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BOSORNE MINE AND BOSORNE AND BOLLOWALL UNITED

By Peter Joseph

Introduction

Bosorne Mine is situated in the western half of the Cot Valley, around the village of Bosorne and on the slopes below it, about 1 km south-west of St Just-in-Penwith in south-west Cornwall (Figures 1 and 2). The mine was the easternmost component of the various setts which later included it, such as St Just Amalgamated and East St Just United, although little mining appears to have been carried out here after the early 1870s.¹ The area was favourable for mining from very early times, comprising as it does lode outcrops on valley slopes, tin in river sediments and a hinterland rising to over 90m above sea-level. The latter enabled operations to be carried out with minimal pumping equipment, the majority of mining activity having taken place above adit level even by the final closure of mining activity in the area in the late 1940s. Bosorne Mine operated over a comparatively long period of time, at least 50 years, albeit by several different groups of adventurers. Production figures are few and far between; those located show an output of just 48.5 tons of black tin between 1836 and 1855. Production from other years is unlikely to add significantly to this total. The industrial archaeology of the Cot Valley is not described here but has been recorded by the Cornwall Archaeological Unit² and, in greater detail, by Joseph.³

History

Mining was documented here in the late 16th century by Norden⁴, who noted this activity being carried out at Ball-u-hall (Bollowall), probably no more than 500m west of the Bosorne workings; this operation was probably the forerunner of the first Wheal Bellan on Bollowall Common. A little earlier, in 1584, Henry Meggs of Gwendron granted a lease of Bosarne to John Mil, the former reserving the mineral rights.⁵ However a much earlier phase of mining activity, at least within the surrounding area, is suggested by the presence of smelted tin at two late Bronze Age sites within the area: Kenidjack and Chun castles,⁶ the former is only two kilometres to the northwest. A tin work is referred to on the slopes below Bosorne during the 1600s and 1700s while in 1741 a “share of doles in Tin Bounds both mean and stream bounds” was sold by William Arundell.⁷ Arundell’s will some 13 years later bequeathed “all my rights title and interest of Tin in the one quarter of Bosorn which I am now possessed”. A number of tin bounds are recorded by Noall,⁸ dating from the 1770s, however it is not possible to ascribe locations for these based on their descriptions. Buller⁹ (who described very few contemporary operations) regarded the workings here as only superficial searches for tin by the ancients, while Blight¹⁰ considered that the old workings could have supplied the Phoenicians with tin.

The first printed reference to Bosorne Mine appears to be an advertisement, for the sale of a 1-10th share in the sett, which appeared in the West Briton on January 21st 1815. The second reference, an advertisement in April 1824,¹¹ from William Trenergy, a Redruth share-dealer, appears to have inadvertently caused the formation of another mine. This advertisement read:

One 40th share in WHEAL BROWN, Tin Mine, in St Just, worked by a powerful Water-Engine:- there is a rich coarse of Tin in the Engine-Shaft, working by ten men, and several other Pitches worked at one-third in the pound.

Dated April 1 1824.

This appears to have caused some slight confusion among some recent researchers, probably noted first by Noall,¹² and followed by others, who, not surprisingly, assumed that these shares were from a real mine. Two weeks later a second advertisement appeared,¹³ differing only slightly from the first:

One 40th share in WHEAL BOSORN, Tin Mine, in St Just, worked by a powerful Water-Engine:- there is a rich coarse of Tin in the Engine-Shaft, working by ten men, and several other Pitches worked at one-third in the pound.

From the second advertisement it seems likely that Wheal Brown only ever existed as a mistake on the part of the editor of the West Briton, who presumably could not read Trenergy's handwriting. It is also possible that the date of the first advertisement, April 1st, could have had something to do with the confusion.

A letter dated September 1st 1824, from Jaketh Symes to Alfred Jenkin of Trewirgie,¹⁴ mentions that "Bosorn Engine is gon to work", possibly referring to another re-Working. The letter also included a cheque for Alfred Jenkin for £3 5s for one quarter of the tin sold from the mine. Jenkin presumably held a quarter of the mine's shares and was also after the lease of the adjoining Ballowall Mine. Unfortunately this operation did not last for very long and was offered for sale the following year.¹⁵ The mine was described as "that very promising and extensive tin sett" which had previously been worked by horse whim. A water engine was now erected which would draw the water from 50 fathoms deeper than the present workings. Eight lodes were in the sett, six of which had not been worked deeper than 30 fathoms (from surface).

The end of another period of working is indicated by a sale notice from July 25th 1828.¹⁶ The materials included a nearly new water wheel of 36 feet diameter, pumps of various sizes and many other tools and pieces of equipment. The wheel pit is located on the south side of the valley, and the wheel's size suggests that it probably pumped from a shaft via flat-rods. The mine was working again in 1836 although apparently on a smaller scale as water was once again being drawn by a horse whim.¹⁷ Workings reached 10 fathoms below adit or 40 fathoms from surface. Tin sales this year amounted to 24 tons, which realised £1,703 5s 7d.¹⁸ The following year production

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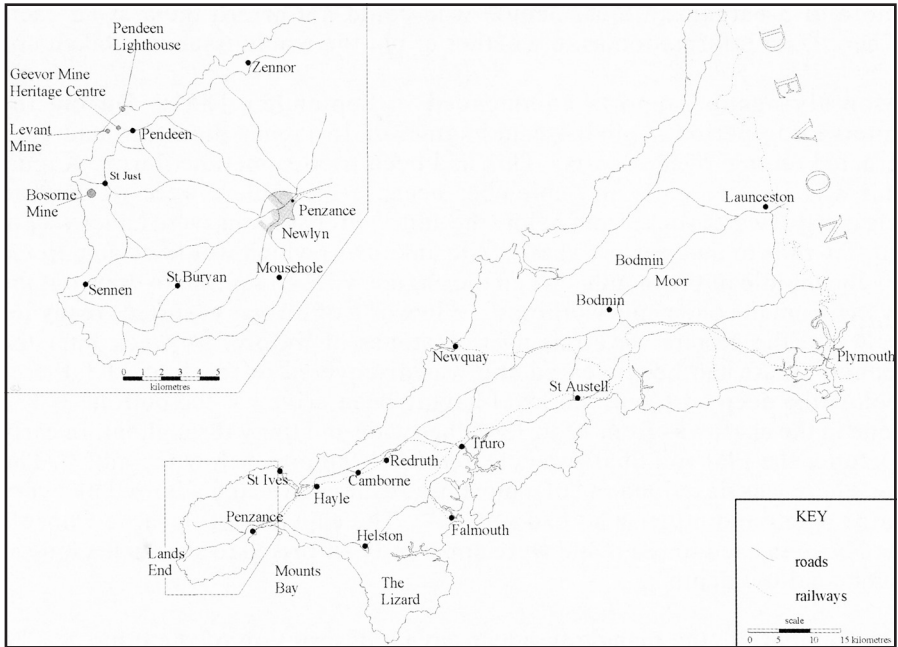


Figure 1. Location map for Bosorne mine.

dropped to only 3 tons, which sold for £159 15s.,¹⁹ with a slight increase in 1839 to 5½ tons which netted £263 6s 3d.²⁰ Production figures for 1838 do not appear to be available, and it is possible that the mine was closed for much or all of that year.

No records of the mine have been found for the 1840s. While it is possible that the it was closed during this period it seems unlikely, given all of the previous activity. However without further evidence nothing can be proved.

In early 1850 the mine was once again expanded when a new water wheel was being erected, and a lode had been found going down in whole ground (i.e. not previously worked) under the adit.²¹ At this time the shares, which had cost £3 10s to buy, were worth £7 10s. By April the wheel was up and flat-rods attached.²² The plan of East St Just United²³ shows a water wheel on the south side of the Cot Valley, opposite Ageworth Shaft (see below). It is likely that the new wheel was erected here as there is no further reference to the 36-foot wheel of the 1820s. Figure 3 shows the lodes and surface features of the mine from this period. The mine was described as looking well, and the new lode highly productive. During July a re-organisation occurred at the mine. Until April the mine was in 60 shares only which had cost the buyers £5 each.²⁴ From May this number increased to 600 shares at £5²⁵ and then from late June the shares increased to 2,400, costing £1 each.²⁶ The change to a large number of inexpensive shares was presumably to make them appear

more of a bargain to local people who could not afford them at £5 each. There is no information as to whether or not the whole issue was taken up.

Monthly agents' reports commenced in September 1851. During the intervening period a small steam engine, of 15 inches diameter, had been erected on one of the shafts. This had been tried sometime during August but was stopped early in September because the miners were working to clear attle (waste rock) from below the adit.²⁷ Preparations were under way to fit flat-rods to the "eastern shaft" (site unknown) which would be completed by the middle of the month, "when the engine will be required to draw out the water from the old men's workings". £30 worth of tin was at surface ready for sale and the miners were raising rich stones of tin ore. A week later the Engine Shaft had been cleared and was discovered to reach to 11 fathoms below the deep adit, with no level having been driven at the bottom.²⁸ The lode in the shaft was from 12 to 18 inches wide and tinny throughout. In early October the Flat-rod Shaft was cleared for 7 fathoms below the adit.²⁹ The lode here was described as "of a most beautiful nature, and admired by every mine agent and miner who had seen it". The captains of Spearne Consols had been invited to see it and were apparently surprised to see such a lode at such shallow depth.

On October 7th the managing agent gave a description of the mine.³⁰ The Engine Shaft was 40 fathoms deep from surface, with a level driving east and west from the bottom. A winze was being sunk some 9 fathoms West of the shaft on a lode 12 inches wide. The Flat-rod Shaft had been cleared for 10 fathoms below the adit or 30 fathoms from surface. The bottom level had been driven 24 fathoms east of the shaft, with a winze sunk 18 fathoms from the shaft. The western end of the level had not yet been cleared. According to the agent Bosorne Mine had cost about £1,280 to clear up and re-start. This same person had been engaged in clearing up Spearne Consols, which suggests that he may have been John Carthew, later to achieve some fame, if not notoriety, as managing agent of St Just United Mine,³¹ as well as East St Just United³² and St Just Consols, at the western end of the Nanjulian Valley to the south.

A week later the Flat-rod Shaft had been cleared, cased and divided down to the 30 fathom level and a winze started.³³ The bottom levels at the engine shaft were much improved and the ground easier for driving, the western end producing good stones of tin. By the end of the month the Flat-rod Shaft was cleared six fathoms below the 10 fathom level, the lode now improved and worth £8 per fathom.³⁴ Much broken ore was now lying around underground, waiting to be brought to surface. At the end of the month Davy's lode was discovered in the adit at Maddern's Shaft.³⁵ This lode was reputed to have produced large quantities of tin previously but had been lost. Captain Paull had valued the lode in the winze below the adit in the Water-wheel or Count House Shaft (presumably Ageworth Shaft) at £30 per fathom.

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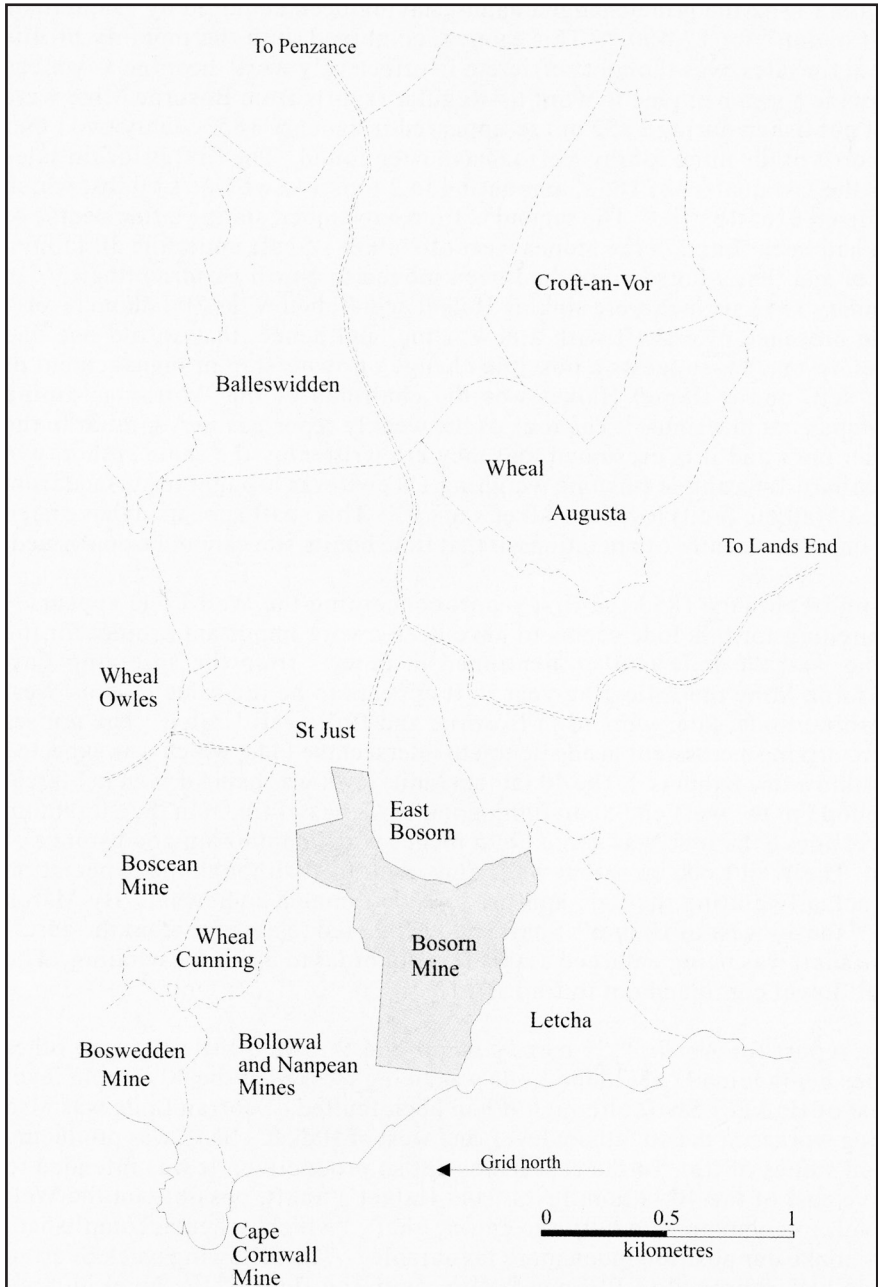


Figure 2. Bosorne mine and adjacent mine setts. Set boundaries based on Symons 1857 map of the St. Just mining district.

In June 1852 the mine changed hands, having been acquired by “capitalists in London” for £2,400.³⁶ This money, combined with the monthly profits from tin sales, was thought sufficient to effectively work the mine as well as provide a steam engine to work it. Regular reports from Bosorne Mine were not published during 1852 but re-appeared in January 1853. Only two other records of the mine for this period have been found. The first is for tin sales for the last quarter of 1852, amounting to 2 tons 14 cwt 3 qtrs 10 lbs, which realised £165 13s 1d.³⁷ The second is from November, stating a fine course of tin had been found in the stopes west of Halket’s Shaft under the 30 fathom level and that a horse whim had been moved to North Bosorne Shaft.³⁸ In January 1853 six men were sinking Halket’s Shaft below the 30 fathom level.³⁹ The presence of a shaft with a new name, and hence, that an old one had been re-named, suggests a possible change of ownership or management of the sett, and a Daniel Halket was the chairman of the Worthing Mining Company at this time.⁴⁰ The tone of the weekly reports is very similar to the older ones and it is presumed that they are written by the same author. On February 1st a single tinstone weighing 1½ cwt. was brought to surface from the 30 fathom (adit) level at Halket’s Shaft.⁴¹ This shaft appears to have been an important centre of operations at that time but its site cannot be confirmed.

In mid-February 1853 the first report concerning the Well Lode appears.⁴¹ Searching for this lode seems to have been a very important project for the mine, and the lode is also mentioned in reports from the adjoining East Bosorne Mine the following year.⁴³ It appears to be the same lode as West Bosorne Lode, later worked in Bosorne and Bollowall United. The miners were driving a cross-cut in an attempt to intersect the lode, which was expected “within a few fathoms”. The 40 fathom (adit) level was being driven in March, the lode in the west end containing good branches of tin.⁴⁴ In the 30 fathom level above the lode was six to eight inches wide, containing good stones of tin. The Well Lode cross-cut was being continued although the expectation of actually cutting the lode appears to have dimmed somewhat. By March 22nd the 40 west of Halket’s Shaft had been holed to a winze from the adit.⁴⁵ The shaft was being enlarged at this level in order to use it for winding. The Well Level continued not to find a lode.

The report for April 5th is more general and throws a little light on other lodes being mined.⁴⁶ Widden Lode was being worked at the 40 fathom level west of Halket’s Shaft although it had been faulted. Scorrán Lode was also being worked at the 40 fathom level, and west of Halket’s Shaft was producing good stones of tin. To the east it was not so productive. It was intended to drive east of the 40 fathom level from Halket’s Shaft, possibly on the Well Level, to communicate with the engine shaft, “which, when accomplished, will make our position much more favourable”. The following week Scorrán Lode had improved to £10 per fathom, with the floor of the level looking better than the back.⁴⁷ The engine at Halket’s Shaft had been stopped in order for the men to fix the pitwork. When re-started it was discovered that a dam to the east of the shaft was insecure, and another lift of pumps was

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needed at the base of the shaft. This was required so that the water could be lowered in order to repair the dam.

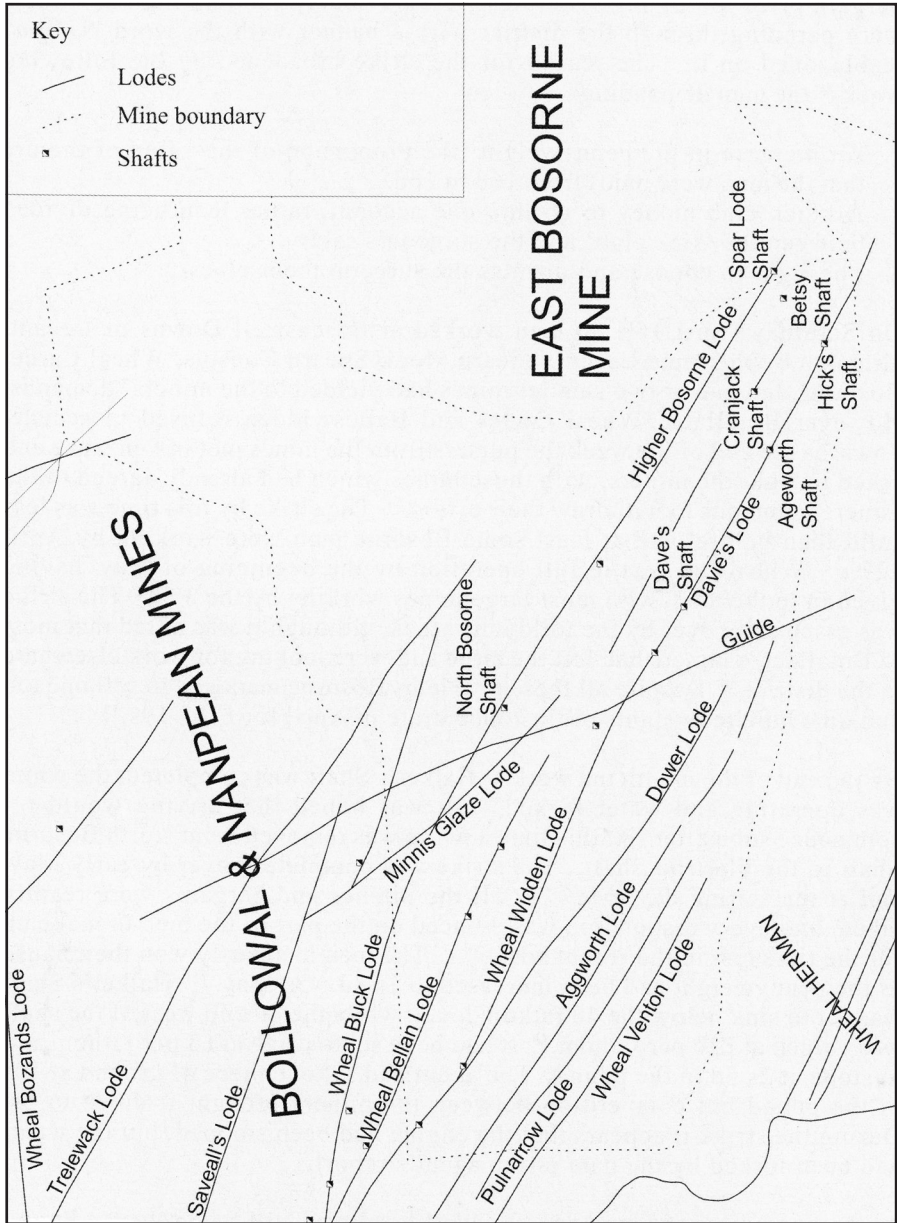


Figure 3. Principal features of Bosorne mine. Based on Symons 1851 map of the St. Just mining district.

At this time the mine became embroiled in the St Just miners' strike.⁴⁸ This had commenced on or about April 2nd 1853 at Boswedden mine, where men had twice been refused a pitch to work because the agents considered the bargain price too high.⁴⁹ Feelings were obviously running high as miners were parading through the district with a banner with the word "Union" emblazoned on it. The reason for the strike broadened by the following week,⁵⁰ the men demanding:

1. An increase in the pennyweight (the proportion of the value of the ore that the men were paid) from 16d to 20d.
2. All sick club money to go into one account, rather than being divided between the 'sick club' and the surgeon's salary.
3. The right to choose and dismiss the surgeon themselves.

On Saturday April 16th no men worked at Boscaswell Downs or Levant, although by this time Levant, Spearn Moor, Spearn Consols, Wheal Carne, Boscean, and one or two smaller mines had yielded to the miners' demands. However Botallack, Wheal Owles and Balleswidden refused to accede. Towards the end of the week the pursers from the mines met in Penzance and voted to fight the miners, with those mines which had already agreed to the miners' demands to withdraw their offers.⁵¹ The strike by this time was less solid than before, and at least some Bosorne men were working by April 22nd.⁵² Wheal Bal was in full operation by the beginning of May, having given in to the men, with most large mines working by the 3rd.⁵³ The strike was essentially over by the following week, although it was noted that most of Botallack's miners had left the mine and were looking for work elsewhere in the district.⁵⁴ Despite all these problems Bosorne managed to sell one ton and nine hundredweights of tin concentrate in April for £102 19s.⁵⁵

By the end of the month the work at Halket's Shaft was completed, the whim was operating and water forked.⁵⁶ It was hoped that driving would re-commence soon after. At this time a whim was removed from North Bosorne Shaft to the Flat-rod Shaft. The strike was completely over by early May, and at the setting day (May 7) "all the pitches and bargains were readily taken; and every disposition was evinced on the part of the men to make up for the time lost in the recent strike".⁵⁷ The men had partly won their cause as the pennyweight had been increased to 1s 8d. On May 7th Halket's Shaft was set to sink below the 40 fathom level, while the 40 end west of the shaft was valued at £20 per fathom.⁵⁸ It had been set to drive at £3 per fathom and to stope at 2s 6d in the pound. The agent had set one piece of ground at 10s in the pound but competition between the miners brought it down to 8s. During the strike it appears that the engine had been stopped, but the water had been forked by the date of the agent's report.

At the beginning of June 1853 the Well level was still being driven but no lode had been found." At North Bosorne Lode the men working in the Flat-rod Shaft had completed their work in making the shaft good for use and

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were now cutting fork (a sump) at the bottom of the shaft. The 40 fathom level on this lode was being driven west of the shaft. The 40 fathom level west on Scorrán Lode was now worth between £8 and £10 per fathom. By June 4th the crosscut east from the Engine Shaft still had not connected with a lode; it was hoped that the spar lode was only six or seven fathoms behind the end.⁶⁰ The 40 west of the Engine Shaft had yet to hole into Halket's Shaft although this would happen shortly. Ickman's Lode, being worked in the deep adit, was reported as poor but kindly. North Bosorne Lode was also described similarly: "although tin is not abundant, the lode is large, congenial for mineral, lets out much water, and, whatever may be the result, is a fair speculation".

Wheal Bellan Lode is first mentioned towards the end of July.⁶¹ This probably refers to operations in the western part of the sett as no plans show it east of the Wheal Whidden area. It was described as looking kindly and producing good stones of tin. By early August the lode in Halket's Shaft had dropped off although the western end of the 40 fathom level (connected to the Engine Shaft at the end of June) was worth £12 per fathom.⁶² North Bosorne Lode was still poor but kindly and still letting out water. In mid-August the crosscut east from the engine shaft still had not cut any lode, and was not expected to intersect the spar lode for a month or six weeks.⁶³ Reports from the 6th of August have the names of the authors appended, these being John Truran and John Thomas. Unfortunately from early November only the initials are given and it is therefore impossible to say who wrote which one. By the beginning of October Halket's Shaft had been sunk to 50 fathoms from surface and the 50 fathom level driven west from the shaft.⁶⁴ The good tin found in the higher levels appeared to be dipping west and this level was being driven in the hope of intersecting it. The stopes on Davy's Lode were looking good, and because much of the rest of the mine appeared to be falling off it was decided to sink Davy's Shaft below the 40 as the various stopes on this lode were looking well.

At the end of October Davy's Shaft was being widened at the 40 in preparation for sinking, which was in progress at the beginning of November 1853.^{65,66} The 40 fathom level was being driven east and west of the shaft. The 50 west of Halket's Shaft was poor, but was considered likely to improve to the west. The 40 west was better: "...it is presumed that the men are earning fair wages". A week later the miners and agents were somewhat surprised when Davy's Shaft opened into old men's workings below; it was not known how deep these old workings were.⁶⁷ In the winze below the 40 on Davy's Lode the lode was 18 inches wide and letting out more and more water, a situation regarded as a "favourable omen". The Well Level continued on its way without reaching any lode, although it was thought that the nearest could not be far away.

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At the adventurer's meeting on Thursday November 17th the accounts showed:

Due to the banker and purser at the end of September	£135	19	10d
October labour costs	£171	16	3d
Travelling expenses and London charges	£24	0s	0d
Due to merchants	£275	6s	7d
Total	£607	2s	8d

To meet this deficit a call of 5s per share was made.⁶⁸

A report by Captain Ralph Goldsworthy, of Levant Mine, was also read at the meeting. He had been invited to give an impartial account of the mine, a common event at many mines, however the tone of the report suggests he thought all was not as well as it could be. It appears that the executive committee had just returned from a visit to the mine, and at the meeting had been empowered to conduct the future management of it. This at least suggests that there were also bad feelings between the committee and the agents at the mine. The meeting was then adjourned until December 8th to take into consideration the relinquishment of some shares. The report's end was very upbeat, stating that mining was very active about the locality, and mentioning that East Bosorne had recently started and that South Bosorne (probably a section of the Letcha sett, on the south side of the Cot Valley) was in the hands of influential parties. Unfortunately East Bosorne was to fail only one year later,⁶⁹ and the reference to South Bosorne is one of only two known to the author.

The last reports for the year were mixed but generally depressing. The 50 west of Halket's Shaft had now come under the tin ground found in the 40, but the lode was otherwise unproductive.⁷⁰ In Davy's Shaft below the 40 the lode was thought to have been faulted out but was producing good tin below the 40 west. The Guide Lode was producing tin from the 30, however this appears to be a true guide rather than a lode, *i.e.* it was not itself mineralised but carried tin where it intersected other lodes. In this respect it appears similar to Wheal Owl Lode to the east, an important component of the St Just United and Amalgamated setts.⁷¹ The Well Level had intersected a structure but not a master lode, which was consider to lie somewhere ahead.⁷²

On January 20th 1854 an advert appeared in the West Briton for the sale of 225 shares in the sett.⁷³ Bearing in mind the initial cost of £1 each this represented a large sum of money. The Bosorne Mine reports re-commenced on January 21st. These are somewhat different to the previous ones and have a different author: Ralph Goldsworthy. It would seem that he had persuaded the committee that the mine could be carried on despite the mostly adverse reports and was willing to leave Levant to work a much smaller

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property. Goldsworthy's reports are not as descriptive as those of Truran and Thomas, and focus mainly on the value of the tribute bargains and the values and sizes of the lodes. Phrases such as "yielding tin", "producing good stones of tin", "having a kindly appearance" and "producing saving work for tin" abound although they invariably meant "poor", however optimistic they might have sounded.

The report for January 14th gives an insight regarding how the tribute bargains were fixed, "fixed" being the operative word." In a report to the shareholders Goldsworthy almost boasts: "Let it be understood, that the tributers have not their tribute part of the full price of tin; they are paid the tribute of £55 per ton; and we expect the next parcel we sell to get £83 or £84 per ton", i.e. although the tin was expected to sell at £83 or £84 a ton the tributers were only paid a proportion of £55 per ton or about 66% of the true price. The same week the production figures for the last quarter of 1853 were published, showing the small amount of tin the mine actually sold: between October 1st and December 31st Bosorne produced 5 tons and 10 quarters of black tin which realised £444 18s 9d. All lodes at this time appear to have been yielding tin, being between 3 and 15 inches wide. However, based on the actual output the values appear to have been negligible.

Towards the end of February Widden Lode east of Halket's Shaft had improved to £6 per fathom, with the spar lode east of engine shaft worth £4 per fathom.⁷⁵ The Well Level is mentioned again on March 11th when it is described as having been cleared out and secured." This suggests it had been disused for a while. Two weeks later the level intersected a guide or crosscourse trending north-east to south-west, poor for tin but carrying iron.⁷⁷ The miners had been offered to drive on it as a crosscut for 22s per fathom but this bargain had been refused. It was finally set to work on April 1st at 27s per fathom.⁷⁸ Widden Lode had again improved at this time and was now worth £8 per fathom. Cranjack Lode at adit level was valued at 30s. per fathom, this being about the average value for the other lodes. Production figures for the first quarter of 1854 show a drop on the last quarter of 1853, with only 3 tons sold, for £214 4s.⁷⁹

The situation at the mine appears quite bleak from here. Few values are given for the lodes and it appears that production was sporadic. Additionally the Well Level, although in fairly soft ground and therefore easy to mine, still failed to cut any other lodes despite having reached and passed the area where other lodes might have been expected.⁸⁰ The guide cut in the Well level continued to grow in size but was still only producing iron rather than tin. The report dated 10th June 1854 is possibly the most depressing produced by the agents.⁸¹

It is but little we have to report this week, all that was set on setting-day last week was the 30 end, west of Halket's shaft, on Widden lode, and stopes in back of the 30, east of Halket's shaft,

on the Guide lode, no lode has been taken down in either of those bargains this week, we are desuing each. We have been trying to get more hands to work the Well level end but have not succeeded; we let it yesterday to two men and two boys. Some of the men have been employed this week in preparing and sampling their tinstuff. I expect next week we shall let more work underground. Men are leaving fast here for Australia. June 10.

At about this time the mine was inspected by a Captain Hocking on behalf of the executive committee, perhaps concerned with the reports.⁸² Hocking appears to have given an adverse report on the mine and implied that the agents had over-valued the lodes in the reports. The agents however stated that they had checked values with production figures and found that they had under-valued instead. Production for June was considered likely to match that of May but there were possible problems with the water supply, which would affect the amount of ore that could be stamped. By late June the mine was still impoverished: the Guide yielding only a small quantity of tin, Widden Lode east of Halket's Shaft yielding good stones of tin but now only worth £3 per fathom; possibly Hocking's report had had some effect on the valuations.⁸³ The Widden Lode west of Halket's Shaft was being desued: the granite was being cleared from the sides of the lode so it could be brought down cleanly. In early July Widden Lode was once again improved, to £8 per fathom.⁸⁴ However Widden Lode was still being desued, this slow process probably accounting for the low production rate. The adventurers met on July 20th.⁸⁵ With so little to be optimistic about it was proposed to close the mine and sell the materials, with a meeting convened for August 3rd to confirm (or otherwise) the proposal.

The report for July 22nd is more optimistic, perhaps in an effort to persuade the adventurers to carry on or even to encourage potential buyers.⁸⁶ In the stopes in back of the 30 fathom level east of Halket's Shaft, Widden Lode was 9 inches wide and worth about £6 per fathom. No lode had yet been cut in the Well level. On the Prian Lode a shaft had been cleared to the bottom, where the lode was found to be 15 inches wide and impregnated with tin. It was intended to clear the old workings further east. The following week the bottom level east on the Prian Lode had been cleared and the lode found to be narrow.⁸⁷ Surprisingly the production figures for the second quarter of 1854 show an increase of 33% over the first quarter with 4 tons sold,⁸⁸ unfortunately there appears to have been a reduction in the price of tin (of about £10 per ton) as only £244 17s was realised from the sale.

Two weeks later a tribute pitch had been set on the Prian Lode.⁸⁹ It seems that the lower levels had been abandoned for some time as the water was now being forked below the adit. On two levels being worked no lode had been taken down because of desuing. By August 19th the water had been forked to the 40 fathom level and it was hoped to get to the 50 within the week.⁹⁰ This was so that prospective buyers could inspect the mine. The following week the mine was forked to the bottom.⁹¹ The tribute pitch west

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of Halket's Shaft on Widden Lode was now worth £4 per fathom; the lode west being worth £3 per fathom. A lode had finally been cut in the Well level, 6 inches wide and poor, on which it was intended to drive. The report for August 26th was the last in the series; the mine was advertised for sale on October 13th (figure 4), the sale to take place on the 17th.⁹²

Production figures for the third quarter of 1854 show only 2 tons sold for £136 2s., giving a total output to date for the year of 8 tons 9 cwt 20 lbs.⁹³ Few details of the mine's subsequent history are known. A production figure of 1 ton 1 cwt 2 qtrs and 24 lbs, worth £70 19s 8d, is recorded for the first quarter of 1855.⁹⁴ Despite low tin prices it was still operating in November 1857,⁹⁵ however, by this time the sett was being worked under the name of Bosorne and Bollowall United.⁹⁶ Unfortunately there is little documentary

**MINE MATERIALS
FOR SALE**

MR GEORGE SEALY has received instructions to offer for SALE by AUCTION, on BOSORN MINE, in the parish of St Just in Penwith, on TUESDAY the 17th day of October instant, at Eleven o'clock in the Forenoon, the following MINING MATERIALS, viz:-

- 1 15-inch Cylinder Pumping Engine, together with Boiler about five tons
- 1 Shears
- 3 Balance Bobs
- 3 Horse Whims
- 70-fathoms 1-inch Iron Rods, with Sheaves, &c., complete
- 70-fathoms Wood Rods, 5-inch square
- 70-fathoms 5-inch Pumps
- 1 5½ -inch Plunger Pole, with stuffing Box & Glands
- 10-fathoms 4½-inch Pumps
- 1 4-inch Working, one ditto, 4½
- 30-fathoms 4-inch Pumps
- 1 3½-inch Pole, Stuffing Glands, &c, complete
- 1 set of double and treble Blocks, Launderers, and Smiths' and Miners' tools, a quantity of new and old Timber, Whim Rope and Chain, &c, &c.

Also, the Account House Furniture.
For particulars apply to the Agents on the Mine, or to the AUCTIONEER, Marazion.
Marazion, October 3rd, 1854.

Figure 4. Sale notice from the West Briton, October 13th, 1854.

history of this operation except for the accounts published quarterly. Quite When Bosorne and Bollowall United actually began operations is open to debate as Bosorne Mine appears to have been working during November 1857⁹⁷ While the Bosorne and Bollowall United accounts published in the West Briton in April 1858 include costs for September to December.⁹⁸ It is assumed therefore that the former reference applies to the latter operation,

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using the old name out of habit. The transition from one operation seems to have been smooth, and in the first quarter of 1858 tin to the value of £507 4s 3d was sold. However this still left a debit balance against the mine of £124 14s 11d.

Summary of production

Date	Quantity ^a	Buyer	Cost per ton ^b	Total ^c
1.9.1824	?	?	?	13.00.00
7.5.1836	5.10.00.00		73.02.06	402.03.09
9.7.1836	4.10.00.00		84.07.06	379.13.09
3.9.1836	2.10.00.00	Trelissick & Trethellen	78.00.00	195.00.00
15.10.1836	3.00.00.00	Bolitho, Carne, Cornish & Co.	63.15.00	191.05.00
10.12.1836	3.00.00.00	Batten & Son	56.17.06	170.12.06
11.2.1837 ^d	3.00.00.00	Daubuz & Co.	53.05.00	159.15.00
16.11.1839 ^e	5.10.00.00	Bolitho & Co.	47.17.06	263.06.03
15.1.1853 ^f	2.14.03.10	?	?	165.13.01
16.7.1853 ^g	1.09.00.04	?	?	102.19.00
7.1.1854	0.12.02.21	Daubuz	80.00.00	50.15.00
21.1.1854 ^h	5.10.00.00	?	?	444.18.09
11.2.1854	0.12.01.02	Bolitho	81.12.06	78.12.06
18.2.1854	0.01.03.22	Bolitho	66.00.00	4.01.00
11.3.1854	1.00.03.22	Bolitho	77.02.06	80.15.06
15.7.1854	0.13.03.19	Bolitho	68.15.00	47.17.00
5.8.1854 ⁱ	4.00.00.00			244.17.00
26.8.1854	0.09.03.07	Bolitho	68.05.00	33.09.06
	0.06.00.13	Bolitho	62.00.00	18.19.00
9.9.1854	0.08.03.23	Bolitho	69.00.00	30.18.00
	0.03.02.03	Bolitho	28.00.00	4.18.06
14.10.1854	0.13.00.24	Bolitho	70.00.00	46.05.00
	0.05.03.04	Bolitho	58.00.00	16.15.06
	0.03.00.25	Bolitho	20.00.00	3.04.06
28.10.1854	0.05.01.12	Bolitho	70.00.00	18.05.00
23.12.1854	0.11.00.19	Bolitho	69.00.00	38.10.06
	0.01.01.09	Bolitho	34.00.00	2.05.00
<u>14.4.1855^j</u>	<u>1.01.02.24</u>			<u>70.19.08</u>
Total	48.12.03.11			3,279.15.03

Notes.

- | | | | |
|------|---|---|------------------------------|
| a | Quantity in tons, hundredweights, quarters, pounds. | e | Total for 1839. |
| b, c | Values in pounds, shillings, pence. | f | Total for Oct - Dec 1852. |
| d | Total for 1837. | g | Total for April - June 1853. |
| h | Total for October - December 1853. | h | Total for April - June 1854. |
| i | Total for January - March 1855 | | |

Things had not improved by November that year, the income of £202 5s 4d from more tin sales leaving a debit balance of £295 7s 2d.⁹⁹ Calls to the value of £80 had also been received, and it was decided to reorganise the operation by doubling the number of shares from 80 to 160. To reduce the debit balance a call of £1 was made. Yet another debit account (£124 14s 11d) occurred in the first quarter of 1859,¹⁰⁰ and one in the last quarter (£292 14s) prompting yet another call of £1 per share. Tin sales during this quarter amounted to 6 tons and 18 cwt. Things were looking slightly better in 1860, tin sales and the previous call reducing the deficit to £86 4s 4d,¹⁰¹ possible evidence that

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the mine was “returning tin to more than pay”.¹⁰² Unfortunately by the end of the year another call of £1 was necessitated by a deficit which had now reached £315 5s 9d.¹⁰³ With the exception of 4-160th shares sold in 1863¹⁰⁴ no other information is recorded for the mine until August 1864 except for the date of the pay day.¹⁰⁵ Six months later operations were taken over by the East St Just United company.¹⁰⁶ In 1866 this company took over the adjacent and stopped St Just United Mine¹⁰⁷ with which it amalgamated in 1867¹⁰⁸ to form St Just Amalgamated; this concern closed in July 1875.¹⁰⁹

Concluding Remarks

Bosorne Mine operated as a single mine for at least 50 years and it is almost certain that operations date back to Medieval times. Production figures are few and far between and it is unlikely that profits from tin production were in any way close to the running costs of the mine. The growth of the mine from small-scale outcrop workings to a named mining operation and then on to amalgamation with adjacent mines is typical of the majority of Cornish mines; it may also show how optimistic the industry was and how much mine shareholders were prepared to put up with in the hope of finding returns for their money. Many of the closures and reopenings mirror events in the history of world metal production which often had all too-profound effects on domestic metal production. Bosorne Mine was never a major player in Cornish mining history but, fortunately, its records and remains have proven more lasting than many others.

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