TEMPLE MINE SURVEY (2007)

40 foot wheel-pit – Temple Mine

Edited by Graham Levins

Welsh Mines Preservation Trust
Yr Ymddiriedolaeth Cadwraeth Mwynfeydd Cymru

TEMPLE MINE SURVEY

LOCATION:-

Temple Mine, Ysbyty Cynfyn, near Devil's Bridge, Ceredigion.
Grid reference SN 749 793.

DATE OF SURVEY:-

31st March / 1st April 2007

SURVEY CARRIED OUT BY:-

Site survey - Nigel Chapman, Professor David James and Graham Levins assisted by members of the Welsh Mines Preservation Trust.

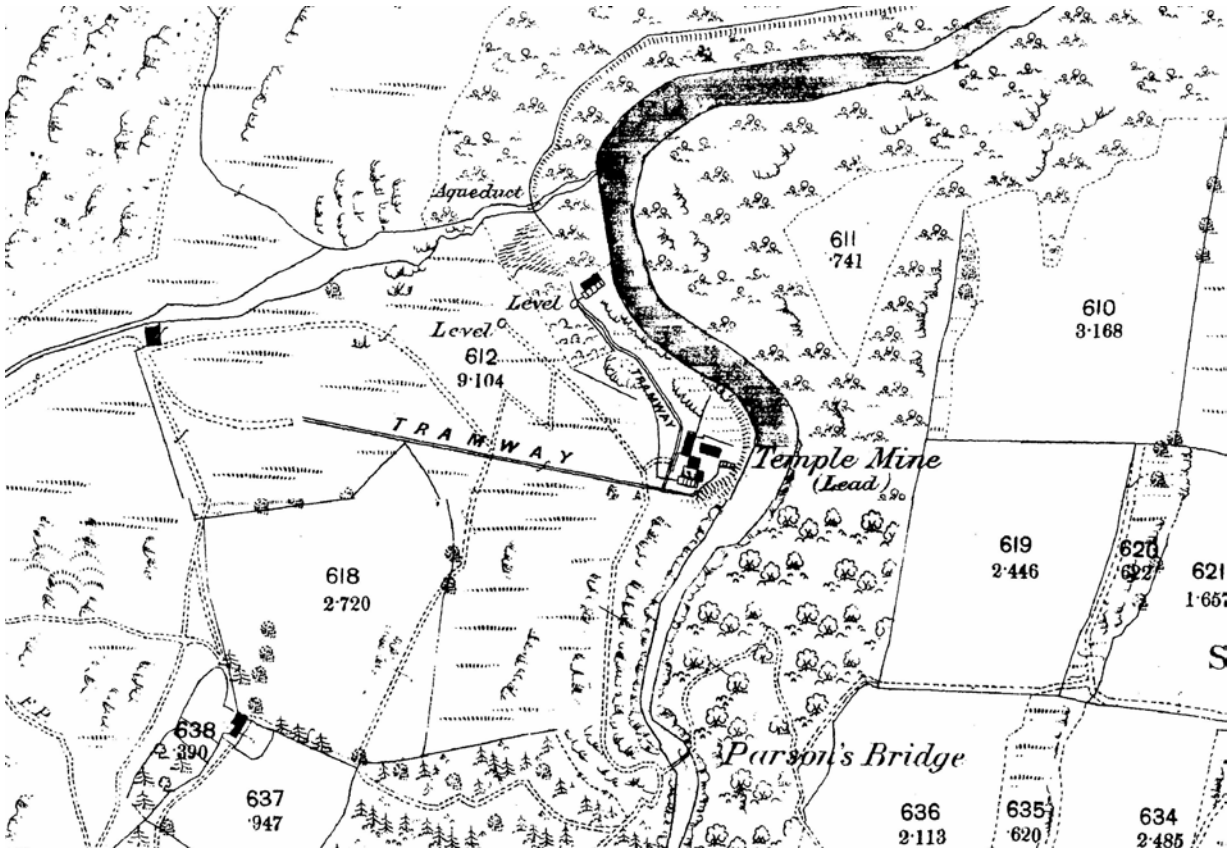
Desktop historical survey – Graham Levins, with additional material and assistance from Simon Hughes.

Photographs by Graham Levins, Nigel Chapman

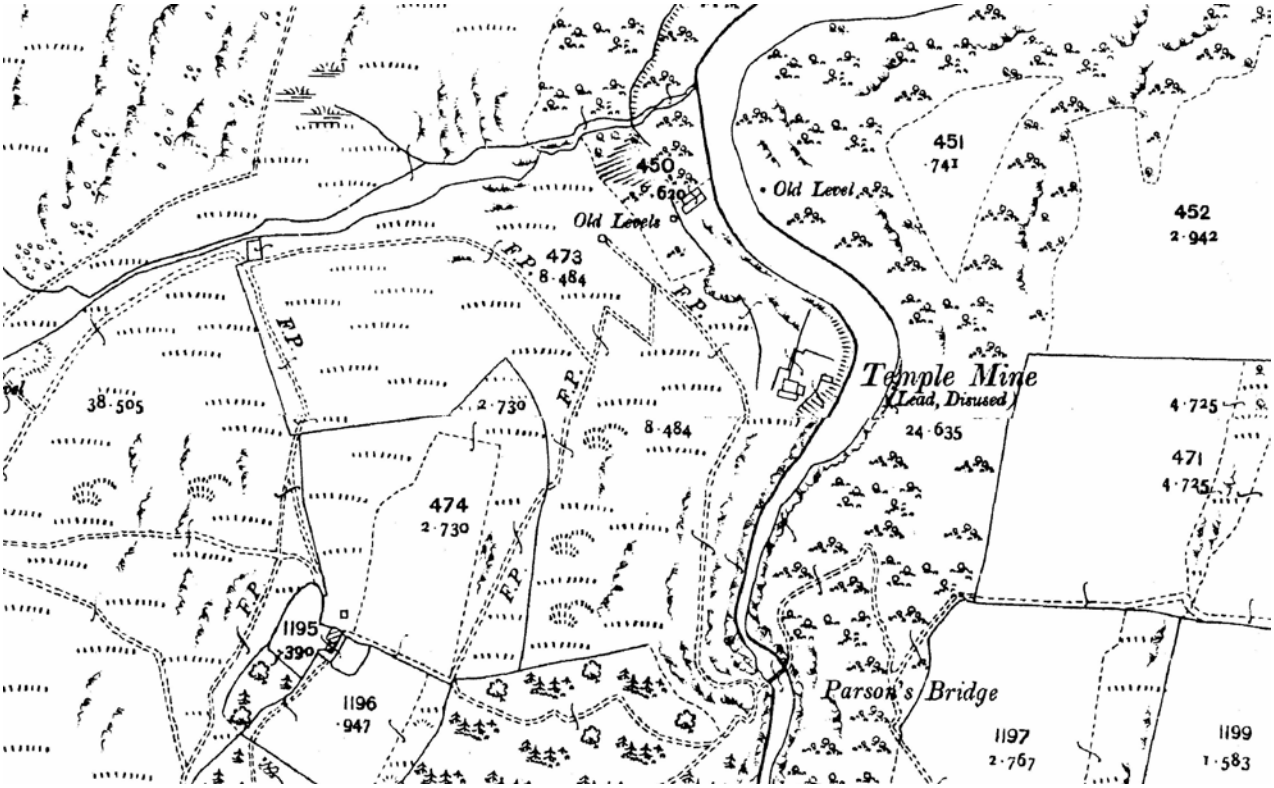
PURPOSE:-

The survey was carried out at the request of the owners of the site The Countryside Council for Wales, due to concerns over the long term stability of the 40 foot wheel-pit. They wished to have the site surveyed and recorded while the wheel-pit was still standing.

CONTENTS:-



Extract from 1st Edition 25 inch map (1888), showing Temple Mine.



Extract from 2nd Edition 25 inch map (1905), showing Temple Mine.

WELSH MINES PRESERVATION TRUST SURVEY
OF TEMPLE MINE – SN 749 793

Over weekend 31 March / 1 April 2007, members of the Welsh Mines Preservation Trust carried out a survey at Temple Mine. This survey was carried out due to concerns about the long term stability of the 40 foot wheel-pit and a desire by the land owners the Countryside Council for Wales that it should be fully recorded and surveyed while it is still standing. The site was previously surveyed by Robert Protheroe Jones in February 1993 (copy included). A desk top survey was carried out before the weekend to collate all available published information and details, plans and photographs from other sources. A brief history of the mine and copies of all information is included in this report, which begins with the site survey and is followed by the desk top survey.

I am pleased to report that the condition of the south east corner of the 40 foot wheel-pit has not deteriorated any further since my visit in July 2006, this was probably due in part to the mild winter. There is still concern over the long term future of this magnificent structure, which is unique in Mid Wales. The Trust is anxious that a project can be organised that will ensure its survival.

Features that were not surveyed and examined on this occasion were the rock-cut level part way up Nant Y Moch, the leat, East Llwyn Teify Mine and the level at Dolgamfa Farm, (although I was present in 1993 when the level was drained and surveyed, I have added the survey and photographs to this report). We are planning to return in the future and survey the items above.

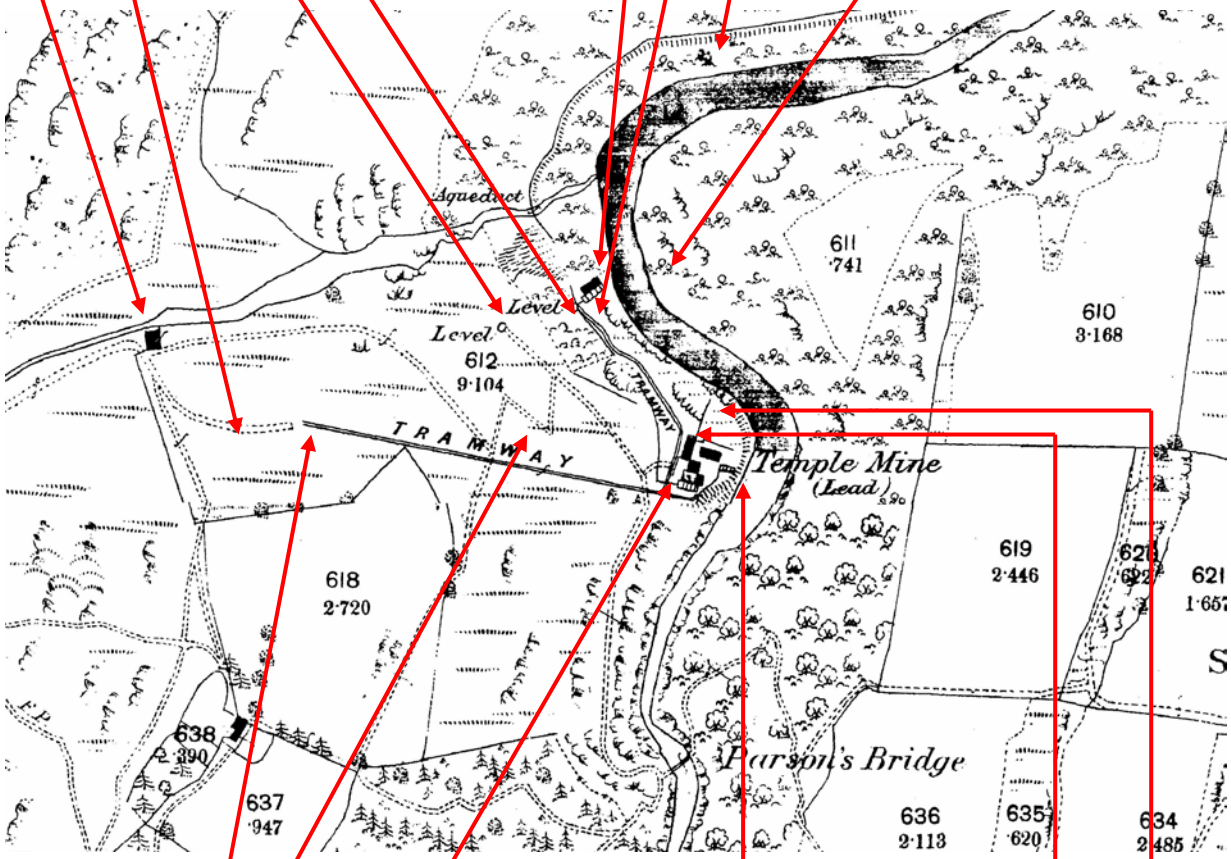
The following report of the survey is written by Trust Director Nigel Chapman:-

Dressing Floors.

A wheel pit of 1878 aligned west to east for a 30 feet by 4 feet water wheel. Constructed of sandstone flags, it is still in good condition and complete with a round brick lined arch to the east wall. Water having driven this wheel went through the arch, was turned north along a platform to feed a further wheel of 14 feet by 2 feet on the dressing floors.

The 30 feet by 4 feet wheel was employed to drive a crushing mill with rolls of 24 inches diameter. It also drove a Blake's stone breaker which was probably placed on the tapered stone plinth to the west of the wheel pit. Against the north wall of the wheel pit are the substantial stone walls of the crushing mill. In the north corner of the east wall a doorway opening was noted. Further to the east, built into the junction of the wheel pit and the crusher is a small building of unknown use. To the north of the mill is an extensive area of levelled crushed waste forming the site of the jiggers and ore separating plant. Most of these machines would have been powered by a 14 feet by 2 feet water wheel placed at the eastern edge of the levelled area and just above the river Rheidol. To house the wheel a rough cutting was made into the underlying rocks and pockets cut into the rocks to carry timbers supporting the wheel axle above ground level. At the eastern end of the cutting a drill hole was found. Further north, probably in alignment with the axle of this wheel are the stone cut foundations of a circular buddle most likely powered by the wheel. A further buddle is said to be located on this levelled area but nothing was noted on the surface. The area of the buddle is about a metre below the level of the ore separating plant and would have been fed by gravity. A stone wall aligned east to west was found to separate these two areas of the dressing floors. On the same alignment was found a timber box section channel probably to feed slimes from the ore separating plant to the buddles. North of this area a large dump of fine sand remains above the river, being the waste left at the end of the dressing processes.

FEATURES AT TEMPLE MINE



Possible Blacksmith's Shop

40 foot wheel-pit

Cart Track to Bwlchgwyn

Deep Adit

Middle Adit

Leat

East Llwyn Teify Adit

Top Adit

Inclined Tramway

Zig Zag Track

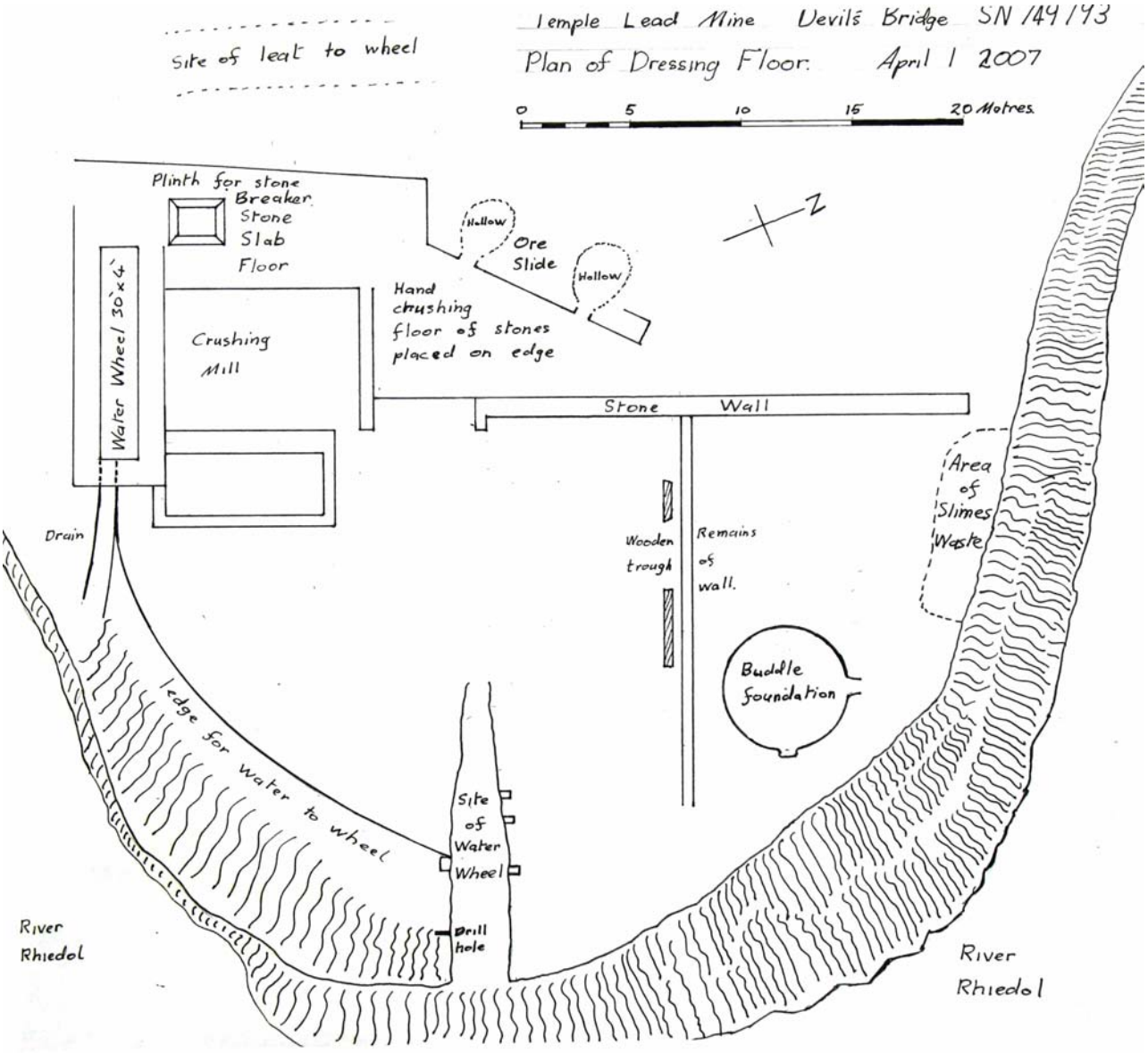
14 foot wheel-pit

30 foot wheel-pit
and Blake's Stonebreaker

Ore Bins

Buddles

West of this platform is a long stone wall of about 3 metres high forming the edge of a platform for the breaking down of large lumps of lead ore prior to crushing. To the south near the crushing mill this platform is paved with large flat stones to permit the feeding of the crushing mill by wheel barrows. To the north small stone have been placed on edge to form a "Bucking" or hand hammering area for the first reduction of the large lumps of ore from the mine. Placed to the west of this area and on a slightly different alignment is a two celled Ore Slide. Much of the front wall has fallen while the two cone-shaped ore slides are filled with rock and waste. West of this feature is the foundation of a tramway used to bring ore in trams from the mine to the dressing floors. On a similar alignment to the tramway and further west is a well marked section of the leat, formerly supplying water to the dressing floors. Slightly uphill and to the west at this point is a levelled platform not shown on any of the maps, probably the site of a timber building of unknown use. Either a tool store or office would seem likely.



Incline.

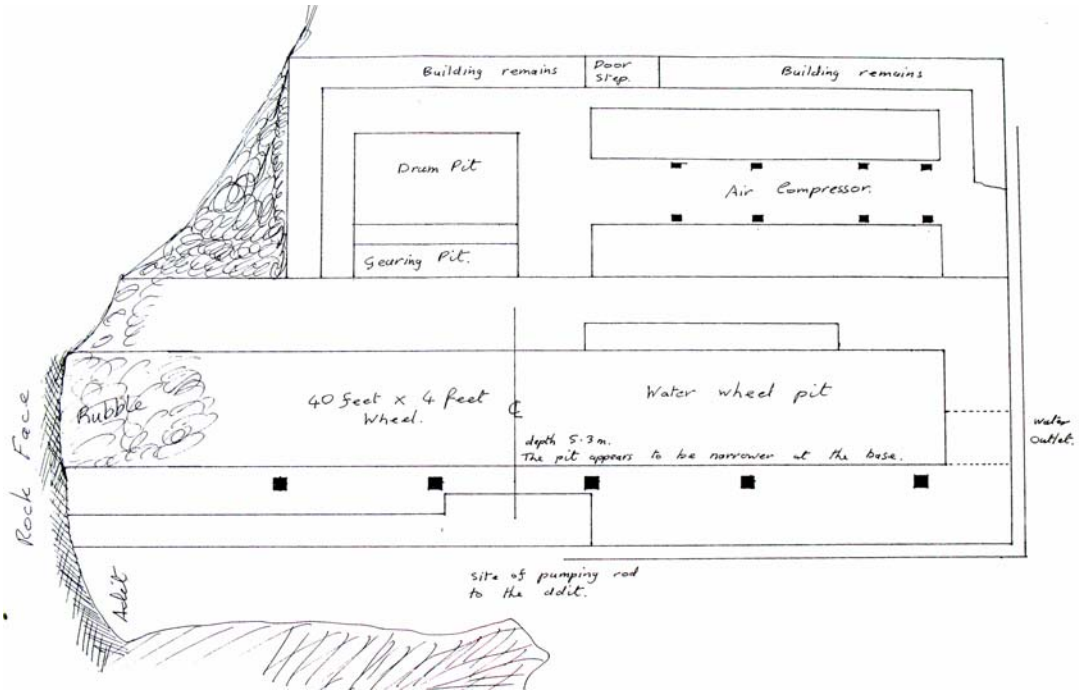
To the south of the 30 feet wheel pit and on a similar alignment was an incline up the steep side of the Rheidol Valley to more gentle gradients and a railhead in a rough field. Apart from a slight hump which could be natural nothing remains of the railway in the field while the rough cart track it meets can be traced over the hill top to Ystumtuen. On the hillside a shallow track forming the incline was

found, but nothing else. It suggests the tramway was of light construction or never got passed the basic earthwork stage. To operate the incline a wire was said to have been taken from the huge water wheel housing placed to the north west of the dressing floors. Some form of wheel would have been used in the field to draw up the incline the wagons of processed ore from the mine, again nothing was found.

A noticeable feature of this hillside is the zig-zag track from the 40 foot wheel pit and a second branch from the Top Level adit of the mine. While narrow suggesting the use only by walkers, it is possible that horses would have been able to use the track. It could be that in the early days of the mine, any ore would have been transported by horses up this track.

One of the major questions left is how the machinery was transported down the hillside to be erected on the mine. The opposite would have happened when the mine finally closed.

Blacksmith's Shop.
Placed near the cart track to Ystumtuen, on a north south alignment is a single storey stone built possible workshop. The east wall has a widow opening and two doorways, all now blocked up. Inside built against the north gable end wall is a large stone structure which could be the remains of a Blacksmith's hearth. Noted in the gable wall above this feature is a chimney flue. Probably the miners would have walked from Ystumtuen over the hills to the mine, getting their tools sharpened here ready for the next day.



Forty Foot wheel pit.

Further to the north up the Rheidol Valley was erected the main power plant of the mine. Placed on the course of a major vein system, originally the plant consisted of a 40 feet by 4 feet wide water wheel operated by a leat drawn from the River Rheidol about a mile to the east. At first the wheel was used to pump water from the mine. Later a winding drum in a stone built pit with a long narrow pit for the gearing was constructed. Probably by the 1880's a further pair of pits with a long engine bed in the middle was built. On the bed a single horizontal cylinder air compressor was constructed. Compressed

air for the mine to drive drills, pumps and winches was taken underground and held in a large air receiver.

It has been stated that the wheel powered two drums, one for winding from a shaft in the Middle Level and one for working the incline. While the incline is noted as requiring over 400 yards of wire rope, the underground winding would have used a much shorter rope. For these two incompatible winding systems to work would have required the de-clutching of one drum while the other was working. Another problem would have been the need for two different sizes of drum, while the drum pit is a "one size fits all" construction.

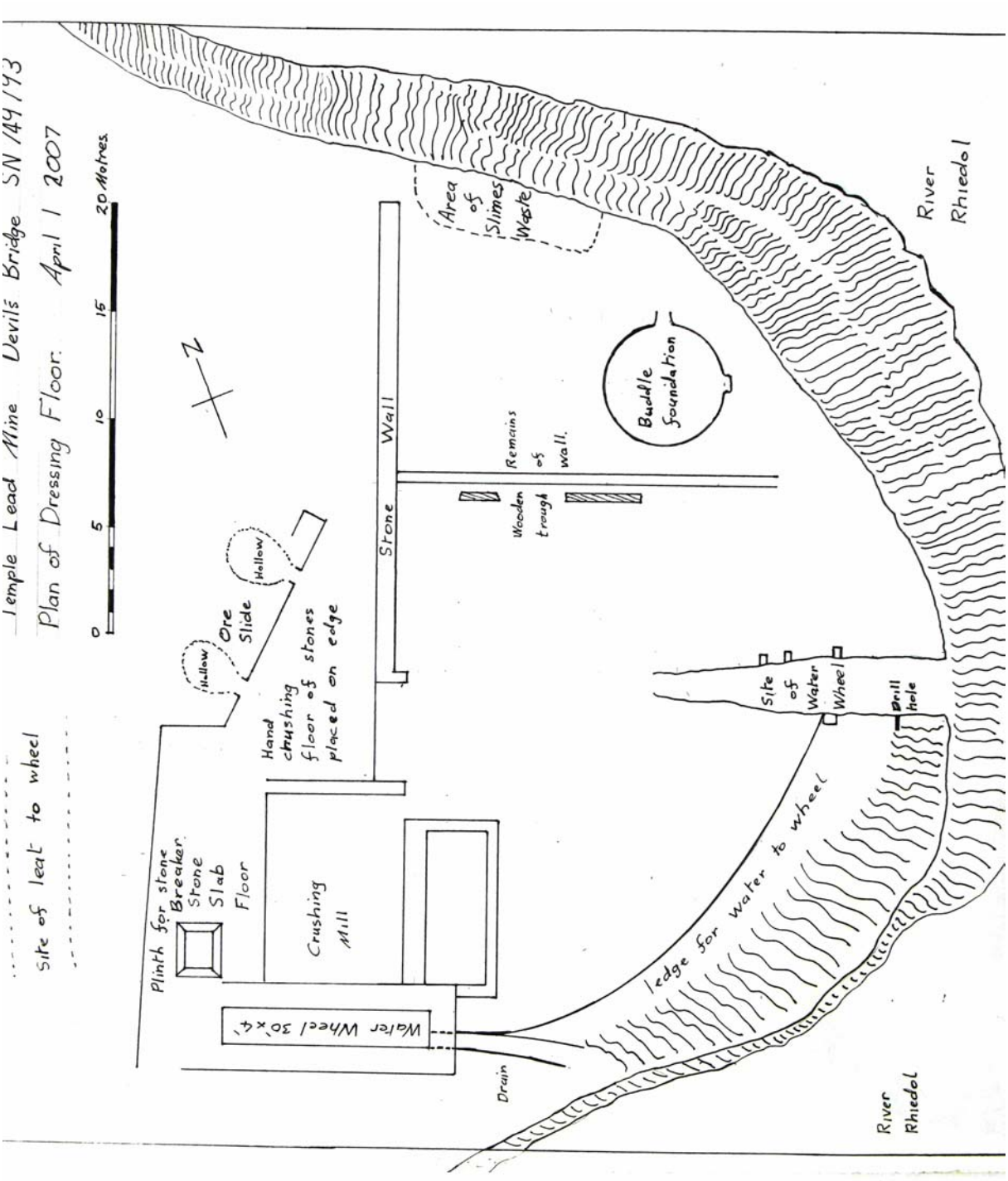
Underground.

The workings are centred on three levels. Deep Adit is at the south side of the wheel pit and contains the pumping plant. Middle Adit comes to day in front of the wheel pit and at the level of the surface tramway. Top Adit is up the hillside with a large rock tip at its portal. Underground Middle Level has plenty of timber sleepers in place, being apparently the major haulage road for the huge stope found several hundred yards in from the surface. Much of the level is built on timber stemples over the open stope and has in places collapsed. This logically would have been the main haulage road for the Deep Adit to bring the output up to the tramway level. However no evidence for such a use was found. Deep Adit goes in along side the wheel pit with timber and ironwork left from the pumping plant. A series of horizontal iron rods were suspended from timber and iron strapped vertical posts arranged so that movement of about 5 feet was possible. Kept up in the roof space this flat rod system terminated in a large timber inverted "T" or Quadrant standing over a 20 fathom shaft sunk in the floor of the level. The quadrant is mounted on a horizontal timber beam above the level to permit a tramway to pass underneath. The shaft is now filled with rubbish with an iron Rising Main from the pump still in place. From the nose of the quadrant a chain still disappears into the rising main, connected to the pump in the bottom of the pipe. Probably of the Bucket type the pump only needed to lift the water which would stood on a non-return valve in the base of the pump. On the shaft edge was an iron bar bent over ninety degrees with a chain secured to it. The chain disappeared into the filling of the shaft and could have supported the pump or something else suspended in the shaft. Along the Deep Adit a 2 feet gauge tramway was laid using bridge rail. It would appear that the waste rock from the shaft sinking was trammed out along the level and dumped beside the wheel pit to be washed away by the river.

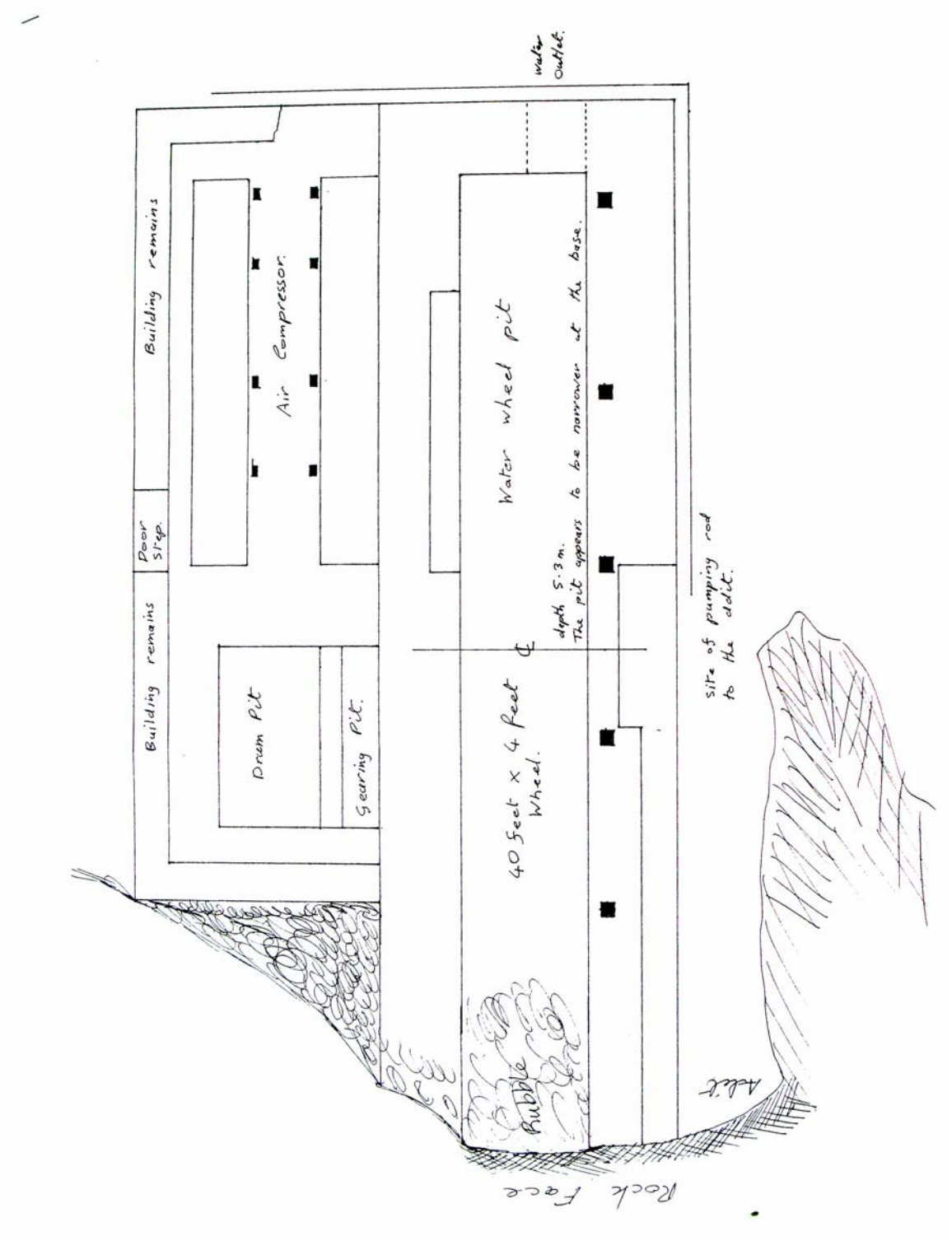
The pumping quadrant while still on its timber beam has lost the King post which is laid in the level and the tie rods complete with the iron King post cap have slid down towards the floor. The quadrant has nose dived onto the rising main, but is still basically complete and connected to the pump. The rod from the water wheel is connected to the King post cap and has a couple of sections of iron rod complete with a vertical timber hanger in place. From these items a reconstruction of the shaft top pumping plant could be done. No evidence of a balance box either on the surface or underground was found.

Nigel Chapman April 2007

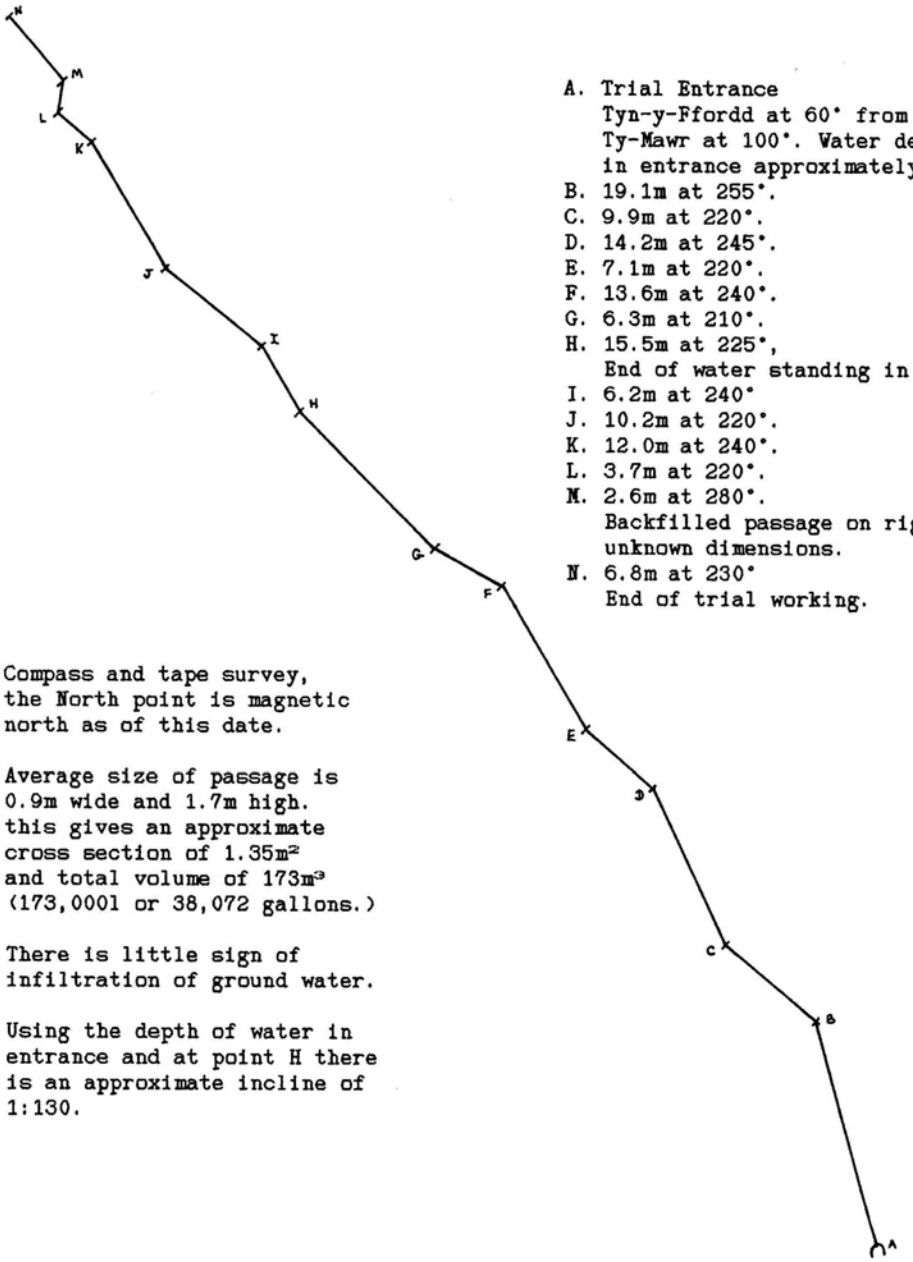
PLAN OF DRESSING FLOOR APRIL 2007 – NIGEL CHAPMAN



PLAN OF 40 FOOT WHEEL-PIT APRIL 2007 – NIGEL CHAPMAN



Survey of Upper Trial Level, (Llwynteifi Eastern Adit) Temple Mine SN 7466 7821 10/07/1993.



A. Trial Entrance
Tyn-y-Ffordd at 60° from A,
Ty-Mawr at 100°. Water depth
in entrance approximately 0.65m.
B. 19.1m at 255°.
C. 9.9m at 220°.
D. 14.2m at 245°.
E. 7.1m at 220°.
F. 13.6m at 240°.
G. 6.3m at 210°.
H. 15.5m at 225°,
End of water standing in tunnel.
I. 6.2m at 240°
J. 10.2m at 220°.
K. 12.0m at 240°.
L. 3.7m at 220°.
M. 2.6m at 280°.
Backfilled passage on right,
unknown dimensions.
N. 6.8m at 230°
End of trial working.

1. Compass and tape survey, the North point is magnetic north as of this date.

2. Average size of passage is 0.9m wide and 1.7m high. this gives an approximate cross section of 1.35m^2 and total volume of 173m^3 (173,000l or 38,072 gallons.)

3. There is little sign of infiltration of ground water.

4. Using the depth of water in entrance and at point H there is an approximate incline of 1:130.

Surveyed:-
Kelvin Davies, Colin Broadbent

Drawn:- CMB, Scale 1:500.

Date:- July 10th 1993.

N ⟶

Robert Protheroe Jones Survey 06/02/1993

2 SMR N° 9342

CERIDIGION UPLAND ARCHAEOLOGY: METAL MINES.

Name of Mine: Temple | N.G.R.: SN 749 793

Synonyms:

Estimated Output in tons:

Lead Concentrates: 300 | Altitude: 600' [redacted]

Zinc Concentrates: 50 | 1:2,500 County Sheet Number: 7-16

Copper Concentrates: — | Known Early Mining Site?:

References (see introductory sheet for full details of the first eleven works):

J.R. Foster Smith "Mines of Cardiganshire" Mine no. 142, Page No. 62-3

D.E. Bick "Mines of Mid Wales" Vol. 2, Page 27-8

G.W. Hall "Mines of Southern Wales" Page _____

O.T. Jones "Lead & Zinc Ores of N. Cards. & W. Montgom." Page 148-9

T. Spargo "Mines of Wales" Page _____

A. Francis "History of the Cardiganshire Mines" Page _____

Liscombe & Co. "The Mines of Cards., Montgom., & Shrops." Page _____

W. J. Lewis "Lead Mining in Wales" Page 193

F. J. North "Mining for Metals in Wales" Page _____

T. M. Thomas "The Mineral Wealth of Wales and its Exploitation" Page _____

R. Burt, P. Waite, & R. Burnley: "The Mines of Cardiganshire" Page 85

Other References (an asterix indicates that full details of the work are on the introductory sheet):

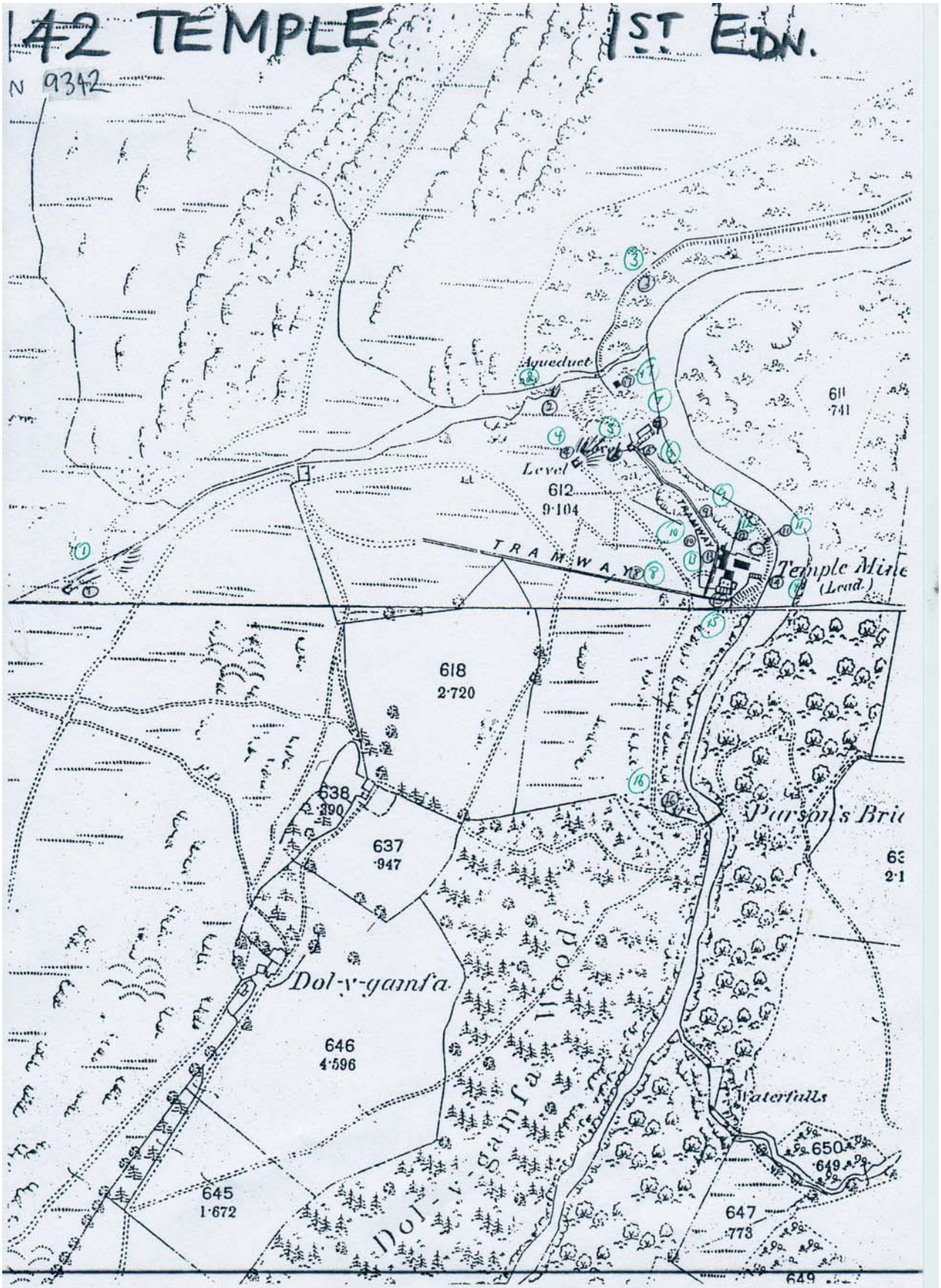
R.H. Bird: p. 26 in "Notes on Mining Leats", pp 19-45 in British Mining N° 37, Northern Mine Research Society, Sheffield, 1988.

* Palmer & Neaverson 1989a pp. 23-4, 38

* Rees 1975 p. 239

* Palmer & Neaverson 1989 b pp. 320-321, 323, 340, 347

Protheroe Jones September 1993


42 TEMPLE 1ST EDN.
N 9342
Aqueduct
Level
612
9·104
TRAMWAY
TRAMWAY
Temple Mine
(Lead.)
611
·741
618
2·720
638
390
637
·947
Dol-y-ganfa
646
4·596
645
1·672
647
·773
649
650
·649
Waterfalls
Parson's Brid
63
2·1

PRN 9342
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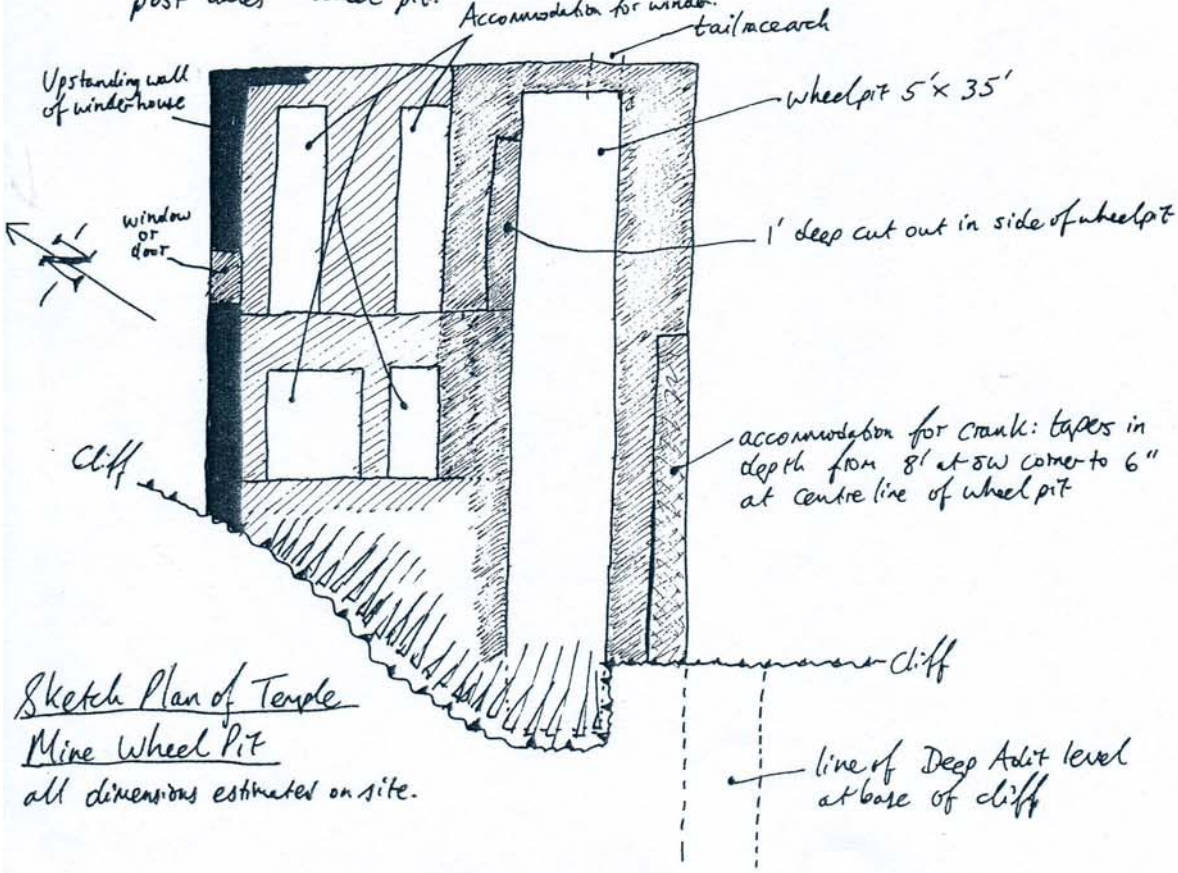
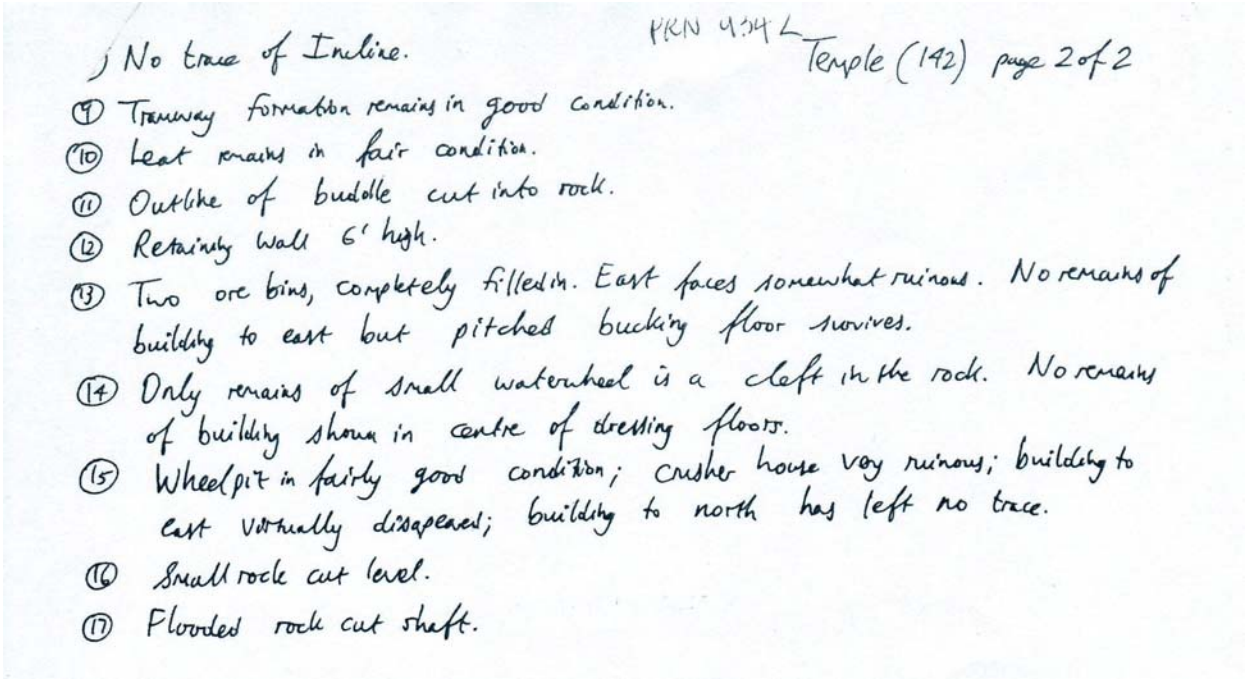
142 Temple.

Visited 6.II.1993.

① Rock cut level: just open; very wet. Plus associated grassy tip.
② Rock cut level.
③ Leat in good condition
④ Rock cut (Upper) level: open; and associated development rock tip.
⑤ Rock cut (Middle) level beside tramway: open.
⑥ Rock cut (Deep Adit) level below tramway and beside wheelpit. Entrance very high to accommodate flat rods (to underground pumping shaft) from crank on south side of wheelpit)
⑦ Large good condition wheelpit and winder to north – probably wound underground shaft in Deep Adit via Middle Level. Winder post dates wheel pit:



Sketch Plan of Temple Mine Wheel Pit
all dimensions estimated on site.


PRN 4344 Temple (142) page 2 of 2

) No trace of Incline.

(9) Tramway formation remains in good condition.
(10) Leat remains in fair condition.
(11) Outline of buddle cut into rock.
(12) Retaining wall 6' high.
(13) Two ore bins, completely filled in. East faces somewhat ruinous. No remains of building to east but pitched bucking floor survives.
(14) Only remains of small waterwheel is a cleft in the rock. No remains of building shown in centre of dressing floors.
(15) Wheelpit in fairly good condition; crusher house very ruinous; building to east virtually disapeared; building to north has left no trace.
(16) Small rock cut level.
(17) Flooded rock cut shaft.

The following Geological Report is written by Trust member Professor David James

Temple Mine, Yspyty Cynfyn; WMPT survey, 01/04/2007 - Geology

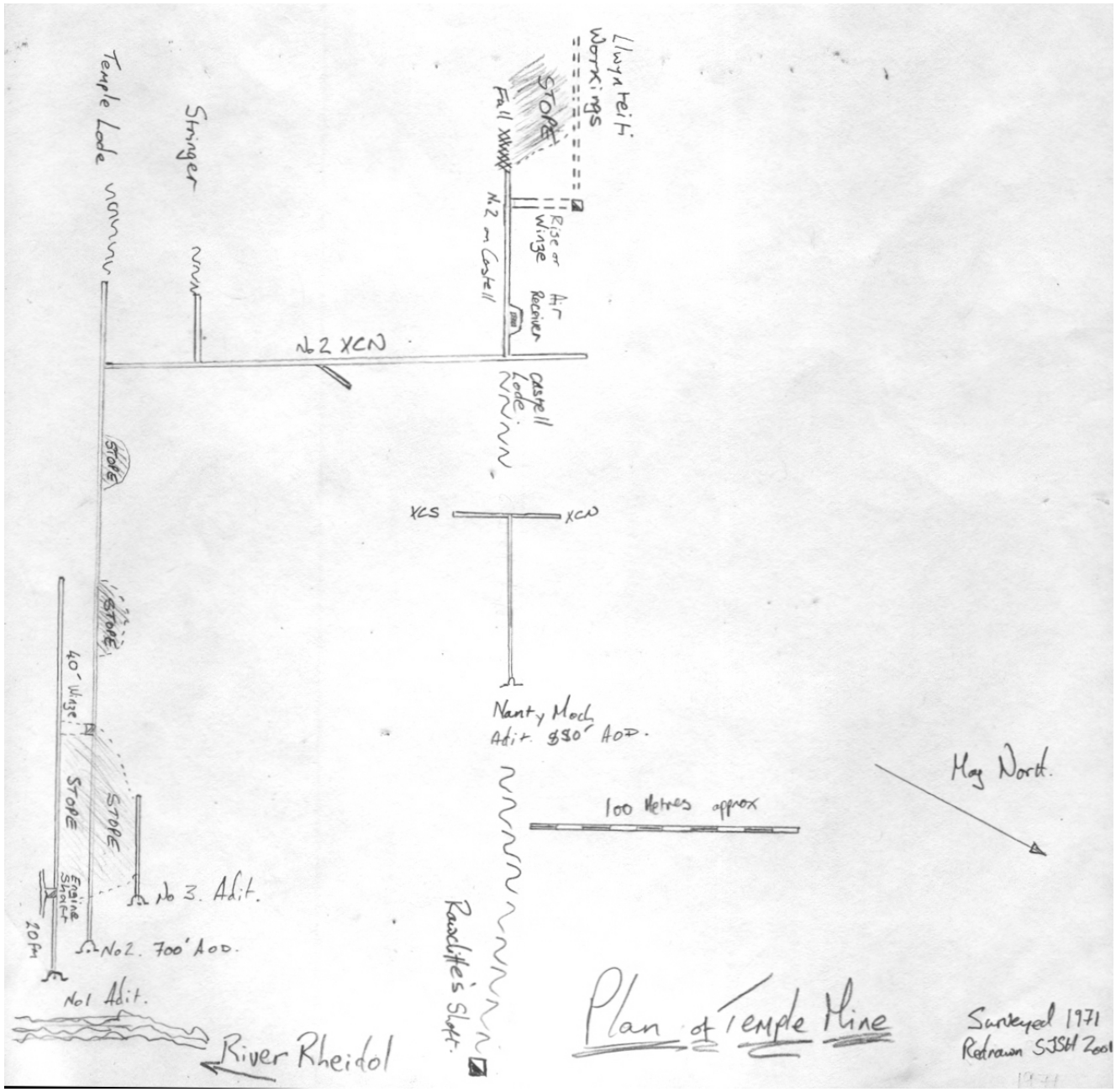
The lode at Temple is a small fracture with a fabric striking 042°- 056° and dipping southeast between 60° and 85°; average strike is ca 048° and average dip ca 72°. It lies ca 75 metres SE of the major southeast-dipping Castell lode which was tested without success nearby at Rawcliff's shaft and which strikes ca 063°, ie. not precisely parallel. Slickensides indicate a small component of dextral strike-slip; this is also seen on the Castell lode. Throw is unknown but probably less than 20 metres. In modern terminology the lode is developed in the Derwenlas Formation, dying out upwards into the Cwmsymlog Formation and downwards into the Cwmere Formation; in the terminology of the 1922 memoir by O.T.Jones its productive portion thus lies in the basal Frongoch Formation. All these formations are of early Silurian age.

The geometry of the orebody is not precisely defined owing to incomplete access in the middle adit where a false floor has collapsed) but the best ore was worked over a vertical extent of ca 60-70 metres and a horizontal extent (in the deep adit) of ca 32 metres. The lode dies out laterally quite quickly, at deep adit portal it is a thin breccia; at ca 75 metres drivage it swells to over two metres where stoping was begun. Where stoping ended a further 24 metres was driven in an irregular fracture with little sign of mineralisation. The ore thus appears to lie in a steep shoot. A trial was begun just across the river to the northeast of the wheelpit but the fracture was clearly not worth pursuit there.

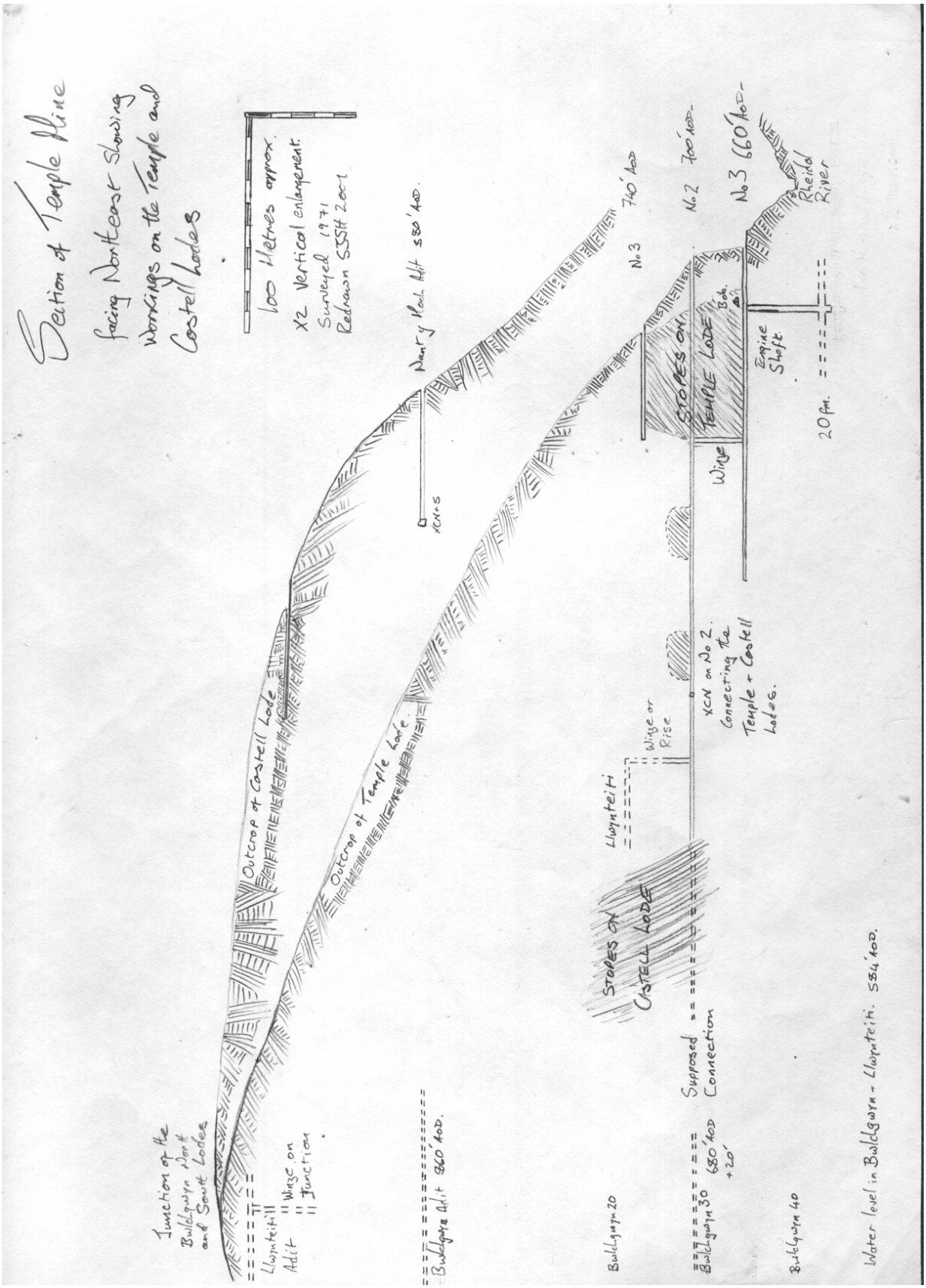
The geological value of the deep adit as affording safe access for education and research is considerable; the internal fabric of the lode is well exposed as are wall rocks. The deep adit drivage of ca 131 metres allows demonstration that the lode crosses an anticline (obliquely) and that the main oreshoot essentially lies in the fold core. The ore was stripped out very efficiently and no minerals of value to collectors remain.

David James April 2007

SIMON HUGHES PLAN OF TEMPLE MINE (1971)



SIMON HUGHES SECTION OF TEMPLE MINE (1971)



I am most grateful to Robert Protheroe Jones for making his survey available; this was invaluable to our survey. I must also express my gratitude to Nigel Chapman for his survey report, to Professor David James for his geological survey report, to Simon Hughes for all the historical information and photographs he generously made available to me. My thanks also to Colin Broadbent and Kelvin Davies, for their survey of the Upper Trial Level (Llwyn Teify Eastern Adit) on Dolgamfa Farm.

Last but not least I must thank the members of the Welsh Mines Preservation Trust and representatives of Ceredigion County Council's "Spirit of the Miners" project who attended over the weekend and assisted with the survey:- Nigel Chapman, Professor David James, Robert Ireland, Jenny Gowing, Tony King, Barry and Mary Dupree, Dr Ania Skarzyenska, Barry Clarke, Geoff Fitton, Geoff Newton, Kelvin and Dalton Davies, Peter Austin, Meleri Richards, Leasa Fielding, Doreen and Trefor Levins.

Graham Levins
Secretary
Welsh Mines Preservation Trust
May 2007

31st March / 1st April 2007
Photos by Graham Levins unless stated.

001) Dressing Floor - from above

004) Dressing Floor - from above

002) Dressing Floor - from above

005) Dressing Floor - from above

003) Dressing Floor - from above

006) Dressing Floor - from above

007) Dressing Floor - from above

010) Dressing Floor – wall at north west corner

008) 30ft x 4ft wheel-pit and base of incline (on the right hand side)

011) Dressing Floor – site of un-located buddle

009) Dressing Floor - looking north, rock-cut buddle in centre

012) Dressing Floor- rock-cut buddle

013) Dressing Floor- rock-cut buddle

016) Dressing Floor – 14ft x 2ft wheel-pit

014) Dressing Floor – 14ft x 2ft wheel-pit

017) Dressing Floor – 14ft x 2ft wheel-pit

015) Dressing Floor – 14ft x 2ft wheel-pit

018) Dressing Floor – 14ft x 2ft wheel-pit

019) Dressing Floor – Survey in progress

022) Dressing Floor – wooden launder

020) Dressing Floor – location of wooden launder (centre of photograph)

023) Dressing Floor – wooden launder

021) Dressing Floor – wooden launder

024) Dressing Floor – wooden launder

025) Dressing Floor – wooden launder

028) Dressing Floor – wooden launder

026) Dressing Floor – wooden launder

029) Dressing Floor – 30ft x 4ft wheel-pit (looking south)

027) Dressing Floor – wooden launder

030) Dressing Floor – 30ft x 4ft wheel-pit (looking south)

TEMPLE MINE GALLERY
PAGE 6

031) Dressing Floor – 30ft x 4ft wheel-pit (looking east towards drain arch)

034) Dressing Floor – 30ft x 4ft wheel-pit (looking west)

032) Dressing Floor – 30ft x 4ft wheel-pit (detail of drain arch)

035) Dressing Floor – probable plinth for Blake's Stone Breaker (at west end of wheel-pit)

033) Dressing Floor – 30ft x 4ft wheel-pit (close up detail of drain arch)

036) Dressing Floor – probable plinth for Blake's Stone Breaker (at west end of wheel-pit)

037) Dressing Floor – probable plinth for Blake's Stone Breaker (at west end of wheel-pit)

040) Dressing Floor – Crushing Mill

038) Dressing Floor – looking south towards Crushing Mill

041) Dressing Floor – looking north towards ore bins from 30ft wheel-pit

039) Dressing Floor – Crushing Mill

042) Dressing Floors – Ore slide

043) Dressing Floors – ore slide

046) 40ft x 4ft wheel-pit – from river level, Deep Adit entrance on left

044) 40ft x 4ft wheel-pit – from river level

047) 40ft x 4ft wheel-pit – from river level

045) 40ft x 4ft wheel-pit – from river level

048) 40ft x 4ft wheel-pit – from river level, Deep Adit entrance on left

049) 40ft x 4ft wheel-pit – from river level, Deep Adit entrance on left

052) 40ft x 4ft wheel-pit – from river level (close up of damaged stone work)

050) 40ft x 4ft wheel-pit – from river level

053) 40ft x 4ft wheel-pit – from river level (close up of damaged stone work)

051) 40ft x 4ft wheel-pit – from river level

054) 40ft x 4ft wheel-pit – from river level (close up of damaged stone work)

055) 40ft x 4ft wheel-pit – from river level (close up of damaged stone work)

058) 40ft x 4ft wheel-pit – from river level (close up of damaged stone work)

056) 40ft x 4ft wheel-pit – from river level (close up of damaged stone work)

059) 40ft x 4ft wheel-pit – from tramway level

057) 40ft x 4ft wheel-pit – from river level (close up of damaged stone work)

060) 40ft x 4ft wheel-pit – from tramway level

061) 40ft x 4ft wheel-pit – from tramway level

064) 40ft x 4ft wheel-pit – from tramway level

062) 40ft x 4ft wheel-pit – from tramway level

065) 40ft x 4ft wheel-pit – from tramway level (Deep Adit entrance to right)

063) 40ft x 4ft wheel-pit – from tramway level

066) 40ft x 4ft wheel-pit – from tramway level

067) 40ft x 4ft wheel-pit – wheel compartment looking east

070) 40ft x 4ft wheel-pit – equipment compartments from south east corner

068) 40ft x 4ft wheel-pit – from tramway level (wheel compartment looking west)

071) 40ft x 4ft wheel-pit – drum pit on left, gearing pit on right

069) 40ft x 4ft wheel-pit –equipment compartments from south east corner

072) 40ft x 4ft wheel-pit – gearing pit on left, drum pit on right

073) 40ft x 4ft wheel-pit drum pit

076) Deep Adit - entrance

074) 40ft x 4ft wheel-pit gearing pit on left, drum pit on right

077) Deep Adit – entrance, looking in (west)

075) 40ft x 4ft wheel-pit – north east corner, compressor mounting base on right

078) Deep Adit – entrance, looking out (east)

079) Deep Adit – pump-rod support

082) Deep Adit – flooded passage (looking west)

080) Deep Adit – pump-rod support

083) Deep Adit – tramway rails in situ (looking west)

081) Deep Adit – flooded passage (looking west)

084) Deep Adit – looking into shaft chamber (west)

085) Deep Adit – shaft chamber looking west

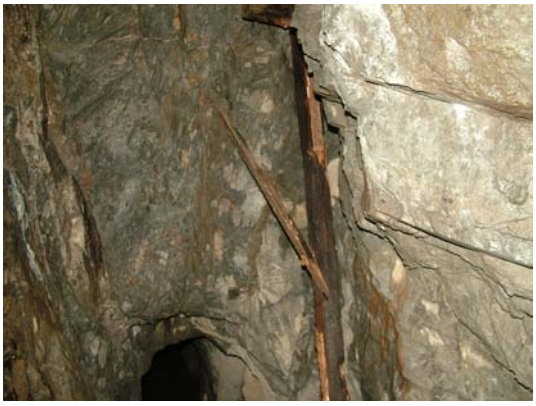
088) Deep Adit – pump-rod angle piece

086) Deep Adit - shaft chamber looking west, pump-rod on right

089) Deep Adit – pump-rod angle piece

087) Deep Adit – pump-rod angle piece

090) Deep Adit – pump-rod upright



091) Deep Adit - pump-rod upright

094) Deep Adit – shaft headgear looking east

092) Deep Adit – shaft headgear looking west

095) Deep Adit – shaft headgear looking east

093) Deep Adit – shaft headgear looking west

096) Deep Adit – shaft headgear looking east

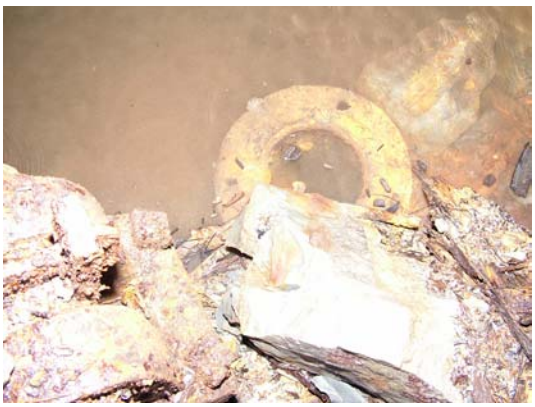
097) Deep Adit – shaft headgear looking east

100) Deep Adit – shaft headgear (close up), rising main on right

098) Deep Adit – shaft headgear (close up) looking east

101) Deep Adit – remains on floor

099) Deep Adit – shaft headgear (close up) looking east



102) Deep Adit – rising main

TEMPLE MINE GALLERY
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103) Deep Adit – Stopes above shaft looking east

106) –Temple Mine viewed from top of path from Ysbyty Cynfyn

104) Deep Adit – Stopes above shaft looking east

107) Temple Mine – inclined tramway route (centre) viewed from path from Ysbyty Cynfyn

105) –Temple Mine viewed from top of path from Ysbyty Cynfyn

108) Temple Mine – inclined tramway route (centre) viewed from path from Ysbyty Cynfyn

109) Blacksmith's building in field at top of inclined tramway [photo Nigel Chapman]

TEMPLE MINE GALLERY
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01) Dressing Floor -30 foot wheel pit looking south

02) Dressing Floor – buddle circle

03) Dressing Floor – Ore Bin

04) 40 foot wheel-pit

05) 40 foot wheel-pit- south-eastern corner

06) 40 foot wheel-pit – southern wall

TEMPLE MINE GALLERY
PAGE 1

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07) 40 foot wheel-pit - damaged stone south-eastern corner

08) 40 foot wheel-pit - damaged stone south-eastern corner

09) 40 foot wheel-pit - damaged stone south-eastern corner (close up)

10) 40 foot wheel-pit - damaged stone south-eastern corner (close up)

TEMPLE MINE GALLERY **November 1990**

PAGE 1

01) Nature Conservancy Council Sign

02) View from Parson's Bridge

03) 40 foot wheel-pit from river level

04) 40 foot wheel-pit

05) Deep Adit entrance

07) Deep Adit Shaft chamber (looking west)

06) Deep Adit entrance

08) Deep Adit Shaft headgear (looking east)

09) Deep Adit Shaft headgear (looking west)

11) Deep Adit beyond shaft(looking west)

10) Deep Adit Shaft headgear

12) Deep Adit looking east from beyond shaft

TEMPLE MINE GALLERY **November 1990**

PAGE 4

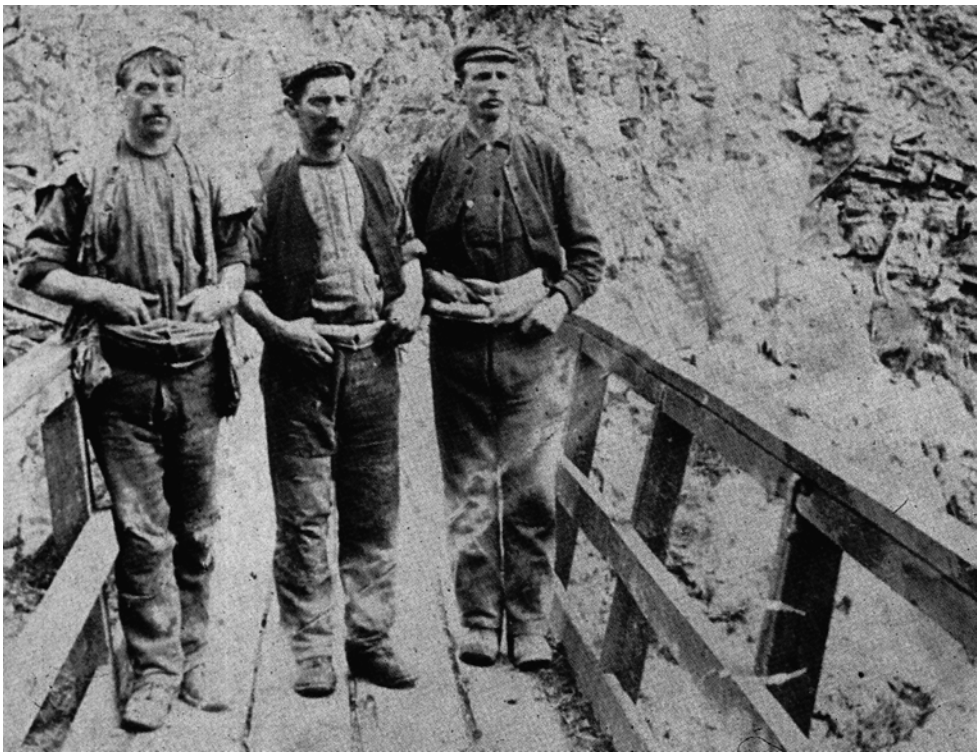
13) Middle Adit entrance

15) Middle Adit looking west across collapse

14) Middle Adit looking west

16) Middle Adit looking west across collapse

TEMPLE MINE HISTORICAL SURVEY



Temple Miners c1900 (Simon Hughes Collection)

Edited by Graham Levins

Welsh Mines Preservation Trust
Yr Ymddiriedolaeth Cadwraeth Mwynfeydd Cymru

HISTORICAL SURVEY OF TEMPLE MINE

The aim of this desk top survey is to collate all the data on Temple Mine in one document. I have included all the published information that I have been able to find, plus additional material and a short history on the mine from Simon Hughes.

Temple Mine was originally part of the Llwyn Teify sett, until it was formed into a separate sett, the date of which is not known. The Temple No 2 Adit (middle adit) is driven towards the Bwlchgwyn 40fm level.

1876 Temple Lead Mining Co was formed in 1876 under the management of Charles Thomas, but had ceased to exist within a year.

1876-1877 Charles Thomas Chief Agent.

1877 The company was revived and John Croucher, formerly of Tynyfron, was appointed to supervise the erection of the new plant, which commenced in June with the 30'x4' wheel to drive the Blake's jaw crusher and a set of 24" roll crushers. In the autumn this was followed by a dressing mill which contained a three compartment jig, two flat buddles, two round buddles and a mechanical dolly tub driven by a 14'x2' wheel. 4 men working on surface.

1878 42 men working 24 underground, 18 surface.

1878-1881 John H Croucher Chief Agent.

1879 45 men working 33 underground, 12 surface.

1879/1880 Work started on the pit for the main 40'x4' wheel, outside middle and deep adits, and a leat of 1¼ miles to provide water for the wheel. The wheel was set to work in February 1880; it drove pumps for the underground shaft in the deep adit to the 20fm level via flat-rods, a 200hp compressor for the rock-drills, hoists for the mine, and the inclined plane via pulleys and 400fms to the road from Ystumtuen.

1880 Spargo refers to Temple Mine as Llwyn Teify Isa.
Secretary and Manager T P Thomas, Local Agent Captain Barbery.
34 men working 20 underground, 14 surface.

1881 The mine had been sunk 20fms below the deep adit but the ore shoot was poorer than anticipated and no further sinking took place. 100 tons galena and 22 tons of blende sold. John Croucher departed from the area; it may be that he was only brought in to supervise the erection and construction of the new machinery. 16 men working 12 underground, 4 surface.

1882 John Davies Chief Agent. 4 men working underground

1883 Temple Lead Mining Co appears to have gone into liquidation. Mine suspended.

1886 3 tons of lead ore returned. 17 men working 16 underground, 1 surface.

1886-1888	The beautifully equipped Temple Mine was taken up by the Cardigan United Mines Ltd, along with Llwyn Teifi and Bwlchgwyn, with Absolom Francis as agent. The Cardigan United Co sunk Rawcliff's Shaft to a depth of 15fms.
1886-1889	A H Jenks Chief Agent.
1887	17 men working 12 underground, 5 surface.
1888	13 men working 11 underground, 2 surface.
1889	1 man working on surface. Mine suspended.
1907	Lerry Mining Co proposed to begin work at Temple.
1908	Owners Booth, Brooks and Richards. 6 men working 4 underground, 2 surface.
1908-1911	R Richards Chief Agent
1909	4 men working underground
1909-1912	Aberystwyth Silver Lead Mines Ltd
1910	2 men working underground
1911-1913	Mine Idle
1912	F C Moorwood Chief Agent

A BRIEF HISTORY OF TEMPLE MINE
Simon Hughes

I first visited the Temple Mine in 1968 and judging by the recent photographs, it remains little changed.

In 1968, Alf Jenkins was alive and living alongside the church, then retired, he had worked at a number of mines starting with his uncle at Nant y creiau in 1907 and finishing under Carrington at Tynfron in the late 1920s with a few years away as a military policeman. He had worked at Temple in 1917, and at Penrhiw, with Captain Richard Richards, until 1924 after he returned from his military service. He was a grand old fellow and I wished that I had spent more time with him.

At this time I was still at school studying for my "A" levels and was told that Murchison and Sedgwick once met at Parson's Bridge, sometime in the 1830s. In our studies we also found that the little quarry at the west end of the bridge was cited as a good locality for *Monograptus Sedgwickii* and spent many a happy hour cleaving lumps of poorly stratified shale during supposed revision and library time.

In 1971 further interest was taken in the mine but it bore little resemblance to Alf Jenkins's description of "*going in for a good distance*". From the water flowing into the deep adit we concluded that the

main level had to be the middle one and that a light builder's ladder would have to be procured to enable us to climb 30 feet up the west end of the stope into the middle adit. The lode at Temple is rather poor with the middle adit (No. 2) being driven 250 metres along the lode as a drift before being abandoned. However, there is a cross cut driven 150 metres north through two thin stringers before cutting what appears to be the Castell – Ystumtuen Lode. Here the middle level turns left and follows this lode, as a drift, for 80 metres where some attle had come down a stope, or rise, and prevented further exploration. Surprisingly, there is a large air receiver located in the adit just before this fall and also a rise into upper workings, it remains unexplored **!** This matched the description laid out in Captain Richards's survey book of 1917 once in the possession of Alf Jenkins but its current whereabouts is unknown. A copy of our 1971 survey is appended. Note that Captain Richards's survey shows that it was impossible to access Bwlchgwyn via the Temple No. 2 Adit in 1917.

The CCW became involved with the site in 1977 and Dr Glyn Jones commissioned a short report with the hope of raising some finance for maintenance but unfortunately this came to nothing. Even at this date they were viewed as romantic ruins in suspended animation. This was at about the same time that the Welsh Development Agency were setting up their Land Reclamation Unit, I surveyed the site on their behalf in 1979 and only found minimal damage and pollution attributable to former mining activity.

In the late 1980s I undertook a great deal of work for the WDA on the extent of the Ystumtuen, Penrhiw, Bwlchgwyn and Llwynteifi Mines and the discharge from the No. 9 Adit in Cwmrheidol. As far as I was able to ascertain, had the Temple No. 2 Level (Middle Adit) been continued for much further west, there was every possibility that it would meet the Bwlchgwyn 30 fathom level heading east. If we accept the multitude of 19th century descriptions, Llwynteifi would appear to be a warren of 17th and 18th century workings on various branches, or shoots, of the Ystumtuen Lode. Five pages of text from a report regarding this period are appended. It is important to note that Temple is a recent entity formed on part of the old Llwynteifi Mine that was divided as explained later.

Professor O. T. Jones, and the *Mineral Statistics,* notes the output of Temple as 20 Tons of Zinc Ore in 1881 and a meagre three and a quarter tons of lead concentrate in 1887 but I cannot agree with this and conclude that much of its output must have been mis-filed probably with Bwlchgwyn, Penrhiw or Cwmrheidol. Absalom Francis's comments on Llwynteifi, published in 1874, are of interest as he states that a new lode had just been found about 40 fathoms south of the great lode and that this had been dubbed Pryse's Lode. This part of Llwynteifi was then separated and then became the Temple Mine. Some years earlier, unknown adventurers had driven an adit to the west from near the top of the hill, possibly it was the same adventurers who drove the Nant y moch adit in the gorge above Rawcliffe's Shaft. For some years this was thought to be East Llwynteifi Mine but as years pass by I am more inclined to refer to it as The Llwynteifi Eastern Adit as opposed to the East Llwynteifi Adit that lies on the east bank of the Rheidol opposite Temple.

It is many years since I braved the chest deep water from the Nant y moch stream to investigate this level (SN 7485 7000), driven west for about 50 metres and terminating with cross cuts to both the south and north displaying massive ribs of hard quartz and breccia, many metres wide, but no sign of any ore whatsoever. It is a great shame that this adit is not more accessible to geologists as I could find no structural instability, or winzes in the floor, and the lode provided a real spectacle. Kelvin Davies explored the Llwynteifi Eastern Adit (7466 7821) in the 1990s and confirmed that it is simply a fifty metre drift without any winzes or rises and does not communicate with the neighbouring Llwynteifi Mine to the west.

About fifty metres to the south of the Llwynteifi East Adit, alongside a most beautiful footpath from Ystumtuen to Yspyty Cynfyn, via Parson's Bridge, lie the slightly bedraggled remains of a compact stone circle attributable to the Bronze Age, this is the Druidic "*Temple*" after which the mine was named and where the fairies are supposed to dance. The Parson's Bridge is shown on Morris's Map of the Common of Perveth drawn in the 1740s, whilst Ysbytty Cynfyn church was once a *chapel of ease* to Llanbadarn Fawr church, itself once a cathedral, and is of sufficient importance to enough to be marked by both our earliest cartographers, and its antiquity is clearly depicted in both John Speed's map of 1610 and Jensen's map of 1646.

As to the origins of the huge stones built into the churchyard wall at Yspyty Cynfyn, some think that they were set in position prior the Victorians whilst others insist that the church was built within another Iron Age stone circle, no proof exists to strengthen either hypothesis. It may well be the case that the smaller stones were broken up to build the first of the churches. Meyrick notes these stones in 1810 and also mentions that the pews were regularly put outside to enable traditional, all night, wrestling bouts and weight lifting to take place within the church as an annual festival..

I have never found stone hammers, or any shards thereof, at Llwynteifi, where there appears to be no copper worth the digging. Neither Lewis Morris nor Absalom Francis suggest that there was ever any Roman exploitation here and whilst the workings are primitive and simple, there are no indications that these mines are anything other than late 17th through to the early 20th century.

EXTRACTS CONCERNING TEMPLE & LLWYNTEIFI MINES FROM
A Brief History Of The Ystumtuen Mines 1990

Lewis Pugh's tenure of the Ystumtuen Mines ended in 1844 and the Nanteos Estate then granted the mines to the highly reputable firm of John Taylor & Son. The Ystumtuen, Penrhiw and Bwlchgwyn Mines were owned by the Nanteos Estate, and the three appear to have been let together for the previous century. However; in the mid 19th century, Penrhiw passed out of the Nanteos Estate and into the hand of the Williams family of Llanfrothen sometime between 1845 and 1850 until at least 1870; maybe as part of a marriage settlement. To the east of these mines lies Llwynteifi which was owned by the Davies family of the farm of that name. This land was divided when the property was left between three sons, one of whom sold his share to the Richards of Penglais Estate and another sold his share to his brother. This resulted in the old Llwynteifi Sett being split into Llwynteifi Uchaf and Llwynteifi Isaf, both being held by Davies, and Temple which was held by the Penglais Estate.

The documentation of these mines is greatly improved after 1845 when Sir Robert Hunt started compiling the Mineral Statistics as part of the function of the Geological Survey. These show the output of individual ores, the ownership and management of the mines on an annual basis and assist greatly with subsequent chronicling. It is recorded that in 1845 the Penrhiw & Ystumtuen Mine were being worked jointly as the Nanteos Mine under the auspices of John Taylor and that Penrhiw produced 46 tons of rather inferior grade lead ore by the efforts of 36 persons.

Between 1850 and 1854, very little appears to have changed at these mines, partly for want of mutual co-operation. Nanteos remained fairly buoyant and eventually merged with Penrhiw in 1855 and some minor interest was being shown in the Tynyfron Mine but this did not result in any development.

Francis states that it was originally the intention of the Bwlchgwyn company to purchase Penrhiw Mine but the negotiations resulted in the Bwlchgwyn Mine being sold to the Penrhiw company.

The merging of Nanteos with Penrhiw appears to have been precipitated by the possibility of being able to drain Bwlchgwyn through the 46 fathom level of the Penrhiw Mine. Alderson's Adit or the No. 6 Level was then driven east towards the Penrhiw 46 fathom level; the levels holed through in the April of 1856 but the Penrhiw 46 lay about 5.4 metres / 18 feet above the No. 6 which was smoothed out by building a long ramp between the levels rather than tipping the ore into a chute and thus creating unnecessary double handling. When I was last in the No. 6 Adit (1995), this ramp was the most easterly accessible part of the workings and lay just below the Nant Coch boundary between Ystumtuen and Penrhiw, but the ground conditions were abominable at it may now prove difficult to reach this point.

Whilst there are only sketchy accounts of any work being undertaken at Llwynteifi in the first half of the 19th century this appears to be on account of it being a small Sett on a private estate. Whilst the greater part of this mine lies outside the present study area it cannot be ignored as there is direct communication from Llwynteifi into Bwlchgwyn and the water made in this mine, by and large, drains out of the Cwmrheidol No. 6 Adit.

There can be little doubt that parts of the Llwynteifi Mine are centuries old and pre date written records whilst the surface works immediately to the east of Bwlchgwyn Mine have not been disturbed since the Nanteos Estate encroached onto the Crown Manor. There are remarkably few 18th century mine sites which have survived in such an intact state. Lewis Morris's sketch of these works about the year 1745 differs little from the present. The Temple Mine was part of Llwynteifi prior to it being formed into a separate Sett; it should be noted that the Temple No. 2 Adit was driven towards the Bwlchgwyn 30 fathom level and it is far from certain that they never connected. This could help to partly explain the meagre return if the Temple middle adit simply served as a footway into Llwynteifi where ore was being hauled to surface at Penrhiw. Note that one of the Llwynteifi adits on the eastern side of Mynydd Bwlchgwyn is recorded as having been driven about 180 metres and is now almost flooded to the roof, this does not connect to any other workings. This appears to be all that remains of the East Llwynteifi Mine.

J.H. Murchison connected Bwlchgwyn and Penrhiw Mines by extending the Penrhiw 46 fathom level to the east whilst a drift was driven west off the Bwlchgwyn Engine Shaft at the 47 fathom level, this was not an outstanding success as the Bwlchgwyn 47 holed through at 6.1 metres / 20 feet below the Penrhiw 46. This allowed the Bwlchgwyn Mine to drain naturally to about 6.7 metres / 22 feet below the 40 fathom level but meant that any work below the 40 involved raising the water to the 30 fathom level. As a consequence of this error, the Bwlchgwyn 50 fathom level appears to have been abandoned prematurely. In hindsight, Murchison must have regretted not having continued the 40 fathom level to the west as it was impossible to tram their ore out of the adit and they continued to bear the cost of winding it to surface, and dressing it at the Bwlchgwyn floors rather than at the newly erected mill in Cwm Rheidol.

Murchison's report of 1869 contributes comparatively little to the understanding of the sub surface operations. He mentions that Captains James Paull of Goginan and Henry Boundy of Cwmsymlog both had high opinions of the lodes and the cheapness with which they could be worked. Both of these gentlemen worked for Murchison at Cwm Brwyno and Penrhiw respectively and they cannot have been in any position to point out the numerous problems. On a short shoot in the floor of the No. 6 adit a

winze had been sunk to the 18.2 metre / 10 fathom level and to raise the ore and water a small waterwheel was installed in a neighbouring stope.

Sufficient water was available from the old Ystumtuen workings to turn it, further descriptions of this mine are provided by Absalom Francis in his "History of the Cardiganshire Mines" published in 1874. At Penrhiw, the Engine Shaft was sunk to 36.4 metres / 20 fathoms below the adit but the claims that Bwlchgwyn was drained to the bottom and that the ore could be trammed out along the adit are simply not true. All water had to be pumped to surface, as the adit had not been holed through, and there was insufficient water for pumping, winding and dressing in most seasons. Messrs. Taylor sold the mine and it was last worked by Mr. Murchison who drove the adit level into Bwlch Gwyn. Murchison abandoned the mines in 1865.

Of Llwynteifi Mine, Liscombe, in 1870, states that the adit level has been driven some distance and when it intersects the lode will probably reveal a rich deposit. Two fine veins form a junction in the sett, and at surface present a great mass of gossan, spar and blende.

Spargo reports that Llwynteifi Mine is on the property of Captain Richards of Penglaise on a 12 month tack note, secretary and manager being T.P. Thomas. The old men worked here extensively on the middle lode to nearly 30 fathoms below the surface about 1770. At this time the water was pumped by hand in wooden pumps. The mine is now drained by the Ystumtuen adit which enters the property at 70 fathoms, and gives a back of forty fathoms under the old bottoms. The adit reached the boundary through the Bwlch Gwyn Mine on the south lode, on which vein all the ground has been taken away close up to the boundary. A branch of this adit follows the North Lode and displays a robustly chiselled "***TP 1752*** " that is believed to be a Nanteos Estate (Thomas Powell) meerstone from the time of Lewis Morris, when the ownership was in dispute.

The Temple Mine is referred to as Llwyn Teifi Isa by Spargo who states that ¾ of a mile of outcrop crosses the sett and that it was held on a tack note with an option for a 21 year lease. Secretary & Manager, T.P. Thomas with Captain Michael Barbery as local agent on the mine. An adit has been driven about 80 fathoms but will have to be cross cut seven fathoms to cut the lode at thirty fathoms below the surface. The Ystumtuen lode crosses the river Rheidol to the east of the mine and shows a six inch rib of galena.

The Aberystwyth Mine comprises the Bwlchgwyn and Penrhiw mines. It is bounded by Llwynteifi to the east and Ystumtuen to the west. Bwlchgwyn worked considerably more than a century ago. Along with the other Nanteos Mines it was let to Mr Lewis Pugh until about 1844 after which the mines were let separately. It suffers from drought in summer and frost in winter and could only be worked for half of the year. During Mr Taylor's tenure, the Ystumtuen adit was extended into Penrhiw. The managers of Bwlchgwyn determined either to purchase the Penrhiw mine or sell them Bwlchgwyn. The Penrhiw Co. purchased Bwlchgwyn and amalgamated the two properties into the Nanteos Consols Mine.

At this time (1870) Penrhiw was worked to about 30 fms. below adit and Bwlchgwyn to 20 fms. The present company was formed about 18 months ago with a capital of £ 50,000. They commenced working at Penrhiw to good profit, new machinery was erected on both mines, and good lead ore was found about 40 fms. from the Llwynteifi boundary in driving the 40 fm. and under the 30.

Francis, in 1874, reported that Llwynteifi worked until about 1870 when new management commenced a cost book operation and have now registered a company with a capital of £ 15,000. A great deal of detail is given regarding the various lodes and workings, including the Nant y Moch adit. The Llwynteifi adit has been driven in from the east side of the hill, some 90 fms., by a former company and will give about 25 fms. of backs at the top of the hill. Nantymoch level has been driven for about 40 fms. Pryse's lode has recently been discovered as lying about 40 fms. south of the main lode and had been driven upon for about 10 fms. when a slide disordered the lode locally, it carries a leader of 4" of blende interspersed with galena.

In 1875, the seldom sober Captain Robert Northey relinquished his lease on Tynyfron and, whilst Thomas Hodge of the Caegynon Lead Mining Co. had expressed an interest in taking a licence from the Nanteos Estate, it was granted to Captains Nicholas Bray and Captain James Phillips, both from the Goginan area. Initially they appointed John Croucher as their manager but within a year he took up the manager's post at Temple Mine, a post which he held until 1881.

The Temple Lead Mining Co. was formed in 1876 under the management of Charles Thomas but had ceased to exist within a year. The company was revived in 1878 and John Croucher, formerly of Tynyfron, was appointed to supervise the erection of the new plant which commenced in June with the 30' x 4' wheel to drive Blake's jaw crusher and a set of 24" roll crushers. In the autumn this was followed by a dressing mill which contained a three compartment jig, two flat buddles, two round buddles and a mechanical dolly tub driven by a 14' x 2' wheel. In the following year, work started on the pit for the main 40' x 4' wheel, it was set to work at Temple in February 1880 and drove a 200 H.P. compressor, and hoists for the mine and the inclined plane to the road from Ystumtuen village. By 1881 the mine had been sunk to 36.5 metres / 20 fathoms below the No. 1 Adit but the ore shoot was poorer than anticipated and no further sinking took place. The total production for all their efforts up to that point was a meagre 20 tons of rather indifferent grade zinc blende worth £ 50. John Croucher departed from the area at this time and may only have been appointed to supervise the erection and construction of the new machinery. The Temple Lead Mining Co. never actually produced any lead and appear to have gone into liquidation in 1883 but in a much grander manner than the Tynyfron Lead Mining Co.

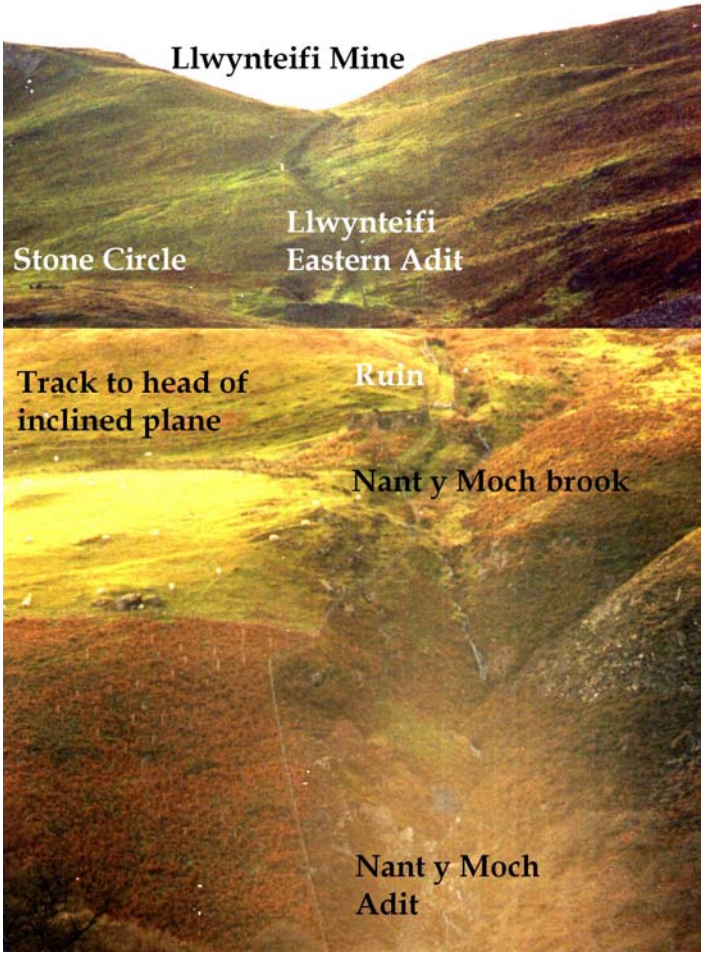
Whilst Absalom Francis's text of 1874 fails to note anything other than Pryse's Lode his "*Map of the Mines"*, published in 1878 shows the Temple Sett and notes the deep adit. Immediately to its north is Llwynteifi that is credited with a deep adit and having made returns of £ 20,000. On the east bank of the Rheidol, he shows East Llwynteifi. The Temple Mine is also shown on his 1881 "*Map of the Mining District of Cardiganshire & Montgomeryshire*".

Within three years the beautifully equipped Temple Mine was taken up by the Cardiganshire United Mines Ltd. along with Llwynteifi and Bwlchgwyn but this venture only lasted from 1886 until 1888 or '89. Further attempts were made at reviving Temple in 1908 - '10, 1913 and finally in 1917.

Messrs. Booth, Brooks & Richards took a lease of the Penrhiw & Temple Mines in 1908. No doubt encouraged by the apparent success of Cwmrheidol and Ystumtuen, they then formed "*The Aberystwyth Silver Lead Mines Ltd.*" in 1909 with Captain Richard Richards managing both their mines. Despite producing 170 tons of indifferent grade zinc blende and 101 tons of average grade lead concentrate from Penrhiw between 1910 and '12, the partnership did not thrive. Booth & Brooks withdrew from the company in 1913 and left Captain Richard Richards to superintend the 9 men below ground and 2 surface workers at Penrhiw.

The Mines Inspectorate's records show that Penrhiw was still being run by Aberystwyth Silver Lead Mining Co. Ltd. in 1920 with 4 men employed below ground; this is the last official entry for Penrhiw. It appears to have finally closed in 1924 with absolutely no hope of revival as the plant was then dismantled. This account was told to me by both the late "Old Joe" of Ystumtuen, and the late Alf Jenkins of Yspyty Cynfin who also informed me that it was he and Captain Richard Richards who were the last men to have come up the ladders out of the Penrhiw workings before the pumps were finally stopped.

Alf Jenkins at Tynyfron circa 1925.



Simon Hughes - 26th April 2007

Composite photograph of Nant Y Moch Brook

LOST MINES OF MID WALES MANUSCRIPT – SIMON HUGHES

East Llwynteifi SN 7490.7928

According to Thomas Spargo, Llwynteifi Isa' - where an adit had been driven about 80 fathoms by 1870 in order to cut the lode 30 fathoms below the surface. This property adjoins Llwynteifi Ucha' and both must lie to the west of the Rheidol, as the lode could be seen crossing the river on the east of the sett. Llwynteifi Isa' later became the Temple Mine whilst Llwynteifi Ucha' is now simply known as Llwynteifi. In his account, Spargo makes no mention of East Llwynteifi, and only Liscombe gives

contemporary reference that it lay close to Yspytty Cynfyn where a shaft had been sunk and an adit driven on what is supposed to be the Nant y Cria lode in which some good stones of ore have been met with.

Liscombe, writing in 1870, is insistent that East Llwynteifi has been driven on the Nant y Creiau Lode whereas Francis, 57-8, describes it as working the Ystumtuen Lode.

In his work 0f 1874, Francis states that the River Rheidol forms the western boundary of East Llwynteifi, and the mine adjoins the Crown or Tynyffordd Mine, an adit had been driven here in 1870, heading east for about 15 fathoms before cross cutting about 40 feet to gain a back of 15 fathoms where it cut the lode. He later states that Llwynteifi, not Ucha' or Isa', lies on the west bank of the River Rheidol between East Llwynteifi and Bwlchgwyn.

Francis's map of 1878 confirms East Llwynteifi as a small sett lying on east bank of the Rheidol on the Ystumtuen – Castell Lode, between the Llwynteifi and Crown Mines.

Thirty years ago we spent some time looking for the East Llwynteifi Mine on the east bank of the Rheidol above Parson's Bridge but could find nothing that matched the contemporary descriptions. There is an adit marked on the OS maps at SN 7490.7928, opposite Temple but it is no more than a couple of fathoms long and does not fit the given descriptions. There were no indications of there having ever been a shaft in the vicinity. It is also quite possible that East Llwynteifi may have been a short-lived part of the Esgair Wynion or Erw Barfau sett, and puffed up out of all proportion.

MINES OF WALES –
THOMAS SPARGO (c 1869/70)

p48 Llwyn Teify Isa
In the south bank of the River Rheidol, on the ground of Messers Davies, of Llwyn Teify, near Aberystwyth, and extends from the Rheidol River exactly to the brow of the hill, a distance of three forths of a mile; held under a tack note, with promise of lease for twenty-one years. Secretary and Manager T. P. Thomas Esq., Local Agent, Captain Barbery, on the mine. Through this ground passes what is termed the Estyn-ty-hen vein, and the middle and south lodes, which unite at the top of the hill, and form an immense mass of gozzan and spar, impregnated with lead and blende, throughout the entire distance. This lode is very large, being from fifteen to twenty feet wide, and is certainly the finest gozzan yet met with in the county.

Nothing has ever been done on this part, with the exception of an adit that has been driven in about eighty fathoms, but this driving is not on the course of the lode, so that a cross-cut will have to be driven seven fathoms from the present forebreast, which will reach the vein thirty fathoms from the surface, where there is every possibility of finding good ore. The Estyn-ty-hen lode may be seen crossing the River Rheidol immediately to the east of this ground, with a branch of lead ore in it six inches wide. Deep adit levels can be brought in so as to give a back from the river to the top or brow of the hill, all the way on the course of the lode of 150 fathoms, and there is every facility for bringing an abundant supply of water, in fact more than sufficient for all purposes in every season of the year,

THE MINES OF CARDIGANSHIRE, MONTGOMERYSHIRE AND SHROPSHIRE –LISCOMBE & Co (1870)

p15 East Llwyn Teifi
Lies about eleven miles east of Aberystwyth, and close to the village of Yspytty Cynfyn. A level with a shaft in connection has been driven on what is supposed to be the Nant-y-Cria lode; good stones of ore have been met with, and the lode presents a very favourable appearance.
[According to Simon Hughes this is a description of Esgair Wynion Mine not East Llwyn Teifi. Ed]

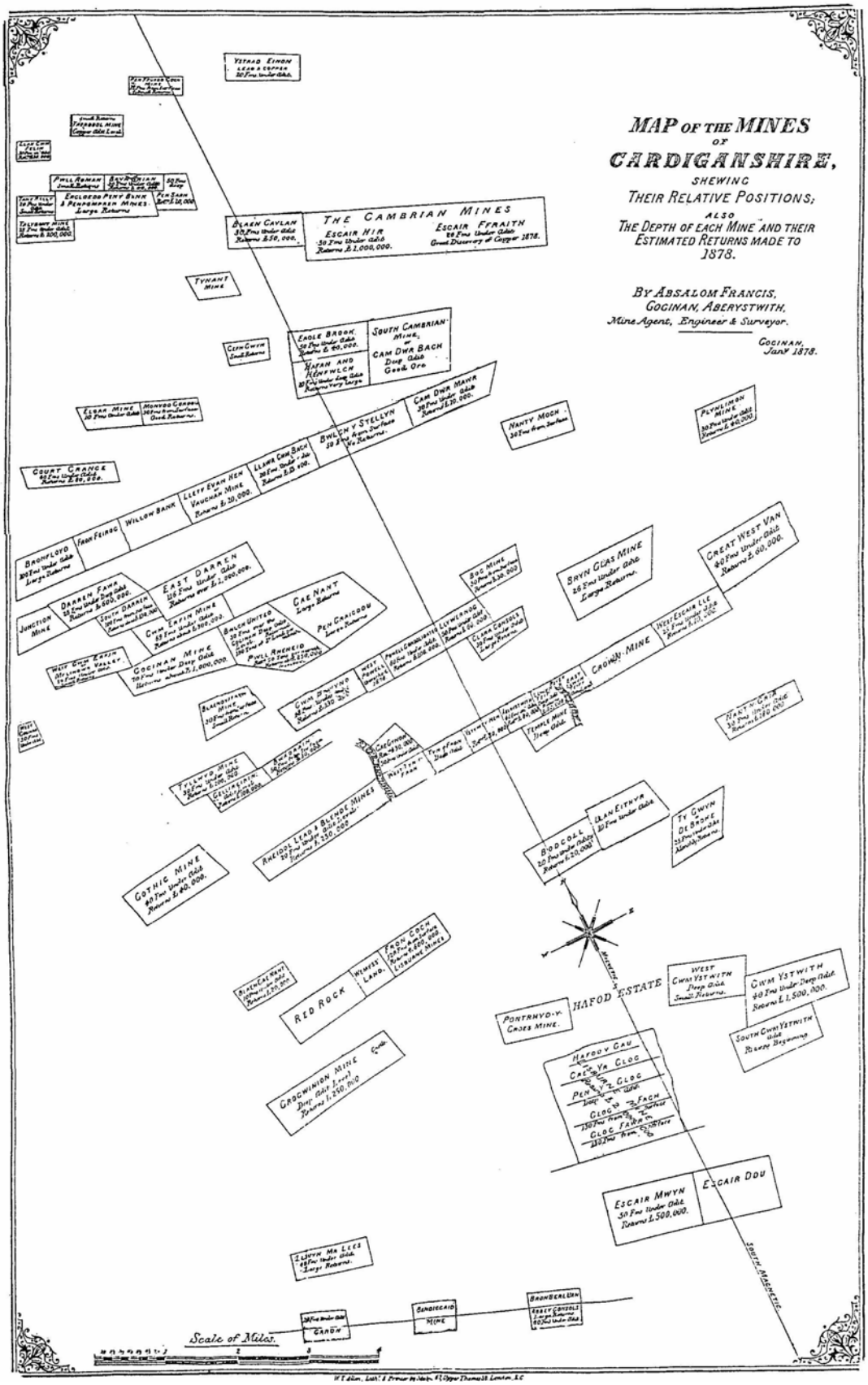
HISTORY OF THE CARDIGANSHIRE MINES – A FRANCIS (1874)

p61 Under Llwyn Teify
Again going further east, and to within a distance of about 50 fathoms from the Rheidol, a deeper level called Nantymoch Level, has been driven in for about 40 fathoms, the main portion of the lode here is standing to the north. To continue this level with the utmost dispatch should be the great object of the present company, and which, if adopted, cannot fail to put the mine into a lasting state of prosperity and dividends.

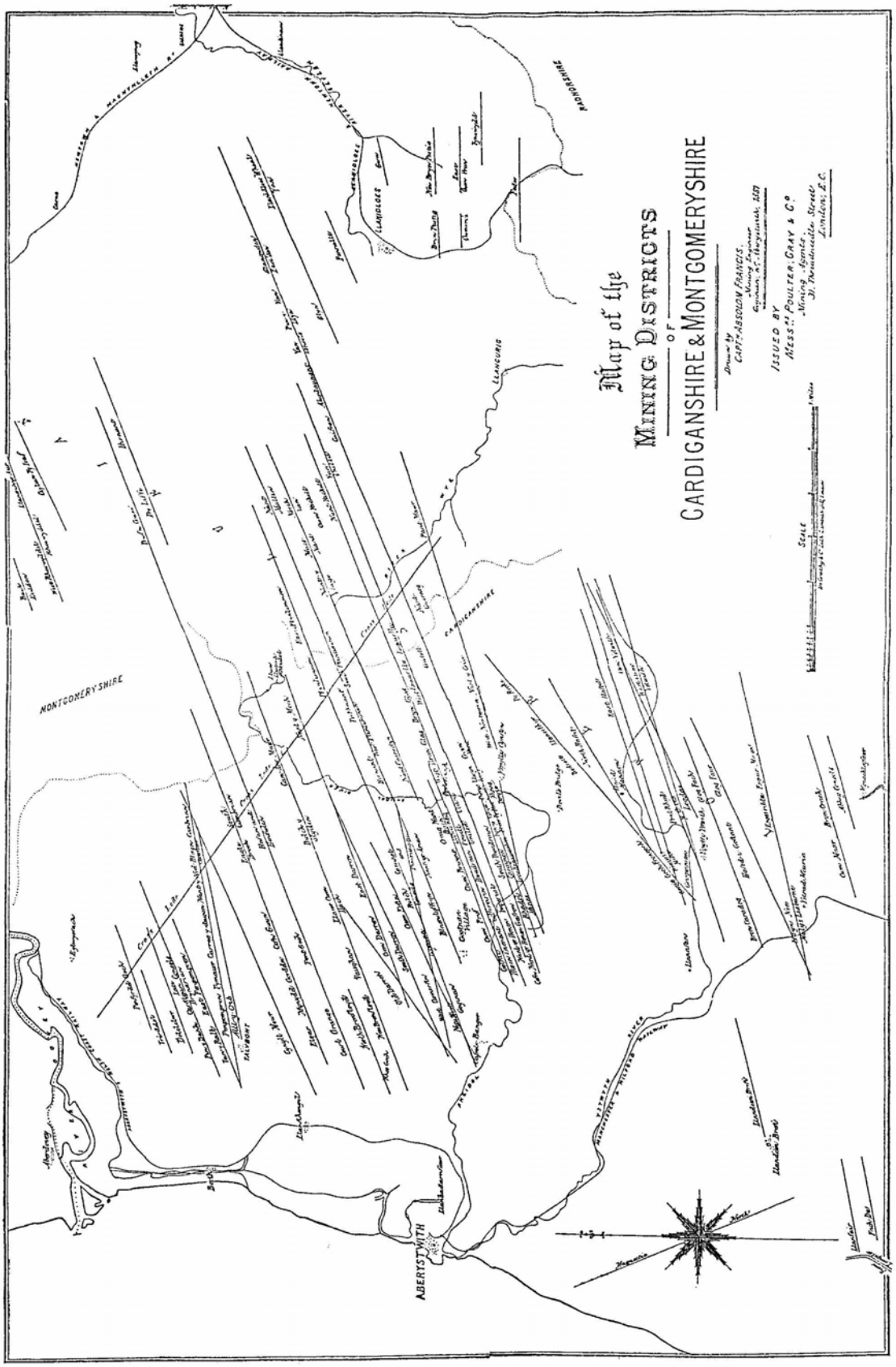
p57/58 East Llwyn Teify
Which is a piece of ground adjoining the Crown Mine, and to the west of it, having the river Rheidol for its western boundary. More than a century ago Mr Morris, a well known writer and historian, and a gentleman who has left us an immense amount of important information concerning the mines of this county, reports, that the Great Ystymtyhen vein, in crossing the river Rheidol at this place, shows a rib of lead ore six inches wide, solid, with a considerable quantity of blende.

I have never seen this lead ore myself, but I have talked with a dozen people on whom I can place important reliance that such is the fact, and that Mr Morris's statement is in no way exaggerated. About four years ago *[1870]* a local company was formed for working the mine, who commenced their operations by driving an adit level at the east bank of the Rheidol. They extended this level about 15 fathoms, through one of the finest veins that it is possible to meet with, gaining a back in that distance of 15 fathoms. They then cross-cut the lode for about 40 feet, the lode containing sulphur, blende, spots of copper, and lead ore; but what, in my opinion, is a more unmistakable sign of great riches here during the whole of this cross-cutting, at distances of from two to three feet, there were branches of sugar and crystallised spar, varying in size from six inches to two feet wide. That these quartz branches will turn into solid masses of lead ore, when a sufficient depth has been obtained, say 50 fathoms, I have no more doubt than I am writing in my paper; and before treating on the other veins or branches in this grant, and as the companies, some of them at least, are known to me, I should advise them to take an old man's advice and belief, which is, that if they go frittering away their capital in surface trials, they will have none left to proceed to make trials in depth, where ore can only reasonably be expected to be found, and the sooner they cut short the present mode the better, and make preparations for the sinking of the mine to the depth before-named of 50 fathoms, devoting their energies at this depth to the trial of the ground westward of their intended sinking, and under the lead ore ground known to exist in their grant and crossing the river Rheidol. The capital subscribed is sufficient for this purpose, and I must here fill up an omission that escaped me, and, that is that the mine passed from the local party before into the hands of a gentleman from London, who will undoubtedly give the property the trial it deserves.

ABSALOM FRANCIS MAP 1878



ABSALOM FRANCIS MAP 1881



MEMOIRS OF THE GEOLOGICAL SURVEY Vol XX
O T JONES (1922)

p148-149
TEMPLE (6-in Sheet, Card. 7 S.E.)
From the Rheidol gorge west of Ysbytty Cynfyn adits have been driven on a lode which ranges parallel to, and about 50 yds. south of, the Castell lode. It dips steeply to the south and has a downthrow of about 25ft. The lode-matter on the dumps consists of brecciated mudstones with abundant quartz and considerable quantities of blende, in association with galena; it look promising material, but only 3 tons of lead ore were returned (1887).

LEAD MINING IN WALES
W J LEWIS (1967)

p193
Nothing else worth recording occurred north of the Ystwyth River until 1907 when the price of lead ore rose to £20 a ton, and high-grade blende was £6 a ton. A company known as the Scottish Cardigan Mines Ltd, was now formed to work the Loveden and Bwlch-glas mines. A zinc concentration plant was erected and the shipment of concentrate begun. For the first time in the history of the industry in mid Wales, motive power was produced by a gas plant. Another company – the Lerry Mining Co – was developing the Leri and Brynarafr mines, and it proposed was also to begin work at the Temple, East Goginan, Gwaith-coch, Nantyrarian and Caegynon mines. Yet three years later only Bwlch-glas was at work and its annual output was well under a hundred tons.

THE METALLIFEROUS MINES OF WALES – D MORGAN REES
PUB: 1972 AMGUEDDFA NO 12, WINTER 1972,

p13/14
One of the most impressive of Cardiganshire's lead mine sites is that of the Temple Mine, one which has received only scant notice from an historical standpoint. The 6 in to 1 mile map shows *old levels* and *old level* on the west and east banks of Afon Rheidol a short distance north of Parson's Bridge. The remains of the dressing floors are on the west side of Afon Rheidol, the grid reference being SN 749 791.

In his well known work, 'The Mining District of North Cardiganshire and West Montgomeryshire', *Special Reports on the Mineral Resources of Great Britain,* O T Jones placed the Temple Mine in the chapter on Cardiganshire Mines with a total output of less than 1,000 tons. In an alphabetical list of the mines he indicates that Temple Mine worked for one year only, in 1877, producing 3 tons of lead ore and 20 tons of blende. Professor Jones's detailed description of this mine is, understandably short:

> From the Rheidol gorge west of Ysbytty Cynfyn adits have been driven on a lode which ranges parallel to, and about 50 yds. south of, the Castell lode. It dips steeply to the south and has a downthrow of about 25ft. The lode-matter on the dumps consists of brecciated mudstones with abundant quartz and considerable quantities of blende, in association with galena; it look promising material, but only 3 tons of lead ore were returned (1887).

In the present context the importance of this paragraph lies in the information that the mine was situated in the Rheidol Gorge. The area occupied by the dressing floors of Temple Mine is on a narrow ledge on the western bank of the river a short distance upstream from Parson's Bridge. The land falls

very sharply from the 700 ft. to the 600 ft. contour line and down to the bed of the river on both sides. The present path which runs along the sloping ground on the west side of the river does not provide for easy walking. It is remarkable to think that the proprietors of this mine were prepared to erect dressing floors in such a position, which can only be described as perilous. The present waterwheel pit, which is at right angles to the Rheidol is 32 ft long, has an internal width of 5 ft. 9 in. and walls 3 ft. 6 in. thick. Its external height is now only 13 ft. There appears to be two levels of crushing floors upstream from the wheelpit and one of these was, it is fairly obvious, completely taken up by round buddles.

The buddle was used in the process of metallic recovery after the ore had been reduced to a pulp or slime. It consisted of a shallow circular pit formed in the ground and when the slimes were poor it was usual to have a second buddle near the first for re-treating. The sides of the pit were formed of stone or brick and the floor, which had a slight inclination outwards, was often made of smooth planed boards. In general terms the slimes were distributed at the centre with a stream of water, and spread and stirred on the sloping boards with rotating arms with brushes. As it was distributed towards the circumference the slime deposited in its passage the rich ore, according to its specific gravity – the richer towards the middle and the poorer at the circumference. The outflow of waste water flowed through a small sluice gate in the circumference of the buddle and on occasion along wooden launders to a second buddle in which the recovery process was repeated.

Buddles and launders, Temple lead mine (Roy Day)

The dressing floors at Temple Mine still provide evidence of a pair of buddle and superficial clearance work was enough to reveal the wooden launders of yellow wood linking them together. The photograph shows a part of one of the crushing floors on the right, one which probably accommodated the stamps, operated by the waterwheel, which were used for fine crushing. The outline of a buddle is seen in the middle of the photograph with the launders leading away from it, in the form of a right angle, to the left. In the background flows the Afon Rheidol.

From the Rheidol gorge west of Ysbytty Cynfyn adits have been driven on a lode which ranges parallel to, and about 50 yds. south of, the Castell lode. It dips steeply to the south and has a downthrow of about 25ft. The lode-matter on the dumps consists of brecciated mudstones with abundant quartz and considerable quantities of blende, in association with galena; it look promising material, but only 3 tons of lead ore were returned (1887).

A short distance upstream there is a second waterwheel pit on a ledge close to the bed of the river. The second edition of the 25 in. to 1 mile map shows a water course flowing towards this pit from above, but tree growth has made it difficult for this to be identified. Directly above this wheelpit, immediately to the west of the path already mentioned an adit level runs into the hillside.

The problem of how materials were carried to this site and the ore- the little that was mined – taken away from it was partially solved by an unverified reference to an aerial ropeway, 'which went over the mountain', given by a local inhabitant.

THE OLD METAL MINES OF MID WALES Part 2
DAVID BICK (1975)

p27 TEMPLE
Though beautiful or even spectacular terrain often surrounds the metal mines of Wales, its presence nowhere more hindered the miner than at TEMPLE * (749793). The mine occupies part of the Llwynteifi sett a stones throw above the Parson's Bridge in the Rheidol Gorge, and exploited a lode south of the main Castell-Caegynon lode by means of three adits driven westwards. It was worked by the Temple Lead Mining Company from 1876 to 1881 and Cardigan United † in 1886/7, under Absalom Francis as agent.

To provide power the first company cut a leat out of the solid rock of the gorge, and for nearly half the total 1¼ miles it had to be built up from 1½ inch pitchpine supported by iron rods. A 40 ft x 4 ft waterwheel was installed outside the middle and deep adits and its duties comprised pumping an underground shaft to the 20 fm level via flat rods, working a compressor for rock drills and powering a drawing machine. The latter wound ore from the shaft and operated an inclined tramway at the surface via pulleys and 400 fathoms of steel rope.

A little downstream at the dressing floors, a 30 ft x 4 ft waterwheel was coupled to a Blake's stone crusher and 24 ins diameter rolls, and a 14 ft wheel drove the dressing machinery. To aid transport of ore and materials a tramway incline ascended several hundred feet to meet a cart track that followed a circuitous route to Bwlchgwyn.

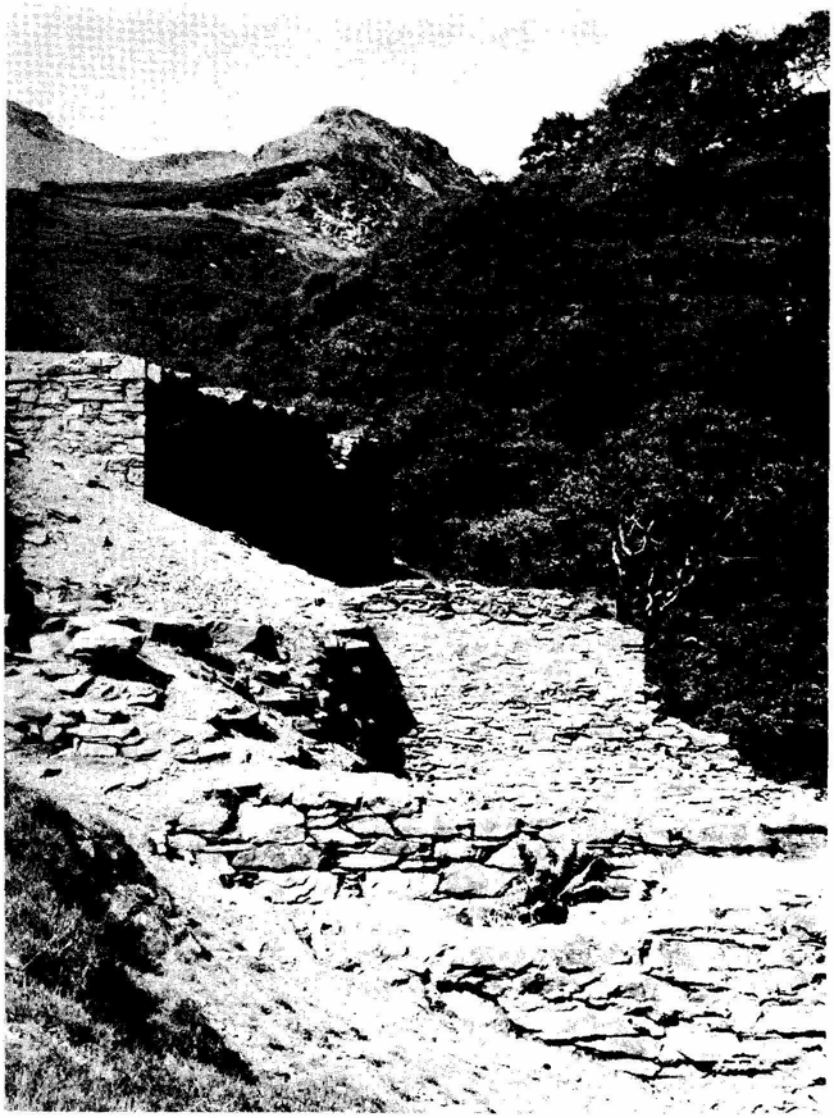
After about 50 fathoms drivage, the middle and deep adits came into good ore and over a hundred tons of galena was sold in 1881 together with 22 tons of blende; but after this encouraging start the lode petered out in both length and depth. Attempts to locate payable ore by crosscutting north to the Castell lode were equally disappointing. A few years later Cardigan United drained the mine and sunk Rawcliff's Shaft close to the river upstream of the pumping wheel to a depth of 15 fathoms, also with the intention of crosscutting to the Castell lode. The sole output of this venture was 3 tons of lead ore derived from the old workings.

The most impressive remnant at Temple is the massive and awesome pumping wheelpit rising sheer out of the river, with a network of foundation walls alongside that once supported the compressor and

drawing machine. The dressing floors are also worth seeing but in any event, a walk there is worth the effort for the scenery alone.

* My thanks are due to Peter Lloyd Harvey for information on this mine.
† Mining companies were often suffixed 'United', and if the name reminds us of football, the association is appropriate for mining shares were in many respects the 'pools' of the 19th Century.

Addendum
Temple. This mine drained Bwlchgwyn in exchange for the use of their winding facilities. The agreement ceased circa 1885 and both companies suffered in consequence. The connecting level (Middle adit) is now blocked but still has a good railway and a big air- receiver in it.

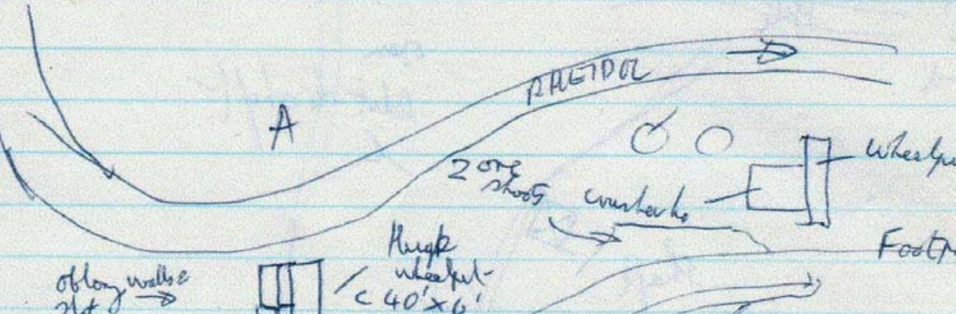


Temple. *The pit for the crushing machine wheel is in the foreground, with two masonry ore slides in heavy shadow. There are also fine remains of two circular buddles.*

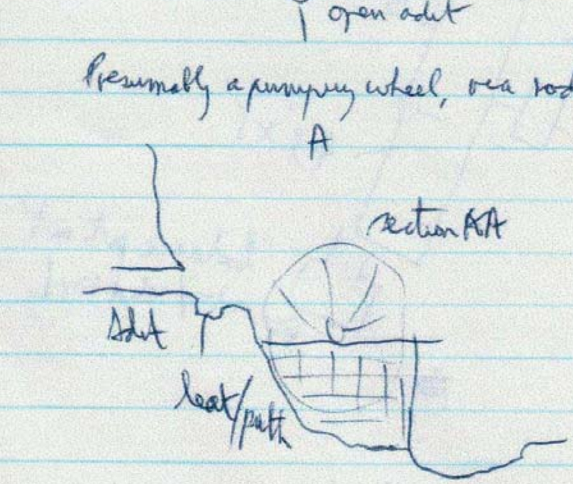
DAVID BICK'S FIELD NOTES

TEMPLE

From the E side of the gorge,
Course of lode can be made out striking boldly up the steep hillside
alongside a Zig Zag Path
In this almost vertically sided gorge, it must be one of the most spectacular sites for a mine in Mid Wales, & in the overwhelming
beauty of the scene, the almost insuperable difficulties in working such a
mine are easily overlooked



Presumably a pumping wheel, via rods in adit? Alignment not quite right



THE MINES OF CARDIGANSHIRE
J R FOSTER-SMITH (1979)

P62-63
Temple
Cwmrheidol Ph. SN 749 793

The Castell Vein system was worked to a small extent at this mine, though the main workings are upon a subsidiary vein to the south of the main fracture. This vein strikes east-north-east and occurs in the lower beds of the Frongoch Formation. No details of the workings or their history are known; but the chief ore mineral appears to be sphalerite, of which much may be seen on the dumps. The mine was active in 1887, when 3 tons of lead ore were produced. The workings lay on both banks of the Afon Rheidol.

Ref.: OTJ., pp.148-9. WJL., p.193. DEB Pt.2., p.27.

THE MINES OF CARDIGANSHIRE – R BURT, P WAITE, R BURNLEY (c1985)

TEMPLE PONTERWYD SN 749792 0246

Production: Lead

	Ore(tons)	Metal(tons)	Value(£)
1887	3.25	2.50	20.00

Zinc

	Ore(tons)	Metal(tons)	Value(£)
1881	20.00	8.00	50.00

Comment 1881 TEMPLE LEAD

Ownership: 1876–1877 TEMPLE LEAD MINING CO.; 1878–1883 TEMPLE LEAD MINING CO.LTD.; 1886–1889 CARDIGAN UNITED MINES LTD.; 1908 BOOTH,BROOKS & RICHARDS; 1909–1912 ABERYSTWYTH SILVER LEAD MINES LTD.; 1913 RICH.RICHARDS

Comment 1883 SUSPENDED; 1889 SUSPENDED; 1911–1913 IDLE

Management: Chief Agent 1876–1877 CHAS.THOMAS; 1878–1881 JOHN H.CROUCHER; 1882 JOHN DAVIES; 1886–1889 A.H.JENKS; 1908–1911 R.RICHARDS; 1912 F.C.MOORWOOD

Employment:

	Underground	Surface	Total
1877		4	4
1878	24	18	42
1879	33	12	45
1880	20	14	34
1881	12	4	16
1882	4		4
1886	16	1	17
1887	12	5	17
1888	11	2	13
1889		1	1
1908	4	2	6
1909	4		4
1910	2		2
1913	1		1

ROYAL COMMISSION FOR ANCIENT AND HISTORIC MONUMENTS IN WALES INTERNET DATABASE

Ref No: 9342
TEMPLE (748 793)
Metal Mine – Lead, Zinc

THE FUTURE OF DERELICT MINING SITES IN DYFED
DYFED COUNTY COUNCIL (1984)

p11
TEMPLE
Lead, small site located deep in Rheidol gorge. Access by footpath (ROW) from Ysbyty Cynfyn (car park). Shaft; levels (open); wheelpits; crusher house; ore slides; buddles; tramway; leats.

p17
This small mine is located in the deep gorge of the Rheidol Valley between Ponterwyd and Devil's Bridge. Access is via a footpath (ROW) from a small privately-owned car park at Ysbyty Cynfyn on the A4120, with a walk of about half a mile involving a steep descent into the gorge to Parsons Bridge. The reasonably well-preserved masonry remains combined with the mine's beautiful situation in the wooded Rheidol Valley make the mine ideal for the general tourist, and an interpretative board would be useful. However the site is on the edge of an SSSI, and so any proposed increase in utilisation should be referred to the Nature Conservancy Council.

CAMBRIAN MOUNTAINS METAL MINES PROJECT
DYFED COUNTY COUNCIL (1988)

Mine: D51

Ref: **D51** Name: **Temple**

Grid ref: **SN749793** EAU ref: **574**

Location : The Temple mine is near Parsons Bridge and within the Rheidol Gorge. The site is located adjacent to the A4120 approximately 1.5 ha south of Ponterwyd. The site is frequently visited.

History : A small mine worked by the Temple Lead Mining Co. 1876-1881, then by Cardigan United until 1887. The output totalled 150 tonnes of Lead and 0.25 tonnes of Zinc.

Surface Remains : Derelict buildings cover 0.75 ha. The wheelpit rises sheer out of the river. There are open levels, remains of a crusher house, ore slides, buddles, tramway and leats.

Shafts etc : None identified.

Spoil : Coarse mine waste (0.5 ha) and intermediate waste (0.25 ha). The spoil on site is not recorded as having a high heavy metal content.

Erosion : There is no evidence of erosion of material on site.

Vegetation : Surface remains on site are largely surrounded by vegetation. The remains themselves are largely unvegetated.

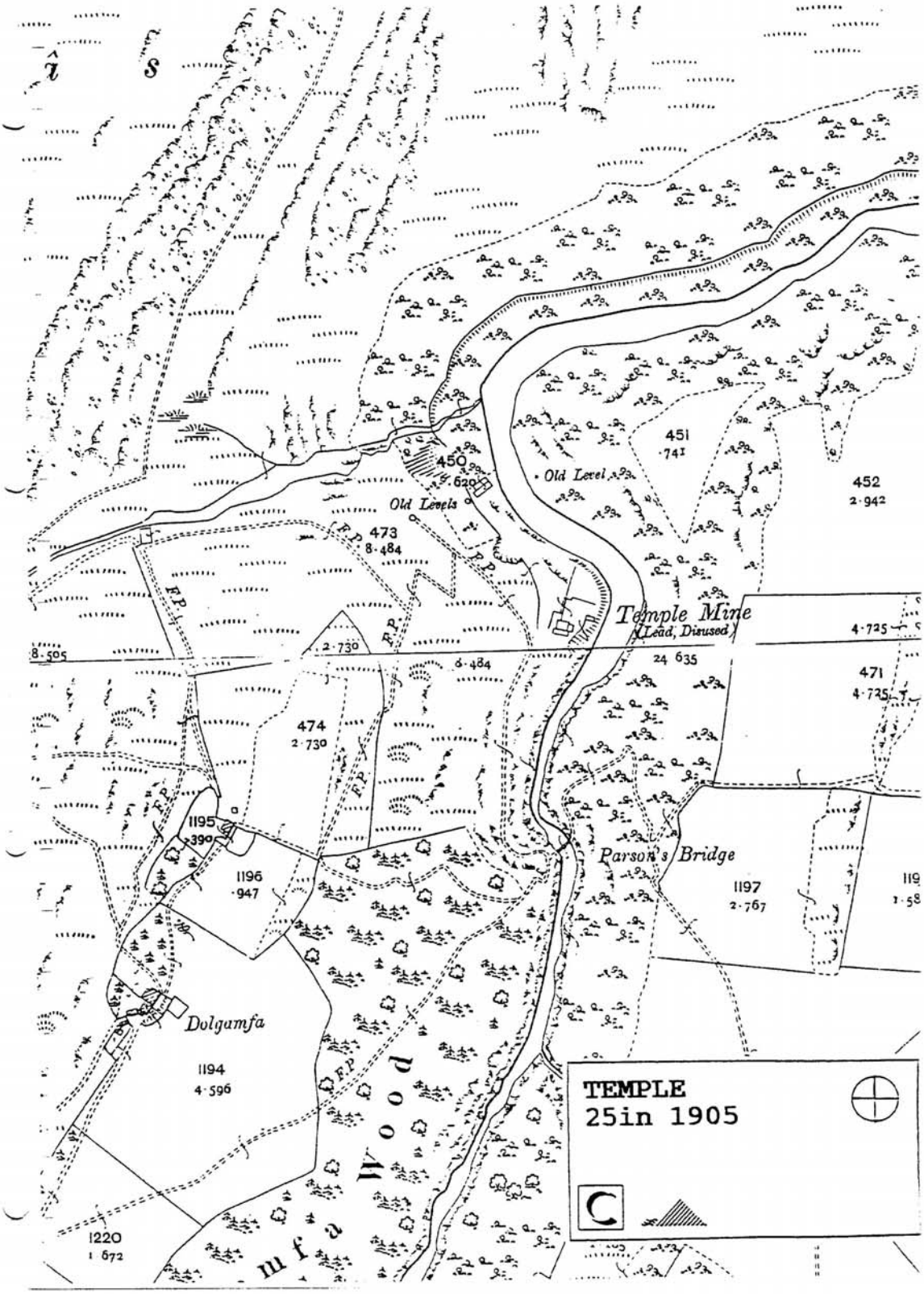
Conservation Interest : The site is adjacent to the Rheidol Gorge SSSI. A survey of lichen was briefly conducted on site by the NCC.

Access : Right of way (footpath) from Ysbyty Cynfyn on A 4120.

Danger : Site located in precipitous section of gorge with consequent dangers. Site itself is not dangerous.

Visual Impact : Very attractive and dramatic position. Site adds to romantic beauty of location.

Conclusions : Visually interesting site. The site is not of great historic or archaeological value. The site attracts many visitors due to it's position and the beauty of the gorge. A private car park is located alongside the main road.


Old Levels
Old Level
Temple Mine
(Lead, Disused)
Parson's Bridge
Dolgamfa
Woodland
TEMPLE
25in 1905
450
·620
451
·741
452
2·942
473
8·484
474
2·730
471
4·725
1195
·390
1196
·947
1197
2·767
1194
4·596
1220
1·672
8·505
2·730
8·484
24 635
4·725

MINE NAME: TEMPLE

Archaeological

Welsh Mines Society
The site is not currently proposed for scheduling, however there are significant structures and earthworks on this site primarily related to the application of water power. Also on site are entries to various underground features. Down stream from the pumping and winding wheel pit are the dressing floors with associated mountings and earthworks, evidence for the ore preparation processes used.

Temple mine, its waterwheel pit and associated leat, are in a dramatic setting. Any remedial work could damage the landscape and archaeological value of the site. Careful consideration of the issues is required before remedial work is carried out and the basic requirements of a topographical survey and archaeological assessment need to be carried out.

Cadw
Archaeological interest not known to Cadw, but the site requires assessment.

Cambria Archaeology (Dyfed Archaeological Trust)
The mine is part of the Llwynteify sett. Remains: derelict buildings, wheel-pit, crusher house, ore slides, buddles, tramway, dressing floor, leats. The most impressive remains are the wheel-pit and dressing floor.

Mineralogical
No comments

Biological (Habitat / Species)

Countryside Council for Wales
The site is a SSSI / SAC which is lichenologically important with areas requiring preservation.

Nine rare lichens as follows.
Area 1: Three lichen in the wheel-pit 'B'.
Two lichen on a wet rock face beside the footpath above the crusher house.
Area 2: One lichen in wheel-pit 'C'.
Four lichens on spoil near 'D'.

It is also an important bryophyte site, because of the woodland surrounding the northern part of the site.

Choughs are suspected at around SN 7470 7930, but no nesting site has been located.

Other

Welsh Mines Society
There are no plans to promote the site, but it is well placed for low level interpretation. This impressive site is in spectacular location in the Rheidol gorge with access only being possible by foot. Poor access has left the mine buildings in a wonderful state of preservation and any problems ought to be dealt with by good management rather than by a reclamation scheme. The old leat is a superb feat of engineering which follows the river Rheidol for several hundred metres upstream, into an otherwise inaccessible gorge, and is worthy of conservation. The Middle Adit, alongside the footpath by the wheelpit, was eventually driven under the neighbouring Llwynteifi mine and appears to drain the eastern part of it. Also; It ought to be noted that a disruption of the discharge from Bwlchgwyn and Penrhiw through the Cwm Rheidol Number 6 adit may well come to surface through this adit and create significant pollution of the Rheidol. This mine was originally part of the long defunct Penglaise Estate and it is believed that the site is owned without reservation of the minerals to a third party.

Countryside Council for Wales
There is a footpath through the site (but it is not a right of way). The site is close to Parson's Bridge which is used regularly by bikers.

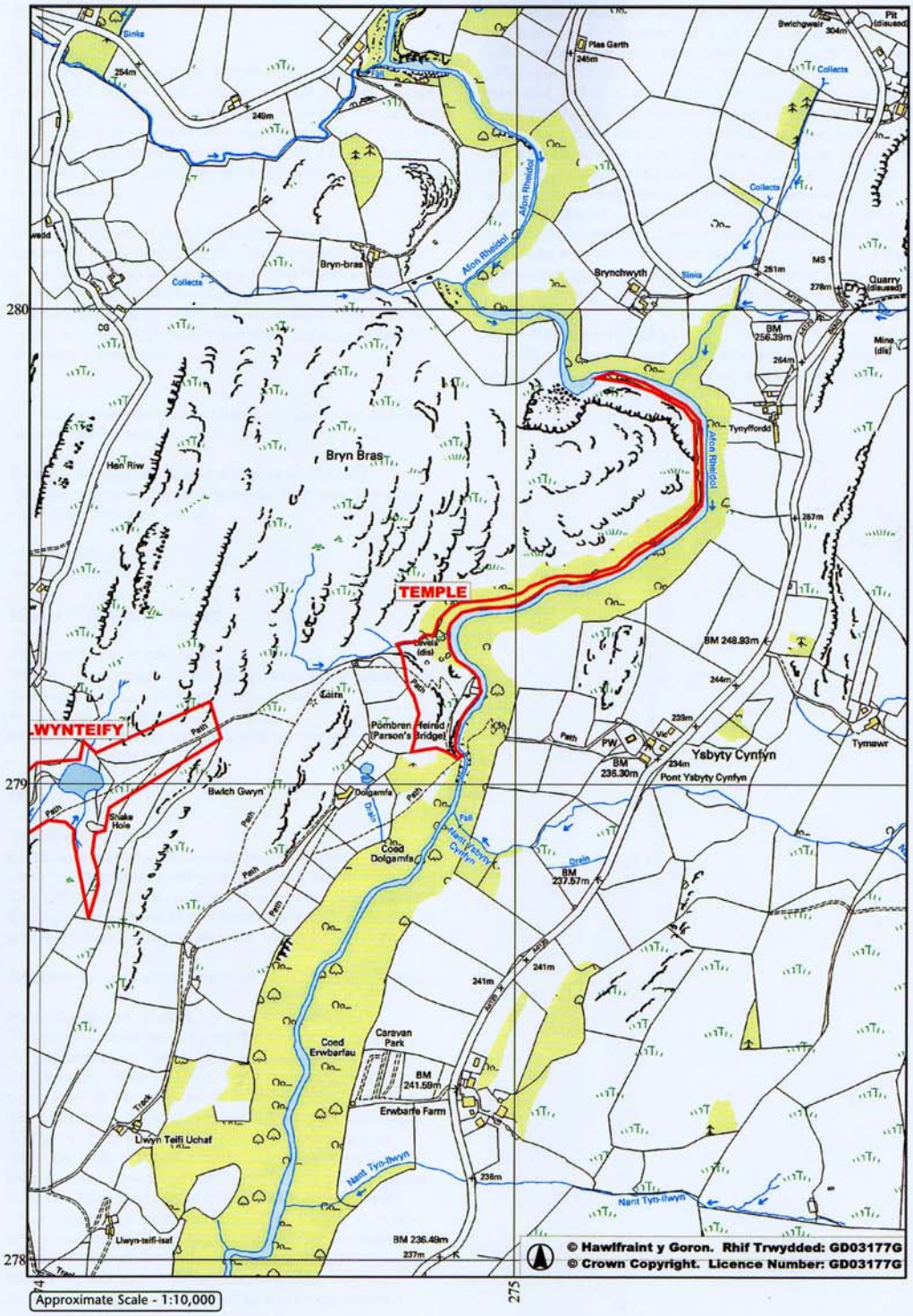
Ceredigion Council
One of the most spectacularly sited mines in Wales with stone structures bordering gorge of Afon Rheidol in a narrow wooded valley. Links to west by footpath with group of mines in the Ystumtuen area, and to east with church and standing stones at Ysbyty Cynfyn. No public right of way across site but near river crossing on Parson's Bridge.

Structures include walls of dressing mill with buddle circles and large 40' wheelpit. No spoil remains on site and so presume source of contamination is from mine drainage. Due to landscape sensitivity of site would suggest minimal intervention and great care with design of any scheme.

Pentir Pumlumon Tourism
Located in the Rheidol gorge, these workings clearly illustrate the ingenuity of mining engineers in Victorian times. Significant masonry features continue to exist, including two wheelpits, ore slides, buddle circles, the line of a conventional tramway and that of the incline by which the mine was kept supplied. The plant was necessarily unconventional owing to the geographical constraints of the location, and the site demands careful consolidation and interpretation. Sub-surface, the workings contain interesting features including an underground pump shaft & balance bob, together with a riveted compressed air receiver. At the top of the steep hill-slope are the ruins of the smithy, office, and winch housing for the incline, linked by cart track to Ystumtuen. This is an important site, which should be maintained at the highest possible level of conservation by its owners, the CCW. Parson's Bridge lies on the route of the proposed Miner's Way through N.E. Ceredigion, and a permissive footpath is being developed to link with the Temple Mine site. Comprehensive interpretation of the features is highly desirable. A cross-cut north from No.2 Adit cut the Castell Lode and anecdotal evidence would suggest a link with Llwynteifi, the possible source of the pollution in the Temple Deep Adit. Controlled access for educational purposes should be maintained as part of the CCW management strategy.

Welsh Development Agency
In 1978 this site was perceived as not doing significant environmental harm, therefore not ranked by WDA.

TEMPLE


TEMPLE
WYNTEIFY
Bryn Bras
Ysbyty Cynfyn
Pont Ysbyty Cynfyn
Afon Rhiadol
Nant Tyn-llwyn
Coed Dolgamfa
Coed Erwbarfau
Caravan Park
Erwbarfe Farm
Llwyn Teifi Uchaf
Llwyn-teifi-isaf
Bryn-bras
Brynchwyth
Tynyffordd
Pombren Teirsiad (Parson's Bridge)
Dolgamfa
Bwlch Gwyn
Shake Hole
Han Riw
Tymawr
Quarry (disused)
Pit (disused)
Mine (dis)
Plas Garth
Bwichgwair
Sinks
Collects
Drain
Path
Track
BM 256.39m
BM 248.83m
BM 235.30m
BM 237.57m
BM 241.59m
BM 236.49m
280
279
278
274
275
Approximate Scale - 1:10,000
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LLYWERNOG MINING MUSEUM FACT-SHEET No 7 – TEMPLE MINE (1981)

7. THE TEMPLE LEAD MINE ~PARSON'S BRIDGE

INTRODUCTION. This Factsheet describes a 'self-guide' trail which will take you into one of the most beautiful & fascinating sections of the Rheidol valley. The Trail starts in the car park adjoining St John's church at Yspyty Cynfyn, a tiny hamlet mid-way between Ponterwyd and Devil's Bridge on the A.4I20. Using the existing footpaths in conjunction with this Factsheet you can learn a great deal about the characters who made this tiny part of Mid-Wales so famous.

St JOHN'S CHURCH. Immediately next to the car park (Point I.) you will find the ancient Christian church (Point 2.) uniquely set within the exact confines of a much earlier pagan stone circle. If you look carefully you will see some of the remaining standing stones actually built into the very wall of the church burial ground. This has been a site of worship for centuries and after the establishment of the Cistercian Abbey at Strata Florida in about II60, Yspyty (Welsh for hospice/hospital) Cynfyn became a resting place for pilgrims and monks travelling this way on monastic business. Samuel Meyrick writing in his 'History of the County of Cardigan' published in I808 mentions some fascinating folk traditions involving the ancient church.

> 'Throwing of heavy weights and stones with the hand was much practised in former times..... Henry the Eighth, after his accession to the throne, .., retained "the casting of the barre" among his favourite amusements. It is still continued in Wales, particularly in Cardiganshire, where the people have a meeting once a year at certain chapels, Yspytty Ystwith, Yspytty Cenvyn, etc for this purpose. They remain in the chapel all night to try their activity in wrestling, all the benches being removed, and the spectators, different from the ancient regulations, are generally young women, and old champions, who are to see fair play.'

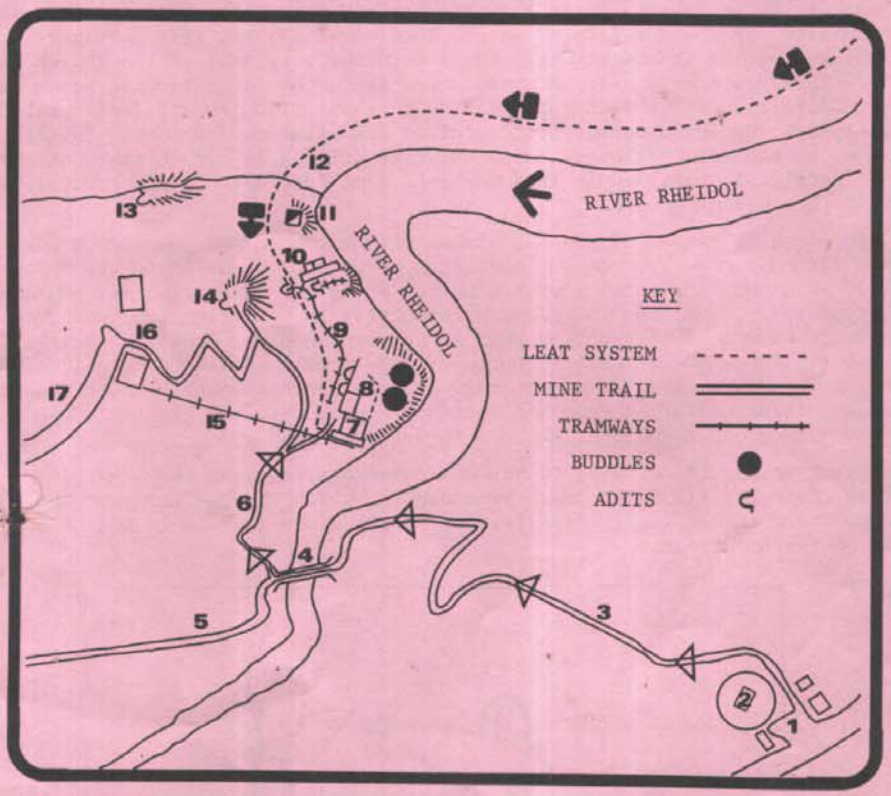
The church graveyard contains tombstones commemorating many old lead miners as well as the first ill-fated quads recorded in Wales. The sad story of this little family, born in the lonely farmstead of Nantsyddion, is told in the cold, grey slate of the headstone.

St JOHN'S CHURCH, YSPYTY CYNFYN.

Nowadays, St John's is one of the best kept churches in Ceredigion, largely through the unstinting efforts of Mr Alf Jenkins, the honorary Churchwarden who lives nearby. You will find a small collecting box on the wall of the churchyard and donations towards the upkeep of the church would be very welcome.

FOLLOW GEORGE BORROW. Once through the gateway you are now on the trail to Parson's Bridge (Point 3.), a route taken by the famous writer George Borrow in 1854 as part of his historic journey through 'Wild Wales.' See how the present well-maintained footpath and steel bridge compare with Borrow's description in the mid-19th century.

'Passing through a field or two we came to the side of a very deep ravine, down which there was a zigzag path leading to the bridge. The path was very steep, and, owing to the rain, exceedingly slippery. For some way it led through a grove of dwarf oaks... nearly at the bottom, however, where the path was most precipitous, the trees ceased altogether. Fearing to trust my legs, I determined to slide down..., arriving at a little shelf close by the bridge without any accident... The bridge consisted of a couple of planks and a pole flung over a chasm about ten feet wide... The torrent rolled about nine feet below the bridge; its channel was tortuous; on the south-east side of the bridge was a cauldron... The river was rushing and surging, the pot was boiling and roaring, and everything looked wild and savage.'



SKETCH MAP OF THE TEMPLE LEAD MINE TRAIL, PARSON'S BRIDGE.

Once at the Parson's Bridge (so named because former incumbents of St John's came this way to visit parishioners around Ystumtuen village) you have reached No. 4 on the route map. Take the right-hand fork which leads to the Temple Lead Mine by way of a stile. The left-hand fork is a major local footpath to Ystumtuen; well worth-while if you have the extra time. Approaching the old mine from this direction you can immediately see some of the problems that faced the engineers of yesteryear such as the fact that the mine never had any road access and that there was virtually no flat land in the bottom of the gorge on which to lay-out the processing plant. With great ingenuity, these problems were overcome. By using our map & looking at the field evidence for yourself, you can start to think like an industrial archaeologist and begin to unravel the fascinating flow-system of the Temple Mine. If you're wondering about the name, this was derived from the stone-circle, the druid 'temple' at Yspyty Cynfyn.

THE MINE SITE.

No. 7 Ruins of the crusher-house and water-wheel pit. Contained an overshot water-wheel 30' x 4' plus a set of 24" crushing rolls (similar in design to those at Llywernog Museum). Installation took place between June and October I878. Just above and behind the crusher-house you will see a masonry plinth. This supported a Blake's Stonebreaker which pre-crushed the ore to a size acceptable to the roller crusher (i.e. I½" cube)

No. 8 Main Dressing Floors fed by two semi-circular ore-bins (traditionally referred to as ore 'slides'.) Constructed September/October I878. The Mine boasted one 3-compartment jigger, two flat buddles, eleven slime pits, two round buddles (these remains are easily recognizable) & one mechanical 'Dolly Tub', all worked by line-shafting and pulleys driven by a I4' x 2' water-wheel (similar to the Eagle Foundry water-wheel at the Llywernog Museum.)

No. 9 Tramway linking No.2 Level (the Middle Adit) with the ore-bins above the Dressing Floors. As you walk along the line of the tramway you may notice the occasional wooden sleeper still surviving in situ. Parallel with the tramway and on your left, is the watercourse or 'leat' which fed the crusher wheel and the entire dressing floor complex.

No.IO The portal, or entrance, of No.2 Level (the main haulageway) below which is a large water-wheel pit and the entrance to the No.I Level (the Deep Adit.) The ruins of this wheel-pit and the associated masonry foundations are well worthy of close inspection. Apart from the excellent state of preservation, the features are of great engineering interest. The pit contained, as a prime mover, an overshot water-wheel 40' x 4' in size fed from the main leat system by a short length of wooden launder. The wheel was bought as part of a 'job-lot' in a mine sale in June I879 and started work in about February, I880. This was a remarkably 'multi-functional' water-wheel, for it not only worked an underground pumping system in the Deep Adit, but it also drove a 200 H.P. air-compressor and a mechanical wire-rope winch. The winch hoisted from an underground shaft in the floor of the Deep Adit and also wound an incline tramway leading up the steep hillside to the nearest road access point (No.I5 on map). All that from one water-wheel driven by the energy of the River Rheidol. The plant was the alternative technologists dream ! One word of warning; both the No.2 Level and the Deep Adit are rather dangerous owing to collapsed underground stagings. It is safer to keep out than risk falling down the dark voids within the hillside.

No.II A small prospect working known as Rawcliffe's Engine Shaft, sunk by the Cardigan United Mines Co. in I887. The shaft is I5fms (30yds) deep and has a short level running north into the Castell Lode. Now flooded right up to the collar and potentially quite dangerous, so beware.

No.I2 The main watercourse or 'leat'. This is about one mile in total length from a wier on the River Rheidol. Owing to the steepness of the gorge upstream of the mine, about 400fms (800yds) of the leat had to be conveyed in a pitch-pine box, chained onto iron bars driven into the rock face. If you have time see if you can find some of these supports - several still exist after all these years.

No.I3 Nantymoch Level. An ancient prospecting adit-level driven in on the Castell Lode which outcrops along the line of the ravine. This powerful geological fracture was responsible for the severe 'kink' in the course of the River Rheidol upstream of Temple Mine. The Nantymoch Level pre-dates the operations at Temple and was driven as part of the Llwynteifi Mine many years before.

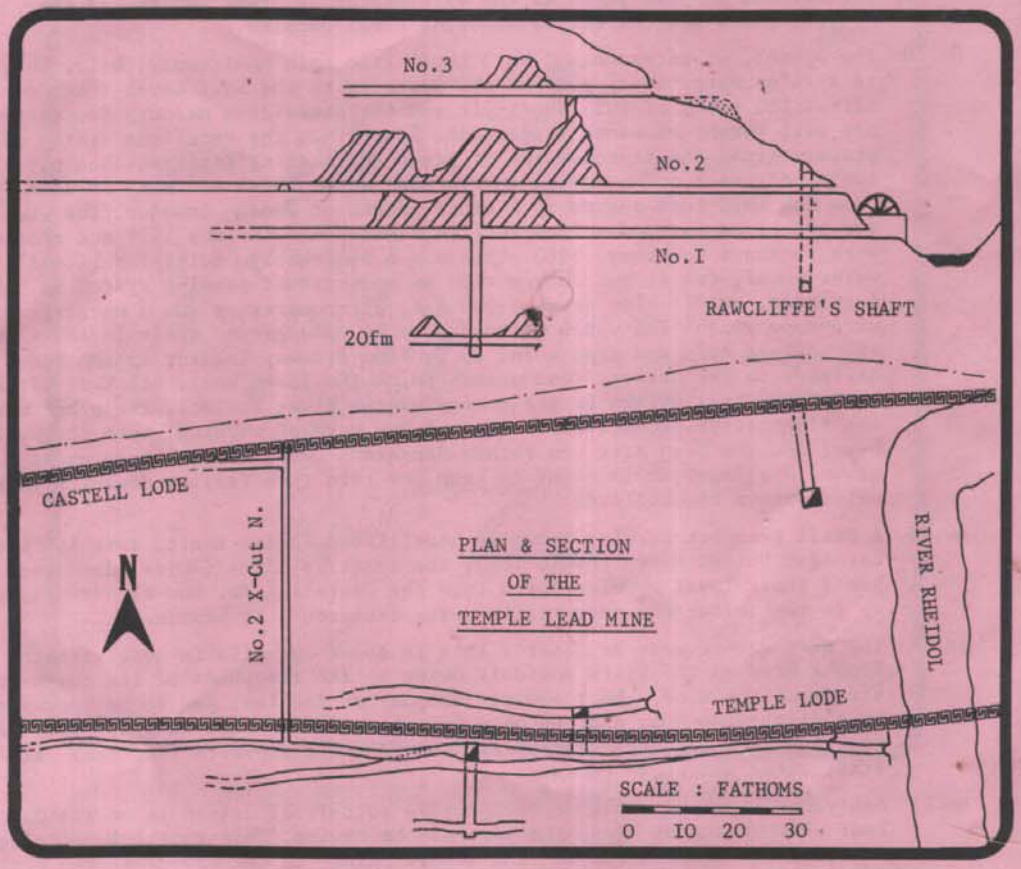
No.I4 No.3 Level entrance. Under no circumstances go into this tunnel. A very short distance inside, the floor disappears into thin air owing to the collapse of the original timber stagings. If you were to walk in here in the darkness you would fall down through a cavern into the Deep Adit, 200 feet below ! So be warned & keep out.

No.I5 The inclined tramway which linked the mine with the cart-track system from Ystumtuen village. You can still see where the rails were located because of the slight difference in the plant colouration. The lower terminus was next to the crusher house.

No.I6 Slightly north of the tramway top terminus was the mine smithy. The ruins of this building can still be clearly seen.

No.I7 The cart-track from Ystumtuen which was the only access to the whole Temple Mine complex.

THE UNDERGROUND WORKINGS. The Temple lead mine was worked basically by a series of three Adit-levels driven in on a vein of lead ore originally discovered outcropping in the bed of the River Rheidol. The three levels were eventually linked up underground by the removal of the vein lying between them. This process, known as 'stoping' is fully explained in our Factsheet No.I. In order to follow the vein at greater depth, an underground shaft was sunk below the floor of the Deep Adit Level and this reached a depth of 20fms (40yds) in I88I. Another important project was the exploratory cross-cut, driven northwards from the No.2 Level to test the famous Castell Lode where it ran within the mine boundary. Rawcliffe's shaft has already been described as point No.II on the trail. From the description of the mine given in the 'Mining Journal' and from survey notes made by Captain Richard Richards of Ystumtuen in about I9I7* it has been possible to reconstruct an underground plan & section showing the interrelationship of the workings.



* Kindly loaned by Mr Alf Jenkins of Yspyty Cynfyn.

Other Publications in this series (available from the Museum Bookshop)

Factsheet No.I - 'How a lead mine worked below ground.'
Factsheet No.2 - 'How a lead mine worked above ground.'
Factsheet No.5 - 'A history of mining in Mid-Wales.'
Factsheet No.8 - 'The Cardiganshire Miner - How he lived & worked.'

Send an s.a.e. for our full Booklist to:- The Director, Mid-Wales Mining Museum, Ponterwyd, Aberystwyth, Dyfed. Tel. 0970.85.620.

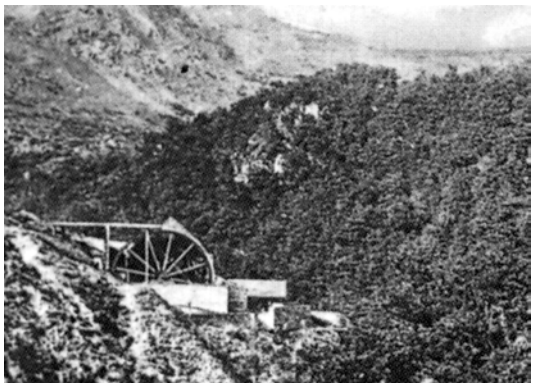
c.I98I SPLH.

My thanks to Peter Harvey at Llywernog for permission to use the fact-sheet

HISTORICAL GALLERY
PAGE 1

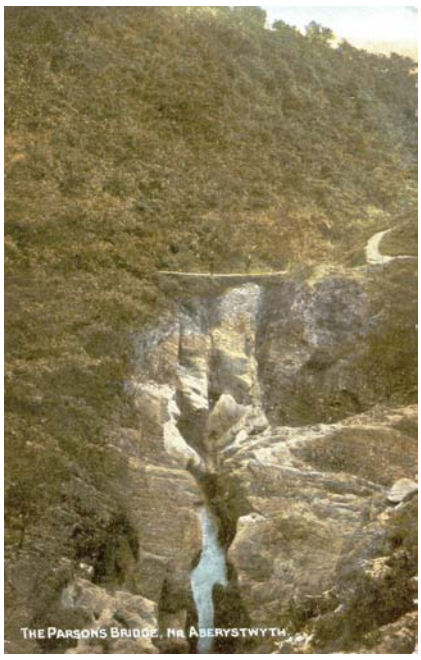
SIMON HUGHES COLLECTION

01) Temple Mine, old Parson's Bridge in foreground 1890

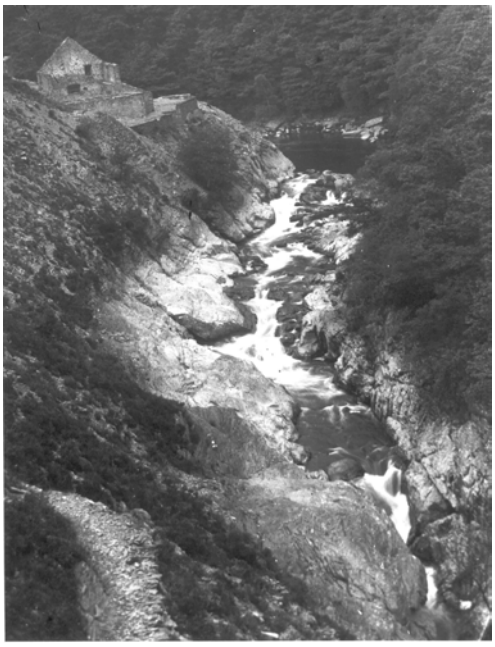


02) Temple Mine 1890

03) Temple Miners 1900



04) Parson's Bridge 1908

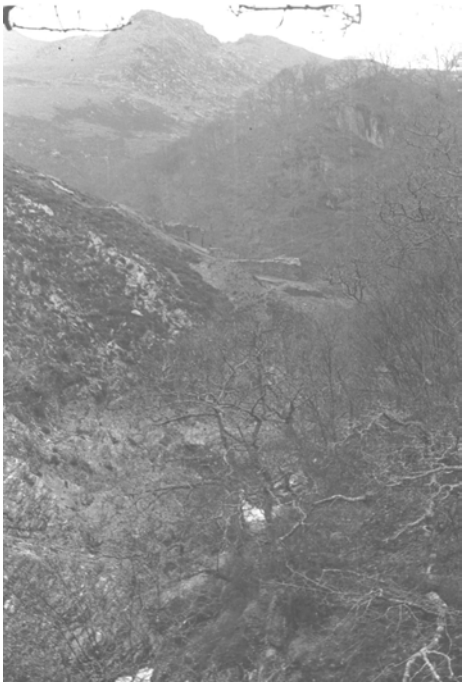


05) Temple Mine 1925

HISTORICAL GALLERY
PAGE 2

SIMON HUGHES COLLECTION

06) Rheidol Gorge 1959



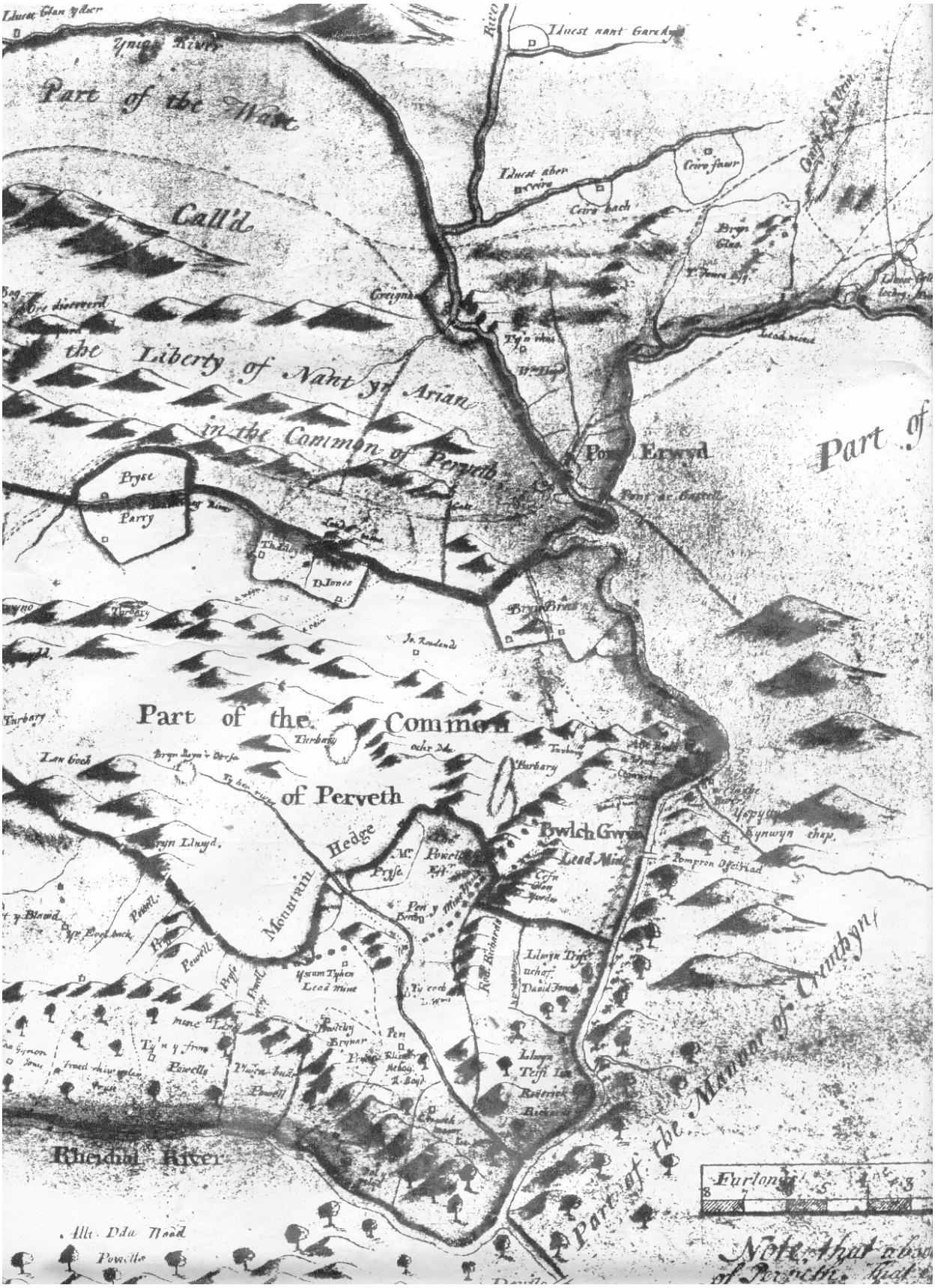
07) Temple Mine 1978

08) 40 foot wheel-pit 1978

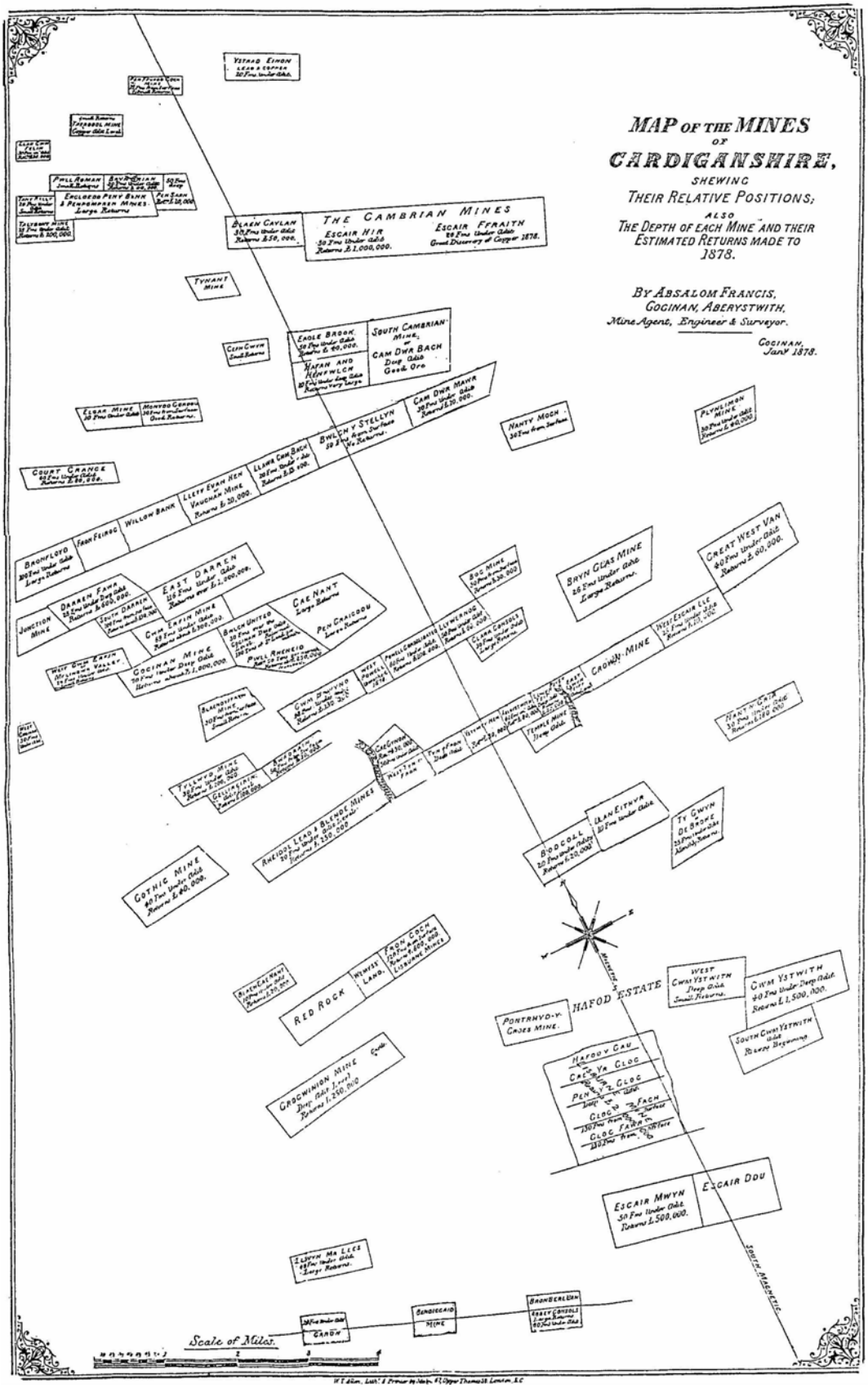
09) Temple Mine 1978

10) Bwlchgwyn and LlwynTeifi Mines 1984

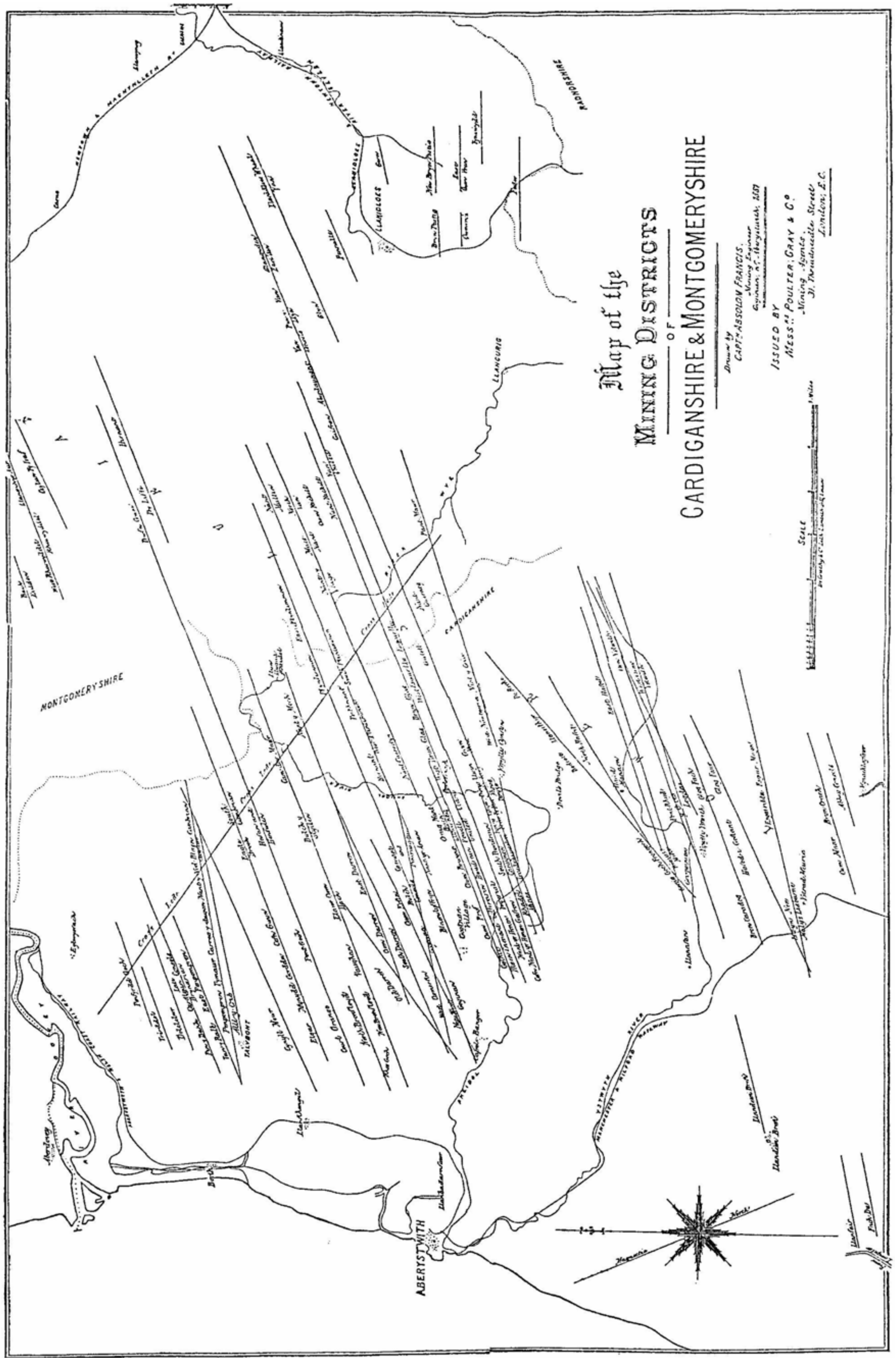
Lewis Morris Map of Ystumtuen (1748)



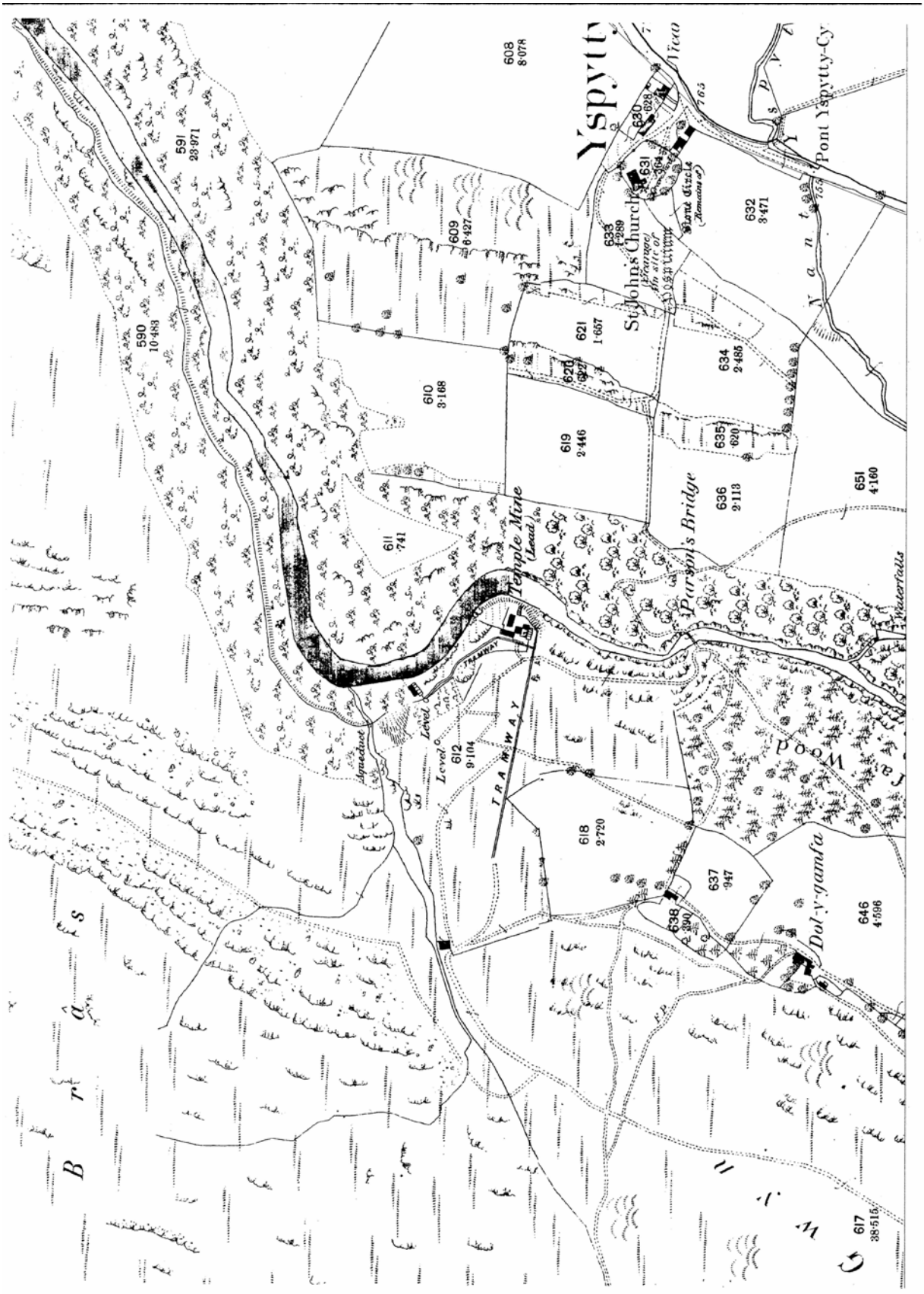
Absalom Francis Map (1878)



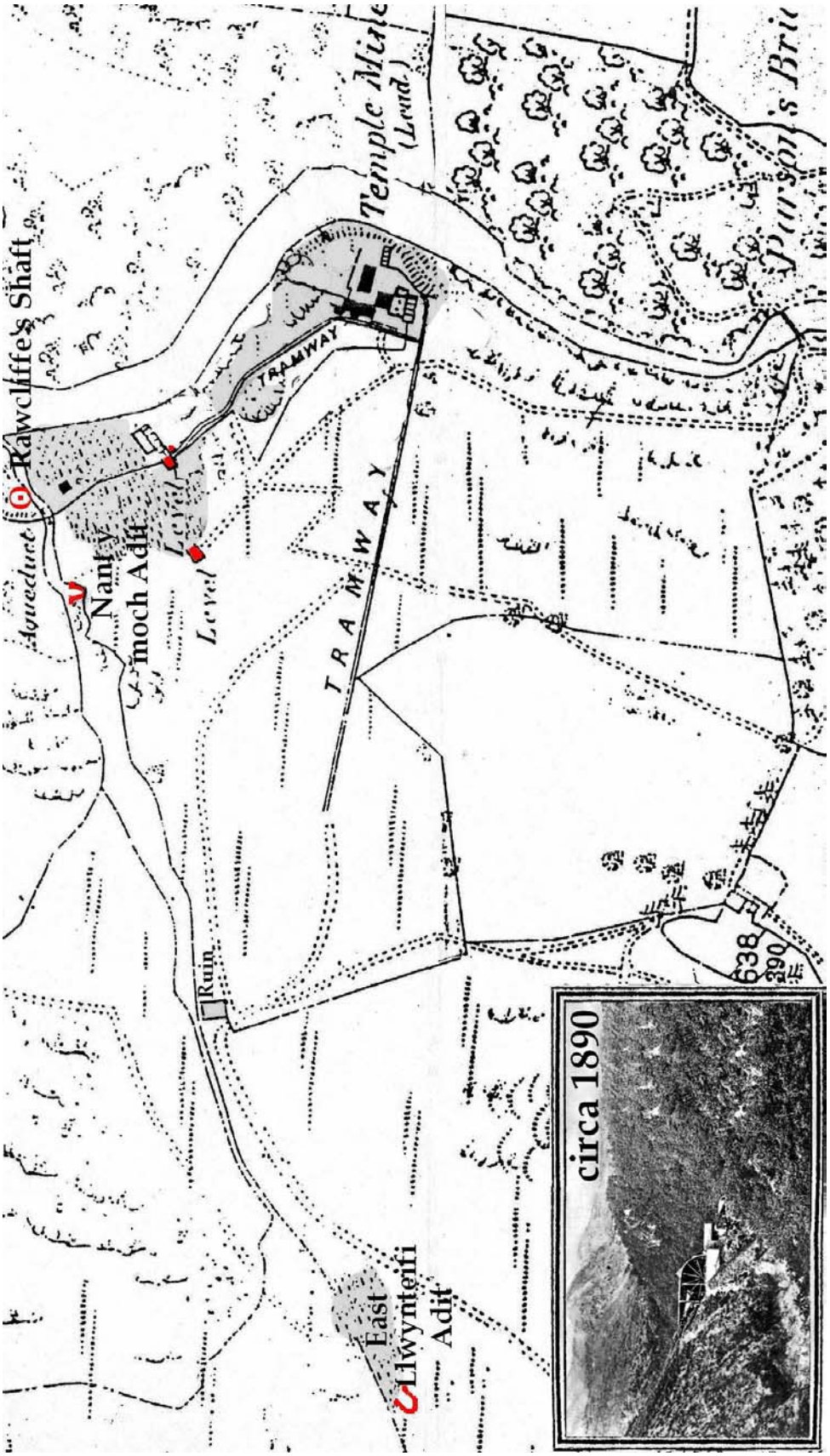
Absalom Francis Map (1881)



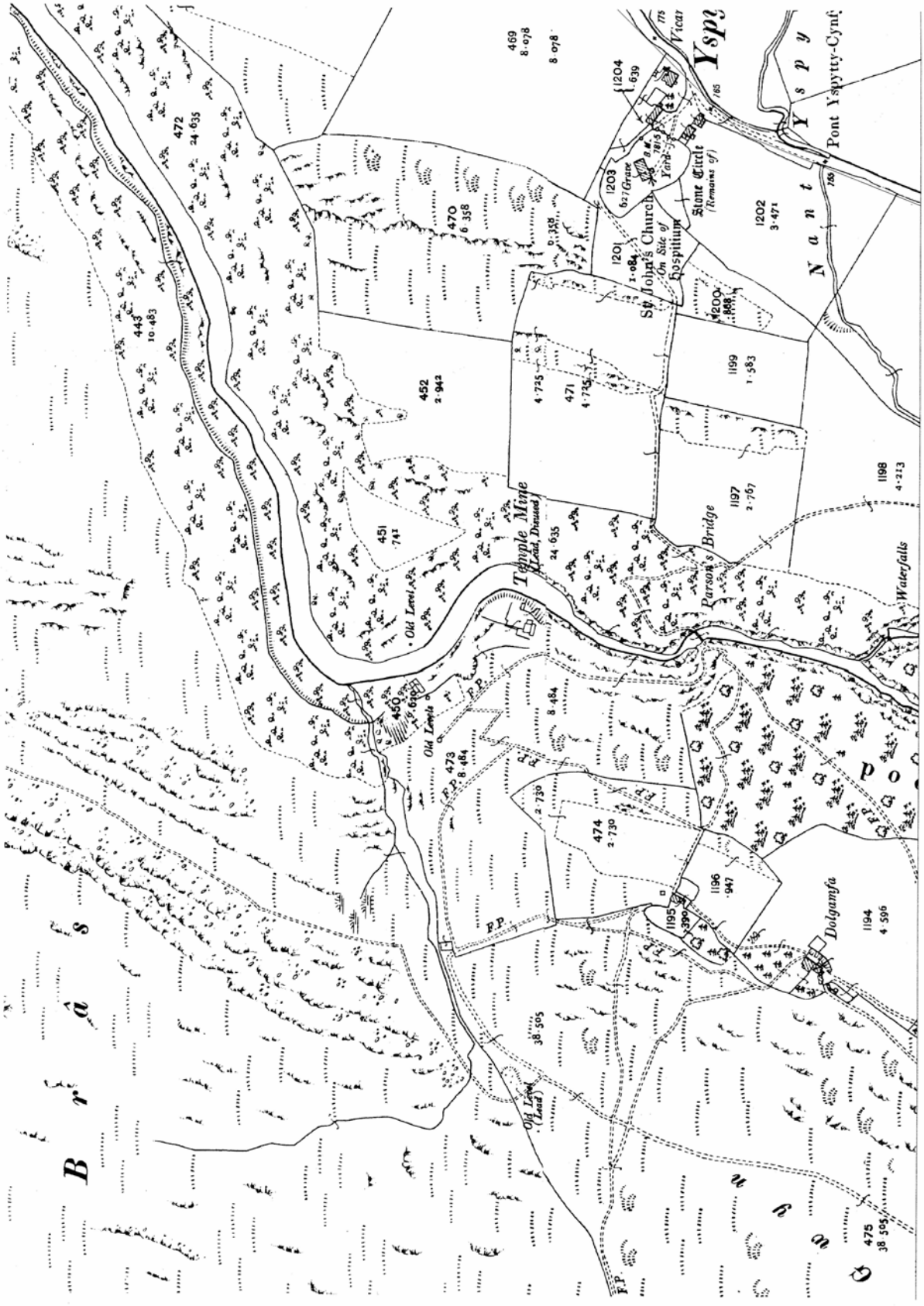
1st Edition 25 inch OS Map (1888)



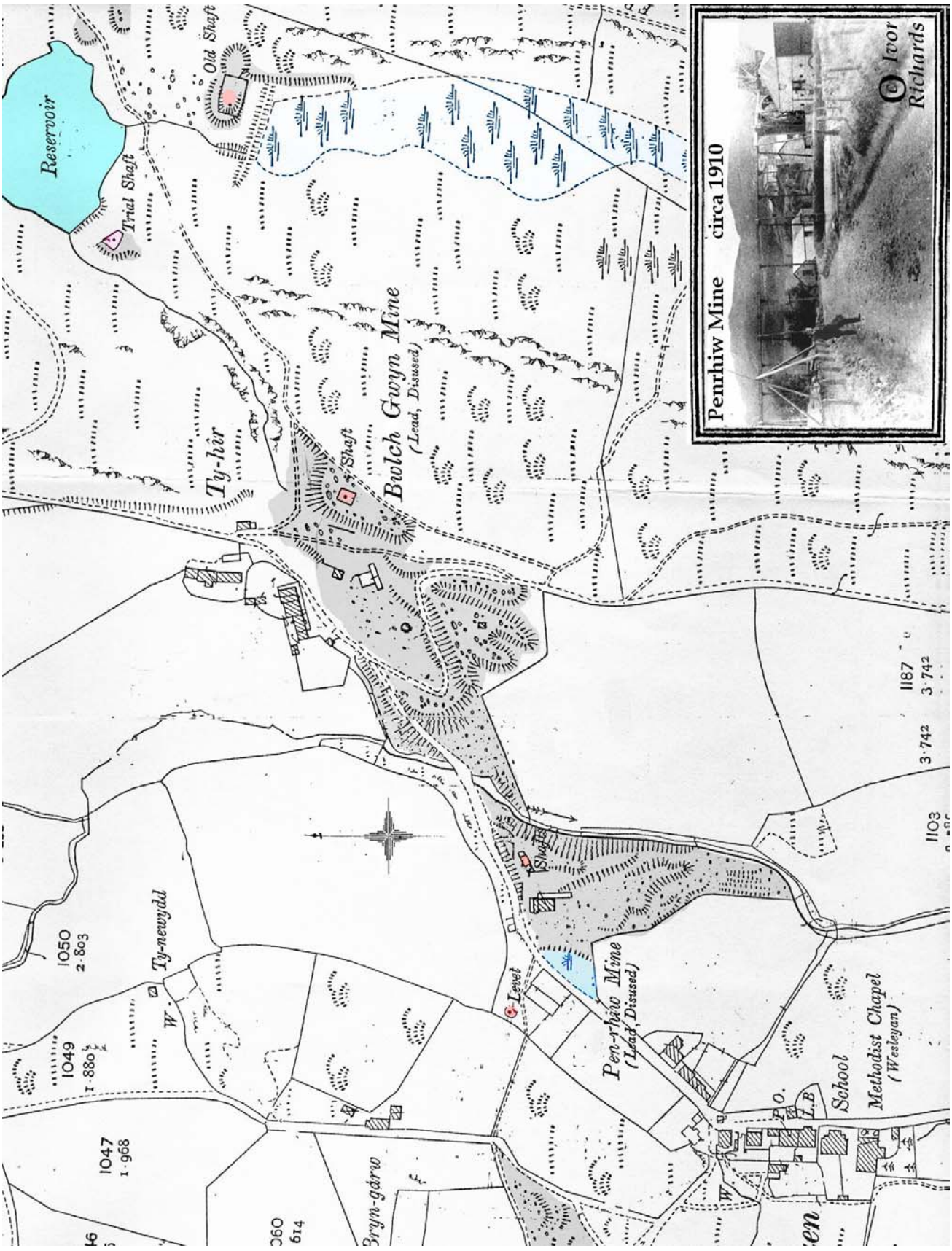
1st Edition 25 inch OS Map (1888) with additional detail by Simon Hughes



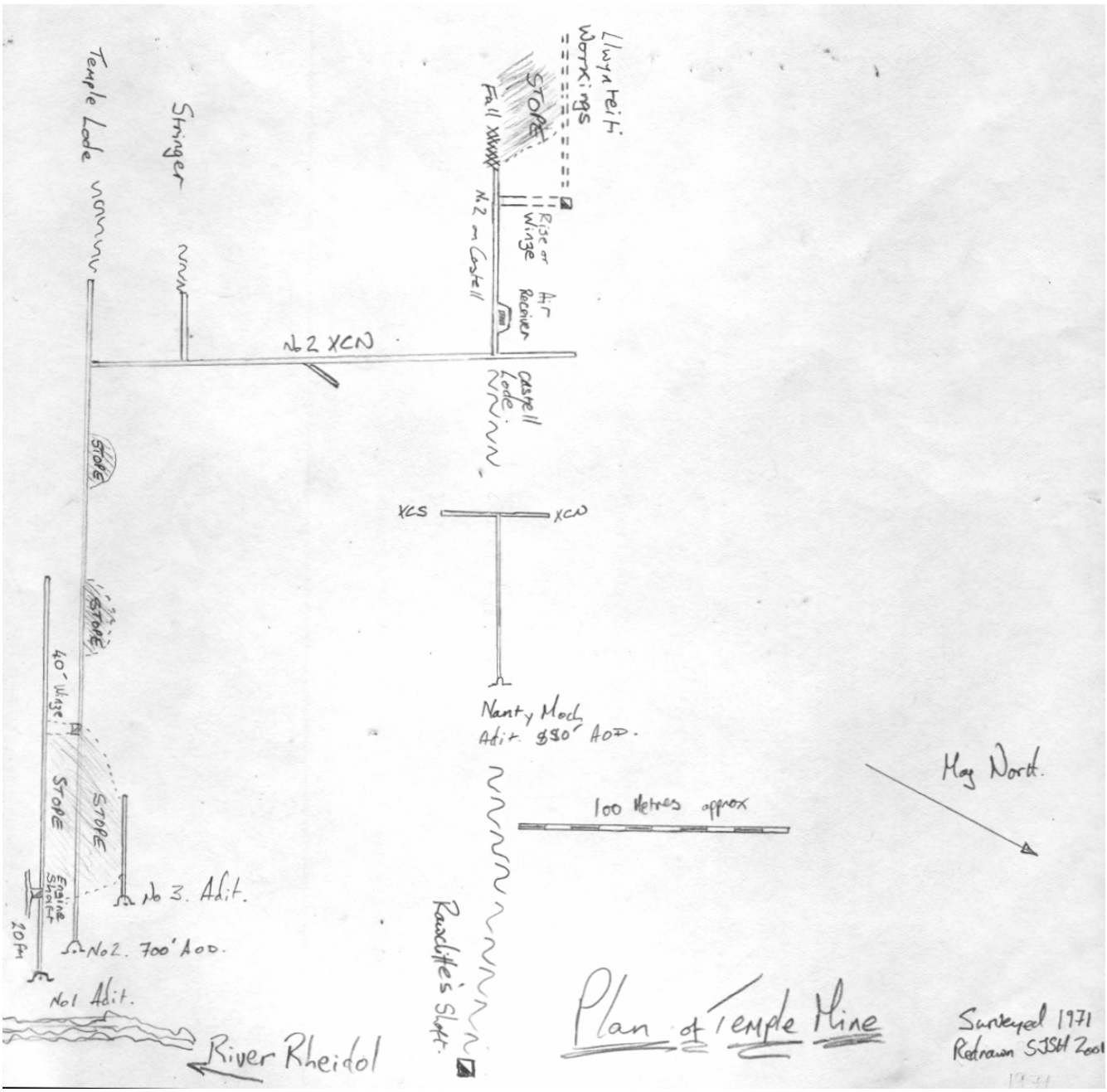
2nd Edition 25 inch OS Map (1905)



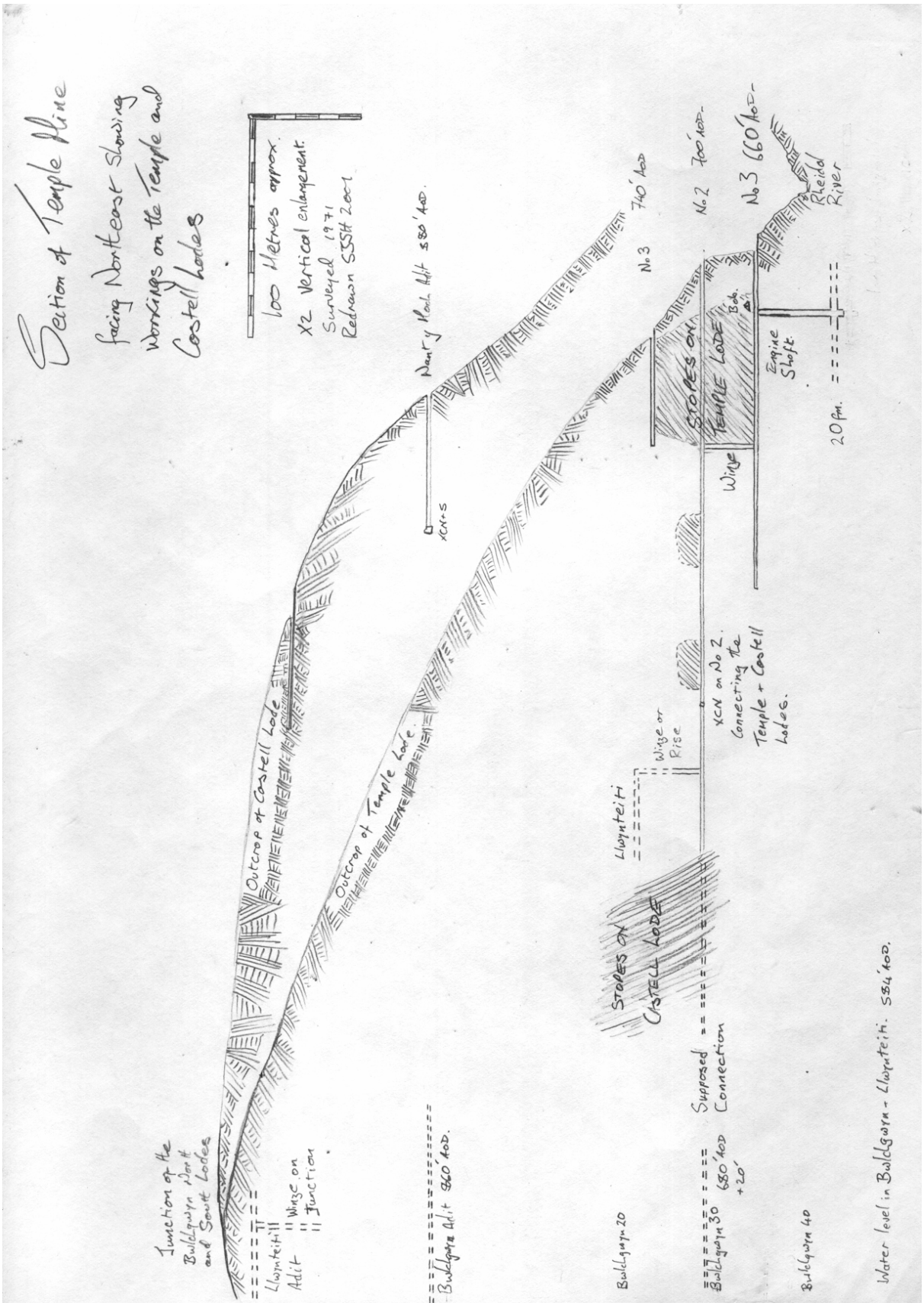
2nd Edition 25 inch OS Map (1905) showing Penrhiw, Bwlchgwyn and Llwyn Teifi



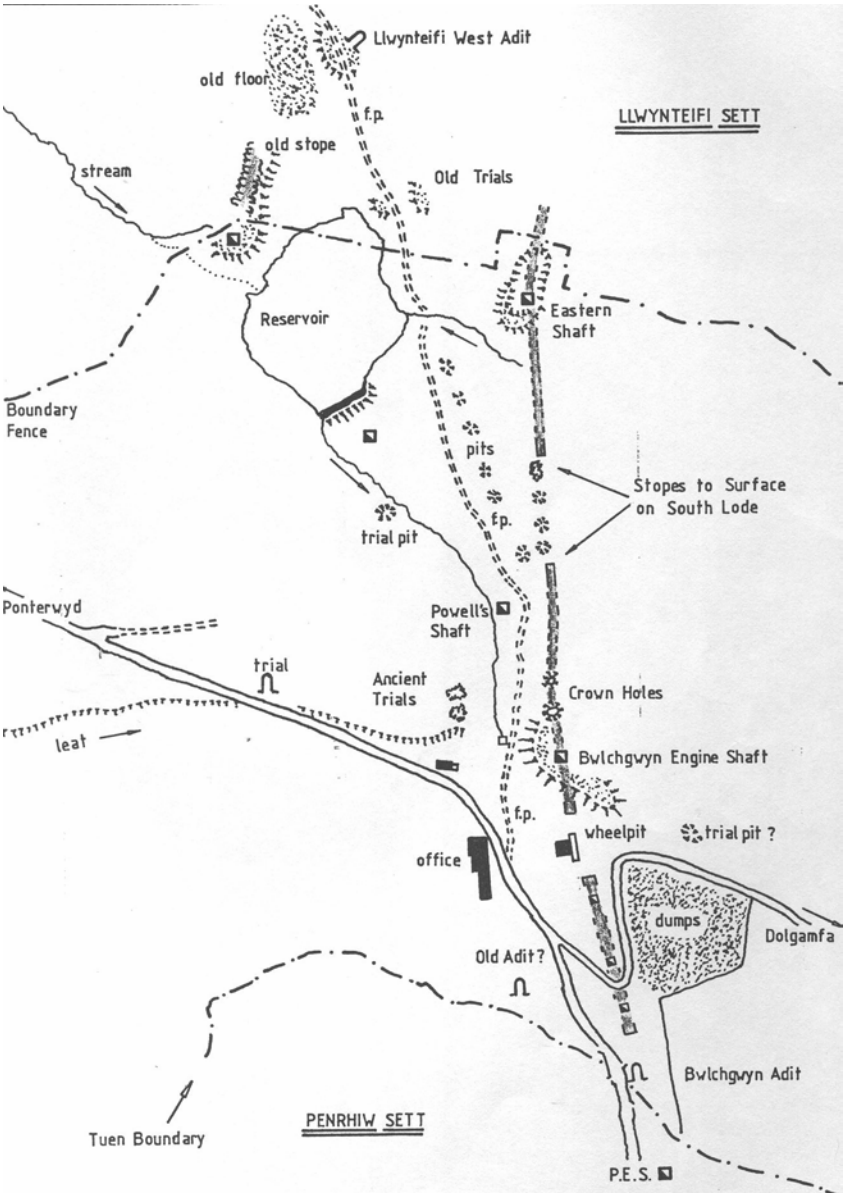
Simon Hughes Plan of Temple Mine (1971)



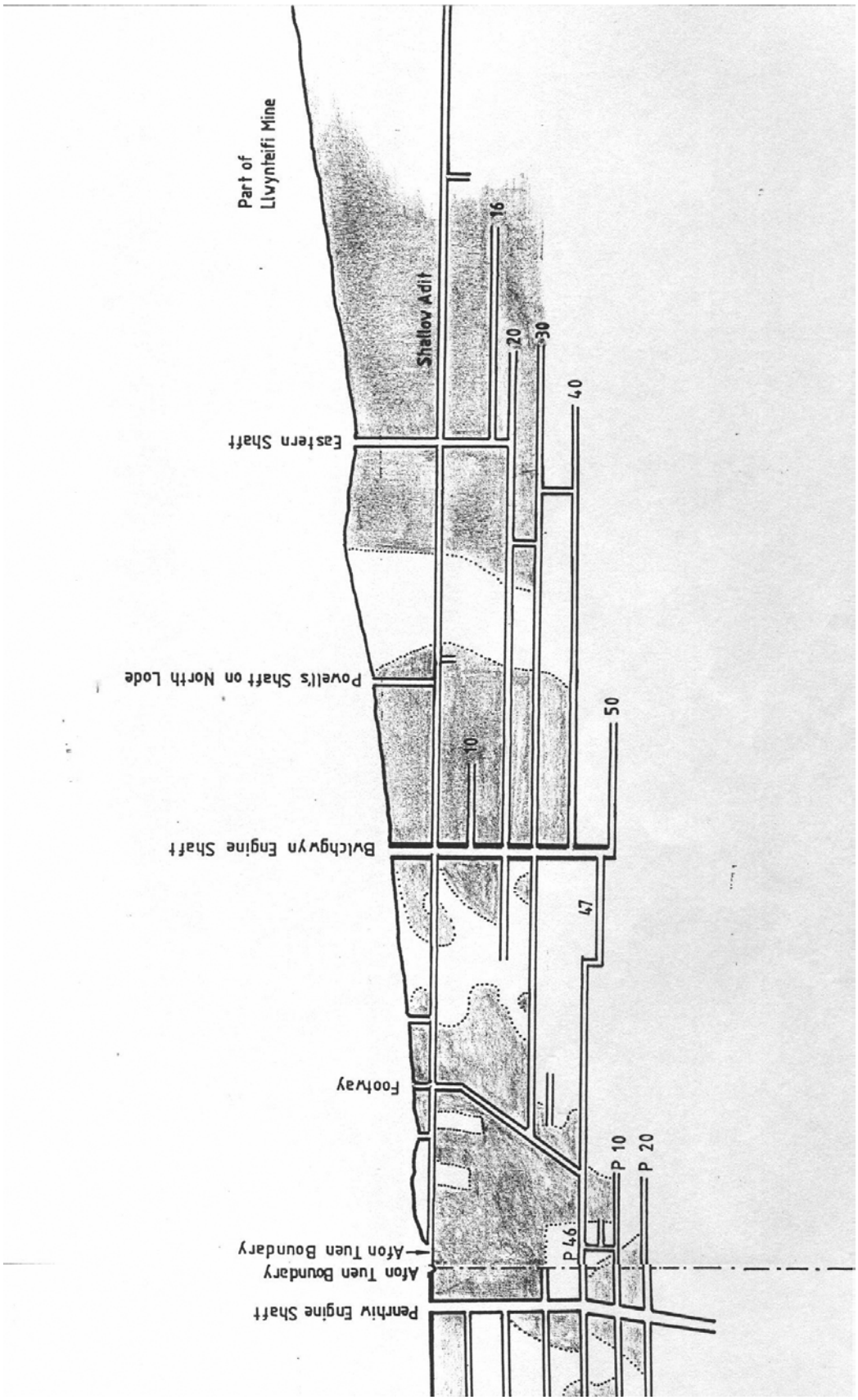
Simon Hughes Section of Temple Mine (1971)



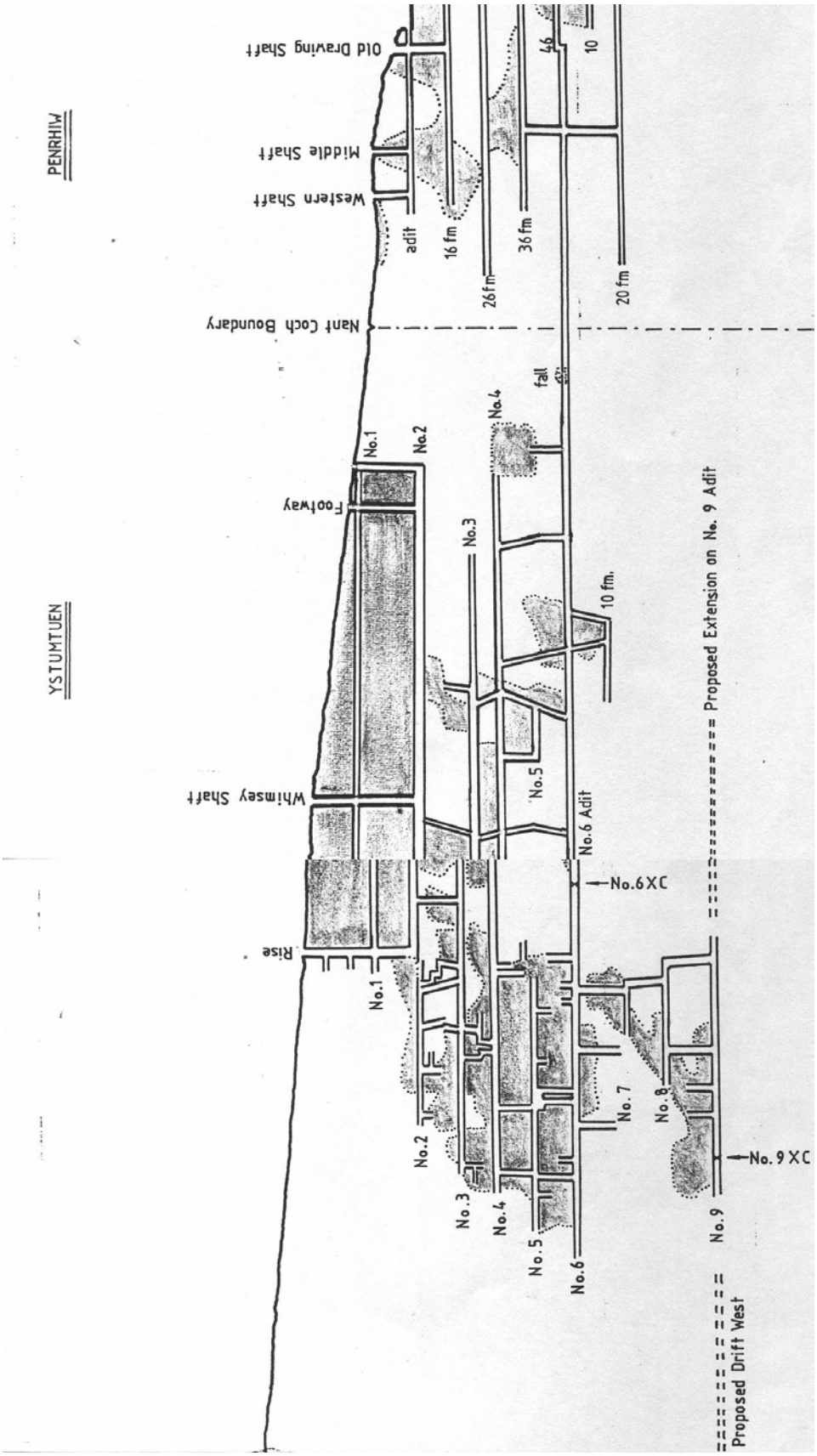
Plan of Penrhiw, Bwlchgwyn and Llwyn Teifi (Simon Hughes)



West to East section of Penrhiw, Bwlchgwyn and Llwyn Teifi (Simon Hughes) part 1



West to East section of Penrhiw, Bwlchgwyn and Llwyn Teifi (Simon Hughes) part 2



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