Archaeology Wales

A Palaeoenvironmental Survey at Rush Wall Solar Farm, Redwick, Newport

Rhiannon Philp BSc MA PhD

Report No. 1921

Archaeology Wales Limited

The Reading Room, Town Hall, Llanidloes, SY18 6BN

Tel: +44 (0) 1686 440371

Email: admin@arch-wales.co.uk

Web: arch-wales.co.uk

Archaeology Wales

A Palaeoenvironmental Survey at Rush Wall Solar Farm, Redwick, Newport

Prepared for BSR Energy Ltd

Edited by: Charley James-Martin Signed:  Position: Project Manager Date: 07/10/2020	Authorised by: Charley James-Martin Signed:  Position: Project Manager Date: 07/10/2020

By

Rhiannon Philp BSc MA PhD

Report No.1921

October 2020

Archaeology Wales Limited

The Reading Room, Town Hall, Llanidloes, SY18 6BN

Tel: +44 (0) 1686 440371

Email: admin@arch-wales.co.uk

Web: arch-wales.co.uk

Contents

List of Figures

Summary

A palaeoenvironmental survey was undertaken prior to the proposed works to determine the potential impact of the proposed development of Rush Wall Solar Park, Longlands Farm, Redwick on underlying palaeoenvironmental and archaeological deposits.

Archaeology Wales undertook a prospective auger survey to identify deposits of palaeoenvironmental and archaeological potential on a 100m grid, across an area measuring approximately 84ha.

The survey identified deposits relating to the estuarine landscape prior to and post Romano British drainage and reclamation of the levels. This included minerogenic clays representative of prehistoric estuarine silts and peat deposits indicative of freshwater wetland environments, which are evidence for fluctuating sea levels from the early Holocene (c.10,000 years ago) to the late Bronze Age. Overlying these deposits were alluvial clays representative of the reclaimed agricultural land that has built up since the levels were drained in the Romano-British period.

All work was undertaken in accordance with the standards and guidelines of the Chartered Institute for Archaeologists (2014 & 2020) and following Historic England's Guidelines for Environmental Archaeology (2002).

Crynodeb

Cynhaliwyd arolwg paleo-amgylcheddol cyn y gwaith arfaethedig i nodi effaith bosibl datblygiad arfaethedig Parc Solar Rush Wall, Fferm Longlands, Redwick ar waddodion paleo-amgylcheddol ac archeolegol gwaelodol.

Cynhaliodd Archaeology Cymru arolwg tyllu dichonol i nodi gwaddodion paleo-amgylcheddol a photensial archeolegol ar grid 100m, ar draws ardal yn mesur tua 84ha.

Nododd yr arolwg waddodion sy'n gysylltiedig â'r dirwedd aberol cyn ac ar ôl y gwaith Romano-Prydeinig o ddraenio ac adfer y lefelau. Roedd hyn yn cynnwys cleiau minerogenig sy'n cynrychioli llifwaddodion aberol cynhanesyddol a gwaddodion mawn sy'n dynodi amgylcheddau gwlypdir dŵr croyw, sy'n dystiolaeth o lefelau amrywiol y môr o'r cyfnod Holosen cynnar (tua 10,000 o flynyddoedd yn ôl) hyd at yr Oes Efydd ddiweddar. Roedd cleiau llifwaddodol yn gorchuddio'r gwaddodion hyn sy'n cynrychioli'r tir amaethyddol adferedig yr adeiladwyd arno ers i'r lefelau gael eu draenio yn y cyfnod Romano-Prydeinig.

Gwnaed yr holl waith yn unol â safonau a chanllawiau Sefydliad Siartredig yr Archeolegwyr (2014 & 2020) a chan ddilyn Canllawiau ar gyfer Archeoleg Amgylcheddol Historic England (2002).

1 Introduction

1.1.1 A programme of palaeoenvironmental investigation was undertaken to determine the potential impact of the proposed development of Rush Wall Solar Park, Redwick. The proposed development lies within the Gwent Levels Landscape of Outstanding Historic Interest (HLW (Gt) 2). The proposed development site currently comprises agricultural land on the Levels, to the north of Longlands Farm.

1.1.2 The purpose of the archaeological investigation works was to provide the local planning authority with sufficient information regarding the nature of archaeological remains on the site of the development, the requirements for which are set out in Technical Advice Note (TAN) 24: The Historic Environment (2017).

2 Site Description

2.1.1 The site is located within the Caldicot and Gwent Levels, which cover an area of 71 km² to the southeast of Newport between the rivers Usk and Wye. The Gwent Levels Landscape of Outstanding Historic Interest (HLW (Gt) 2) is described as three distinct and extensive areas of alluvial wetlands and intertidal mudflats formed from tidal deposits and alluvium, entirely artificial and 'hand crafted', which have been recurrently inundated and reclaimed from the Severn Estuary since at least Roman times. There are distinctive patterns of settlement, enclosure and drainage systems belonging to successive periods of use, which help subdivide the area into distinctive character areas. The Levels are extremely rich archaeologically, with finds from the Mesolithic, Bronze Age and Iron Age periods as well as later eras, and have proven and potentially extensive, well-preserved, buried, waterlogged archaeological and palaeoenvironmental deposits. They are also an important wetland resource.

2.1.2 The Levels lie below 8mOD and are bounded to the south by the Severn Estuary and to the north by the change in geology and topography where the land rises and the solid geology changes from mudstone to limestone (BGS, 2018).

2.1.3 The proposed scheme is located some 1.5km to the west-south-west of Magor and some 7.5km to the south-east of Newport centre. The scheme is centred on NGR ST 41705 85554 and covers approximately 121.7ha (Figure 1). The area comprises several enclosed fields, used as both arable and pasture, bounded by hedgerows, ditches and reens.

2.1.4 The underlying bedrock geology of the area consists of mudstone of the Mercia Mudstone Group, overlain by clay and silt tidal flat deposits (BGS 2018).

3 Archaeological background

3.1 Prehistoric

Palaeolithic (c.450,000 BCE – 10,000 BCE), Mesolithic (c.10,000 BCE – 4,400 BCE), Neolithic (4,400 BCE – 2,300 BCE), Bronze Age (2,300 BCE – 700 BCE) & Iron Age (700 BCE – 43 CE).

3.1.1 There have been variations in both land and sea levels in the Severn Estuary since the start of human habitation in the area. Research undertaken by Bell et al. (2000, 2007) has highlighted high potential for prehistoric remains within areas of past wetland, with the mixture of coastal margins and freshwater wetland environments providing a diverse range of resources to exploit. Much of the archaeological evidence to date has been found within the intertidal zone of the estuary including highly publicised sites such as Goldliff with Mesolithic and later remains, including human footprints, which have also been identified at Uskmouth and Magor Pill.

3.1.2 Activity in the area related to the wetlands continues into the Bronze Age with four rectangular buildings of middle Bronze Age date excavated on inter-tidal peat at Redwick; such buildings appear to have been used during seasonal pastoral activity on the wetland.

3.1.3 The known presence of peat within the vicinity of the site indicates the potential for further prehistoric archaeology within the area. At c.800m to the northwest of the proposed development is an area of peat, recorded as layers (07556g) and two extraction pits (11548g). The layers date from the 5th to 1st millennium BCE and the pits may be Prehistoric.

3.1.4 Approximately 1.48km from the site is Redwick Submerged Forest, NPRN 524771. This is an exposure of peat and forest which has been dated by dendrochronolgy to c.6210-6202 and by carbon 14 to 7330 +/-70 BP; associated finds include a building, scraper tool and animal bones.

3.1.5 Finally, some 875m just south of east is NPRN 409491, North Row Farm cropmarks. These show a substantial ditched rectangular structure, together with a more slightly-built and narrower rectangular enclosure at right angles to it. The site may be of prehistoric or Roman date.

3.2 Roman

(43 CE – 410 CE)

3.2.1 Magor and the surrounding area contain many Roman ruins and artefacts, and the village centre was originally located at the inner edge of salt marshes which the Romans began to reclaim as farmland. The local name "Whitewall" may relate to the

same causeway, which would have connected the village to a small now-vanished harbour on the Severn Estuary known as Abergwaitha or Aberweytha.

3.2.2 A 3rd-century Romano-British boat was found at Wilcrick near Magor. The Romans occupied the area from the 2nd to the 4th centuries. In 1878 a boundary stone marking the building of an embankment by Roman soldiers was discovered at Goldcliff. Research suggests that reclamation of the natural salt marsh for farmland began at a few raised sites within the marshes, such as at Nash and Redwick, before a sea wall was built along the whole coast.

3.2.3 A stabilized land surface possibly dating to the Roman period was found during an evaluation by GGAT in 1996 (E005877). It is also possible that the North Row cropmarks may represent a Roman period site, see above.

3.3 Early Medieval

(410 CE – 1086 CE)

3.3.1 According to tradition, the parish church of Magor was founded in the 7th century and was originally dedicated to St. Leonard. No known remains can be definitely ascribed to this period.

3.4 Medieval

(1086 CE – 1536 CE)

3.4.1 Goldcliff Priory was established in 1113 and, together with other major landowners, took responsibility for drainage work in the area. Settlements became established, linked by droveways such as the Whitewall at Magor, and land was gradually reclaimed for pasture and arable use. A large number of Anglo-Norman sites including castles, churches, court houses, manor houses, moated sites and watermills show near-continuous occupation throughout the Middle Ages.

3.4.2 In 1994 the remains of a 13th-century boat, used for trading along and across the Severn Estuary and perhaps with Ireland, were found buried in the mud of the estuary close to Magor Pill. The boat was carrying iron ore from Glamorgan.

3.4.3 There are four area of medieval common land in the HER. All lie to the south and southwest of the site at between 80m and 700m distance. These are: Greenstreet Common (06219g), North Row Common (06220g), South Row Common (06221g), and Longlands Lane Street Common (06223g).

4 Objectives

4.1.1 The objective of the palaeoenvironmental survey was to model peat depths to determine potential areas of impact during the construction as outlined in the written scheme of investigation (AW 2020), which was approved prior to the works by the Glamorgan Gwent Archaeological Trust – Archaeological Planning Management (GGAT-APM) as advisors to the local planning authority.

5 Methodology

5.1.1 A prospective auger survey was conducted on a 100m grid over an area of c. 84 hectares. Each latitudinal and longitudinal transect was given a letter (Lat A-Z; Long A-Z) to allow ease of identification (Figure 2). A total of 75 grid points were selected for prospection. A 20mm gouge auger was used to core each pre-allocated grid point to a maximum depth of 3m, to ensure investigation of the 2.5m limit of development. Sediment was extracted up to 50cm at a time and any changes in deposit recorded. Where sediments were too hard to extract the full 50cm, multiple smaller extractions were made and recorded.

5.1.2 In a small number of cases, the maximum depth was not met due to being unable to auger through the underlying deposits, or due to the sediment not holding within the auger at lower depths because of suction. These locations are highlighted within the results. Only one of these locations produced a depth above the level of development. All others were below the 2.5m level of development and should not have an impact on the scheme.

5.1.3 Core descriptions were used to create graphic representations of each of the sediment sequences recorded and are displayed in one longitudinal and ten latitudinal transects within the results section. Latitudinal transects are not included for row A and B due to each only containing one auger position each. Instead these are included within the longitudinal Transect H.

5.1.4 Deposit depths will be described in mOD in order to make details comparable across the site, however where depth below surface is deemed useful this will be described as well. A table describing depth below surface for changes in deposit in each location is included in Appendix 1.

6 Results

6.1 Deposit Descriptions

6.1.1 The deposits encountered within this survey were recognised across the site and likely to be representative of changes in the environmental conditions and human exploitation of the site. A description of each deposit type is included below:

Topsoil A friable brown soil present across the site.

Subsoil A compact brown soil beneath the topsoil present across the majority of the site.

Brown-grey clay A homogenous alluvial clay, brown-grey in colour, formed due to the reclamation of the levels through drainage and tidal barriers and subsequent sediment build up through seasonal flooding since the Romano-British and Medieval periods.

Brown-grey-blue clay Alluvial clay, similar in texture to the brown-grey clay, but with patches of brown, grey and blue colouring. Again, the result of land reclamation.

Grey clay A homogenous grey alluvial clay.

Grey-blue clay A minerogenic silty clay, grey blue in colour. This is likely to be of marine origin and representative of tidal influx/salt marsh conditions, caused by sea level transgressive periods. Representative of the pre-reclamation period mud flats, when the estuary stretched much further in land

Peat A number of different peat types were encountered across the site. Thin bands of very black peat were encountered at a number of locations, often higher in the sequence than the vast majority of peat on the site. More common was a homogenous brown peat with a cake-like crumbly texture. Colouration varied from dark-light brown. A red-brown peat was also encountered at a number of locations. Some of the peat encountered contained recognisable organic inclusions, including the remains of reeds, roots and wood fragments.

The peat is representative of freshwater wetland conditions, with the differing organic components providing clues as to the vegetation present within those environments. The difference in colour represents differing levels of oxidation and vegetation make-up. Freshwater wetlands would form on the margins of the estuary during times of sea level regression.

6.1.2 A number of factors affecting the deposits were noted during assessment and are displayed within the transect diagrams. They are described below:

Sand Content There are varying levels of sand present within some of the clay deposits towards the middle if the sediment sequences. Towards the middle of the site sand appears to be a substantial component within the clays and at position 22 becomes the prominent sediment type around 4mOD. As the sand is mixed into the upper clays representative of the reclaimed levels, it's presence may be caused by wind and subsequent mixing through agricultural processes rather than water transgression

Sand Banding In a number of locations rather than a mixed sandy clay, the sand forms in thin bands within the sequence. This is likely to be representative of periods of tidal influx, but the banding indicates smaller scale repeated episodes rather than one big event. The close banding may suggest periods of substantial high tide related to extreme spring tides and potentially related storm surges.

Iron Staining Iron staining was apparent across the site affecting the colour of some of the deposits.

Gritty Inclusions Gritty inclusions may be indicative of more high energy events causing larger sized particles to be deposited.

Archaeological Inclusions Archaeological material was rare, but rubble deposits containing human related material were encountered at location 56 preventing further prospection. Evidence at the surface indicated this was likely to be post medieval in date and representative of a refuse dump.

Organic Inclusions Mixed clay and organic inclusions were present in a number of locations between peat and clay layers. These are likely to be representative of a transformative phase between marine and freshwater conditions.

Variations in clay colour Variations in clay colour can result from minerogenic content, underlying geography, post depositional processes, differing oxidisation levels and ground water movement. Most of the non-marine sourced clays at this site have a brown-grey base, but include colours such as grey, blue, yellow and red. Due to the use of the area for agriculture since Romano-British and Medieval reclamation, it is likely this mixing is due to the disturbance of the soils through agricultural processes such as ploughing and soil improvement/fertilisation.

6.2 Latitudinal Transects

6.2.1 All latitudinal transects ran SW-NE across the site. They are described below from the northernmost to the southernmost.

Transect C (Figure 3 and 4)

6.2.2 Transect C encompassed auger positions 5, 4 and 3. The sequences are fairly similar across the transect. In each sequence, a dark brown peat was present from around 3mOD. At position 5 the peat contained evidence of reeds and the colour of the peat was a lighter brown at the deepest point, becoming darker from c. 2.5mOD. The peat at positions 4 and 3 was a more homogenous dark brown material. Due to an undulating surface topography, the peat in Transect C was encountered at 2.32m below the surface at position 5 and 2m below the surface at positions 4 and 3.

6.2.3 Overlying the peat, was a mixed layer of grey-blue clay and organic inclusions, which in turn was overlain by a far more homogenous grey-blue clay layer, the thickness of which differed across the transect, with the deposit being much thicker at position 4. Above this layer lay a sequence of alluvial clays representative of the reclamation phase of the levels. At auger position 3 a section of the brown-grey clay had a notable sand component, not identified at positions 4 or 3. Above the clay, a compact brown subsoil was overlain by a thin layer of friable topsoil.

Transect D (Figure 5 and 6)

6.2.4 Transect D encompassed auger positions 12, 13, 11, 10, 9, 8, 7 and 6. The topography dipped in elevation from the SW to the NE. At the base of the sediment sequence, peat was encountered at around 3mOD (c.2m below the surface) at the far NE in position 6. Peat was also identified in positions 7, 8, 9 and 11, with the top of the deposits gradually reducing in mOD the further SW they were situated. No peat was present in positions 10 and 12 with grey-blue clay present to the limit of prospection. Grey-blue clay was also noted beneath the peat deposits in positions 7 and 9 indicating fluctuating environmental factors at these locations. The peat present across the transect differed in character, suggesting variations within the environments represented. A brown homogenous peat was present in position 6, getting darker towards the top of the deposit. In position 7, the peat was a thin black band sandwiched between grey-blue clay, with recognisable organic inclusions and representative of a much shorter period of wetland accumulation. In position 8, the dark brown homogenous peat seen in the upper peat in position 6 was present to the limit of prospection. Within the sequence at position 9 the peat contained woody inclusions. This band was also sandwiched between grey-blue clays. The peat within the sequences at position 11 was reed based and the lowest lying peat at position 13 was red-brown with woody inclusions (c. 2.5mOD, 2.9m below surface). Due to the variation in peat types, it is unlikely that they are representative of the same environmental episode. The variation may be explained by natural variation in wetland due to water content and depth over the length of the transect, but also potentially due to unseen erosive episodes due to marine transgressive phases causing reworking of sediments and formation of later freshwater deposits. Higher

resolution sampling would be required in order to further understand the factors affecting the variation in sediment types.

6.2.5 Overlying all peat deposits was a thick grey-blue minerogenic clay indicative of a further marine transgressive period. To the NE end of the transect mixing of organic and clay deposits was apparent prior to the homogenised grey-blue clay in positions 8, 7 and 6. Alluvial deposits ranging from grey clay to mixed brown-grey-blue and brown-grey clay overlay the grey-blue clay, which is in turn overlain by a compact subsoil and friable topsoil. In auger position 12, a section of the alluvial clays has a relatively high sand content which may be a result of wind or a late tidal surge. Sand is not identified as a major component anywhere else in this particular transect. A thin layer of grey-blue minerogenic clay is present at c.4.8mOD within the sequence at position 8. This may be indicative of a short-lived tidal channel; however the resolution of the survey is too low to confirm this.

Transect E (Figure 7 and 8)

6.2.6 Transect E encompassed auger positions 14, 15, 16, 17, 18, 19, 20 and 21. Once again, the topography sloped down from the SW to the NE. Peat was present at the base of all, but two of the auger locations (positions 15 and 16), although a mixed minerogenic clay and organic inclusions at the base of location 16 indicate the potential for peat beneath the limit of prospection. The peat was mostly reed-based, becoming more homogenous at the NE extent. It was encountered at c.2.7-2.9mOD (on average 2.4m below the surface). Minerogenic grey-blue clay overlayed the peat with a thin layer of mixed clay and organics separating the two in most cases. At location 18, a further reedy peat layer was present between 2.9 and 3.3 mOD (encountered 2m below the surface) separated from the first layer by 20cm of minerogenic clay. This is indicative of a later freshwater wetland deposit and may indicate the presence of a raised area within the mudflats, which gradually became freshwater due to a regressive sea level period. The entire transect once again became minerogenic clay until alluvial clays began to develop around 3.4mOD. Sand was a notable component within these clays in auger locations 16, 19 and 20. Location 20 in particular displayed a sandy clay throughout the majority of this part of the sequence. The source of this could have been wind-blown or higher energy alluvial action. A compact brown subsoil overlayed the alluvial clays in the majority of the auger locations, though was not present at positions 14 or 15. A friable brown topsoil was present across the entire transect.

Transect F (Figure 9 and 10)

6.2.7 Transect F encompassed auger positions 27, 26, 25, 24, 23 and 22. Position 27 at the SW extent of the transect sits higher than the rest of the positions due to the topography of this section of the site, with the rest of the positions lying between

5.4-5.5mOD at the surface. No peat was encountered at the base of position 27, however the limit of prospection ends around 0.4mOD higher than the rest of the transect meaning there is potential for peat to be present beneath the limit of prospection. Peat of varying types was present at the base of positions 26-22. Within position 26, a reedy peat was encountered between 2.5-2.6mOD (c.2.7m below surface). A similar deposit was also present at the same level in position 25. Position 24 contained a thick dark brown homogenous peat at 3mOD (2.4m below surface). A red brown woody peat was present at the base of the sequence in position 23 (2.7mOD, 2.8m below surface). At the base of position 22 a reedy dark brown peat was present, becoming more homogenised towards the top (c.2.8mOD, c.2.6m below surface).

6.2.8 Once again, the peat indicates a variation in freshwater wetland environments and may be indicative of a mixed wetland landscape, or potentially unseen erosive episodes followed by regeneration. All of the initial peat phases were overlain by a minerogenic grey-blue clay indicating a further marine transgressive phase. As was observed in Transect E, a further reedy peat episode was visible in position 26 and may be the same as that recorded in position 18. Mixed organic clay section within the minerogenic phase in the positions to the NE might suggest remnants of this layer eroded by later transgressive episodes.

6.2.9 A thick sequence of alluvial clays overlayed the minerogenic clay. Sand was found to be a substantial component in positions 25, 24, 23 and 22, indicating a potential sandy clay band undulating through the transect. In position 22 a layer of pure sand was present between c.4.1-3.9mOD (1.3m below surface). A further occurrence of this deposit was seen within Transect G (see below). The fact that it covered a fairly small area indicates that this was a likely to be a wind-blown sand accumulation rather than the result of inundation, which would likely spread further and more thinly. The minerogenic clay beneath this layer also had a high sand content, which might indicate a long-lived sand source in the near vicinity.

6.2.10 A compact subsoil overlay the alluvial clays in all but position 27, where its position higher in the landscape is likely to have been subject to more erosion than the lower landscape. Here the friable topsoil that overlies the entire site sat directly on the alluvial clay.

Transect G (Figure 11 and 12)

6.2.11 Transect G was the longest latitudinal transect and encompassed auger positions 28, 40, 29, 30, 31, 32 and 33 in the centre of the main area of the site and 73, 74, and 75, 400m away in the NE extent of the development area.

6.2.12 In the central area, peat was encountered at the base of positions 28, 30 and 33, but not in any of the positions in between. At position 28, a brown woody peat was

present from 2.8mOD (2.9m below surface) to the limit of prospection. Within the sequence at position 30, a brown homogenous peat was present from c.2.9mOD to the limit of prospection becoming reedy up to 3.1mOD (2.6m below surface). Within the sequence at position 33, a brown homogenous peat was present at c.2.65.OD (2.85m below surface). All peat deposits within the overall transect sequence were overlaid by minerogenic grey-blue clay and positions 40, 29, 31 and 32 all produced minerogenic grey blue clay to the limit of prospection indicating an undulating past landscape with the potential for peat to be present beneath the limit of prospection in positions where it had not been reached.

6.2.13 Again, there appears to be a variability in the freshwater environments represented by differing inclusions within the peat. Small amounts of mixed clay and organics above the peat in positions 30 and 33 indicate potential evidence for the transition phase between freshwater and marine conditions, suggesting a slow, low energy transgression.

6.2.14 Overlying the minerogenic clay, alluvial clay layers were deposited, representing the reclamation phase since the Romano-British period. Within the alluvial sequence at positions 32 and 33 banded sand deposits were noted indicating a series of repeated, potentially tidal, ingresses within the alluvial deposits. The upper level of this activity appears to be level in both auger positions, but at position 32, the base of the sand layers is slightly higher, suggesting a sloped within the landscape of the time, or potentially the edge of a channel. No evidence for the sand banding was noted in positions 73-75 further to the NE, as will be discussed below. While the banding dispersed, sand continued to be a key component within the alluvial clays within auger positions 29, 30, 31, 32 and 33. A sand band comparable to that within position 22 in Transect F was noted at 4.9mOD (0.6m below surface) in the sequence of auger position 32. It is likely that this is part of the same deposit, mooted above to be the result of a wind blow accumulation.

6.2.15 Compact brown subsoil overlays all but auger position 28 and a friable Topsoil overlays the entire transect.

6.2.16 The auger positions 73, 74 and 75 are discussed separately because they appear to represent a different sequence. The positions are lower in the landscape than the more central positions, with the surface height measuring 5mOD.

6.2.17 A mixture of reedy and woody peat was present at the base of all three auger positions encountered at around 3mOD (2m below surface). The peat was on a similar elevation to that seen further to the SW indicating the likelihood of a continuous, but varied, past wetland landscape. Overlying the peat a mixture of minerogenic grey-blue clay and organic inclusions indicating transitional periods between freshwater and marine were present followed by more homogenous minerogenic clay. A further thin peat episode was apparent above this encountered

at 3.8mOD (1.2m below surface) in 75, 3.9mOD (1.1m below surface) in 74 and 4.2mOD (0.8m below surface) in 73. Above this lay more minerogenic material, some containing organic inclusions. A shorter sequence of alluvial clays (c.0.5m compared to c.1m across the rest of the site) followed, topped by compact subsoil and friable topsoil.

Transect H (Figure 13 and 14)

6.2.18 Transect H incorporated auger positions 41, 39, 38, 37, 36, 35, 34 followed by a 300m gap and the position 51. Peat deposits were present at the base of auger positions 51, 36 and 37 and towards the base of positions 38 and 39 (preceded by minerogenic blue grey clay). The black peat in position 51 was encountered at c.2.2mOD (2.9m below surface) and is likely to have continued past the limit of prospection. A woody, turning reedy peat was found at the base of auger position 36, encountered at 2.9mOD (2.6m below surface). At 3.3mOD (2.3m below surface) within the sequence at position 37 a dark brown homogenous peat was encountered and continued to the limit of prospection. Thinner layers of reedy and woody peat were encountered around 3mOD within auger positions 38 and 39. Both were preceded by minerogenic grey-blue clay. All peat deposits were then overlayed by further minerogenic clay. A second reedy peat layer (23cm thick) was encountered in auger position 37 at 3.7mOD (1.9m below surface) followed by further minerogenic clay in what appears to be a slight topographic raise in the landscape. Above the peat layer in 51, nearly 2m of mixed minerogenic clay and organic and more homogenous minerogenic clay had been deposited.

6.2.19 Alluvial deposits followed the minerogenic clays with sand banding present within the sequences of 34 and 35, mirroring the similar deposits seen in Transect G and likely to be representative of the same depositional activity. Sections of sandy clay were present mixed within the upper alluvial layers. Compact subsoil overlay the alluvial deposits followed by friable topsoil.

Transect I (Figure 15 and 16)

6.2.20 Transect I included auger positions 42, 43, 44, 45, 46, 47, 48, 49 and 50. Peat was encountered in within positions 43, 44, 46, 48, 49 and 50. In position 43, a minerogenic grey-blue clay with occasional organic inclusions preceded a layer of reedy peat followed immediately by a layer of woody peat. The top of the peat layer was encountered at 3mOD (2.5m below surface). In position 44, a black peat was encountered at 2.7mOD (2.8m below surface) and continued to the limit of prospection. A 20cm minerogenic layer overlaid this peat followed by a short sequence of reedy followed by black peat, the top of which was encountered at 3.1mOD (2.4m below surface). In position 46 a black peat was encountered at 2.6mOD (2.9m below surface) continuing past the limit of prospection. A deposit of

reedy peat was noted in position 48 at 2.9mOD (2.6m below surface) continuing past the limit of prospection. A thin band of black peat was present following minerogenic clay at just under 3mOD in position 49 and a basal deposit of black peat was encountered at c. 2.25mOD (c.2.95m below surface). The peat deposits within this transect are fairly sporadic and varied in character. Without a higher frequency of sample positions, it would be difficult to draw conclusions as to how each relates to the others.

6.2.21 Most of the peat was overlaid with a thick layer of minerogenic grey-blue clay, sometimes continuing organic inclusions, however within the sequence at position 48, only a very thin layer of minerogenic clay was present leading directly to the alluvial land reclamation clays.

6.2.22 Alluvial clays overlaid the rest of the minerogenic deposits with some sporadic evidence of sandy inclusions across the transect. Charcoal was apparent within the upper alluvial clays of auger position 46 which may be indicative of human activity in the vicinity of that position. All alluvial deposits were overlain by compact brown subsoil and friable topsoil.

Transect J (Figure 17 and 18)

6.2.23 Transect J encompassed auger positions 60, 59, 58, 57, 56, 55, 54, 53 and 52. The prospection at position 56 was not possible passed 24cm below the surface due to hitting a human made rubble deposit, likely to be representative of post medieval waste material. Peat was encountered at the bottom of positions 60, 59, 53 and 52 between 2.0mOD and 2.6mOD (ranging between 2.9m to 2.6m below surface). Between these auger positions, no peat was identified, but the minerogenic grey-blue clay that overlaid the identified peat continued to the limit of prospections within this area. Occasional organic inclusions were identified in the minerogenic clay above the peat layers and also within position 55. Alluvial clay was deposited above the minerogenic deposits. Sand was found to be a major component within the alluvial clays at position 54 and within the middle section of alluvial clays at position 53. All alluvial deposits were overlain by compact subsoil and friable topsoil.

Transect K (Figure 19 and 20)

6.2.24 Transect K incorporated auger positions 61, 62, 63, 64, 65 and 66. Peat was identified within the sequences at positions 61, 62 and 64. Within the sequence of position 61, a layer of woody peat was encountered at 2.8mOD (2.7m below surface). The c.20cm layer was preceded minerogenic grey blue clay, mixed with organics in the upper deposit, to the limit of prospection. Woody peat was also encountered at the base of position 62 (2.6mOD and lower, 2.9m below surface). A homogenous brown peat was also identified in the base of position 64, first encountered at c.2.9mOD. Mixed

organics and grey blue clay were present above all the peat layers identified and also within the base of position 63, indicating the likely presence of peat beneath the limit of prospection.

6.2.25 Alluvial clays overlay the minerogenic grey-blue clays which were in turn covered by compact brown subsoil and friable topsoil.

Transect L (Figure 21 and 22)

6.2.26 Transect L encompassed auger positions 72, 71, 70, 69, 68 and 67. Peat was encountered within all except position 67, though organic material was noted within the minerogenic clay present indicating the likely presence of peat below the limit of prospection. In positions 72 and 71, a 25cm woody peat layer is present preceded by minerogenic grey-blue clay. The peat is encountered at 3mOD (2.6m below surface) at position 72 and c. 3.1mOD (2.5m below surface) at position 71. A woody peat is also present at the base of position 70 (first encountered at 2.6mOD, 2.9m below surface). This is separated by a thin mixed minerogenic grey-blue clay with organic inclusions from a further reedy peat deposit measuring 26cm and first encountered at 2.9mOD (2.6m below surface). A further woody peat is present at the base of auger position 69, encountered at 2.9mOD (2.7m below surface). A black peat is present at the base of position 68, encountered at 2.6mOD (2.8m below surface). The peat identified looks to be part of at least two separate deposits, but relationships cannot be confirmed without further survey.

6.2.27 An average of half a metre of minerogenic grey-blue clay was deposited over the peat, followed by c.1.8m of mixed alluvial clay deposits. Compact brown subsoil was noted at all but position 71 above the alluvial clays, followed by a brown friable topsoil.

6.3 Longitudinal Transect

6.3.1 In order to incorporate all auger positions within a wider context and to show the changes in environment across the longitudinal plain of the site, transect H has been reproduced, which covers the full length of the development area.

Transect H (Figure 23 and 24)

6.3.2 Transect H included auger positions 1, 2, 3, 6, 21, 22, 33, 34, 47, 65, 64 and 69. The transect runs from the NW-SE extent of the site and indicates a rise in topography from top to bottom.

6.3.3 Peat was encountered in auger positions 1, 2, 3, 6, 21, 33, 64 and 69 around the 3mOD mark. Interestingly the rise in topography appears to be a result of post reclamation deposition, which means the depth within the augered positions at

which the peat was hit increases as we move to the SE despite the peat having been on a fairly level plain. No peat was present in positions 34, 47 and 65, though the presence of occasional organics indicated potential for peat to be present below the limit of prospection.

6.3.4 The peat was overlain by minerogenic grey-blue clay across the entire transect ranging between 0.5-1m in thickness. At the NE extent, four further thin peat layers were encountered, interspersed with minerogenic clays within the sequence of position 1 up to a maximum elevation of 3.95mOD (55cm below surface) and a further three thin peat layers in the sequence of position 2 up to a maximum elevation of 3.7mOD (1.2m below surface). Alluvial clays followed the minerogenic grey-blue clays, ranging from 0.5-2.5m in depth increasing towards the SE. The sand bands noted in latitudinal transects G and H were also picked up within this transect. The results appeared to show a build up of sand within the centre of the site mixed within the alluvial clays.

6.3.5 The alluvial clays were overlain by a compact brown subsoil followed by a friable topsoil.

7 Discussion

7.1 Overview

7.1.1 There are clear trends within the deposits identified across the surveyed grid. The main deposits of peat appear to be consistently present around 3mOD and below. These are representative of freshwater wetland environments formed within the estuary during periods of marine transgression, allowing the gradual formation of freshwater plant communities. Falling sea levels remove immediate marine influence, but local ground water is still held high in coastal and estuarine zones (Pratolongo et al. 2009, 96). Fluctuations in ground water level caused by sea level change leads to successional changes in the local vegetation. If sea levels drop considerably, hydroseral succession can occur, moving from salt water, to brackish, to freshwater with gradual changes in vegetation occurring alongside (Walker 1970, 118). If sea levels rise the opposite haloseral succession can occur, from freshwater, to brackish, to salt water (Packham and Willis 1997, 22).

7.1.2 There is a variation in peat character indicating differing vegetation, which may be due to localised depth of deposits and ground water levels, or potentially representative of different deposits. However, the resolution of the survey is too low to be able to confirm exact relationships between identified deposits. The maximum depth of deposits is unclear, as they continue past the limit of prospection for this survey.

7.1.3 The peat is followed by (and in some cases preceded by) minerogenic grey-blue clay indicating the deposition of estuarine silts. The suggests sea levels have once again risen causing further transgression and transforming freshwater wetland into salt marsh. The presence of occasional thin peat layers within these minerogenic sediments at higher elevations indicates pockets of short-lived freshwater environment formation, which may indicate slight falls in sea level or the build up of material to the position that it becomes too high for the average tide to reach, potentially due to high energy deposition during storm. These are not present across the entire site, though this could be due to erosion rather than discrete formations.

7.1.4 The minerogenic clay ranges in thickness between 0.5-2m+ at the E end of the site. On average the upper extent of the deposit ranges from 3.5-4.5mOD in elevation.

7.1.5 The alluvial deposits are representative of the post Romano-British drainage and reclamation of the Levels. The marine influence has been removed, allowing alluvial sediment to build up and become reworked through agricultural processes. Towards the centre of the grid, the alluvial clays are infiltrated with sand, with pure sand deposits and sand banding apparent. Sand could be transported by wind or by tidal surges such as the great flood of 1607, which affected the Bristol Channel and Severn Estuary. The energy of such events would carry heavier sediments, such as sand, which would become deposited on land. Sand banding could be representative of a series of storm surges in quick succession likely to be the result of extreme spring tides mixed with unfavourable weather conditions. Further analysis would be needed to date the deposits in order to investigate any potential link to the 1607 flood. The presence of sand throughout the alluvial clays in this area may be a consequence of agricultural reworking of the soil following such depositions, moving the sand up the sequence.

7.1.6 The overlying subsoils and topsoils are related to much more recent agricultural activity.

7.1.7 A particular point of interest on the site is the change in the marine sediment elevation and thickness of alluvial deposits at the far eastern extent of the site. The elevation of underlying peats appears to be similar to the rest of the site, which would suggest the underlying topography is fairly level. However, the elevation of the minerogenic deposits is higher and the alluvial sequence is shorter. Evidence from the next transect down shows a point between the main group of auger positions and the outlier positions where the minerogenic clay is almost non-existent, with apparent alluvial clays extending much deeper than at other location. There is potential that this might represent a human-made barrier, allowing minerogenic deposits (and subsequent peat accumulations) to form on the seaward side, while agricultural deposits built up on the landward side. Another explanation could be the presence of a large channel through the later deposits, allowing the salt

water to flow through the landscape before finally silting up and becoming reclaimed land. Further survey at much higher resolution would be needed to resolve this issue.

7.2 Future Archaeological Potential

7.2.1 The Severn Estuary has already produced substantial evidence to suggest that humans were utilising the levels from the early prehistoric periods. Within the intertidal zone of the estuary, directly to the south of the site at Redwick and further to the west at Goldcliff, a rich array of archaeological evidence has shown human activity from the Mesolithic period, in the form of lithics scatters and human footprints within estuarine silts, through to Bronze Age structures and the use of salt marshes for sheep grazing and on to Iron Age trackways (Bell et al. 2000; Bell 2013).

7.2.2 Further inland, less investigation has been undertaken, but a site to the north east at Llandevenny produced substantial peat deposits ranging in date from hundreds of thousands of years old at their base to between around 500-200BC at their upper deposit (Brown 2013). The sequence was different to that recorded at Rush Wall, with the peat occurring at a much higher elevation. This may be indicative of erosion or an effect of the underlying topography, however it shows the possible variation in deposits across the levels. Combined with the evidence in the intertidal zone, this further evidence indicates the likelihood that the peat identified in the Rush Wall Solar Park survey is likely to be prehistoric in origin and further still that the peat and the minerogenic layers have the potential to produce archaeological remains.

7.2.3 It is important to note that these remains may not necessarily be material culture. The human footprints identified within the estuarine silts at Goldcliff are an example of a "negative feature" that can provide a wealth of information about the inhabitants of the landscape including group demographics, exploitation of the prehistoric landscape, clothing preferences and direction of travel (Scales 2007). The footprints at Goldcliff indicated that a group of people including adults and children were utilising the estuarine intertidal zone. Combined with environmental data extracted from the deposits themselves, the findings have raised questions about seasonality in the movement of people during the Mesolithic period (Bell 2007, 334).

7.2.4 The estuarine silts of the Severn Estuary have also produced footprint at Redwick (directly to the south of Rush Wall), Magor Pill and Uskmouth. Footprints have also been recorded within peat deposits within Wales at locations such as Port Eynon on Gower (Philp 2018) and Lydstep (Murphey et al. 2014) indicating that potential lies within these deposits also. The deposits themselves also hold a wealth of environmental and dating information as well as clues related to human exploitation of the landscape. Palaeoenvironmental analysis of these deposits would address questions raised by the Research Framework for Wales, including undertaking more palaeoenvironmental studies to fill in the geographical gaps in knowledge across

Wales, enhancing the chronological framework for human activity and the environmental record, refining the chronological framework for environmental change, including changes in vegetation, climate, sea-level, river alluviation, aeolian deposition and animal presence and extinction (Caseldine 2017).

7.2.5 The knowledge that the levels were drained during the Romano British period allows us to place a terminus post quem on the alluvial deposits above the minerogenic clays, indicating that anything below is likely to be prehistoric and anything above Romano-British or later. Drainage and reclamation was also undertaken in the medieval period, providing another period of potential archaeological evidence.

8 Conclusion

8.1.1 The survey has identified deposits that may contain evidence of archaeological significance. Very little evidence of archaeological evidence was identified within the upper alluvial clays, with the exception of patchy charcoal between 0.5-1m below the surface at auger position 46 and a rubble deposit just below the surface at auger position 56.

8.1.2 In terms of prehistoric deposits, across the centre of the site, where the later alluvial deposits have built up to their thickest, most of the peat layers are encountered beneath the 2.5m limit of development. A potentially later prehistoric peat layer is identified in auger positions 18 and 37 but has not been identified elsewhere within the central positions.

8.1.3 However, at the far north west and east of the site, the alluvial overburden is thinner meaning the prehistoric peat deposits are higher in the sequence and may therefore be encountered by the development.

8.1.4 The overlying minerogenic clays do sit within the level of development across the majority of the site. As noted in the discussion, these also have potential for archaeological evidence to be encountered.

9 References

Bell, M., Caseldine, A., Neumann, H., Taylor, B. and Allen, J. R. 2000. Prehistoric intertidal archaeology in the Welsh Severn Estuary. Council for British Archaeology York.

Bell, M. 2007. Mesolithic activity at about the time of the Lower Submerged Forest. In: M. Bell ed. Prehistoric Coastal Communities: The Mesolithic in western Britain. CBA Research Report 149. York: Council for British Archaeology,

Bell, M. 2013. The Bronze Age in the Severn Estuary and beyond: conclusions. In: Bell, M. ed. The Bronze Age in the Severn Estuary. York: Council for British Archaeology

British Geological Survey: Geology of Britain viewer: www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html

Brown, A. 2013. Bronze Age vegetation history and human activity at Llandevenny and in the wider Severn Estuary region. In M. Bell (Ed). The Bronze Age in the Severn Estuary. CBA Research Report 172. York: Council for British Archaeology

Caseldine, A. 2017. Refresh of the Research Agenda for Wales: Palaeoenvironments. A Research Framework for the Archaeology of Wales. IFA Wales/Cymru.

Chartered Institute for Archaeologists, 2020. Standards and guidance for the creation, compilation, transfer and deposition of archaeological archives.

Chartered Institute for Archaeologists, 2014. Standards and guidance for the collection, documentation, conservation and research of archaeological materials.

Chartered Institute for Archaeologists, 2020, Standard and Guidance for Archaeological Field Evaluation. Chartered Institute for Archaeologists.

English Heritage, 2002. Guidelines for Environmental Archaeology.

English Heritage, 2006. Management of Research Projects in the Historic Environment (MORPHE).

Murphy, K. et al. 2014. Mesolithic human and animal footprints at Lydstep Haven, Pembrokeshire, 2010: the environmental context. Archaeologia Cambrensis163, pp. 23-41.

Packham, J. R. and Willis, A. J. 1997. Ecology of dunes, salt marsh and shingle. London: Chapman & Hall.

Philp, R. 2018. Changing Tides: The Archaeological Context of Sea Level Change in Prehistoric South Wales. Unpublished PhD Thesis. Cardiff University. Available online: http://orca.cf.ac.uk/118952/

Pratolongo, P. D. et al. 2009. Temperate Coastal Wetlands: Morphology, Sediment Processes, and Plant Communities. In: Perillo, G.M.E. et al. eds. Coastal Wetlands: An Integrated Ecosystem Approach. Amsterdam: Elsevier Science.

Scales, R. 2007. Footprint-tracks of people and animals. In: Bell, M. ed. Prehistoric coastal communities: the Mesolithic in Western Britain. York: Council for British Archaeology.

Walker, D. 1970. Direction and rate in some British post-glacial hydroseres. In: Walker, D. and West, R.G. eds. Studies in the vegetational history of the British Isles. Cambridge: Cambridge University Press.

Appendix 1 Deposit depths below surface

	Distance below surface (cm)		
Position	**From**	**To**	**Description**
1	0	20	Friable brown soil
	20	30	Compact brown soil
	30	54	Brown-grey-blue clay
	54	60	Black peat with occasional clay inclusions
	60	63	Mixed Brown-grey-blue clay and organic material
	63	90	Grey-blue clay
	90	105	Mixed grey-blue clay and organic material
	105	106	Dark brown peat
	106	120	Mixed grey-blue clay and organic material
	120	135	Brown peat with clay inclusions
	135	145	Mixed grey-blue clay and organic material
	145	150	Dark brown peat
	150	155	Mixed brown-grey clay and organic material
	155	200	Reedy brown peat
	200	300	Brown reedy peat
2	0	4	Friable brown soil
	4	18	Compact brown soil
	18	28	Brown-grey clay
	28	50	Brown-grey sandy clay
	50	81	Brown-grey clay
	81	96	Brown-grey sandy clay with iron staining
	96	116	Grey clay
	116	125	Black peat
	125	140	Mixed grey-blue clay and organic material
	140	156	Grey-blue clay
	156	170	Mixed grey-blue clay and organic material
	170	174	Brown reedy peat
	174	188	Mixed grey-blue clay and organic material
	188	190	Brown reedy peat
	190	192	Mixed grey-blue clay and organic material
	192	200	Dark brown reedy peat
	200	230	Dark brown peat
	230	236	Light brown reedy peat
	236	250	Dark brown peat
	250	300	Brown peat
3	0	10	Friable brown soil
	10	30	Compact brown soil
	30	40	Brown-grey clay
	40	125	Brown-grey-blue clay
	125	150	Grey-blue clay
	150	200	Grey blue clay with occasional peat inclusions
	200	300	Brown peat

	Distance below surface (cm)		
Position	**From**	**To**	**Description**
4	0	6	Friable brown soil
	6	13	Compact brown soil
	13	39	Brown-grey clay
	39	100	Brown-grey-blue clay
	100	157	Brown-grey clay
	157	190	Grey-blue clay
	190	200	Mixed grey-blue clay and organic material
	200	300	Brown peat
5	0	6	Friable brown soil
	D	15	Compact brown soil
	15	28	Brown-grey clay
	28	50	Brown-grey sandy clay
	50	70	Brown-grey clay
	70	195	Brown-grey-blue clay
	195	200	Grey-blue clay
	200	232	Mixed grey-blue clay and organic material
	232	282	Brown reedy peat
	282	300	Red-brown reedy peat
6	0	10	Friable brown soil
	10	17	Compact brown soil
	17	28	Brown-grey clay
	28	127	Brown-grey-blue clay
	127	160	Grey-blue clay
	160	182	Mixed grey-blue clay and organic material
	182	200	Dark brown peat
	200	300	Brown peat
7	0	10	Friable brown soil
	10	22	Compact brown soil
	22	38	Brown-grey clay
	38	116	Brown-grey-blue clay
	116	215	Grey-blue clay
	215	233	Mixed grey-blue clay and organic material
	233	238	Black peat
	238	300	Grey-blue clay
8	0	10	Friable brown soil
	10	14	Compact brown soil
	14	35	Brown-grey clay
	35	40	Grey-blue clay
	40	72	Brown-grey-blue clay with iron staining
	72	110	Brown-grey clay
	110	150	Brown-grey-blue clay
	150	190	Brown-grey-clay
	190	236	Grey-blue clay
	236	239	Mixed grey-blue clay and organic material
	239	300	Dark brown peat
9	0	8	Friable brown soil
	8	26	Compact brown soil

	Distance below surface (cm)		
Position	**From**	**To**	**Description**
	26	50	Brown-grey clay
	50	141	Brown-grey clay with iron staining
	141	190	Brown-grey clay
	190	212	Brown-grey-blue clay
	212	250	Grey-blue clay
	250	288	Woody brown peat
	288	300	Grey-blue clay
10	0	6	Friable brown soil
	6	18	Compact brown soil
	18	133	Brown-grey clay
	133	228	Brown-grey-blue clay
	228	300	Grey-blue clay
11	0	10	Friable brown soil
	10	27	Compact brown soil
	27	111	Brown-grey clay
	111	222	Brown-grey blue clay
	222	275	Grey-blue clay
	275	300	Brown reedy peat
12	0	20	Friable brown soil
	20	24	Brown clay
	24	70	Brown-grey-blue clay
	70	86	Brown-grey-blue clay with iron staining
	86	124	Brown-grey-blue sandy clay
	124	150	Brown-grey-blue clay
	150	214	Brown-grey clay with iron staining
	214	300	Grey-blue clay
13	0	13	Friable brown soil
	13	27	Compact brown soil
	27	50	Brown-grey clay
	50	100	Brown-grey clay with iron staining
	100	150	Grey clay with iron staining
	150	200	Grey-blue clay with iron staining
	200	290	Grey-blue clay
	290	300	Red-brown woody peat
14	0	28	Friable brown soil
	28	38	Brown-grey clay with iron staining
	38	110	Brown-grey clay
	110	198	Grey-blue clay with organic inclusions
	198	280	Grey-blue clay
	280	300	Dark brown reedy peat
15	0	19	Friable brown soil
	19	26	Brown-grey clay
	26	100	Brown-grey clay with iron staining
	100	150	Brown-grey-blue clay with iron staining
	150	210	Brown-grey clay
	210	300	Grey-blue clay
16	0	10	Friable brown soil

	Distance below surface (cm)		
Position	**From**	**To**	**Description**
	10	20	Compact brown soil
	20	50	Brown-yellow clay
	50	74	Grey-yellow sandy clay with iron staining
	74	100	Brown-grey-blue clay with iron staining
	100	132	Brown-grey-blue clay
	132	153	Brown-grey-blue clay with iron staining
	153	165	Brown-grey-blue clay
	165	200	Brown-grey clay
	200	298	Grey-blue clay
	298	300	Mixed grey-blue clay and organic material
	0	6	Friable brown soil
	6	16	Compact brown soil
	16	36	Brown-grey-yellow clay
	36	75	Brown-grey-blue clay
	75	142	Brown-grey-blue clay with iron staining
	142	145	Brown-grey clay
	145	150	Brown-grey-blue clay
	150	191	Brown-grey clay
17	191	260	Grey-blue clay
	260	260.5	Mixed grey-blue clay and organic material
	260.5	261	Grey-blue clay
	261	261.5	Mixed grey-blue clay and organic material
	261.5	262	Grey-blue clay
	262	263.5	Mixed grey-blue clay and organic material
	263.5	264	Grey-blue clay
	264	264.5	Mixed grey-blue clay and organic material
	264.5	300	Dark brown reedy peat
	0	8	Friable brown soil
	8	17	Compact brown soil
	17	30	Brown-grey-yellow clay
	30	50	Brown-grey clay
	50	75	Brown-grey clay with iron staining
	75	135	Brown-grey clay
18	135	150	Grey clay
	150	170	Brown-grey clay
	170	200	Grey-blue clay
	200	240	Brown reedy peat
	240	258	Grey-blue clay
	258	260	Mixed grey-blue clay and organic material
	260	300	Dark brown reedy peat
	0	10	Friable brown soil
	10	22	Compact brown soil
	22	41	Brown-grey clay with iron staining
19	41	50	Brown-grey silty sandy clay with iron staining
	50	79	Yellow-grey sandy clay
	79	166	Brown-grey clay
	166	184	Brown clay

	Distance below surface (cm)		
Position	**From**	**To**	**Description**
	184	200	Mixed grey-blue clay and organic material
	200	256	Grey-blue clay
	256	258	Mixed grey-blue clay and organic material
	258	300	Brown reedy peat
20	0	15	Friable brown soil
	15	21	Compact brown soil
	21	34	Brown-yellow clay
	34	50	Brown-grey clay with iron staining
	50	90	Brown-grey silty sandy clay
	90	100	Brown-grey clayey sand
	100	180	Brown-grey sandy clay
	180	196	Grey sandy clay with iron staining
	196	240	Grey-blue clay
	240	241	Mixed grey-blue clay and organic material
	241	250	Brown homogenous peat
	250	300	Red-brown reedy peat
21	0	9	Friable brown soil
	9	11	Compact brown soil
	11	50	Brown-grey clay
	50	100	Brown-grey-blue clay with iron staining
	100	174	Grey clay with iron staining
	174	220	Grey-blue clay
	220	230	Mixed grey-blue clay and organic material
	230	300	Dark brown peat
22	0	10	Friable brown soil
	10	20	Compact brown soil
	20	32	Brown-grey clay
	32	100	Brown-grey-blue clay
	100	128	Brown-grey-blue sandy clay
	128	148	Sand
	148	150	Brown-grey sandy clay
	150	200	Grey-blue sandy clay
	200	260	Grey-blue clay
	260	263	Mixed grey-blue clay and organic material
	263	279	Dark brown peat
	279	200	Dark brown reedy peat
23	0	6	Friable brown soil
	6	20	Compact brown soil
	20	40	Brown-grey clay
	40	65	Brown-grey sandy clay
	65	95	Brown-grey clayey sand
	95	100	Brown-grey sandy clay
	100	220	Brown-grey clay
	220	235	Grey clay
	235	250	Grey-blue clay with organic inclusions
	250	280	Mixed grey-blue clay and peat
	280	300	Red-brown woody peat

	Distance below surface (cm)		
Position	**From**	**To**	**Description**
24	0	4	Friable brown soil
	4	17	Compact brown soil
	17	82	Brown-grey clay with iron staining
	82	100	Brown-grey sandy clay
	100	126	Brown-grey sandy clay with iron staining
	126	175	Brown-grey clay
	175	200	Grey-blue clay
	200	241	Grey-blue clay with organic inclusions
	241	300	Dark brown peat
25	0	3	Friable brown soil
	3	7	Compact brown soil
	7	100	Brown-grey clay
	100	133	Brown-grey sandy clay
	133	200	Brown-grey blue clay
	200	250	Grey-blue clay
	250	276	Mixed grey-blue clay and peat
	276	287	Grey-blue clay
	287	300	Brown reedy peat
26	0	5	Friable brown soil
	5	13	Compact brown soil
	13	181	Brown-grey clay
	181	223	Grey-blue clay
	223	253	Brown reedy peat
	253	290	Grey-blue clay
	290	300	Brown reedy peat
27	0	18	Friable brown soil
	18	128	Brown-grey clay
	128	132	Grey clay with iron staining
	132	141	Brown-grey clay with iron staining
	141	177	Brown-grey clay
	177	300	Grey-blue clay
28	0	10	Friable brown soil
	10	67	Hard grey clay with yellow-brown staining
	67	135	Brown-grey clay
	135	214	Grey clay
	214	287	Grey-blue clay
	287	300	Brown woody peat with obvious plant remains
29	0	3	Friable brown soil
	3	21	Compact brown soil
	21	50	Brown-grey clay
	50	77	Brown-grey clay with iron staining
	77	115	Brown-grey sandy clay
	115	127	Brown-grey-blue sandy clay
	127	150	Brown-grey clay
	150	200	Brown-grey clay with iron staining
	200	209	Brown-grey clay
	209	300	Grey-blue clay

	Distance below surface (cm)		
Position	**From**	**To**	**Description**
30	0	18	Friable brown soil
	18	24	Compact brown soil
	24	77	Brown-grey silty sandy clay
	77	88	Brown-grey-blue silty sandy clay
	88	221	Brown-grey-blue clay
	221	258	Grey-blue clay
	258	260	Mixed grey-blue clay and organic material
	260	279	Dark brown reedy peat
	279	292	Brown peat
31	0	14	Friable brown soil
	14	21	Compact brown soil
	21	50	Brown-grey clay
	50	100	Brown-grey silty sandy clay
	100	120	Brown-grey clay
	120	213	Brown-grey-blue clay
	213	243	Grey-blue clay with iron staining
	243	300	Grey-blue clay
32	0	10	Friable brown soil
	10	23	Compact brown soil
	23	39	Brown-grey clay
	39	56	Brown-grey sandy clay
	56	62	Sand
	62	100	Brown-grey sandy clay
	100	110	Brown-grey-blue clay
	110	120	Brown-grey sandy clay
	120	142	Brown-grey clayey sand
	142	150	Brown-grey sandy clay
	150	173	Brown-grey clay with frequent thin sand layers apparent
	173	194	Brown-grey-blue clay with frequent thin sand layers apparent
	194	200	Brown-grey-blue clay with gritty inclusions
	200	222	Brown-grey-blue clay
	222	300	Grey-blue clay
33	0	24	Friable brown soil
	24	30	Compact brown soil
	30	85	Brown-grey clay
	85	100	Brown-grey sandy clay
	100	113	Brown-grey-blue clay
	113	130	Brown-grey clay
	130	150	Brown-grey sandy clay
	150	210	Brown-grey clay with frequent thin sand layers apparent
	210	223	Brown-grey-blue sandy clay
	223	250	Grey-blue clay
	250	270	Grey-blue clay with occasional organic inclusions
	270	282	Mixed grey-blue clay and organic material
	282	300	Brown peat
34	0	10	Friable brown soil

	Distance below surface (cm)		
Position	**From**	**To**	**Description**
	10	22	Compact brown soil
	22	50	Brown-grey clay
	50	118	Brown-grey sandy clay
	118	141	Brown-grey clay with frequent thin sand layers apparent
	141	150	Brown-grey-blue clay
	150	200	Brown-grey clay with frequent thin sand layers apparent
	200	225	Brown-grey sandy clay
	225	280	Grey-blue sandy clay
	280	300	Grey-blue clay
35	0	10	Friable brown soil
	10	26	Compact brown soil
	26	40	Brown-grey clay
	40	50	Brown-grey sandy clay
	50	84	Brown-grey-blue sandy clay with frequent thin sand layers apparent
	84	100	Brown-grey clayey sand
	100	130	Brown-grey sandy clay with frequent thin sand layers
	130	169	Brown-grey clay
	169	212	Brown-grey-blue clay
	212	300	Grey-blue clay
36	0	12	Friable brown soil
	12	18	Compact brown soil
	18	50	Brown-grey clay
	50	83	Brown-grey clay with iron staining
	83	210	Brown-grey-blue clay
	210	260	Grey-blue clay
	260	283	Dark brown reedy peat
	283	300	Brown woody peat
37	0	23	Friable brown soil
	23	30	Compact brown soil
	30	60	Brown-grey clay
	60	89	Brown-grey-blue silty sandy clay
	89	138	Brown-grey clay
	138	150	Brown-grey-blue clay
	150	190	Grey-blue clay
	190	192	Mixed grey-blue clay and organic material
	192	215	Light brown peat
	215	233	Grey-blue clay
	233	300	Dark brown peat
38	0	3	Friable brown soil
	3	10	Compact brown soil
	10	30	Brown-grey clay
	30	79	Brown-grey clay with iron staining
	79	100	Brown-grey-blue clay
	100	108	Brown-grey clay with iron staining
	108	207	Brown-grey-blue clay
	207	242	Grey-blue clay

Position	Distance below surface (cm)		Description
	From	To	
	242	246	Mixed grey-blue clay and organic material
	246	251	Brown peat
	251	253	Grey-blue clay
	253	265	Brown reedy peat
	265	270	Mixed grey-blue clay and organic material
	270	300	Grey-blue clay
39	0	15	Friable brown soil
	15	26	Compact brown soil
	26	50	Brown-grey clay
	50	163	Brown-grey clay with gravel inclusions
	163	200	Brown-grey-blue clay
	200	265	Grey-blue clay
	265	270	Mixed grey-blue clay and organic material
	270	270.5	Peat
	270.5	273.5	Mixed grey-blue clay and organic material
	273.5	274	Grey-blue clay
	274	274.5	Mixed grey-blue clay and organic material
	274.5	275	Peat
	275	275.5	Grey-blue clay
	275.5	276	Mixed grey-blue clay and organic material
	276	290	Brown woody peat
	290	300	Grey-blue clay
40	0	5	Friable brown soil
	5	13	Compact brown soil
	13	177	Brown-grey clay
	177	223	Brown-grey-blue clay with iron staining
	223	300	Grey-blue clay
41	0	15	Friable brown soil
	15	30	Compact brown soil
	30	39	Brown-grey clay
	39	100	Brown-grey sandy silty clay
	100	126	Brown-grey clay with gravel inclusions
	126	161	Brown-grey clay
	161	206	Brown-grey clay with gravel inclusions
	206	300	Grey-blue clay
42	0	15	Friable brown soil
	15	24	Compact brown soil
	24	74	Brown-grey clay
	74	200	Grey-blue-brown clay with iron staining
	200	219	Grey-blue-brown clay
	219	300	Grey-blue clay
43	0	4	Friable brown soil
	4	9	Compact brown soil
	9	50	Brown-grey clay
	50	74	Brown-grey-blue clay with iron staining
	74	132	Brown-grey clay
	132	220	Brown-grey-blue clay

	Distance below surface (cm)		
Position	**From**	**To**	**Description**
	220	250	Grey-blue clay
	250	252	Mixed grey-blue clay and peat
	252	284	Woody brown peat at top, reedy peat at base.
	284	300	Grey-blue clay with occasional organic inclusions
44	0	5	Friable brown soil
	5	14	Compact brown soil
	14	50	Brown-grey clay
	50	100	Brown-grey-blue clay with iron staining
	100	131	Brown-grey-blue sandy clay
	131	206	Brown-grey-blue clay
	206	241	Grey-blue clay with organic inclusions
	241	250	Black peat
	250	260	Brown reedy peat
	260	280	Grey-blue clay
	280	300	Black peat
45	0	15	Friable brown soil
	15	25	Compact brown soil
	25	38	Brown-grey clay
	38	66	Brown-grey silty sandy clay
	66	224	Brown-grey clay
	224	300	Grey-blue clay
46	0	8	Friable brown soil
	8	20	Compact brown soil
	20	50	Brown-grey clay
	50	100	Brown-grey clay with charcoal and CBM fragments
	100	150	Brown-grey clay
	150	219	Brown-grey-blue clay with iron staining
	219	290	Grey-blue clay with organic inclusions
	290	300	Black peat
47	0	10	Friable brown soil
	10	23	Compact brown soil
	23	55	Brown-grey clay
	55	92	Brown-grey clayey sand
	92	150	Brown-grey-blue sandy clay
	150	250	Brown-grey-blue clay
	250	300	Grey-blue clay with occasional organic inclusions
48	0	5	Friable brown soil
	5	12	Compact brown soil
	12	38	Brown-grey clay
	38	75	Grey sandy clay with iron staining
	75	100	Yellow-grey clayey sand
	100	125	Brown-grey clay
	125	200	Brown-grey-blue clay
	200	264	Brown-grey-blue clay with occasional organics
	264	265	Mixed grey-blue clay and peat fragments
	265	300	Dark brown reedy peat
49	0	15	Friable brown soil

Position	Distance below surface (cm)		Description
	From	To	
	15	25	Compact brown soil
	25	92	Brown-grey clay
	92	160	Brown-grey-blue clay
	160	180	Grey-blue clay
	180	200	Brown-grey clay
	200	247	Grey-blue clay with occasional organic inclusions
	247	252	Black peat
	252	300	Grey-blue clay
50	0	10	Friable brown soil
	10	23	Compact brown soil
	23	88	Brown-grey clay
	88	136	Brown-grey-blue clay
	136	160	Mixed grey-blue clay and peat fragments
	160	173	Mixed grey-blue clay and organic material
	173	174	Black peat fragments
	174	270	Mixed grey-blue clay and organic material
	270	278	Brown peat with clay inclusions
	278	283	Mixed grey-blue clay and peat fragments
	283	300	Red-brown peat with rooting
51	0	14	Friable brown soil
	14	23	Compact brown soil
	23	100	Brown-grey-blue clay
	100	200	Grey-blue clay with organic inclusions
	200	250	Grey-blue clay
	250	295	Grey-blue clay with organic inclusions
	295	300	Black peat
52	0	14	Friable brown soil
	14	21	Compact brown soil
	21	33	Brown-grey clay
	33	50	Grey clay
	50	125	Brown-grey clay
	125	190	Brown-grey-blue clay
	190	240	Grey-blue clay
	240	250	Mixed grey-blue clay and organic material
	250	268	Mixed grey-blue clay and peat fragments
	268	300	Brown reedy peat
53	0	10	Friable brown soil
	10	20	Compact brown soil
	20	55	Brown-grey clay
	55	70	Brown-grey-blue clay
	70	74	Brown-grey clay
	74	100	Grey sandy clay with iron staining
	100	150	Brown grey clay
	150	220	Grey-blue clay with occasional organic inclusions
	220	270	Grey-blue clay
	270	278	Mixed grey-blue clay and organic material
	278	300	Dark brown reedy peat

	Distance below surface (cm)		
Position	**From**	**To**	**Description**
54	0	5	Friable brown soil
	5	15	Compact brown soil
	15	25	Brown-grey clay
	25	42	Brown-grey clay with iron staining
	42	65	Yellow-grey sandy clay
	65	82	Yellow-white sand
	82	100	Yellow-grey clayey sands
	100	200	Grey sandy clay
	200	300	Grey-blue clay
55	0	10	Friable brown soil
	10	22	Compact brown soil
	22	42	Brown-yellow-grey clay
	42	213	Brown-grey-blue clay
	213	250	Grey-blue clay
	250	300	Grey-blue clay with occasional organic inclusions
56	0	2	Friable brown soil
	2	5	Compact brown soil
	5	24	Brown-grey rubbly clay HS DNH
57	0	4	Friable brown soil
	4	16	Compact brown soil
	16	113	Brown-grey clay with iron staining
	113	150	Brown-grey clay
	150	200	Brown-grey-blue clay with iron staining
	200	214	Brown-grey blue clay
	214	300	Grey-blue clay
58	0	3	Friable brown soil
	3	7	Compact brown soil
	7	85	Brown-grey clay
	85	100	Brown-grey clay with iron staining
	100	171	Brown-grey clay
	171	180	Brown-grey-blue clay with iron staining
	180	200	Brown-grey-blue clay
	200	231	Brown-grey clay
	231	300	Grey-blue clay
59	0	25	Friable brown soil
	25	28	Compact brown soil
	28	70	Brown-grey clay
	70	220	Brown-grey-blue clay
	220	273	Grey-blue clay
	273	277	Mixed grey-blue clay and organic material
	277	300	Dark brown peat
60	0	7	Friable brown soil
	7	16	Compact brown soil
	16	50	Brown-grey clay
	50	100	Brown-grey clay with iron staining
	100	123	Brown-grey clay
	123	150	Brown-grey-blue clay with iron staining

	Distance below surface (cm)		
Position	**From**	**To**	**Description**
	150	208	Brown-grey-blue clay
	208	285	Grey-blue clay
	285	289	Mixed grey-blue clay and peat
	289	300	Reedy brown peat
61	0	10	Friable brown soil
	10	16	Compact brown soil
	16	40	Brown-grey clay
	40	50	Brown-grey-blue clay
	50	89	Red-brown clay with iron staining
	89	224	Brown-grey-blue clay
	224	260	Grey-blue clay
	260	268	Mixed grey-blue clay and organic material
	268	284	Dark brown woody peat
	284	296	Mixed grey-blue clay and organic material
	296	300	Grey-blue clay
62	0	18	Friable brown soil
	18	24	Compact brown soil
	24	39	Brown-grey clay
	39	220	Brown-grey-blue clay
	220	283	Grey blue clay
	283	290	Mixed grey-blue clay and organic material
	290	300	Brown woody peat
63	0	9	Friable brown soil
	9	25	Compact brown soil
	25	50	Brown-grey clay
	50	83	Brown-grey clay with iron staining
	83	150	Brown-grey-blue clay
	150	200	Brown-grey-blue clay with iron staining
	200	223	Brown-grey-blue clay
	223	272	Grey-blue clay
	272	300	Mixed grey-blue clay and organic material
64	0	20	Friable brown soil
	20	30	Compact brown soil
	30	63	Brown-grey clay
	63	76	Brown-grey sandy clay
	76	120	Brown-grey clay
	120	200	Brown-grey-blue clay
	200	250	Grey-blue clay
	250	253	Mixed grey-blue clay and organic material
	253	300	Brown peat
65	0	7	Friable brown soil
	7	15	Compact brown soil
	15	79	Brown-grey clay
	79	186	Brown-grey-blue clay
	186	300	Grey-blue clay
66	0	9	Friable brown soil
	9	23	Compact brown soil

	Distance below surface (cm)		
Position	**From**	**To**	**Description**
	23	120	Brown-grey clay
	120	184	Brown-grey-blue clay
	184	300	Grey-blue clay
67	0	11	Friable brown soil
	11	26	Compact brown soil
	26	130	Brown-grey-blue clay with iron staining
	130	200	Brown-grey-blue clay
	200	300	Grey-blue clay with organic inclusions
68	0	10	Friable brown soil
	10	26	Compact brown soil
	26	150	Brown-grey clay with iron staining
	150	200	Brown-grey clay
	200	280	Grey-blue clay
	280	300	Black peat
69	0	7	Friable brown soil
	7	18	Compact brown soil
	18	53	Brown-grey clay
	53	66	Brown-grey blue clay
	66	80	Brown-grey clay
	80	117	Brown-grey clay with iron staining
	117	130	Brown-grey-clay
	130	150	Brown-grey-blue sandy clay
	150	215	Brown-grey clay
	215	262	Grey-blue clay
	262	270	Mixed grey-blue clay and organic material
	270	300	Dark brown woody peat
70	0	2	Friable brown soil
	2	8	Compact brown soil
	8	52	Brown-grey clay
	52	100	Brown-grey-blue clay with iron staining
	100	113	Brown-grey-blue clay
	113	150	Brown-grey clay
	150	218	Brown-grey-blue clay
	218	262	Grey-blue clay
	262	288	Black reedy peat
	288	290	Mixed grey blue clay and peat
	290	300	Black woody peat
71	0	12	Friable brown soil
	12	45	Brown-grey clay
	45	139	Brown-grey-blue clay
	139	150	Brown-grey clay
	150	200	Brown-grey-blue clay
	200	252	Grey-blue clay
	252	278	Dark brown woody peat
	278	300	Grey blue clay
72	0	18	Friable brown soil
	18	24	Compact brown soil

	Distance below surface (cm)		
Position	**From**	**To**	**Description**
	24	40	Brown-grey clay
	40	50	Brown-grey-blue clay
	50	66	Brown-grey-blue clay with moderate gravel inclusions
	66	193	Brown-grey blue clay
	193	255	Grey-blue clay
	255	259	Mixed grey-blue clay and organic material
	259	284	Dark brown woody peat
	284	287	Mixed grey-blue clay and organic material
	287	300	Grey-blue clay
73	0	8	Friable brown soil
	8	31	Compact brown soil
	31	45	Brown grey clay
	45	52	Grey-blue clay
	52	83	Brown-grey-blue clay
	83	86	Dark brown peat
	86	88	Mixed grey-blue clay and organic material
	88	89	Dark brown peat
	89	92	Grey clay
	92	96	Dark brown peat
	96	120	Mixed grey-blue clay and organic material
	120	150	Grey-blue clay
	150	187	Grey-blue clay with occasional organic inclusions
	187	200	Mixed grey-blue clay and organic material
	200	204	Grey-bue clay
	204	210	Mixed grey-blue clay and organic material
	210	275	Dark brown reedy peat
	275	300	Red-brown woody peat
74	0	16	Friable brown soil
	16	28	Compact brown soil
	28	69	Brown-grey-blue clay with iron staining
	69	103	Grey-blue clay
	103	109	Mixed grey-blue clay and organic material
	109	121	Black peat
	121	144	Mixed grey-blue clay and organic material
	144	150	Grey-blue clay
	150	192	Grey-blue clay with occasional organic inclusions
	192	200	Black peat
	200	276	Brown reedy peat
	276	292	Orange-brown reedy peat
75	0	14	Friable brown soil
	14	24	Compact brown soil
	24	50	Brown-grey clay
	50	80	Brown-grey clay with iron staining
	80	91	Brown-grey-blue clay
	91	120	Mixed grey-blue clay and organic material
	120	136	Brown reedy peat
	136	146	Mixed grey-blue clay and organic material

	Distance below surface (cm)		
Position	**From**	**To**	**Description**
	146	150	Grey-blue clay
	150	162	Mixed grey-blue clay and organic material
	162	164	Organic material
	164	168	Brown reedy peat
	168	170	Mixed grey-blue clay and organic material
	170	178	Grey-blue clay with occasional organic inclusions
	178	191	Mixed grey-blue clay and organic material
	191	200	Brown reedy peat
	200	250	Brown woody peat
	250	270	Dark brown reedy peat
	270	282	Light brown woody peat
	282	292	Very compact orange-brown reedy peat

Appendix 2 Figures

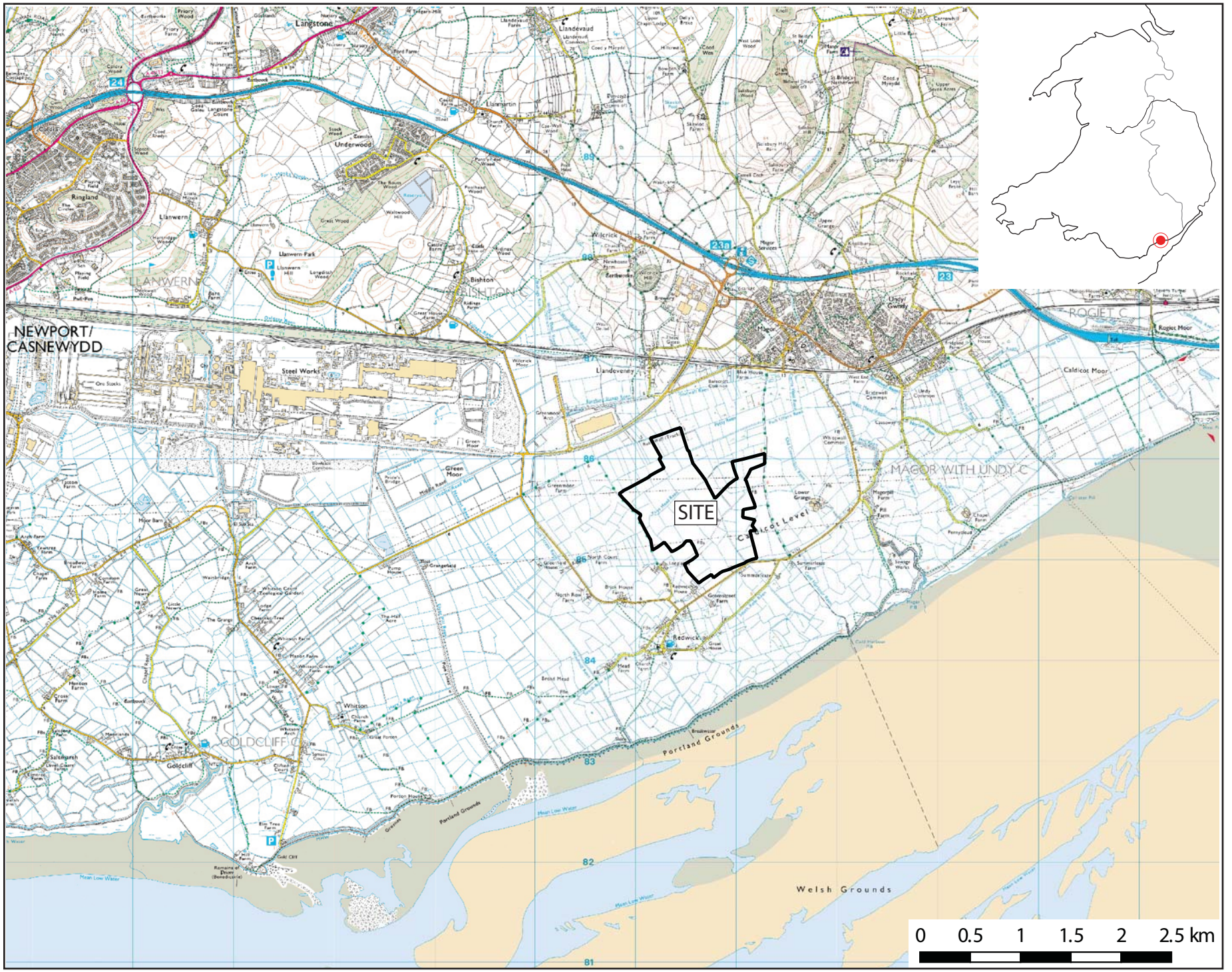


Figure 1: Location map, 1:50,000 @ A4

ARCHAEOLOGY WALES
Revealing the past, informing the future

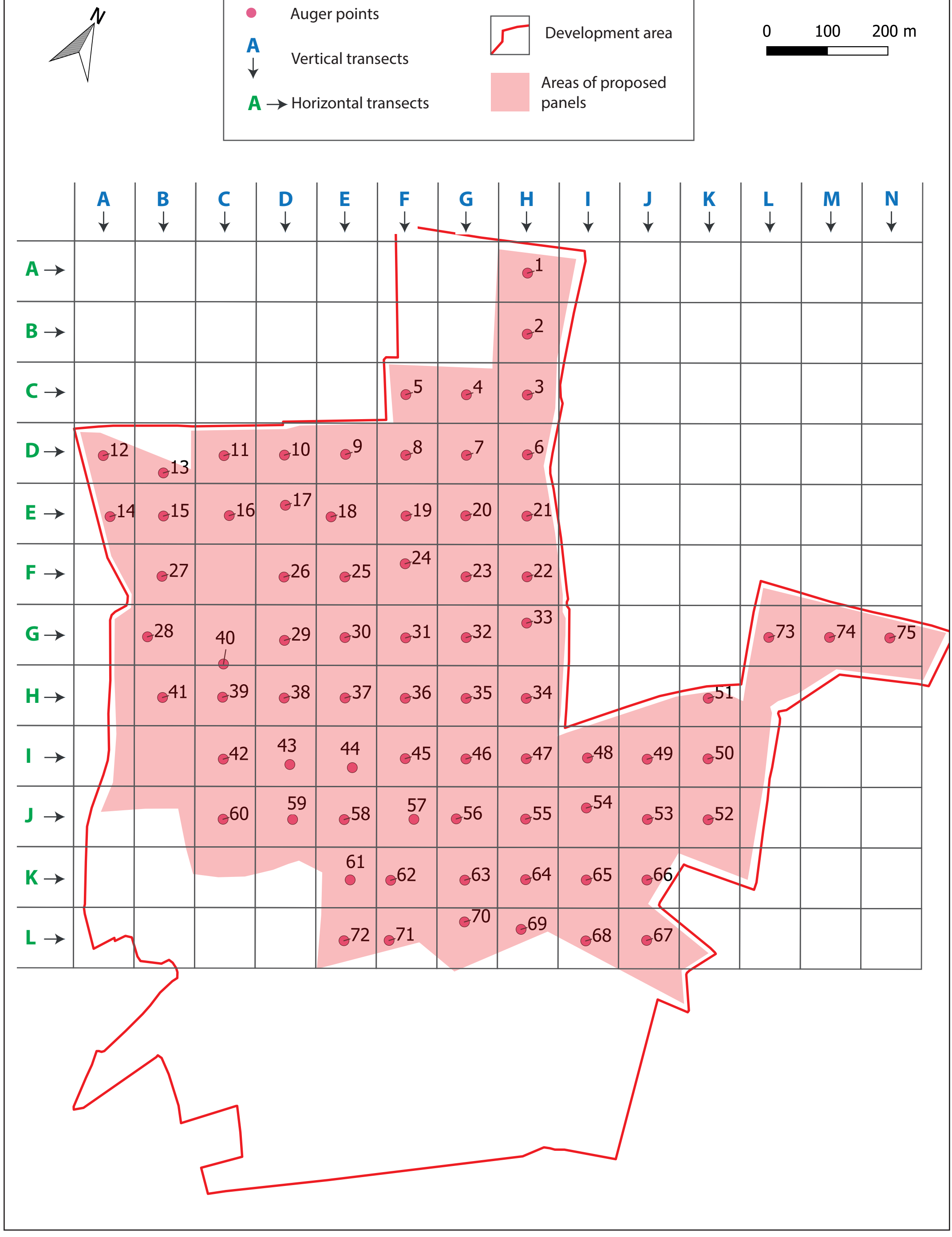
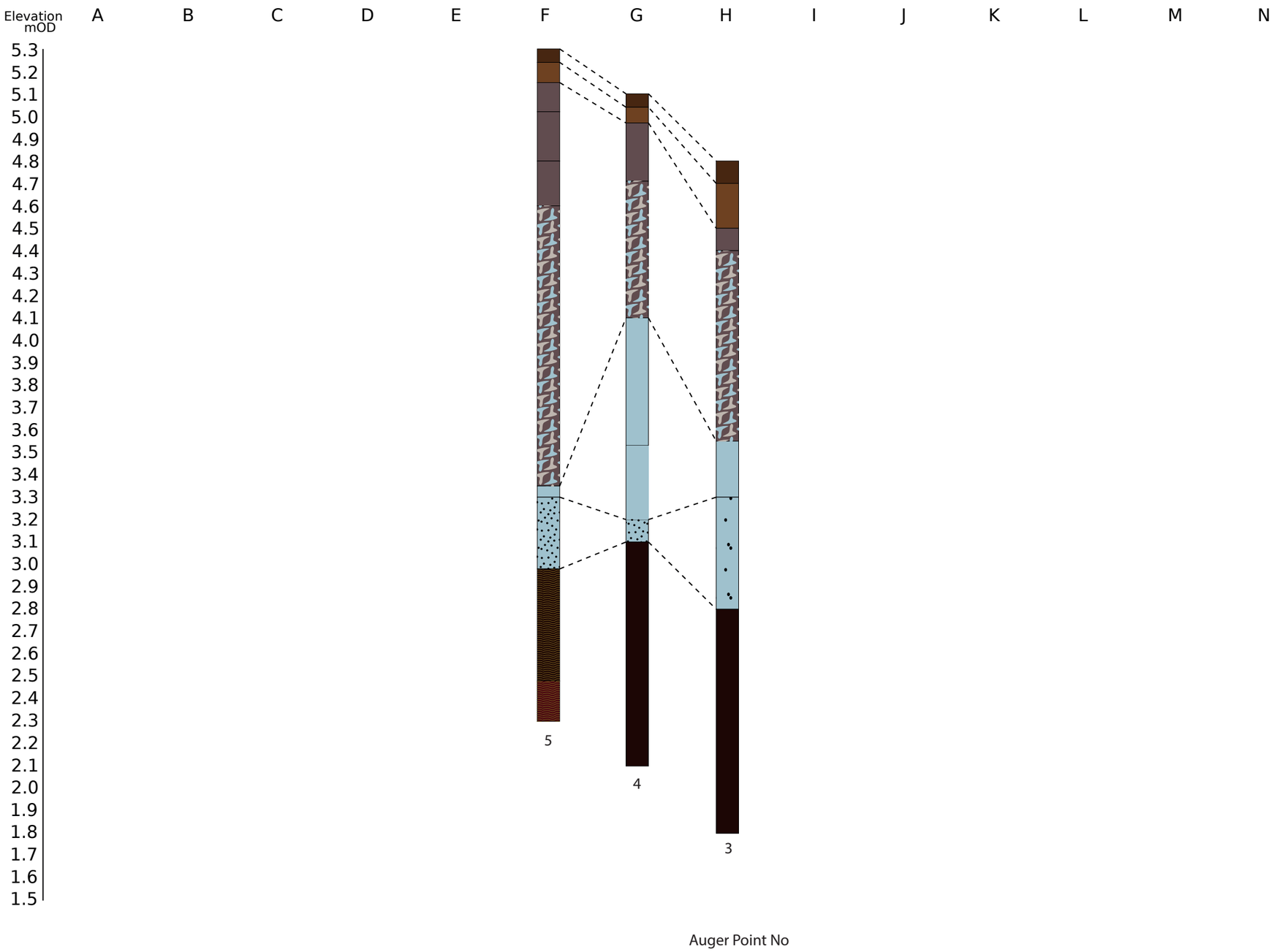


Figure 2. Transect Grid

ARCHAEOLOGY WALES
Revealing the past, informing the future



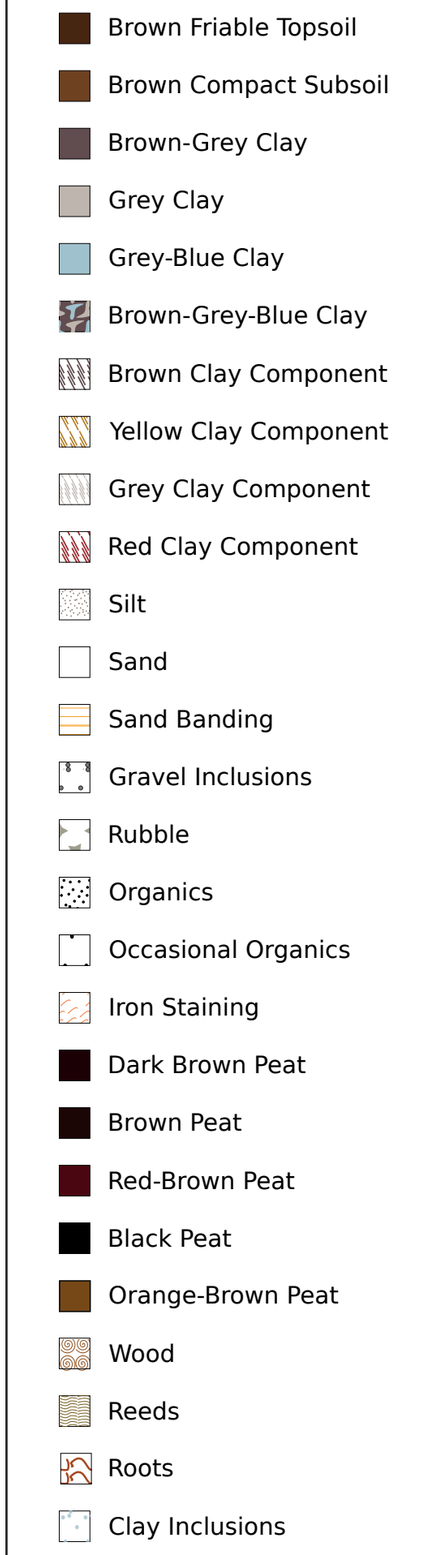


Figure 3. Latitudinal Transect C

ARCHAEOLOGY WALES
Revealing the past, informing the future

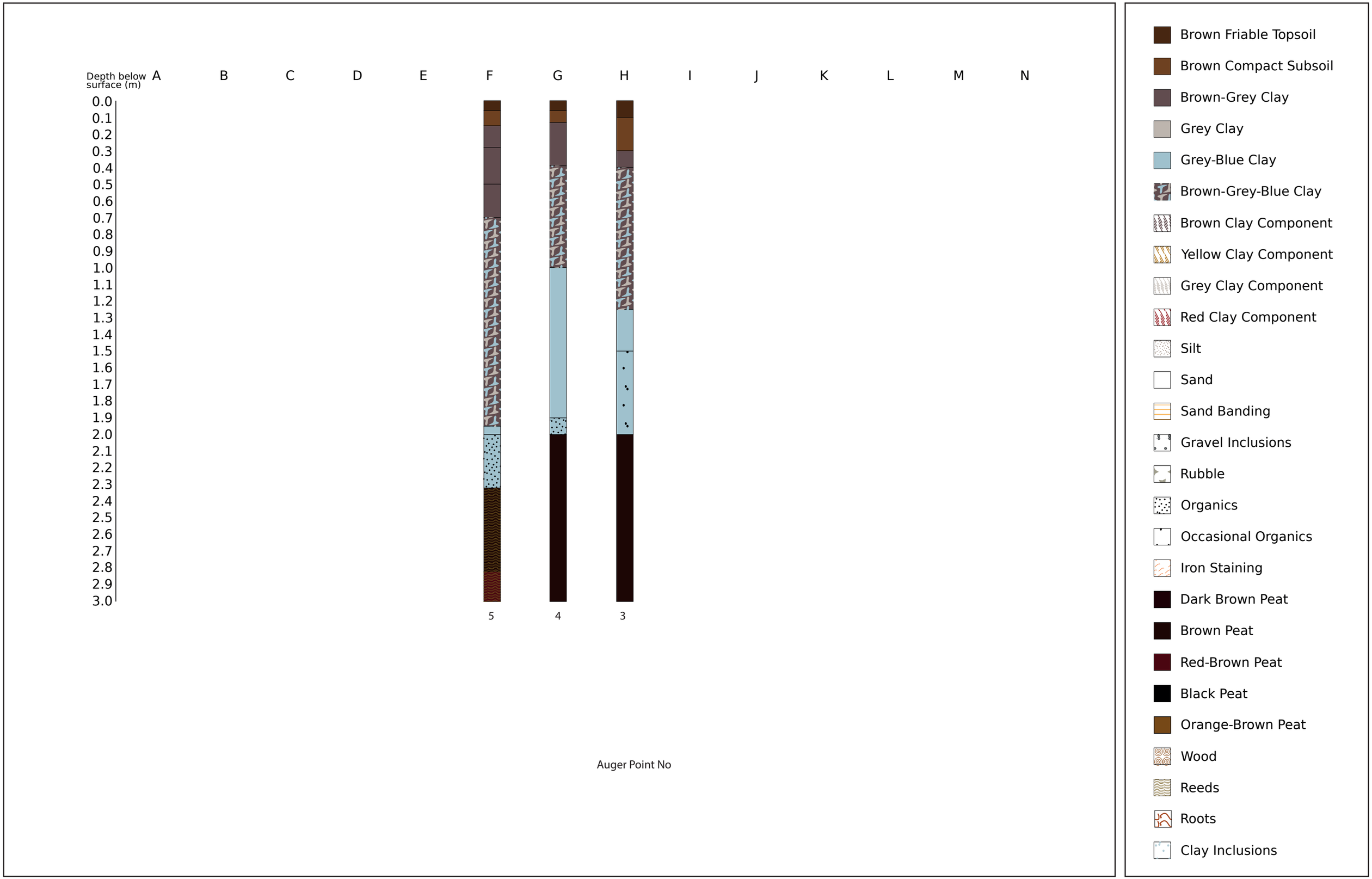


Figure 4. Latitudinal Transect C shown at depth below surface

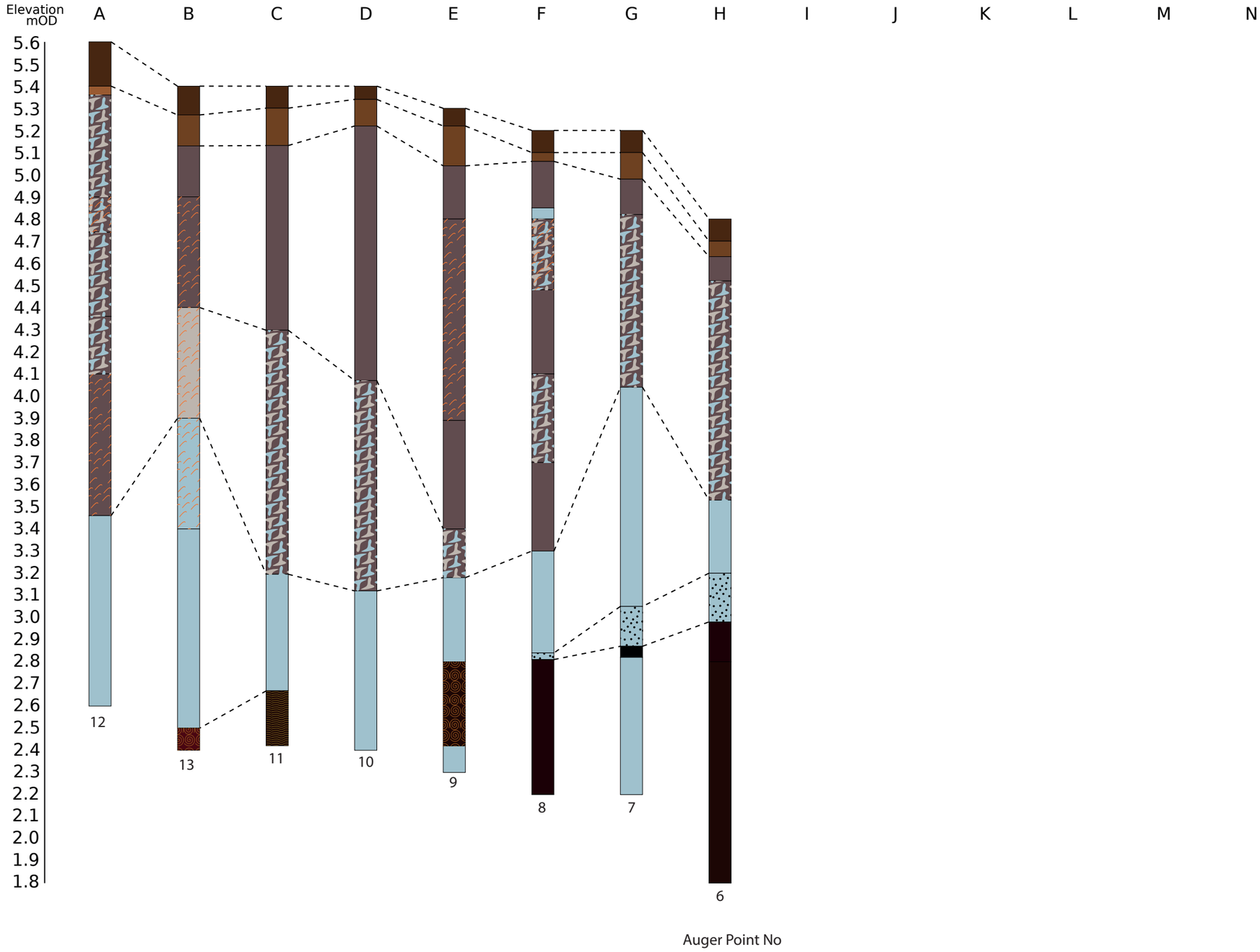


Figure 5. Latitudinal Transect D

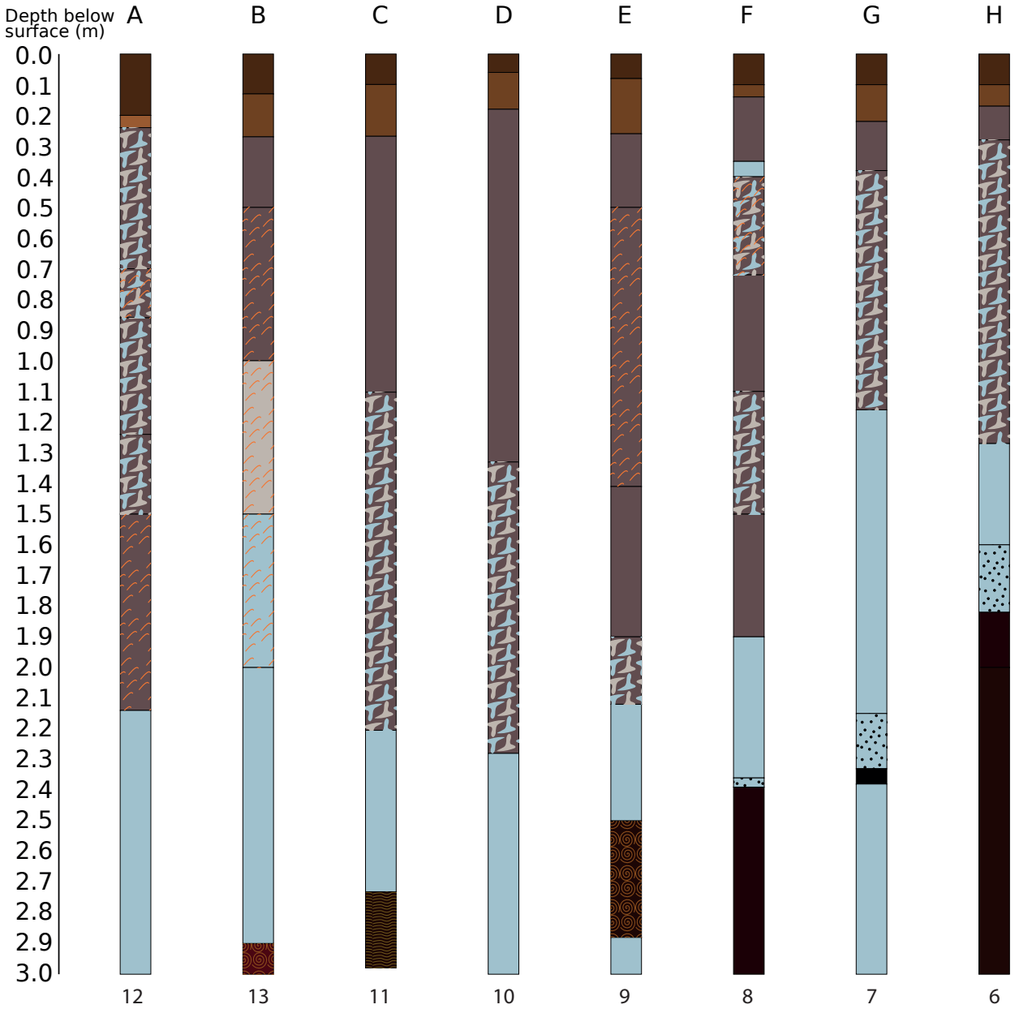


Figure 6. Latitudinal Transect D shown at depth below surface

ARCHAEOLOGY WALES
Revealing the past, informing the future

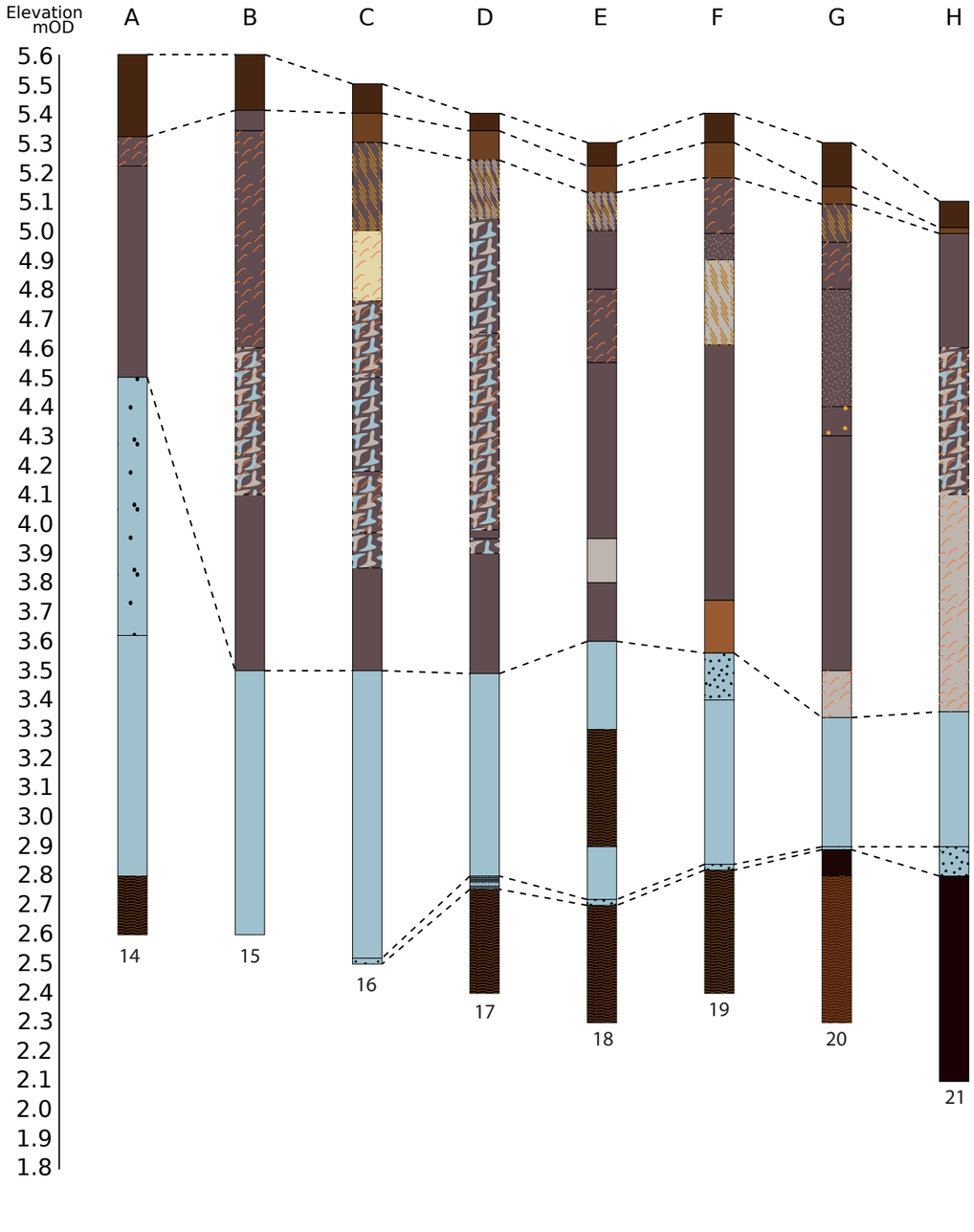
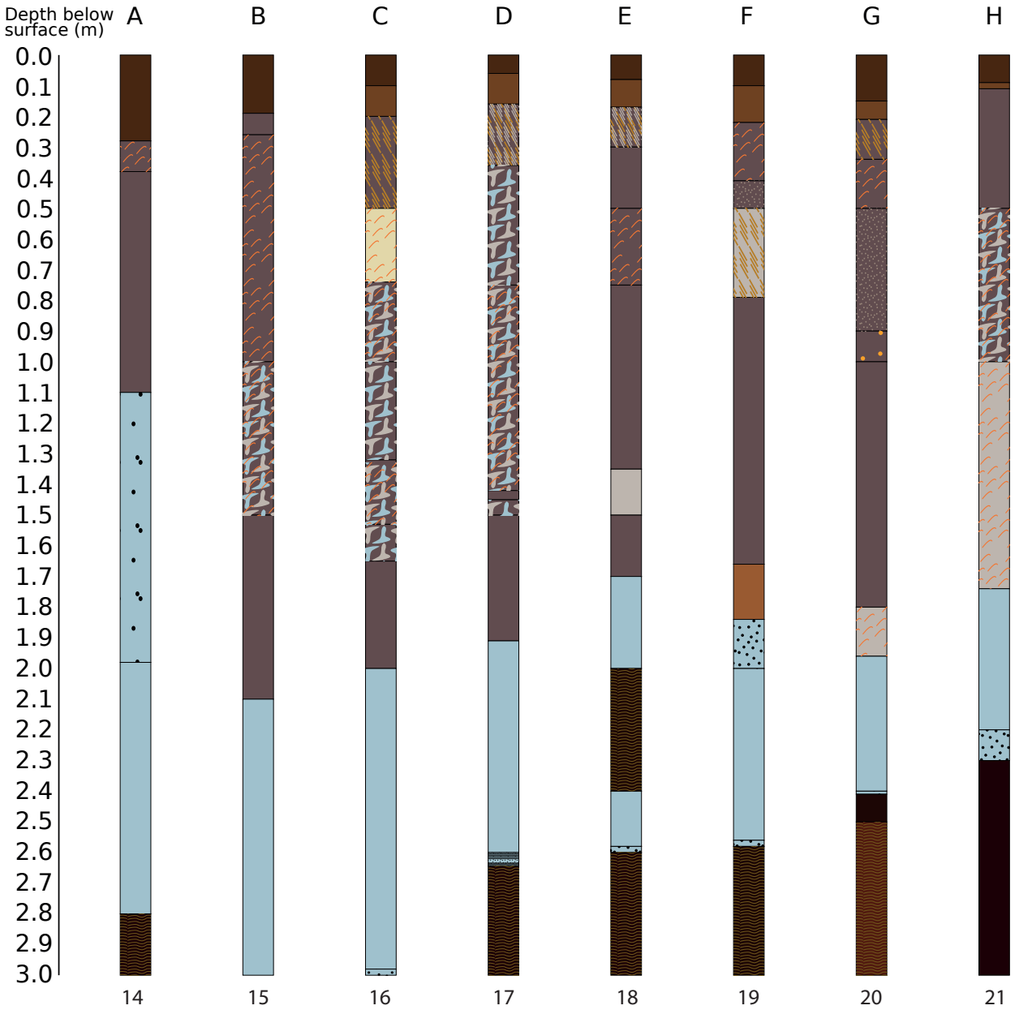


Figure 7. Latitudinal Transect E

ARCHAEOLOGY WALES
Revealing the past, informing the future



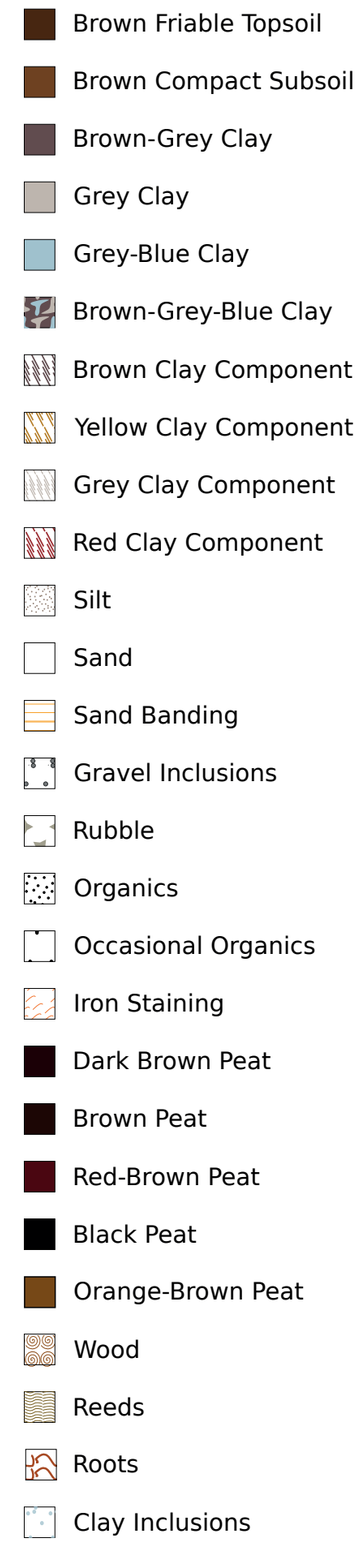
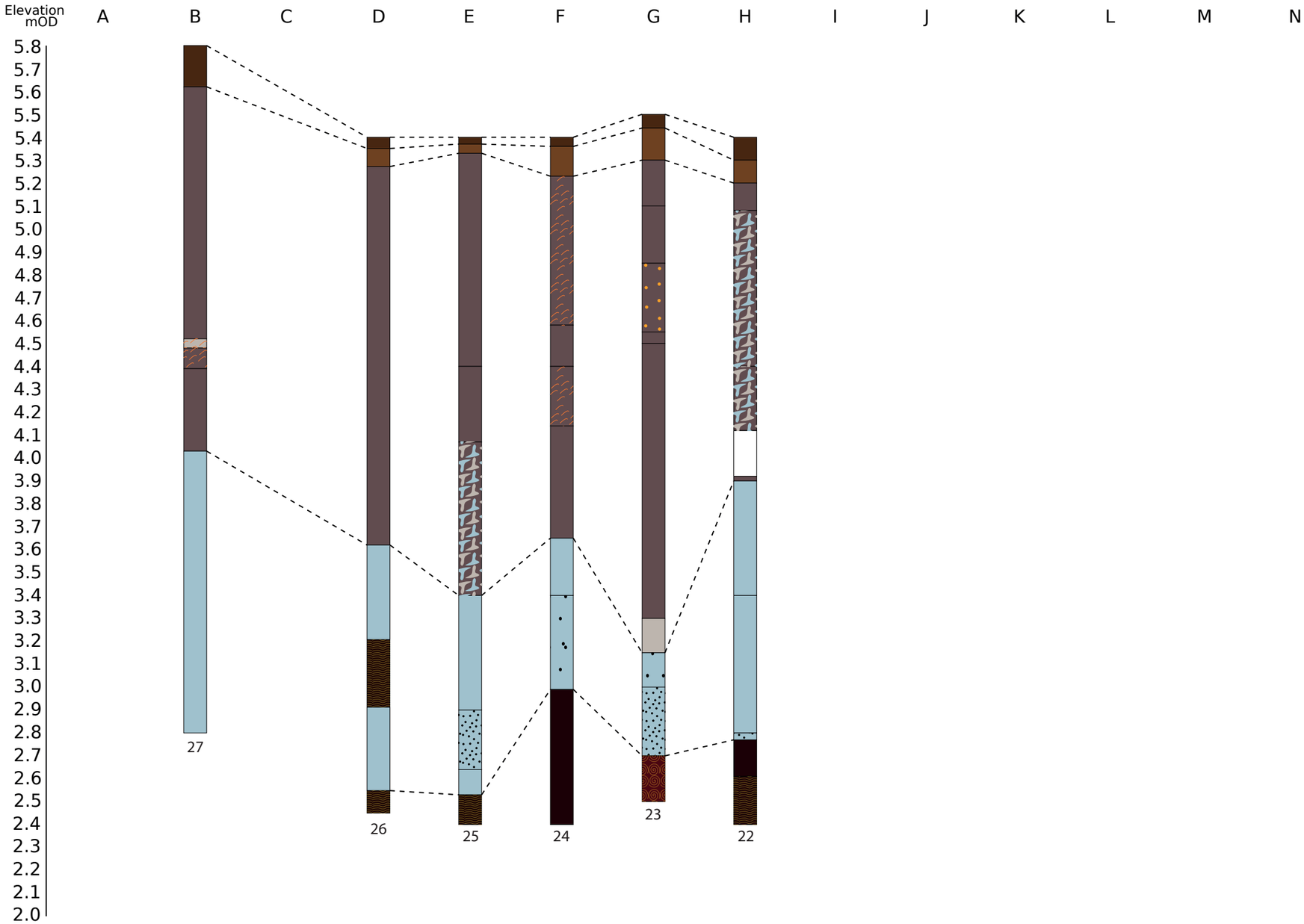


Figure 8. Latitudinal Transect E shown at depth below surface

ARCHAEOLOGY WALES
Revealing the past, informing the future



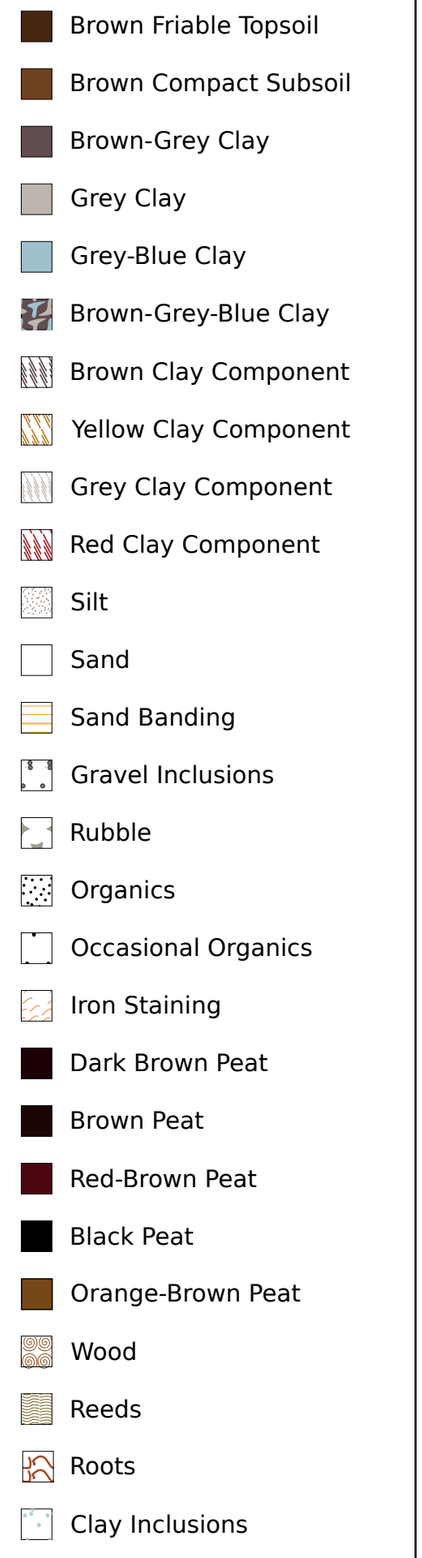


Figure 9. Latitudinal Transect F

ARCHAEOLOGY WALES
Revealing the past, informing the future

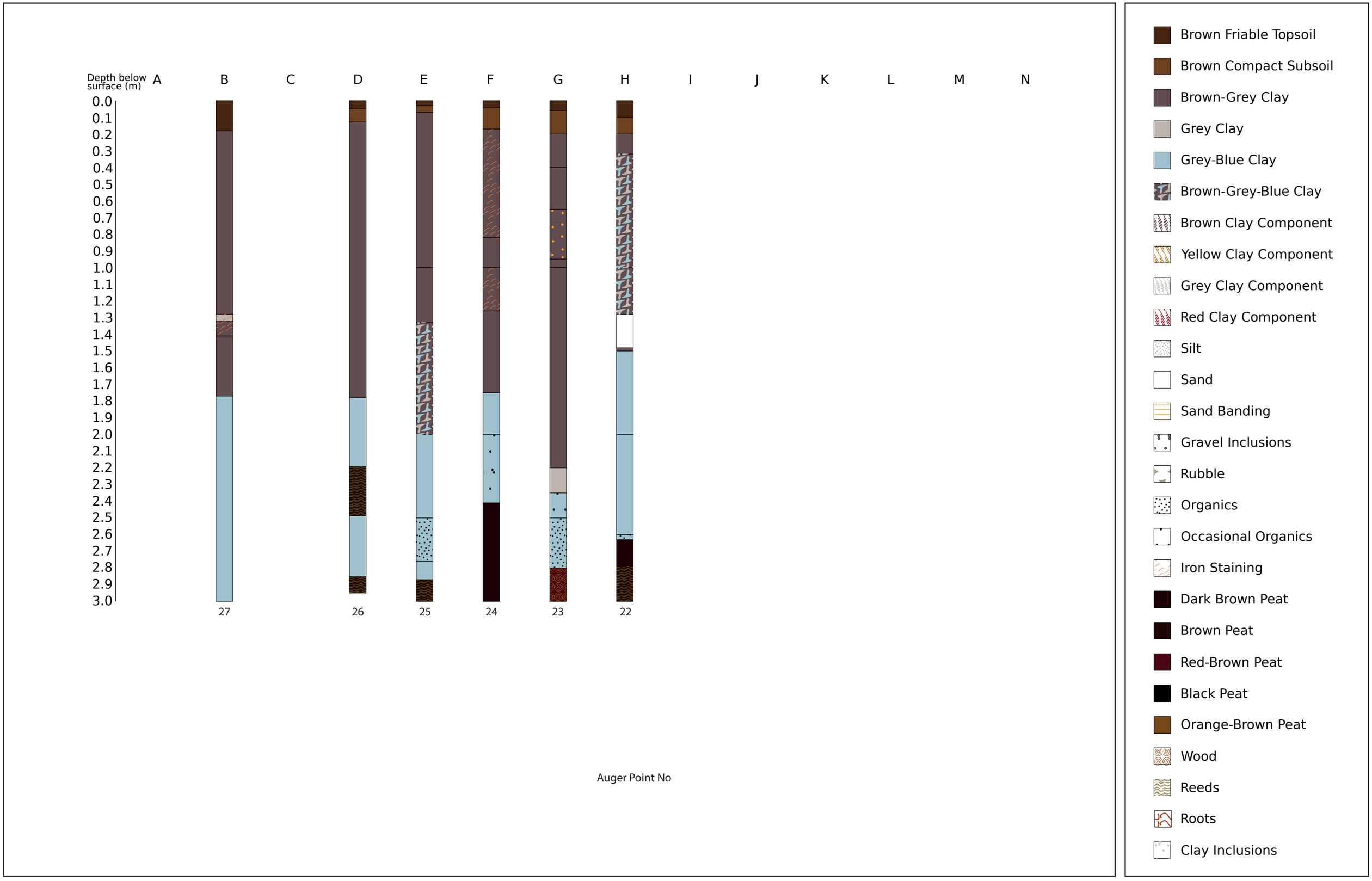
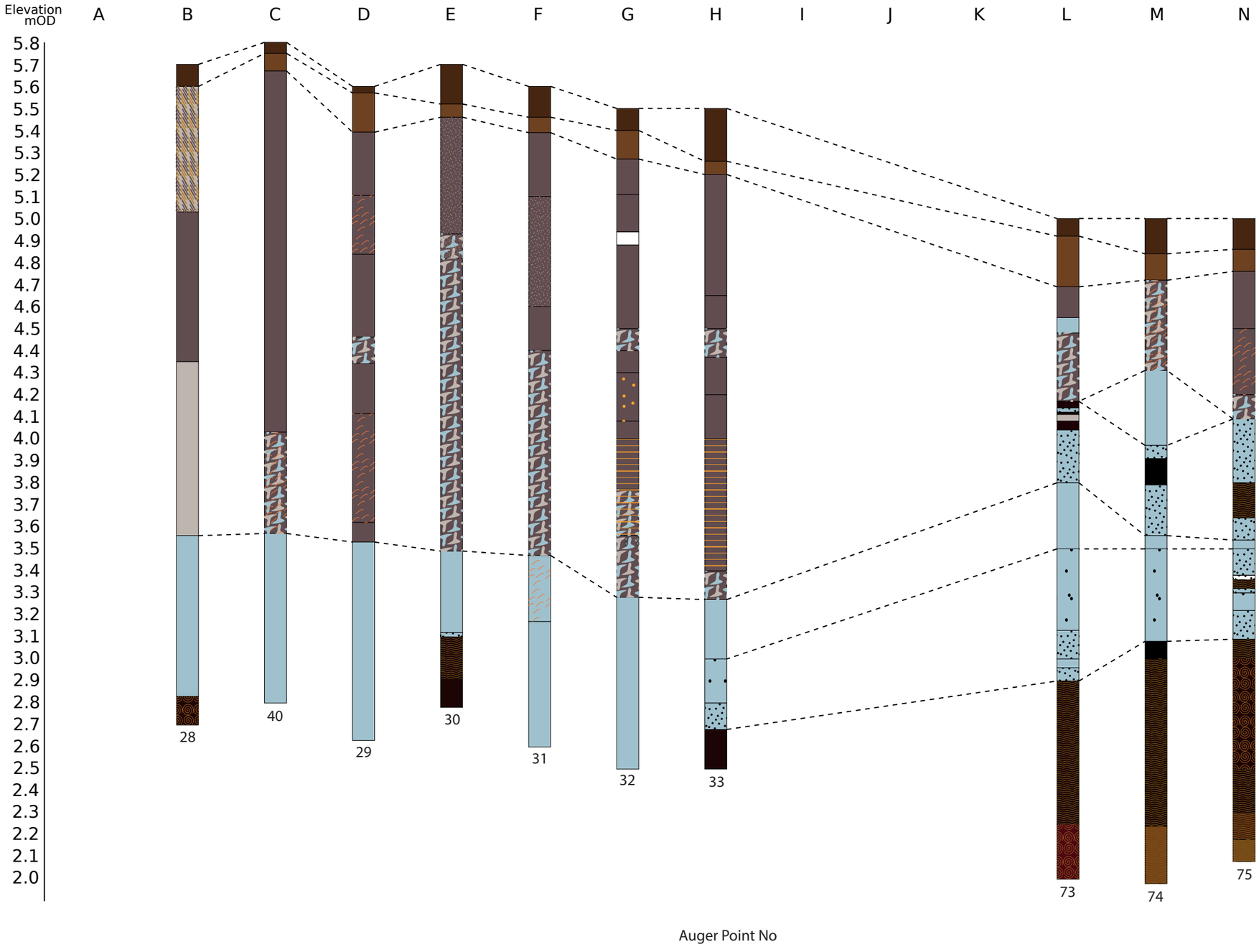


Figure 10. Latitudinal Transect F shown at depth below surface



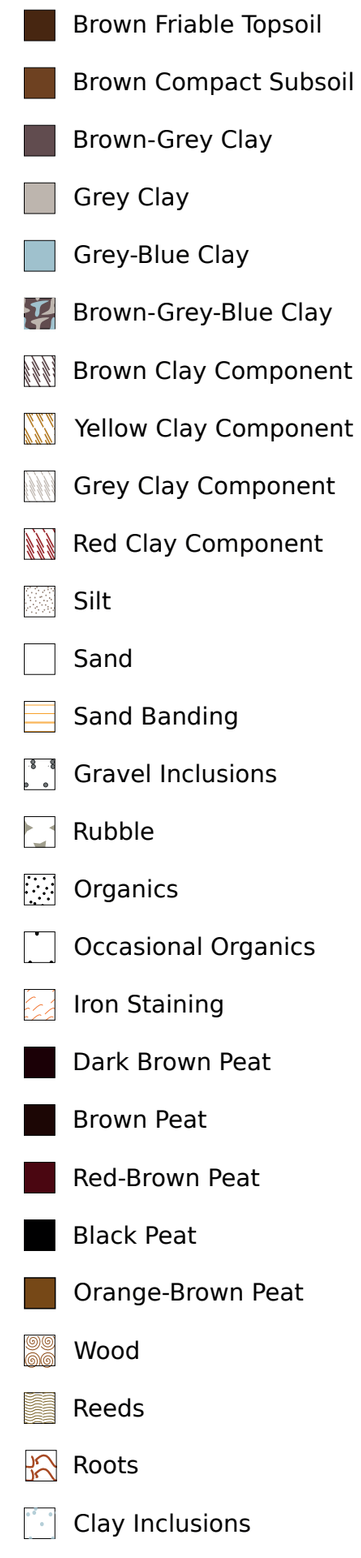


Figure 11. Latitudinal Transect G

ARCHAEOLOGY WALES
Revealing the past, informing the future

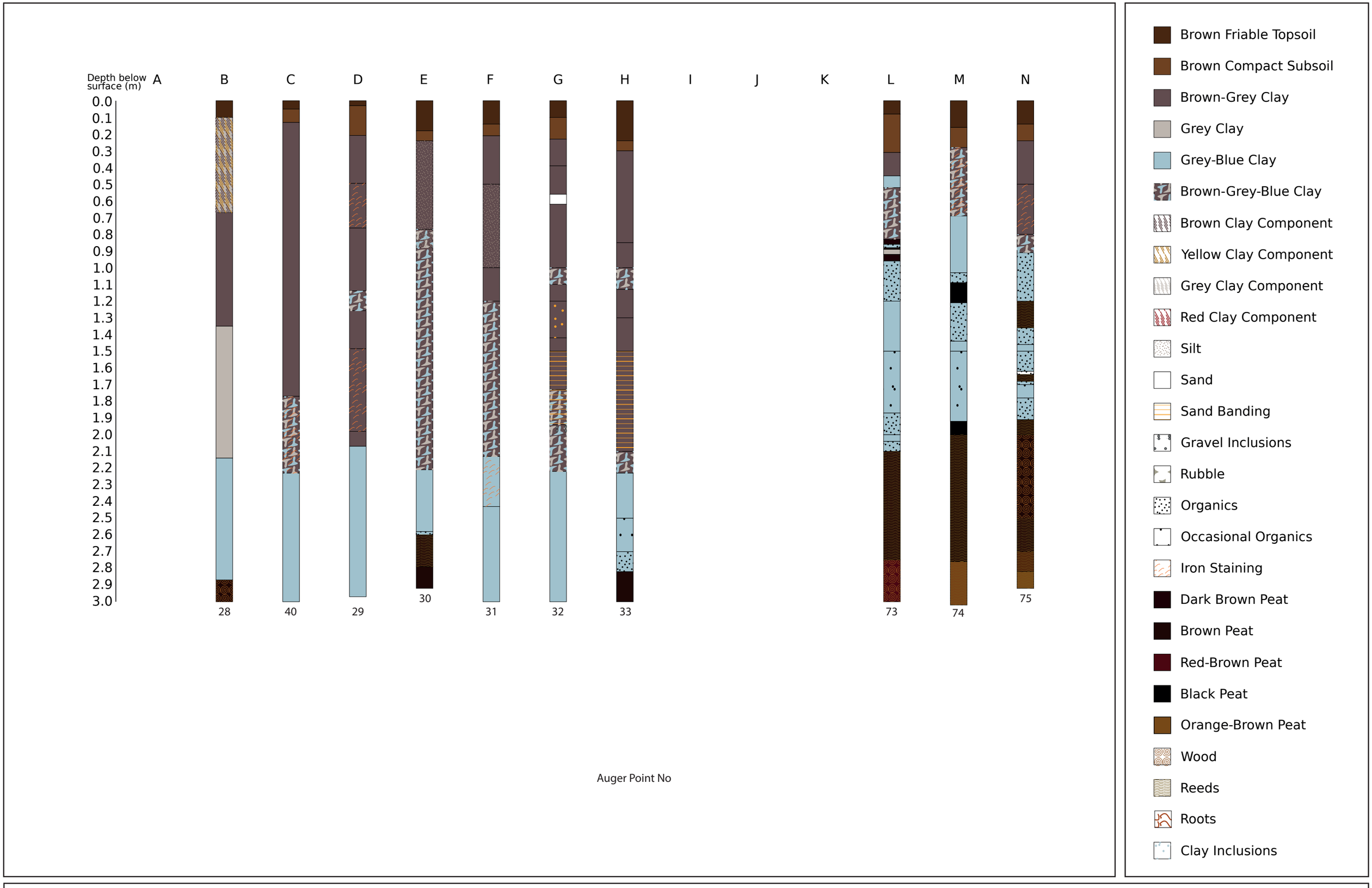
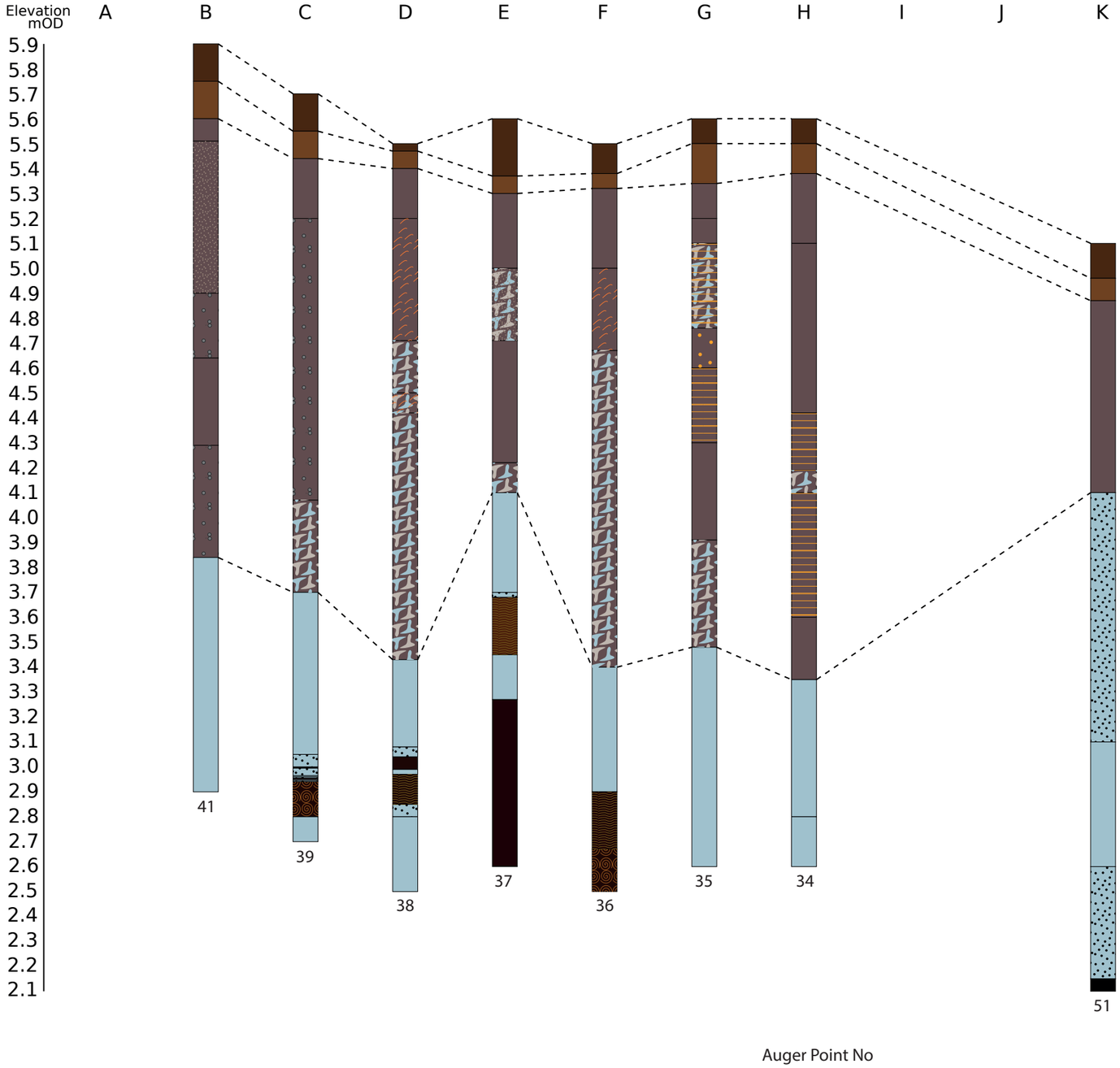


Figure 12. Latitudinal Transect G shown at depth below surface

ARCHAEOLOGY WALES
Revealing the past, informing the future



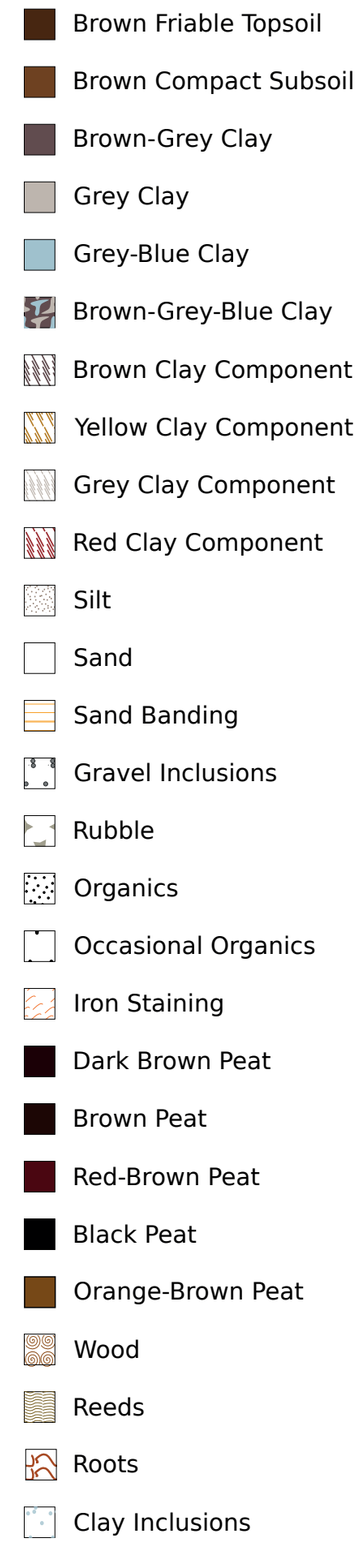


Figure 13. Latitudinal Transect H

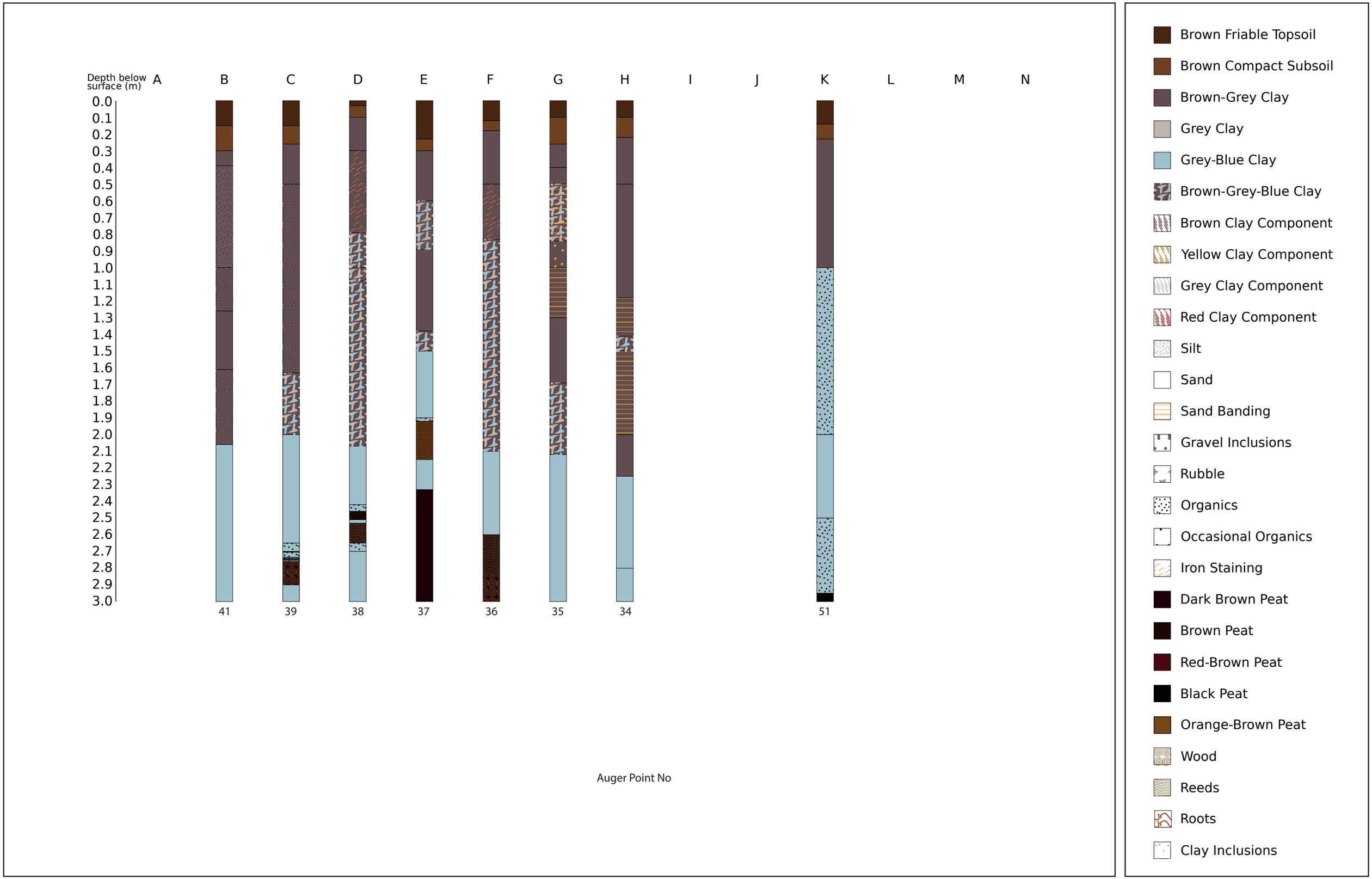


Figure 14. Latitudinal Transect H shown at depth below surface

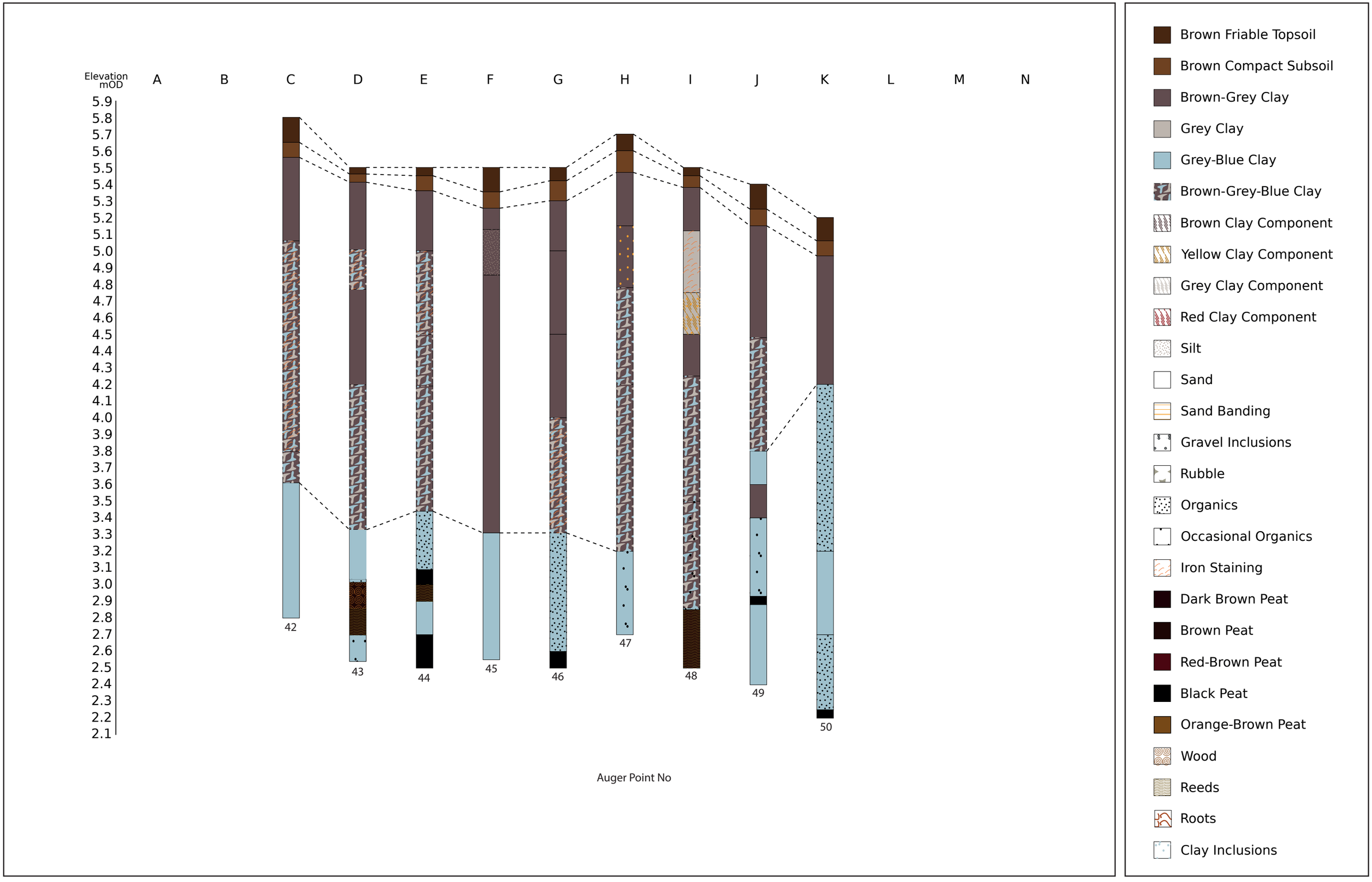


Figure 15. Latitudinal Transect I

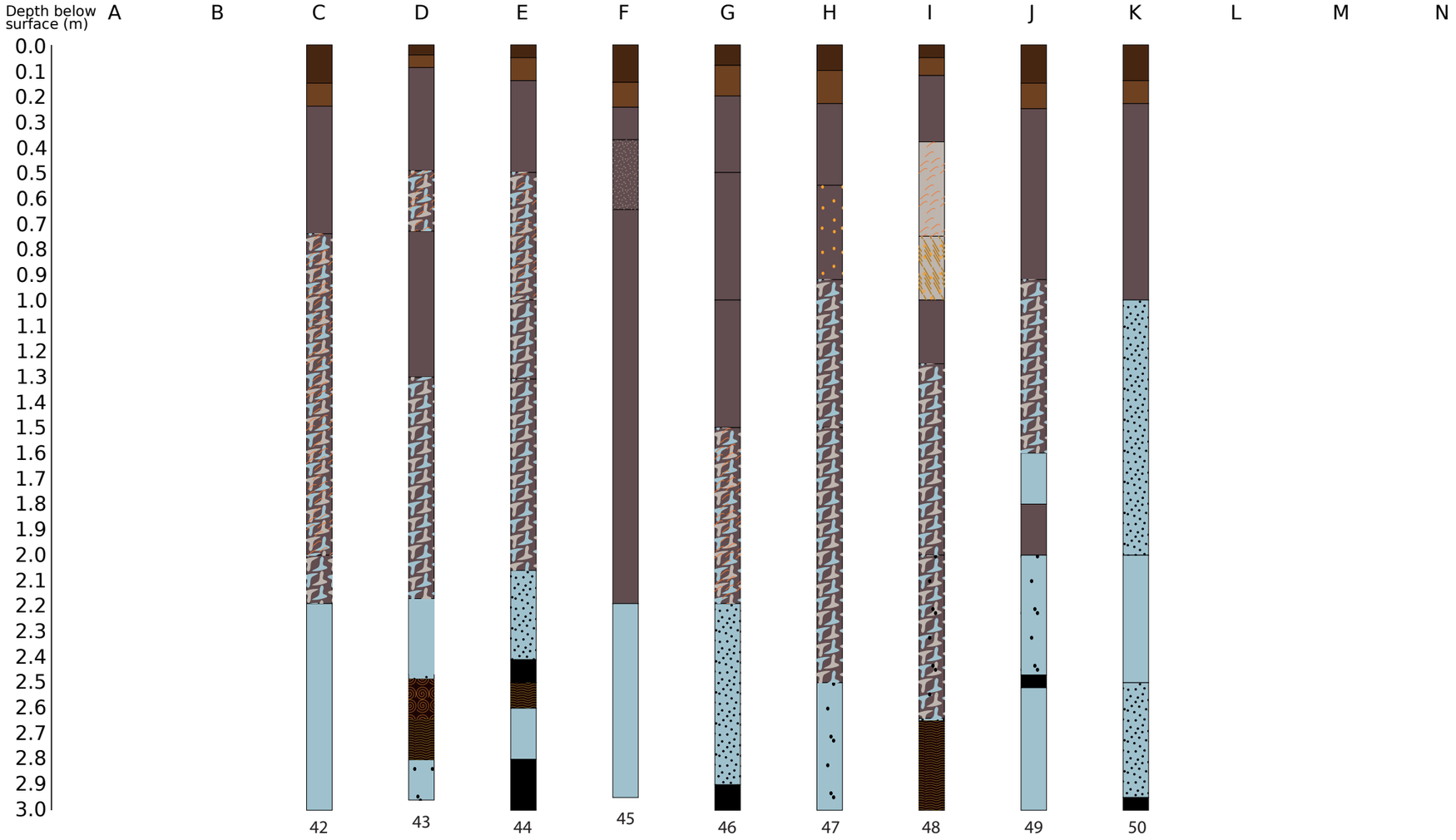


Figure 16. Latitudinal Transect I shown at depth below surface

ARCHAEOLOGY WALES
Revealing the past, informing the future

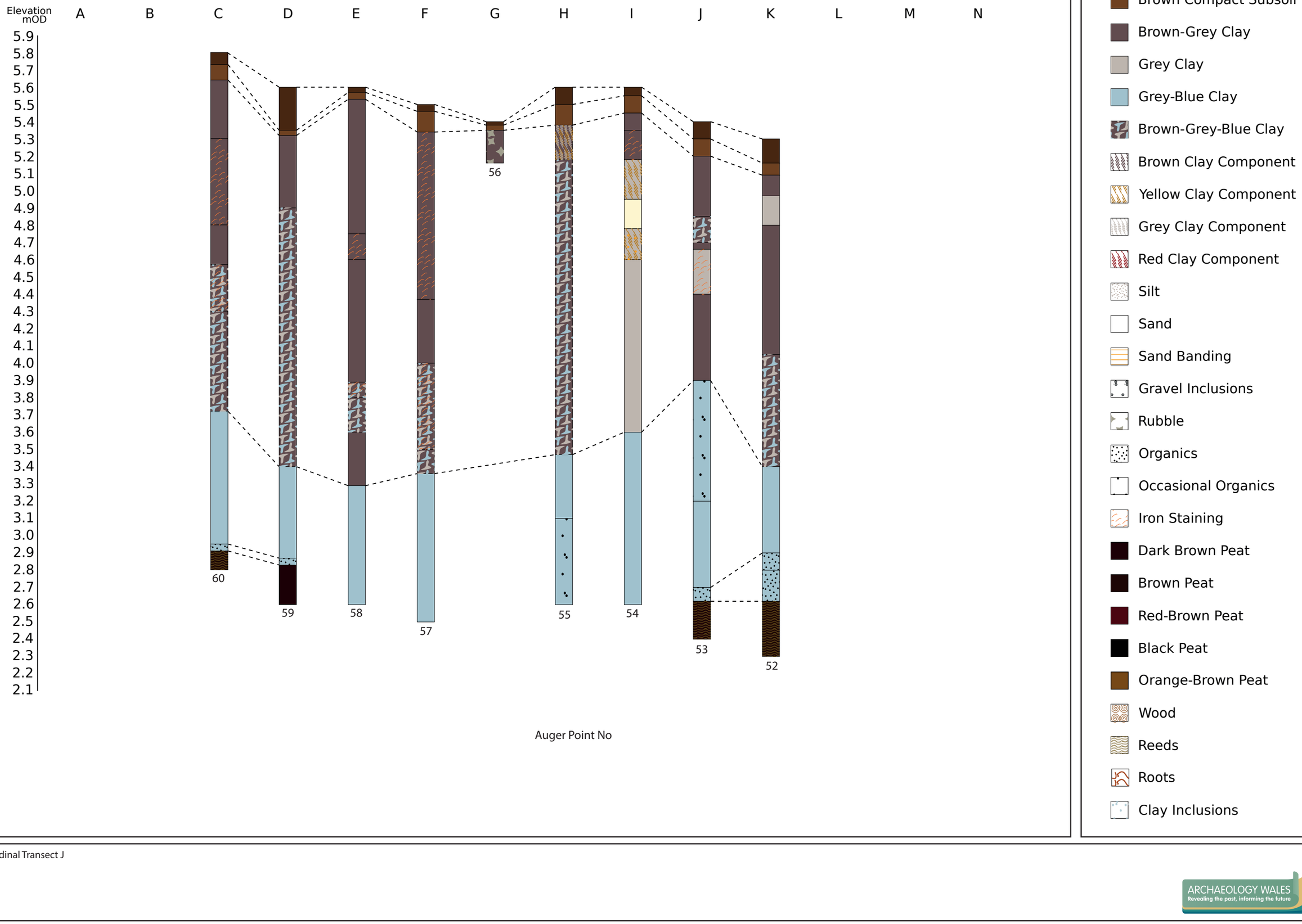


Figure 17. Latitudinal Transect J

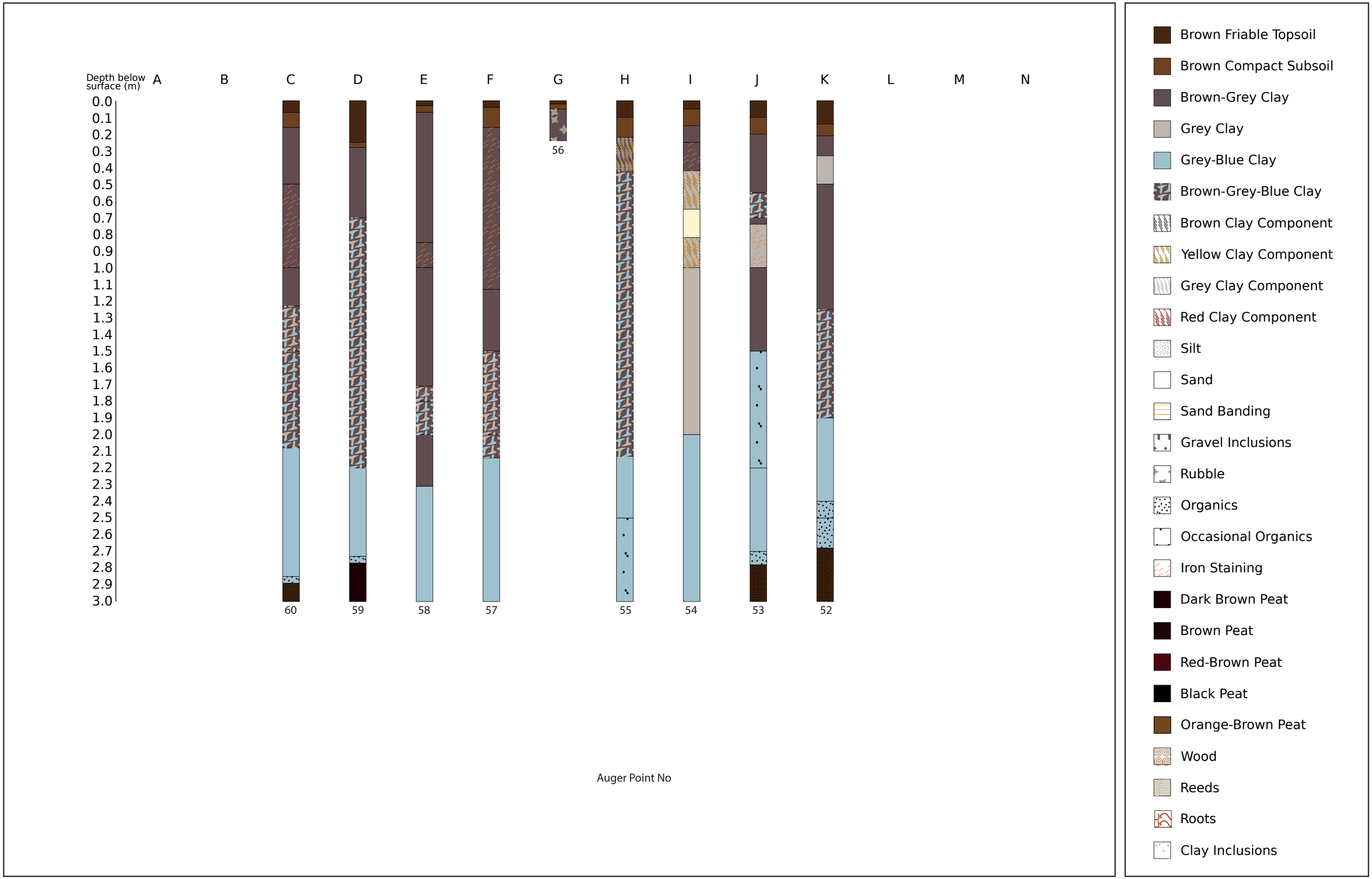
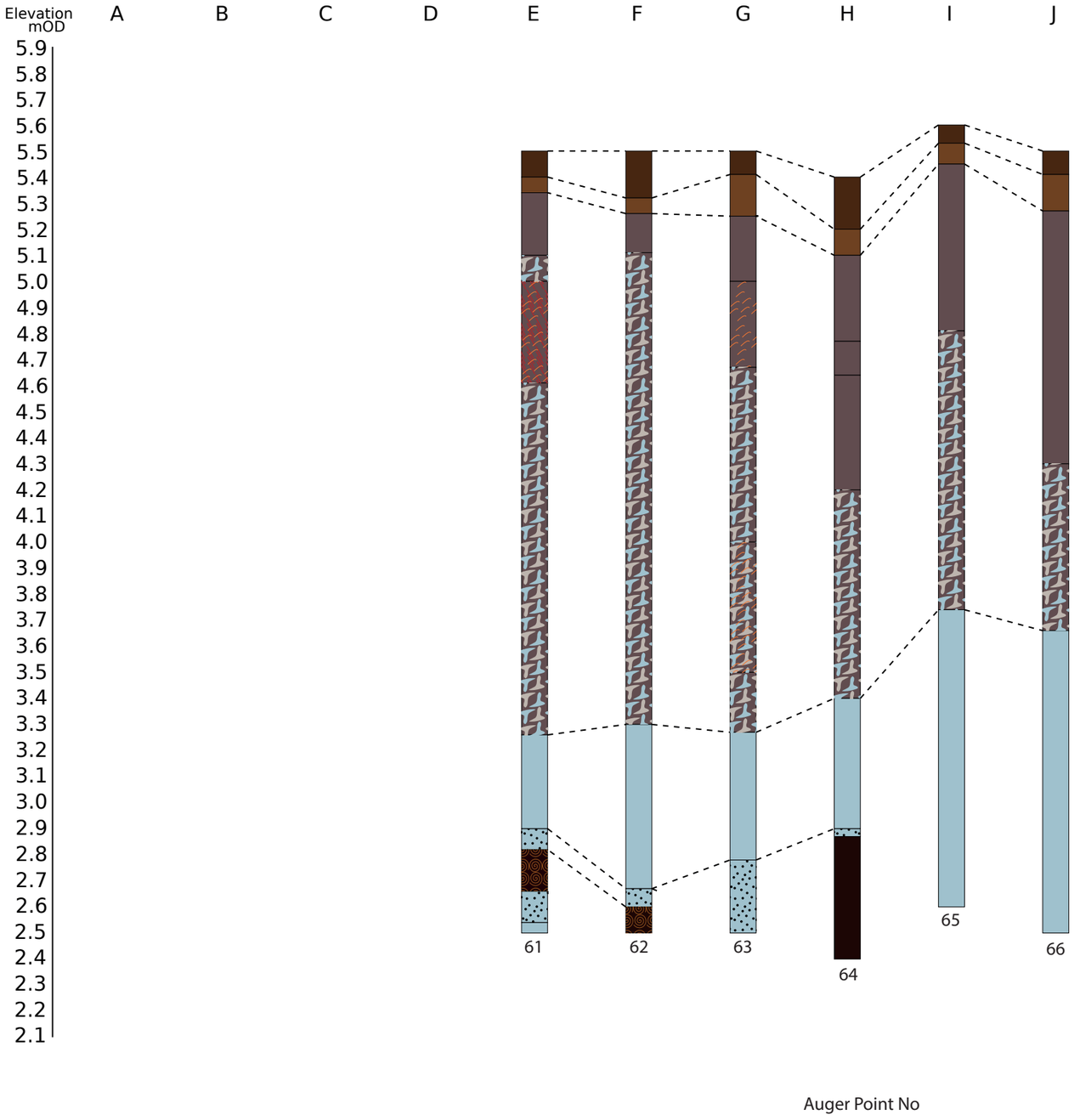


Figure 18. Latitudinal Transect J shown at depth below surface

ARCHAEOLOGY WALES
Revealing the past, informing the future



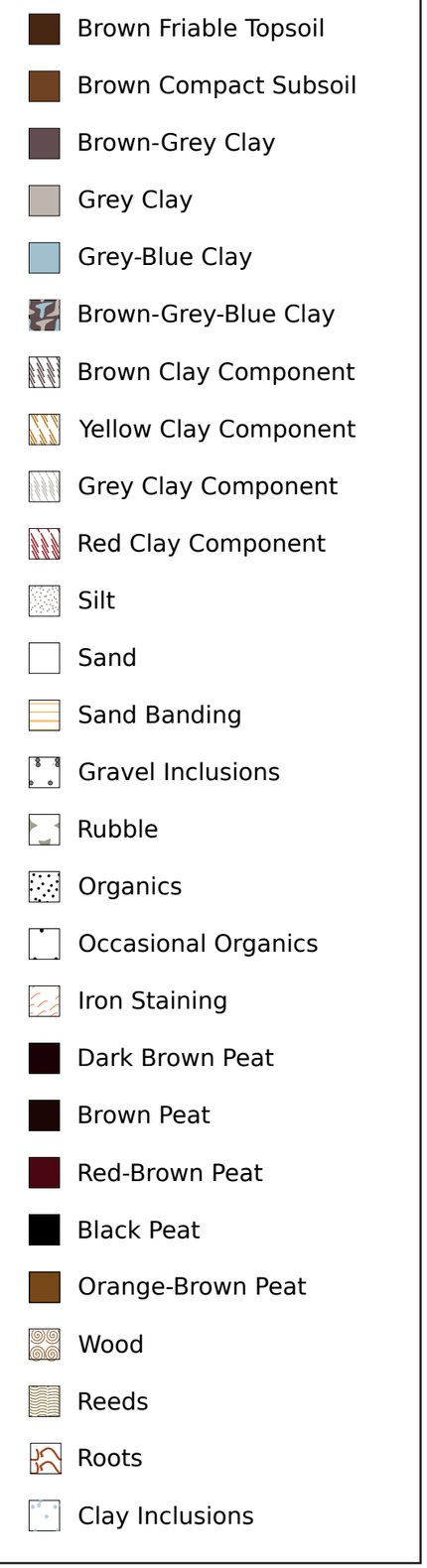


Figure 19. Latitudinal Transect K

ARCHAEOLOGY WALES
Revealing the past, informing the future

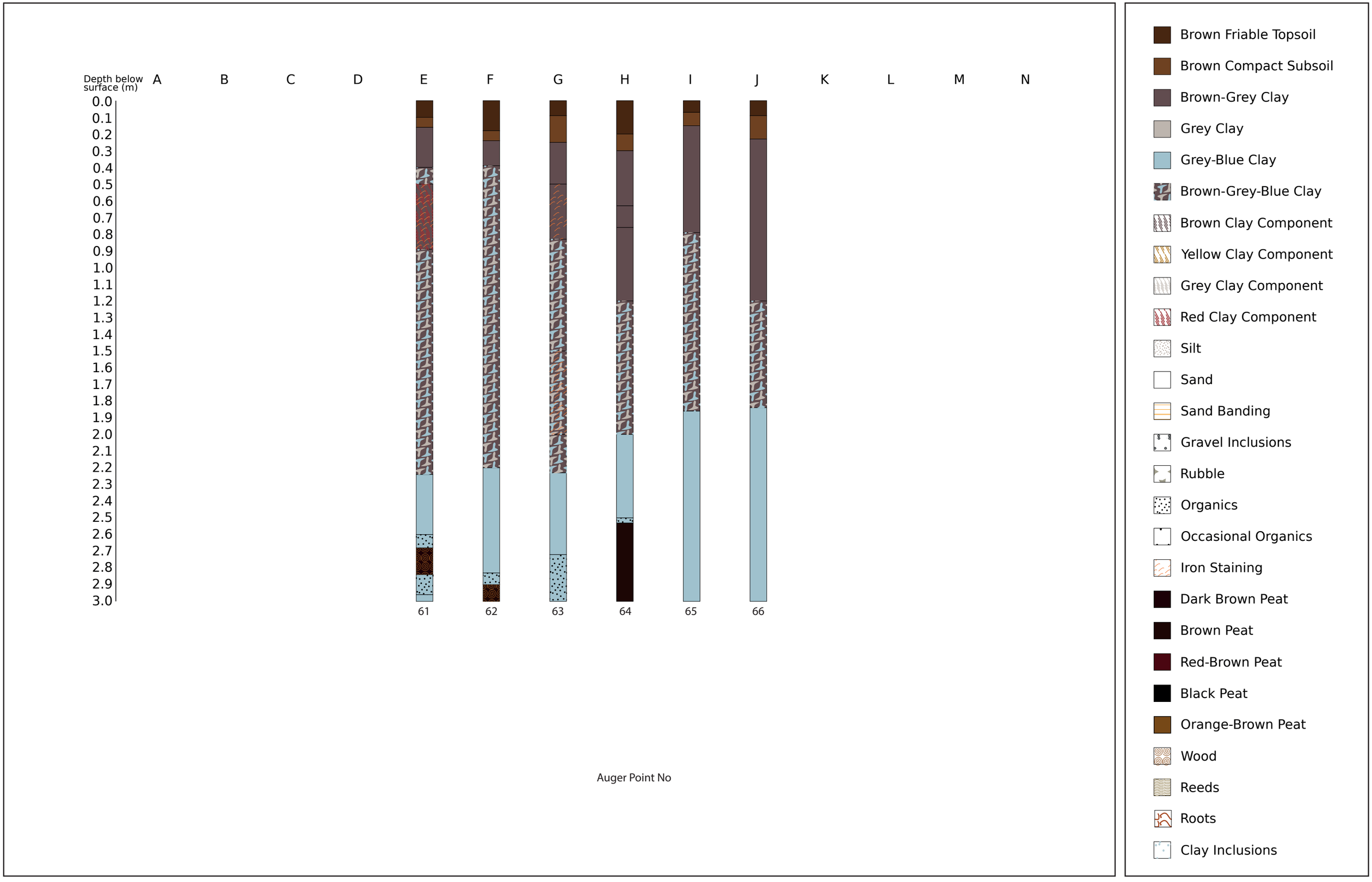
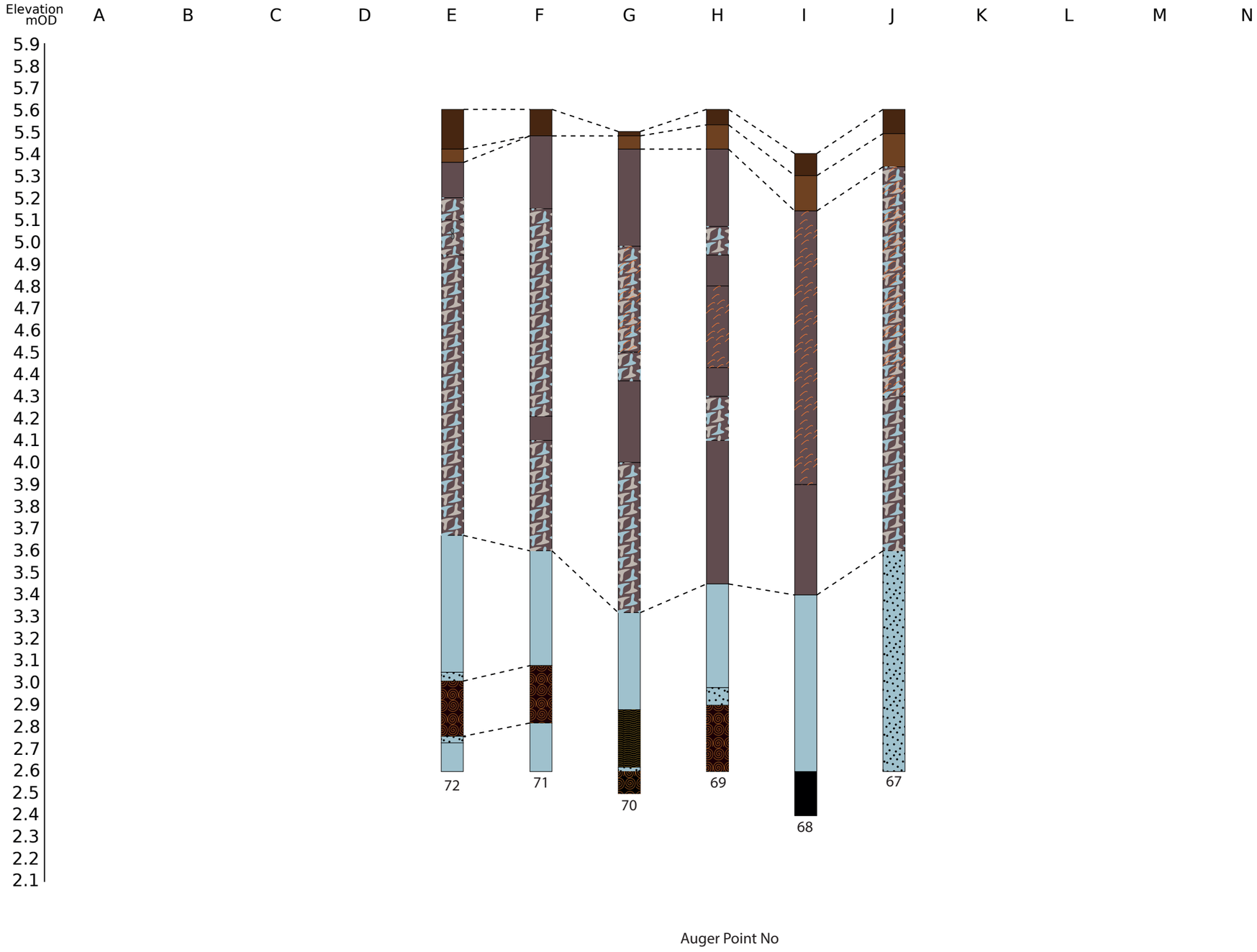


Figure 20. Latitudinal Transect K shown at depth below surface



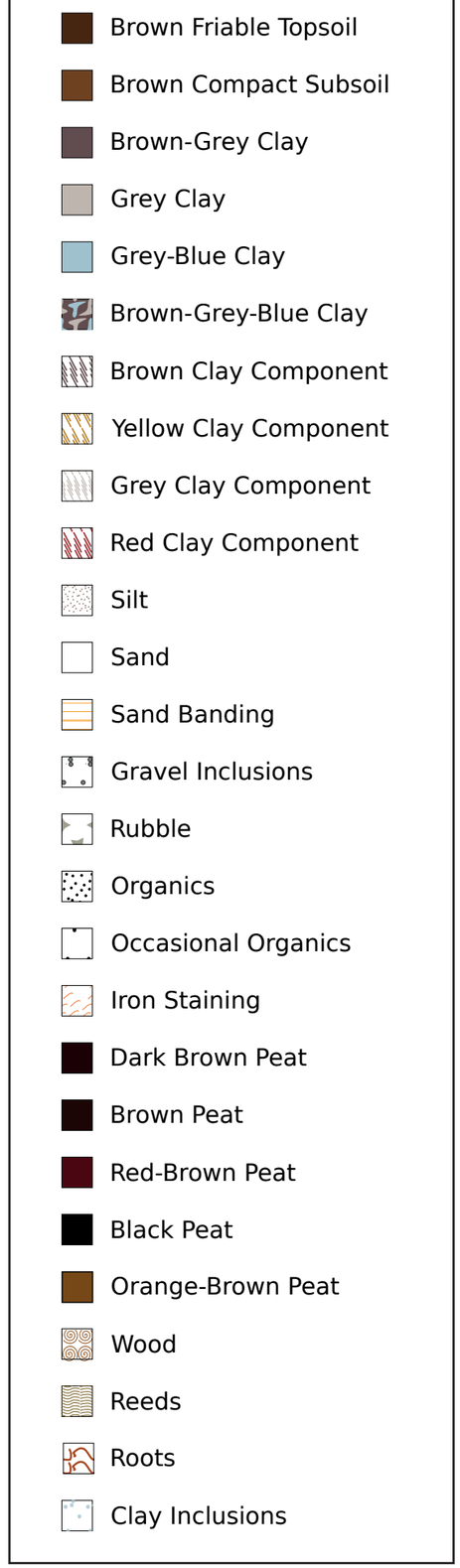


Figure 21. Latitudinal Transect L

ARCHAEOLOGY WALES
Revealing the past, informing the future

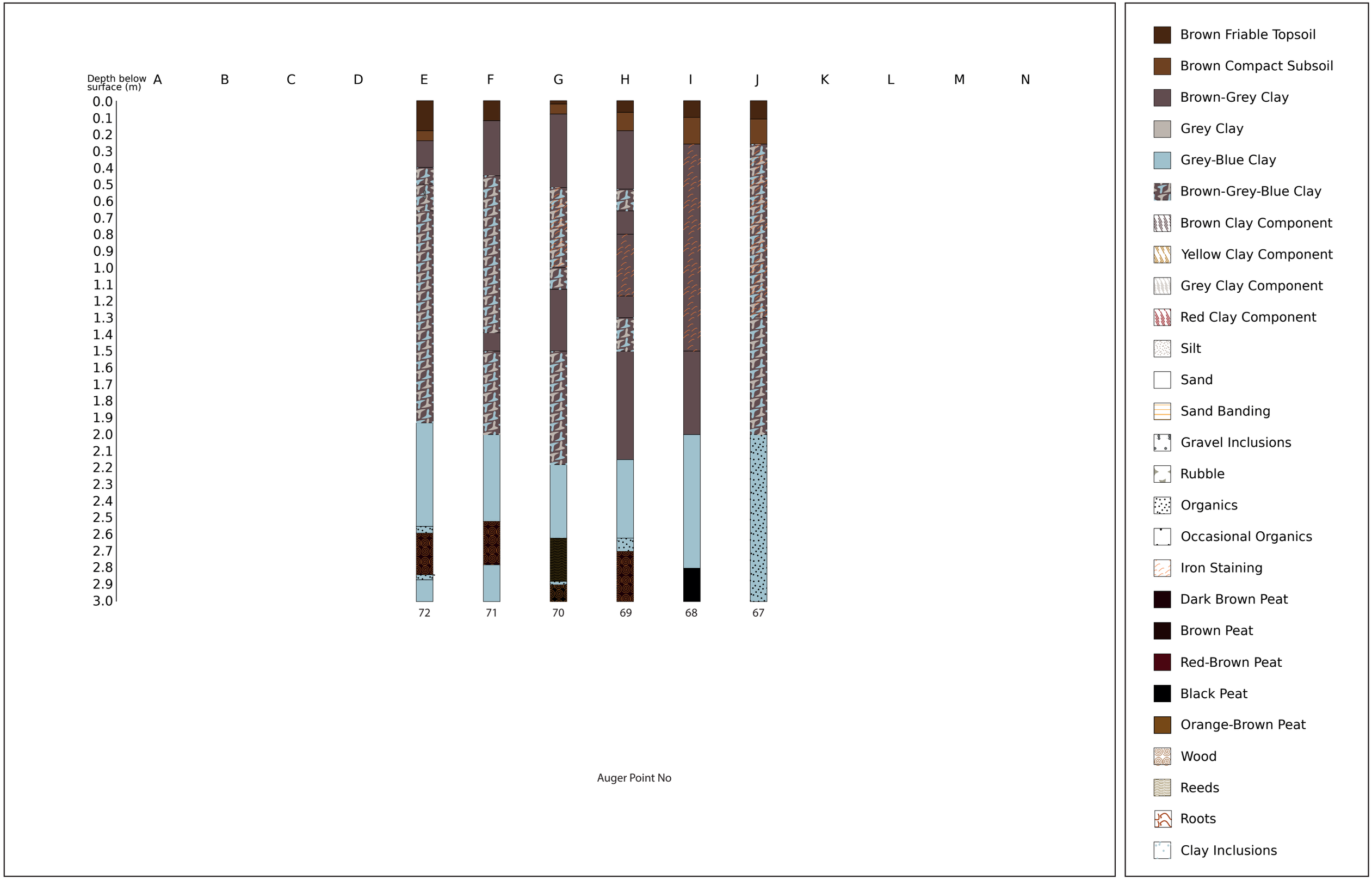


Figure 22. Latitudinal Transect L shown at depth below surface

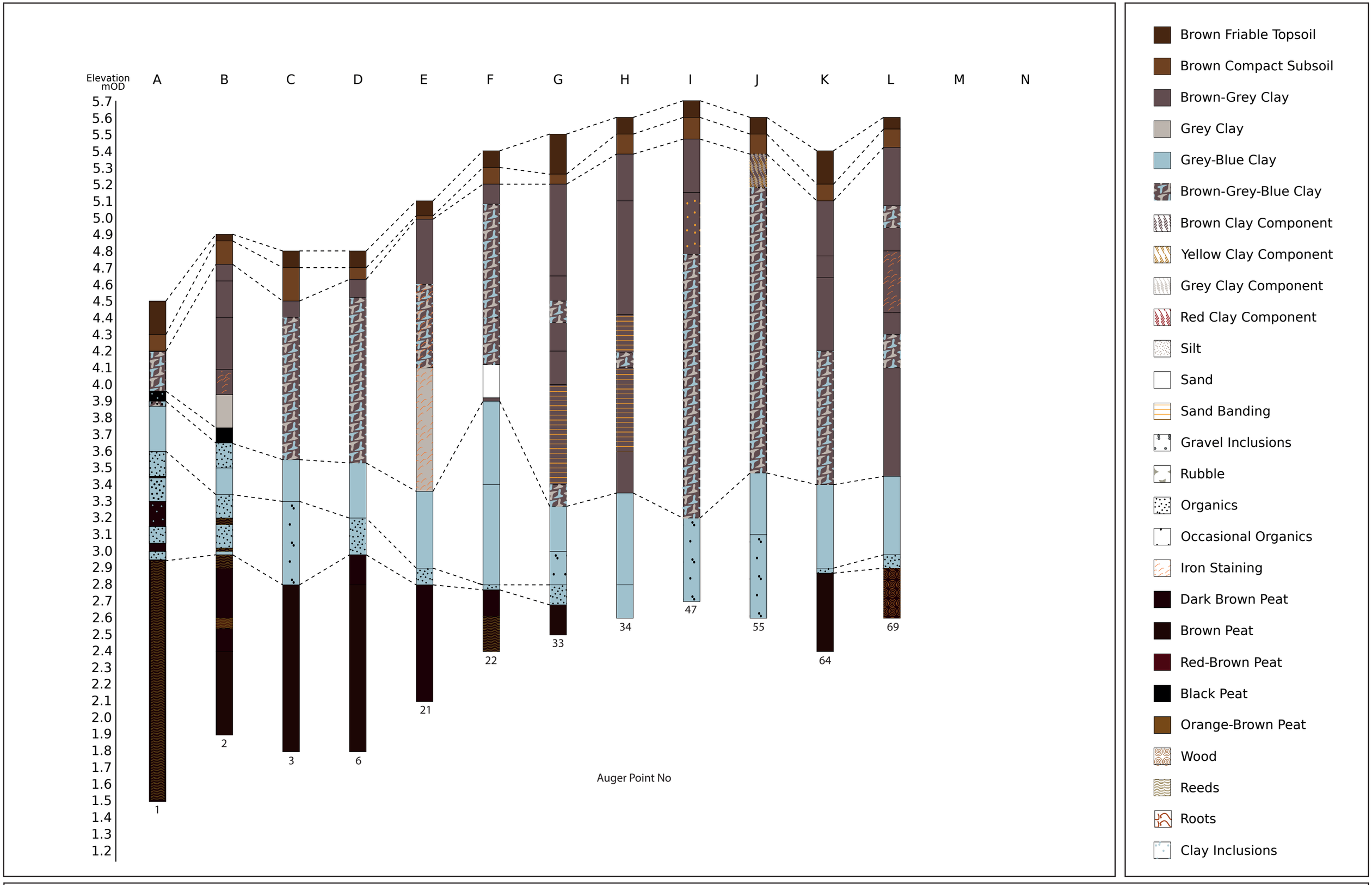


Figure 23. Longitudinal Transect

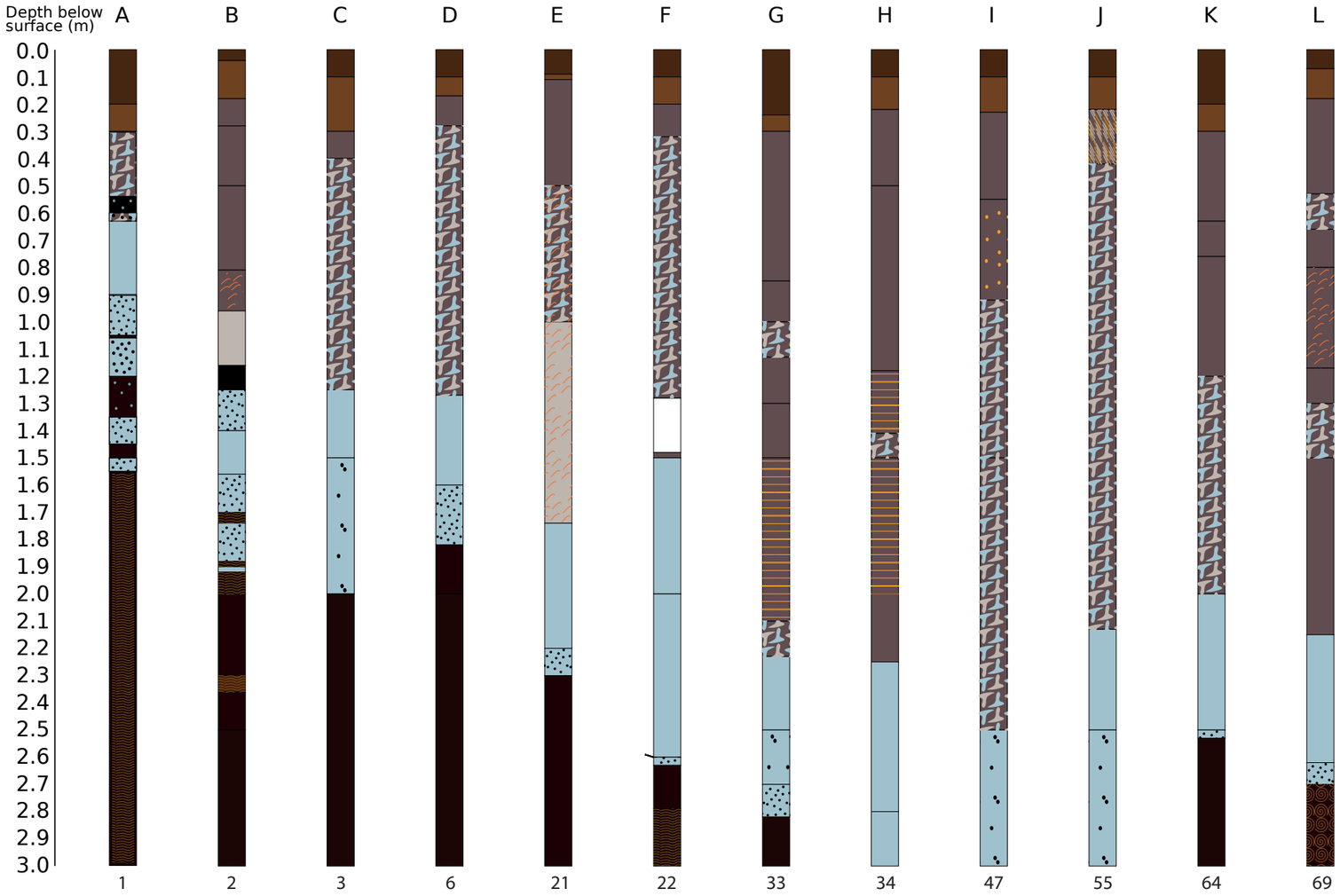


Figure 24. Longitudinal Transect shown at depth below surface

ARCHAEOLOGY WALES
Revealing the past, informing the future

Archaeology Wales

Archaeology Wales Limited

The Reading Room, Town Hall, Llanidloes, SY18 6BN

Tel: +44 (0) 1686 440371

Email: admin@arch-wales.co.uk

Web: arch-wales.co.uk