

2e) Historical Ordnance Survey maps can prove invaluable in looking for evidence of coal mining activity. Since the first County Series maps were produced in the 1870's nearly all mining features have been recorded, even if they were considered "old" at that time. This is particularly true of the 1:1250 and 1:2500 scale maps. They can also be an aid to looking at past topography and geomorphology before a site has been developed. For this risk assessment the entire range of large scale maps of the area produced since 1876 have been studied. Four of them are reproduced on the following pages.

Figure 7 shows the 1876 map. The site is a completely undeveloped field in a semi-rural area. The village of Bryn consists of a few scattered rows of cottages together with two chapels. An interesting feature of the housing are the very large gardens more typical of the western part of the coalfield. This would be due to the relative inaccessibility of the village, it is noticeable there is no road access to either Neath or Maesteg. There is abundant industrial activity in the area however, with many coal levels marked (both on and off the extract in Figure 7). Even at this early date there are many levels and shafts marked as "old" i.e. disused. A railway runs into a large sidings complex from the south west which is connected to many of the coal levels by tramways. The size would indicate a considerable volume of coal production. The distinctive depressions and spoil heaps left by ironstone trenching can be seen 150m. north of the site. They are not annotated as such, and appear to have already been abandoned.

By 1899 (Figure 8) coal production appears to have declined. Two levels appear to be still in production, and connected by tramway to the new railway running south of the village. The old railway running in from the south west has been taken up and the railway sidings are gone. The size of the village remains unchanged. The most significant development in relation to the site is the trial level and "old shaft" just north of the site. These are also marked on both the Geological Survey map and the C.A. maps. As neither the level nor the shaft appears on the earlier map it is likely it is an air shaft for the ventilation of the trial level.

In Figure 9 the 1919 revision shows the spoil heap at the trial level slightly larger than before but it is significant no tramline links it to anywhere. It could possibly be linked underground to the Penrhydd Slant 200m. to the north west. However, its position to the north of the site, with the seam dipping north means it would have had no effect on ground stability beneath the site whatever the extent of the workings. The new residential properties show quite a degree of

planning. The long terrace of Bryngywnnos Street has been completed, with the streets behind laid out ready for construction. A new quarry just off the northeast corner of the figure is linked by tramway to a brickworks served by a clay pit. Just off the south east corner Bryn Navigation Colliery can be seen with extensive colliery buildings. All the old levels appear to be disused.

The last map, dating from 1937 shows the housing in the village much as it is today. Bryn Navigation is still in full production, but all the shallow mining has ceased. The legacy of past mining is still very much in evidence with multitudes of spoil heaps and depressions. The quarry, clay pit and brickworks have shut after the brief building boom. This had been fuelled by the large colliery development with the increased housing demand. The site remains untouched.

Throughout all the period covered by the maps *there is no sign of a shaft immediately to the east of the site*. Later O.S. revisions were also studied, but as they showed nothing of relevance to coal mining legacy they have not been reproduced here.

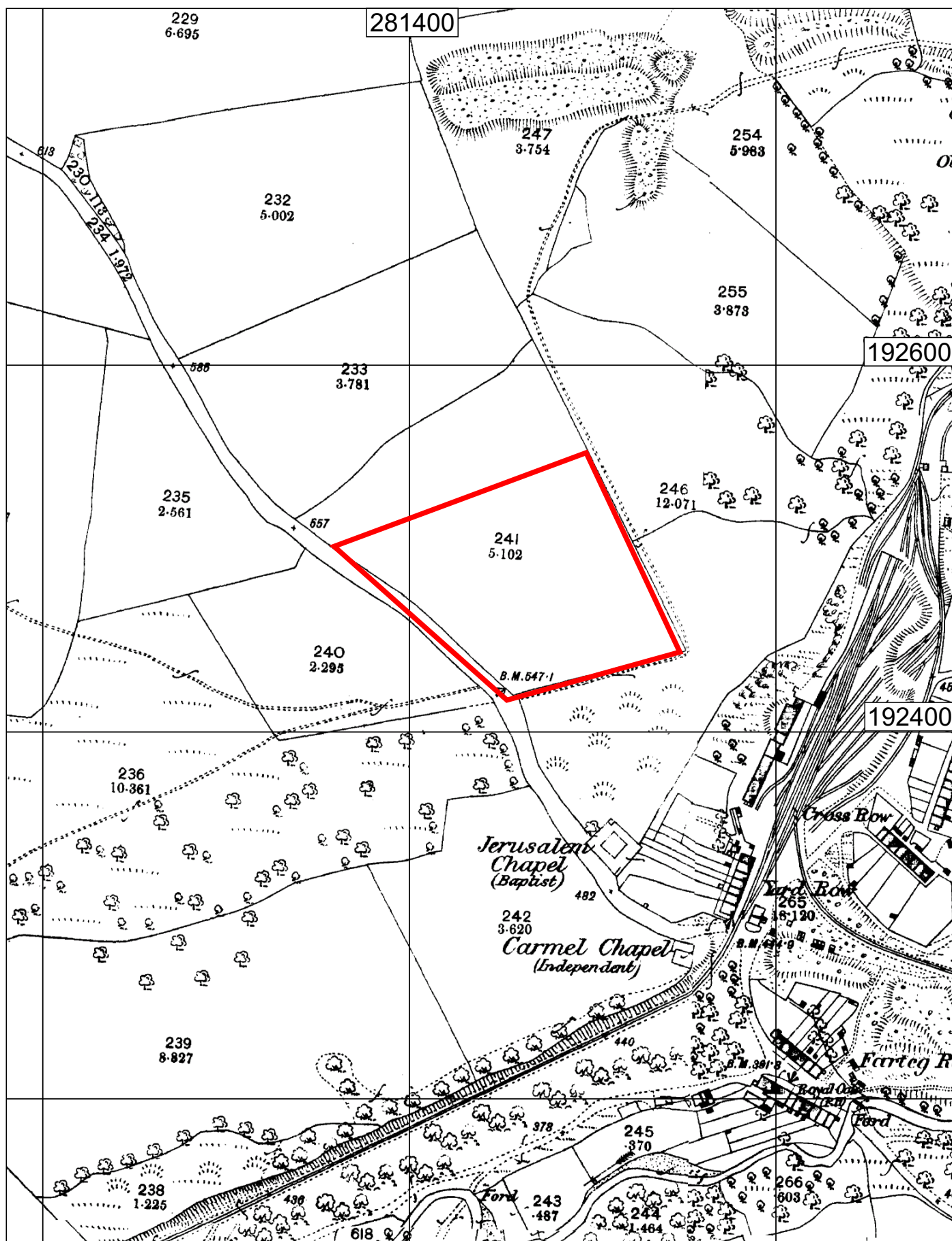


FIGURE 7  
THE SITE IN 1876

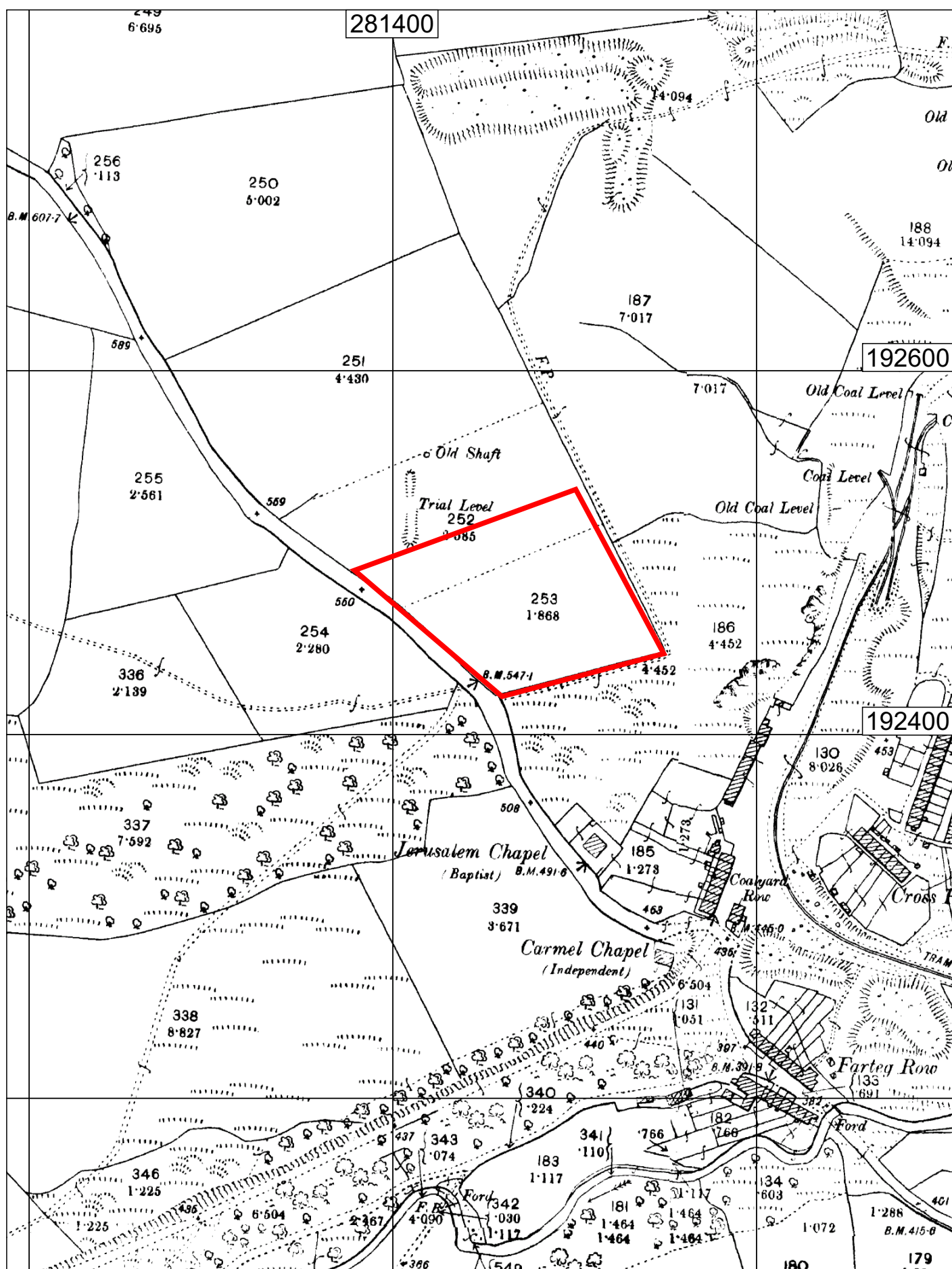


FIGURE 8  
THE SITE IN 1899



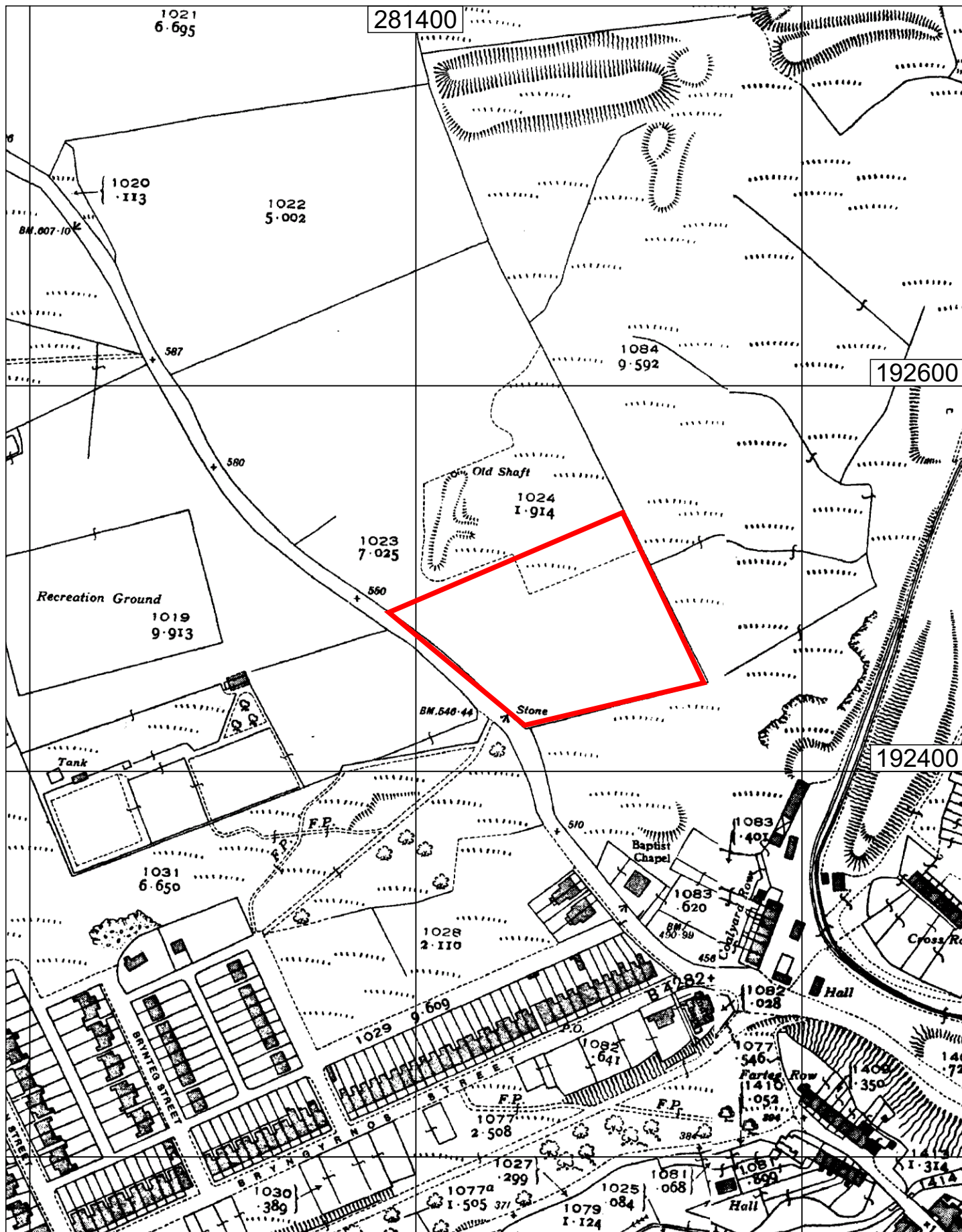


FIGURE 10  
THE SITE IN 1937

2f) The 1905 Survey Sheet shows the Golden Seam running across the site, whilst the 1959 Survey Sheet shows it outcropping just north of the site. Since it is recorded as being worked in the area, the difference would have an important bearing on the risk assessment. It was decided to analyse the matter further. To this end an abandonment plan was purchased from the C.A. It was hoped to obtain the plan of the adit shown immediately north of the site. As this proved impossible, abandonment plan SW104 was purchased instead. This covers the workings in a small colliery known as Tynygraig just west of the site. Operating during the Second World War and closed soon after nationalisation, the colliery consisted of four adits working the Golden Seam (and the Golden Rider to a small extent). Figure 11 shows an extract of the plan, with the geographical location shown on Figure 12. The seam section and location plan is shown in Figure 13. There is no possibility of error. The unique positions and orientations of the four adits in Figure 11 are an exact match for the four adits marked on the section of the survey sheet shown in Figure 12 and further confirmed by the location plan in Figure 13. The plan also clearly shows the outcrop of the Golden Seam in relation to the adits. As detailed in Section 2 c +d, the Two and a Half is another name for the Golden (see Figure 6). It can now be clearly seen that the adit north of the site also definitely worked the Golden. The C.A. Consultants Report supports this anyway, saying that the workings north of the site are in the Lower Pentre, which correlates with the Two and a Half/Golden seam in the 1960's renaming. It can now be stated with absolute certainty that the Golden Seam outcrop does not run across the site as shown on the 1905 Survey Sheet.

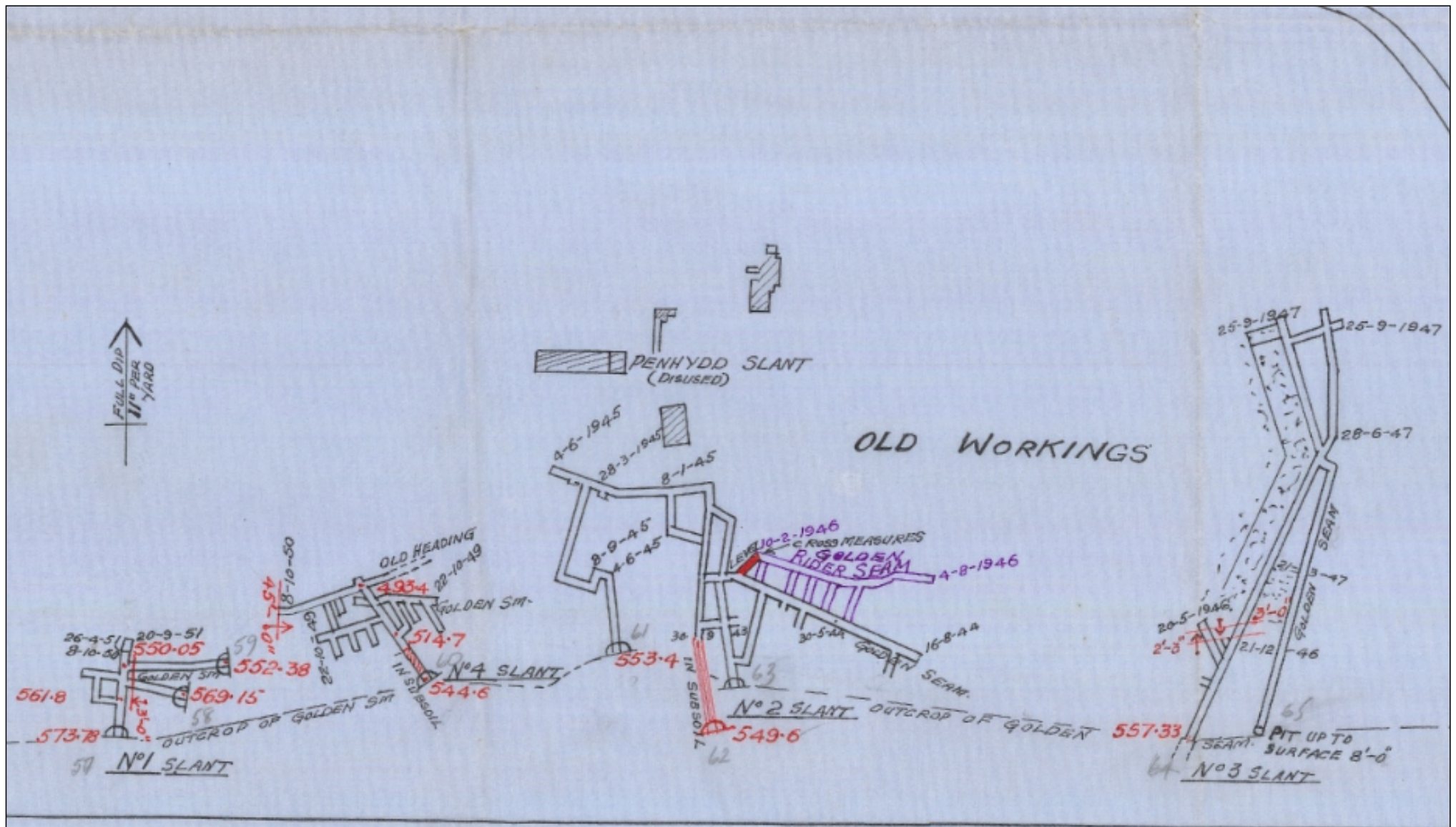


FIGURE 11  
 EXTRACT OF ABANDONMENT PLAN SW104 SHOWING THE AREA HIGHLIGHTED IN FIGURE 12  
 THE PLAN IS ORIENTATED DUE NORTH. GEOGRAPHICAL LOCATION FIXED BY THE BUILDINGS  
 OF PENRHYDD SLANT AND THE ORIENTATION AND POSITION OF THE MINE ENTRANCES.  
 THE OUTCROP OF THE GOLDEN SEAM IS CLEARLY MARKED.

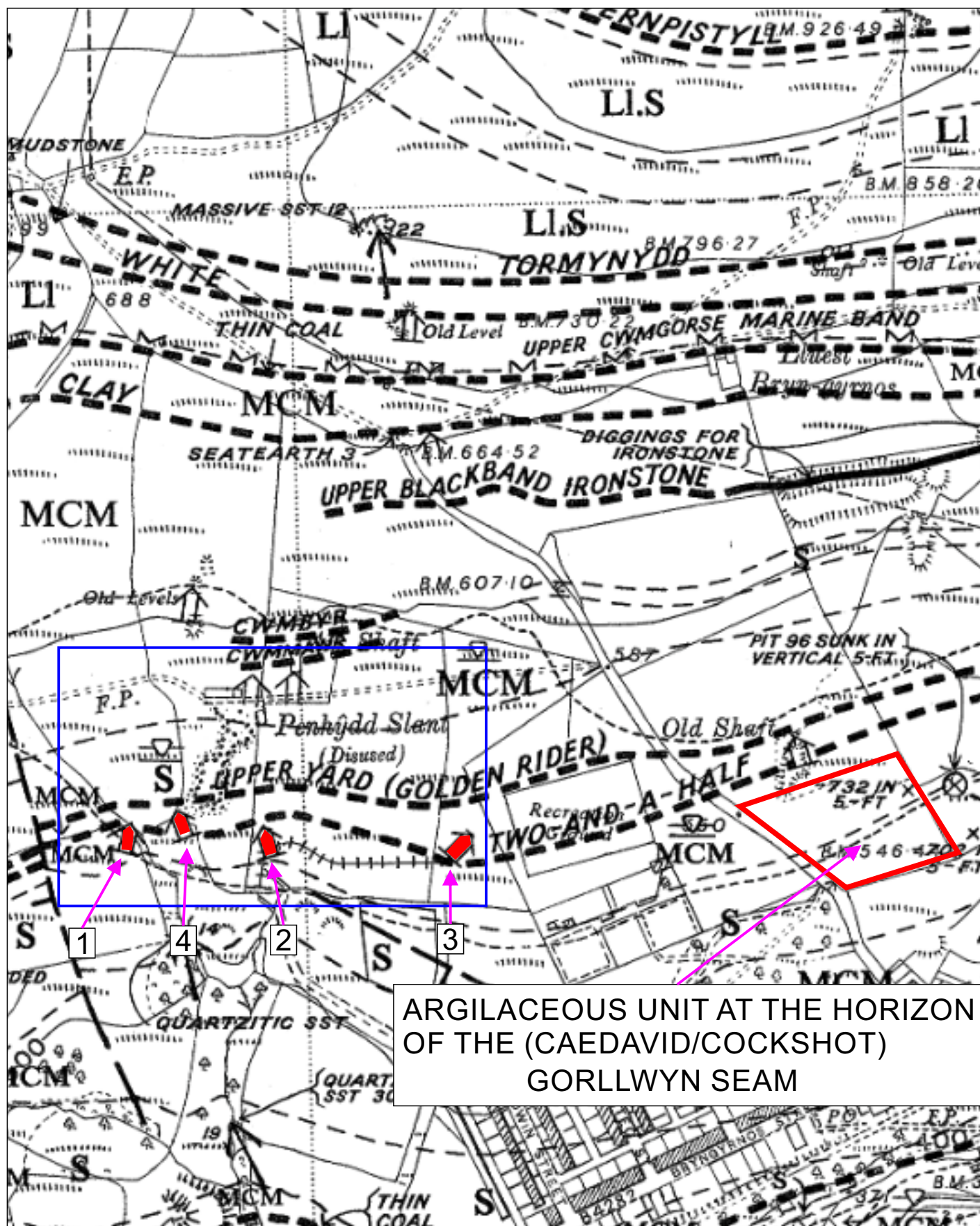


FIGURE 12

AREA OF WORKINGS IN ABANDONMENT PLAN SW104 (IN BLUE) SHOWN IN RELATION TO SITE BOUNDARY (IN RED). SLANT NUMBERS FROM TINYGRAIG COLLIERY ARE LABELLED AND ARE CLEARLY DRIVEN ON THE GOLDEN SEAM.

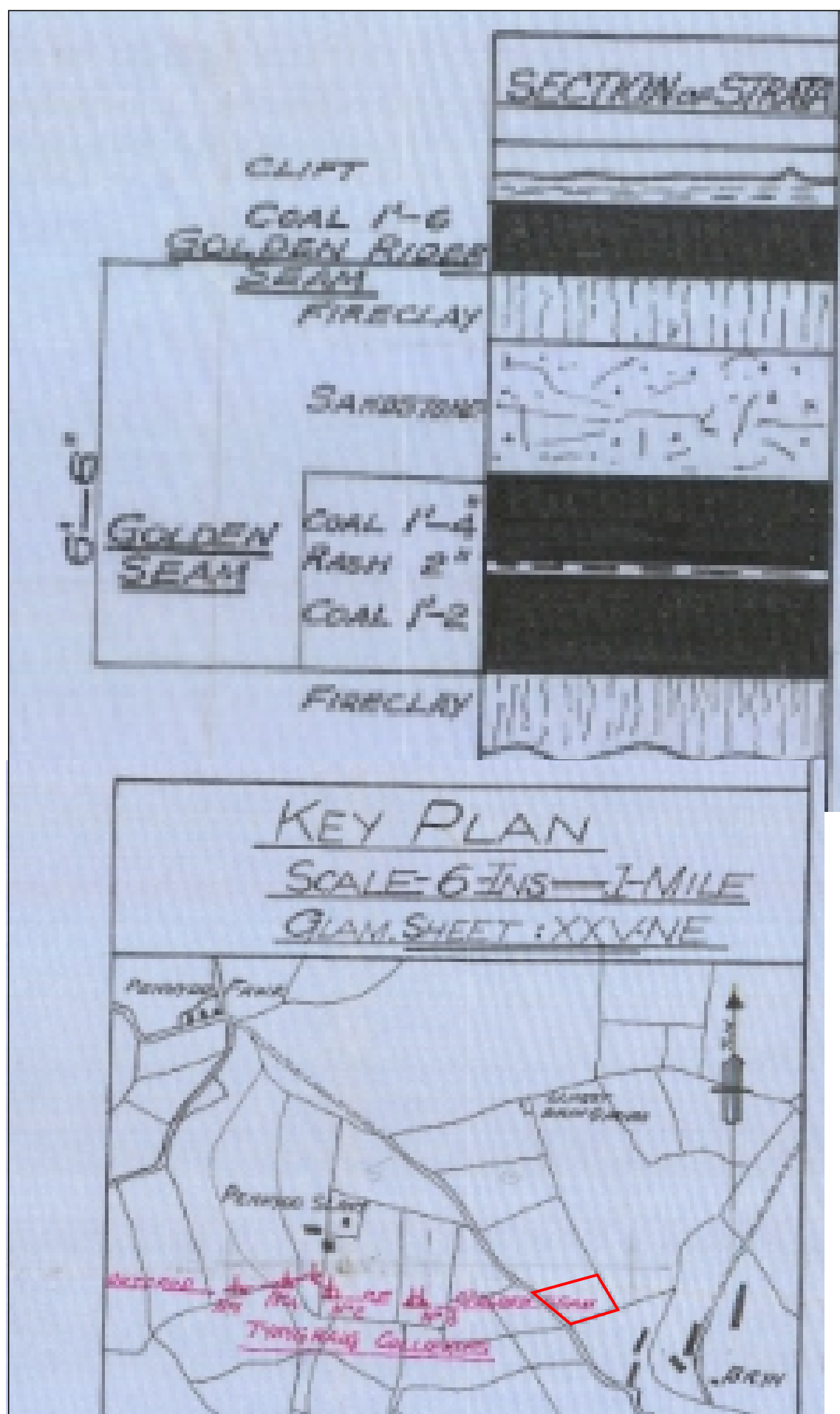


FIGURE 13  
 STRATA SECTION AND LOCATION PLAN FROM SW104.  
 SITE HIGHLIGHTED IN RED

2g) In order to search for the shaft that was supposed to be on the site boundary, a site strip was undertaken. This also involved the removal of five large Pine trees. Based on the C.A. position for the shaft, a search area was marked out. This can be seen in Figure 14 overleaf. It was based on a 20m radius around the given C.A. shaft position. This was then extended near units 8 and 9. The strip was also taken into adjacent land to the east of the boundary. This was done with the landowner's permission. The reason for doing this was that if the shaft was outside the site, but close to the boundary it could still be within the zone of influence of units 8 and 9.

A considerable thickness of peaty clay was removed until a homogenous layer of Devensian Till (formerly Boulder Clay) was exposed. It would have been easy to recognise if a shaft had been excavated through this material, even if it were backfilled. However, there was no sign of any disturbance whatsoever.

Figures 15, 16 and 17 overleaf show the site strip in progress.

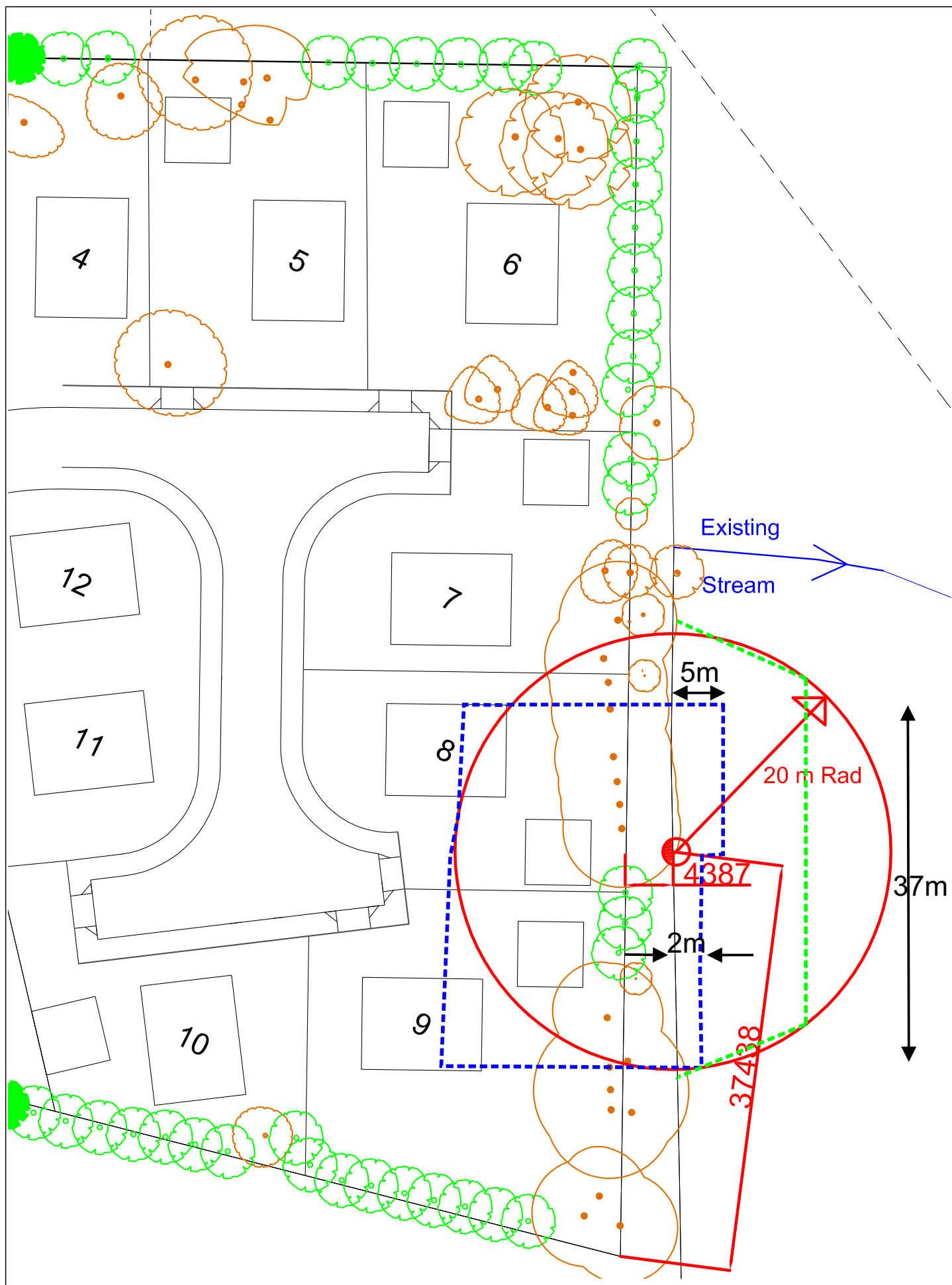


FIGURE 14

SITE STRIP LIMITS IN BLUE



FIGURE 15

GROUND STRIPPING IN PROGRESS EAST OF, AND  
OUTSIDE OF THE SITE BOUNDARY