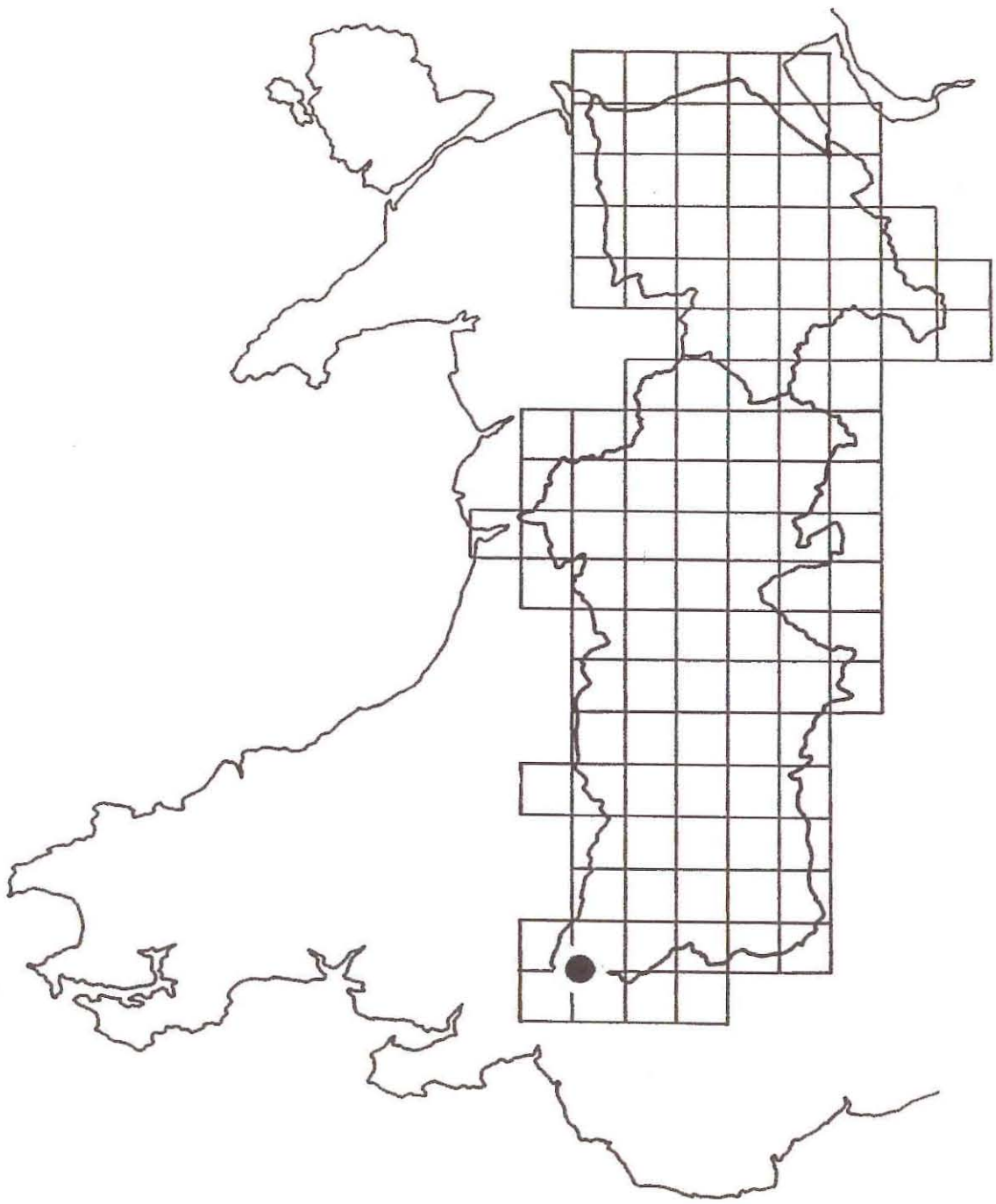
THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

Ystradgynlais Colliery/Ystrad Fawr Tip, Powys

ARCHAEOLOGICAL INVESTIGATION



CPAT Report No 78

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ARCHAEOLOGICAL INVESTIGATION

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Report prepared for Brecknock Borough Council

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1 Introduction

1.1 The reclamation of Ystradfawr Tip and including the former colliery of Ystradgynlais, Powys, was first considered by Brecknock Borough Council in the early 1970s if not earlier. General proposals were put forward in 1973, and in 1984 following a submission to the Welsh Development Agency (WDA), a Feasibility Study for the reclamation of the area was commissioned. The consulting engineers, Robinson Jones Partnership Ltd produced the Feasibility Report in June 1987.

1.2 Following a meeting in 1989 between representatives of WDA and various archaeological bodies in Wales where the need for closer liaison over proposed reclamation projects was recognised, the Clwyd-Powys Archaeological Trust (CPAT) approached Brecknock Borough Council in January 1990 for permission to conduct a rapid assessment of the industrial archaeological remains at and around Ystrad Fawr Tip. The assessment highlighted the potential threat to the archaeology that would be realised if the land was reclaimed and it argued for a full record to be made before reclamation works began.

1.3 The Curatorial section of CPAT was consulted by Brecknock Borough Council in February 1993 with regard to the 1990 recommendations and were asked to prepare a brief for a scheme of archaeological investigations to be carried out prior to the reclamation work. The brief is presented in Appendix 1.

1.4 The contract for the work specified in the brief was subsequently awarded to CPAT in July 1993 and on-site recording was carried out during August and September 1993.

2 Location

2.1 The reclamation site is made up of an area including the former Ystradgynlais Colliery and its associated No 3 tip together with the Ynyscedwyn Washery and its associated No 36 tip.

2.2 The site is situated to the south-east of the town of Ystradgynlais in Powys and is bounded to the south by the scheduled monument of Claypon's tramroad extension. The tramroad was built between 1832 and 1834, and it supplied limestone and coal to the Ironworks in the upper Swansea valley (Hughes 1990 23), notably the Ynyscedwyn works situated to the south-west of Ystradgynlais. To the north of the tramroad are the Ystradgynlais Colliery buildings which are separated from the No 3 tip to their north-west by the line of the now dismantled Neath and Brecon Railway.

2.3 Further north from the No 3 tip is the Ynyscedwyn Washery situated on the line of the disused mineral railway. The mineral railway ran from the Ynyscedwyn Colliery, located to the north of the reclamation area, to Claypon's tramroad at the point where it crossed the River Tawe. On the opposite side of the stream to the north of the washery is the most northerly part of the area under consideration which is occupied by the No 36 tip.

3 Topography and Land-Use

3.1 The Ynyscedwyn Washery and its associated No.36 tip are situated near the valley floor of Nant Gyrlais, which is a tributary of the River Tawe, with the remainder of the site to the south occupying progressively higher parts of the lower slopes of Mynydd y Drum, the mountain overlooking Ystradgynlais on its

south east side.

3.2 Due in part to the post-abandonment colonisation of the site and its associated tips by various trees and undergrowth, the area is presently used almost exclusively for local recreational purposes and is criss-crossed by footpaths. The vegetation levels on parts of the site, however, are sufficient to make some areas almost totally inaccessible.

4 Sources

4.1 The most important source of information available for the site and its structures are the physical remains which have survived up to the present. This was demonstrated by the excavation phase of the project which showed that the lower levels of the original Ystradgynlais Colliery engine house had survived underneath the later demolition rubble.

4.2 The spread of Ordnance Survey 1:2500 maps dated 1878, 1904 and 1918 (Figs 7, 8 and 9) which are available for the site are invaluable in the dating of the various features and provide a good picture of the above ground development of the colliery during its history.

4.3 A further source relating to the Ystradgynlais colliery and No 3 tip are the mine plans held by British Coal Mining Records, Bretby, near Burton on Trent. The Ystradgynlais colliery plans are more often records of the below ground workings and are rarely accurately dated, but occasionally show sufficient detail of the associated buildings to be of use. Included in the plans are two sets of official mine abandonment plans with their accompanying reports dated 1904 and 1938, which provided some useful details about the colliery and its owners.

4.4 The National Library of Wales, Aberystwyth hold another plan (NLW.PB.7436.(LD16)) which shows some above ground detail and is dated 1905. It confirms the presence of some of the features shown on the 1904 Ordnance Survey map.

4.5 Little information beyond that shown on the Ordnance Survey maps was discovered which related to the Ynyscedwyn Washery site.

4.6 Photographs taken of the colliery site were useful as confirmation of the presence of those visible features also shown on the Ordnance Survey maps. The only dated photograph was one of 1938 shown in a collection of photographs of the Ystradgynlais area (Davies 1988, 1990, 1992). The photograph showed the colliery as it was when it closed and demonstrated the degree of subsequent demolition which has taken place.

4.7 Local knowledge of the site when it was still in operation was useful in the interpretation of some of the structures and particularly worthwhile to the writer in the visualisation of the colliery as a working entity, a factor which could be easily overlooked in view of the recolonisation by nature which has taken place since the colliery closed.

5 General Historical Development

5.1 The first cartographic evidence for coal extraction on the site is the "old coal level" shown on the 1878 1:2500 Ordnance Survey map. As will be seen later the nearby access tunnel under Claypon's Incline may provide evidence

that the level was in use during the 1830-40s but no other information relating to its ownership or origin has yet been found.

5.2 It has been related by Mr T.J. Thomas of Ystradgynlais, who worked at the colliery, that the Ystradgynlais Colliery was originally opened in 1873. No confirmation of this as the opening date has yet been found, although an early plan of underground workings in the Four Foot Vein shows a face with a closure date of 1878. This, combined with the setting up time required before coal production commenced would tend to support an opening date near to that given by Mr Thomas.

5.3 The colliery was first known as the Ystradgynlais and Swansea Colliery and continued, probably under the same name, through the rest of the 19th century to its first reported closure in February 1904. At this time the abandoned mine plans for the colliery give its owner as Mr E.H. Davies of Holmer, Hereford, and the mine manager as Thomas Lloyd.

5.4 The colliery does not appear to have been out of use for more than a few months in 1904. This is demonstrated by coal faces in the Big Vein which are shown as having been abandoned in July 1904, only five months after closure. It is therefore likely that the colliery was re-opened by another company shortly after its closure, the most likely candidate being the South Wales Anthracite Colliery Company Ltd whose name appears on a plan of November 1912.

5.5 The 1918 1:2500 Ordnance Survey map shows the Ystradgynlais colliery in a much modified form, most probably as a result of the takeover of the colliery after 1912 by the Ynyscedwyn Anthracite Company who owned the nearby colliery of the same name. This would seem to be confirmed by the underground link between the two collieries shown on the mine abandonment plans of 1938 and the use of the No. 3 tip near the Coedcae drift by the Ynyscedwyn washery which first appears on the 1918 1:2500 Ordnance Survey map.

5.6 In the final colliery abandonment plans for Ystradgynlais of 1938 the owners are recorded as being the Amalgamated Anthracite Collieries Ltd of London. This company was noted in the documentation of the 1904 abandonment plans as having been in possession of most of those plans by 1935. Unfortunately, this is probably not very useful in dating the change in ownership as it is most likely that they were already the owners in 1935 and wanted to examine the plans to see if there was further development potential in the workings. There is, nevertheless, a slight possibility that they had recently taken ownership. At any rate the 1938 abandonment plans and their associated report show that coal getting officially stopped on 30th September 1938 and after discussions between the Miners Federation and the Owners, in an abortive attempt to keep the colliery open, it was finally closed on 30th November 1938.

5.7 The Ynyscedwyn Washery site and the No 36 tip probably remained in service until the closure of the Ynyscedwyn Colliery in the immediate post Second World War period.

6 Surface Structures (Fig 2)

6.1 This section contains the description and an attempt at the dating of those structures and features of the site which are readily identifiable and have survived in some form. Also included are structures which, although now destroyed can be attributed to a particular function significant to the working of the site. The reference numbers used throughout (PRN or Primary

Record Number), relate the site in question to its reference within the County Sites and Monuments Record.

6.2 PRN 15800 [SN 7940 0968] (Figs 3 and 4)

6.2.1 A building, 19.6m by 8.3m, constructed in brick and capped by a reinforced concrete plinth, located near the southern end of the Ystradgynlais colliery site.

6.2.2 The plinth incorporates at least three discrete sets of machinery mountings, two of which appear to indicate the use of engines to drive other machinery, probably electrical generators. There is a raised area at the south western corner of the plinth containing ducts to a narrow room in the lower brick built part, further ducts within the northern wall of the room suggesting that it was used for control purposes. The lower part has various passages within it which were presumably used for access or storage and its most westerly half contains a series of mountings which occasionally preserve evidence showing that they were once occupied by ceramic insulators. A cast iron water supply pipe runs in the direction of the building from the reservoir system (PRN 15816), suggesting, but not necessarily confirming, the use of steam power because the water could have been used for cooling purposes elsewhere.

6.2.3 This structure first appears on the 1918 Ordnance Survey 1:2500 map, and is most likely to have been constructed after 1912. This is due to its non-appearance on a plan of that date, and the takeover of the colliery by the Ynyscedwyn Anthracite Company, who appear to have been the instigators of the rebuilding of many elements of the colliery. The surviving remains point fairly conclusively to its use as a generator house supplying electricity to the mine buildings and probably also to the underground workings.

6.3 PRN 15801 [SN 7939 0967] (Plate 5)

6.3.1 A rectangular, brick built reservoir, 9.7m east/west by 7.3m north/south, with a line of five concrete pillars aligned centrally on its long axis and a small sluice and overflow at its western end.

6.3.2 The tops of the pillars are on the same level as the walls of the reservoir and there are also mounting bolts located on the upper surface of the walls. This suggests that there was originally a substantial superstructure mounted on top of the reservoir.

6.3.3 The function of this feature became clearer after the visit to site of Mr Ieuan Jenkins who worked locally as a miner and had visited the colliery while it was still in operation. He related that the colliery had a cooling tower somewhere in this area which was used to recycle water from the steam winding engine located nearby. From a manual of early 20th century coal mining equipment and techniques it became apparent that a cooling tower was normally mounted on a brick-built cold water tank containing supports for the tower superstructure. This would seem to confirm the site as the base for the cooling tower mentioned by Mr Jenkins. Supporting evidence was obtained in the books containing photographs of the Ystradgynlais area (Davies 1988, 1990, 1992) which revealed an undated photograph taken from above the colliery. This appears to show a timber tower located at the south-western extremity of the colliery.

6.3.4 The cooling tower does not appear on the 1918 Ordnance Survey 1:2500 map but the reservoir is depicted on more modern versions of the map. This

probably dates its construction to the period between 1918 and the colliery closure in 1938.

6.4 PRN 15802 [SN 7935 0979]

6.4.1 An approximately rectangular platform, 7.0m east/west by 5.0m north/south, situated to the south-east of, and adjacent to, the line of the former Neath and Brecon Railway.

6.4.2 A great deal of rubble is present in the area, probably due to the demolition of a building which stood on the platform; fittings seen in the rubble suggest that the building was supplied with electricity, probably from the nearby generator house. Mr T.J. Thomas of Heol Giedd, Ystradgynlais, who worked at the colliery before its closure, reported that the lamp room was located in this area. This room was used to recharge lamp batteries following shifts and would have been a primary reason for supplying the building with electricity.

6.4.3 The building which occupied the platform is shown on all of the older Ordnance Survey 1:2500 maps for the area beginning in 1878. This makes it likely that the building, marked as the mine manager's office in 1904 and 1918, was constructed when the colliery first came into use and was demolished some time after 1918, probably following closure in 1938.

6.5 PRN 15803 [SN 7941 0972] (Fig 6)

6.5.1 Two parallel brick walls 2.5m apart.

6.5.2 Each wall is 8.0m long and 1.3m in width, although the uppermost courses narrow progressively until the top course is 0.8m wide. This is most likely to be due to the demolition of the building after the colliery closed. The north-western wall has four pairs of bolts set in it for mounting machinery while the south-eastern wall has at least one bolt opposite each of the two most south-westerly pairs.

6.5.3 There is a building shown on the 1878 Ordnance Survey 1:2500 map at this location which is almost certainly the engine house for winding the cage in the south-western (downcast) shaft. Examination of the equivalent 1904 and 1918 maps and a mine plan of 1912, suggests that the engine house had been increased in size by 1904 and that there was a further alteration between 1912 and 1918 when the most north-westerly part, which had contained the boilers in 1878, was demolished. The pre-1904 modifications may also have entailed the dismantling of the tramway shown on the 1878 map that led from the colliery, through the tunnel (PRN 15817), to the buildings at Coedcae Prince. These buildings, whose function is unknown, were also demolished prior to 1904.

6.5.4 The above ground building remains are probably what survives of the mounting for a steam engine with two parallel cylinders working a centrally mounted winding drum and potentially date from the earliest phase of the building, although the changes in building design which took place make this seem less likely. Mr Jenkins related that the winding drum was powered by a steam engine until the colliery closure in 1938 and that in the final phase of the building the boilers were of "Lancashire" type (ie having two flues) fitted with mechanical stoking and were situated to the south-east of the winding drum.

6.6 PRN 15804 [SN 7948 0973]

6.6.1 A rectangular reservoir approximately 50m north-east/south-west by 18m north-west/south-east, dug into a moderate north-west facing slope up to a maximum excavated depth of 4.6m. Any evidence to link the reservoir with other colliery structures is obscured by the vegetation in the area.

6.6.2 The structure is shown on the 1878 Ordnance survey map with an adjacent well and is therefore probably a part of the original colliery. It is likely that the main reason for its construction was to provide a water supply for the boilers marked on the 1878 map within the engine house (PRN 15803) used for the winding of the downcast shaft.

6.7 PRN 15805 [SN 7950 0973]

6.7.1 A rectangular building, originally roofed but now partly demolished, 2.3m in width by 3.4m in length with an L-shaped internal division.

6.7.2 A small trackway leads in the direction of the main colliery buildings but no other links with colliery structures are apparent despite the proximity of the main reservoir.

6.7.3 As no evidence of the building is found on any of the various maps and plans referring to the colliery its use and dating remain unclear.

6.8 PRN 15806 [SN 7959 0974]

6.8.1 A rectangular brick building, 5.0m north-east/south-west by 3.0m north-west/south-east.

6.8.2 Holes in the north-east and south-west walls show that there were originally doors in these ends of the building. There are two brick dividing walls internally, one of which has been demolished and the building has a pitched concrete roof incorporating some strengthening girders.The outer walls of the building are 75% thicker than normal or one and three-quarter bricks in width.

6.8.3 The seemingly over-engineered nature of the building and its relative remoteness from the rest of the site mean that it was probably used as the mine magazine or explosives store. This was confirmed by Mr Jenkins. The building does not appear on the 1918 map and therefore probably dates from the period between then and the 1938 closure.

6.9 PRN 15807 [SN 7945 0976] (Fig 5, Plate 6)

6.9.1 An engine house, 18.6m north-east/south-west by 8.4m north-west/south-east.

6.9.2 There are mountings, probably for a steam winding engine, within its north-eastern part. The south-western part of the structure has two parallel concrete walls on which a winding drum would have been mounted. The north-eastern part of the structure was originally enclosed by a brick building, of which only the lower courses remain, in order to protect the machinery from the elements. The machinery was mounted on a concrete plinth in a similar fashion to PRN 15800.

6.9.3 The engine house would have been used for winding duties in the north-east or upcast shaft with which it is aligned. A building is first shown at this point on a mine plan, datable only by the abandoned faces it shows, to the first half of the 1890s, possibly 1893. The presently visible structure is probably of a later date due to the radical change in shape between that shown on the map of 1904 and the map of 1918. This is likely to date the building to the post-1912 rebuilding phase of the colliery. A photograph taken when the colliery closed in 1938 does not show any headgear above the upcast shaft so it is likely that the engine house was no longer in use at that time.

6.10 PRN 15808 [SN 7943 0976]

6.10.1 Two small (maximum dimension 2.2m) concrete/brick structures 2.8m apart built on top of the revetment wall (PRN 15813) above the disused Neath and Brecon Railway.

6.10.2 On the most north-eastern structure are two sets of mounting bolts at different heights but the remains are insufficient to determine what use the mountings may have had.

6.10.3 On the 1938 photograph of the colliery there is a corrugated iron shed projecting above the railway on a supporting frame of girders at this point; it is likely that this was some sort of overhead platform for the loading of coal into railway trucks. The structure first appears on the 1918 map in this form although there is a similar structure marked on the 1878 and 1904 maps nearby which may have performed the same function.

6.11 PRN 15809 [SN 7951 0981]

6.11.1 A platform 9.9m north-east/south-west by 11.6m north-west/south-east, slightly above the level of the disused railway.

6.11.2 The platform is set into a gap in the revetment wall (PRN 15813) and is surrounded on the other three sides by a stone wall, containing much re-used dressed stone and some iron mountings, which appears to be contemporary with the revetment wall. Adjoining the outside of the stone wall to the north-east is a sub-rectangular brick building with a concrete roof. The building has a duct in its floor which originates at an engine/machinery mount and a total of four electrical insulators or their mountings on its south-west and south-east walls. Concrete/brick bases found on the platform within the walled area and on the bed of the disused railway opposite the platform suggest that this area was occupied by an elevator or conveyor belt which may have been used for loading purposes.

6.11.3 Mr Thomas reported that these buildings were used as the washery for separating coal from waste material. It appears, from the evidence shown on the available maps, that there was no attempt to wash the coal on site until this building was constructed; possibly there is some significance in the building of the Ynyscedwyn Washery in the same period.

6.11.4 The buildings first appear on the map of 1918 where they are seen in their present form. Both the stone and brick built phases were therefore probably constructed during the rebuilding of the colliery between 1912 and 1918. The structure appears to overlie a tramway which previously led from the drift mine to the main Ystradgynlais colliery buildings, passing underneath the railway.

6.12 PRN 15810 [SN 7952 0982]

6.12.1 An inclined tunnel 24.3m in length.

6.12.2 The tunnel is constructed in brick and has an arched cross-section, 1.08m high by 0.92m wide. It connects the area above the disused railway with the platform forming a part of the washery buildings (PRN 15809).

6.12.3 The tunnel does not appear on any of the maps or plans of the site but is most likely to have been used as access, possibly for narrow-gauge coal trams, and be contemporary with the washery buildings first marked on the map of 1918.

6.13 PRN 15811 [SN 7955 0980]

6.13.1 A brick-built shaft of square plan with sides 0.85m long internally, standing to a height of 2.1m above ground level. It is blocked by debris at 1.4m below ground level.

6.13.2 The shaft has a square access hole at ground level in its north western side. Metal treads made from old horseshoes have been placed internally to act as steps.

6.13.3 No references to this structure have been found, but the bricks used in its construction are of the same type as other structures dating from the post-1918 phase of the colliery.

6.14 PRN 15812 [SN 7946 0980]

6.14.1 A bridge which formerly spanned the railway line adjacent to the colliery.

6.14.2 The remaining evidence for its existence takes the form of wooden sleepers on a horizontal girder frame mounted on the revetment wall (PRN 15813). There is a vertically positioned girder in the tip opposite and pieces of concrete reinforced by old colliery screens can be seen on the bed of the old railway. These may have formed part of the superstructure.

6.14.3 The bridge first appears on the map of 1918 and was used both as a means of access to the No 3 tip at the other side of the railway and to connect the Ystradgynlais colliery with the Ynyscedwyn washery and Coedcae drift (probably as a replacement for the tramway shown on the 1904 map). This suggests that it was constructed when the colliery was rebuilt between 1912 and 1918, probably by the Ynyscedwyn Anthracite Company. It is also shown on the 1938 photograph of the colliery.

6.15 PRN 15813 [SN 7954 0985]

6.15.1 A stone built revetment wall approximately 270m in length, adjacent to the disused railway line and edging the terrace on which the Ystradgynlais colliery buildings are situated.

6.15.2 The wall has partly collapsed but the surviving portions carry various abutments and fittings associated with the bridge across the railway, the screens building, etc. Also present throughout its length are small pipes and an arched tunnel (seen on a photograph of the Royal Commission for Ancient and Historical Monuments in Wales (RCHAMW) taken in the late 1970s). The tunnel

may have been constructed for drainage purposes and could possibly be PRN 15815. It is interesting to note that the wall in places is constructed of imperfectly set, and therefore probably re-used, dressed stonework derived from building demolition, possibly a nearby engine house associated with early colliery activity or Claypon's incline to the south of the site.

6.15.3 The various plans and maps of the colliery cannot be properly relied upon to show the revetment wall, as the same position could have been occupied by a field boundary prior to its construction. More significant is the apparent building of the washery (PRN 15809) over the drift mine tramway shown on the 1904 map. The washery construction is almost certainly the same as that of the revetment wall in its present form, and the two structures are probably therefore contemporary, dating the wall to between 1912 and 1918. The colliery sidings were widened at this time.

6.16 PRN 15814 [SN 7945 0978]

6.16.1 What appears to be a rectangular structure 2.4m north-west/south-east by 2.7m north-east/south-west, built on top of the revetment wall (PRN 15813).

6.16.2 There is a brick-built mounting to the outside of its south-east wall and a girder mounted in a vertical position in its south-west wall.

6.16.3 Mr Jenkins informed the writer that this area had once been the site of the colliery screens building used for grading the coal. Examination of the various colliery plans and the 1938 photograph show that this feature is most probably part of the screens building. The photograph shows a fairly tall, iron-framed structure covered by corrugated iron sheeting, built on the revetment wall and supported over the railway sidings by vertically mounted girders.

6.16.4 This structure first appears on the 1918 map and is most probably a product of the rebuilding phase of the colliery between 1912 and 1918.

6.17 PRN 15815 [SN 7941 0973]

6.17.1 An arched, brick-built tunnel 1.0m wide internally and of indeterminate length.

6.17.2 The tunnel is visible near the modern track through the colliery buildings and passes between the south-western (downcast) shaft and its associated engine house (PRN 15803). It may possibly originate at the main reservoir (PRN 15804).

6.17.3 The tunnel may date from any period of the colliery as it does not appear on the various Ordnance Survey maps, although, as previously noted, one of the RCHAMW photographs shows a very similar feature in the revetment wall (PRN 15813) on approximately the same alignment. The two features may be contemporary. The use of the tunnel is not readily apparent but it may have acted as an overflow for the reservoir (PRN 15804).

6.18 PRN 15816 [SN 7950 0967]

6.18.1 A series of brick built dams along the small valley to the south-east of the colliery buildings. The valley is located outside the site clearance area.

6.18.2 The dams are mostly in good condition although some of the reservoirs formed by them are now silted up. Within the structure of each dam there is generally some built in cast iron pipework. A length of similar piping can be seen in the south-west side of the valley which probably continues within the shallow trench seen running in the direction of the generator house (PRN 15800), while a further pipe can be seen on the opposite bank running in a northerly direction.

6.18.3 The dating of these dams and their function is somewhat unclear. The maps seem to suggest that they were built after 1918, but it would be reasonable to assume that they were intended to provide the greater volumes of water which would have been required following the rebuilding phase which took place somewhere between 1912 and 1918. A further possibility is that the water was used under pressure (by a pelton wheel for example) to power an electrical generator possibly situated within the generator house (PRN 15800), although the head (ie hydraulic pressure) provided by this hypothetical arrangement would seem to be insufficient to run a device of that nature.

6.19 PRN 15817 [SN 7932 0962]

6.19.1 A stone-built, arched tunnel underneath Claypon's Tramroad.

6.19.2 The 1878 map seems to show the tunnel being used by a narrow gauge tramway connected to the colliery and a quarry near the head of the small valley to the south-east. The tramway cuts across the spoil tips from the "old coal level" and linked the buildings at Coedcae Prince, demolished before 1904, with the colliery. The purpose of the tramway is unknown but it seems indicative of a link between Coedcae Prince and the colliery.

6.19.3 The tunnel appears to have been built as part of the incline which would mean that it dates from the construction period of 1832-4. The primary interest of the tunnel in the context of this report is that some form of access to the colliery area seems to have been the only requirement for its construction, giving rise to the possibility that the "old coal level" marked nearby on the 1878 map was in operation during the 1830s.

6.20 PRN 15818 [SN 7926 1021]

6.20.1 The conical No. 36 spoil tip to the north west of the Ynyscedwyn Washery site.

6.20.2 On top of the tip there are the iron-framed remains of the winding gear or its mounting which would have hauled the trams of spoil up the incline situated on the tip's south-east face; some of the wire rope used has been discarded nearby. From the point on the summit to which the trams were hauled, four radiating tram lines demonstrate the way in which the shape of the tip was maintained at each of its successive levels.

6.20.3 The tip is not shown on the 1918 map of the area which seems to show the Ynyscedwyn washery utilising the No. 3 tip of Ystradgynlais colliery. This means that the No 36 tip could have been built up at any time after 1918 and prior to the closure of Ynyscedwyn colliery shortly after the Second World War, although the quantity of spoil present is probably sufficient for the tip to have been started before the closure of Ystradgynlais colliery, possibly in the 1920s.

6.21 PRN 15819 [SN 7935 1010] (Plate 7)

6.21.1 The remains of the Ynyscedwyn washery building, which is located next to the track of the abandoned mineral railway from Ynyscedwyn colliery.

6.21.2 There are three structures surviving which probably formed part of the washery building, although the building itself is no longer standing. The north-eastern structure comprised two parallel brick walls, 1.26m apart, with the intervening area partly infilled by brick, and may have been some form of engine base. To the south-west of this structure there is what appears to be the base of an iron-framed coal elevator with a pipe at either side which may have been used for washing the coal. Between these two structures and slightly to the south-east is a small square platform (sides <1m in length) with three mounting bolts set into its upper surface. This may have held an upright girder which was part of the building superstructure, if, as seems likely, the building was of iron framed construction.

6.21.3 The building first appears on the 1918 map and could well be contemporary with the phase of rebuilding which took place after 1912 at the nearby Ystradgynlais colliery, as that is apparently the time at which the two collieries were linked.

6.22 PRN 15820 [SN 7932 1008]

6.22.1 A rectangular concrete structure, 6.0m north-west/south-east by 10.4m north-east/south-west and up to 1.0m deep, on the Ynyscedwyn Washery site.

6.22.2 Concrete posts are built into the outer wall of the structure whose top is approximately 0.3m higher than ground level. Internally, the structure is divided by concrete walls of the same height, into a series of compartments, two of them sunken. One of the two has a pair of short iron ladders descending to its lower level. At the western corner of the structure there is a gap in the outer wall with an iron plate set into it, possibly as some form of sluice. A cast iron pipe apparently unconnected to the structure passes immediately to its north-west.

6.22.3 The structure appears to be related to the washery, and may conjecturally have been used to separate coal and waste material. It was probably built at the same time (ie between 1912 and 1918) as the washery building (PRN 15819).

6.23 PRN 15821 [SN 7946 0974]

6.23.1 A row of buildings adjacent to the Ystradgynlais colliery reservoir (PRN 15804) which are marked on the 1918 map.

6.23.2 Mr Jenkins remembers the buildings as the mine hospital combined with stables for the pit ponies, used in the periods when they were above ground. The area now is completely overgrown and no obvious remains were found.

6.23.3 Buildings can be seen in this position on both the 1878 and 1904 Ordnance Survey maps. They increase in size through time, and it seems reasonable to assume that the earlier buildings were used for the same purpose and were added to in order to provide more stabling. This probably corresponds to an increase in activity at the colliery in later years.

6.24 PRN 15822 [SN 7944 0974 ?]

6.24.1 An engine house described by Mr Jenkins as being used to haul railway wagons up to the Ystradgynlais colliery buildings.

6.24.2 This building would presumably have been situated in a line with the branch track from the railway marked on the 1918 map. The remains of a concrete floor containing a mounting bolt can be seen on a ppath leading from the track through the colliery buildings opposite the upcast shaft and this may relate to the engine house mentioned by Mr Jenkins. Unfortunately the surrounding area was very overgrown when the site was surveyed and no use could be attributed to the remains seen on the ground.

6.24.3 As the branch track from the railway first appears on the map of 1918, it seems likely that the engine house was a product of the 1912-1918 rebuilding phase of the colliery.

6.25 PRN 15823 [SN 7940 0990]

6.25.1 The extensive No. 3 spoil tip located between the Ynyscedwyn washery and the Ystradgynlais colliery buildings.

6.25.2 The tip is used for local recreation and almost completely covered in vegetation. A tram line is visible originating from the demolished bridge (PRN 15812) and this probably represents the final phase of tipping up to the closure in 1938.

6.25.3 The tip does not appear on the 1878 map and probably first came into use when the Coedcae drift was opened during the late 1890s or in 1900. The tip was used by both the Ynyscedwyn washery and Ystradgynlais colliery in its later life which is a further confirmation of the links between the collieries. A modern contour plan of the tip is held in the British Coal Mining Records Office at Bretby, near Burton-on-Trent.

6.26 PRN 15824 [SN 7945 0996]

6.26.1 A building, now demolished and invisible on the ground can be seen on the 1904 map and 1904 closure plans, opposite the entrance to the Coedcae drift. It probably housed an engine for hauling coal trams in and out of the drift.

6.26.2 The building was probably constructed when the drift opened, but was demolished by 1918 and may have been superseded by the brick building to the east of the tip. The brick building, first seen on the 1918 map, is still visible in a field outside the area of reclamation.

7 Excavation (Fig 6, Plates 1-4)

7.1 The excavations undertaken as part of the scheme of archaeological investigation were intended mainly to identify features associated with the engine house (PRN 15803) seen on the 1878 1:2500 Ordnance Survey map and also to reveal information on the development of the structure throughout the working life of the colliery. Further work had been considered in the area between the two principal engine houses but, following consultation with M.J. Walters of the Curatorial section of CPAT, it was decided that shortage of time and potential problems in maintaining pedestrian access would make it more productive to concentrate on the area surrounding the original engine house.

7.2 Two trenches were excavated around the surviving remains of the engine house. To the north west of the position of the winding drum a linear trench (TRENCH A) was excavated, 15.8m in length by 1.7m wide generally (although in places up to 2.4m wide). The remaining trench (TRENCH B) was 19.0m north-east/south-west and 1.7m wide with an extension to the north-west at its south-western end of approximate dimensions, 4.6m north-west/south-east by 3.2m north-east/south-west.

7.3 The majority of the overburden caused by previous, partial demolition of the engine house was removed by machine and then, where depth considerations permitted, the remaining material was removed by hand to expose the surviving features.

7.4 Trench A: Description

7.4.1 The central part of Trench A revealed feature (1), a brick floor some 5m in length, wider than the bottom of the trench. The floor continued in a north-easterly direction for a further 2.5m although this part only occupied the north-western side of the trench. The opposite side was occupied by feature (2), a brick lined hollow, apparently designed to house a cylindrical object some 1.75m in length and 1.0m in diameter. The north-eastern end of the hollow was partially walled with unmortared bricks with the wall (3) also containing two loose fitting iron bars. The south-western end was marked by a stout iron bar (4) of rectangular section laid on the brick floor. The hollow and its environs contained clinker and other burnt material.

7.4.2 The north-eastern end of the floor was marked by a second wall (5) built to the level of the floor. The wall was seen to have been cut by the footings (6) for a later building. To the north-east of the wall was a very worn brick surface (7) some 65cm lower than the floor, crossed by two walls (8) and (9), both approximately 0.25m high.

7.4.3 The surface and its associated walls had been cut by a pipe (10) leading to the later building (11) previously mentioned which formed the north-eastern end and south-eastern sides of the trench. This building was constructed mainly of brick, although built into it was a concrete surface (12), up to 0.8m in width at the north-eastern end of the trench. The concrete surface appeared to be supported by a wall into which the pipe (10) was cemented.

7.4.4 The south-western end of the floor was marked by a trench (13), 0.8m in width running north-west/south-east. The trench appeared to have been roofed by a brick arch and contained a very corroded iron pipe (14). Protruding vertically upwards from the pipe at right-angles to its length was a narrower pipe section with a flange at its end.

7.4.5 Adjacent to the trench containing the pipe was an area of mortared brickwork which appeared to have been originally built to a higher level as it showed signs of demolition. It had also been cut by an area of stony soil (15) running east/west which was not examined due to time constraints.

7.4.6 The brickwork which survived represented a wall (16), some 0.9m in thickness, running in an east/west direction. Within the wall was a bricked up gap, to the north of which were the shallow remains of a curving passage (17) with a brick floor. South of the wall in the extreme southern corner of the trench was an area (18) of fine red and grey banded ash.

7.5 Trench B: Description

7.5.1 Trench B revealed two parallel, stone-built walls (19) and (20), approximately 0.2m below ground level at its north-eastern end. Between the walls was a concrete surface (21) sloping down from the base of one wall (19) to the other wall (20). The wall (20) could be seen to incorporate a built in, brick-arched hole but, as this was almost completely hidden under the edge of the excavation, no dimensions for it were obtained. To the south-west of this wall the demolition rubble in the trench was too deep to be fully excavated and nothing further was found until the south-western end of the trench was reached.

7.5.2 At the point where the trench was extended to the north-west there was a brick-built wall (22) running from north-west to south-east which survived to a height of 0.9m and in which three gaps could be seen. The gaps were 0.25m in width and built into the walls and base of two of them were L-shaped strips of cast iron forming a continuous groove in each. From the most south-easterly gap there were the remains of a passage (23) of the same width running in a north-easterly direction, delineated by two brick walls. All of the walls in this area appear to have an outer facing of greatly heat affected, yellowish firebricks.

7.5.3 To the south-west of the wall (22) was a level brick floor (24) with a wall (25) some 0.25m higher and showing signs of demolition, at its opposite side. Contained within this area and also partly filling the slots was a heap of fine red and grey banded ash with a maximum depth of approximately 0.75m. The wall had a bricked up gap in it and was seen to turn near both ends of the ash filled area, with the north-western part heading in a westerly direction and the other heading to the south-west. A further wall (28) marked the boundary of the ash filled area to the north-west.

7.5.4 At the south-western extremity of the trench is an angled stone wall (26) linked to a brick wall (27). These walls form passages with wall (25) which run into sections formed by the trench. The walls were noted as having a hard, bituminous substance adhering to them.

7.6 Trench A: Interpretation

7.6.1 The brick floor (1) and the adjacent hollow (2) most probably mark the position of one of the original boilers and its grate, part of which was found during the excavations. Stoking was probably carried out in the area of the worn brick surface (7).

7.6.2 It seems likely that the iron pipe (14) would have been used to transmit steam from the boiler to the engine powering the winding drum, mounted on the standing remains. This view is corroborated by the fact that the trench (13) had been originally enclosed by an arch to form a tunnel; this arrangement

would have been less likely to lose heat than open pipework.

7.6.3 The wall (16) at the southern end of the trench is almost certainly part of the remains of the demolished chimney. The bricked up gap in it and the curving passage (17) being all that survives of a flue from the early boilers, blocked when the later boilers were constructed at the opposite side of the engine house.

7.7 Trench B: Interpretation

7.7.1 The stone walls (19) and (20) and sloping concrete surface (21) were remembered by Mr Jenkins when he visited the site during the course of the excavations. He reported that it was the hopper into which small coal was tipped and then fed into the grate of the later boiler arrangement. The sloping nature of the concrete surface and the arch present in the wall (20) confirm this view.

7.7.2 The area which remained unexcavated was occupied by the boilers themselves; their flue gases would have travelled along passages, of which (23) is an example, eventually passing through the gaps in wall (22). The draught was undoubtedly regulated by altering the position of metal plates (dampers) set into the grooves formed by the L-shaped strips of cast iron.

7.7.3 Because of the quantity of ash found there, the brick floor (24) was probably used as a working area for cleaning purposes. From there it is probable that the flue gases would have travelled along the passage heading in a westerly direction to the chimney.

7.7.4 The use of the passage which heads to the south-west from the trench is unknown, but it is possible that it was used by equipment related to the cooling tower or the generator house, both of which are located in that general direction.

8 Historical Development of Surface Structures

8.1.1 It is reasonable to assume that the 1878 map, drawn some five years after the apparent opening of the colliery, shows it in its original form with an air shaft and a single working shaft wound by a steam engine within the engine house PRN 15803. What appear to be two boilers were located to the north-west of the winding drum and these would have been connected by a steam pipe to the engine. This was very probably a twin cylinder, horizontal engine, a type preferred in colliery winding due to its good starting characteristics. The cylinders would have been mounted along the axis of the two brick walls still visible, with the winding drum occupying the intervening space and acting as a flywheel.

8.1.2 The other colliery structures visible on the 1878 map are the reservoir (PRN 15804), the stables (PRN 15821), a loading gantry for railway wagons in the approximate position of PRN 15808 and the managers office (PRN 15802). These features are representative of a well planned and fairly typical small colliery of the period.

8.2 The next available plan is an undated colliery plan, although a reasonable determination of when it was produced can be made by the examination of the closure dates of the various underground workings shown on it. These suggest a date of 1893 or relatively soon thereafter. The plan shows the engine house used for winding the downcast or original working shaft, the manager's office and the stables, and reveals the presence of two further buildings, one to the west and the other to the north-east of the upcast (air) shaft. It is difficult to say what purpose these buildings performed with any certainty, but the one to the north-east of the original air shaft is in the same position as PRN 15807 and that, together with the division of the shafts into upcast and downcast which is first seen on this plan, suggests that it may have housed a small winding engine for use in the shaft. The building to the west of the shaft could signify that there was a similar engine in that position used for hauling coal trams on the surface.

8.3 Following the production of the plan probably drawn in 1893, the workings were extended to the opposite side of the Neath and Brecon Railway by the opening of the drift mine known variously as the Ystradfawr slant, Fan drift or Coedcae drift. This probably occurred during the late 1890s or in 1900 to judge by the closure dates marked on plans of coal workings to which it gave access. The drift was linked by an underground tunnel to the earlier workings, and other plans would suggest that both parts were eventually worked as a unit.

8.4 The Ordnance Survey 1:2500 map of 1904 shows the drift mine and its associated engine house (PRN 15824) in operation, with a tram line, which appears to travel beneath the railway, linking it to the main colliery buildings. These buildings are generally the same as those previously noted although the stables and the original engine house (PRN 15803) have been added to and there is now a structure linked with the upcast shaft to its south-east. Again the function of this structure can only be guessed at, but a possibility is that with the increase in size of the colliery, ventilation of the workings became more difficult and some kind of air compressor or fan had been installed.

8.5 There is a colliery plan of 1912 which adds little to our knowledge of the surface structures, except for it being the final plan on which the original engine house is shown with the boilers on its north west side. It is also useful because it shows the owners of the colliery were the South Wales Anthracite Colliery Company Ltd and gives the drift mine the name of Fan drift.

8.6.1 In the intervening period between 1912 and the production of the next Ordnance Survey 1:2500 map in 1918 the colliery underwent substantial rebuilding, which is probably co-incident with the takeover of the workings by the Ynyscedwyn Anthracite Company.

8.6.2 The structures which first appear on the 1918 map are the engine/generator house (PRN 15800), the engine house used for winding the upcast shaft (PRN 15807), the washery buildings (PRN 15809), the bridge across the railway (PRN 15812), the colliery screens building (PRN 15814) and the Ynyscedwyn washery site (PRNs 15819 and 15820). Some of the already existing structures were altered or enlarged at this time, most notably the original engine house which can be seen to have lost the boilers previously situated in its north-western part. This gives a fairly accurate date for the construction of the building containing the later boilers which were described by Mr Jenkins as being to the south-east of the winding drum.

8.6.3 The probable engine house (PRN 15824) in line with the drift had been demolished by the time the 1918 map was drawn. The map shows a building to the east of the entrance which may have replaced it. It is also interesting to note that the tramway shown on the 1904 map, linking the drift to the Ystradgynlais colliery buildings, is no longer in use and that the washery building appears to have been built over it. This gives a probable date for the construction of the revetment wall (PRN 15813), which appears to be of the same build as the stone wall forming part of the washery.

8.7 There seem to be no further sources of information for the working phase of the colliery, as the next readily datable source is a photograph taken in 1938 when the colliery closed. This photograph, information given by Mr Jenkins and the surface remains, demonstrate that in the period between 1918 and 1938 further construction took place giving rise to the cooling tower (PRN 15801), the magazine (PRN 15806) and the series of dams (PRN 15816) on the nearby stream. It is also likely that the No 36 tip (PRN 15818) was begun during this period.

8.8 Following the closure of the colliery the surface buildings were partly demolished (Mr Jenkins: personal communication). The evidence that remains is of the structures or parts of them which have survived the demolition.

9 Conclusions

9.1 Despite the previous demolition of parts of the various colliery buildings, there are still sufficient remains for most to be recognisable and for their functions to be determined. In particular the engine house (PRN 15803) examined during the excavation phase of the project, still retains some of its earliest features. The relatively good survival of the three main engine houses (PRNs 15800, 15803 and 15807) is probably indicative of the more massive nature of their construction and the somewhat isolated position of the colliery: the latter has minimised further disturbance of the surviving features.

9.2 The course of the tramway from the drift mine to the Ystradgynlais colliery buildings was most probably built over during the rebuilding phase of the colliery which took place between 1912 and 1918. Further to this, excavation trench A showed that the ground level in 1878, if it can be related to the surface (7) of the stoking area, was in the order of 1.7m below that of the present day. It is therefore possible that much of the colliery site during its earlier history was generally at a lower level, and may have been raised when the colliery was rebuilt. This may have been done by the levelling

of heaps of waste and necessitated the construction of the revetment wall. This possibility may indicate a reasonable potential for the survival of earlier colliery features underneath the present ground level.

10 Acknowledgements

10.1 The writer would like to thank his colleagues at CPAT, Mr D. Thomas, who supervised the excavation and shared in the survey work and Mr M. Walters, the monitor for the project, who kindly gave of his knowledge relating to mining matters.

10.2 CPAT would also like to thank Brecknock Borough Council for their funding of this scheme of archaeological investigations and the members of Ystradgynlais 2000 for their help and assistance with various parts of the project, in particular Dai Howells, Geoff Ready and Dai Lewis who helped with the excavation, Ieuan Jenkins and Mr T.J. Thomas who shared their memories of the colliery as it was when still in operation and John Ready who provided the finds descriptions.

11 References

11.1 Written Sources

Bailes G.M., nd (Dated to 1907 by information contained within), Modern Mining Practice Vols 4 and5, Sheffield.

Davies T.J., 1988, 1990, 1992, Faces and Places of the Parish of Ystradgynlais Vols 1-3, Llandysul.

Hayes G., 1990, Stationary Steam Engines, Princes Risborough.

Hughes S., 1989, The Brecon Forest Tramroads, Aberystwyth.

Hughes S. and Reynolds P., 1989, A Guide to the Industrial Archaeology of the Swansea Region, Aberystwyth.

Lawrence R., nd, Directory of the coal workings of the South Wales Coalfield, Vol 1.

Peel R., 1912, Coal Mining, London.

Robinson, Jones, Partnership Ltd, 1987 Brecknock Borough Council Reclamation of Derelict Land at Ystrad Fawr Tip. Feasibility Report (Blackwood, Gwent)

11.2 Cartographic Sources

1. Ordnance Survey 1:2500 map, Brecknock 43.10, 1st edition, 1878.

2. Ordnance Survey 1:2500 map, Brecknock 43.14, 1st edition, 1878.

3. Ordnance Survey 1:2500 map, Brecknock 43.15, 1st edition, 1878.

4. Ordnance Survey 1:2500 map, Brecknock 43.10, 2nd edition, 1904.

5. Ordnance Survey 1:2500 map, Brecknock 43.14, 2nd edition, 1904.

6. Ordnance Survey 1:2500 map, Brecknock 43.15, 2nd edition, 1904.

7. Ordnance Survey 1:2500 map, Brecknock 43.10, 3rd edition, 1918.

8. Ordnance Survey 1:2500 map, Brecknock 43.14, 3rd edition, 1918.

9. Ordnance Survey 1:2500 map, Brecknock 43.15, 3rd edition, 1918.

10. British Coal Mining Records (Bretby), Ystradgynlais Colliery Abandonment Plans 1904, 4573.

11. British Coal Mining Records (Bretby), Ystradgynlais Colliery Abandonment Plans 1938, 12425.

12. British Coal Mining Records (Bretby), Plans relating to Ystradgynlais Colliery: SWR 1554, SWR 1561, SWR 3730, SWR 3731, SWR 3733.

13. British Coal Mining Records (Bretby), Plan relating to Ystradfawr Tip (No 3), SWT 4108.

14. National Library of Wales, Plan of Ynyscedwyn and Ystradgynlais Collieries (1905), NLW.PB.7436.(LD16).

12 Archive

The archive for the project consists of:

Record forms for all the features given Primary Record Numbers.

Drawn plans from the survey of selected structures at the scale of 1:100 comprising PRNs 15800, 15801, 15803, 15805, 15806, 15807, 15808, 15809.

Plan of the excavation of the engine house (PRN 15803) at a scale of 1:100

Photographic record: black and white prints: survey 53 prints
: excavation 36 prints
colour slides: survey 51 slides
: excavation 36 slides

Appendix 1: Brief

COUNTY SITES AND MONUMENTS RECORD

Curatorial Section, Clwyd-Powys Archaeological Trust
7a Church Street, Welshpool, Powys, SY21 7DL (0938) 553670

Full Planning Permission for Land Reclamation at Ystradfawr Tip, Ystradgynlais, Powys.

Brecknock Borough Council Planning Application B005852

BRIEF FOR SCHEME OF ARCHAEOLOGICAL INVESTIGATION OF YSTRADGYNLAIS COLLIERY REMAINS AND YSTRADFAWR TIPS, YSTRADGYNLAIS.

Introduction

Subsequent to the granting of full planning permission in September 1990 this scheme is now to be implemented in late March early April 1993. The phase one operations include the Shaft Treatment Works on the colliery surface itself. The Clwyd-Powys Archaeological Trust has been asked to carry out a survey of the colliery surface remains prior to commencement of the phase one operations.

The proposed reclamation scheme covers an area of 32.1ha to the east and south-east of the town centre of Ystradgynlais. The land includes two derelict coal tips on the valley floor which are crossed from north-east to south-west by two former railway lines. The Yniscedwyn Washery buildings for processing coal from the Yniscedwyn colliery to the north-east are located on the mineral railway sidings between the conical No.36 tip and the No.3 tips to the south. At the southern extreme of the reclamation area are the remains of the Ystradgynlais Colliery which started working in 1873 and closed in 1938.

Significant building remains survive on the colliery surface and include:

1 The large engine house at the southern extreme of the site which consists of substantial surviving foundations in concrete and brick. This was erected between 1904 and 1918 and is most likely to have been the generator/power house supplying electricity to the mine.

2 The 1873 winding/pumping engine house remains. Two brick walls survive in the general locality of the earliest engine house but are likely to date from the later years of the mines life. The original 1873 engine house and boilers were much altered and extended throughout the 65 years of mining at this colliery and the foundation level remains are likely to be buried immediately adjacent to the surviving remains of the later engine house. A photograph of the mine in the 1930s shows a brick engine house for housing a horizontal engine with a chimney to the south-west. This engine was clearly used to raise and lower the single cage down the shaft.

3 Mine managers office. Earthwork remains exist to the north of the winding engine house remains. A lamp room was added to its western wall at a late date.

4 The carriage hauling engine house. Earthwork remains exist at the presumed locality. Coal wagons were hauled out of the drift up to the surface tramways by a winding engine.

5 Pumping? Air compressor? Engine house. Substantial brick, concrete and drystone foundations survive to the north-east. Mounting bolts and two

concrete supports indicate a large horizontal engine mounting enclosed by exterior walls with an extension to the north-east consisting of partitioned brick walls.

6 The washery/screens were located to the north and at the north-eastern extreme of the colliery. These remains are visible as earthworks and in the form of the large square building remains close to the bridge crossing to the tips. The coal was washed and classified according to size. The waste was taken out on a conveyor belt and dumped into wagons which were carted across the bridge to the tips.

7 The upcast and downcast shafts are barely visible being completely overgrown and backfilled. One shaft was used for ventilation while the other was the main cage shaft.

8 The powder house is situated above the main colliery area on the north facing slope of Mynydd Y Drum just below the derelict property known as Coedcae Mawr.

On and around the No.3 tip a possible winding house is depicted on the 1918 OS map on the opposite side of the bridge to the main colliery floor. This probably assisted the hauling of coal wagons across the bridge and up the tip slope. Foundations may be visible therefore in this locality.

On the east side of the tip a level is marked on both the 1904 and 1918 maps. A winding engine house is located to the west on top of one of the tips to haul wagons out of the drift while on the 1918 map, and still visible in the meadow to the east of the main tip, is a large brick built structure, the function of which is not clear.

Remains of the Yniscedwyn washery and railway sidings are present in overgrown land between the conical No.36 and No.3 tips. Some iron machinery (possibly a coal elevator housing) and an engine base mount are also present here.

Of the tips themselves the southern No.36 tip is unremarkable but the later conical No.3 tip is impressive and also the last tip of its kind to survive in this valley, all of the others having been levelled. A machine base for hauling the wagons up the slope is in evidence on the top of the tip. The main haulage incline is visible, though recently damaged, on the southern side of the tip. Wagons were hauled to the top and the waste was tipped out on at least four tipping lines visible at the top.

The buildings at the colliery surface are scheduled for demolition and clearing within the reclamation scheme and will be completely destroyed by this work. The two tips will be regraded and any features on or within the immediate area of the tips is likely to be partially or wholly destroyed by machining.Following on from previous recommendations for archaeological work , submitted to Brecknock Borough Council in 1990, the Clwyd-Powys Archaeological Trust have now been asked to carry out a survey of the colliery remains within the reclamation area in order to record all surviving features.

Accordingly this brief has been prepared which outlines a scheme of work which is considered necessary to recover an appropriate degree of detail about the character, function, dating, and preservation of the surviving industrial archaeological remains in the reclamation area.

Mark Walters Development Control Officer County Sites and Monuments Record.

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The work which should be carried out is outlined below:

(A) A desktop study of all the available sources relating to the colliery, the mineral railways, the tips and the Yniscedwyn washery. Use should be made of the relevant cartographic, documentary and photographic sources to present an overall historical outline of the development of the industrial remains within the reclamation area.

(B) A full photographic record of all surviving colliery and tip remains should be carried out using black and white print and colour slide film at a minimum 35mm format. This survey should include photographs of surviving individual structures as well as general overall site and landscape shots.

(C) A rapid measured and drawn survey of the visible surface remains in the area of the colliery and the tips, to an appropriate level of detail, and making use of information provided on the 1878, 1904 and 1918 OS maps. Appropriate attention to detail should be given where important structural details are highlighted by this survey in individual structures.

(D) 1. Limited trial trenching using machine and hand excavation methods in the area of the earliest engine house and boilers (see figure 2) to locate potential remains of the engine base and assess the development of the overall structure as the mine expanded.

2. Limited trial trenching between the area of the early engine house and the pumping/ compression engine house to determine the exact location and character of remains associated with the carriage engine house and other features close to the shafts. The shafts themselves should be avoided for safety reasons.

It is not considered necessary to cover a large area with exploratory trial trenches as many of the more visible colliery remains can be adequately interpreted from cartographic, documentary, and photographic sources.

Access for machinery onto the colliery site is readily available. Some of the surviving buildings are partially or wholly covered in light scrub and young trees. These may need to be cleared by machine to facilitate ease of access for recording and excavation. Permission to clear trees, if necessary, should be sought from the landowners, Brecknock Borough Council.

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General requirements for archaeological projects (guidance for contractors)

In addition to the site specific details given above, contractors should consider the following.

1 The project will be carried out by the staff of a competent and professionally recognised archaeological body, in accordance with the specification approved by the archaeological curator.

2 In executing the project, the archaeological contractor will observe the Institute of Field Archaeologist's Code of Conduct and Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology.

3 The archaeological contractor must notify the archaeological curator, in writing, at least 2 weeks in advance of the commencement of on-site works, confirming an agreed timetable.

4 The archaeological contractor will be responsible for agreeing with the applicant, and any other relevant parties, in advance, arrangements for access to the development area.

5 The archaeological contractor will be responsible for ensuring the following throughout the project: that Health and Safety regulations are observed; that all aspects of the works are covered by appropriate Employer's Liability and Public Liability insurances; that any protected features (eg scheduled ancient monuments, SSSIs, listed buildings), services (eg water, gas, electricity), boundaries or other structures, are not disrupted by the works without appropriate permission.

6 The archaeological contractor will be responsible for agreeing with the applicant, or any other relevant parties, in advance arrangements for the storage and/or disposal of spoil resulting from required archaeological excavation and for the subsequent re-instatement of any excavated areas.

7 Provision will be made by the archaeological contractor for monitoring to be carried out during the course of the prescribed fieldwork, the arrangements for which are to be agreed in advance with the archaeological curator.

8 Written, drawn and photographic records (black and white and colour slides) of an appropriate level of detail will be maintained throughout the course of the project. Individual site plans (other than location plans) will be at a minimum scale of 1:20; section drawings will be at a minimum scale of 1:10; photographic records will be at a minimum 35mm format.

9 Drawn records will be related to Ordnance Survey datum and published boundaries where appropriate.

10 Artifacts recovered during the prescribed field work will be related to the contexts from which they derive wherever possible.

11 In the case of excavation, typologically distinct and closely datable finds should be recorded three-dimensionally where appropriate.

12 In the case of excavation, appropriate attention will be given to the sampling of deposits of environmental or technological significance.

13 The responsible use of metal detectors on site is permitted, where such work can be monitored by contractual staff, in order to pinpoint the location of buried metal artefacts. Metal detecting clubs and their members which are recognised by the National Council of Metal Detecting and which are therefore required to follow the NCMD Code of Conduct should be used for such work in preference.

14 In most instances artifacts recovered from the prescribed field work are the property of the landowner. The archaeological contractor must make suitable arrangements to study artifacts and samples, and if appropriate for their temporary storage. Ideally owners should be encouraged to deposit finds in an appropriate museum, once this study is complete, though their compliance with such a request, or that of the museum authorities, must not be assumed without prior agreement.

15 The requirements for the conservation and analysis of artifacts and samples, will be unpredictable until after the completion of the fieldwork. The archaeological contractor will ensure, however, that at least minimum acceptable standards are achieved (the UK Institute of Conservation's "Guidelines for the Treatment of Finds from Archaeological Sites", should be used as guidance here).

16 The objective of post-excavation and post-survey work will be firstly to ensure the long-term preservation of the site archive, artifacts and samples recovered, and secondly to prepare a report which summarises the results and their significance in relation to previous archaeological discoveries in the immediate neighbourhood.

17 The archaeological contractor will prepare a report within one month of the end of the fieldwork element of the project. This report will provide an outline of the results of this field work, with illustrations where appropriate, and should attempt to assess the development site's archaeological potential and wider significance. It should provide a catalogue of the site archive, the type and quantity of artifacts and samples and any other relevant data, recovered during fieldwork, including an outline programme and timetable for further study, analysis and publication, if appropriate. The report should also make recommendations concerning the long-term curation of the site archive, artifacts and samples.

18 The archaeological contractor's report is normally the property of his client and should only be circulated to other parties by mutual agreement. It is normally the applicant's responsibility to supply the planning authority with the report in support of his application, but the contractor should ensure that he has produced sufficient copies to facilitate distribution.

19 The archaeological contractor's report should include a desk-top assessment of available relevant primary and secondary sources relating to the development area and it's environs, such as the County Sites and Monuments Record and published works, attempting to present it's local archaeological and historical context, as well as the consideration of the site archive.

20 In cases of evaluation or assessment work in connection with planning permissions the archaeological contractor is not expected to include specific planning recommendations in his report, unless agreed in advance with the archaeological curator. The applicant may however wish to prepare further statements to show how he intends to take account of the contractor's report (which he may do with further reference to the contractor or specialist consultants); these should not form part of the contractor's initial report and should be submitted to the planning authority as a separate supporting item.

21 Unless specifically agreed otherwise in advance with the archaeological curator, the contractor's report and site archive should be placed in the public domain 6 months after the completion of the prescribed works. It should be noted that reports which form part of a planning application will normally be made available automatically for public consultation.

22 On completion the prescribed assessment/evaluation, contractors are asked to inform the local planning authority/archaeological curator in writing that the work has been carried out and a report submitted.

Mark Walters
Development Control Officer County Sites and Monuments Record.

Appendix 2: The Finds

1 An earthenware/firebrick perforated trunnion block with recessed face (broken).

2 A fragment of a similar block to 1 (not matching).

3 A patent curvilinear duct cover block in earthenware/firebrick in excellent condition.

4 A colliery tram wheel.

5 An escutcheon type cover plate, possibly for a boiler door or firebox.

6 A small section of wheel, bearing a portion of planetary gearing.

7 2 geared racks, each approximately 0.45m in length, originally side tracks for opening/closing boiler charging door or ash removal door.

Note: Finds descriptions provided by John Ready. All finds are presently held by Ystradgynlais 2000.

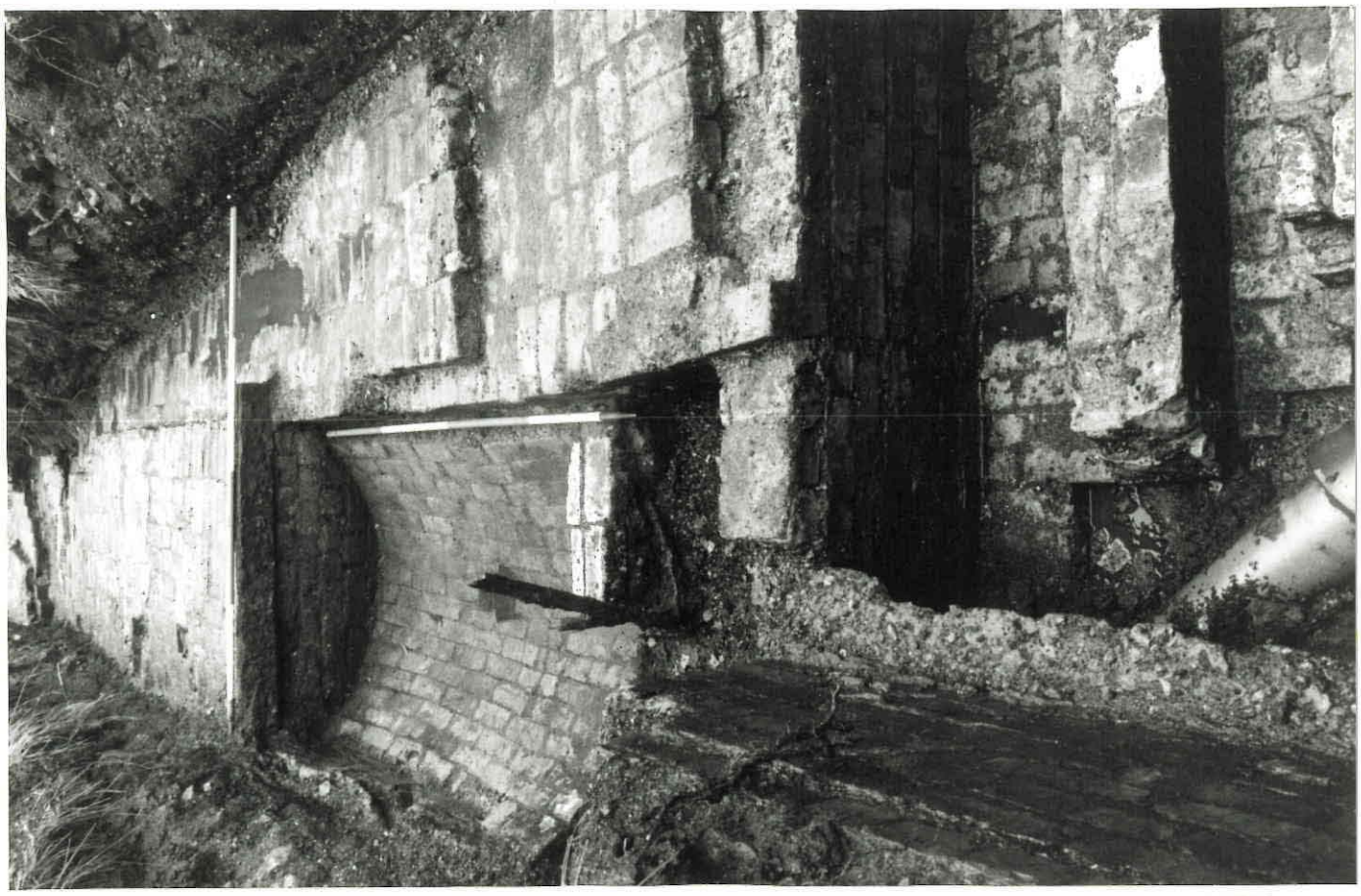

Plate 1 Excavation Trench A - Probable Position of Original Boiler

Plate 2 Excavation Trench A - Bricked Up Flue from Original Boiler to Chimney

Plate 3 Excavation Trench A - Steam Pipe Linking Original Boilers to Engine

Plate 4 Excavation Trench B - Flue of Later Boiler Showing Position of Damper

Plate 5 Cold Water Tank for The Cooling Tower (PRN 15801)

Plate 6 Engine House (PRN 15807) Used for Winding Duties in The Upcast Shaft

Plate 7 Surviving Features of The Ynyscedwyn Washery Building (PRN 15819)

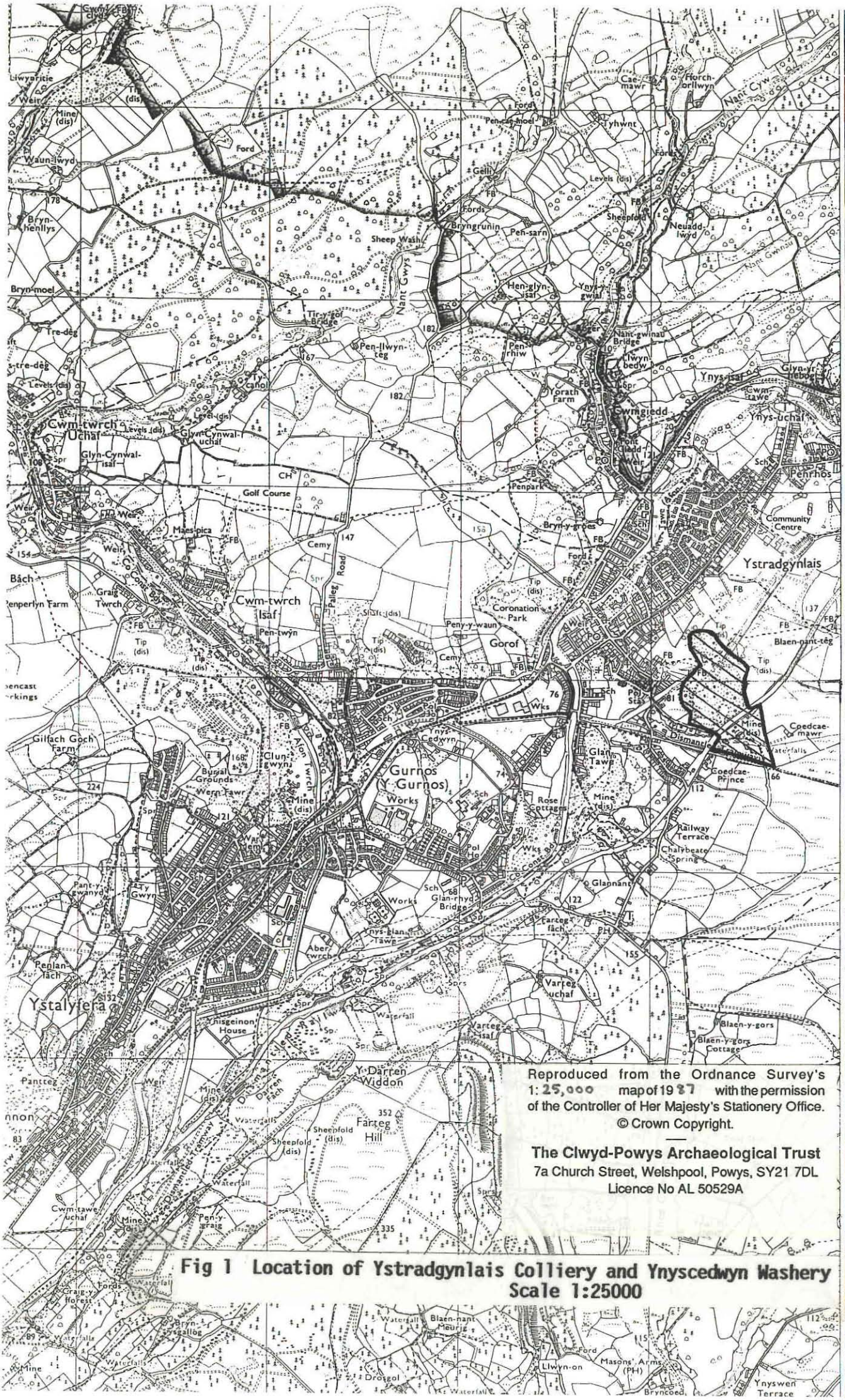

Fig 1 Location of Ystradgynlais Colliery and Ynyscedwyn Washery
Scale 1:25000

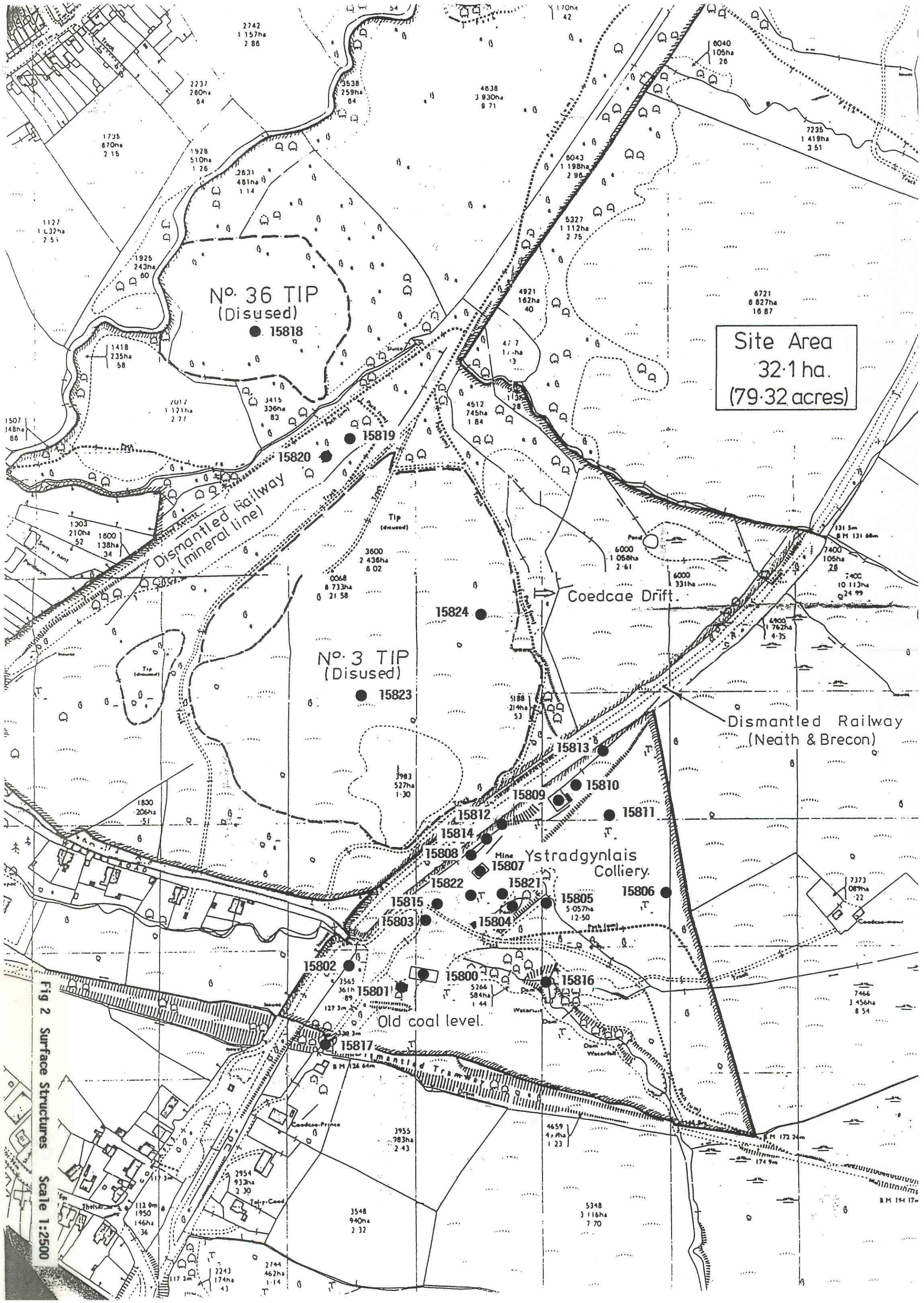

Fig 2 Surface Structures Scale 1:2500

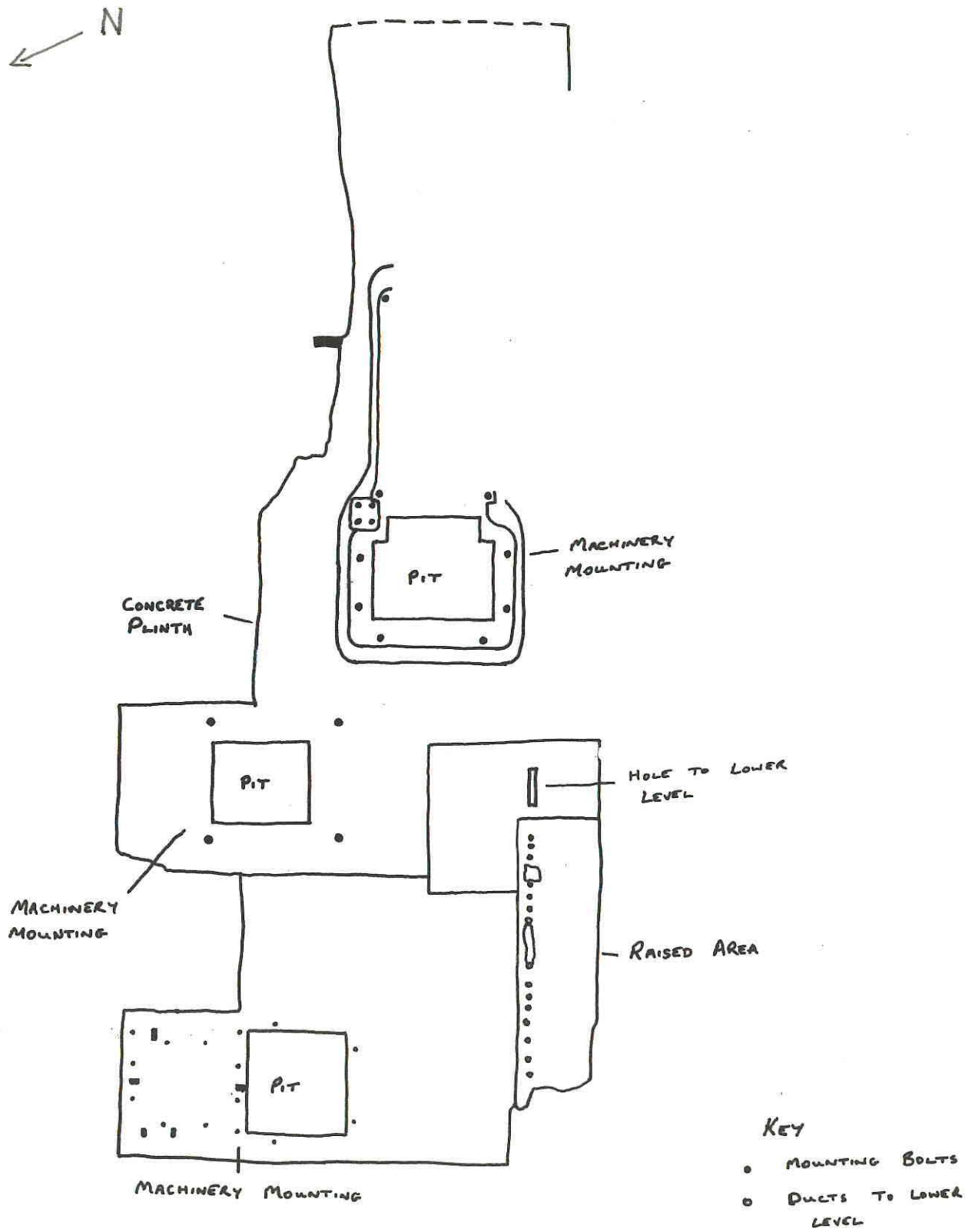

Fig 3 Surveyed Plan of PRN 15800 (Upper Level) Scale 1:100

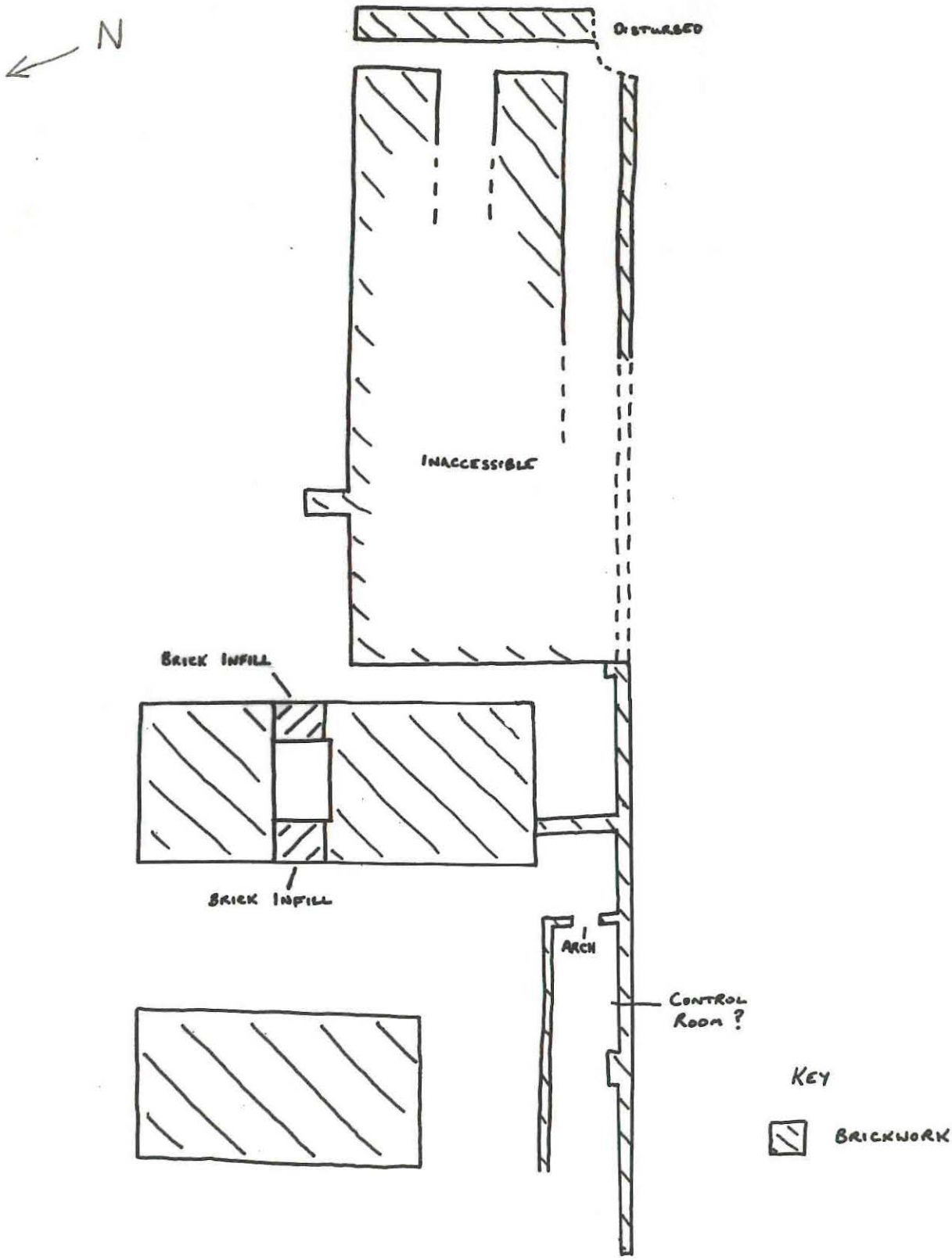

Fig 4 Surveyed Plan of PRN 15800 (Lower Level) Scale 1:100

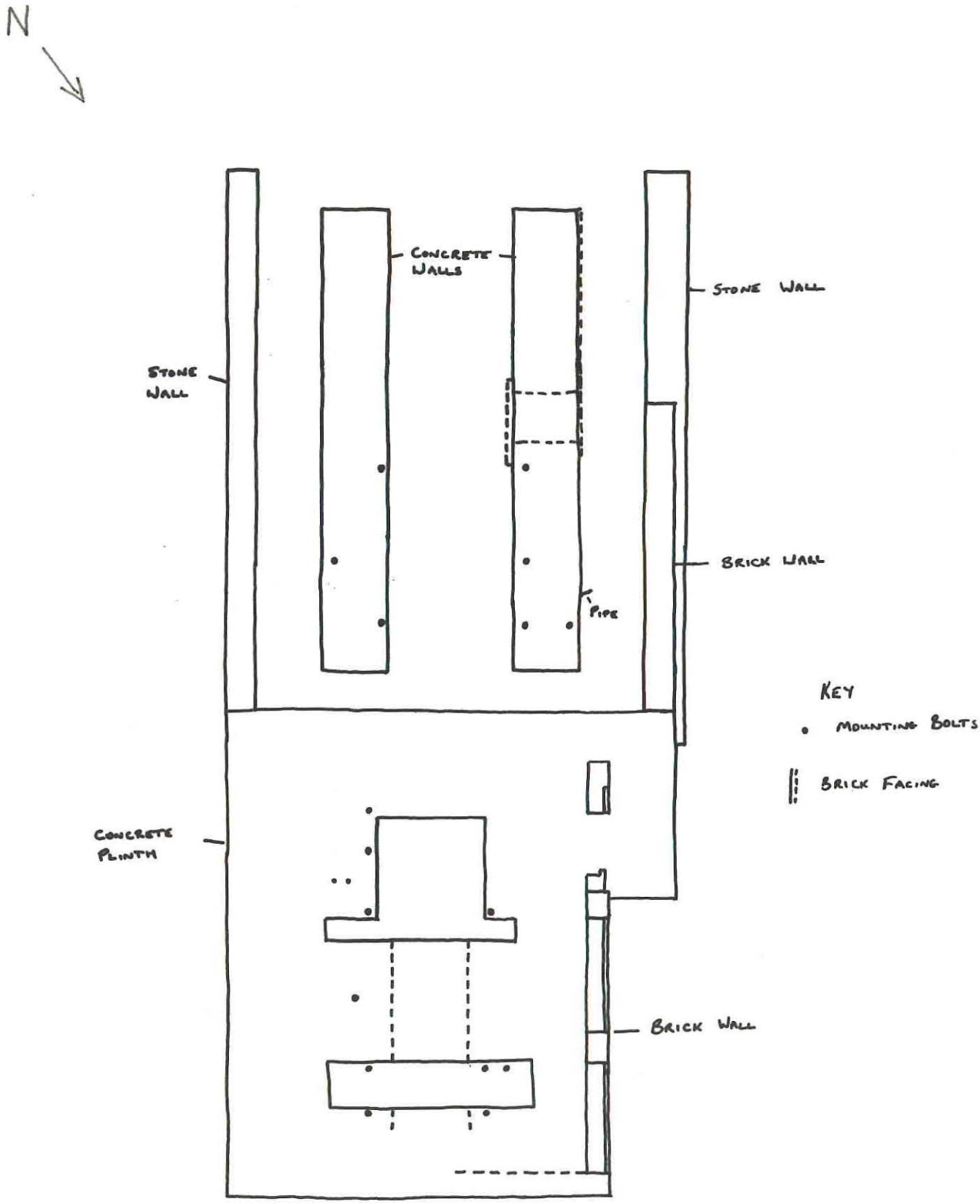

Fig 5 Surveyed Plan of PRN 15807 Scale 1:100

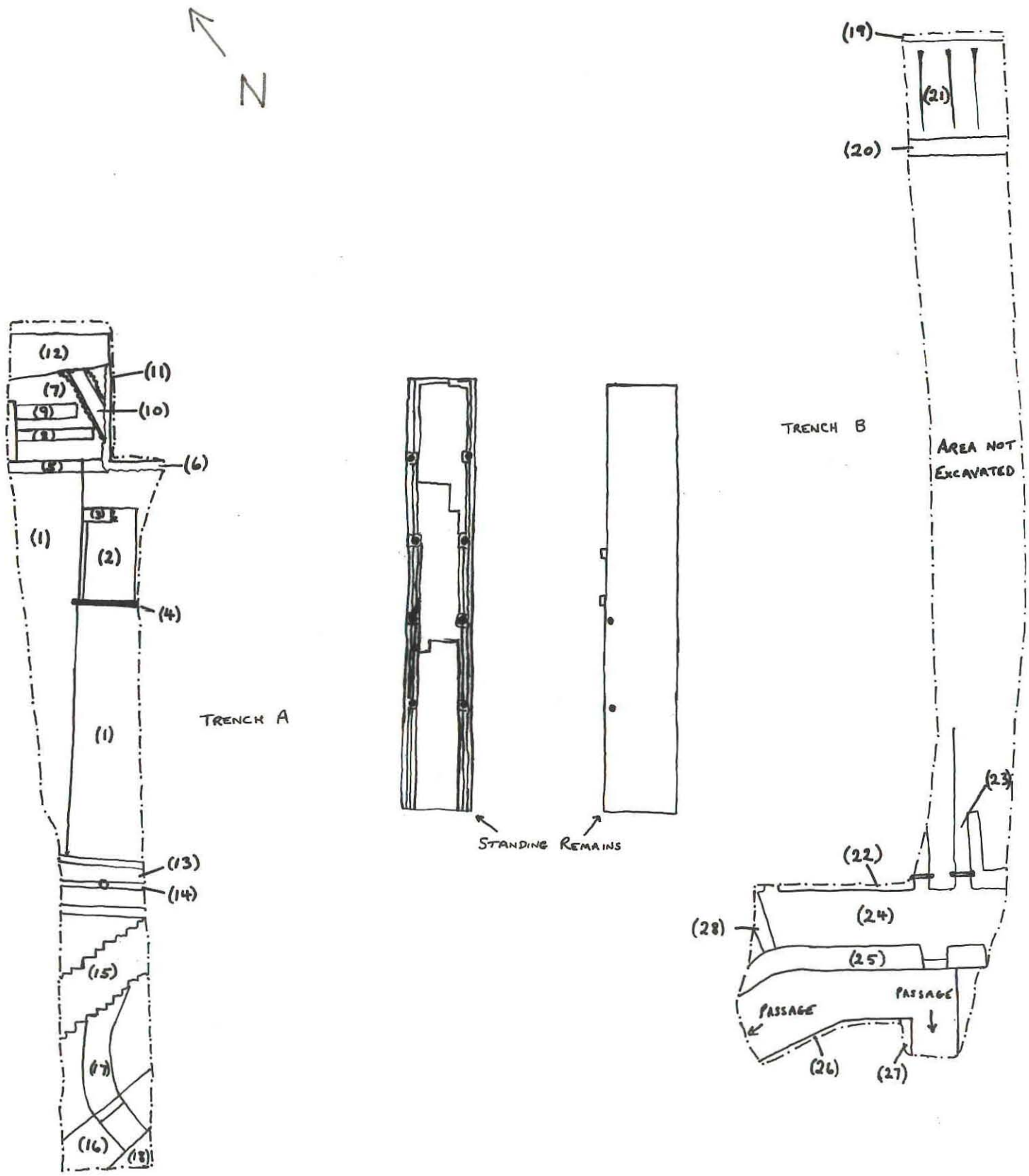

Fig 6 Surveyed Plan of PRN 15803 combined with Plan of Excavation Trenches
Scale 1:100

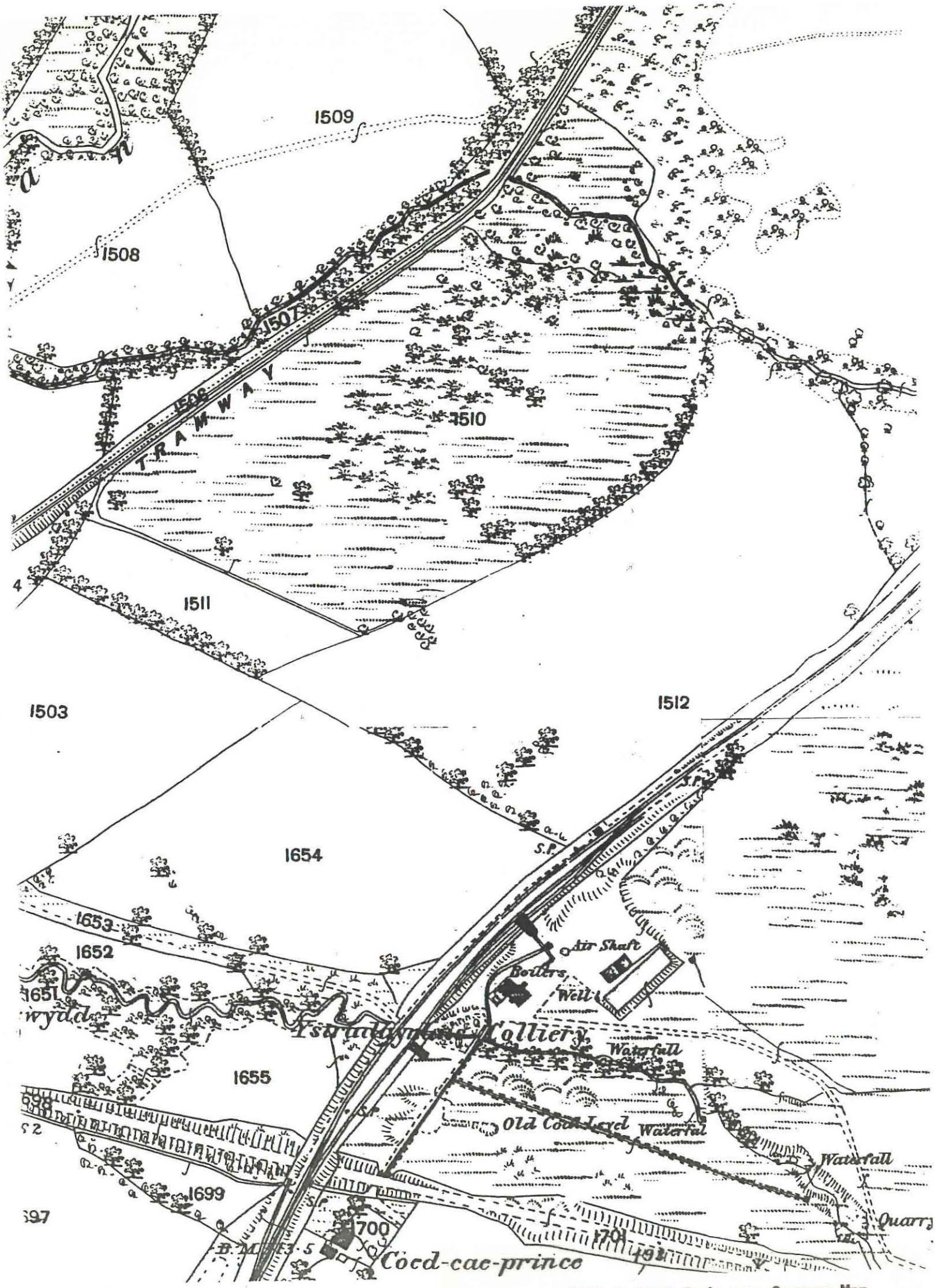

Fig 7 1878 1:2500 Ordnance Survey Map

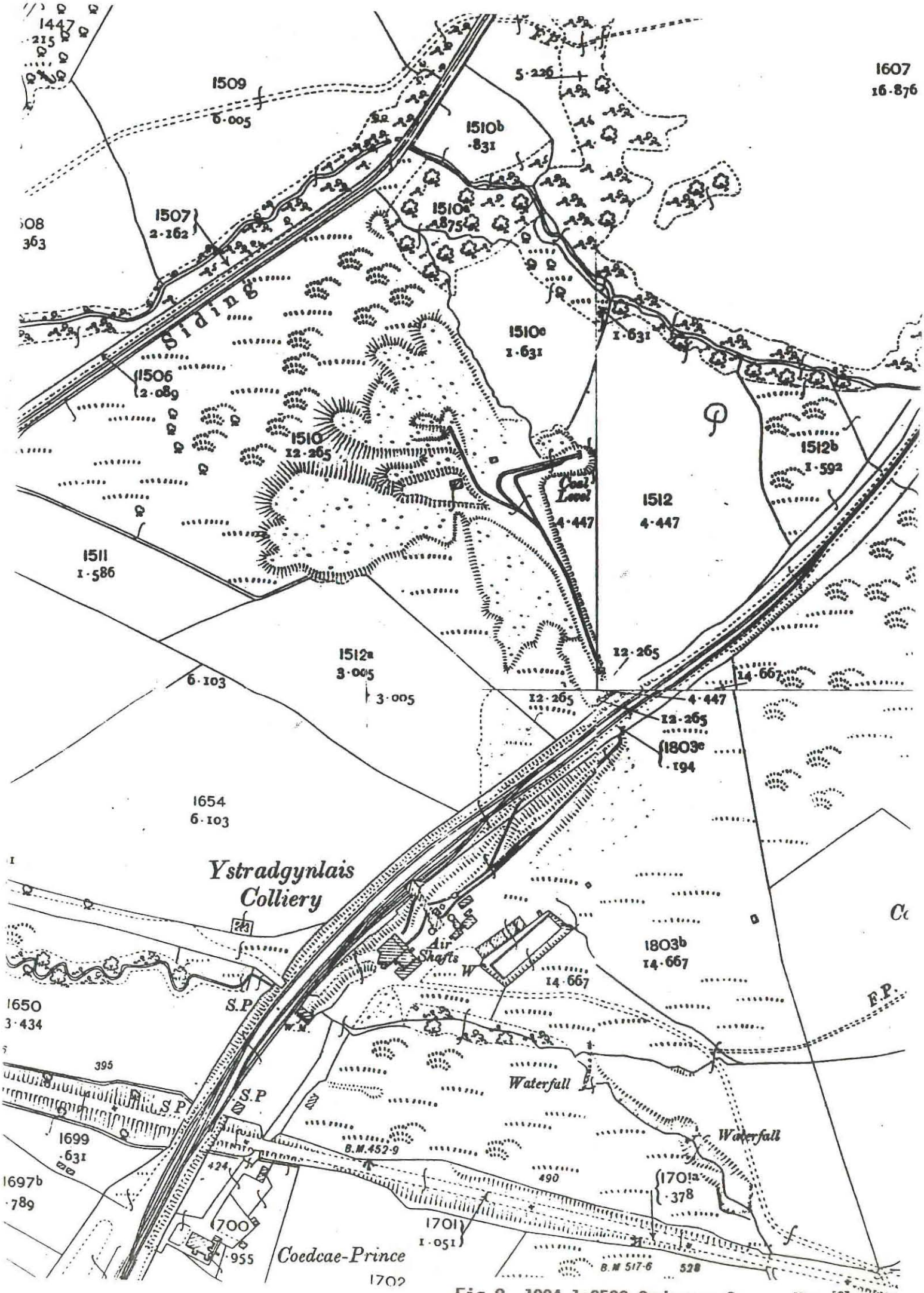

Fig 8 1904 1:2500 Ordnance Survey Map

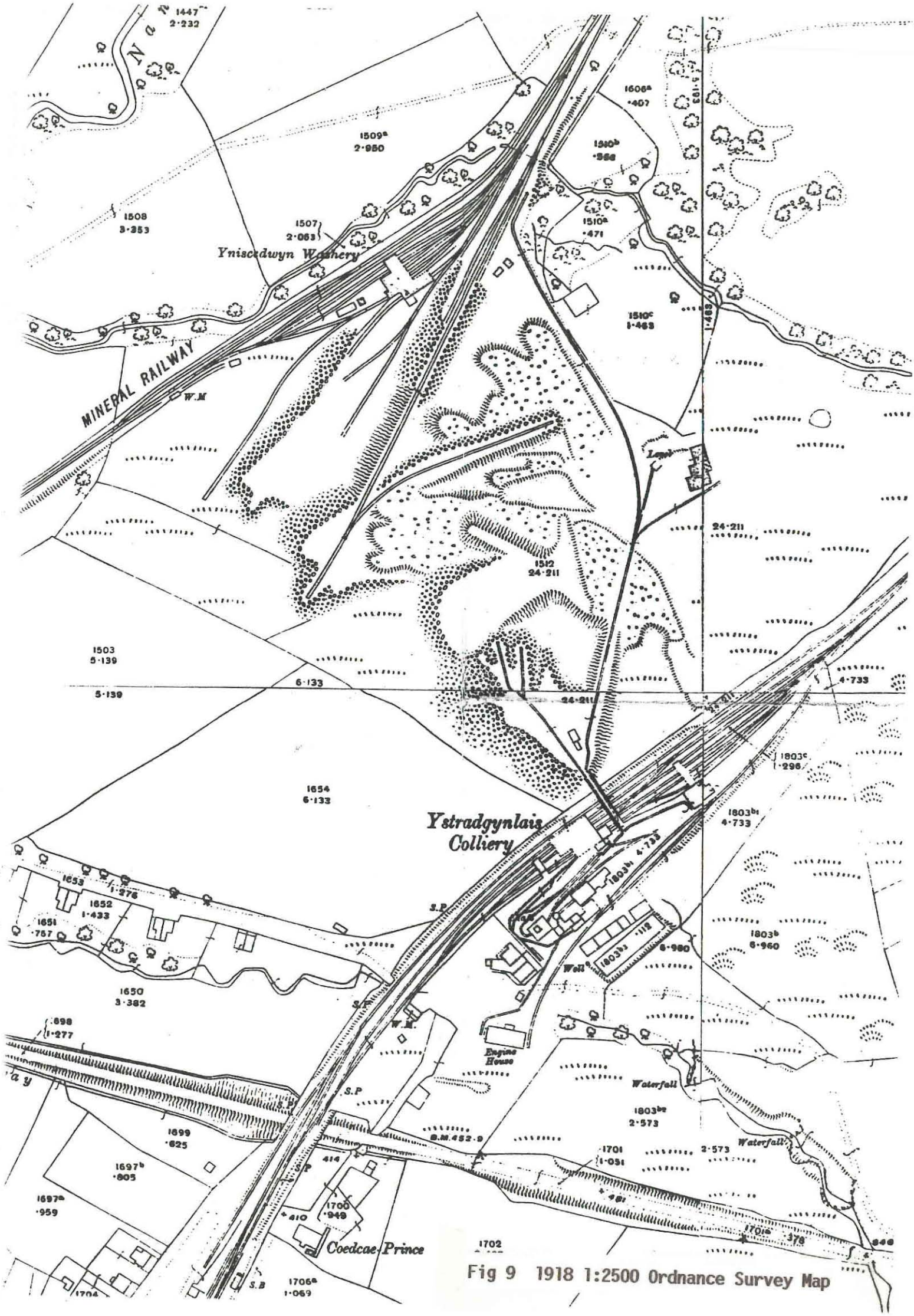

Fig 9 1918 1:2500 Ordnance Survey Map