HS2 Phase 1, Central Section, Archaeological Works, North of Great Ouse, Buckinghamshire, Site Code 1C17NGOBH - Borehole Investigation Summary Report

Document no.: 1EW03-FUS-EV-REP-CS06_CL22-007794

Revision	Date	Author	Checked by	Authorised by	Issued for/Revision details
C01	23.07.2018	Kirsty Smith	Richard Brown	Iain Williamson	First draft for Comment

1 Summary

1.1.1 A borehole investigation commissioned by Fusion was undertaken on land located on the north bank of the River Great Ouse, south-west of Westbury, Buckinghamshire, centred on NGR 461065 235746. The borehole investigation was carried out between the 14th and 16th November 2017 and the Site was c. 2.96ha in extent. The work was carried out ahead of the construction of Phase One of the new High Speed Two (HS2) railway network. The Site is required for the creation of a new wetland habitat. The primary aim of this investigation was to provide preliminary base-line data on the nature of the sub-surface sediment sequences and their geoarchaeological and palaeoenvironmental potential, and to identify any horizons within these deposits with the potential to preserve evidence of human occupation. The fieldwork comprised nine borehole locations (BH01-BH09) distributed evenly across the site in four short transects comprising 2-3 boreholes aligned approximately NE-SW. Each location was investigated using a window sampler drilling rig, powered with a Cobra TT petrol driven breaker.

1.1.2 The final depths of the boreholes varied between 1m and 4m below ground level (BGL). Due to a refusal of the drilling equipment in dense fluvial deposits BH01, BH02 to BH04 were abandoned before reaching the bedrock. In Boreholes 01, 02 and 05, to the north of the Site, a darker brown slightly humic clay alluvium was noted directly above the gravel. The location of these correlates with a feature identified in LiDAR data as a possible relict channel. A variation occurred in Borehole 7 whereby an increased thickness of stoney soil or fill was noted beneath 0.50m of ploughsoil, extending to 1.20m BGL. This is likely to be related to the infilling of the mill lade. Boreholes 04 and 05 were located to test the nature of a geophysical anomaly interpreted as a possible metalled trackway but no deposits indicating a trackway of this nature were identified in the boreholes. No finds or evidence of human activity was recorded in the boreholes.

1.1.3 A deposit model was created from the borehole logs and the following stratigraphic sequence was identified in order of deposition: mudstone bedrock, river gravel, alluvium, organic alluvium and topsoil. The Pre-Holocene deposits of basal sandy river gravel were encountered at varying depths and ranged in thickness between 0.77m and 0.2m. The Holocene deposits of organic alluvium were identified at depths of between 1.14m and 2.50m BGL. A blanket of minerogenic overbank alluvium was identified across the Site at a depth between 3.0m and 0.52m BGL and these deposits are likely to be of later Holocene date. Unfortunately, a radiocarbon date processed from Borehole 04, at 1.10m OD, produced a recent date suggestive of the presence of intrusive material.