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Dear Sir,

In accordance with your request, I visited and made an inspection of the Frosncoch Mines on the 21st, 22nd, and 23rd of May, and beg to hand you my Report.

The principal, or main Vaughan Shaft, vertical to the depth of the 50 fathom level, meets with Taylor's Shaft sunk from surface on the line of lode to the present bottom of the 15 fathoms level, but owing to all workings being filled with water under the 30 fathoms level, I am only able to report to this depth.

The principal formation is blue clay slate dipping west, and the lode which runs through the property has a bearing of east and west, with an underlay to the south, cuts across the stratification. In places particularly between Williams Shaft to the west, and Edwards Shaft eastward, the lode is very wide and has proved immensely productive from surface to the bottom of the Mine, yielding on the footwall or north side Blende, and on the hanging wall or south side Lead.

The adjoining property on the same lode west of boundary is West Frosncoch or Kinnes Mine, from which point I give particulars of the workings inspected eastward in Frosncoch Mine.

The boundary shaft has been sunk from surface to the 56 fathoms level but nothing of importance is to be seen.

About 75 fathoms east, Williams Shaft has been sunk to the 56 fathoms level; which is in good repair, with ladder round.

In the 34 fathoms level east, the lode driven on does not show anything of value.

The 24 fathoms level or Adit was driven directly on the south side of the lode, and in several places have broken into old workings in the north shows that ore ground has been worked away by previous Companies.

Near the boundary, a cross-cut has been put out north over 20 fathoms, and a level driven east and west.

The 34 fathoms level has been driven east of Williams Shaft by the present Company to fathoms, in a strong lode, showing in places spots of Lead, but not sufficient to pay for stoping.

The 24 fathoms level west is closed, and all ore that would pay has been taken out.

The 44 fathoms level west has been driven on north part of lode about 90 fathoms, and communicated with a rise put up from the 56 fathoms level under
About 15 fathoms west of Engine Shaft the present Company have driven on a branch west 30 fathoms, which communicated with the main or south level. The lode at this point was productive for Lead and Blende, which has been worked away, that there are no reserves of ore standing here, the main level on to Vanzho Shaft is in unproductive ground.

Engine Shaft is sunk to the 117 fathoms level, but no workings to be seen, and the same remark is applicable to Fryse’s Shaft which is sunk to the 105 fathoms level. The latter is now being used for taking debris from the surface.

Core Breaker Shaft, made chiefly through old workings to the 66 fathoms level, in which there is a footway, is rather out of repair.

In the 10 fathoms level west, about 1 fathom from Shaft, there is a stope in which a little Blende is to be seen, but not rich enough to work at a profit.

The 10 fathoms level east has been driven 35 fathoms, in a large lode about 2 fathoms wide, which has been worked away for Blende, and the little ground left standing is not very rich. The ore ground under this level to the 20 fathoms level has been worked away.

The 34 fathoms level east has been driven by the present Company 2 fathoms, and a stope has been worked up to the 20 fathoms level, which became poor.

In the 24 fathoms level driven west, two cross-outs have been driven north, showing a wide and strong lode, containing small branches of lead and Blende insufficient to pay for working.

In the 34 fathoms level west, the lode is from 12 to 16 feet wide, in which a little stoning has been done but proved not rich enough to pay.

The 34 fathoms level east has been driven by the present Company 7 fathoms, which yielded Blende and has been stored away. The north and south levels are in soft ground unproductive for mineral.

The 44 fathoms level west has been driven by the present Company 16 fathoms, and working has been done on three or branches of the lode, the south or hanging cast, and the north cast or foot cast being lead bearing, and the intermediate branch producing Blende, which has been stored away but there is standing between this and the 34 fathoms level a pillar of ground about 3 fathoms long and 10 fathoms high, the lode being large of an average yield of about 45 tons of Blende per fathom, which would produce probably 110 tons of Blende, but owing to the old workings standing on the hanging side, the ground requires careful timbering for working in safety.

The 44 fathoms level has been driven east of Footway Winze by the present Company 28 fathoms, as a level on the north side of old workings with a view of communicating with a level driven east of Edwards Shaft, in hopes of communication with a level driven east of Edwards Shaft. In hopes of success, as in the present, a cross-cut has been driven and communicated with the old workings.
for which rise a 44 fathoms level has been driven on the south part of lode, about 35 fathoms in a productive lode, which has been stopped away to the 24 fathoms level above.

A long cross-cut north (over 60 fathoms) has been driven, but nothing of value was intersected.

The 44 fathoms level west of Boundary Shaft has been rather poor in yield of ore, and only one stope in low grade ore for Lead and Blende has been worked up.

The 44 fathoms level east on north part of lode is filled up and could not be seen.

The 44 fathoms level east on south part of lode, has been communicated with the north level by a cross-cut, in which nothing of value is to be seen.

The 56 fathoms level west has been driven by the present Company 44 fathoms, to and beyond the boundary into West Fronsach, but proved unproductive for some distance before reaching the boundary.

Stooping has been carried on at several points over this level, which were fairly productive for Blende and Lead when commenced, but became less so, as they approached the level above.

Several cross-cuts have been cut out to explore the lode, but nothing of value intersected.

The 56 fathoms level east has been driven by the present Company 68 fathoms towards the Endine Shaft in north part of lode, and in examining the roof, the lode is of good size, showing in places a mixture of Lead and Blende but not sufficient to pay for stooping, thus proving the ore ground worked away under the 24 fathoms level did not continue so productive in depth to this level.

About 10 fathoms east of Williams Shaft, a short cross-cut was driven south, and intersected a mass of quartz intersected with good Lead, which was stoved for a short distance in height, when it fell off in yield, and became too poor for working.

The 66 fathoms level east of Williams Shaft has been driven into West Fronsach Mine, at a lower level of some fathoms than the 66 level from that Mine, that an inclining road with draw has been cut in or laid, so as to convey the ore-staff etc. from West Fronsach back to Vaughan Shaft, to be raised to the surface, also the water as well to the Electric Pump.

The lode in the 66 fathoms level from Williams Shaft is large, about 12 feet wide, but smaller as it reached the boundary, and throughout the whole length showed very little Lead or Blende, nothing good enough to pay for stooping.

Several rises (eight or nine) have been cut up from 2 to 6 fathoms to test the ground. But only two used as ore passes have come through to the level above - thus proving this last place of ground to be poor for mineral.

The 66 fathoms level east towards mining and Vaughan Shaft is in good repair.
In the 56 fathoms level east of Footway Winze, a store has been worked nearly to the forebrect. There is a pillar of ground standing between Ore Breaker Shaft and the Footway Winze, also a short length of the east as far as the store worked in which is to be seen Blende of a low grade, this piece of ground is standing intact to the 56 fathoms level.

Edwards Shaft is sunk from surface to the depth of the 78 fathoms level, 5 fathoms of which were sunk by the present Company, and at present is not in very good condition.

In the Shallon Adit east 7 fathoms, and in the 124 fathoms level east, 4 fathoms has been driven by the present Company, and more working in Blende ground has been done.

The 24 fathoms level east has been driven from this Shaft about 150 fathoms partly on north part of lode, being the pioneer level in the mine. In the present forebrect there is a lode 11 feet wide, composed of blue clay slate veins of quartz and Carbonate of Lime showing a little Blende on the south side. The ground appears to be changing in the last few fathoms driven, and looks more kindly for producing mineral, as it is to to seen along the roof behind the end.

A short cross-cut has been driven south from this level on north part and communicated with the east eastern or Millers Shaft.

About 20 fathoms behind the present end a cross-cut has been driven over 40 fathoms, and intersected the south part of lode which has been driven on eastward about 30 fathoms, of which 12 fathoms was driven by the present Company. The lode in the 13 about 5 feet wide, showing quartz with small cubes of Blende, and is not so strong and crossing as the north level.

Two short cross-cuts have been cut out north to prove the width of the lode.

The 24 fathoms level has been extended on an intermediate branch or east of lode over 50 fathoms, and a cross-cut extended north to intersect the north part of lode, which was driven on by the present Company 4 fathoms and an unproductive lode. This end - according to the plan - is about 25 fathoms behind the 24 fathoms level above.

A cross-cut has been extended from end of middle or intermediate level southward, for the purpose of intersecting the south part of lode (which was expected to have been reached). The present end of cross-cut shows indication of the lode being near, and - in my opinion - should be continued.

The 24 fathoms level west has been driven about 40 fathoms, and by the present Company 8 fathoms, but nothing of value was met with.

The 44 fathoms level west has been driven about 40 fathoms, and by the present Company 10 fathoms, for the purpose of meeting with the 44 fathoms level east of Orebreaker Shaft, (as explained).

In the 44 fathoms level eastward, the lode shows a little Blende, but not sufficient to value.

A cross-cut has been driven, and intersected the lode on which the 24
fathoms level on north part is driven, which is very strong and promising, letting out a good stream of water.

The 56 fathoms level east on north and south parts of lode, could not be examined.

The 56 fathoms level west of Edwards Shaft has been driven by the present Company 80 fathoms, for the purpose of meeting with the level east of Greasebreaker Shaft, there being still 6 fathoms of ground between the two ends and being off the lode is of no value.

In the sole of the 56 fathoms level, mining of Blende has been carried on, and between the present bottom and the 56 fathoms level there is estimated to be standing about 60 fathoms of ore ground that will yield from 4 to 5 tons of Blende per fathom.

In the 56 fathoms level west on north level, the present Company have driven from Vaughan Shaft 70 fathoms, the lode in the present end is turning more northerly and is unproductive.

Vaughan Shaft, the principal shaft for mining and raising, is sunk vertical from surface to the 90 fathoms level, and communicated with Taylor's Shaft.

The 78 fathoms level has been driven east, and communicated with the present bottom of Edwards Shaft, 51 fathoms being driven by the present Company.

The workings on the south part of lode have mostly produced lead in rich quantities, taken away by previous Companies, and the north part producing Blende being worked by the present Company. There is still standing over this level stores partly worked estimated to produce about 100 tons of Blende.

About 40 fathoms east of Vaughan Shaft in the roof a store has been worked, and there is yet standing a piece of ground about 3 fathoms long by 10 fathoms high, valued by Mr. Trefois to yield 2 tons of Blende per fathom.

A cross-cut north was driven a few fathoms behind the 78 forebrest, and intersected the north part of lode which produced Blende, and after communicating with Edwards Shaft, a level was driven west, towards the 72 end east from Vaughan Shaft on north part of lode, there being between these two ends about 12 fathoms further to drive to effect a communication, which from the appearance of the lode in the present end west, will soon be Blende ground for stopping.

About 40 fathoms east, Number 1 Mine has been sunk 38 fathoms, which was full of water, but I am told the lode in the bottom is very good for Blende.

Further east about 60 fathoms, Number 2 Mine has been sunk 48 fathoms, the present bottom being all in lode of a hard and strong nature, containing some Blende that will yield 8 tons per fathom.

The 90 fathoms level has been extended eastward over 100 fathoms, of which the present Company has driven about 60 fathoms, and has nearly reached under the 78 end or bottom of Edwards Shaft, the lode in the present end is large and looks promising, letting out water, and contains a good mixture of Blende with Lead.
About 40 fathoms behind the crescent end a cross-cut has been driven north 20 feet, and intersected the north part of lode which contains a strong mixture of Blende.

Further east still about 33 5 fathoms a second cross-cut has been driven 16 feet, and passed through a small mixture of Blende.

Further east about 12 fathoms from Number 2 cross-cut, a third cross-cut was cut out north several feet beyond the run of Blende intersected by the previous two cross-cuts, proving there was no more lode standing in this direction, when the 9C fathoms level was continued eastward and the crescent end is 46 feet in advance of Number 2 cross-cut which is now being driven by four men and is opening up a lode of Blende mixed with Lead valued at 12 tons per fathom.

From Number 3 cross-cut a level has been started westward, in a strong lode showing some Blende a few inches wide on the south side. This should be driven to reach Number 3 and Number 1 cross-cuts which have intersected the same run of Blende on which Number 1 and 2 levels started under the 7C fathoms level are supposed to be in, and when communicated with this level will open up (as far as seen) productive ground for about 60 fathoms long.

About 50 fathoms east of Vaughan Shaft, some ground has been stoned along the roof west under Number 1 since, started under the 7C level, which shows a large and strong lode yielding some good Blende worth 12 tons per fathom. At this point a raise was intended to be cut east to meet the lode.

A cross-cut has been driven north a short distance through a strong lode containing some ore, but has not intersected the hanging wall or south part of lode.

The 9C fathoms level west of Vaughan Shaft has been driven by the present Company 50 fathoms principally in country rock north of the lode or workings extended by previous Companies, and wherever broken into by cross-cuts the workings are found filled with debris.

The present level is a very substantial one and advantageous for driving westward, in the crescent end of which the lode shows small strings of Blende.

General Remarks.

Having reported in the different points that could be examined underfoot I now state the original explorations carried on by the present Company since 1992 have been chiefly in the eastern part, east and west of Williams Shaft at the 56 fathoms level, east and west of Vaughan Shaft at the 6C, 7C and 9C fathoms levels, proving the north part of lode, and, east and west of Orebreaker and Edwards Shafts for short distances, that comparatively speaking, the trials are only testing the side branches or north part of main lode which in the upper section of the Mine proved rich in Blende, but do not tell so productive in depth as proved by the 9C fathoms level.

Very little work has been done in the eastern part of the Mine in the eastern and of which the 24 fathoms or thinner level, as well as the 24 and 96 fathoms levels show the lode to be still or divided, and rather clinched by a cross-channel of ground to be seen on surface, which if driven through and
extended eastward into the very promising virgin ground from all indications at surface, the lode would again open out and become productive, also it would be advisable to sink a new shaft from surface, and to push forward the driving of the 80 and the other lower levels eastward from Vaughan Shaft.

The lower levels in the western part of the Mine, particularly the 60 fathoms level from West Frontet, are in excellent order, eastward to Vaughan Shaft, as also the 78 and 90 fathoms levels east and west of Vaughan Shaft, but the upper levels in several places with footways and shafts (Greynaker and others) if to be kept open require sundry repairs.

The Vaughan or main Shaft is well equipped with cages for hauling up of men and ore-stuff by an electric Plant, and for the raising of water.

For the future development of the Mine, I consider the eastern ground should be explored by extending the 24 fathoms level east on north east corner of lode and the sinking of a new Shaft from surface also to drive the 90 fathoms level east of Vaughan Shaft with a deeper level in the same direction in search of further deposits of ore, and further to drive the present cross-cut south in the 55 fathoms level west of Williams Shaft, to intersect the parallel lode about 100 fathoms south of the main lode as seen and opened on surface.

There is at surface, erected by the present Company, an extensive installation of Electric Plant for hauling and curting, with extensive Dressing Machinery, capable of treating immense quantities of ore-stuff, of which at present there is but little reserves of ore underground, or perhaps left on surface, probably twelve months' work, that it shows plainly, as has been erroneously done before in Cardiffshire, too much of the capital has been expensed to the erection of extensive Machinery for treating of ore-stuff etc. instead of first extending sufficient underground to explore and open up reserves of ore, and then erect the necessary Dressing Machinery, so as to maintain regular returns.

In conclusion, I try to add that, looking at the past history of Frontet, and its present position, with such good Machinery erected, available for the advantageous future, working with the present prospects at the 80 fathoms level, and the untried ground eastward of the cross measures towards Rhosysonallt and the parallel lode standing south as seen at surface, I consider if a further capital of £20,000. Os. Ca. was judiciously expended, there is every possibility of a profitable Mine being opened up.

I remain, dear Sir,

Yours faithfully,

(Signed). Thomas Garland.