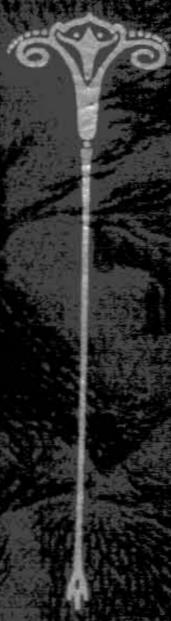


A32 No. 22

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MOUNT PARIS TIN MINES LIMITED



Mt. Paris Tin Mines (prospectus)
E. Bonwick, F. Voss, D. Frazer
1934

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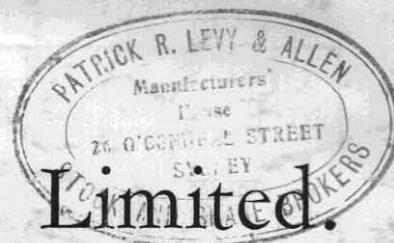


200,000 shares of this issue have already been taken firm, 100,000 by the Directors of Hartford Options Ltd., and 100,000 by Mr. C. B. Quinan.

Prospectus

:: OF ::

Mount Paris Tin Mines Limited.



To be registered at Canberra under the Companies Ordinances, 1931.

NOMINAL CAPITAL - £120,000

Divided into 480,000 shares of 5/- each fully paid.

328,000 Shares are now offered for Public Subscription, payable 1/- on application, which shall also cover allotment money. The balance of 4/- to be paid by two calls of 2/- each, one to be made forthwith after allotment and the other not later than 30 days thereafter.

96,000 Shares are to be issued as fully paid to the Vendors.

56,000 Shares are to be issued as fully paid to Hartford Options Limited. (See page 12.)

480,000

Provisional Directors :

H. B. JAMIESON, 115 Pitt Street, Sydney, Chartered Accountant.

J. A. LEVY, 220 Pitt Street, Sydney, Merchant

THOS. LYONS, Elizabeth Street, Hobart, Stock and Share Broker.

The Hon. T. G. MURRAY, M.L.C., 11c Castlereagh Street, Sydney, Investor.

And one to be appointed.

Consulting Engineer :

E. W. BONWICK.

Bankers :

BANK OF AUSTRALASIA, Head Office.

Solicitors :

Messrs. ALLEN, ALLEN & HEMSLEY, "Wigram House," 19 Castlereagh Street, Sydney.

Secretary and Sydney Office :

Messrs. DAVIS EGAN & CO., Chartered Accountants (Aust.), 11c Castlereagh Street, Sydney.

Auditors :

J. A. L. GUNN & PAUL COHEN, Chartered Accountants (Aust.), 8-14 Bond Street, Sydney.

Brokers :

Messrs. PATRICK R. LEVY & ALLEN, 26 O'Connell Street, Sydney.

Registered Office :

Canberra.

AMG REFERENCE POINTS ADDED



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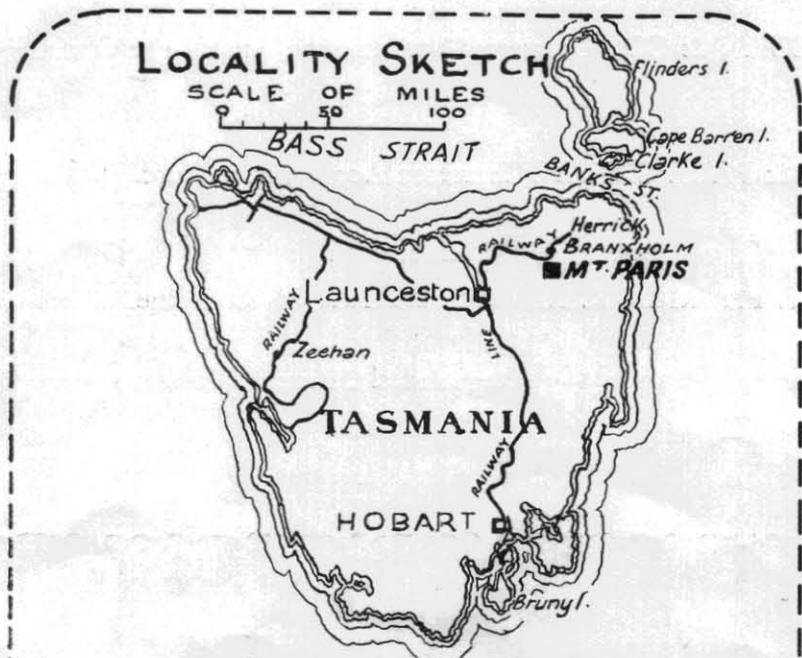
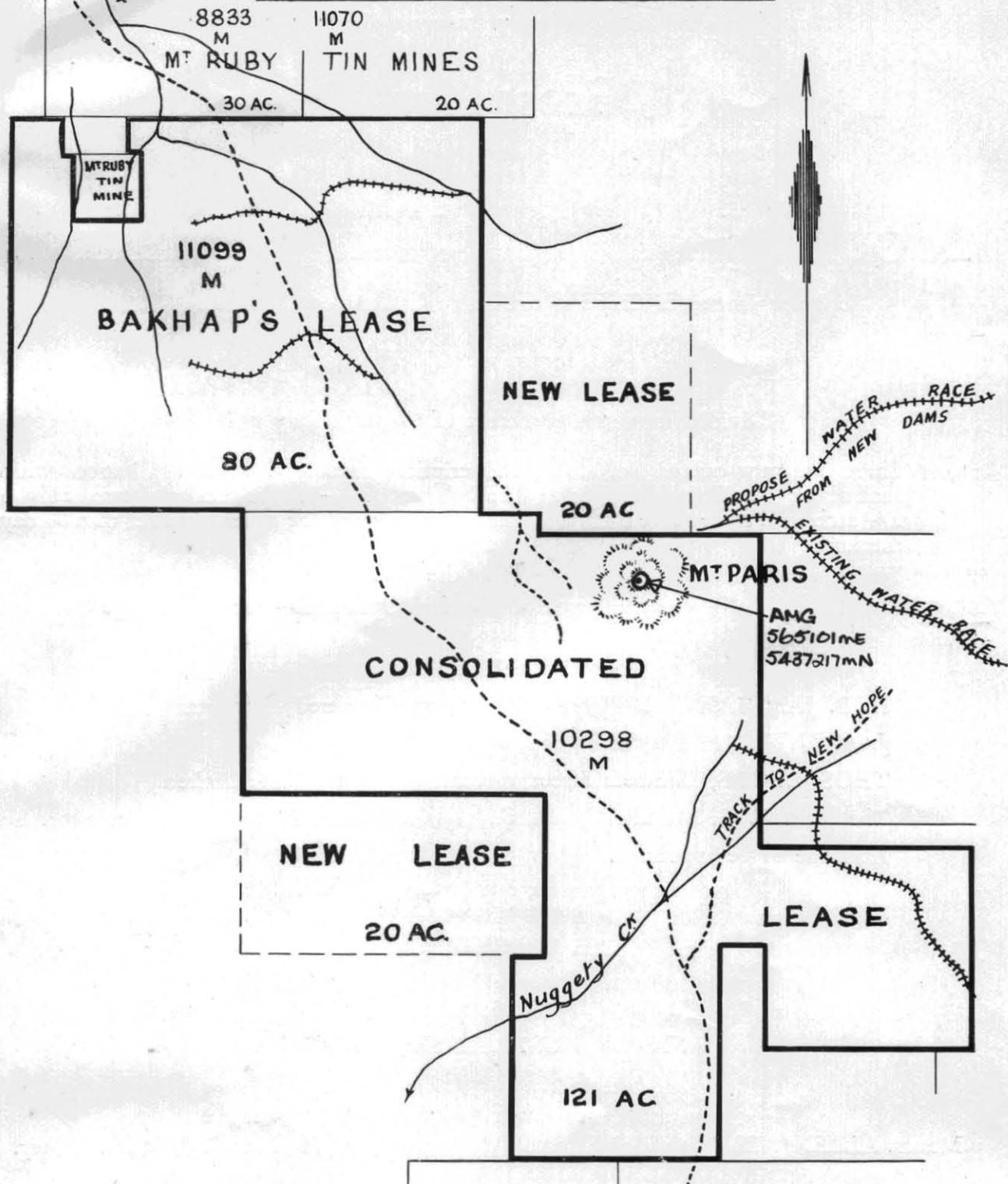
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5 cm

Mt Paris

Plan of Leases

Scale 10 chains = 1 inch



AMG REFERENCE POINTS ADDED



OBJECTS OF THE COMPANY.

Mount Paris Tin Mines Limited.

The Company is being formed for the purpose (inter alia) of acquiring and working the Mount Paris Tin Mine in Tasmania and such other additional mining areas as may be approved and favourably recommended by the Company's advisers.

PROPERTY.

The property consists of the Mount Paris Mine, being Consolidated Lease No. 10298M, containing about 121 acres and situated near Branxholm in the County of Dorset in Tasmania, and an adjoining property being Lease No. 11099M, containing about 80 acres known as "Bakhaps." The said Leases are Mining Leases from the Crown under the Mining Acts of Tasmania. There is also a Dam Site together with necessary water rights and races. Application has also been made by Hartford Options Limited for two adjoining Leases of about 20 acres each, one on the North and one on the South-West of Lease No. 10298M, as shown in the Plan hereon, the benefit of which applications will be transferred to the Company.

REPORT AND VALUES.

After preliminary investigation, Hartford Options Ltd. acquired an option over this property, and during the past six months have at considerable expense developed and proved the Mount Paris Tin Mine on the advice of their Engineer, Mr. E. W. Bonwick, who was for many years with Messrs. Bewick, Moering & Co. of London. Mr. Bonwick has reported fully on the property, and reports have also been obtained from Mr. F. Voss Smith, B.M.E., M. Aust. I.M.M., and Mr. Donald Fraser, the well-known Hydraulic Engineer. Mr. Fraser has for 30 years been connected with Tasmanian Hydraulic projects, many of them of considerable importance, such as the Briseis race, one of the largest in the world. He has throughout the North-east coast of Tasmania the reputation of being the highest authority on the class of work to be undertaken by this Company. Copies of these reports are set out herein.

**REPORT OF Mr. E. W. BONWICK,
MOUNT PARIS TIN MINE LIMITED**

SITUATION :

The property is 5 miles from Branxholm, 56 miles east of Launceston in Tasmania.

AREA :

The Area is 200 acres, to which the development Syndicate has recently added 20 acres.

TIN DEPOSIT :

Mt. Paris is a conical peak of granitic material, once overlaid with slate, but upon the side facing South this material has been removed by weathering from a patch of about 800 feet in an East-West direction and 900 feet from North to South. The cone is capped by a mass of Gneiss. The material thus exposed consists of sheets of granitic material, running East and West and dipping North, composed of quartz, felspar and mica, in general of fine grain with the felspar so decomposed that in places it is completely kaolinized. This





has sufficiently softened the mass to render it amenable to nozzle-slucing, as has been proved by former owners, who removed 3,500 cubic yards in this manner without difficulty. Their race was, however, too small to give efficient slucing.

(Greisen lenses and sheets traverse the decomposed material, through which also run small veins of quartz, sometimes very rich in tin.)

The property is situated high up, 1,900 feet above sea level, on a spur running up into the Weldborough Hills, and a continuous supply of water throughout the summer is possible only by construction of large Dams up in the hills. Given values, therefore, water is the key to the mining of Mt. Paris.

VALUES :

Three lines of bore-holes averaging 40 feet in depth have been sunk and their position, depths and values are shown on plan. Three holes were sunk from floor of Open-Cut and similar information as to these is shown on plan.

A Winze, sunk 30 years ago by a London Company who exploited the Greisen, gave 150 feet of valuable sampling and values are shown on Vertical Section.

A Low Level was driven by the same Company and an attempt was made to re-open it. This, however, proved impossible at 360 feet and a new Level going round the dangerous ground would be necessary, but samples were possible of highly decomposed material at this point, giving a value of 2 lbs. per cu. yard, a very important piece of information as to decomposition at depth and values agreeing with southern bore-holes shown on Plan.

Examination of plans herewith will, I hope, make all this quite clear and will enable anyone to check quantities and to assess the value of the ground.

QUANTITIES :

It seems reasonable to assume the existence of two million cu. yards of decomposed material containing, on an average, 3 lbs. of Tin Oxide per cu. yard, having a metallic tin content of 70%, this figure representing the average of concentrates obtained from the various samples. The value assumed should prove to be of a conservative nature, as all high values due to local enrichments have been rigorously eliminated. They exist, however, throughout the mass and should serve as a useful safety factor.

With tin at £220 per ton and upon the above assumptions there should be in the area investigated two million cu. yards, each containing 2.1 lbs. of metallic tin of a value of 23d. per lb., which gives a total value of £400,000.

COSTS AND PROFITS :

8d. per cu. yard is a very outside estimate for slucing costs, but putting it at 1/-, a profit of £300,000 is indicated from the proved patch.

POSSIBILITIES :

There are no signs yet that either decomposition or values suddenly stop at the level assumed for calculations, and it would be remarkable from a geological point of view if they did so.

There is also the slate area to be considered and a hole sunk from a shaft 240 feet North of patch described showed the existence of decomposed granitic material going 1.6 lbs. per cu. yard under a cover of only 4½ feet of slate. The slate itself contains possibilities, as surface fragments on new block acquired // assayed 1% Tin, closely resembling Carpathia material.

Then there is the area West of West line where values were highest. The slate here is probably only shallow and it is reasonable to assume an extension beneath of the same material as that already tested. This is, to some extent, confirmed by existence of soft granitic-material at surface in the dense bush South-West of No. 1 Hole on West Line.

In all these cases the Nozzle will be the best explorer.

The channel of the old **Appalachian Lode**, worked by a London Company, has been exposed for a length of 500 feet West of the old working, the width of the channel being about 5 feet. A series of samples from shafts average 1% metallic tin, and further exploitation may prove a run of ore suitable for the mill proposed to treat the Greisen.

Bakhap's Lease of 80 acres to the North-West is densely bushed and at the present moment is rather out of the picture, but the whole area will be commanded by the new Race proposed. There is a good deal of rich surfacing here; the head of Ruby Flat lead may pass into the ground and at least one 8 feet Greisen vein traverses it. There are obviously possibilities of profitable operations at a future date.

GREISEN :

Capping the cone and occurring in bands in the soft material and shed in great blocks all over the Southern Slope, I estimate the existence of possibly one million tons of this material. Tin is distributed throughout it in the most irregular manner and it is a sheer impossibility to arrive at true values by ordinary methods of sampling.





A band traversing the material sluiced by owners is stacked and amounts to about 2,000 tons. 700 large chips taken regularly over this stack averaged 1.33 Metallic Tin, but I should hesitate to accept this as indicating anything more than a possibility of the stack containing payable tin values.

As to the great capping-mass, only a small pilot-plant can give any reliable results. If one takes a grooved sample from the 78 feet of bands in No. 1 Tunnel .3% metallic tin is obtained on assay. If one takes large samples of several hundred-weight and on breaking to pea-size eliminates enrichments, .1% is obtained. If one takes a big sample and has it assayed without elimination, too high figures are obtained and so on.

In fact, although quite possibly sufficiently valuable to be payable, the stuff is frankly a nuisance, but it comes down with sluicing and must be reckoned with.

EQUIPMENT :

As has been stated above, water is the key to the Mt. Paris Mine. Mr. Donald Fraser, the well-known Tasmanian hydraulic engineer, has been entrusted with this side of the proposition. A magnificent Dam Site of 89 acres has been secured, estimate for a dam prepared and a 10-mile Water Race surveyed to bring to the Mine in summer 13 sluice-heads for two shifts per day, at a height of 75 feet above floor of Open-Cut. This will permit two 2½-inch Nozzles to be worked. In winter the quantity can be doubled.

The cost of this, with piping, etc., will run into about £30,000.

Two nozzles should shift 50 cubic yards per hour, or 240,000 cubic yards per annum, and in winter it may be possible to increase this considerably, perhaps to a throughput of 360,000 cubic yards per annum. A profit of something like £30,000 per annum should therefore be possible, even in the earlier stages when the poorest ground will have to be attacked. This might rise to £40,000 per annum or even more, when the higher grade material is reached.

In regard to Greisen, crushing and dressing-plant will be necessary, but it will be better to install a small unit first for the purpose of testing values and defining best treatment. No tenders have yet been called for this Pilot Plant, but £5,000 should be ample for one capable of dealing with 20 tons per day, and six months' steady operation of such a plant should enable the Company to arrive with precision at decisions in regard to the erection of a large plant.

Eventually about 36,000 tons of Greisen per annum will have to be dealt with if the results from the Pilot Plant prove satisfactory, and a further provision of another £25,000 should be made for the necessary plant for the purpose. It may be objected that profit from this expenditure will be much less than from the nozzles, but this material must be removed from sluicing paddocks, and to stack completely away from possible sluicing operations would very materially affect sluicing profits. Mount Bischoff costs upon much more difficult material were 4/- per ton and as this is brought down by nozzles there are no mining costs, but only those incidental to collection and transportation. 2/- per ton should cover this, so that very low grade ore would be payable if treated on a fairly large scale.

Since this report was written, prospecting has been carried out on a new lease of 20 acres, which has been applied for South-West of the area bored. Five holes bored to 24 feet with a light plant indicate the existence of aplite for a length on strike of 400 feet and the same width from South to North before slate is met with. This small amount of work, therefore, has materially added to the potential value of the property, as borings have averaged 1½ lbs. per cubic yard.

GENERALLY :-

As shown by the Plan annexed hereto, altogether 30 bores have been sunk to varying depths ranging up to 50 feet and averaging 40 feet, which have proved that tin exists in quantities to make the proposition a commercial success over an area of 900 feet by 700 feet, and it is reasonable to suppose that the return shown by the Report will exist over a much larger area.

On the whole, I am satisfied that the Mine has been sufficiently developed to justify the expenditure of capital in conserving the necessary water and carrying on sluicing operations and crushing dressing operations.

I confidently believe that this Mining area will prove to be a highly payable proposition.

DATED this fourteenth day of September, 1934.

(Sgd.) E. W. BONWICK.





SYDNEY, 11th January, 1935.

To—

THE PROVISIONAL DIRECTORS,
MOUNT PARIS TIN MINES LIMITED

DEAR SIRS,

In confirmation of what I have already reported to Hartford Options Limited, in connection with the Mt. Paris Tin Mining Area in Tasmania, I strongly recommend that a Company now be formed with sufficient capital to carry on mining operations by sluicing, crushing and dressing.

During the time occupied in preliminary arrangements for flotation, work has been continued at the Mine with a small staff.

The Appalachian Lode marked upon plan has been cleared for a length of 1,400 feet and various old shafts discovered and cleaned-out and sampled. A fairly well defined ore-channel exists for the length given, varying in width from 4 feet to 12 feet with values of metallic tin ranging from .1% to 2.3%, the average being well over .5%. This is, of course, very encouraging, and if a permanent Crushing Plant be eventually decided upon, the Appalachian Lode will prove a useful addition to the Greisen.

Bakhap's Block is under examination and a mass of Greisen at least 200 feet wide exposed. Over 100 feet of trenching has been done and the material is tin-bearing throughout. Small-scale sampling gave average results of .5% metallic tin, but crushings of tons through a small plant will be necessary before anything precise can be arrived at in regard to values. Along the Northern Boundary of this Block extensive old workings have been discovered in the form of stopes from surface to 40 feet in depth. These are now being cleared-out and examined and last week three samples from floor of stope gave widths of 3, 3 and 7 feet for values of .3%, .9% and 1%. Like the Appalachian Lode, this may prove to be an important source of ore in the future.

Hartford Options Limited have carried out all necessary development work, and, in my opinion, values and quantities disclosed are sufficient to enable me to recommend that mining operations be proceeded with without further delay.

Yours faithfully,

(Sgd.) E. W. BONWICK.

**REPORT BY Mr. F. VOSS SMITH, B.M.E., M. Aust., I.M.M.
MOUNT PARIS TIN MINE.**

BRANXHOLM, TASMANIA.

LOCALITY, ACCESS, Etc. :

The mine leases are situated about five miles South-easterly from Branxholm on the North-east Railway Line, 56 miles from Launceston.

A formed road presenting no transport difficulties is available, for four miles from the railway, towards the mine and the extension of this for about one mile, with grading to rise 500 feet to the mine workings would be necessary to give reasonably useful access.

LEASES :

Leases cover an area of 241 acres, including the original leases, Bakhap's Lease and the two new 20-acre blocks.

DESCRIPTION OF AREA :

Mount Paris, prominent because of its coned rocky summit, is the highest point of the area, standing over 1,800 feet above sea level, and the North-western and Southern slopes of the mount form the main part of the leases.

The Southern slope falls about 1,000 feet to the Dorset River and on this slope the main development of tin-bearing material has occurred, the North-western slope is, however, also definitely tin-bearing and warrants close examination.

The whole area has a granitic aspect with remnants of overlying altered slates and sandstones encroaching on the main central granitic exposures.

The granitic mass exhibits gradations from porphyritic granite to the aplitic and griesen phases and it is these latter types, known locally as aplite and griesen, that are of importance in being the main tin-bearing rocks. These terms are distinctive and self explanatory and can be conveniently used to advantage in any description of the area.





The aplite has a surface exposure of at least 900 x 700 feet and extends from around the summit of Mount Paris to a vertical distance of at least 200 feet down the Southern slope.

The aplite mass is kaolinised and friable to a depth yet undetermined, and in the old tunnels and recent bores no limit to the friable depth has been found.

Included in the aplite are masses of griesen apparently lenticular with a general trend a few degrees North of West. These are hard, little decomposed quartz masses, definitely carrying tin values.

Griesen also occurs extensively along the line known as the Appalachian Lode, which has been opened by surface cuts over a length of 1,000 feet and has also been pierced by No. 3 Tunnel. This and apparently similar griesen occurrences in Bakhap's Lease are quite extensive and while carrying more quartz than the griesen associated with the aplite, and suggesting at places pegmatite associations, are tin-bearing wherever exposed.

Little attention has been given to these occurrences in recent work, but they appear to justify concentrated examination with the possibility of proving their value as producers on a large tonnage basis.

The slate series appears to form a fairly continuous covering to the aplite on the North, West and East sides and the Southern side is formed by porphyritic granite. Slaty remnants are included also in the aplite mass.

TIN OCCURRENCE :

Tin Oxide occurs consistently in the aplite and griesen and in quartz leaders running through both, and dish prospects taken anywhere in the area from these two rocks never fail to show appreciable quantities of Tin Oxide.

Enrichments in the form of segregations, veinlets, and coarsely crystalline masses occur frequently and in the griesen in particular; reliable small quantity sampling is impossible.

EXPLORATION OF THE DEPOSITS :

Exploration of the Deposits has been by tunnels, open cuts and boring, and attention has latterly been directed to proving a sufficient yardage of friable aplite to justify extensive development and equipment for sluicing this on a large scale.

The examination in more detail of the old workings on the Appalachian Lode and the Griesen Lodes in Bakhap's Lease would appear to be fully warranted.

QUANTITY OF ORE AVAILABLE :

Aplite :

Examination of the area in detail, including old workings as far as accessible and consideration of results of recent boring, supplemented by results of a former series of six personally supervised bores at self-selected sites, enables a preliminary estimate of the aplitic ore available to be made.

It can safely be assumed that at least 2,000,000 cubic yards of friable aplite suitable for sluicing is available.

To what depth the completely Kaolinised friable aplite will extend cannot be predicted, but nowhere can any indication be found suggesting a limit. Harder patches occur, but these do not appear of great significance and may be regarded as local areas which have been shielded from free circulation of surface waters by neighbouring griesen lenses.

The extension of the aplite under the slate series covering is quite indefinite and it is possible that the rate of increase in thickness of the slate will be so small that undue overburden depth will not prevent the inclusion eventually of further large yardages of aplite available for sluicing.

Griesen :

These tin-bearing formations occur irregularly in the aplite and while approaching more nearly to defined continuous lodes in the granite and slate series much more opening up would be required to enable estimates of tonnage to be made.

That a very large tonnage could be realised is evident. In the case of the Appalachian Lode old workings extend to shallow depths over a length of over 1,000 feet, while in Bakhap's Lease old workings can be followed for many hundreds of feet in length.

These griesen occurrences are hard enough to require mining by ordinary methods, facilitated by sluicing where included in the aplite, and they would provide excellent crushing material.

VALUES :

Aplite :

Consideration of previous records of sampling of tunnels, etc., boring results and the personal handling of nearly 40 bore samples and many dish prospects from all parts of the area, lead to a general confirmation of the valuable nature of the deposit.

After liberal allowance for the influence of the enrichments previously referred to, more particularly in consideration of boring results, the two million cubic yards of friable aplitic material available for sluicing can be conservatively estimated as carrying 2½ lbs. Tin Oxide per cubic yard as a general average. (



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A Panoramic View of Mount Paris, from West to East. One-third of the width lies to the South of the



A View looking South from Mount Paris, giving some idea of the splendid fall for tailing to the Dorset River in the valley below.

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One-third of the width lies to the South of the Camera, and the Western extension is over the brow to the left.



A View taken from the Eastern end of the Appalachian Lode, showing the full width to the summit, from South to North. This picture fails to show about one-third of the length to the West.

**Griesen :**

No estimate of values can be offered on account of the nature of the occurrences. Sampling by any small quantity method cannot give anything but erratic, unreliable results.

The only test of values will be the results of bulk crushings in comparatively large quantities from each of the main exposures.

There is visible tin oxide in large quantity in the griesen and to the eye it is distinctly more impressive than in the aplite. Coarsely crystalline masses and well-formed crystals of pea size and larger are abundant, and fine tin is visible in practically every stone handled.

The impression is undoubtedly given that the griesen is important and should not be neglected, and in the plans for working the property equipment should be provided for testing in a comprehensive way.

The surface shedding from the griesen gives remarkably rich dish prospects wherever tried, and the occurrences of griesen on Bakhap's Lease should be considered with a view to provision perhaps of independent equipment for their exploitation.

WATER SUPPLY :

The existing scheme, bringing water to the property by a race $6\frac{1}{2}$ miles long with no inlet storage, has proved inadequate for large scale operation and fails altogether during dry periods.

To supplement this the Morning Star Scheme, reported on by Mr. Donald Fraser, will provide a much larger supply and with storage at the race inlet is calculated to ensure a good working supply over three months with no intake.

This scheme, inspected under the guidance of Mr. Fraser, includes a dam 40 feet high built on the Tasmanian Brush-Fill plan, closing the narrow outlet of an excellent natural basin. Ample by-wash provision is allowed for.

The catchment area supplying this basin is almost bare of vegetation and the exposed rock surfaces should assure the 50 per cent. run-off estimated.

Rainfall over this area is stated at 60 inches per year.

Inspection of the dam site and catchment area with Mr. Fraser gives confidence in the suitability of the proposal for supply and the adequacy of the storage.

It was not possible to inspect the race line, estimated at from 10 to 12 miles from the dam site to the mine.

This proposed race is to deliver water at about 100 feet above the existing open cut floor and about 160 feet above the proposed point of attack.

This level of delivery will not give sufficient head for working the upper part of the aplite, but in the future when this higher ground comes to be worked, boosting of the pressure can be resorted to.

It is important that the outlet end of the race at the mine be kept as high as possible, consistent with reasonable additional expenditure, as every foot of extra head will be of advantage in breaking down and disintegrating the aplite with the nozzles as well as commanding the maximum possible yardage.

To supply power for lighting and general purposes on a limited scale, part or all of the water used for sluicing and treatment could be used, after clearing in settling dams, for power generation by taking advantage of the further fall of 400 to 500 feet to the Dorset River.

COSTS, POSSIBLE PROFITS, Etc. :

With tin at £220 = 2/- per lb. nearly and costs at 1/- per yard, which figures should not be exceeded, providing the yardage handled per annum reaches the estimated figure of 360,000 cubic yards, the head value of $2\frac{1}{2}$ lbs. SnO₂ per yard at a recovery of 80 per cent. in 70 per cent. Sn Concentrates would give a profit of 1/9 per cubic yard, say £30,000 per year, less realisation charges, and not allowing for exchange.

F. VOSS SMITH.

3rd January, 1935.

MOUNT PARIS TIN MINE.**GENERAL CONCLUSIONS :**

Examination of the Mount Paris leases leads to substantial confirmation of the figures put forward by Mr. E. W. Bonwick in regard to quantities and values.

About 2,000,000 cubic yards at least of aplitic material can be realised by sluicing and the Tin value of this yardage is put somewhat conservatively at $2\frac{1}{2}$ lbs. Tin Oxide per cubic yard.

An unknown but very large quantity of tin-bearing griesen of undetermined value is available in scattered blocks, lenses, and lode formations, to be realised as a by-product of sluicing and by ordinary mining methods.

The realisation of the value of the deposits must be regarded as a definitely large scale project and operations be planned to handle the maximum output possible with the water available, particularly in taking advantage of the much greater winter flow.

F. VOSS SMITH.

3rd January, 1935.



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REPORT BY Mr. DONALD FRASER.

WELDBOROUGH,

TASMANIA,

28th December, 1934.

RE : WATER SUPPLY FOR SLUICING AND POWER AT MT. PARIS.

Having investigated all possible sources for supply of water at suitable height and volume, I decided that the Cascade River had the advantages required, and this report is purposed to explain the possibilities of conveying adequate water from that source to the Mt. Paris Tin Mine.

DESCRIPTION OF DAM SITE, WATERSHED, ETC. :

Rising from slopes of a range of mountainous country in neighbourhood of Mt. Victoria and known locally as The Star of Peace, at a height of 2,500 feet above sea, the Cascade joins the Ringarooma River at 500 feet elevation in about 12 miles, the total fall being 2,000 feet, and watershed of approximately 30 square miles includes tributaries such as Eastern Branch (Minnie Jessop), Britannia, Dawn of Hope, East and Tin Pot Creeks from other high sources. The scheme for Mt. Paris includes 4 square miles or 2,560 acres of watershed on the upper lengths of the Cascade from Morning Star Flat, 1,700 feet, to Star of Peace, 2,500 feet. Until about 35 years ago this area was densely covered with a forest of Myrtle, Sassafras and Celery Pine timber, with heavy scrub, tree ferns and mosses. This growth retarding the flow of rainfall to the creeks and river gave a steady distribution of water for mining by means of water races with a few small dams to conserve night water. Conditions now have completely changed. Bush fires have completely denuded the hills of live timber and in most places the ground is bare excepting for grass. There is practically no obstacle to the rush of water down the steep hillsides to the river and thence to the sea. Probably considerably less than 5 per cent. of the rainfall is used for mining or any other purpose.

The Morning Star Flat is an ideal place for construction of dam to intercept and hold a small part of this wasted water.

A rainfall gauge at Morning Star was established by me with a daily observer and the co-operation of Government Weather Bureau for five years, 1918 to 1923, or thereabouts. Five years' continuous observation showed a yearly average of 60 inches with a minimum of 55 inches and a maximum of about 63 inches. The gauge being at a height of 1,700 feet, with all the watershed above it, rising to 2,500 feet, naturally recorded considerably less than the actual rainfall of the higher parts.

Contour levels have been taken at Morning Star. These show that at a height of 41 feet above base of proposed dam the water level would have a surface area of 44 acres and mean depth of 16.3 feet. The dam wall and area under water will have a solid granite bottom and will be constructed of clay, gravel and earth by hydraulic-fill methods, helped in construction by smaller dams at 400 feet elevation, for lifting and tail-race removal of material to dam wall.

A tunnel through granite under base of dam wall will provide a safe outlet for flood waters during construction until dam is completed with suitable by-washes on solid granite formation.

Adopting only 50 per cent. of observed rainfall the number of times such a dam can be filled is easily computed on an acre-feet basis. 50 per cent., when the rainfall has such a rapid fall to dam site, should allow for all losses by evaporation, seepage, passing on of flowing water in dry periods to supply existing water rights, and escape of unusable water over by-washes when dam is full.

$$\frac{2,560 \text{ acres} \times 2.5 \text{ feet}}{44 \text{ acres} \times 16.3 \text{ ft.}} = \frac{6,400 \text{ acre-feet}}{722 \text{ acre-feet}} = 8.86 \text{ fillings of dam.}$$

This gives a possibility of 50 per cent. of rainfall filling the dam nine times a year.

$$722 \text{ acre-feet} = 194 \text{ million gallons, sufficient storage to supply 12 Tasmanian sluice-heads to the mine for 75 days.}$$

The driest months are January, February and March. It is considered that if water can be conserved for these three months with no assistance from rainfall, 12 sluice heads can be used for 75 days = the average number of working days in three months, and at other periods of the year from 12 to 27 sluice heads.

$$12 \text{ sluice heads for 24 hours} = 18 \text{ sluice heads for two 8-hour shifts.}$$

$$27 \text{ sluice heads for 24 hours} = 40 \text{ sluice heads for two 8-hour shifts.}$$

If only 12 sluice heads be used throughout the year the dam would only need to be filled and emptied four times, thus using only 25 per cent. of rainfall. This disposes of any argument that may arise as to possible interference with older water rights.

The watershed area of Morning Star Dam is so small and the position of dam so high, in the total watershed area of Cascade River, that full use of the dam can be made without disturbing any other user.

The dam as designed should cope with all normal conditions and give ample water at Mt. Paris both for sluicing and for water power. A period of three months so dry that no water would be available for storage is very unlikely to occur.

Thunderstorms are frequent in summer months, when a short violent squall would be sufficient to materially help the storage.





A complete survey of site of dam wall and positions and quantities of material available for filling will be required before a detailed estimate of cost can be made, but a preliminary estimate to cover complete costs, including overhead expenses, can be assumed at £15,000.

WATER RACE FROM DAM TO MINE :

Levels have been taken to all prominent or doubtful points along course of proposed race and, although a detailed survey has not yet been made, I have prepared a sketch plan on Government mining charts to show position and length approximately. There are no engineering difficulties, long siphons, or expensive work. The country is rocky and generally granite formation, good for holding water. There may be one or two saddles to cut through to shorten length and possibly one short tunnel in vicinity of mine.

The race will be chiefly plain excavation and rock shooting deep enough to bottom in sound water-carrying country, also assisted in places by stone and earth embankments, locally known as "building," with occasional lengths of timbered fluming. The length, until further surveys are made, can be estimated at 10 to 12 miles and the capacity 40 sluice heads, equal to 8,640,000 gallons per 24-hour day, or 360,000 gallons per hour. Grade of race about 7 feet per mile. Estimated cost (without detailed survey), £6,000.

USE OF WATER AT MINE :

The outlet of race will be about 1,625 feet above sea level, or 110 feet above nozzle level in present working face. A suitable site for starting new face exists 100 feet lower, giving 200 feet pressure at nozzle level, or 86 lbs. per square inch.

A suitable place for power station is on bank of Dorset River South-Westerly from mine at approximate height 700 feet above sea.

If some of the water not required for sluicing be used entirely for power to generate electric energy for lighting or other requirements on mine, a fall of 900 feet in a mile and a quarter of pipe line will, allowing 100 feet to be lost by friction in pipes, generate 290 H.P. with 10 sluice heads, over Pelton wheel of 80 per cent. efficiency.

TIME TO CONSTRUCT RACE AND DAM :

Allowing three months for surveys and preparation of plans and specifications, with normal weather the above works can be completed in twelve months. There need be very little delay in race work as construction can commence within a month of starting and be continued in summer months if possible.

The Dam construction requires ample rainfall for hydraulic work and can be completed during the wet months of the year, May or June onwards. Once completed, the race and dam will be valuable and continuous assets, growing better with the years, and available at their height above sea level to supply water for hydraulic or power purposes for an indefinite period.

DONALD FRASER.

CONSIDERATIONS TO VENDORS AND HARTFORD OPTIONS LIMITED.

The consideration to be paid to the Vendors for the sale to the Company of the Mining Leases, Dam Site, Water Rights and Races is £10,000 in cash and 96,000 fully paid shares of 5/-.

The consideration to be paid to Hartford Options Limited for the purchase of their option, with the benefit of the development work, and the benefit of the said application for the two adjoining Leases, is 56,000 fully paid shares of 5/- each. Despite substantial expenditure Hartford Options Limited are not asking for any cash consideration.

Arrangements have been made for these 152,000 shares to be pooled and vested in a Trustee, to be held on behalf of the Vendors and Hartford Options Limited respectively until six months after the mine commences production, so that they cannot be dealt in until such time arrives.





APPROPRIATION OF CAPITAL.

The subscribed capital of £82,000 is required as follows:—

Vendors' cash consideration	.. .. .	£10,000
Construction of Water Race and Dam, as estimated by Mr. Fraser	.. .. .	21,000
Surveys and paddock equipment	.. .. .	2,500
Experimental crushing and dressing plant	.. .. .	5,000
Buildings, roads, etc.	.. .. .	1,500
Classifiers, Trommel equipment, boxes, etc.	.. .. .	2,500
Crushing and Dressing Plant	.. .. .	30,000
General provisions, covering preliminary working expenses, commission, brokerage, office expenses, salaries, reserve for contingencies, etc.	.. .. .	9,500
		£82,000

ESTIMATED PROFITS.

360,000 cu. yards per annum at 2½ lbs. tin oxide per cu. yard (metallic tin content, 70%)—80% recovery=225 tons metallic tin at present price of £220 per ton	.. .. .	£49,500	0	0
Costs, at 1/- per cu. yard	.. .. .	18,000	0	0
Estimated Annual Profit	.. .. .	£31,500	0	0

CONTRACT.

The only contract which has been entered into on behalf of the Company is as follows:

- (a) Agreement dated the 14th day of January, 1935, made between Hartford Options Limited of the first part, Richard Hastings Allen of the second part, and Alfred Macartney Hemsley for the Company of the third part as Trustee.

MANAGEMENT.

Arrangements have been made for Mr. E. W. Bonwick to be Consulting Engineer to the Company, so that all work, including further development, can be under his supervision.

STOCK EXCHANGE.

It is intended, as soon as possible, to make application to have the Company's shares listed on the Sydney, Melbourne, Adelaide, Hobart and Launceston Stock Exchanges and the Articles of the Company have been drawn accordingly.

PRELIMINARY EXPENSES AND BROKERAGE.

The Company shall, out of the funds of the Company, pay all expenses in connection with the incorporation and establishment of the Company and negotiations for and preparation and execution of all agreements and all other matters in relation or incidental to the Company, including all Brokerage and Commission.

Brokerage will be paid by the Company to all Brokers who are members of any recognised Stock Exchange and to all authorised Agents of the Company on all shares allotted in response to applications identified as coming through them. An over-riding Commission of 1½d. per share will also be paid to the Company's Brokers.

GENERAL.

The Directors have carefully considered the reports made by Mr. Bonwick, Mr. Voss Smith and Mr. Donald Fraser, and the other details before them, and they view the prospects of the Company with great confidence. Every possible care has been taken to check the quantities and values. All the boring was carried out in the first place by Mr. Murtagh, the present Mine Manager, under the supervision of Mr. Bonwick, and then Mr. Bonwick himself has sunk check





bores and his values have tallied with those of Mr. Murtagh. Subsequently Mr. Voss Smith has visited the property and made a check report which confirms Mr. Bonwick's report.

As the question of water supply is a most important one, it was considered advisable to obtain a third report from Mr. Donald Fraser, the well-known Tasmanian Hydraulic Engineer, which report completely bears out what Mr. Bonwick and Mr. Voss Smith have already said on the subject, and there appears to be little doubt that the water supply will be ample for the requirements of the mine.

Furthermore, in estimating profits only the soft decomposed material which is to be treated by sluicing has been taken into account, and the thousands of tons of Greisen which is expected to contain payable values, has not been taken into consideration. Capital has been provided for a large Crushing and Dressing Plant to treat this Greisen.

The estimated average values proved by boring, excluding all local enrichments, are from $2\frac{1}{2}$ -lbs. to 3-lbs. Tin Oxide, or about 2-lbs. Metallic Tin per cu. yard, and costs are estimated to be at the most 1/- per cu. yard.

In addition to the area proved the Company holds further areas which it is felt certain will prove of considerable value. In fact, certain preliminary development work has already been carried out on the South-West Lease, and five bores have been sunk to a depth of 25 feet, giving values averaging $1\frac{1}{2}$ -lbs. Tin Oxide per cu. yard. Whilst this will add considerably to the total tonnage it has not been taken into account in assessing the Company's estimated profit.

The fact that the Vendors and Hartford Options Limited have agreed to their shares being pooled and vested in a Trustee to hold them on their behalf until six months after production, not only shows their confidence in the Company's future but is also a great protection to intending investors, as it prevents any of these shares being put on the market until dividends are in sight.

The Directors are of opinion that sufficient has been proved to make the Company a very payable proposition, and they intend immediately on flotation to proceed with the construction of the Water Race and Dam with a view to production at the earliest opportunity.

APPLICATION FOR SHARES.

Application for shares should be made on the enclosed form, and forwarded, together with application and allotment money of 1/- per share, to the Company's Brokers or to Messrs. Davis, Egan & Co., 11c Castlereagh Street, Sydney.

The minimum subscription upon which the Company shall proceed to allotment is 200,000 shares. If no allotment be made to an applicant the application money will be returned without deduction. Should the shares applied for exceed the number allotted the surplus application moneys will be credited to the applicant in reduction of the amount payable on allotment.

Allotment will be made at the discretion of the Directors.

DATED this 16th day of January, 1935.



007



Mount Paris Tin Mines Limited.

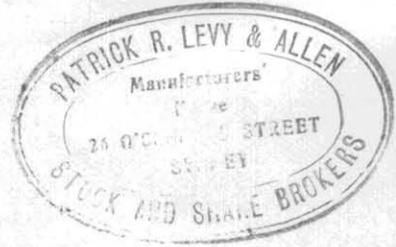


APPLICATION FOR SHARES.

To—

The Directors,

MOUNT PARIS TIN MINES LIMITED,
SYDNEY



Dear Sirs,

I hereby apply for.....shares in the Capital of the above Company upon the terms of the Company's Prospectus. And I hereby agree to accept the same, or such smaller number as may be allotted to me, and I authorise you to register me as the holder of such Shares. I enclose herewith £.....being 1/- per share on application and allotment,, and I agree to pay the balance of 4/- per share as called upon, and to be bound by the Memorandum and Articles of Association of the Company.

Yours faithfully,

Signed.....

Full Name (Mr., Mrs. or Miss).....

Address

Occupation

Specimen Signature

Dated this.....day of.....1935.

Exchange should be added to country and interstate cheques.

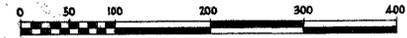
Applications should be sent c/o Davis, Egan & Co., 11c Castlereagh Street, Sydney, or to the Company's Brokers, Messrs. Patrick R. Levy & Allen, 26 O'Connell Street, Sydney.



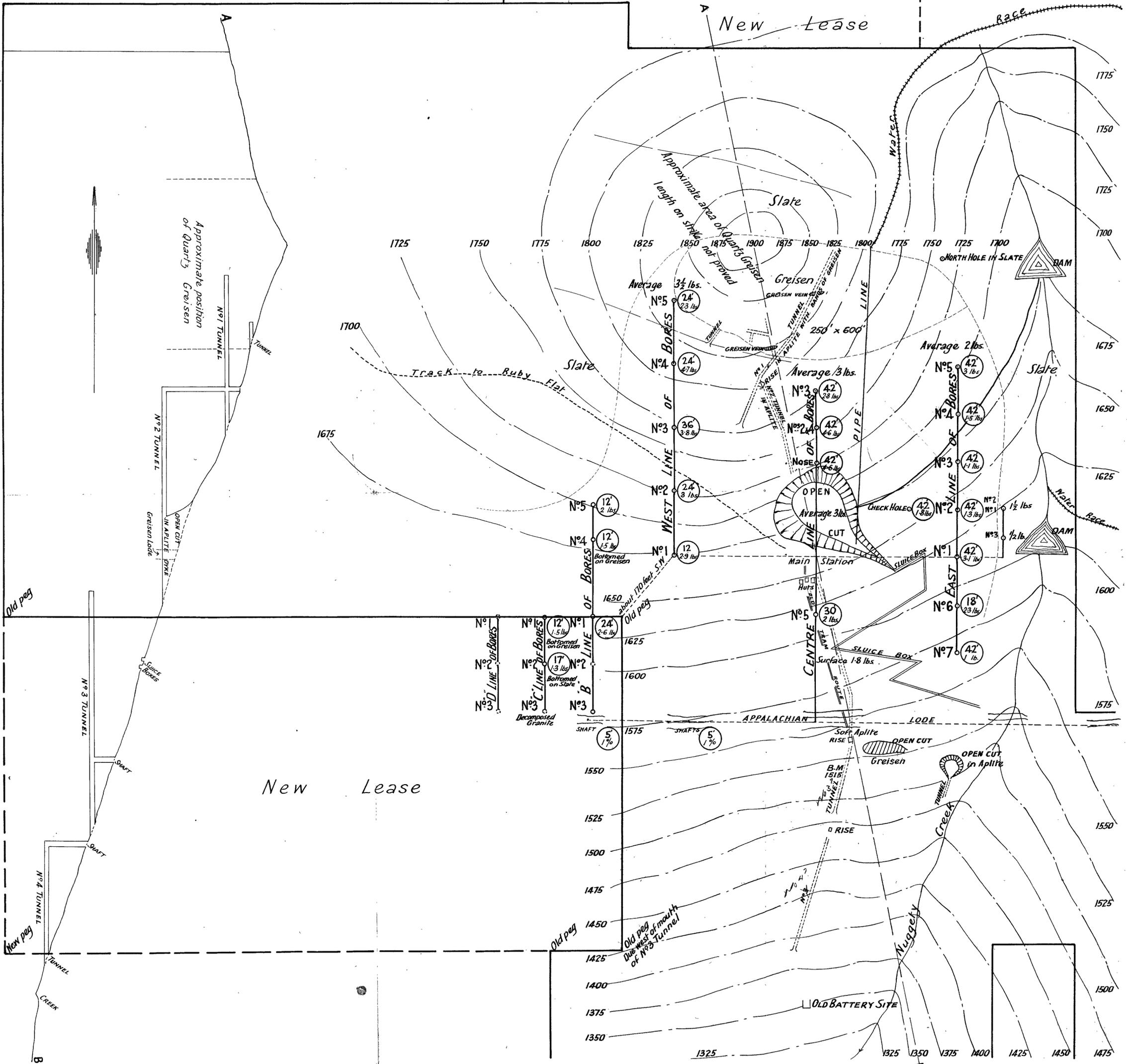
MT PARIS

Bakhap's Lease

SCALE OF FEET



5 cm



N

S

M^t Paris Tin Mine

Generalized Longitudinal Section N. to S. through Open Cut

Scales

Vertical 20' = 1"

Horizontal 100' = 1"

