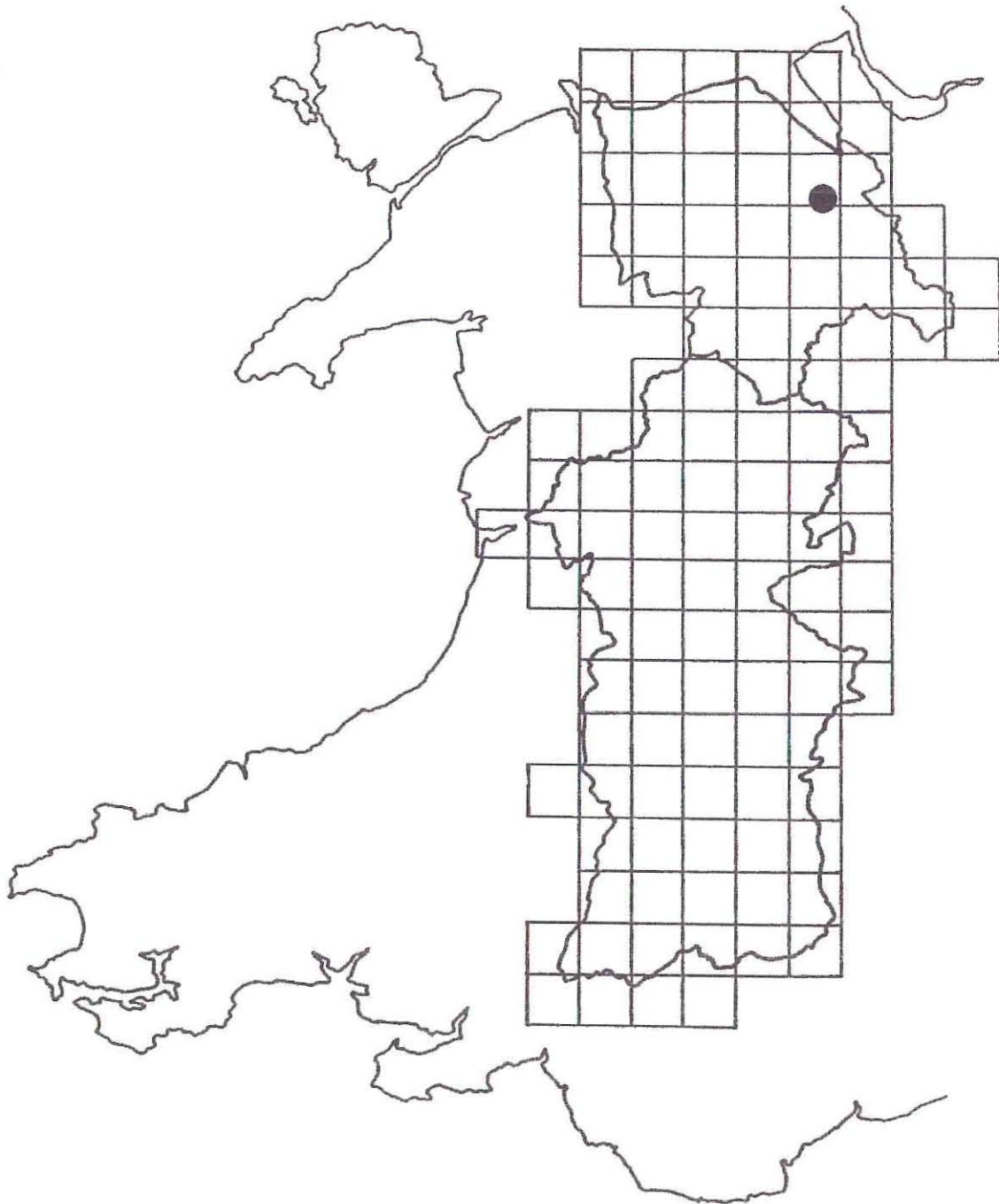


Pontblyddyn Coal and Oil Works
Reclamation Scheme, Clwyd
ARCHAEOLOGICAL WATCHING BRIEF



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Report prepared for The Smith Grant Environmental Consultancy Partnership

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Summary

An archaeological watching brief was undertaken during the excavation of a series of trial pits and boreholes on the site of the former Pontblyddyn Coal and Oil Works, Clwyd. A written record was maintained of all features and strata revealed in each trial pit, together with a photographic record where appropriate, with recording being conducted from the surface only due to health and safety considerations.

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1 Introduction

- 1.1 In April 1995, the Contracts Section of Clwyd-Powys Archaeological Trust (Hereafter CPAT Contracting) was invited by the Smith Grant Environmental Consultancy Partnership to provide a quotation for maintaining an archaeological watching brief during the course of a proposed site contamination investigation on land formerly occupied by the 19th-century Pontblyddyn Coal and Oil Works.
- 1.2 CPAT Contracting was subsequently commissioned to undertake the watching brief and this was carried out on 25th April 1995.
- 1.3 An archaeological assessment of the site had previously been conducted by Earthworks Archaeology on behalf of the Smith Grant Environmental Consultancy (Cole 1994).

2 Location, Topography and Soils

- 2.1 The site, which is 1km north-west of the village of Pontblyddyn, occupies an area of approximately 1.20ha of levelled, semi-derelict land adjacent to the A541 Wrexham-Mold road (centred at SJ2720 6135; 95m OD).
- 2.2 In terms of general topography, the site is located above the floodplain of the Afon Alun to the north, with moderately rising contours to the south.
- 2.3 Soils in the area are either fine silty and clayey soils of the Conway association derived from river alluvium, or clayey soils of the Brickfield 3 association derived from Palaeozoic sandstone and shale (Rudeforth *et. al* 1984).
- 2.4 The area of investigation consisted of two distinct levelled and graded areas, each occupying approximately half of the site. Most of the south-eastern half supported little vegetation other than mosses indicating a level of contamination. The dark, granular ash, which largely covered this area, contained large quantities of vitrified brick and ceramic pipe fragments. To the north-west, this area extended into undisturbed water-meadow.
- 2.5 The north-western half, which was at a higher level, was separated from the south-eastern area by a distinct break of slope and was largely grass covered, apart from a few isolated patches of exposed ash. Documentary sources had previously indicated that the demolished remains of the Spelter and Oil Works lay below the surface in this area (Cole 1994).

3 Methodology

- 3.1 The site investigation comprised the mechanical excavation of fourteen trial pits, each approximately 0.75m wide, but varying in length and depth according to the anticipated location of underground structures and the depth of uncontaminated and undisturbed natural strata respectively. The trial pits were excavated by the Smith Grant Environmental Consultancy Partnership under the direct supervision of Mr Alex Grant. A watching brief was maintained by CPAT Contracting throughout the operation.
- 3.2 Exposed sections were examined from the surface only, due to health and safety considerations. Wherever possible, the various strata and features within each trial pit were measured, described and recorded photographically where appropriate.

4 The Watching Brief (Fig. 1)

- 4.1 Trial Pits 1, 10, and 15 were excavated in apparently undisturbed ground and reflected a diversity of soil types in the area. Subsoils exposed varied from very coarse, brown, gravelly silt (Trial Pit 1) to fine, silty clay grading into stiff, buff-grey coloured clay (Trial Pit 10) to grey, compact clay overlying a stony, silty gravel (Trial Pit 15).
- 4.2 Trial Pit 14, excavated in an area of grass at the southern corner of the site, exposed a vertically set wooden post extending from a level 0.20m below turf-level into the mottled grey clay below. This was c. 0.60 x 0.06m and located in the south-western corner of the pit. The end of another, apparently horizontally-aligned post, c. 0.10m wide, was exposed in the south-western, end section of the pit in a position immediately adjacent to the base of the first post. This trial pit was also of interest because of the presence of a very dark grey, compact horizon extending from 1.50m to 2.10m below the surface and located within apparently natural, very coarse gravels. This layer could not be identified with any degree of certainty.
- 4.3 Trial Pits 9, 11, 12 and 13 were excavated in the area of dark ash in the south-eastern half of the site. This layer of granular ash extended to a maximum depth of 0.78m in these pits and contained quantities of the vitrified brick and ceramic pipe noted on the surface. Below this layer, successive strata consisting of redeposited clays, brick fragments, ash, coal and clinker were uncovered, extending to the full depth of the pit (2.70m in Trial Pit 11). Elsewhere, these redeposited layers rested on natural clay, at depths varying from 0.50m to 1.20m. No structural features were recorded.
- 4.4 Trial pits 1-8 were located in the north-western half of the site in an area where documentary and cartographic sources had indicated the former presence of structural features. A reservoir is indicated on the Ordnance Survey 1st Edition Map of 1871 (Cole 1994, fig. 3) in the vicinity of Trial Pits 7 and 8. However, the watching brief revealed no evidence for this feature.
- 4.5 It has already been noted (Para 4.1) that Trial Pit 1 was

excavated into natural strata, and no structural features were recorded during the watching brief.

4.6 Below turf/topsoil level, which nowhere exceeded a depth of 0.27m, Trial Pits 2-6 contained quantities of redeposited material generally consisting of coarse and fine ash, clinker, wood fragments, glass, ceramic pipe fragments and vitrified refractory brick fragments. Some of the latter were of a complex shape suggesting a former use as ducts or pipes. These layers extended to varying depths and, in Trial Pits 2, 4 and 5, extended to depths in excess of the limits of excavation at approximately 3.10m.

4.7 The surface of natural clay was reached in Trial Pits 3, 4 and 6 at depths of 2.70m, 3.10m and 1.95m respectively. It is also possible that the basal clay layer at a depth of 2.50m in Trial Pit 8 and which was heavily contaminated with phenolic residues was also a natural layer.

4.8 Structural Remains

4.8.1 Structural remains were uncovered in Trial Pits 2, 4 and 5, as follows.

4.8.2 **Trial Pit 2:** A continuous, horizontally set layer of brick was uncovered at a depth of 3.10m. This extended for the full width and length of the pit (c. 2.00 x 0.70m), but its thickness was not established.

4.8.2 **Trial Pit 4:** A discontinuous, horizontally set brick layer was uncovered at a depth of 3.00m at the north-eastern end of the pit and which extended beyond the lateral limits of excavation. This layer, which was a single course thick, rested on the natural underlying clay.

4.8.3 **Trial Pit 5:** A continuous run of brick walling was reached at a depth of 1.60m and which was aligned exactly parallel with the sides of the exposed sections. On the south-west side the wall was c. 2.20m long x 0.70m high, on the north-western side c. 0.70m long x 0.60m high and on the north-east side c. 1.00m long x 0.70m high. Within these walls, a granular ash extended to the limits of excavation at c. 3.10m. A circular tank appears in approximately this position on the Ordnance Survey 1st Edition Map of 1871 (Cole 1994, fig. 3), although no features could be identified which were necessarily associated with it.

5 Conclusions

- 5.1 Evidence of building remains were uncovered in three trial pits, relating to two phases of industrial occupation. The floor uncovered in Trial Pit 2 appears to relate to the Spelter Works, while the floor within Trial Pit 4 is likely to be associated with the former Oil Works. The truncated walls in Trial Pit 5, however, could not be attributed to either one phase or the other with any degree of confidence.
- 5.2 No clear evidence was uncovered of the circular tank indicated on the 1871 Ordnance Survey, located in the vicinity of Trial Pit 5. It is possible that this may have been entirely destroyed during the demolition of the complex, although the truncated walls discovered here may be related to it.
- 5.3 No evidence was found of the reservoir located in the vicinity of Trial Pits 7 and 8, which also appears on the 1871 OS Map.
- 5.4 The significance of the wooden posts in Trial Pit 14 remains uncertain, although it is possible that they may be associated with an otherwise unidentified structure.

6 References

- Cole, J.R., 1994, *Pontblyddyn Coal and Oil Works Reclamation Scheme: An Archaeological Assessment*, Earthworks Archaeological Team, Project No. E59.
- Rudeforth, C.C., Hartnup, R., Lea, J.W., Thompson, T.R.E., & Wright, P.S., 1984, *Soils and Their Uses in Wales*, Soil Survey of England and Wales, Bulletin No. 11.

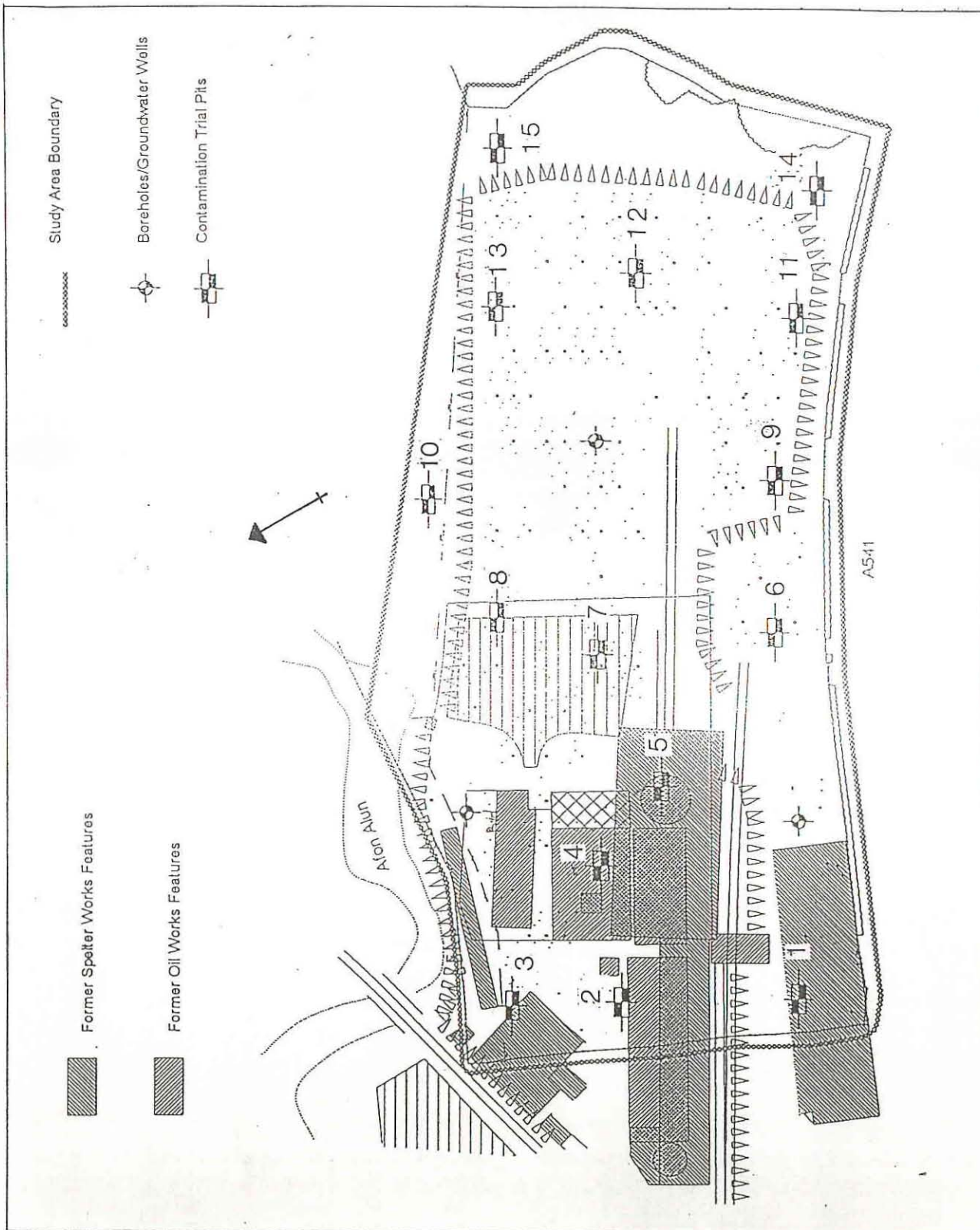


Fig 1

Location Plan

Scale 1:1,000