

Axton Water Mains Refurbishment

ARCHAEOLOGICAL CONTRACTED WATCHING BRIEF



CPAT Report No 261

Axton Water Mains Refurbishment
ARCHAEOLOGICAL WATCHING BRIEF

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Report for Dwr Cymru:Welsh Water (North East Division) Ltd.

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1 INTRODUCTION

- 1.1 In November 1997, the Contracting Section of Clwyd-Powys Archaeological Trust (hereafter CPAT Contracts) were instructed by Dwr Cymru: Welsh Water to carry out an archaeological watching brief at Axton, Flintshire, during the renewal of water mains by open trench method.
- 1.2 Information held on the County Sites and Monuments Record (SMR) indicated that the pipeline corridor passed in close proximity to a number of recorded Prehistoric monuments, which indicate occupation in the area from the Palaeolithic period onwards. The sites include a number of burial mounds of Bronze Age date, of which three are Scheduled Ancient Monuments.
- 1.3 The scheme also passes through several areas of Post-medieval lead mining, where it was thought that previously unrecorded sub-surface archaeology may be identified during ground disturbance.
- 1.4 The Curatorial Section of CPAT, in their capacity as archaeological advisors to Dwr Cymru, determined that an Archaeological Watching Brief was necessary to record the archaeological resource during ground disturbance. Accordingly, a Curatorial Brief (No. WAT 242, dated 22/09/97) was prepared detailing the works required.
- 1.5 The known archaeological sites are listed in Appendix 1 and produced on Fig. 2 of this report. The sites are referred to by their Primary Record Number (PRN) and their Scheduled Ancient Monument Number (SAM).
- 1.6 The new archaeological sites recorded during the scheme are listed by site number in Appendix 2 and produced on Figs 3 and 4 of this report.
- 1.7 Finds were returned to the ground, but the archive list (Appendix 3), includes all photographs taken.

2 LOCATION, TOPOGRAPHY and GEOLOGY

- 2.1 The scheme of works consisted of a series of connecting pipelines all located within c.1km of Axton (Fig. 1; SJ 105 804). The settlement of Axton is located c.1km south of Llanasa and partly lies along a ridge, Mynydd Axton, which rises to 226m and overlooks the Irish Sea and the coastline to the north, the Dee estuary to the east, Gop Hill and Moel Hiraddug to the with and open views south towards the Clwydian Hills.
- 2.2 The area is primarily agricultural, but includes abandoned quarries, tramways and limekilns and evidence of mine working along east/west trending veins.
- 2.3 The solid geology comprises fossiliferous limestone of the Carboniferous period and the outcrops are exposed along the ridge at Mynydd Axton. The east/west ridge comprises white limestone, which is overlain on the north side of the ridge by Black/Aberdo limestone, which was proved in small excavations and wells near Plas Gwyn (SJ 1062 8043, Fig. 4) by the Geological Survey in 1923 (Webb *et al* 1923, 15). The limestone underlies the parish of Llanasa and varies in character and thickness. It is traversed by metalliferous veins, which have been mined extensively chiefly for lead ore (Webb *et al* 1923, 2).
- 2.4 There is little evidence of drift deposits along the limestone ridge, but the overlying glacial drift which in general covers the solid rocks in the parish, comprises boulder clay and stratified sand and gravel. The ploughsoil comprises fine well-drained loamy soil, suitable for dairy farming and stock rearing.
- 2.5 The glacial sands and gravels have been dug for road use as at Site 20 (Fig. 3) in the northern sector of the pipeline.

3 HISTORICAL and ARCHAEOLOGICAL BACKGROUND

- 3.1 The Axton barrows are presumed to be burial mounds dating to c. 2,000 BC, and lie within an area of northern Flintshire containing a high density of such sites. In general barrows (or Tumuli) consist of a simple mound of earth and stone upcast from a surrounding ditch, covering a central grave cut into the subsoil. Early burials contained crouched skeletons, which had been laid on their side, although during the Bronze Age, cremations became the norm. The building of round barrows continued through the early and much of the middle Bronze Age and the monuments appear to be fairly standardised in form. Atkinson (1972, 114) suggests that barrow building lasted for some nine centuries and gives a general date as c.2,000 BC to c.1,300 BC.
- 3.2 The earliest published reference to barrows in North Flintshire is by Stapleton (1908, 359), in an edition of Camden's *Britannia* in 1695. The extract refers to the nucleus of these monuments in an area called Y Gorsedheu. The barrows were again commented on by Thomas Pennant, a local antiquarian, in his *Tours in Wales* (1794, 108).
- 3.3 Hemp (1923, 353) enumerates a list of such barrows in North Flintshire, including those at Axton, which are recorded as Pen y Gorseddau (Axtyn) (1923, 362). In this early inventory Hemp acknowledges "it is impossible without excavation to be certain whether a mound is of natural or artificial origin, while the difficulties of diagnosis are often increased in the case of mounds which have been partly ploughed down. Further difficulties of identification are caused by the spoil heaps from the many hundreds of old mine shafts that are scattered over the district."
- 3.4 Two mounds on Mynydd Axton (PRNs 102464 and 102463; Figs 2 & 4) had been recorded as Bronze Age Barrows by the late Canon Ellis Davis (1949, 214-7). Local knowledge had cast doubt on their authenticity, suggesting that they were spoil tips relating to lead mining activity. Excavations by the Flintshire Historical Society in 1964 verified the fact that the mound was a Post-medieval feature. Two trenches were dug at right angles into one quadrant of the mound, which consisted of a black soil fill above the natural subsoil. Sherds of c.18th/19th century pottery were recovered along with nails, bones, cockle shells and clay pipe, one bowl of which was dated to late 18th-century. The composition of the mound was reported as being similar to a section of a collapsed mine tunnel in the vicinity. As a result of this excavation, a section was taken out of PRN 102463, which was of similar composition (Leach 1964, 101-104).
- 3.5 Considering the remarkably large number of barrow sites that occur in North-east Wales, very few have been excavated. The Bronze Age cairn and cave at Gop were excavated by Professor Boyd Dawkins in 1886-7 (Dawkins, 1901, 322-41) and the tumuli at Bryngwyn Hall (SJ 102 738), c.8km south of Axton, was excavated in 1899 and 1903; one of 6 tumuli in the immediate surroundings and one of 3 known to have been examined. The nature of the finds and the construction of the barrows suggested that they were burial mounds of Bronze Age date (Williams 1921, 265-89).
- 3.6 It has been suggested that Axton, being a Norse name, is indicative of a Viking Settlement (Manley *et al* 1991, 140). The area is recorded as "Asketone" in the Domesday Survey of 1086 (Davies 1949, 242), a lease dated 1510 refers to "Axston" (CROH D/MT/762), but by the 19th century, the present spelling appears to have been adopted.
- 3.7 Most of the land that the pipeline cuts through was part of the Mostyn of Talacre Estate until it was sold off in 1919 (D/MT/1064). The Estates owned land east of the Llanasa to Four Crosses road, which includes all the open fields that the pipeline traversed. Documentary references linking Axton to the Talacre Estate are deposited as part of the Mostyn Talacre Manuscripts at the County Record Office, Hawarden (CROH). Piers Mostyn (1495-1576), first member of the family to take the surname Mostyn, inherited an estate from his father, which he began to greatly enlarge by speculative buying of lands mainly in the parish of Llanasa (Mostyn 1925, 45), which includes Axton.
- 3.8 In May 1588, Piers Mostyn II was renting land on Mynydd Axton to Richard ap John Thomas for farming (D/MT/350). The limestone ridge referred to as Mynydd Axton is the site of the previously recorded barrow sites and the location of 19th-century mining and quarrying (Fig. 4). The mineral rights to the mines and quarries were presumably retained by the Talacre Estate until 1919, while the surface was leased for farming. In 1893, Sir Piers William Mostyn of Talacre leased "All mines, veins, pits, groves, rakes and beds of lead, copper, bouse, smythom, caulk, calamine and blackjack in or under lands in Gwespyr, Picton, Axton, Kelston and Gronant" for 11 years to the Talacre District Mining and Drainage Company Ltd. (D/MT/795)

- 3.9 Axton Mine (PRN 103308) is located on the east side of the Llanasa to Four Crosses road (Fig. 2) on the west side of the Axton Fault. The mine workings extend westwards along the Axton vein, terminating in three old shafts south-west of Tyddyn Uchaf farm (PRN 18242), which now lie in improved pasture. Smith (1921, 45-6) records the vein being worked at 66 and 95 yard levels.
- 3.10 From the 1840s, mining companies were obliged to make returns to the Mining Record Office. Returns for Axton Mine are limited to 1850 and 1851, when 15 and 61 tons of lead ore were recorded (Burt *et al* 1992, 1-2). No detailed returns were made after this date. The mine was owned by the Axton Mining Company from 1863-72, but no returns were made by them. The workings were later leased to the Talacre District Mining and Drainage Co. Ltd. (see 3.3 above). The mine site is already recorded as "Inactive Lead Works" on the Ordnance Survey Map surveyed in 1870 and the shafts recorded along the vein are surveyed as "old shafts" (Fig. 5).
- 3.11 A rapid survey of metalliferous mines in the former county of Clwyd was undertaken by Clwyd-Powys Archaeological Trust in 1993 (Frost 1993). The survey identified the sites of mining activity in the area of the pipeline as PRNs 103308 and 18242 (Fig. 2), being workings on the Axton vein, which appear to have been abandoned by mid-19th century.
- 3.12 Carboniferous Limestone has been extensively quarried in North-east Wales from medieval times to the present day and Neaverson (1954, 11) in his study of medieval quarrying suggests that the early diggings have inevitably been obliterated by later workings. Dating of quarry workings can often be determined by matching the stone to appropriate buildings. Most of the existing property within the community of Axton, in close proximity to the pipeline appears on the 1839 Llanasa Tithe Map. The properties retain their original walls of random limestone construction, although many are substantially enlarged in other building materials. While only the limestone quarry Site 14 (Fig. 4) and the sand and gravel quarry Site 20 (Fig. 3) are recorded as areas of quarrying on the 1839 Llanasa Tithe Map (NLW NT/M.49), it seems likely that the limestone ridge would have been the most natural source of stone for house building. The earliest mining and quarrying operations would be opencast in character, similar to the area of extensive workings at Site 5 (Fig 4), which area recorded simply as "mynydd" on the Tithe schedule.

4 WATCHING BRIEF

- 4.1 The watching brief was carried out according to the guidelines in the Curatorial Brief and involved the examination of all groundworks in the archaeologically sensitive area with the objective of recording the nature, condition, significance and, where possible, the chronology of any archaeological deposits and/or features revealed within the area.
- 4.2 The watching brief was undertaken by the author between November 1997 and January 1998 and this report was written immediately after.
- 4.3 Initial work on the pipeline scheme involved the removal of the concrete reservoir (SJ 1048 8031) which was located on the site of a barrow PRN 102468, partially destroyed during its construction. The barrow site is located adjacent to the north side of the track, which runs east to Dee Farm and cut on the west side by the boundary hedge (Figs 2 & 4). The barrow had been extensively damaged in 1929 by the construction of the tank (see Appendix 1) and the construction of the existent metal track to the large reservoir overlying the site of PRN 102469 (Figs 2 & 4), has cut across the south side of the barrow. Removal of the concrete tank revealed that the present mound comprised fine brown loamy soil with very little stone, below the turf. The mound is cut on the west side by the hedged boundary to the lane. It is not known when the hedge was planted, but the flight of stone steps that lead up through the hedge from the lane to the top of the barrow, were presumably constructed to provide access to the concrete reservoir and the viewpoint with two benches, which were also sited on the summit.
- 4.4 Other known archaeological sites were directly avoided by the pipeline route. The removal of hardcore and the excavation of the pipeline trench by machine was supervised along the pipeline route in areas considered to be of archaeological significance. Parts of the pipeline were excavated with a 0.55m bucket to a maximum depth of 1.1m, and parts with a 0.24m bucket at a similar maximum depth. The depth of the trenches varied little and the width was only extended at pipe junctions. The trenches almost entirely appeared to be cut through undisturbed ground, apart from the

areas which had been disturbed by previous pipe laying dating from 1945. The only feature encountered below the surface was the fill of the former roadside quarry, Site 9 (Fig. 4).

- 4.5 The sides of the trenches failed to reveal any new archaeological features, but confirmed the geological surveys and mapping of the area (Rudeforth *et al* 1984; Smith 1921; Webb 1923). Across the ridge, the bedrock of the Carboniferous Limestone lay directly below c.0.2 - 0.3m of ploughsoil. Elsewhere, on the north side of the ridge, c.0.3m max. of the brown humic stone free ploughsoil overlay c.0.45m of light brown sandy soil with very little stone. A clean reddish/brown sticky boulder clay was located beneath the sandy layer to the base of the trench. The limestone in the sandy layer increased and became more compacted towards the ridge.
- 4.6 The Carboniferous Limestone encountered during the excavation of the tenet across the ridge consisted of a shelly and organic detritus, which included crystalline calcite. The rock was hard and compacted. The limestone on the ridge proved to be thickly bedded and has been resistant to denudation. The limestone bedrock was encountered across Site 5 (Fig. 4), in the field with the two barrow sites PRNs 102466 & 102467 and in the field where the two reservoirs had been sited.
- 4.7 Elsewhere, the stratigraphy in the trenches varied little. On the south side of the ridge, in the trenched area south of the bedrock, there was little evidence of the sticky boulder clay that had been encountered in the open fields north of the ridge.
- 4.8 In the trench cut near Ash Cottage shaft north (Site 2; SJ 1042 8043), a small spur was cut to facilitate connection to a stop pipe, which was sited in the north side of the spoil mound. In excavating this small trench, the topsoil removed was a darker brown in colour and the fill was redeposited darker brown sandy soil, a slightly dirtier version than the undisturbed layers beneath the ploughsoil. Several lumps of calcite were recovered, a mineral associated with lead veins.
- 4.9 Information regarding the mineral workings in the area was much enhanced by the monitoring of the pipeline. The new sites are listed in Appendix 2 and appear on Figs 3 & 4.
- 4.10 An area of mine workings on the north side of Mynydd Axton (Site 4; SJ 1046 8040 to SJ 1062 8040) were examined. The workings follow a short vein parallel and north of the main Axton vein and were presumably worked as part of the Axton Mine. They include Ash Cottage shaft south (Site 1; SJ 1047 8040), in close proximity to the pipeline. Whereas Ash Cottage shaft north (Site2), the second shaft in close proximity to the route is a shaft on the main vein.
- 4.11 In the excavation of the trenches along the grass verges of the lanes, in the western sections of the pipeline (Figs 3 & 4), the undisturbed natural sandy layer with little stone lay beneath turf-covered topsoil.
- 4.12 The spoil was examined for artefacts, which were primarily ceramics of Post medieval date, fairly sparsely located throughout. The sherds of pottery were recovered entirely from the ploughsoil over the open fields and are unlikely to precede the mid-18th century in date. The sherds included red coal measures coarse ware and fine ware (Buckley wares), yellow ware, tin-glazed earthenware (blue and white in Delft style), cream ware, clay pipe stems and salt-glazed stoneware. Four sherds of coal measures slipware were recovered, probably of 19th century date.
- 4.13 At Site 9 (SJ 1050 8028), an abundance of household tip material appeared to date 1950s/60s. Evidence is based on the discarded jars and bottles that bore manufacturers names. There was a considerable amount of twisted metal ware and black enamel cooking pots.

5 CONCLUSIONS

- 5.1 During the course of the watching brief, 20 new archaeological sites were recorded (Appendix 2) within close proximity to the pipeline. Only one site, an old quarry (Site 9, Fig. 4), was directly affected by the pipeline.
- 5.2 The watching brief enhanced the archaeological record with regard to the present state of the Bronze Age barrow sites and has increased the industrial record for the area.
- 5.3 Having observed the removal of the concrete reservoir over Barrow PRN 102468, it seems unlikely that any of the present mound is original, considering the depth of the concrete tank and the extensive work that must have been undertaken during its construction. The excavation trench passed c.15m south of the centre of this barrow in an east/west direction, but there was no evidence of a ditch that may have been associated with the barrow. The ground had already been disturbed by the laying of pipes in 1945 and later in 1975 and pipe junctions lay immediately south-east of the barrow causing considerable earlier disturbance of the ground.
- 5.4 In the field containing the two barrow sites PRNs 102468 & 102467, the hedgerows revealed considerable amounts of rounded and irregular shaped rubblestones, including sandstones and granites. Since the stones are not the local limestone, it was suggested by Ellis Davies (1949, 214) that these stones had been carried for the purpose of building the barrows. Stone was presumably robbed from the barrows to improve the pasture and aid ploughing.
- 5.5 There appears to be little change in the present landscape since the 1839 Tithe Map. Several houses have become either abandoned and derelict (Site 19; Fig. 4) and some almost erased from the landscape (Site 17; Fig. 4). Few new properties have been built, but some have been altered from their previous use (Site 10; Fig. 4).

6 ACKNOWLEDGEMENTS

- 6.1 The author would like to thank Steve Haycock of Welsh Water, and the employees of Jones and Sons, Clawnewydd, Ruthin, involved in the construction work on the pipeline for their co-operation.

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Cartographic sources

- 1839 Llanasa Tithe Map (NLW NT/M.49)
- 1870 Ordnance Survey 1st edition 1:2,500 map, Flintshire Sheet 2.14
- 1899 Ordnance Survey 2nd edition 1:2,500 map, Flintshire Sheet 2.14
- 1964 Ordnance Survey 1:2,500 map, Flintshire Sheet SJ1080/1180
- 1919 Plan of Talacre Estate, Flintshire. Scale 5,280 feet: 1 mile. Prepared for the sale of the Estate by Messrs. Dunn, Soman & Corvedale, 11, St. Helens Place, London. 1919. (CROH D/MT/1064)
- 1974 Geological Survey of Great Britain. 1:50,000, Liverpool Sheet 96, Solid
- 1974 Geological Survey of Great Britain. 1:50,000, Liverpool Sheet 96, Drift

APPENDIX 1

List of known archaeological sites:

- | | | |
|---------------------------------------|--|--------------------------------|
| PRN 18242 | Tyddyn Uchaf/Bryn-yr-odyn Lead Trials
Post medieval | SJ 099 803
215 mOD |
| | Three shafts surveyed as "old lead shafts" by the OS in 1870, represent trials on the western extent of the Axton Vein. Shafts located at SJ 0998 8030, SJ 0990 8026 and SJ 980 8025 have been levelled during land improvement. | |
| PRN 102463 | Axton Tumulus G | SJ 1030 8040
225 mOD |
| | Formerly recorded as a ? Bronze Age Round Barrow. Now known to be a Post medieval spoil mound. | |
| | The remains of the circular mound are located in a field of improved pasture, bisected by a fenceline, east/south/east of Penrhwyfya. The old spoil tip presumably surrounded a shaft working the Axton Vein. The turf-covered mound measures c.12m diameter along the fence in a east/west direction. | |
| PRN 102464 | Axton Tumulus F
Formerly recorded as a ? Bronze Age Round Barrow.
Now known to be a Post medieval spoil mound . | SJ 1027 8038
225 mOD |
| | Turf-covered earth mound located south-east of Penrhylfa in improved pasture, west of PRN 102463. The slight depression in the centre is presumably the filled in remains of a shaft on the Axton Vein. | |
| PRN 102465
SAM F1045 | Axton Tumulus A
Bronze Age Round Barrow | SJ 1081 8013
215 mOD |
| | Turf-covered earth mound 31m diameter along the NW/SE axis. Rises to a maximum of 1.5m on the south-west side. Crossed by a hedge on its western boundary. Located in improved pasture, north of disused trackway. A fragment of a worked flint arrowhead of late Neolithic or early Bronze Age date was recovered from the west side of the barrow 27/4/1922. | |
| PRN 102466
SAM F1114 | Axton Tumulus E
Bronze Age Round Barrow | SJ 1036 8030
226 mOD |
| | Turf covered mound in field of improved pasture, measuring c.20m diameter and rising to 1.8m max. height above the level of the field on the south side. Best preserved of Axton barrow group. | |
| PRN 102467
SAM F1114 | Axton Tumulus D
Bronze Age Round Barrow | SJ 1042 8032
226 mOD |
| | Turf covered mound in field of improved pasture, measuring 18.3m diameter and rising to 1.5m max. height above the level of the field on the north side. | |
| PRN 102468 | Axton Tumulus C
Bronze Age Round Barrow | SJ 1048 8031
226 mOD |
| | Earth mound formerly possibly of 18m diameter, almost totally destroyed by the construction of a concrete reservoir c.4m square on top of the barrow in July 1929. A small stone cist with funerary urn was found, but not preserved. Fragments of pottery and incinerated bone were also recovered, and the stones which covered the cist were reported to be not of local limestone. | |
| | The west side of the mound is cut by the hedge boundary to the lane and a flight of concrete steps lead up from the lane to the site of the reservoir, now removed. | |

PRN 102469 **Axton Tumulus B** **SJ 1059 8031**
Bronze Age Round Barrow 226 mOD

Site of an irregular shaped mound, which had already been partly destroyed, prior to the construction of the present large mODern reservoir, which has totally destroyed any evidence.

PRN 103308 **Axton Lead Mine** **SJ 10508040**
Post medieval 175 mOD

Axton Mining Company registered as working the Axton Vein presumably from early 19th century until 1872. The last detailed returns were made in 1851. Main mine site surveyed as "Inactive Lead Works" by the OS in 1870. Workings along the East/West vein extend from the circular stone lined shaft at SJ 1096 8054 to three old shafts at Tyddyn Uchaf (PRN 18242).

PRN 103309 **Dee View Farm Limekiln** **SJ 1054 8044**
Post medieval 210 mOD

Limekiln, measuring c.12m along the north/south axis by 4m wide, constructed in local limestone with two stone-lined pots of c.2m diameter; the north side of the structure surviving better than the south. North wall, intact, stands to c.3m high adjacent to the boundary fence. The limekiln served the U-shaped quarry (Site 3), which is located south of it, cut into the natural limestone below Mynydd Axton. The kiln is connected to the quarry by a raised tramway (Site 13) and spoil tips are built up on the south and east sides of the kiln. The draw hole on the north side of the kiln is clearly defined, whereas the southern pot has collapsed inwards. Both stone-lined pots are filled with rubble and vegetation.

APPENDIX 2

List of new archaeological sites located during the watching brief:

- | | | |
|---------------|---|---|
| Site 1 | Ash Cottage Shaft South
Post medieval | SJ 1047 8040
220 mOD |
| | Shaft and grassed-over spoil mound located south-west of Ash Cottage. Westernmost shaft on the parallel joint, south of the Axton main vein. Part of Mynydd Axton mineworkings (Site 4). | |
| Site 2 | Ash Cottage Shaft North
Post medieval | SJ 1042 8043
215 mOD |
| | Shaft and spoil mound located immediately north-west of Ash Cottage. One of the shafts on the Axton Vein, worked by Axton Mine (PRN 103308). | |
| Site 3 | Dee View U-shaped Quarry
Post medieval | SJ 1055 8037
220 mOD |
| | U-shaped quarry cut into fossiliferous Carboniferous Limestone on north side of Axton Ridge. Presumably post-dates the earlier mining for lead ore, since it cuts through the spoil tip of one of the shafts on the east side of the quarry entrance and appears to have entirely cut through a shaft on the west side. In the west face of the quarry, there is a natural cave, which has been utilised as a shelter presumably originally by the quarrymen. The cave contains an old fire grate and a flu is cut into the limestone. Limestone was transported from the quarry via a tramway (Site 13) to the bank of two limekilns (PRN 103309). The quarry, tramway and kilns are recorded, as out of use, on the 1870 OS map | |
| Site 4 | Mynydd Axton Mine Workings
Post medieval | SJ 1046 8040 to SJ 1062 8040
215mOD |
| | Workings along a short east/west vein, a parallel joint south of the Axton Vein, presumably worked by the Axton Mine also and abandoned in the 1850s. The shafts extend from Ash Cottage Shaft South (Site 1) at the west end of the vein to a large shaft at SJ 1060 8041, where ore may have been raised by a horse whim, since the raised earth mound on the east side of the shaft has a diameter of 7.5m, large enough for a horse wheel circle. The surface workings extend for 1.5m and ore appears to have been transported east by a tramway (Site 21) to the remains of what may have been a bank of two ore-bins (Site 22). The shafts and spoil mounds were recorded as "Old Shafts (Lead)" by the OS in 1870. | |
| Site 5 | Chwarelydd mining and quarrying
Post medieval | centred at SJ 1020 8025
225mOD |
| | Area of former mining and quarrying activity occupying Plot 1926, as surveyed on the 1964 OS map (Flintshire Sheet SJ 1080). Quarrying appears to post-date the earlier exploration for lead on the west end of the Axton vein. Includes one U-shaped quarry, recorded as "Old Quarry" by the OS in 1870. | |
| Site 6 | Chwarelydd old shaft 1
Post medieval | SJ 1020 8025
220 mOD |
| | Shaft and surrounding spoil mound located on west side of the pipeline excavation trench. Shaft sunk on the main Axton vein, located on the western boundary of the area of mining and quarrying (Site 5). | |
| Site 7 | Chwarelydd old shaft 2
Post medieval | SJ 1014 8034
220 mOD |
| | Shaft, sunk on the main Axton vein, located west side of the pipeline excavation trench, adjacent to the western field boundary in the area of mining and quarrying (Site 5). | |

- Site 8 Chwarelydd early quarrying** **SJ 1011 8029**
Post medieval 220 mOD
- Area of former quarrying located west of Site 5, and south side of the Axton lead shafts.
- Site 9 Mynedd Axton South old quarry site** **SJ 1008 8028**
Post medieval 220 mOD
- Site of small roadside quarry, which was filled in and used as a lay-by. The excavation trench for the pipeline renewal revealed that the quarry had been used as a household dump. The fill consisted of pottery, glass and metal work, which appeared to date to the 1940/50s era. The quarry was recorded as "Old Quarry" by the OS in 1870.
- Site 10 Hillside/former Baptist Chapel** **SJ 1052 8013**
Post medieval 210 mOD
- Site of former Baptist Chapel as recorded by the OS in 1870, now converted to residential use. The chapel, which appears on the Llanasa Tithe Map of 1839, is of single storey long wall plan. Only the irregular limestone construction of the east wall is retained on the present much enlarged dwelling.
- Site 11 Cartref Melus U-shaped quarry** **SJ 1073 8040**
Post medieval 220 mOD
- U-shaped quarry cut into Carboniferous Limestone on north side of Mynydd Axton and located north-west of Cartref Mellus. Quarry has been subjected to considerable infilling with building materials and household waste. Limestone was presumably transported via the tramway (Site 12) that leaves the quarry entrance and runs downhill in an easterly direction to the quarry and limekilns, Sites 14 and 15. The quarry was recorded as "Old Quarry" by the OS in 1870.
- Site 12 Axton Quarries Tramway** **SJ 1075 8044 to SJ 1090 8041**
Post medieval 205 mOD
- Tramway visible as a linear earthwork, following an ENE/WNW direction connecting Quarry Site 11 with the lower Quarry and Limekilns, Sites 14 and 15. The tramway leaves the north side of the upper quarry and is located as a hollow-way in OS plot 7947 (1963 OS map 1:2500) as it runs downslope. Cut by the hedgeline, it continues as a raised embankment in OS plot 8540. The height of the tramway rises steadily until it reaches a tipping platform above Quarry Site 14. The tramway was recorded by the OS in 1870.
- Site 13 Dee View U-shaped Quarry Tramway** **SJ 1054 8044 to SJ 1055 8037**
Post medieval 220 mOD
- Tramway transporting stone from Site 3 to the limekilns PRN 103309. Visible as a raised embankment. Recorded by the OS in 1870.
- Site 14 Mynedd Axton East old quarry 1** **SJ 1091 8041**
Post medieval 195 mOD
- Quarry in Carboniferous Limestone on the east side of Mynydd Axton, now overgrown with vegetation. The quarry is depicted on the 1939 Llanasa Tithe Map and recorded in the schedule as "cae with yr odyr" (field with a kiln). The tramway (Site 11), which ran downhill from the upper quarry terminated on a tipping platform above this quarry and stone was presumably tipped for burning in the kilns. A track ran east from the quarry to meet the road. The "Old Quarry" and "Old Limekilns" (Site 15) were recorded by the OS in 1870.
- Site 15 Mynedd Axton Eastern Limekilns** **SJ 1092 8042**
Post medieval 190 mOD
- Site of "Old Limekilns" recorded by the OS in 1870, presumably surviving in the overgrown area of Quarry Site 14.

- | | | |
|--|--|--------------------------------|
| Site 16 | Mynydd Axton East old quarry 2
Post medieval | SJ 1095 8032
190 mOD |
| <p>Quarry cut into the east face of Mynydd Axton in Carboniferous Limestone, located in the north-west corner of a field of improved pasture, which has largely destroyed the tramway, which transported the stone eastwards to the gate that is located on the roadside. The quarry is recorded as a rough parcel of land by the OS in 1899, and must therefore post-date the other areas of quarrying on Mynydd Axton. The site is recorded as an existent quarry on the Map prepared for the sale of Talacre Estate in 1919 (CROH D/MT/1064).</p> | | |
| Site 17 | Arcade old house site
Post medieval | SJ 1073 8015
212 mOD |
| <p>Old house site identified as a platform measuring c.10 E/W by 5m wide, abutting a N/S stone wall. Limestone foundations are visible beneath the turf. The house is recorded on the 1939 Llanasa Tithe Map and named "Arcade" on the 1963 OS map, when it was presumably still standing. Located north side of the old entrance track, which also forms a public footpath.</p> | | |
| Site 18 | Arcade building platforms
Post medieval | SJ 1073 8014
212 mOD |
| <p>Irregular raised platforms representing the site of buildings, presumably associated with Arcade, Site 17. The buildings are recorded on the 1872 OS map and on the 1963 OS map, when they were presumably still standing. The turf covered mounds are located south of the old entrance track, which also forms a public footpath.</p> | | |
| Site 19 | Rhewl derelict stone cottage
Post medieval | SJ 1049 8048
205 mOD |
| <p>Derelict stone cottage on northern slopes of Mynydd Axton. Recorded on 1839 Llanasa Tithe Map and 1870 OS 1st edition map as a building with adjoining small parcel of land. The cottage is now isolated in a field of improved pasture, which has incorporated some of the smaller parcels of land, east of Rhewl house.</p> | | |
| Site 20 | Moel Fryn sand and gravel quarry
Post medieval | SJ 1014 8089
180 mOD |
| <p>Disused quarry located east of Moel Fryn farm. The site is recorded on the 1839 Llanasa Tithe map, as "Old Quarry" on the 1st edition OS map of 1870 and as a gravel pit on the Map prepared for the sale of Talacre Estate in 1919 (CROH D/MT/1064).</p> | | |
| Site 21 | Axton ? ore-bin tramway
Post medieval | SJ 1067 8040
220 mOD |
| <p>Earthwork embankment located along the field boundary. Appears to represent a tramway for transporting ore from the lead shafts (Site 4) to the possible ore-bins (Site 22).</p> | | |
| Site 22 | Axton ore-bins
Post medieval | SJ 1069 8040
220 mOD |
| <p>Earthwork remains of possible bank of two ore-bins located at the eastern end of tramway (Site 21). A rectangular structure appears on the 1839 Llanasa Tithe map at the same location. The two-compartment structure appears on the 1872 OS 1st edition with a second structure on its south side. None of the structures are recorded on the OS 2nd edition map.</p> | | |
| Site 23 | Dee Farm building platform
Post medieval | SJ 1071 8036
225 mOD |
| <p>Level area SW of the U-shaped quarry and N of the present farm track. A building is recorded at this site on the OS 2nd edition. The building appears to have been in red brick as the levelled area looks recent and the building debris has been cleared into the quarry.</p> | | |

APPENDIX 3

ARCHIVE

Photographic archive

1 colour print film: 687/1-19

1 Colour slide film

1 Black and white negative film, contacts and archive prints

Photographic catalogue

APPENDIX 4

WATER MAINS REFURBISHMENT SCHEME: AXTON, DENBIGHSHIRE SPECIFICATION FOR AN ARCHAEOLOGICAL WATCHING BRIEF BY CLWYD-POWYS ARCHAEOLOGICAL TRUST

1 Introduction

- 1.1 The proposed development at Axton, Denbighshire involves the refurbishment of an existing water mains by open trench method.
- 1.2 This area lies predominantly in pasture and in close proximity to a number of lead mining and bronze age burial sites, some of which are Scheduled Ancient Monuments.
- 1.3 The Curatorial Section of the Clwyd-Powys Archaeological Trust (CPAT Curatorial) in their capacity as archaeological advisors to Welsh Water have determined that an Archaeological watching brief is necessary to assess the implications of the proposed development on the archaeological resource. Accordingly a brief has been prepared by CPAT Curatorial (No WAT 242 dated 22nd September 1997) which describes the scheme of archaeological works required.

2 Objectives

- 2.1 The objectives of the archaeological works are:
 - 2.1.1 to record the nature, condition, significance and, where possible, the chronology of any archaeological deposits and/or features revealed within the area of the proposed development during the development works in so far as these aims are possible;
 - 2.1.2 to prepare a report outlining the results of the watching brief.

3 Methods

- 3.1 The watching brief will be carried out according to the guidelines submitted with the Curatorial Brief and will involve the examination of all the groundworks in the archaeological sensitive areas.
- 3.2 All archaeological deposits and/or features noted during the watching brief will be recorded by drawn section and/or photography.
- 3.3 Following the on-site work an illustrated and bound report will be prepared according to the principles laid out in the Brief (section 8). This will be in A4 format and contain conventional sections on: Site location, Topography and Geology; Historic Background; Catalogue of sites identified with notes on their condition and significance, Conclusions and Recommendations and References, together with appropriate appendices on archives and finds.
- 3.5 The site archive will be prepared to specifications laid out in Appendix 3 in the *Management of Archaeological Projects* (English Heritage, 1991).

4 Resources and Programming

- 4.1 The watching brief will be undertaken by a skilled and experienced archaeologist. Overall supervision will be by Dr A Gibson, a senior member of CPAT's staff who is also a member of the Institute of Field Archaeologists.
- 4.2 All report preparation will be completed by the same field archaeologist who conducted the watching brief.

- 4.3 It is anticipated that the watching brief will take no more than the total number of days allocated to the groundworks and that the subsequent report would be prepared immediately thereafter, dependent on the client's instructions and the arrangement of a suitable timetable. The date of commencement, at the time of writing, has yet to be agreed with the client, and will be dependent on the state of the site and negotiated access. The archaeological curator will be informed of the detailed timetable and staffing levels when agreement has been reached with the client.
- 4.4 Requirements relating to Health and Safety regulations will be adhered to by CPAT and its staff.
- 4.5 CPAT is covered by appropriate Public and Employer's Liability insurance.

A.M. Gibson
Projects manager

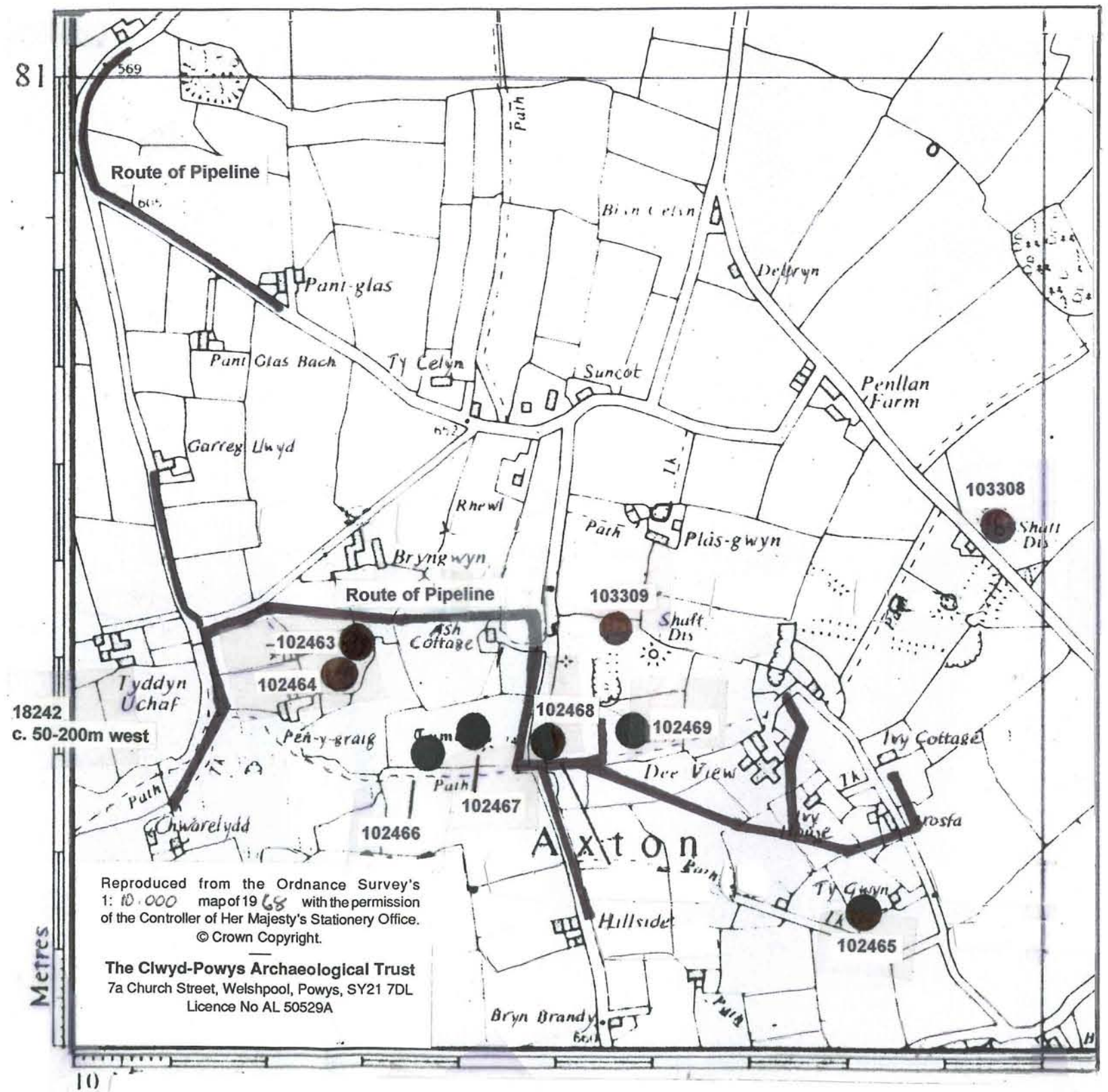


Fig. 2 Route of Pipeline and previously recorded Archaeological Sites.

Scale 1:19,000, reproduced from Flintshire Sheet SJ 18 SW

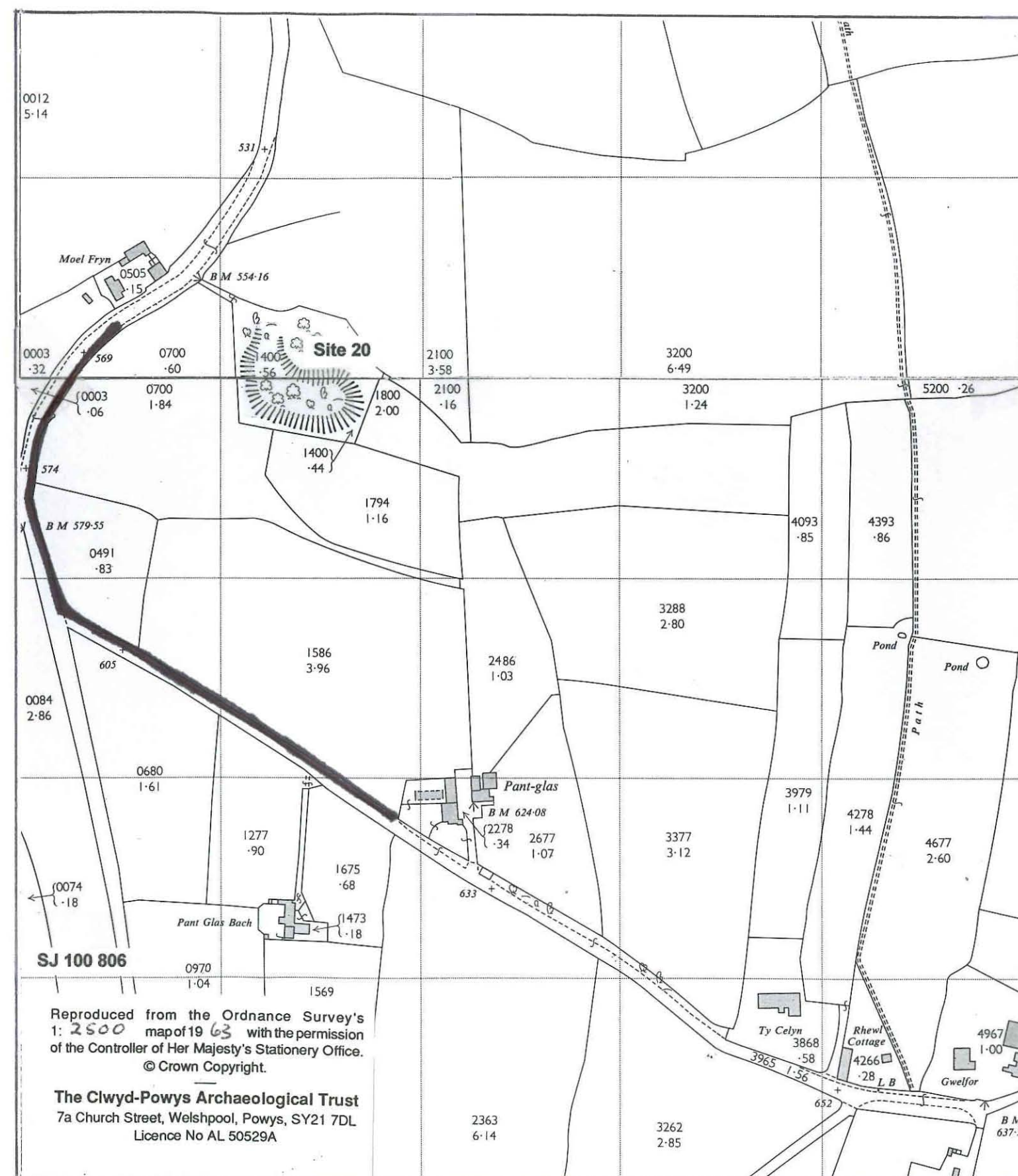


Fig. 3 Route of Pipeline, Northern Sector and Archaeological Sites. Scale 1:2500

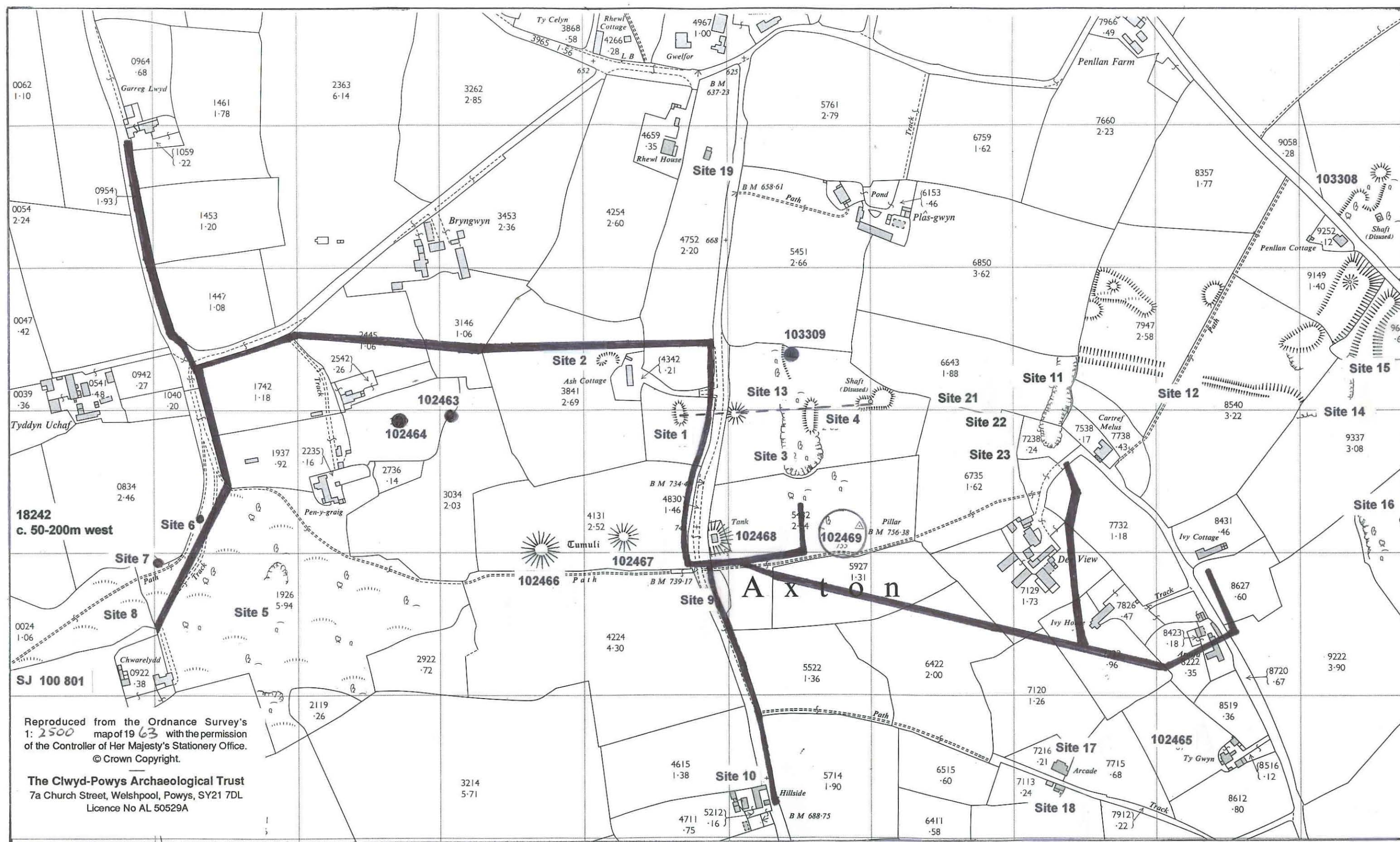


Fig. 4 Route of Pipeline, Southern Sector and Archaeological Sites. Scale 1:2500

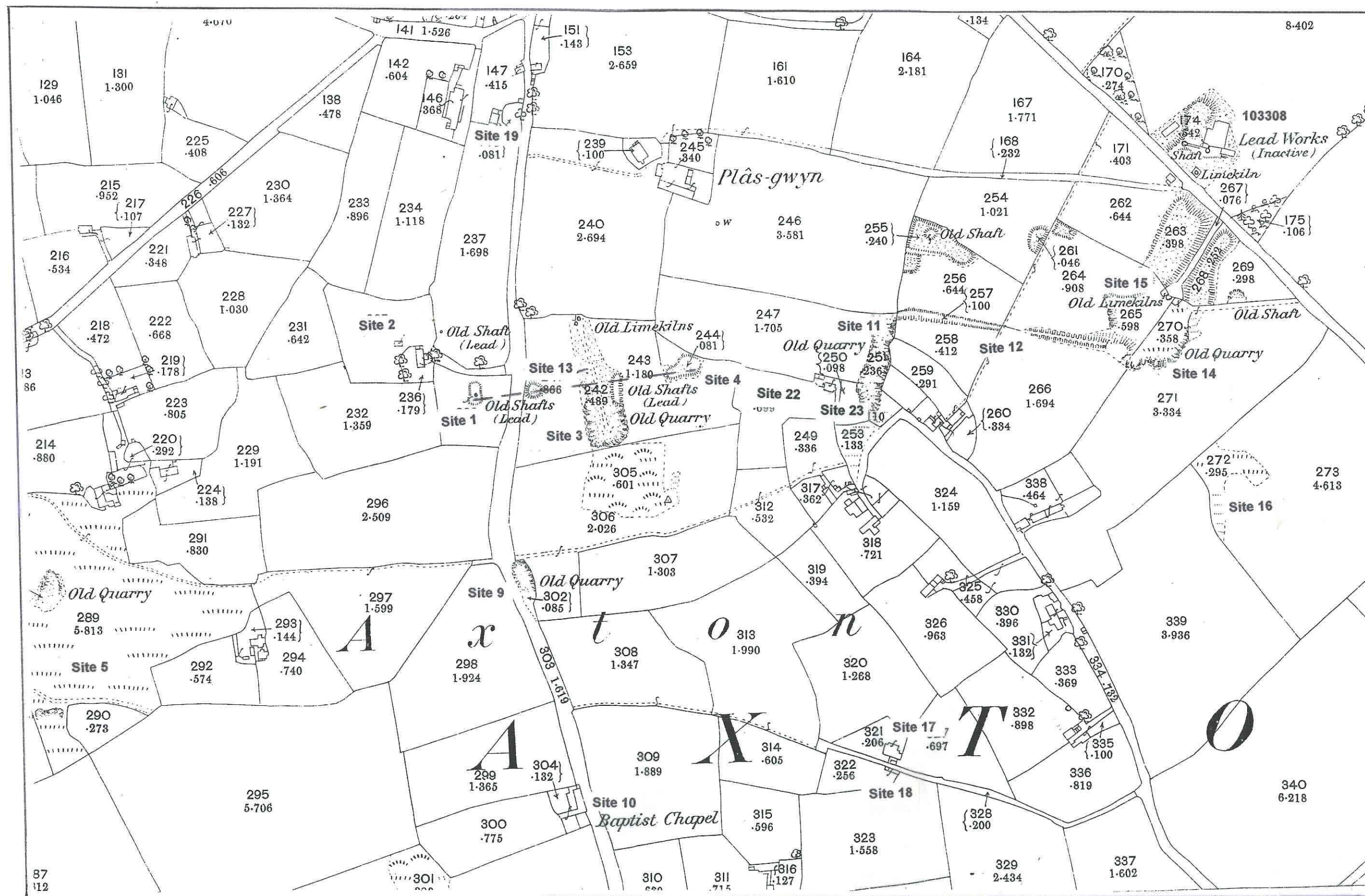


Fig. 5 1870 1st edition Ordnance Survey 1:2500 Map. Flintshire Sheet 2.14

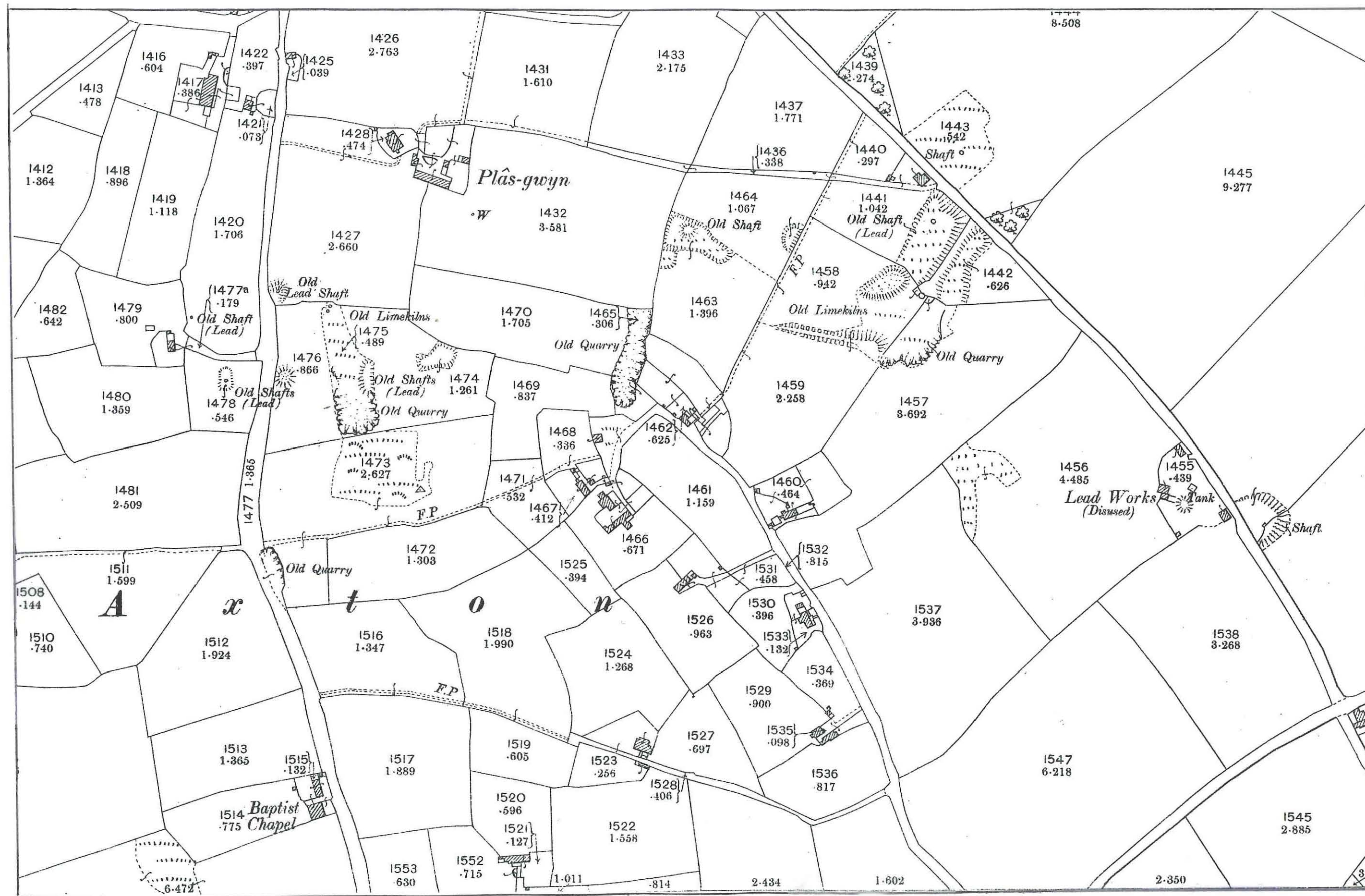


Fig. 6 1899 2nd edition Ordnance Survey 1:2500 Map. Flintshire Sheet 2.14



PLATE 1 Axton Barrow sites PRNs 102466 (foreground) and 102467 (background).
View from west, towards pipeline corridor.



PLATE 2 Site 1. Ash Cottage Shaft, South and pipeline excavation trench.
View from south.



PLATE 3 Site 2. Ash Cottage Shaft, North and pipeline excavation trench.
View from west.



PLATE 4 Site 5. Area of early quarrying. Pipeline excavation trench encountering the natural
Carboniferous Limestone of Axton ridge. View from south.