown slightly humified wood peat with frequent pebble-sized wood fragments in a fibrous matrix
				(T-S DI1 Dh1 Dg2). Sharp boundary to:
BH9	3.89	6.00	Homogeneou	5 Y 4/1 Dark grey silt/clay with frequent granular-sized plant remains and black humic stains, and rare sand-sized
			s silt/clay	shell fragments. Hole abandoned at 5.00m
BH1	0.00	0.35	Soil	10 YR 2/1 Black silt/clay/highly humified peat with rare very fine sand-sized mineral grains. Frequent roots.
0				Moderately well developed fine granular crumb structure. Gradual boundary to:
	0.35	0.50	Iron-stained	10 YR 3/2 Very dark greyish brown silt/clay with rare fine sand-sized mineral grains. Frequent granular-sized red,
			clay	orange, yellow silt/clay lenses. Gradual boundary to:
	0.50	0.90	Herbaceous	2.5 Y 2.5/1 Black highly humified peat of herbaceous/fibrous plant remains (T-S Dh1 Dg3 Th+ ). Diffuse boundary to:
			peat	
	0.90	3.50	Wood Peat	5 YR 4/3 Reddish brown slightly humified wood peat with frequent pebble-sized wood fragments in a fibrous matrix
				(T-S DI1 Dh1 Dg2). Sharp boundary to:
	3.50	5.00	Homogeneou	5 Y 4/1 Dark grey silt/clay with frequent granular-sized plant remains and black humic stains, and rare sand-sized
			s silt/clay	shell fragments. Hole abandoned at 5.00m
BH1	0.00	0.15	Soil	10 YR 2/1 Black silt/clay/highly humified peat with rare very fine sand-sized mineral grains. Frequent roots.
1				Moderately well developed fine granular crumb structure. Gradual boundary to:
	0.15	0.38	Herbaceous	2.5 Y 2.5/1 Black highly humified peat of herbaceous/fibrous plant remains (T-S Dh1 Dg3 Th+ ). Gradual boundary to:
			peat	
	0.38	1.26	Reed peat	2.5 Y 2.5/1 Black poorly humified peat of herbaceous/fibrous plant remains. Frequent granular- sized plant remains

				(reeds) Sharp boundary to:
	1.26	3.38	Wood peat	5 YR 4/3 Reddish brown slightly humified wood peat in a fibrous matrix with rare pebble-sized wood fragments at top
				increasing towards base (T-S DI1 Dh1 Dg2). Sharp boundary to:
	3.38	3.44	Reed peat	2.5 Y 4/2 dark greyish brown poorly humified peat with frequent granular-sized reed fragments appear to continue
				into unit below. Gradual boundary to:
	3.44	4.63	Homogeneou	5 Y 4/1 Dark grey silt/clay with frequent granular-sized plant remains and black humic stains, and rare sand-sized
			s silt/clay	shell fragments. Hole abandoned at 4.63m
	0.00	0.15	Soil	10 YR 2/1 Black silt/clay/highly humified peat with rare very fine sand-sized mineral grains. Frequent roots.
				Moderately well developed fine granular crumb structure. Unknown boundary to:
	0.15	0.25	Iron-stained	10 YR 3/2 Very dark greyish brown silt/clay with rare fine sand-sized mineral grains. Frequent granular-sized red,
			clay	orange, yellow silt/clay lenses. Biotubated. Gradual boundary to:
	0.25	0.96	Herbaceous	2.5 Y 2.5/1 Black highly humified peat of herbaceous/fibrous plant remains (T-S Dh1 Dg3 Th+ ). Gradual boundary to:
			peat	
	0.96	1.90	Reed peat	7.5 Y 3/3 Dark brown poorly humified peat of herbaceous/fibrous plant remains. Frequent granular- sized plant
			·	remains (reeds). Diffuse boundary to:
	1.90	3.36	Wood Peat	5 YR 4/3 Reddish brown slightly humified wood peat in a fibrous matrix. Reed fragments at top. Rare pebble-sized
				wood fragment at to. increasing towards base . Sharp boundary to:
BH1	3.36	3.44	Reed peat	2.5 Y 4/2 dark greyish brown poorly humified peat with frequent granular-sized reed fragments appear to continue
2				into unit below. Diffuse boundary to:
	3.44	5.00	Homogeneou	5 Y 4/1 Dark grey silt/clay with frequent granular-sized plant remains and black humic stains, and rare sand-sized
			s silt/clay	shell fragments. Hole abandoned at 5.00m
BH1	0.00	0.10	Soil	10 YR 4/2 Dark greyish brown humic silt/fine sand with frequent fibrous plant remains/roots. Moderate calcareous
3				granules. Moderately sorted (T-S Ag2 Ga1 Th1 Sh+). Diffuse boundary to:
	0.10	0.30	Homogeneou	10 YR 4/4 Dark yellowish brown humic silt/fine sand with moderate coarse sand-sized calcareous clasts and
			s silt/clay	moderate roots. Well sorted (T-S Ag3 Ga1 Sh+). Sharp boundary to:
	0.30	0.55	Sandstone	10 YR 5/6 Yellowish brown iron-stained well-sorted medium-fine sand (T-S Ga4 Lf+). Hole abandoned at 0.55m.
BH1	0.00	0.10	Soil	10 YR 4/2 Dark greyish brown humic silt/fine sand with frequent fibrous plant remains/roots. Moderate calcareous
4				granules. Moderately sorted (T-S Ag2 Ga1 Th1 Sh+). Diffuse boundary to:
	0.10	0.40	Laminated	10 YR 4/4 Dark yellowish brown humic silt/fine sand with moderate coarse sand-sized calcareous clasts and
			sand and silt	moderate roots.Occasional sub-rounded calcareous pebble. Well sorted (T-S Ag3 Ga1 Sh+). Sharp boundary to:
	0.40	0.60	Sandstone	10 YR 5/6 Yellowish brown iron-stained well-sorted medium-fine sand (T-S Ga4 Lf+). Hole abandoned at 0.60m
BH1	0.00	0.94	Herbaceous	2.5 Y 2.5/1 Black moderately-highly humified peat with moderate fibrous/rooty plant macrofossils (vertically
5			peat	orientated) (T-S Dg2 Th1 Sh1 Ag+).Sharp boundary to:
	0.94	1.40	Sandstone	5 Y 4/2 Olive grey medium to fine sand. Well sorted (T-S Ga4). Hole abandoned at 1.40m
BH1	0.00	0.10	Soil	2.5 Y 2.5/1 Black highly humified peat with frequent fibrous plant remains and roots to pebble size (T-S Th1 Dg3).
6				Diffuse boundary to:
	0.10	0.40	Herbaceous	2.5 Y 2.5/1 Black highly humified peat of moderate fibrous pebble-sized plant remains in a fibrous matrix - forming
			peat	coarse granular-fine pebble-sized aggregate (T-S Th1 Dh1 Dg2). Diffuse boundary to:
	0.40	1.05	Herbaceous	2.5 Y 2.5/1 Black highly humified peat of herbaceous/fibrous plant remains (T-S Dh1 Dg3 Th+ at top). Diffuse
			peat	boundary to:
	1.05	2.90	Wood Peat	7.5 YR 4/4 Brown slightly humified wood peat with frequent pebble-sized wood fragments in a fibrous matrix (T-S DI1
				Dh1 Dg2). Sharp boundary to:

	2.90	3.10	Sandstone	5 Y 4/2 Olive grey compact silt-medium sand. Hole abandoned at 3.10m.
BH1	0.00	0.07	Soil	2.5 Y 2.5/1 Black highly humified peat with frequent fibrous plant remains and roots to pebble size (T-S Th1 Dg3).
7				Diffuse boundary to:
	0.07	0.25	Organic mud	10 YR 3/2 Very dark greyish brown organic mud with frequent oxidised roots (vertically orientated). Well sorted (T-S
				Ag2 Sh1 Dg1 Ld+). Diffuse boundary to:
	0.25	0.50	Herbaceous	2.5 Y 2.5/1 Black highly humified peat of herbaceous/fibrous plant remains (T-S Dh1 Dg3 Th+ at top). Diffuse
			peat	boundary to:
BH1	0.50	1.06	Wood peat	7.5 YR 3/1 Very dark grey wood peat of frequent coarse pebble to granular wood fragments in wood and fibre matrix.
7				Moderately humified (DI2 Dg2). Diffuse boundary to:
	1.06	3.88	Wood peat	7.5 YR 4/4 Brown slightly humified wood peat with frequent pebble-sized wood fragments in a fibrous matrix (T-S DI1
			·	Dh1 Dg2). Sharp boundary to:
	3.88	4.28	Homogeneou	5 Y 5/1 Grey well sorted silt/clay (T-S Ag3 As1). Sharp boundary to:
			s silt/clay	
	4.28	4.40	Sand	7.5 YR 5/2 Brown compact medium-fine sand. Well sorted (Ga4 Ag+). Diffuse boundary to:
	4.40	4.50	Sandstone	7.5 YR 5/2 Brown compact medium sand-clay. Possible granular charcoal/waterlogged fragments to granular size
				(Ga1 As2 Ag1). Hole abandoned at 4.50m.
BH1	0.00	0.15	Soil	2.5 Y 2.5/1 Black highly humified peat with frequent fibrous plant remains and roots to pebble size (T-S Th1 Dg3).
8				Sharp boundary to:
	0.15	0.20	Organic mud	10 YR 3/2 Very dark greyish brown organic mud with frequent oxidised roots (vertically orientated). Well sorted (T-S
				Ag2 Sh1 Dg1 Ld+). Sharp boundary to:
	0.20	0.50	Herbaceous	2.5 Y 2.5/1 Black highly humified peat of herbaceous/fibrous plant remains (T-S Dh1 Dg3 Th+ at top). Diffuse
			peat	boundary to:
	0.50	1.20	Wood peat	7.5 YR 3/1 Very dark grey wood peat of frequent coarse pebble to granular wood fragments in wood and fibre matrix.
				Moderately humified (DI2 Dg2). Diffuse boundary to:
	1.20	4.50	Wood peat	7.5 YR 4/4 Brown slightly humified wood peat with frequent pebble-sized wood fragments in a fibrous matrix (T-S DI1
				Dh1 Dg2). Sharp boundary to:
	4.50	5.50	Homogeneou	5 Y 5/1 Grey well sorted silt/clay (T-S Ag3 As1). Hole abandoned at 5.50m.
			s silt/clay	
BH1	0.00	0.10	Soil	2.5 Y 3/2 Very dark greyish borwn humic silt/clay with occasional sub-angular granular calcareous pebbles and
9				granules. Frequent roots. Poorly sorted (Ag2 Th1 As1 Gg(min)+). Sharp boundary to:
	0.10	0.20	Iron-stained	2.5 Y 5/2 Greyish brown silt/clay with frequent iron stains. Rare granular sub-angular carbonate clasts. Moderately
			clay	sorted (Ag1 As3 Ld+). Sharp boundary to:
	0.20	0.34	Herbaceous	2.5 y 2.5/1 Black moderately humified peat of twigs and herbaceous pebbles in an organic mud matrix (Dl1 Dh1 Dg2).
			peat	Sharp boundary to:
	0.34	0.37	Iron-stained	2.5 Y 5/2 Greyish brown silt/clay with frequent iron stains. Rare granular sub-angular carbonate clasts. Moderately
			clay	sorted (Ag1 As3 Ld+). Sharp boundary to:
	0.37	0.65	Herbaceous	2.5 Y 2.5/1 Black highly humified peat of herbaceous/fibrous plant remains (T-S Dh1 Dg3 Th+ at top). Diffuse
			peat	boundary to:
	0.65	1.23	Wood peat	7.5 YR 3/1 Very dark grey wood peat of frequent coarse pebble to granular wood fragments in wood and fibre matrix.
				Moderately humified (DI2 Dg2). Diffuse boundary to:
	1.23	3.55	Wood peat	7.5 YR 4/4 Brown slightly humified wood peat with frequent pebble-sized wood fragments in a fibrous matrix (T-S DI1
				Dh1 Dg2). Sharp boundary to:

	3.55	3.68	Reed peat	10 YR 3/2 Very dark greyish brown dense reed peat of frequent pebble-sized reeds in a herbaceous matrix. Reeds extend into mineral deposits below (Dh1 Lh1 Dg2). Sharp boundary to:
BH1 9	3.68	5.50	Homogeneou s silt/clay	5 Y 5/1 Grey well sorted silt/clay. Occasional and isolated particles of 5 Y 2.5/1 Black reeds (T-S Ag3 As1). Hole abandoned at 5.50m.
BH2 0	0.00	0.13	Soil	2.5 Y 2.5/1 Black highly humified peat with frequent fibrous plant remains and roots to pebble size (T-S Th1 Dg3). Sharp boundary to:
	0.13	0.28	Iron-stained clay	2.5 Y 5/2 Greyish brown silt/clay with frequent iron stains. Rare granular sub-angular carbonate clasts. Moderately sorted (Ag1 As3 Ld+). Sharp boundary to:
	0.28	0.65	Herbaceous peat	2.5 Y 2.5/1 Black highly humified peat of herbaceous/fibrous plant remains (T-S Dh1 Dg3 Th+ at top). Diffuse boundary to:
	0.65	1.05	Wood peat	7.5 YR 3/1 Very dark grey wood peat of frequent coarse pebble to granular wood fragments in wood and fibre matrix. Moderately humified (DI2 Dg2). Diffuse boundary to:
	1.05	3.64	Wood peat	7.5 YR 4/4 Brown slightly humified wood peat with frequent pebble-sized wood fragments in a fibrous matrix (T-S DI1 Dh1 Dg2). Sharp boundary to:
	3.64	3.80	Reed peat	10 YR 3/2 Very dark greyish brown dense reed peat of frequent pebble-sized reeds in a herbaceous matrix. Reeds extend into mineral deposits below (Dh1 Lh1 Dg2). Sharp boundary to:
	3.80	5.50	Homogeneou s silt/clay	5 Y 5/1 Grey well sorted silt/clay. Occasional and isolated particles of 5 Y 2.5/1 Black reeds (T-S Ag3 As1). Frequent granular and finer shell below 4.45m. Hole abandoned at 5.50m.
BH2 1	0.00	0.20	Soil	10 YR 2/1 Black silt/clay. Frequent roots. Unknown boundary to:
	0.20	0.39	Homogeneou s silt/clay	10 YR 4/1 dark grey silt/clay matrix with sharply defined black and orange sand to granular-sized mottles. Rare sub rounded sandstone pebble. Bioturbated. Diffuse boundary to:
	0.39	0.80	Herbaceous peat	2.5 Y 2.5/1 Black highly humified peat of herbaceous/fibrous plant remains Fine granular crumb structure becoming brown 7.5 YR 4/4 towards base. Diffuse boundary to:
	0.80	4.34	Wood Peat	7.5 YR 4/4 Brown slightly humified wood peat with frequent pebble-sized wood fragments in a fibrous matrix (T-S DI1 Dh1 Dg2). Sharp boundary to:
	4.34	4.35	Reed peat	2.5 Y 3/2 very dark greyish brown poorly humified reed peat. Sharp boundary to:
	4.35	5.00	Homogeneou s silt/clay	5 Y 5/1 Grey silt/clay. Occasional to frequent granular-sized reed fragments and black humic stains. Hole abandoned at 5.00m
BH2 2	0.00	0.20	Soil	10 YR 2/1 Black silt/clay. Frequent roots. Unknown boundary to:
	0.20	0.40	Homogeneou s silt/clay	10 YR 4/1 Dark grey silt/clay matrix with sharply defined black and orange sand to granular-sized mottles. Bioturbated. Gradual boundary to:
	0.40	0.62	Herbaceous peat	2.5 Y 2.5/1 Black highly humified peat of herbaceous/fibrous plant remains Fine granular crumb structure becoming dark brown 7.5 YR 4/4 towards base. Diffuse boundary to:
	0.62	4.30	Wood Peat	7.5 YR 4/4 Brown slightly humified wood peat with frequent pebble-sized wood fragments in a fibrous matrix (T-S DI1 Dh1 Dg2). Sharp boundary to:
	4.30	4.31	Reed peat	2.5 Y 3/2 Very dark greyish brown poorly humified reed peat. Sharp boundary to:
	4.31	5.00	Homogeneou s silt/clay	5 Y 5/1 Grey silt/clay. Occasional to frequent granular-sized reed fragments and black humic stains. Hole abandoned at 5.00m
BH2 3	0.00	0.16	Soil	10 YR 2/1 Black silt/clay. Frequent roots. Unknown boundary to:

BH2	0.16	0.28	Homogeneou	10 YR 4/1 Dark grey silt/clay matrix with sharply defined black and orange sand to granular-sized mottles. Rare
3	0.00		s silt/clay	pebble-sized sandstone clast. Bioturbated. Gradual boundary to:
	0.28	0.63	Herbaceous peat	2.5 Y 2.5/1 Black highly humified peat of herbaceous/fibrous plant remains Fine granular crumb structure becoming dark brown 7. 5 YR 4/4 towards base. Diffuse boundary to:
	0.63	4.20	Wood peat	7.5 YR 4/4 Brown slightly humified wood peat with frequent pebble-sized wood fragments in a fibrous matrix (T-S DI1
	0.00	1.20	Wood pour	Dh1 Dg2). Sharp boundary to:
	4.20	4.75	Homogeneou	5 Y 5/1 Grey silt/clay. Occasional to frequent granular-sized reed fragments and black humic stains. Gradual
			s silt/clay	boundary to:
	4.75	5.00	Sandstone	10 YR 4/2 Dark greyish brown fine to medium sandy clay. Hole abandoned at 5.00m.
BH2	0.00	0.17	Soil	10 YR 2/1 Black silt/clay. Frequent roots. Unknown boundary to:
4	0.00	0.17	00	To The 27 Black diffusialy. Troqueric recto. Chikiletin boundary to.
	0.17	0.30	Subsoil	10 YR 4/1 dark grey silt/clay matrix with sharply defined black and orange sand to granular-sized mottles.
				Bioturbated. Gradual boundary to:
	0.30	1.10	Herbaceous	2.5 Y 2.5/1 Black highly humified peat of herbaceous/fibrous plant remains Fine granular crumb structure becoming
			peat	brown 7.5 YR 4/4 towards base. Diffuse boundary to:
	1.10	3.75	Wood peat	7.5 YR 4/4 Brown slightly humified wood peat with frequent pebble-sized wood fragments in a fibrous matrix (T-S DI1
			·	Dh1 Dg2). Sharp boundary to:
	3.75	4.20	Wood Peat	2.5 Y 3/2 very dark greyish brown poorly humified peat with granular-sized reed and wood fragments in a fibrous
				matrix. Sharp boundary to:
	4.20	4.22	Sand	5 Y 4/1 Dark grey medium sandy clay. Sharp boundary to:
	4.22	4.56	Sandstone	7.5 YR 4/3 Brown, compact silt/clay with frequent medium to coarse sand-sized mineral grains, occasional plant
				fragment and angular quartz and sandstone granular-sized clasts. Hole abandoned at 4.56m.
BH2 5	0.00	0.09	No recover	Void
	0.09	0.19	Soil	2.5 Y 3/2 Very dark greyish borwn humic silt/clay with occasional sub-angular granular calcareous pebbles and
				granules. Frequent roots. Poorly sorted (Ag2 Th1 As1 Gg(min)+). Diffuse boundary to:
	0.19	0.30	Iron-stained	2.5 Y 5/2 Greyish brown silt/clay with frequent iron stains. Rare granular sub-angular carbonate clasts. Moderately
			clay	sorted (Ag1 As3 Ld+). Diffuse boundary to:
	0.30	0.65	Herbaceous	2.5 Y 2.5/1 Black highly humified peat of herbaceous/fibrous plant remains (T-S Dh1 Dg3 Th+ at top). Diffuse
			peat	boundary to:
	0.65	1.20	Wood peat	7.5 YR 3/1 Very dark grey wood peat of frequent coarse pebble to granular wood fragments in wood and fibre matrix.
			·	Moderately humified (DI2 Dg2). Diffuse boundary to:
	1.20	3.70	Wood peat	7.5 YR 4/4 Brown slightly humified wood peat with frequent pebble-sized wood fragments in a fibrous matrix (T-S DI1
			·	Dh1 Dg2). Sharp boundary to:
	3.70	3.80	Reed peat	10 YR 3/2 Very dark greyish brown dense reed peat of frequent pebble-sized reeds in a herbaceous matrix. Reeds
			,	extend into mineral deposits below (Dh1 Lh1 Dg2). Sharp boundary to:
	3.80	7.57	Homogeneou	5 Y 5/1 Grey well sorted silt/clay. Occasional and isolated particles of 5 Y 2.5/1 Black reeds (T-S Ag3 As1). Sharp
			s silt/clay	boundary to:
BH2	7.57	7.80	Reed peat	10 YR 2/1 Black compact moderately humified herbaceous peat of moderate herbaceous plant remains in a dense
5				fibrous matrix (Dg3 Dh1). Hole abandoned due to lack of penetration at 7.80m
BH2	0.00	0.10	No recover	Void
6	ĺ			

	0.10	0.48	Herbaceous peat	2.5 Y 3/1 Very dark grey highly humfied herbaceous peat of fibres and root 'pebbles' in a fibrous matrix (T-S Dg3 Dh1 Th+). Diffuse boundary to:
	0.48	1.52	Herbaceous peat	10 YR 3/1 Very dark grey moderately humified herbaceous peat of frequent pebble-granular size roots and fibres in a fibrous matrix (Dh2 Dg2). Diffuse boundary to:
	1.52	2.87	Wood peat	7.5 YR 2.5/2 Very dark brown moderately humified wood peat of cobble-pebble-sized wood fragments in a fibrous matrix (DI2 Dg2). Sharp boundary to:
	2.87	3.66	Herbaceous peat	10 YR 4/4 Dark greyish brown herbaceous ( <i>Sphagnum</i> ?) peat of dense fibres (granular and pebble size) in an organic mud/fibrous matrix (Dh3 Dg1). Sharp boundary to:
	3.66	7.13	Homogeneou s silt/clay	5 Y 5/1 Grey well sorted silt/clay. Occasional and isolated particles of 5 Y 2.5/1 Black reeds (T-S Ag3 As1). Diffuse boundary to:
	7.13	9.46	Laminated sand and silt	5 Y 5/1 Grey silt laminated with fine 5 Y 4/1 Dark grey fine sand/silt. Laminae are fine and separated by 10mm+ at surface, but become fine layers/bundles and separated by 5-10mm at base. Laminae are angled, straight and parallel. Well sorted. Sharp boundary to:
	9.46	9.55	Herbaceous peat	10 YR 2/1 Black highly compressed, moderately humifed fibrous peat. Frequent granular and fine pebble-sized mollusc shell at 9.55m ( <i>Bathyomphalus contortus</i> , <i>Lymnaea peregra</i> ). Hole abandoned at 9.55m
BH2 7	0.00	0.16	No recover	Void
	0.16	0.58	Herbaceous peat	2.5 Y 3/1 Very dark grey highly humfied herbaceous peat of fibres and root 'pebbles' in a fibrous matrix (T-S Dg3 Dh1 Th+). Diffuse boundary to:
	0.58	1.35	Herbaceous peat	10 YR 3/1 Very dark grey moderately humified herbaceous peat of frequent pebble-granular size roots and fibres in a fibrous matrix (Dh2 Dg2). Diffuse boundary to:
	1.35	2.85	Wood peat	7.5 YR 2.5/2 Very dark brown moderately humified wood peat of cobble-pebble-sized wood fragments in a fibrous matrix (DI2 Dg2). Sharp boundary to:
	2.85	3.20	Herbaceous peat	10 YR 4/4 Dark greyish brown herbaceous (Sphagnum?) peat of dense fibres (granular and pebble size) in an organic mud/fibrous matrix (Dh3 Dg1). Sharp boundary to:
	3.20	4.10	Homogeneou s silt/clay	5 Y 5/1 Grey bedded silt with horizontal fine layers of 5 Y 6/1 Grey clay and 5 Y 4/1 Dark grey silt. Well sorted (Ag3 As1). Diffuse boundary to:
	4.10	5.50	Laminated sand and silt	5 Y 5/1 Grey silt bedded with occasional 50mm-thick bundles of fine, wavy, continuous laminae of fine sand and silt. Rare coarse sand-sized mollusc shell (Ag4 Ga+ As+). Diffuse boundary to:
	5.50	9.21	Laminated sand and silt	5 Y 5/1 Grey silt laminated with fine 5 Y 4/1 Dark grey fine sand/silt. Laminae are fine and separated by 10mm+ at surface, but become fine layers/bundles and separated by 5-10mm at base. Laminae are angled, straight and parallel. Well sorted. Diffuse boundary to:
	9.21	9.50	Homogeneou s silt/clay	5 Y 5/1 Grey bedded silt with horizontal fine layers of 5 Y 4/1 Dark grey silt. Well sorted (Ag3 As1). Diffuse boundary to:
BH2 7	9.50	10.00	Laminated sand and silt	5 Y 5/1 Grey silt laminated with fine 5 Y 4/1 Dark grey fine sand/silt. Laminae are fine and separated by 10mm+ at surface, but become fine layers/bundles and separated by 5-10mm at base. Laminae are angled, straight and parallel. Well sorted.
	10.00	11.00	Laminated sand silt	5 Y 3/1 Very dark grey clay with frequent evenly distributed fine laminae of vey fine to fine sand with flame structures at the top becoming parallel and roughly horizontal.
	11.00	12.00	Laminated sand and silt	5 Y 4/1 Dark grey clay with frequent laminae of 5 Y 3/1 Very dark grey fine to medium sand. Laminae are parallel and horizontal and become beds of medium to coarse sand with occasional granular sub angular rock clasts towards the base. Hole abandoned at 12.00m

0.03	BH2 8	0.00	0.03	No recover	Void
0.17   0.27   Iron-stained clay   10 YR 4/1 Dark grey compact silt/clay with dark orange iron oxide mottles. Occasional roots. Diffused boundary to: 0.27   0.58   Herbaceous peat   2.5 Y 2.5/1 Black well humified peat with pebble-sized wood fragment at 0.47m. Diffuse boundary to: peat   0.58   2.00   Wood Peat   5 YR 3/3 Dark reddish brown oxidising to 7.5YR2.5/1 Black poorly humified peat with occasional pebble-sized wood fragments, and frequent fibrous and reed-like plant remains.   3.00   3.00   Wood Peat   5 YR 3/3 Dark reddish brown oxidising to 7.5YR2.5/1 Black poorly humified peat with occasional pebble-sized wood fragments, and frequent fibrous and reed-like plant remains.   3.00   3.30   No recover   Slump   5 YR 3/3 Dark reddish brown oxidising to 7.5YR2.5/1 Black poorly humified peat with occasional pebble-sized wood fragments, and frequent fibrous and reed-like plant remains.   3.74   3.82   Reed peat   5 YR 3/3 Dark reddish brown oxidising to 7.5YR2.5/1 Black poorly humified peat with occasional pebble-sized wood fragments, and frequent fibrous and reed-like plant remains.   3.74   3.82   Reed peat   5 YR 3/3 Dark reddish brown oxidising to 7.5YR2.5/1 Black poorly humified peat with occasional pebble-sized wood fragments, and frequent fibrous and reed-like plant remains.   3.74   3.82   Reed peat   5 YR 3/3 Dark reddish brown oxidising to 7.5YR2.5/1 Black poorly humified peat with occasional pebble-sized wood fragments is allowed   5 YR 3/3 Dark reddish brown oxidising to 7.5YR2.5/1 Black poorly humified peat with occasional pebble-sized wood fragments often vertically orientated   5 YR 3/3 Dark reddish brown oxidising to 7.5YR2.5/1 Black poorly humified peat with occasional pebble-sized wood fragments oxident remains and granular to pebble-sized reed fragments often vertically orientated.   5 YR 4/1 Dark grey positively with frequent granular to pebble-sized reed fragments often vertically orientated.   5 YR 4/1 Dark grey positively with frequent granular to pebble-sized reed fragments often ver		0.03	0.17	Soil	10 YR 3/1 Very dark grey silt/clay with rare very fine sand-sized mineral grains. Frequent roots. Diffuse boundary to:
Deat   Peat		0.17	0.27		
2.00   2.30   No recover   Slump   S YR 3/3 Dark reddish brown oxidising to 7.5YR2.5/1 Black poorly humified peat with occasional pebble-sized wood fragments, and frequent fibrous and reed-like plant remains.		0.27	0.58		2.5 Y 2.5/1 Black well humified peat with pebble-sized wood fragment at 0.47m. Diffuse boundary to:
2.00 2.30 No recover Slump S YR 3/3 Dark reddish brown oxidising to 7.5YR2.5/1 Black poorly humified peat with occasional pebble-sized wood fragments, and frequent fibrous and reed-like plant remains.  3.01 No recover Slump 3.02 Silving 3.03 Silving 3.04 Silving 3.05 Silving 3.06 Silving 3.07 Silving 3.08 Reed peat 3.09 Silving 3.09 Silving 3.09 Silving 3.09 Silving 3.00 Silving		0.58	2.00	Wood Peat	
2.30   3.00   Wood Peat   5 YR 3/3 Dark reddish brown oxidising to 7.5YR2.5/1 Black poorly humified peat with occasional pebble-sized wood fragments, and frequent fibrous and reed-like plant remains.   3.74   3.82   Reed peat   2.5 YR 3/3 Dark reddish brown oxidising to 7.5YR2.5/1 Black poorly humified peat with occasional pebble-sized wood fragments, and frequent fibrous and reed-like plant remains.   3.74   3.82   Reed peat   2.5 Y 3/2 Very dark greyish brown poorly humified reed peat. Diffuse boundary to:   57 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated some   silt/clay   5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.   5.00   Homogeneou   Silt/clay   5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.   5.14   6.00   Homogeneou   Silt/clay   5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.   5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.   5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.   5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.   5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.   5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.   5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.   5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized mineral grains and granular-sized plant fragment.   5 Y 4/1 Dark grey silt/clay with occasional fine sand-sized mineral grains and granular-sized plant fragment.   5 Y 4/1 Dark grey silt/clay with occasional to frequent fine sand-sized mineral g		2.00	2.30	No recover	
3.30 3.74 Wood Peat 5 YR 3/3 Dark reddish brown oxidising to 7.5YR2.5/1 Black poorly humified peat with occasional pebble-sized wood fragments, and frequent fibrous and reed-like plant remains.  3.74 3.82 Reed peat 2.5 Y 3/2 Very dark greyish brown poorly humified reed peat. Diffuse boundary to:  3.82 4.00 Homogeneou 5 Y4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated some originating from unit above.  4.00 4.27 No recover Slump 5.00 Homogeneou 5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.  5.00 5.14 No recover Slump 5.14 6.00 Homogeneou 5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.  5.00 6.07 No recover Slump 6.07 7.00 Homogeneou 5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.  5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.  5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.  5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.  5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.  5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.  5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized mineral grains and granular-sized plant fragment.  5 Y 3/1 Very dark grey silt/clay with occasional fine sand-sized mineral grains and granular-sized plant fragment.  5 Y 3/1 Very dark grey silt/clay with occasional to frequent fine sand-sized mineral grains increasing in frequency and size silt/clay  8.88 8.49 Matrix-  5 Y 4/1 Dark grey poorly sorted, compact matrix-supported gravel of sand to small pebble-sized sub-angular to rounded quartzites and sandstone clasts in a clay		_		Wood Peat	
Silvar   S		3.00	3.30	No recover	Slump
3.74   3.82   Reed peat   2.5 Y 3/2 Very dark greyish brown poorly humified reed peat. Diffuse boundary to:   3.82   4.00   Homogeneou silt/clay   5Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated some originating from unit above.   4.00   4.27   No recover   Slump     4.27   5.00   Homogeneou silt/clay   5Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.   5.00   5.14   No recover   Slump     5.14   6.00   Homogeneou silt/clay   5Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.   6.00   6.07   No recover   Slump     6.07   7.00   Homogeneou silt/clay   5Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.   7.00   7.11   No recover   Slump     7.11   7.48   Homogeneou silt/clay   5Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.   7.48   8.00   Wood peat   5Y 8/2 Dark reddish brown, compact well humified wood peat with occasional pebble-sized wood fragments increasing towards base. Oxidizes to 7.5 YR 2.5/1 Black.   BH2   8.37   8.07   Homogeneou sitt/clay   5Y 3/1 Very dark grey silt/clay with occasional fine sand-sized mineral grains and granular-sized plant fragment.   Gradual boundary to:   5Y 4/1 Dark grey poorly sorted, compact matrix-supported gravel of sand to small pebble-sized sub-angular to rounded quartzites and sandstone clasts in a clay matrix. Sharp boundary to:   Shandard to small pebble-sized sub-angular to rounded quartzites and sandstone clasts in a clay matrix. Sharp boundary to:   Shandard to small pebble-sized sub-angular to rounded quartzites and sandstone clasts in a clay matrix. Sharp boundary to:   Shandard to small pebble-sized sub-angular to rounded quartzites and sandstone clasts in a clay matrix. Sharp boundary to:   Shandard to small pebble sized sub-angular to rounded quartzites and sandst		3.30	3.74	Wood Peat	
3.82		3.74	3.82	Reed peat	
4.27   No recover   Slump   5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.		3.82	4.00	Homogeneou	5Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated some
4.27   5.00   Homogeneou silt/clay   5.14   No recover   Slump   5.14   Homogeneou silt/clay   5.00   5.14   No recover   Slump   5.14   6.00   Homogeneou silt/clay   5.4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.   Silt/clay   5.00   6.07   No recover   Slump   6.07   7.00   Homogeneou silt/clay   5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.   5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.   7.00   7.11   No recover   Slump   7.11   7.48   Homogeneou silt/clay   5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.   7.48   8.00   Wood peat   5 Y 3/2 Dark reddish brown, compact well humified wood peat with occasional pebble-sized wood fragments increasing towards base. Oxidizes to 7.5 YR 2.5/1 Black.   S Y 3/1 Very dark grey silt/clay with occasional fine sand-sized mineral grains and granular-sized plant fragment.   Gradual boundary to;   5 Y 4/1 Dark grey silt/clay with occasional to frequent fine sand-sized mineral grains increasing in frequency and size towards base. Rare pebble-sized wood fragment, granular plant remains and humic stains. Gradual boundary to:   5 Y 4/1 Dark grey poorly sorted, compact matrix-supported gravel of sand to small pebble-sized sub-angular to rounded quartzites and sandstone clasts in a clay matrix. Sharp boundary to:   1 Portically orientated.   1 Portically orientated.   1 Portically orientated.   1 Portically orientated.   2 Portically orientated.   3 Portica		4.00	4.27		
5.00   5.14   No recover   Slump   5.14   6.00   Homogeneou sitt/clay   5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.   sitt/clay   5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.   Sitt/clay   7.00   7.10   Homogeneou sitt/clay   5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.   Sitt/clay   7.00   7.11   No recover   Slump   5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.   Sitt/clay   5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.   Sitt/clay   5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.   Sitt/clay   Sitt/clay   Sitt/clay with occasional pebble-sized wood fragments increasing towards base. Oxidizes to 7.5 YR 2.5/1 Black.   Sitt/clay   Sitt/clay   Sitt/clay with occasional fine sand-sized mineral grains and granular-sized plant fragment.   Sitt/clay   Sitt/clay with occasional to frequent fine sand-sized mineral grains increasing in frequency and size towards base. Rare pebble-sized wood fragment, granular plant remains and humic stains. Gradual boundary to:   Sitt/clay with occasional to gravel of sand to small pebble-sized sub-angular to rounded quartzites and sandstone clasts in a clay matrix. Sharp boundary to:   Sitt/clay with occasional to gravel   Sitt/clay with occasional to gravel of sand to small pebble-sized sub-angular to rounded quartzites and sandstone clasts in a clay matrix. Sharp boundary to:   Sitt/clay with occasional to gravel   Sitt/clay with occas				Homogeneou	
5.14   6.00   Homogeneou silt/clay   5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.		5.00	5.14		Slump
6.07   7.00   Homogeneou silt/clay   5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.   7.00   7.11   No recover   Slump		5.14	6.00		5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.
S silt/clay   7.00   7.11   No recover   Slump   7.11   7.48   Homogeneou   5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.   S Y 8.00   Wood peat   5 YR 3/2 Dark reddish brown, compact well humified wood peat with occasional pebble-sized wood fragments increasing towards base. Oxidizes to 7.5 YR 2.5/1 Black.   BH2 8.37   8.07   Homogeneou   S ilt/clay   S Y 3/1 Very dark grey silt/clay with occasional fine sand-sized mineral grains and granular-sized plant fragment.   Gradual boundary to:   S Y 4/1 Dark grey silt/clay with occasional to frequent fine sand-sized mineral grains increasing in frequency and size towards base. Rare pebble-sized wood fragment, granular plant remains and humic stains. Gradual boundary to:   S Y 4/1 Dark grey poorly sorted, compact matrix-supported gravel of sand to small pebble-sized sub-angular to rounded quartzites and sandstone clasts in a clay matrix. Sharp boundary to:   S Y 4/1 Dark grey poorly sorted gravel   S Y 4/2 Dark grey sorted g		6.00	6.07	·	Slump
7.11 7.48 Homogeneou s silt/clay 5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.  8.00 Wood peat 5 YR 3/2 Dark reddish brown, compact well humified wood peat with occasional pebble-sized wood fragments increasing towards base. Oxidizes to 7.5 YR 2.5/1 Black.  8.07 Homogeneou s silt/clay Gradual boundary to;  8.07 8.28 Homogeneou s silt/clay but occasional fine sand-sized mineral grains and granular-sized plant fragment. Gradual boundary to;  8.28 8.49 Matrix-supported gravel of sand to small pebble-sized sub-angular to rounded quartzites and sandstone clasts in a clay matrix. Sharp boundary to:		6.07	7.00		5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.
7.11 7.48 Homogeneou s silt/clay  7.48 8.00 Wood peat 5 YR 3/2 Dark reddish brown, compact well humified wood peat with occasional pebble-sized wood fragments increasing towards base. Oxidizes to 7.5 YR 2.5/1 Black.  BH2 8.37 8.07 Homogeneou s silt/clay Gradual boundary to;  8.07 8.28 Homogeneou s silt/clay With occasional fine sand-sized mineral grains and granular-sized plant fragment. Gradual boundary to;  8.28 8.49 Matrix-supported gravel of sand to small pebble-sized sub-angular to rounded quartzites and sandstone clasts in a clay matrix. Sharp boundary to:		7.00	7.11	No recover	Slump
7.48 8.00 Wood peat 5 YR 3/2 Dark reddish brown, compact well humified wood peat with occasional pebble-sized wood fragments increasing towards base. Oxidizes to 7.5 YR 2.5/1 Black.  BH2 8.37 8.07 Homogeneou silt/clay Silt/clay with occasional fine sand-sized mineral grains and granular-sized plant fragment. Gradual boundary to;  8.07 B.28 Homogeneou silt/clay with occasional to frequent fine sand-sized mineral grains increasing in frequency and size towards base. Rare pebble-sized wood fragment, granular plant remains and humic stains. Gradual boundary to:  8.28 S.49 Matrix-supported gravel of sand to small pebble-sized sub-angular to rounded quartzites and sandstone clasts in a clay matrix. Sharp boundary to:		7.11	7.48	Homogeneou	5 Y 4/1 Dark grey silt/clay with frequent granular to pebble-sized reed fragments often vertically orientated.
BH2 8.37 8.07 Homogeneou s silt/clay Silt/clay with occasional fine sand-sized mineral grains and granular-sized plant fragment.  8.07 8.28 Homogeneou s silt/clay Silt/clay with occasional to frequent fine sand-sized mineral grains increasing in frequency and size towards base. Rare pebble-sized wood fragment, granular plant remains and humic stains. Gradual boundary to:  8.28 8.49 Matrix-supported gravel of sand to small pebble-sized sub-angular to rounded quartzites and sandstone clasts in a clay matrix. Sharp boundary to:		7.48	8.00		
8.07 B.28 Homogeneou s silt/clay base. Rare pebble-sized wood fragment, granular plant remains and humic stains. Gradual boundary to:  8.28 B.49 Matrix-supported gravel of sand to small pebble-sized sub-angular to rounded quartzites and sandstone clasts in a clay matrix. Sharp boundary to:		8.37	8.07		5 Y 3/1 Very dark grey silt/clay with occasional fine sand-sized mineral grains and granular-sized plant fragment.
8.28 8.49 Matrix-supported gravel of sand to small pebble-sized sub-angular to rounded quartzites and sandstone clasts in a clay matrix. Sharp boundary to:		8.07	8.28	Homogeneou	5 Y 4/1 Dark grey silt/clay with occasional to frequent fine sand-sized mineral grains increasing in frequency and size
		8.28	8.49	Matrix- supported	5 Y 4/1 Dark grey poorly sorted, compact matrix-supported gravel of sand to small pebble-sized sub-angular to
		8.49	8.63		7.5 YR 4/3 Brown compact silt/clay. Hole abandoned at 9.00m

# Appendix 4: Lithological descriptions of the monoliths from the Greylake test pit by K. Wilkinson

Unit	Тор	Base	Lithology	Description
	(m)	(m)		
1	0.00	0.18	Herbaceous	10 YR 3/2 Very dark greyish brown highly humified peat forming granular and fine pebble-sized
			peat	aggregates. Frequent fine roots, declining downwards (Dh+ Dg2 Sh1 Th1). Diffuse boundary to:
2	0.18	0.42	Herbaceous	10 YR 3/1 Very dark grey highly humified peat with occasional granular to pebbled-sized wood
			peat	fragments. Frequent fine fibrous plant remains, mostly vertical, but some horizontally aligned (Dg4
				DI+ Th+). Sharp boundary to:
3	0.42	1.24	Wood peat	10 YR 2/2 Very dark brown wood peat of frequent boulder to pebble sized wood fragments
				(arranged at a variety of angles) in a detrital herbaceous peat matrix. Moderately humified (DI3 Dg1).
				Sharp boundary to:
5	1.24	1.30	Homogen-	5 Y 4/1 Dark grey fine sand/silt with moderate fine roots and rare pebble to cobble-size wood
			eous	fragments (originating from Unit 3) (Ga3 Ag1 Dh+ Dl+). Sharp boundary to:
			silt/clay	
6	1.30	1.50	Sandstone	2.5 Y 5/2 Greyish brown well sorted fine-medium sand. Rare fine roots (emanating from Unit 3).
				Rare pebble-sized sub-angular to rounded quartzite clasts (Gs1 Ga3).

# Appendix 5: Optically Stimulated Luminescence dating of two samples from Shapwick Trench 2 by P. Toms

# **Scope of Report**

This is a standard report of the Luminescence dating laboratory, University of Gloucestershire. In large part, the document summarises the processes, diagnostics and data drawn upon to deliver Table 1. A conclusion on the analytical validity of each sample's optical age estimate is expressed in Table 2; where there are caveats, the reader is directed to the relevant section of the report that explains the issue further in general terms.

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Permission must be sought from Dr P.S. Toms of the University of Gloucestershire Luminescence dating laboratory in using the content of this report, in part or whole, for the purpose of publication.

## 1.0 Mechanisms and principles

Upon exposure to ionising radiation, electrons within the crystal lattice of insulating minerals are displaced from their atomic orbits. Whilst this dislocation is momentary for most electrons, a portion of charge is redistributed to meta-stable sites (traps) within the crystal lattice. In the absence of significant optical and thermal stimuli, this charge can be stored for extensive periods. The quantity of charge relocation and storage relates to the magnitude and period of irradiation. When the lattice is optically or thermally stimulated, charge is evicted from traps and may return to a vacant orbit position (hole). Upon recombination with a hole, an electron's energy can be dissipated in the form of light generating crystal luminescence providing a measure of dose absorption.

Herein, quartz is segregated for dating. The utility of this minerogenic dosimeter lies in the stability of its datable signal over the mid to late Quaternary period, predicted through isothermal decay studies (e.g. Smith *et al.*, 1990; retention lifetime 630 Ma at 20°C) and evidenced by optical age estimates concordant with independent chronological controls (e.g. Murray and Olley, 2002). This stability is in contrast to the anomalous fading of comparable signals commonly observed for other ubiquitous sedimentary minerals such as feldspar and zircon (Wintle, 1973; Templer, 1985; Spooner, 1993)

Optical age estimates of sedimentation (Huntley *et al.*, 1985) are premised upon reduction of the minerogenic time dependent signal (Optically Stimulated Luminescence, OSL) to zero through exposure to sunlight and, once buried, signal reformulation by absorption of litho- and cosmogenic radiation. The signal accumulated post burial acts as a dosimeter recording total dose absorption, converting to a chronometer by estimating the rate of dose absorption quantified through the assay of radioactivity in the surrounding lithology and streaming from the cosmos.

Age = Mean Equivalent Dose (D<sub>e</sub>, Gy)

Mean Dose Rate (D<sub>r</sub>, Gy.ka<sup>-1</sup>)

Aitken (1998) and Bøtter-Jensen et al. (2003) offer a detailed review of optical dating.

## 2.0 Sample Preparation

Two sediment samples were submitted within opaque tubing for Optical dating. To preclude optical erosion of the datable signal prior to measurement, all samples were opened and prepared under controlled laboratory illumination provided by Encapsulite RB-10 (red) filters. To isolate that material potentially exposed to daylight during sampling, sediment located within 20 mm of each tube-end was removed.

The remaining sample was dried sieved then subjected to acid and alkaline digestion (10% HCl, 15%  $H_2O_2$ ) to attain removal of carbonate and organic components respectively. Fine silt sized quartz, along with other mineral grains of varying density and size, was extracted by sample sedimentation in acetone (<15  $\mu$ m in 2 min 20 s, >5  $\mu$ m in 21 mins at 20°C). Feldspars and amorphous silica were then removed from this fraction through acid digestion (35%  $H_2SiF_6$  for 2 weeks, Jackson *et al.*, 1976; Berger *et al.*, 1980). Following addition of 10% HCl to remove acid soluble fluorides, grains degraded to <5  $\mu$ m as a result of acid treatment were removed by acetone sedimentation. Twelve multi-grain aliquots (ca. 1.5 mg) were then mounted on aluminium discs for  $D_e$  evaluation.

All drying was conducted at 40°C to prevent thermal erosion of the signal. All acids and alkalis were Analar grade. All dilutions (removing toxic-corrosive and non-minerogenic luminescence-bearing substances) were conducted with distilled water to prevent signal contamination by extraneous particles.

## 3.0 Acquisition and accuracy of D<sub>e</sub> value

All minerals naturally exhibit marked inter-sample variability in luminescence per unit dose (sensitivity). Therefore, the estimation of  $D_e$  acquired since burial requires calibration of the natural signal using known amounts of laboratory dose.  $D_e$  values were quantified using a single-aliquot regenerative-dose (SAR) protocol (Murray and Wintle 2000; 2003) facilitated by a Risø TL-DA-15 irradiation-stimulation-detection system (Markey *et al.*, 1997; Bøtter-Jensen *et al.*, 1999). Within this apparatus, optical signal stimulation is provided by an assembly of blue diodes (5 packs of 6 Nichia NSPB500S), filtered to  $470\pm80$  nm conveying 15 mW.cm<sup>-2</sup> using a 3 mm Schott GG420 positioned in front of each diode pack. Infrared (IR) stimulation, provided by 6 IR diodes (Telefunken TSHA 6203) stimulating at  $875\pm80$ nm delivering ~5 mW.cm<sup>-2</sup>, was used to indicate the presence of contaminant feldspars (Hütt *et al.*, 1988). Stimulated photon emissions from quartz aliquots are in the ultraviolet (UV) range and were filtered from stimulating photons by 7.5 mm HOYA U-340 glass and detected by an EMI 9235QA photomultiplier fitted with a blue-green sensitive bialkali photocathode. Aliquot irradiation was conducted using a 1.48 GBq  $^{90}$ Sr/ $^{90}$ Y  $\beta$  source calibrated for multi-grain aliquots of 5-15 µm quartz against the 'Hotspot 800'  $^{60}$ Co  $\gamma$  source located at the National Physical Laboratory (NPL), UK.

SAR by definition evaluates  $D_e$  through measuring the natural signal (Fig. 1) of a single aliquot and then regenerating that aliquot's signal by using known laboratory doses to enable calibration. For each aliquot, 5 different regenerative-doses were administered so as to image dose response.  $D_e$  values for each aliquot were then interpolated, and associated counting and fitting errors calculated, by way of exponential plus linear regression (Fig. 1). Weighted (geometric) mean  $D_e$  values were calculated from 12 aliquots using the central age model outlined by Galbraith *et al.* (1999) and are quoted at  $1\sigma$  confidence (Table 1). The accuracy with which  $D_e$  equates to total absorbed dose and that dose absorbed since burial was assessed. The former can be considered a function of laboratory factors, the latter, one of environmental issues. Diagnostics were deployed to estimate the influence of these factors and criteria instituted to optimise the accuracy of  $D_e$  values.

# 3.1 Laboratory Factors

# 3.1.1 Feldspar contamination

The propensity of feldspar signals to fade and underestimate age, coupled with their higher sensitivity relative to quartz makes it imperative to quantify feldspar contamination. At room temperature, feldspars generate a signal (IRSL; Fig. 1) upon exposure to IR whereas quartz does not. The signal from feldspars contributing to OSL can be depleted by prior exposure to IR. For all aliquots the contribution of any remaining feldspars was estimated from the OSL IR depletion ratio (Duller, 2003). The influence of IR depletion on the OSL signal can be illustrated by comparing the regenerated post-IR OSL D<sub>e</sub> with the applied regenerative-dose (Fig. 5). If the addition to OSL by feldspars is insignificant, then the repeat dose ratio of OSL to post-IR OSL should be statistically consistent with unity (Table 1). If any aliquots do not fulfil this criterion, then the sample age estimate should be accepted tentatively. The source of feldspar contamination is rarely rooted in sample preparation; it predominantly results from the occurrence of feldspars as inclusions within quartz.

Field Code	Lab Code	Overburde	Grain size (μm	Moisture content (%)		spectromet ry ( <i>in situ</i> )		γ D <sub>r</sub> (Gy.ka <sup>-1</sup> )	Ge γ- spectromet	ry (ex situ)		□ D <sub>r</sub> (Gy.ka <sup>-1</sup> )	β D <sub>r</sub> (Gy.ka <sup>-1</sup> )	Cosmic D <sub>r</sub> (Gy.ka <sup>-1</sup> )	Preheat (°C for 10s)	Low Dose Repeat	Interpolate d:Applied Low	High Dose Repeat	Interpolate d:Applied High Regenerati	Post-IR OSL Ratio
					(%) Ж	Th (ppm)	(mdd) N		K (%)	(mdd) 4T	(mdd) N									
Trench	GL14049	2.6	5-15	19 ±	-	-	-	0.86	1.88	9.43	1.63	0.34	1.52	0.14	260	1.02	1.02 ±	1.00	1.00 ±	0.84
2 –				5				±	±	±	±	<u>±</u>	±	土		±	0.06	±	0.08	±
122								0.07	0.09	0.56	0.11	0.04	0.15	0.01		0.06		0.06		0.06
Trench	GL14050	1.9	5-15	27 ±	1	-	-	0.87	1.80	10.76	2.51	0.40	1.42	0.15	240	1.01	1.02 ±	1.00	1.00 ±	1.00
2 - 124				7				$\pm$	±	±	±	<u>±</u>	±	<u>±</u>		±	0.03	±	0.03	±
								0.10	0.09	0.62	0.14	0.05	0.17	0.01		0.03		0.03		0.04

Field Code	Lab Code	Total D <sub>r</sub> (Gy.ka <sup>-1</sup> )	D <sub>e</sub> (Gy)	Age (ka)
Trench 2 – 122	GL14049	$2.86 \pm 0.17$	149.9 ± 9.8	52 ± 5 (4)
Trench 2 - 124	GL14050	2.84 ± 0.21	21.8 ± 0.8	$7.7 \pm 0.6 (0.5)$

Table 1 D<sub>r</sub>, D<sub>e</sub> and Age data of submitted samples located at c. 51°N, 3°W, 10m. Age estimates expressed relative to year of sampling. Uncertainties in age are quoted at 1σ confidence, are based on analytical errors and reflect combined systematic and experimental variability and (in parenthesis) experimental variability alone (see 6.0). Blue indicates samples with accepted age estimates, red, age estimates with caveats (see Table 2).

Generic considerations	Field	Lab	Sample specific considerations
	Code	Code	
Absence of <i>in situ</i> $\gamma$ spectrometry data (see section 4.0)	Trench 2 – 122	GL14049	Minor feldspar contamination (see section 3.1.1 and Figs 1 & 5); consider as a minimum age estimate
	Trench 2 - 124	GL14050	None

Table 2 Analytical validity of sample suite age estimates and caveats for consideration

# 3.1.2 Preheating

Preheating aliquots between irradiation and optical stimulation is necessary to ensure comparability between natural and laboratory-induced signals. However, the multiple irradiation and preheating steps that are required to define single-aliquot regenerative-dose response leads to signal sensitisation, rendering calibration of the natural signal inaccurate. The SAR protocol (Murray and Wintle, 2000; 2003) enables this sensitisation to be monitored and corrected using a test dose, here set at 5 Gy preheated to 220°C for 10s, to track signal sensitivity between irradiation-preheat steps. However, the accuracy of sensitisation correction for both natural and laboratory signals can be preheat dependent.

The Dose Recovery test was used to assess the optimal preheat temperature for accurate correction and calibration of the time dependent signal. Dose Recovery (Fig. 2) attempts to quantify the combined effects of thermal transfer and sensitisation on the natural signal, using a precise lab dose to simulate natural dose. The ratio between the applied dose and recovered D<sub>e</sub> value should be statistically concordant with unity. For this diagnostic, 6 aliquots were each assigned a 10 s preheat between 180°C and 280°C.

That preheat treatment fulfilling the criterion of accuracy within the Dose Recovery test was selected to generate the final D<sub>e</sub> value from a further 12 aliquots. Further thermal treatments, prescribed by Murray and Wintle (2000; 2003), were applied to optimise accuracy and precision. Optical stimulation occurred at 125°C in order to minimise effects associated with photo-transferred thermoluminescence and maximise signal to noise ratios. Inter-cycle optical stimulation was conducted at 280°C to minimise recuperation.

#### 3.1.3 Irradiation

For all samples having D<sub>e</sub> values in excess of 100 Gy, matters of signal saturation and laboratory irradiation effects are of concern. With regards the former, the rate of signal accumulation generally adheres to a saturating exponential form and it is this that limits the precision and accuracy of D<sub>e</sub> values for samples having absorbed large doses. For such samples, the functional range of D<sub>e</sub> interpolation by SAR has been verified up to 600 Gy by Pawley *et al.* (2010). Age estimates based on D<sub>e</sub> values exceeding this value should be accepted tentatively.

# 3.1.4 Internal consistency

Quasi-radial plots (cf Galbraith, 1990) are used to illustrate inter-aliquot D<sub>e</sub> variability for natural, repeat regenerative-dose and post-IR OSL signals (Figs 3 to 5, respectively). D<sub>e</sub> values are standardised relative to the central D<sub>e</sub> value for natural signals and applied dose for regenerated

signals.  $D_e$  values are described as overdispersed when >5% lie beyond  $\pm 2\sigma$  of the standardising value; resulting from a heterogeneous absorption of burial dose and/or response to the SAR protocol. For multi-grain aliquots, overdispersion of natural signals does not necessarily imply inaccuracy. However where overdispersion is observed for regenerated signals, the efficacy of sensitivity correction may be problematic. Murray and Wintle (2000; 2003) suggest repeat dose ratios (Table 1) offer a measure of SAR protocol success, whereby ratios ranging across 0.9-1.1 are acceptable. However, this variation of repeat dose ratios in the high-dose region can have a significant impact on  $D_e$  interpolation. The influence of this effect can be outlined by quantifying the ratio of interpolated to applied regenerative-dose ratio (Table 1, Fig. 4). In this study, where both the repeat dose ratios and interpolated to applied regenerative-dose ratios range across 0.9-1.1, sensitivity-correction is considered effective.

#### 3.2 Environmental factors

# 3.2.1 Incomplete zeroing

Post-burial OSL signals residual of pre-burial dose absorption can result where pre-burial sunlight exposure is limited in spectrum, intensity and/or period, leading to age overestimation. This effect is particularly acute for material eroded and redeposited sub-aqueously (Olley *et al.*, 1998, 1999; Wallinga, 2002) and exposed to a burial dose of <20 Gy (e.g. Olley *et al.*, 2004), has some influence in sub-aerial contexts but is rarely of consequence where aerial transport has occurred. Within single-aliquot regenerative-dose optical dating there are two diagnostics of partial resetting (or bleaching); signal analysis (Agersnap-Larsen *et al.*, 2000; Bailey *et al.*, 2003) and inter-aliquot D<sub>e</sub> distribution studies (Murray *et al.*, 1995).

Within this study, signal analysis was used to quantify the change in  $D_e$  value with respect to optical stimulation time for multi-grain aliquots. This exploits the existence of traps within minerogenic dosimeters that bleach with different efficiency for a given wavelength of light to verify partial bleaching.  $D_e$  (t) plots (Fig. 6; Bailey *et al.*, 2003) are constructed from separate integrals of signal decay as laboratory optical stimulation progresses. A statistically significant increase in natural  $D_e$  (t) is indicative of partial bleaching assuming three conditions are fulfilled. Firstly, that a statistically significant increase in  $D_e$  (t) is observed when partial bleaching is simulated within the laboratory. Secondly, that there is no significant rise in  $D_e$  (t) when full bleaching is simulated. Finally, there should be no significant augmentation in  $D_e$  (t) when zero dose is simulated. Where partial bleaching is detected, the age derived from the sample should be considered a maximum estimate only. However, the utility of signal analysis is strongly dependent upon a samples pre-burial experience of sunlight's spectrum and its residual to post-burial signal ratio. Given in the majority of cases, the spectral exposure history of a deposit is uncertain, the absence of an increase in natural  $D_e$  (t) does not necessarily testify to the absence of partial bleaching.

Where requested and feasible, the insensitivities of multi-grain single-aliquot signal analysis may be circumvented by inter-aliquot D<sub>e</sub> distribution studies. This analysis uses aliquots of single sand grains to quantify inter-grain D<sub>e</sub> distribution. At present, it is contended that asymmetric intergrain D<sub>e</sub> distributions are symptomatic of partial bleaching and/or pedoturbation (Murray *et al.*, 1995; Olley *et al.*, 1999; Olley *et al.*, 2004; Bateman *et al.*, 2003). For partial bleaching at least, it is further contended that the D<sub>e</sub> acquired during burial is located in the minimum region of such ranges. The mean and breadth of this minimum region is the subject of current debate, as it is additionally influenced by heterogeneity in

microdosimetry, variable inter-grain response to SAR and residual to post-burial signal ratios. Presently, the apposite measure of age is that defined by the D<sub>e</sub> interval delimited by the minimum and central age models of Galbraith *et al.* (1999).

#### 3.2.2 Pedoturbation

The accuracy of sedimentation ages can further be controlled by post-burial trans-strata grain movements forced by pedo- or cryoturbation. Berger (2003) contends pedogenesis prompts a reduction in the apparent sedimentation age of parent material through bioturbation and illuviation of younger material from above and/or by biological recycling and resetting of the datable signal of surface material. Berger (2003) proposes that the chronological products of this remobilisation are A-horizon age estimates reflecting the cessation of pedogenic activity, Bc/C-horizon ages delimiting the maximum age for the initiation of pedogenesis with estimates obtained from Bt-horizons providing an intermediate age 'close to the age of cessation of soil development'. Singhvi et al. (2001), in contrast, suggest that B and C-horizons closely approximate the age of the parent material, the A-horizon, that of the 'soil forming episode'. At present there is no post-sampling mechanism for the direct detection of and correction for post-burial sediment remobilisation. However, intervals of palaeosol evolution can be delimited by a maximum age derived from parent material and a minimum age obtained from a unit overlying the palaeosol. Inaccuracy forced by cryoturbation may be bidirectional, heaving older material upwards or drawing younger material downwards into the level to be dated. Cryogenic deformation of matrix-supported material is, typically, visible; sampling of such cryogenically-disturbed sediments can be avoided.

# 4.0 Acquisition and accuracy of D<sub>r</sub> value

Lithogenic  $D_r$  values were defined through measurement of U, Th and K radionuclide concentration and conversion of these quantities into  $\alpha$ ,  $\beta$  and  $\gamma$   $D_r$  values (Table 1).  $\alpha$  and  $\beta$  contributions were estimated from sub-samples by laboratory-based  $\gamma$  spectrometry using an Ortec GEM-S high purity Ge coaxial detector system, calibrated using certified reference materials supplied by CANMET.  $\gamma$  dose rates can be estimated from *in situ* Nal gamma spectrometry or, where direct measurements are unavailable as in the present case, from laboratory-based Ge  $\gamma$  spectrometry. In situ measurements reduce uncertainty relating to potential heterogeneity in the  $\gamma$  dose field surrounding each sample. The level of U disequilibrium was estimated by laboratory-based Ge  $\gamma$  spectrometry. Estimates of radionuclide concentration were converted into  $D_r$  values (Adamiec and Aitken, 1998), accounting for  $D_r$  modulation forced by grain size (Mejdahl, 1979), present moisture content (Zimmerman, 1971) and, where  $D_e$  values were generated from 5-15  $\mu$ m quartz, reduced signal sensitivity to  $\alpha$  radiation (a-value 0.050  $\pm$  0.002). Cosmogenic  $D_r$  values were calculated on the basis of sample depth, geographical position and matrix density (Prescott and Hutton, 1994).

The spatiotemporal validity of  $D_r$  values can be considered a function of five variables. Firstly, age estimates devoid of *in situ*  $\gamma$  spectrometry data should be accepted tentatively if the sampled unit is heterogeneous in texture or if the sample is located within 300 mm of strata consisting of differing texture and/or mineralogy. However, where samples are obtained throughout a vertical profile, consistent values of  $\gamma$   $D_r$  based solely on laboratory measurements may evidence the homogeneity of the  $\gamma$  field and hence accuracy of  $\gamma$   $D_r$  values. Secondly, disequilibrium can force temporal instability in U and Th emissions. The impact of this infrequent phenomenon (Olley et al., 1996) upon age estimates is usually insignificant given their associated margins of error. However, for samples where this effect is pronounced (>50% disequilibrium between  $^{238}$ U and  $^{226}$ Ra; Fig. 7), the resulting age estimates should be accepted tentatively. Thirdly, pedogenically-induced variations in matrix composition of B and C-horizons, such as radionuclide and/or mineral remobilisation, may alter the rate of energy emission and/or absorption. If  $D_r$  is invariant

through a dated profile and samples encompass primary parent material, then element mobility is likely limited in effect. Fourthly, spatiotemporal detractions from present moisture content are difficult to assess directly, requiring knowledge of the magnitude and timing of differing contents. However, the maximum influence of moisture content variations can be delimited by recalculating  $D_r$  for minimum (zero) and maximum (saturation) content. Finally, temporal alteration in the thickness of overburden alters cosmic  $D_r$  values. Cosmic  $D_r$  often forms a negligible portion of total  $D_r$ . It is possible to quantify the maximum influence of overburden flux by recalculating  $D_r$  for minimum (zero) and maximum (surface sample) cosmic  $D_r$ .

## 5.0 Estimation of Age

Ages reported in Table 1 provide an estimate of sediment burial period based on mean  $D_e$  and  $D_r$  values and their associated analytical uncertainties. Uncertainty in age estimates is reported as a product of systematic and experimental errors, with the magnitude of experimental errors alone shown in parenthesis (Table 1). Probability distributions indicate the inter-aliquot variability in age (Fig. 8). The maximum influence of temporal variations in  $D_r$  forced by minima-maxima in moisture content and overburden thickness is illustrated in Fig. 8. Where uncertainty in these parameters exists this age range may prove instructive, however the combined extremes represented should not be construed as preferred age estimates. The analytical validity of each sample is presented in Table 2.

# 6.0 Analytical uncertainty

All errors are based upon analytical uncertainty and quoted at  $1\sigma$  confidence. Error calculations account for the propagation of systematic and/or experimental (random) errors associated with  $D_e$  and  $D_r$  values.

For  $D_e$  values, systematic errors are confined to laboratory  $\beta$  source calibration. Uncertainty in this respect is that combined from the delivery of the calibrating  $\gamma$  dose (1.2%; NPL, pers. comm.), the conversion of this dose for SiO<sub>2</sub> using the respective mass energy-absorption coefficient (2%; Hubbell, 1982) and experimental error, totalling 3.5%. Mass attenuation and bremsstrahlung losses during  $\gamma$  dose delivery are considered negligible. Experimental errors relate to  $D_e$  interpolation using sensitisation corrected dose responses. Natural and regenerated sensitisation corrected dose points ( $S_i$ ) were quantified by,

 $S_i = (D_i - x.L_i) / (d_i - x.L_i)$  Eq.1

where  $D_i$  = Natural or regenerated OSL, initial 0.2 s

L<sub>i</sub> = Background natural or regenerated OSL, final 5 s

 $d_i = \text{Test dose OSL}$ , initial 0.2 s

x =Scaling factor, 0.08

The error on each signal parameter is based on counting statistics, reflected by the square-root of measured values. The propagation of these errors within Eq. 1 generating  $\sigma S_i$  follows the general formula given in Eq. 2.  $\sigma S_i$  were then used to define fitting and interpolation errors within exponential plus linear regressions.

For  $D_r$  values, systematic errors accommodate uncertainty in radionuclide conversion factors (5%),  $\beta$  attenuation coefficients (5%), a-value (4%; derived from a systematic  $\alpha$  source uncertainty of 3.5% and experimental error), matrix density (0.20 g.cm<sup>-3</sup>), vertical thickness of sampled section (specific to sample collection device), saturation moisture content (3%), moisture content attenuation (2%), burial moisture content (25% relative, unless direct evidence exists of the magnitude and period of differing content) and NaI gamma spectrometer calibration (3%). Experimental errors are associated with radionuclide quantification for each sample by NaI and Ge gamma spectrometry.

The propagation of these errors through to age calculation was quantified using the expression,

σy (δy/δx) = (Σ ((δy/δx<sub>n</sub>).σx<sub>n</sub>)<sup>2</sup>)<sup>1/2</sup>

Eq. 2

where y is a value equivalent to that function comprising terms  $x_n$  and where  $\sigma y$  and  $\sigma x_n$  are associated uncertainties.

Errors on age estimates are presented as combined systematic and experimental errors and experimental errors alone. The former (combined) error should be considered when comparing luminescence ages herein with independent chronometric controls. The latter assumes systematic errors are common to luminescence age estimates generated by means identical to those detailed herein and enable direct comparison with those estimates.

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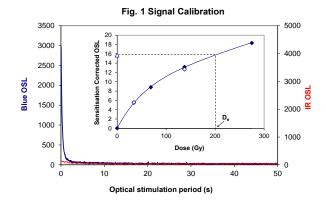


Fig. 1 Signal Calibration Natural blue and laboratory-induced infrared (IR) OSL signals. Detectable IR signal decays are diagnostic of feldspar contamination. Inset, the natural blue OSL signal (open triangle) of each aliquot is calibrated against known laboratory doses to yield equivalent dose (O<sub>a</sub>) values. Repeats of low and high doses (open diamonds) illustrate the success of sensitivity correction.

Fig. 2 Dose Recovery The acquisition of D<sub>e</sub> values is necessarily predicated upon thermal treatment of aliquots succeeding environmental and laboratory irradiation. The Dose Recovery test quantifies the combined effects of thermal transfer and sensitisation on the natural signal using a precise lab dose to simulate natural dose. Based on this an appropriate thermal treatment is selected to generate the final D<sub>x</sub> value.

Fig. 3 Inter-aliquot  $D_e$  distribution Provides a measure of inter-aliquot statistical concordance in  $D_e$  values derived from natural irradiation. Discordant data (those points lying beyond  $\pm 2$  standardised In  $D_e$ ) reflects heterogeneous dose absorption and/or inaccuracies in calibration.

Fig. 4 Low and High Repeat Regenerative-doses Measures the statistical concordance of  $D_o$  from low and high repeat regenerative-doses with the applied regenerative-dose. Discordant data (those points lying beyond  $\pm 2$  in  $D_o$  standardised against the applied regenerative-dose) indicate a significant impact of uncorrected sensitisation upon dose response and  $D_o$  interpolation.

Fig. 5 OSL to Post-IR OSL Measures the statistical concordance of post-IR OSL D<sub>e</sub> with the applied regenerative-dose. Discordant, underestimating data (those points lying below -2 ln D<sub>e</sub> standardised against the applied regenerative-dose) coupled with an IRSL signal (Fig. 1) highlight the presence of significant feldspar contamination.

Fig. 6 Signal Analysis Statistically significant increase in natural D<sub>e</sub> value with signal stimulation period is indicative of a partially-bleached signal, provided a significant increase in D<sub>e</sub> results from simulated partial bleaching followed by insignificant adjustment in D<sub>e</sub> for simulated zero and full bleach conditions. Ages from such samples are considered maximum estimates. In the absence of a significant rise in D<sub>e</sub> with stimulation time, simulated partial bleaching and zero/full bleach tests are not assessed.

Fig. 7 U Activity Statistical concordance (equilibrium) in the activities of the daughter radioisotope <sup>258</sup>Ra with its parent <sup>259</sup>U may signify the temporal stability of D<sub>r</sub> emissions from these chains. Significant differences (disequilibrium; >50%) in activity indicate addition or removal of isotopes cacuracy of age estimates. A 20% disequilibrium marker is also shown.

Fig. 8 Age Range The mean age range provides an estimate of sediment burial period based on mean D<sub>e</sub> and D<sub>e</sub> values with associated analytical uncertainties. The probability distribution indicates the inter-aliquot variability in age. The maximum influence of temporal variations in D<sub>e</sub> forced by minima-maxima variation in moisture content and overburden thickness may prove instructive where there is uncertainty in these parameters, however the combined extremes represented should not be construed as preferred age estimates.

Fig. 2 Dose Recovery

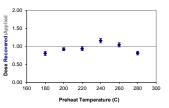


Fig. 3 Inter-aliquot D<sub>e</sub> distribution

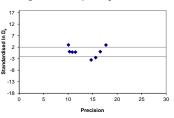


Fig. 4 Low and High Repeat Regenerative-doses

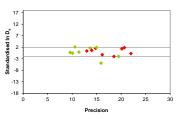
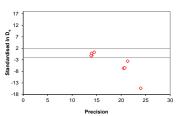


Fig. 5 Post-IR OSL



Sample: GL14049

Fig. 6 Signal Analysis

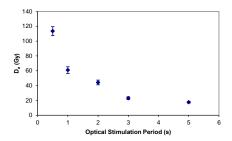


Fig. 7 U Decay Activity

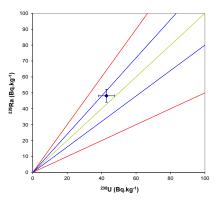
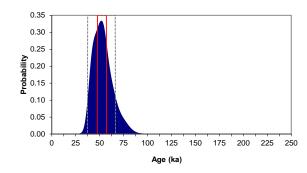


Fig. 8 Age Range



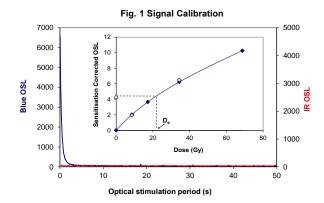


Fig. 1 Signal Calibration Natural blue and laboratory-induced infrared (IR) OSL signals. Detectable IR signal decays are diagnostic of feldspar contamination. Inset, the natural blue OSL signal (open triangle) of each aliquot is calibrated against known laboratory doses to yield equivalent dose (O<sub>a</sub>) values. Repeats of low and high doses (open diamonds) illustrate the success of sensitivity correction.

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Fig. 2 Dose Recovery

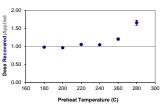


Fig. 3 Inter-aliquot De distribution

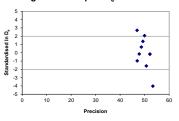


Fig. 4 Low and High Repeat Regenerative-doses

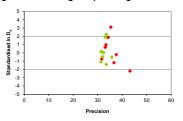
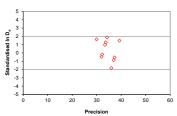


Fig. 5 Post-IR OSL



Sample: GL14050

Fig. 6 Signal Analysis

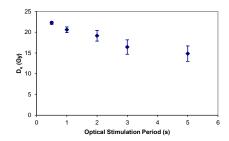


Fig. 7 U Decay Activity

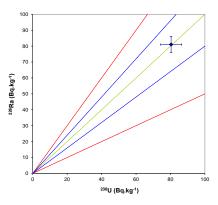
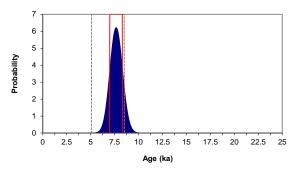


Fig. 8 Age Range



# Appendix 6 Catalogue of flint artefacts from project sites: Chedzoy, Shapwick and Brue Valley Burtle by Clive Jonathon Bond

Find No.	Context No.	Illust. No.	Material	Class	Туре	Condition	Colour	Cortex	Patina/ Recort.	Complete	٦	а	Ŧ	WT (grams)	Platform type	Bulb type	Termination	Retouch	Angle of	Burnt	Period (provisional)	Comments
99	Trench 1, Layer 11	-	Flint	Flake	Tertiary	Fresh	Green- black-grey	Y	N	Y	24	9	3	-	Punch	Diffuse	Feathered/snapped	N	-	N	LM	Flake with parallel-sided flake scars on dorsal; 5% corbex (smooth, sandy, Downland Nodular Flint?); 95% complete, feathered termination snapped; no patina, fresh; slight notches (x2) on right mesial dorsal edge. Utilised? (possibly not intentional, slight on flake edge)
11 7	Trench 1, Layer 11	=	Flint	Snapped Blade	Tertiary	Fresh	Green- black-grey	N	Y	N	II		=	=	N	_	Feathered	N	=	N	LM	Parallel-sided blade, snapped feathered distal end of a blade; simple arrises pattern on dorsal; patina, light (grey mottled, on green- black-grey flint)
11 6	Trench 1, Layer 11	=	Flint	Irregular flake	Primary	Fresh	Green- black-grey	Y	N	Y	31	17	8	=	Y	Pronounced	Faceted	N	=	N	PREH	Irregular flake, with battering and crushed, faceted surface on the proximal dorsal; facetted, crushing and irregular scars on ventral surface indicative of hammerstone activity, from core/hammer action from adjacent platform?
17	Trench 1, from 10-20cm sieving	-	Chert	Irregular flake	Tertiary	Fresh	Blond Greensand (Tone)	N	N	Y	19	14	9	-	N	Pronounced	Feathered	N	-	N	PREH	Irregular flake, with multi-direction flake scars, with possible notch/facetted on right mesial dorsal edge; PREH, ME?
92	Trench 1, Layer 10	-	Flint	Snapped Blade	Tertiary	Fresh	Green- black-grey	N	Y	N	1	ı	-	_	Punch	Diffuse	N	N	-	N	EN	Parallel-sided blade, with fine parallel-sided flake scars on dorsal surface; snapped across mesial; patina, slight, to none (EN)
26 8	Trench 1, Layer 12	-	Flint	Flake - microdebitage	Tertiary	Fresh	Green- black-grey	N	Y	Y	4	4	1.5	=	Punch	Diffuse	Hinged/snapped	N	=	N	ME	Small, microdebitage flake, hinged/snapped termination (near complete?). Simple squat flake; light patina (ME)
11 4	Trench 1, Layer 11	_	Flint	Core rejuvenation flake	Secondary	Fresh	Green- black-grey	Y	N	Y	26	31	12	=	Faceted	Diffuse	Feathered	N	-	N	EN	Squat-like flake, with broad parallel-sided flake scars on dorsal. Faceted proximal dorsal surface, from platform. Cortex: smooth, chalky nodular Downland flint
98	Trench 1, Layer 10	_	Flint	Snapped Blade	Tertiary	Fresh	Green- black-grey	N	N	N	I	II	=	=	N	Diffuse	Hinged	N	=	N	LM	Fine, parellel-sided blade segment - proximal, snapped across mesial dorsal; bulb missing; Flake scars on dorsal surface, parrell-sided. No patina. LM
11 5	Trench 1, Layer 11	_	Flint	Snapped Blade	Tertiary	Fresh	Green- black-grey	N	N	N	-	=	_	_	Punch	Diffuse	N	N	_	N	LM	Fine, curved blade, parellel-sided, with parallel-sided flake scars on dorsal surface; snapped across mesial dorsal surface; termination, plunged missing; arrises on dorsal surface faceted - battering? LM
11 9	Trench 1, Layer 11	-	Flint	Flake	Secondary	Fresh	Green- black-grey	Y	N	Y	17	30	5	_	Plain	Diffuse	Plunged	N	1	N	EN	Broad flake, with simple flake scar pattern on dorsal surface; distal termination, only just broken; cortext, chalky Downland flint

97	Trench 1, Layer 10	-	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	N	N	-		-		N	Diffuse	N	N	-	N	PREH; EN?	Broad snapped flake, with irregular flake scars on dorsal surface, with battered and faceted hammer marks. A flake derived from a core, perhaps proximity to a platform? PREH, but likely to be EN (condition; raw material)
11 3	Trench 1, Layer 11	11 3 in Fig 10.	Flint	Snapped Microburin	Tertiary	Fresh	Green- black-grey	N	Y	N	-	-	-	-	N	Diffuse	Plunged	N	-	N	EM or LM?	Burin notch on th right ventral mesial edge; flake scar pattern simple on the dorsal surface; paatina, light (grey mottled); snapped proximal end. Size of blade, with burin notch, with degree of patination, may suggest EM rather than LM (not excessively small)?
14 8	Trench 1, Layer 12	-	Flint	Flake - microdebitage	Tertiary	Fresh	Green- black-grey	N	Υ	Υ	11	9	3	-	Punch	Diffuse	Feathered	N	-	N	EM or LM?	Fine, small, complete microdebitage, with simple flake scars on dorsal; patina light (white-grey); Fine punch bulb on ventral proximal, and size, may indicate LM?
11	Trench 1, Layer 11	_	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	N	Y	18	11	3	-	Punch	Diffuse	Feathered	N	-	N	LM	Small flake, with fine parallel-sided flake scars on dorsal surface; size, lack of patina and punch technology - LM
91	Trench 1, Layer 10	-	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	N	Y	17	17	3	-	Plain	Diffuse	Feathered	N	-	N	EN	Small, squat-like flake, with battered and faceted hammer marks across flake scars on dosral surface; a flake from a core, adjacent to a platform?
95	Trench 1, Layer 10	-	Flint	Flake - microdebitage	Tertiary	Fresh	Green- black-grey	N	N	N	=	-	-	-	N	Diffuse	Feathered	N	-	N	PREH	PREH, likely to be, perhaps LM or EN; no patina; small, fine flake, indicative of knapping nearby - microdebitage, a spall
23 7	Trench 1, Layer 10 - sieving	-	Flint/Chert	Chip	Primary	Fresh	Green- black-grey	N	Y	N	-	-	=	-	N	Pronounced	N	N	-	N	PREH, EM?	Irregular chip, heavily patinated (grey-white); source, may be flint, or even chert (Blond, Greensand Chert, Tone-type); patina may suggest EM?
24	Unstratified, Shapwick Burtle (molehill next to badger sett)	-	Flint	Blade - core rejuvenation flake	Tertiary	Fresh	Green- black-grey	N	Y	N	-	-	-	_	N	Diffuse	N	N	-	N	EM	Parallel-sided blade, with blade scars on dorsal working from proximal and distal ends; core rejuvenation flake, with plunged termination, snapped; both ends snapped; patina medium (white-cream-grey); size, patina, typically, EM
7	Unstratified, Shapwick Burtle (molehills on top of Burtle)	-	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	Y	N	-	-	=	-	N	Diffuse	Feathered	N	-	N	PREH	PREH, or likely to be LM or EN; patina light (grey-white); simple flake scar pattern on dorsal surface; proximal end snapped
18 7	Unstatified, Shapwick Burtle (on top of Burtle, badger upthrow)	-	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	Υ	N	_	-	-	-	N	Diffuse	Feathered	N	-	Y	LM/EN	Burnt, possibly on proximal dorsal surface; small flake, simple flake scar pattern on dorsal surface; patina, none to light (ventral surface)
8	Unstatified, Shapwick Burtle (from molehills on top of Burtle)	-	Flint	Chip	Tertiary	Fresh	Green- black-grey	N	Υ	N	-	-	=	-	N	Diffuse	N	N	-	N	EM	Snapped chip; patina - medium to heavy; condition - likely to be EM
23 8	Unstratified, Shapwick Burtle (molehills next to badger sett)	=	Flint	Flake - microdebitage	Tertiary	Fresh	Green- black-grey	N	N	N	=	-	-	-	N	Diffuse	Feathered	N	-	N	PREH	Small, simple flake - microdebitage, indicative of knapping nearby; non patina, may suggest a LM or EN date
9	Unstratified, Shapwick Burtle (molehills on top of Burtle)	-	Flint	Flake - microdebitage	Tertiary	Fresh	Green- black-grey	N	Y	Y	10	7	2	-	Plain	Diffuse	Feathered	N	-	N	LM	Small, simple flake - microdebitage, indicative of knapping nearby; patina, light, may suggest a LM or even EN date
27 8	Unstratified, Shapwick Burtle (from molehills on Burtle)	_	Flint	Chip	Tertiary	Fresh	Green- black-grey	N	Y	N	_	_	=	_	N	Diffuse	N	N	_	Y	PREH	Chip, with crazed surafce, heat damage on both surfaces; patina - medium to heavy, may imply ME date?

23 b	Unstratified, Shapwick Burtle (from molehills on top of Burtle)	-	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	Y	N	-	-	-	-	N	Diffuse	Feathered	N	-	N	EM	Broad flake, proximal end; patina - light (cream to grey); likely to be EM
1	Unstratified, Shapwick Burtle (from molehills on top of Burtle)	-	Flint	Snapped Blade	Tertiary	Fresh	Green- black-grey	N	Y	N	-	-	-	-	Punch	Diffuse	N	N	-	N	EM or LM	Parallel-sided blade, with simple long flake scars on dorsal surface; snapped across mesial dorsal, distal end missing; patina - light and size, may suggest LM, more than EM
23 5	Unstatified, Shapwick Burtle (from molehills near Badger sett on Burtle)	-	Flint	Snapped Blade	Tertiary	Fresh	Green- black-grey	N	Y	N	-	-	-	-	N	Diffuse	N	N	-	N	EM or LM	Snapped blade, central segment simple, with smple flake scars pattern on dorsal surface; patina - light to medium (white to cream); size and patina suggests a ME, EM or LM date
23 a	Unstratified, Shapwick Burtle (from top of Burtle corner)	23 a in Fig 10.	Chert	Thinning Flake	Tertiary	Fresh	Brown Chocolate (Black Down Hills)	N	Y	Y	45	37	6	-	Plain	Diffuse	Feathered	N	-	N	EM	This is a large thinning flake, possibly from axe/adze thinning/shaping; the flake is plunged/feathered, thin, with simple flake scars on dorsal surface; this is Black Down Hills Brown Chert; patina heavy; technology and patina indicative of EM
2	Unstratified, Shapwick Burtle (from molehills on top of the Burtle)	-	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	Y	Y	24	24	4	-	Plain	Diffuse	Feathered	N	-	N	EM	Large, broad flake, with simple flake scar pattern on dorsal surface; patina - medium; likely to be EM in date
12	Unstratified, Shapwick Burtle (from upthrow from badger sett)	-	Chert	Snapped Blade	Tertiary	Fresh	Blond Greensand (Tone)	Z	Y	Z	_	-	-	_	N	Diffuse	N	N	-	Z	EM	Central section of blade, parallel sided, snapped both ends; simple flake scar pattern on dorsal surface; patina - heavy, Greensand Chert; condition and material suggests ME, EM?
23 6	Unstratified, Shapwick Burtle (Burtle Bed, slong fence from corner)	-	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	Y	N	-	=	-	-	N	Diffuse	N	N	-	N	EM	Simple flake, snapped ends; simple flake scar pattern on dorsal surface; patina - heavy; condition suggests EM
24 1a	Unstratified, Shapwick Burtle (on Burtle from moleshills next to badger sett)	=	Flint	Flake - microdebitage	Tertiary	Fresh	Green- black-grey	N	Y	N	=	=	-	=	N	Diffuse	N	N	=	N	EM	Small flake, microdebitage, irregular and simple; snapped ends; patina - medium. Likley to be EM in date
24 1b	Unstratified, Shapwick Burtle (on Burtle from moleshills next to badger sett)	-	Flint	Flake - microdebitage	Tertiary	Fresh	Green- black-grey	N	Y	N	-	=	-	-	N	Diffuse	N	N	-	N	EM	Small squat-like flake, irregular with simple flake scars on dorsal surface; snapped ends; patina - medium to heavy. Likely to be EM in date
3	Unstratified, Shapwick Burtle (on top of Burtle)	-	Flint	Flake	Secondary	Fresh	Green- black-grey	Y	Y	Y	28	34	9	-	Plain	Pronounced	Feathered	N	-	N	EM	Large, flake with simple flake scar pattern on dorsal surface with cortex; cortex is chalky Nodular Downland flint; patina - light to medium. Likely to be ME, and more EM in date
90 1a	Brickyard Farm - topsoil, Pit 9	-	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	N	N	-	-	-	-	N	Diffuse	N	N	-	N	PREH?	PREH? Possibly Liming flints, irregular flake; snapped ends; no patina
90 1b	Brickyard Farm - topsoil, Pit 9	-	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	N	N	-	-	-	-	Plain	Pronounced	N	N	-	N	PREH?	PREH? Possibly Liming flints, irregular flake, with pronounced bulb; snapped ends; no patina
90 1c	Brickyard Farm - topsoil, Pit 9	=	Flint	Chip	Tertiary	Fresh	Green- black-grey	Y	N	N	-	=	=	=	N	Diffuse	N	N	=	N	PREH?	PREH? Possibly Liming flints, snapped ends, simple chip; no patina
90 2a	Brickyard Farm - topsoil, Pit 9	-	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	N	Y	51	26	16	-	Plain	Pronounced	Feathered	N	-	N	PREH	Large flake with simple flake scars on dorsal surface; on proximal distal end, faceted and battered platform edge? No patina, PREH, possibly Neolithic

90 2b	Brickyard Farm - topsoil, Pit 9	-	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	N	N	-	-	-	-	N	Diffuse	Feathered	N	-	N	PREH	Small, simple flake, with simple flake scars on dorsal surface; no patina, possibly ME
90 2c	Brickyard Farm - topsoil, Pit 9	=	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	N	N	-	=	=	-	N	Diffuse	N	N	-	N	ME	ME, perhaps LM, size and condition, flake, snapped ends, central segment, possibly a blade; with simple flake scar pattern on dorsal surface; no patina
25 01 a	Pit 25	-	Flint	Core rejuvenation flake	Tertiary	Fresh	Green- black-grey	N	Y	Y	36	22	8	-	Plain	Diffuse	Plunged	N	-	N	LM	Plunged flake, with fine parellel-sided blade scars on dorsal surface; patina - light to medium (white to cream); size, blade scars, suggest LM, rather than EM
25 01 b	Pit 25	-	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	Υ	Y	23	24	4	-	Plain	Diffuse	Hinged	N	-	N	EM	Flake, with simple flake scars on dorsal surface; patina - medium to heavy (brown to cream); size, condition, likely to suggest EM
25 01 c	Pit 25	_	Flint	Flake	Secondary	Fresh	Green- black-grey	Y	Υ	N	-	-	-	-	N	Diffuse	N	N	-	N	ME	Simple flake, snapped ends; simple flake scar pattern on dorsal surface; patina - light to medium (white to cream); cortex - chalky, smooth, Downland flint; ME, perhaps LM?
25 01 d	Pit 25	-	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	Υ	N	-	-	-	-	N	Diffuse	N	N	-	N	ME	Simple, snapped flake, with simple flake scars on dorsal surface; patina - light to medium (white to cream); ME, perhaps EM?
25 01 e	Pit 25	-	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	Y	N	-	=	-	-	N	Pronounced	N	N	-	Y	ME	Simple, irregular flake, with simple flake scars on dorsal surface; burnt, snapped central segment, perhaps a blade, or chunky flake; patina - light to medium (white to cream); ME?
25 01f	Pit 25	=	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	Y	N	=	=	=	=	N	Diffuse	N	N	=	Y	EN?	Simple flake, snapped ends, with simple flake scars on dorsal surface; patina - none to light, but heavily crazed, burnt on both surfaces; size and condition may suggets EN?
25 01 g	Pit 25	_	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	Y	N	-	-	-	_	N	Diffuse	N	N	_	Y	EN?	Simple flake, burnt badly, crazed on both surfaces and ends; simple flake scars on dorsal, damaged by burning; patina - none to light; condition may suggest EN?
22 01	Pit 22	-	Flint	Flake	Secondary	Fresh	Green- black-grey	Y	Y	Y	25	22	6	-	Plain	Diffuse	Feathered	N	-	Y	EN?	Simple flake, with cortical and simple flake scar dorsal surface; Crazed, burnt on both surfaces; patina - light, with size, condition, suggesting EN date
24 02	Pit 24	-	Flint	Core rejuvenation flake	Secondary	Fresh	Green- black-grey	Y	N	Y	39	19	4	-	Cortical	Diffuse	Hinged	N	-	N	EN	Flake, parallel-sided, with flake scars on dorsal surface; cortex indicates chalk Downland nodular flint; no patina; size and technology, narrow flake, suggests EN
22 02	Pit 22	-	Flint	Blade - core rejuvenation flake	Tertiary	Fresh	Green- black-grey	N	Y	Y	41	15	4	-	Punch	Diffuse	Feathered	N	-	N	LM	Blade, complete, parallel-sided, with fine flake/blade scars on dorsal surface; patina - light to medium (white to cream); size, patina, suggest LM, rather than EM
23 01 a	Pit 23	-	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	Y	N	-	-	-	-	N	Pronounced	N	N	-	N	PREH	PREH, possibly ME; snapped chunky flake, missng distal and proximal; simple flake scars; patina - ligh to medium (white to cream on dorsal surface)
23 01 b	Pit 23	-	Flint	Flake	Secondary	Fresh	Green- black-grey	Y	N	Y	21	24	4	-	Plain	Diffuse	Feathered	N	=	N	EN	Broad, squat-like flake, with simple flake scars on dorsal surface; cortex - chalky Downland nodular flint; patina - none; size, lack of patina, technology, suggests EN
23 01 c	Pit 23	-	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	Υ	N	-	-	-	_	N	Diffuse	N	N	-	N	ME	Simple, snapped flake, crazed, burnt on both surfaces; patina - light to medium (white to grey); Likely to be ME

26 02	Trench 2	-	Flint	Flake	Secondary	Fresh	Green- black-grey	Y	Y	N	_	_	_	_	N	Pronounced	Hinged	N	-	N	PREH	Large chunky flake, with simple flake scars and cortex on dorsal surface; cortex - chalky Downland nodular flint; PREH, perhaps EN?
21 01	Pit 21	-	Flint	Flake	Primary	Fresh	Brown Chocolate (Black Down Hills)	Y	N	Y	31	27	7	-	Cortical	Diffuse	Hinged	N	-	N	PREH	PREH, possibly ME; simple cortical flake; broad; no patina
24 01 a	Pit 24	-	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	Y	N	-	-	_	-	N	Diffuse	N	N	_	N	ME	Snapped flake, central segment; proximal and distal ends missing; simple flake scars on dorsal surface; patina - none to light, ME, perhaps LM/EN in date?
24 01 b	Pit 24	-	Flint	Flake	Secondary	Fresh	Green- black-grey	Y	Y	N	-	_	-	_	Plain	Pronounced	N	N	_	N	ME	Chunky flake, with chalky Downland flint cortex; snapped distal; patina - light to medium, ME date?
24 01 c	Pit 24	=	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	Y	Y	13	20	3	-	Plain	Diffuse	Plunged	N	-	Y	ME	Broad flake, with simple flake scar pattern on dorsal surface; burnt, crazed on dorsal surface; patina - light to medium (white to grey); condition, size suggests ME
24 01 d	Pit 24	-	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	Υ	Y	16	10	3	-	Plain	Diffuse	Feathered	N	-	N	LM	Small, fine curved flake; with fine small flake scars on dorsal surface; patina - light; condition and size, suggests LM
24 01 e	Pit 24	=	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	Y	N	=	=	=	=	N	Diffuse	N	N	=	Y	ME, LM?	Small, snapped flake (both ends), with simple flake scars on dorsal surface and damaged by burning; burnt on both dorsal and ventral surfaces; patina - light to medium (white to grey); condition and size, suggests ME, perhaps LM
24 01f	Pit 24	_	Flint	Flake	Secondary	Fresh	Green- black-grey	Y	Y	N	_	_	_	_	N	Diffuse	N	N	-	N	ME	Flake segment, snapped both ends; simple flake scar on dorsal surface; cortex - slight on right mesial dorsal surface - chalky Downland nodular flint; patina - light to medium (white to cream); size, condition suggests ME, perhaps EM
24 01 g	Pit 24	=	Flint	Flake - microdebitage	Tertiary	Fresh	Green- black-grey	N	Υ	Y	9	7	2	=	Plain	Diffuse	Feathered	N	-	N	ME, LM?	Small, fine flake - microdebitage; parallel- sided, simple flake scars on dorsal surface; patina - light to medium (white to cream); condition and size suggests ME, and LM?
24 01 h	Pit 24	-	Flint	Flake	Secondary	Fresh	Green- black-grey	Y	N	N	-	-	-	-	N	Diffuse	Feathered	N	-	N	PREH	Small flake, snapped proximal; simple flake; no patina; cortex - slight on dorsal, chalky nodular Downland flint; PREH, possibly EN?
24 01i	Pit 24	=	Flint	Core rejuvenation flake	Tertiary	Fresh	Green- black-grey	N	N	Y	37	20	4	=	Plan	Diffuse	Plunged	N	-	N	EN	Fine, parallel-sided flake, with parallel-sided flake scars on dorsal; curved and plunged flake, core rejuvenation flake; no patina; size, condition and technology, LM or EN; likely to be EN (from flake/blade core). Utilisation on distal dorsal edge?
24 01j	Pit 24	24 01j in Fig 10.	Flint	Core rejuvenation flake (utilised, with gloss)	Tertiary	Fresh	Green- black-grey	N	N	Y	52	29	4	-	Plain	Diffuse	Feathered	N	-	N	EN	Large long flake, with possible utilisation on right distal to mesial ventral edge; left distal to mesial ventral edge; gloss on left distal to mesial dorsal edge; flake scar pattern on dosral surface complex; no patina; size, technology, use of edges/gloss, all consistent with EN date
5	Chedzoy, Unstratified trampled area field corner	5 in Fig 10.	Chert	End Scraper	Secondary	Fresh	Brown Chocolate (Black Down Hills)	Y	Y	Y	35	28	16	-	Plain	Pronounced	Plunged	Y	60	N	ME	Large chunky chert flake, backed/angular piece with retouch on the distal dorsal edge; retouch continuous, abrupt, non-invasive, simple in form; patina - heavy; ME End Scraper, attributed to EM or LM

3	Chedzoy, Unstratified trampled area field corner	_	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	N	N	_	_	_	-	Plain	Diffuse	N	N	_	-	ME	Flake, snapped distal dorsal end; simple flake pattern on dorsal surface; no patina; condition and size suggests ME, perhaps LM?
2	Chedzoy, Unstratified trampled area field corner	Y	Chert	Core (B1 - Bipolar, two opposing platforms)	Tertiary	Fresh	Brown Chocolate (Black Down Hills)	N	Y	Y	26	21	21	13	N	Pronounced	N	N	-	N	LM	A chunky blade core block with two opposing blade platforms, working from distal and proximal ends; fine parallel-sided blade scars on core surface; faceted and battered platforms at both end; patina - light to medium (white to grey)' technology and patina suggests LM core
4	Chedzoy, Unstratified trampled area field corner	Y	Flint	Core (B3 - two platforms at right angles)	Secondary	Fresh	Green- black-grey	Y	Y	Y	33	34	28	25	N	Pronounced	N	N	-	N	EN	A chunky pebble core; cortex i s smooth river gravel flint (chalky); B3 flake/blade core, with fine parallel-sided flake/blade scars down one face; across the top, a further right-angled core platform attempted to start a second platform (stopped against pebble cortex); faceted and batetred platform, with patina and crazing on proximal and dorsal surface; patina - none to light (grey to white); size, technology and condition suggests EN date
14	Chedzoy, Grey sandy clay, Trench 2	_	Flint	Chunk	Primary	Fresh	Green- black-grey	Y	N	Υ	25	18	8	-	N	Pronounced	Plunged	N	-	N	PREH?	PREH? Irregular chunk, chalky river pebble cortex; frost fracture surface on ventral surface
10	Chedzoy, Grey sandy clay (slump hole for pump), Trench 2	=	Flint	Chunk	Secondary	Fresh	Green- black-grey	Y	Y	Υ	24	10	11	=	N	Pronounced	Plunged	N	=	N	ME	Chunky flake, irregular, with simple flake scars on surfaces; cortex - smooth, chalky river gravel; patina - light to medium (white to grey); condition perhaps indicates ME
12	Chedzoy, Grey sandy clay, Trench 2	_	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	Y	Υ	17	19	4	-	Plain	Diffuse	Feathered	N	-	N	ME	Broad flake, with simple flake scars on dorsal surface; patina - none to llight; size and conditions suggests ME, perhaps LM
16	Chedzoy, Grey sandy clay (sump hole), Trench 2	-	Flint	Core rejuvenation flake	Tertiary	Fresh	Green- black-grey	Υ	N	Υ	29	16	4	-	Plain	Diffuse	Feathered	N	-	N	LM	Fine flake, with flake/blade scars on dorsal surface; cortex - chalky river gravel smooth cortex; note, on proximal dorsal/platform, quartz-inclusion in silica (fossil); fine core rejuvenation flake, small, no patina suggests LM
13	Chedzoy, Grey sandy clay (sump hole), Trench 2	-	Flint	Irregular flake	Primary	Fresh	Green- black-grey	Y	Y	Y	32	28	13	-	N	Pronounced	Plunged	N	-	N	PREH?	Irregular flake, chunk; cortex - chalky river pebble cortex; PREH?
18	Chedzoy, Trench 2	18 in Fig , 10.	Flint	End Scraper	Tertiary	Fresh	Green- black-grey	N	N	Y	28	25	13	-	N	Pronounced	Plunged	Y	90	N	LM	End scarper made on a core rejuvenation flake; the dorsal surface has broad flake scars; retouch extends along the distal dorsal edge; retouch is abrupt, invasive. The end scarper, type of retouch and flake, lack of patina suggests LM, or even EN date
5 09	Chedzoy, badger hole on Burtle (ST35027 37515)	-	Flint	Snapped Retouched Blade	Tertiary	Fresh	Green- black-grey	N	N	N	_	-	_	-	Plain	Diffuse	N	Y	45	N	LM	Snapped blade with distal end missing; with simple flake scars on dorsal surface; parallelsided; retouch is low-angle and continuous on right proximal-mesial dorsal edge. Size, no patina and technology suggests LM
19	Chedzoy, Grey silty clay, Trench 2	=	Flint	Core rejuvenation flake	Secondary	Fresh	Green- black-grey	Y	N	Υ	34	24	5	-	Plain	Diffuse	Plunged	N	-	N	LM/EN	Broad flake, with simple flake scars on dorsal surface; no patina; cortex - chalky and smooth river pebble; flake size, lack of patina, may imply LM or EN date?
15	Chedzoy, Grey sandy clay, Trench 2	_	Chert	Flake	Primary	Fresh	Brown Chocolate (Black Down Hills)	Y	Υ	N	_	_	_	_	N	Diffuse	Feathered	N	-	N	ME	Broad cortical flake, with snapped proximal end; patina - medium to heavy (grey to white); cortex is smooth pebble flake, from chert river gravel; simple flake, ME, perhaps EM?

22	Chedzoy, Pollen Monolith 6, Peaty clay silt, Trench 2	-	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	N	N	_	=	-	_	N	Pronounced	Plunged	N	_	Y	ME	Chunky flake, irregular, with irregular flake scars on dorsal surface; burnt, crazed and battered ventral surface; left mesial dorsal edge may be a burnt, damaged notch? Condition indicates perhaps ME date
?	Chedzoy Bag 1, Grey sandy clay sump	-	Flint	Chunk	Tertiary	Fresh	Green- black-grey	N	N	N	-	-	-	_	N	Pronounced	N	N	-	N	PREH?	Irregular chunky flake; with irregular flake scars; no patina; possibly PREH?
20	Chedzoy, Grey sandy clay	-	Chert	Flake	Secondary	Fresh	Brown Chocolate (Black Down Hills)	Y	N	Y	53	32	12	-	Plain	Pronounced	Plunged	N	-	N	EN/MN	Large flake with simple flake scar pattern on dorsal surface; plunged flake; cortex - smooth river gravel derived; patina - none. A post-ME date is suggested, perhaps EN/MN?
21	Chedzoy, Pollen Monolith 6, Peaty Clay silt, Trench 2	_	Flint	Core/adze fragment?	Secondary	Fresh	Green- black-grey	Y	N	Y	43	38	32	45	N	Pronounced	N	N	-	N	LM	A large core fragment/core, worked as a bipolar parallel and opposed platform core (B1), with broad flake/blade scars on surfaces; a faceted and chipped platform is noted on proximal dorsal end; the opposite side, ventral, has als been worked, flaked and the cross-section is of an adze/axe. This may be a adze fragment, worked as a B1 core; cortex is smooth, chalky river pebble; no patina, suggests LM in date
10 4	Chedzoy, Pit 1	=	Flint	Flake	Secondary	Fresh	Green- black-grey	Y	N	Y	34	13	4	=	Cortical	Diffuse	Feathered	N	-	N	PREH	PREH, possibly EN; cortical flake, with simple flake scars pattern on dorsal surface; cortex - chalky Downland nodular flint
10 5	Chedzoy, Context 8, Pit 1		Flint	Core rejuvenation flake	Secondary	Fresh	Green- black-grey	Y	Y	N	-	-	_		Plain	Pronounced	N	N	-	N	EM	Large truncated flake, with parallel-sided blade scars on dorsal surface (from proximal end mostly; one facet and blade scar from distal dorsal end); cortex - chalky Downland nodular; patina - heavy; ME, but may be EM (condition)?
10 6	Chedzoy, Context 7, Pit 1	-	Chert	Flake	Primary	Fresh	Brown Chocolate (Black Down Hills)	Y	Y	Y	31	21	6	-	Cortical	Diffuse	Feathered	N	-	N	PREH?	Cortical flake, from chert pebble/nodule; simple flake, bulb in centre of ventral surface - PREH?
10 7	Chedzoy, Context 8, Pit 1	=	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	Υ	N	-	=	=	=	N	Diffuse	Feathered	N	=	N	PREH?	Irregular flake, snapped proximal; patina - none to light; Possibly PREH?
10 8	Chedzoy, Context 7, Pit 1	-	Flint/Chert	Flake	Secondary	Fresh	Green- black- grey? Black Down Hills chert?	Y	Y	N	-	_	-	-	Plain	Diffuse	N	N	=	N	ME, LM?	Large flake with parallel-sided blade scars on dorsal;; cortext - graded into silica, as fossil inclusion, with quartz lustre (a 'cherty-like flint'); snapped across mesial and distal missing; Condition and blade scars, with faceted proximal dorsal end, may suggest ME and LM?
10 9	Chedzoy, Context 8, Pit 1	-	Flint/Chert	Flake	Tertiary	Fresh	Green- black- grey? Black Down Hills chert?	N	Y	N	-	-	-	_	N	Pronounced	N	N	-	N	PREH, ME?	Large, irregular flake, snapped ends; simple flake scars; patina - medium to heavy; material appears as a 'cherty-like flint', with 'quartz' like lustre; PREH, possibly ME?
11 0	Chedzoy, Context 8, Pit 1		Flint	Flake	Secondary	Fresh	Green- black-grey	Y	N	N	_	=		=	N	Pronounced	N	N	_	N	PREH, ME?	Large flake segment, with ends missing; cortext - chalky smooth river pebble; patina - none; simple flake scars, PREH, possibly ME?
11 2	Chedzoy, Context 7, Pit 1	_	Flint	Flake - microdebitage	Tertiary	Fresh	Green- black-grey	N	Y	Y	8	10	3	-	Plain	Diffuse	Feathered	N	_	N	ME, LM?	Small, fine microdebitage flake; simple flake scars pattern on dorsal; patina - heavy; condition and size suggests ME, possibly LM?

11 3	Chedzoy, Context 7, Pit 1	-	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	Y	N	=	-	-	=	Plain	Diffuse	N	N	-	N	ME	A proximal flake segment, missing distal; faceted, with flake scars on dorsal surface; patina - heavy; material - appears more flint, than chert - a 'cherty-like flint'? Condition and size would suggest ME
10	Chedzoy, Context 8, Pit 1	=	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	Y	N	=	-	=	=	N	Diffuse	Feathered	N	-	N	ME	A snapped distal end; proximal missing, simple flake with flake scars on dorsal surface; patina - medium to heavy (white to grey); condition and size suggests ME, perhaps EM?
10	Chedzoy, Context 7, Pit 1 (cleaning of half section)	-	Chert	Snapped Blade	Tertiary	Fresh	Brown Chocolate (Black Down Hills)	N	Y	N	-	-	-	-	N	Diffuse	N	N	-	N	ME, LM?	A snapped central segment of blade, with blade scars on dorsal surface, parallel-sided; proximal and distal ends missing; utilisation on left and right mesial dorsal surface; technology and size suggests ME, LM?
10 2	Chedzoy, Context 82-97 cm, Trench 1	10 2 in Fig 10.	Chert	End scraper on a core rejuvenation flake	Tertiary	Fresh	Brown Chocolate (Black Down Hills)	N	Y	Y	31	25	5	-	Faceted	Diffuse	Plunged	Y	85	N	ME, LM?	Plunged core rejuvenation flake, with scarper on end, distal right dorsal edge; retouch is abrupt, discontinuous, slight; flake scare pattern on dorsal, simple, linear; patina - light to medium; size, condition and technology.  ME, perhaps LM?
10	Chedzoy, Context 8, Trench 1 (Unknown depth)	-	Chert	Core rejuvenation flake	Tertiary	Fresh	Brown Chocolate (Black Down Hills)	N	Y	Υ	55	23	13	-	Plain	Pronounced	Plunged	N	-	N	ME, LM?	Plunged core rejuvenation flake, with parallel- sided blad scars on dorsal (proximal and distal working); patina - light to medium (grey to white); size, technology and condition suggest ME, and possibly LM
11 4a	Chedzoy, Context 7, Pit 1	-	Chert	Pebble - unworked	Secondary	Fresh	Brown Chocolate (Black Down Hills)	Υ	N	Y	49	37	26	33	N	Pronounced	N	N	=	N	PREH?	Unworked pebble - cached core? Cortex is sandy smooth, appears river gravel chert - Black Downs?
11 4b	Chedzoy, Context 7, Pit 1	-	Chert	Pebble - unworked	Secondary	Fresh	Brown Chocolate (Black Down Hills)	Υ	N	Y	51	33	28	45	N	Pronounced	N	N	_	N	PREH?	Unworked pebble - cached core? Cortex is sandy smooth, appears river gravel chert - Black Downs? One face is battered, crushed - possibly used to test quality?
21	Chedzoy, Context 7, Pit 1 ( residue)	ı	Chert	Snapped Blade	Tertiary	Fresh	Brown Chocolate (Black Down Hills)	Z	N	N	-	ı	1	-	N	Diffuse	Z	N	_	N	ME, LM?	Small, fine, snapped blade segment; proximal and distal ends missing; simple flake scars on dorsal surface; patina - light to medium (white to grey); size, technology and condition suggest ME and LM
19	Chedzoy, Context 7, Trench 1 (residue)	19 in Fig 10.	Flint	Microlith - obliquely blunted point, down one edge, left (B1)	Tertiary	Fresh	Green- black-grey	N	N	Y	14	4.5	1.5		N	Diffuse	Feathered	Y	90	N	LM	A fine, small microlith, obliquely blunted point, with blade scars on dorsal surface; snapped proxinal; blunting, abrupt, down left mesial-distal dorsal edge (Clark's B1 type - blunted straight down one edge; rod-like); size, technology and condition indicates LM
27 9	Shapwick, Layer 110, Trench 2 (Sample 104)		Flint	Flake - microdebitage	Tertiary	Fresh	Green- black-grey	Z	N	N		I	ı		Punch	Diffuse	N	N	_	N	LM	A fine, small flake - microdebitage; with simple flake scars on dorsal surface; snapped across mesial dorsal surface; no patina, fine, appears to be parallel-sided, small, suggests LM
28 0	Shapwick, Layer 110, Trench 2 (Sample 104)	28 0 in Fig 10.	Flint	Microlith - triangle, arc blunted point, down both edges, left and right (D1a)	Tertiary	Fresh	Green- black-grey	N	Y	Y	19	3	2	_	N	Diffuse	Feathered	Y	85	N	LM	A fine small microlith - rod-like (e.g. Clark's B4, blunted down both edges), but attributed here as a simple triangle, arc blunted on both left and right dorsal total distal and mesial edges (Clark's D1a, trimming son opposite edges). This may be termed Jacobi's (1979) lanceolate form for SW techno-complex; fine blade, parallel-sided, with plunged/feathered termination, for point; proximal bulb missing; patina - light; size, technology and condition indicate LM

а	Chedzoy, Trench 2 (Sample 14)	-	Chert	Flake - microdebitage	Tertiary	Fresh	Brown Chocolate (Black down Hills)	N	N	N	-	-	-	_	N	Diffuse	Feathered	N	-	N	ME?	Small, fine flake - microdebitage; simple flake, snapped proximal; small size, no patina, may suggest ME, even LM?
b	Chedzoy, Trench 2 (Sample 14)	=	Flint	Flake - microdebitage	Tertiary	Fresh	Green- black-grey	N	N	N	=	=	-	=	N	Diffuse	Feathered	N	=	N	ME	Small, fine, flake - microdebitage, with simple flake scar pattern on dorsal surface; snapped proximal and bulb; size, no patina, may suggest ME, even LM?
С	Chedzoy, Trench 2 (Sample 14)	=	Chert	Flake - microdebitage	Tertiary	Fresh	Brown Chocolate (Black down Hills)	N	N	N	=	=	=	=	N	Diffuse	N	N	=	N	PREH, ME?	Small, fine, microdebitage, or spall; snapped ends, simple flake/chip; no patina, PREH, possibly ME?
а	Chedzoy, Trench 2 (Sample 1)	-	Chert	Core rejuvenation flake	Tertiary	Fresh	Brown Chocolate (Black down Hills)	N	N	Y	25	14	4	-	Plain	Diffuse	Feathered	N	-	N	LM	Small, core rejuvenation flake, with complex flake scars on dorsal surface, with faceted surface near platform; material classed as chert, but may be flint (blank, with mottled white inclusions); no patina; size, technology and condition suggests LM
b	Chedzoy, Trench 2 (Sample 1)	-	Chert	Flake - microdebitage	Tertiary	Fresh	Brown Chocolate (Black down Hills)	N	N	N	-	-	=	-	N	Diffuse	Feathered	N	-	N	PREH, ME?	Small, fine, snapped proximal, bulb - microdebitage; simple flake; no patina, size and condition, suggests PREH and possibly ME?
С	Chedzoy, Trench 2 (Sample 1)	-	Flint	Flake - microdebitage	Tertiary	Fresh	Green- black-grey	N	N	N	-	-	-	-	N	Diffuse	Feathered	N	-	N	PREH, ME?	Small, fine flake - microdebitage; simple flake; no patina; size and condition suggests PREH, perhaps ME?
а	Chedzoy, Trench 2 (Sample 5)	-	Flint	Flake - microdebitage	Tertiary	Fresh	Green- black-grey	N	N	N	-	_	-	_	N	Pronounced	N	N	-	N	PREH, ME?	Irregular, chunky and small flake - microdebitage; simple flake, no patina; size suggests PREH, possibly ME?
а	Chedzoy, Trench 2 (Sample 4)	=	Flint	Flake	Tertiary	Fresh	Green- black-grey	N	N	Υ	17	16	4	-	Plain	Diffuse	Feathered	N	-	N	ME, LM?	Simple, complete flake, with simple flake scars on dorsal surface; no patina; size, technology, condition suggest ME, perhaps LM, or even EN?
b	Chedzoy, Trench 2 (Sample 4)	=	Flint	Flake	Tertiary	Fresh	Green- black-grey	Y	N	N	=	=	-	=	N	Diffuse	Hinged	N	-	N	ME, LM?	Simple, central segment of flake/blade, snapped ends; simple flake scars on dorsal surface; parallel-sided flake/blade; cortex - smooth, chalky, river pebble; size, no patina and technology suggests ME and LM?
С	Chedzoy, Trench 2 (Sample 4)	-	Chert	Flake - microdebitage	Tertiary	Fresh	Brown Chocolate (Black down Hills)	N	N	N	=	=	-	-	N	Diffuse	N	N	-	N	PREH, ME?	Simple, flake, small and fine with snapped ends; simple flake scars on dorsal surface; no patina; material appears more 'cherty', so attributed to chert, rather than flint; size and condition indicates PREH, possibly ME?
а	Chedzoy, Trench 2 (Sample 6)	-	Chert	Core rejuvenation flake	Tertiary	Fresh	Brown Chocolate (Black down Hills)	N	Y	Y	37	11	4	-	Punch	Diffuse	Plunged	N	_	N	LM	Long, plunged core rejuvenation flake, with parallel-sided blade scars on dorsal surface (from proximal platform end); parallel-sided, fine; patina - light to medium; material - appears as a black grey chert, almost flint- like; technology and condition suggest LM
b	Chedzoy, Trench 2 (Sample 6)	_	Chert	Flake	Tertiary	Fresh	Brown Chocolate (Black down Hills)	N	Y	N	-	-	-	_	N	Diffuse	N	N	-	N	PREH, ME?	Central segment of flake, ends snapped; simple flake, poor quality battered/faceted chert - black-grey material; patina - light (mottled grey); flake is PREH, possibly ME?
С	Chedzoy, Trench 2 (Sample 6)	=	Chert	Flake	Tertiary	Fresh	Brown Chocolate (Black down Hills)	N	Υ	Υ	13	13	2	=	Plain	Diffuse	Feathered	N	=	N	ME, LM?	Small, simple, flake with flake scars on dorsal surface and faceted scar adjacent platform; patina - light to medium (white to grey); material - chert, grey-black, fine, almost 'flint-like'; size and condition suggests ME and perhaps LM?

а	Chedzoy, Trench 2 (Sample 18)	=	Chert	Flake	Secondary	Fresh	Brown Chocolate (Black down Hills)	Υ	Y	N	_	-	-	=	Cortical	Pronounced	N	N	-	N	ME, LM?	Large flake, with flake scars on dorsal surface; snapped distal dorsal end; cortex - sandy or chalky, rough pebble; patina - light to medium (white to grey); size and condition suggest ME and possibly LM?
b	Chedzoy, Trench 2 (Sample 18)	-	Chert	Flake	Tertiary	Fresh	Brown Chocolate (Black down Hills)	N	Y	N	-	-	=	-	Plain	Diffuse	N	N	-	N	ME, LM?	Flake, with broad flake scars on dorsal surface; snapped distal dorsal; patina - light to medium (white to grey); size and condition suggests ME and possibly LM?
С	Chedzoy, Trench 2 (Sample 18)	-	Chert	Flake	Tertiary	Fresh	Brown Chocolate (Black down Hills)	N	Y	N	-	=	-	-	N	Diffuse	Feathered	N	-	N	ME, LM?	Flake, squat-like, with flake scars on dorsal surface; snapped proximal bulb; patina - light to medium (white to grey); size and condition suggests ME and possibly LM?
d	Chedzoy, Trench 2 (Sample 18)	-	Flint	Flake - microdebitage	Tertiary	Fresh	Green- black-grey	N	N	N	-	_	-	-	N	Diffuse	N	N	-	N	PREH, ME?	Irregular flake, microdebitage - snapped ends, simple flake; no patina; size and condition may suggest PREH, even ME?
а	Chedzoy, Trench 2 (Sample 10)	=	Chert	Flake	Tertiary	Fresh	Brown Chocolate (Black down Hills)	N	N	N	-	=	=	=	Plain	Diffuse	N	N	=	N	PREH, ME?	Fine, small, flake, almost complete/snapped feathered termination; simple flake scar pattern on dorsal surface; patina - none; material - a chert, grey-black; size and condition suggests PREH, even ME?
а	Chedzoy, Trench 2 (Sample 3)	-	Chert	Flake	Tertiary	Fresh	Brown Chocolate (Black down Hills)	N	N	N	-	=	=	-	N	Diffuse	Hinged	N	-	N	PREH, ME?	Large parallel-sided flake, snapped proximal and platform missing; simple flake scar pattern on dorsal surface; patina - none; grey- black chert, quality; size and condition suggest PREH, possibly ME?
b	Chedzoy, Trench 2 (Sample 3)	=	Chert	Flake	Primary	Fresh	Brown Chocolate (Black down Hills)	Y	N	N	-	=	=	=	N	Diffuse	N	N	-	N	PREH, ME?	Large cortical flake, snapped both ends; cortex - sandy, smooth river pebble; patina - none; grey-black chert, or brown Black Down type? Size and condition suggests PREH, possibly ME?