

PRELIMINARY NOTES
ON
THE BARUM RIVER OIL COMPANY LIMITED
By
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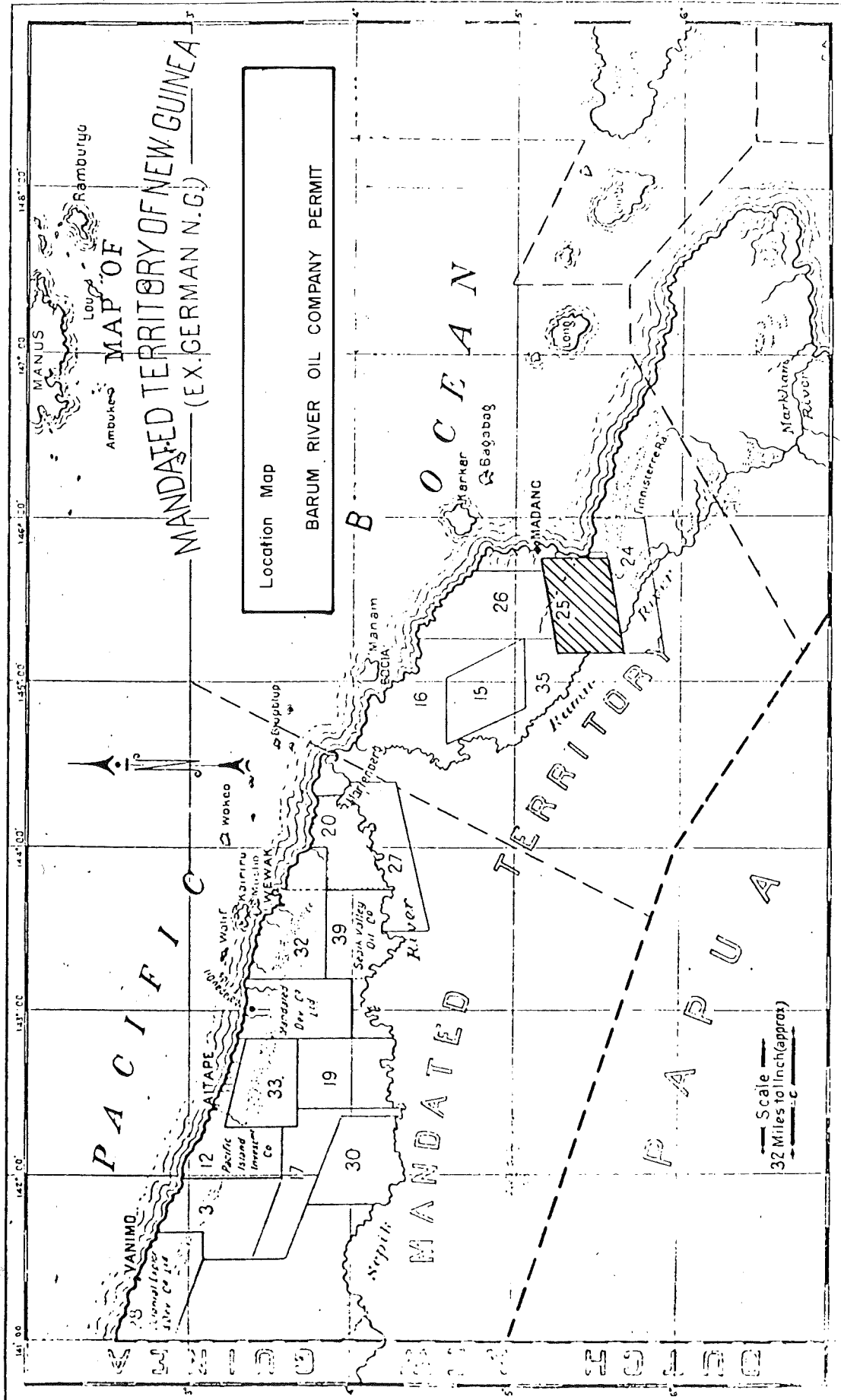


FIGURE 1

BASE AND PERMIT BOUNDARIES

REPRODUCED FROM PROSPECTUS

"ECMA CRIMIDAH ASSOCIATED OIL FIELDS LTD."

PRELIMINARY NOTES
ON
THE BARUM RIVER OIL COMPANY LIMITED

INTRODUCTION

During the research conducted by the writer in connection with the Ormildah Oil Development Company and the well drilled at Marienberg on the Sepik River, New Guinea, some information on the Barum River Oil Company was located.

This short report, by no means complete, presents this data for future reference. The writer hopes that someone else suitably intrigued by the history of this area will complete these notes.

PRELIMINARY NOTES ON THE COMPANY

Acting on the advice of Professor Edgeworth David of the University of Sydney, the Ormildah Oil Development Company Ltd contracted Dr. H.I. Jensen in December 1924 to act as Consulting Geologist to the Company. The Ormildah Company had been formed earlier in 1924 by three Sydney men, Messrs. Orwin, Miller and Davis, and the Company had acquired a permit area on the northern bank of the Upper Sepik River. Following some early financial difficulties the company organized an expedition to New Guinea in January 1925. Dr. Jensen accompanied the party which also included drilling equipment and personnel and which was under the control of Colonel Munro. The party travelled via Madang and Marienberg to the Upper Sepik district and inspected the permit area.

Jensen found that early German reports on the area, viewing it as, primarily, a metamorphic and igneous province were correct and that the extensive swamplands prevented evaluation of the remaining area. The area was also unsatisfactory from the terms of access and cost of exploration.

Jensen reported to the Ormildah Company advising them against the area and referring to three other areas within the Mandated Territory. These areas as defined by Jensen are quoted below:-

1. Marienberg Area

"commencing on the Sepik River four miles east of Marienberg, thence north to the north coast, thence west north west following the line of the coast, approximately to Wewak, thence southeast by south to the Sepik River, near Maïam, thence following the curvature of the Sepik River to the point of commencement.

NOTE: The definition should only be amended in regard to the western boundary, so as to make 1000 square miles by shifting the boundary on the east or west thereby shortening or lengthening the north and south boundaries which can be expeditiously done by the Survey Department. The Eastern boundary should be where indicated and the country should lie between the coast and the Sepik"

2. Astrolabe Bay Area

"Commencing at the mouth of the Juim River about 4 miles south of Madang, thence west 33 miles, thence south about 33 miles thence east to the coast, so as to comprise 1000 square miles west of Astrolabe Bay."

3. New Britain

"Commencing at Wafa on Open Bay in the Gazelle Peninsula, New Britain, thence north along the coast to Cape Lambert, thence east along the coast to Longitude 152 degrees east, thence south along Longitude 152 degrees to Wide Bay, thence west to the point of commencement, the area comprising the western half of Gazelle Peninsula".

The party returned to Marienberg mission and spent several days inspecting the area. Jensen was convinced of the potential of the area and commenced a full scale survey while Colonel Munro proceeded to Rabual to secure the recommended areas. He found on his arrival that the Marienberg area was already under lease to another company. It is probable that Colonel Munro filed a lease for the Ormildah Company over the area in Astrolabe Bay and began negotiations to acquire the Marienberg Area from the holding company.

This move was in itself quite satisfactory but it created the position, that, pending the success of their negotiations, the Ormildah Company would have two oil leases in the Mandated Territory. This was contrary to the 1922-23 Mineral Oil and Coal Licence Act which stipulated one lease per company.

Jensen had proceeded from Marienberg to the Astrolabe Bay area and reported on the petroleum prospects of the permit with optimism and enthusiasm. The Ormildah company and Jensen, both wanted to retain the area but Marienberg remained the first choice.

As negotiations by the Ormildah Company neared success a decision was made to float a separate company viz. the Barum River Oil Fields Ltd. to control the Astrolabe block.

Once they had acquired full rights to the Marienberg area, Ormildah Oil Development Company began the next phase of exploration. Drilling commenced on 25th August 1925 at a site near Bonam Village, two miles north of Marienberg.

The history of the Barum venture is not known in any detail beyond this point. Several of the Directors of the Ormildah Company were also on the Board of the Barum River Oil Company but this does not necessarily imply any other association between the two companies. Dr. Jensen was never directly involved with the company. In fact, his prime interest in the venture seems to have been in using the company as a weapon in his campaign against the Commonwealth Government for reform of the Companies Act.

A letter written by Jensen to the major newspapers in Australia, and included in this report, illustrates that Jensen was forced to criticize a company whose prospects he felt were extremely favourable. The first attempt to float the Barum Company was unsuccessful, probably because of misrepresentation of the company's prospects. Despite this, the Directors persisted in mis-quoting Dr. Jensen during their second attempt at floating the company. Jensen felt that the Directors, by their somewhat questionable promotional statements, were interfering with the development of an area that could, in his opinion, be the basis of a legitimate and finally profitable venture.

It is known that the company built a road from Erima Harbour in Astrolabe Bay to Tadabu, towards the bore site recommended by Jensen but this seems to have been about as far as the development of the area progressed.

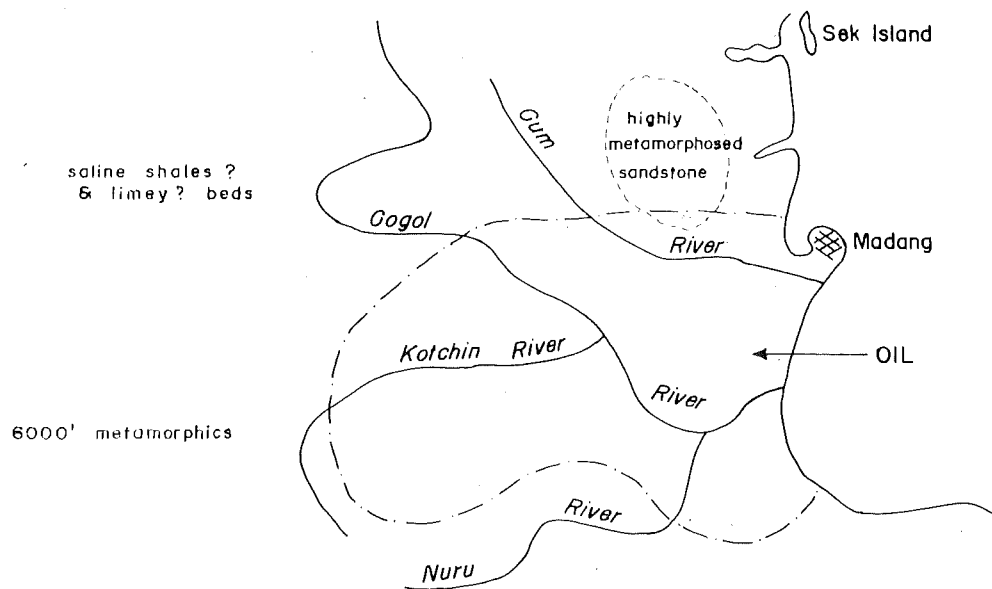
The Anglo Persian Oil Company studied the area in 1928 concentrating their effort on the Tadabu area. Macintosh Gray, who reported on the area for the Anglo Persian Company concludes his report with the statement :-

"After the very comprehensive survey that has been made and the careful study of all geological data, the members of the geological party are unanimous in the conclusion that the concession of the Barum River Oil Company has no value as a potential oilfield, and they do not recommend any testing of this concession by the drill".

This report no doubt sealed the fate of the Barum River Oil Company.

REPORT ON THE ASTROLABE BLOCK

BY: H.I. JENSEN



GEOLOGY of ASTROLABE BAY AREA

Sketch Map by Dr. H.J. Jensen

this Sketch was found
among Jensen's papers
(B.M.R. Library)

Figure 2

23rd May,

M A D A N G

Report to Colonel Munro, Ormildah Oil Expedition, for Transmission to the Directors.

A. Introductory.

Sir,

On May 2nd and 3rd, I marked out three bore sites on the MARIENBERG Area. Salop, Stower's boy accompanied me. If any of the marks should be interfered with by the natives, Salop will be able to show where the posts stood.

On May 4th I left the SEPIK as directed to take up the geological examination of the ASTROLABE area. I reached MADANG on the 7th. His Lordship, the Bishop of Sec, hired us six boys as carriers, who left Sec with me on the sixth. These boys are to be paid by the Catholic Mission which will charge the Ormildah Coy. They were excellent in their behaviour and work.

In addition to the six Sec boys Mr. Beazley (who was with me as field assistant) and I had with us my boy (Warp) and Stower's boy (Salop). The eight boys were insufficient to carry all our stores and baggage. We therefore engaged extra carriers from village to village, each place supplying carriers to the next; these boys engaged sporadically have cost, in money and tobacco, more than boys cost hired by the week, but had the advantage of being capable guides as to tracks and bush paths, thus saving us loss of time.

A separate statement of accounts, and dockets for purchases from the Expro. Boards have been furnished. These you have already dealt with. To save the expense of carrying too much rice which would have involved still more carriers, we purchased taro and yams for our carriers in the villages traversed as per statement.

B. Scheme of Work.

On leaving MADANG I had no fixed objective, except to examine the most suitable portion of the Company's lease, information as to the nature of the country to be traversed being purely hearsay. On reaching AMELI I found from the GUM River to AMELI a consistent tendency to N.E. dips. Consequently I decided to proceed at right angles to the line of strike as far as possible with a view of locating anticlines. I first went to BERIN, having heard that the road there was undulating so that outcrops might be seen, and that a salt water seep existed in that vicinity. The latter I visited and tasted and found genuine. The salt seep is west of BERIN near MISA-MISA. Thence we proceeded to SIHAM, then down NIM Creek to the KOKHUN River, which we crossed; then we went to BARUM, then to OBA, WAIUSSU, BOGASIN, LEPTOBAGAS, NEGIG and GASUA. From GASUA we descended in a few hours from 1650 ft. to 300 ft. on the NANU' in two steep drops, each about 600 ft. at an angle of 45 deg. We crossed the

NARU seven times in $1\frac{1}{2}$ miles, and then went over ranges about 700 ft high to BOWRY. Hence we proceeded to ATA, then to ERIMA. After spending Sunday at ERIMA on office work, I went back to the NARU, which was crossed about two miles N.E. of ATO, ERIMA had to be visited both to replenish provisions and to study the road access from the coast to the bore sites. From this place we made an incursion to MIMINE (750 ft.) owing to rumours of a gas seep in that vicinity. On getting there none of the available natives could tell us where it was and we left to view some salt seeps south of ATAN. Here we found natural inflammable gas issuing slowly from the shaly rocks.

The gas seep observed in about 1 mile south of ATAU, a village between WARUDU and MIMINE. From TADABU we went to AJURRU, thence to DERIN, thence to GUNARI, thence to BAGUA, near AMELI. We now went down to the river two miles, ascended the limestone range to BAITAPU, thence to OMARU and AIAR. From AIAR the journey proceeded to HILU, then to LITTLE KELS0 and back by the old route to MADANG.

The distance as travelled between May 8th and 21st exceeds 250 miles, the tracks being largely mere paths and stoney river valleys in which we waded knee-deep in water, and partly mountain scrubs, in which the paths were both steep and tortuous. We traversed between BAGASIN and CASUA a razorback well over 2,000 ft above sea level, the divide between the GOGOL, NARU and NARU waters.

Full particulars of the geological conditions are easily gathered from Fig. 1 Geological Map, and Fig.2 Geological section from MADANG to the NARU and beyond.

C. Net Result of the Work.

The work as carried out proved most productive of geological information. As shown on Fig.2 the folding becomes very intense, steep and complex, south of the NARU river. Even north of the NARU for some miles, conditions are disturbed, excepting in the region east of ATO.

There is from MADANG, S.W. to ORA, and to WAIUSSU a steady north-east dip. culminating in the NARU Range in sharp reversals accompanied by complex folding and no doubt some faulting.

I therefore did not waste time going to KERU. Mr. Mayo, geologist of the Anglo-Persian Company, sent Messrs. Montgomery and Hayes there to make a geological survey. Presumably the escape of natural gas and sulphuretted hydrogen in that vicinity led to that area being submitted to detailed examination. Within the six miles square examined by them, they found the older metalliferous rocks, metamorphic and igneous rocks outcropping in many places, and the newer Tertiary rocks they found greatly disturbed and faulted. No action was therefore taken by the Anglo-Persian Company. As far as I can find out, no investigation has been made by others of the bulk of the area traversed by us.

The topography shows a great break in the mountains that stretch from the ERIMA coast on ASTROLABE Bay in a north-west direction to the RAMU Valley. The trough is a down thrown synclinal between the FINISTERRE uplift and the NOB-O-NOB uplift. In this valley or break, only Tertiary rocks are met with. Stanley has recorded similar formations along the RAMU from the mouth right to this break.

My conclusion is that in Middle and Late Tertiary times the coastal area from NOB-O-NOB near MADANG to POTSDAMHAVEN was an island formed by the upheaval of old Tertiary and older beds and their intrusion by igneous rocks both intrusive and extrusive. The RAMU then emptied itself into the ASTROLABE area. The metamorphic rocks of the NOB-O-NOB island were largely early Tertiary rocks metamorphosed by thrust, and by intrusion of quartz Porphyry, Andesite, Porphyrite and Basalt.

Subsequently occurred the upheaval of the FINISTERRE Range 10,000 ft. or more, tilting the Tertiary estuarine sediments of the ASTROLABE Area. In the region of maximum upheaval these sediments were sharply folded and faulted, especially south of the NARU River.

The Tertiary basin suitable for oil prospecting strikes N.W. from ERIMA and occupies a belt between 10 and 15 miles wide in which the dip is consistently N.E.

This basin, judging by the physiographic appearance of the country, which shows a belt of relatively low land rising only 700 to 800 feet pinched in between two high mountain regions, strikes N.W. over to the RAMU, and on Stanley's report, one may conclude that it continues away down the RAMU since Stanley reported only shales, conglomerates and sandstones in the banks of that river as far as he went.

There can be no doubt that it continues across the swamps between the RAMU and SEPIK as far as MARIENBERG (VIDE Fig.3)

Thus the sequence of beds found by us on the ASTROLABE area should be found reproduced in the MARIENBERG area. In my opinion, the AMELI limestones on the GOGOL are practically the same series as the MARIENBERG limestones. The succession of Strata below the AMELI limestone (Fig.2)

The major movements on the RAMU fault were contemporaneous with or followed close upon the FINISTERRE and ASTROLABE uplifts.

The coastal belt east of the MARKHAM and RAMU valleys consisted of two fault blocks the NOB-O-NOB and FINISTERRE blocks each of which suffered differential uplift. The amount of elevation was considerably greater along the coast than along the fault line. This of course resulted in the diversion of streams into their present course.

The very steep dips in late Tertiary beds (Pliocene formations) at POTSDAM and BOGIA, as compared with those noted by Stanley, along the RAMU certainly point to this differential movement which is no doubt also related to the powerful Pleistocene igneous intrusions in the coastal belt of the NOB-O-NOB island; the line of weakness has moved further to the east and now occupies the belt running through BAM, MANUM, and KAR KAR.

At BOGIA and POTSDAM I found limestone, sandstones and conglomerates interbedded and pushed up at high angles of dip. The series is probably contemporaneous with the AMELI and MARIENBERG series, but it has here been much more severely disturbed by igneous and tectonic movement, for which the large volcano of MANUM is probably responsible.

Although it is likely that a belt of probable oil country connects be way of the RAMU, the ASTROLABE and MARIENBERG areas, I devoted attention principally to the coastal slopes of the ASTROLABE area for the following reasons:

- (1) The country between the SEPIK and RAMU is too swampy for geological investigation and unpassable for machinery.
- (2) The country up the RAMU as far as the ORMILDAH block which is Tertiary and possibly oil country would be a comparatively narrow belt on the eastern bank.
- (3) The RAMU fall on the ORMILDAH block too is country to which machinery could not be got without colossal expense such as would not be warranted under the circumstances.
- (4) Time only permitted the investigation of the country which promised to be of practical value and was quite accessible to machinery from the coast.

I have already pointed out that from the NARU Range to the GOGOL River and even to MADANG to meet with consisted N.E. dips, diminishing in steepness as we proceed from the S.W. to the N.E. In the NARU Range the folding becomes very steep and complex (VIDE Fig. 2,6,7,)

All the tributaries of the NARU coming from the south show large quantities of granite, dicrite, gabbro, slate, mineralised quartz as well as many varieties of volcanic rock in huge boulders which have only been carried a short way from massive formations. Wonderful steep and complex foldings of middle and late Tertiary sediments is seen along the NARU and south of that river. This country is too intensely broken to merit consideration for oil.

Messrs. Montgomery and Hayes examining the KEKU area found the same conditions to obtain there. Probably the Anglo-Persian Company sent them there on account of the inflammable gas and sulphuretted hydrogen springs there which are phenomena to be expected in highly fractured country of petroliferous character.

The country south of the NARU near the headwaters is in my opinion worth prospecting for gold and metalliferous minerals.

As already mentioned the structure noticed by me at AMELI made me adopt a S.W. course as far as BOGASIN, when the disturbed nature of the NARU belt convinced me of the desirability of making no further advance in that direction, and of devoting further attention to the anti-cline indicated by the dips as existing south of MEISA and OBA.

The GUM River, crossed at KESIB, on the first day out had a gravelly bed with boulders of all kinds of igneous and metamorphic rock including granite, syenite, diorite, gabbro, basalt & etc. Quartz mineralised with copper iron phrites was picked up in the river. Slate highly pyritised was picked up by Beazley in the TAMAL River near AMELI. in which creek plutonic rocks were also represented in boulders. It is obvious therefore, that the country north of the GUM River is not petroliferous, and that pinnacles of the old metalliferous rocks rise up through the Tertiaries even between the GUM and the GOGOL. Thus it is the region between the GOGOL and the NARU which has been most heavily sedimented with Tertiary beds of a likely petroliferous nature.

As will be seen later, the occurrence of salt seeps and gas seeps in this country are facts of a very promising nature and the structure as worked out from the geological map and shown on the section (Fig.2) is also favourable.

To give a good idea of the nature of the country traversed, I will quote from my diary and notes, the principal observations made day by day.

D. Itinerary and Geological Observations. NOB-O-NOB.

On April 26th accompanied by Col. Munro, I went from SIAR to NOB-O-NOB. In his report "Geology and Natural Resources of the Mandated Territory" on page 26, Mr. Stanley has given a full and lucid account of NOB-O-NOB. I differ from Mr. Stanley only in two material points, viz. 1. I found the basalts on the flank and near the top of the mountain to be interbedded sheets or doubtfully sills, and not a flow, the summit of the mountain being mainly schist. 2. The schists have been compared by Mr. Stanley with the Astrolabe-Kemp-Welsh series which he says is probably Pre-Cambrian. They are in my opinion, much more likely to be late Mesozoic and early Tertiary rocks. The nature of the series indicates high lateral pressure, thrust, contact metamorphism and chemical re-adjustment resulting from volcanic hot spring action, but it does not support the notion that these rocks have ever been lowered to the zone of fusion and become recrystallised. They differ altogether from the highly crystalline, extremely metamorphosed schists of the Upper Sepik. No quartz reefs were seen in the ascent of NOB-O-NOB. Small quartz and calcite veins occurred frequently. However, subsequent observations at SEC to the north and on the GUM River to the south showed that the series is not wholly devoid of reef quartz, specimens containing arsenical, iron and copper pyrites being found, as well as granite fragments indicating intrusions of the rock.

From SIAR N.W. to GOKURRI only raised coral rock was traversed. same continuing up the ridges in a N.W. direction to a height of 160 ft. Now the track trended more westerly and contorted shales with chert beds and slates dipping N.E. at high angles (from 45 deg. to 85 deg.) were seen. At an altitude of 460 ft. on the track the dip turned over to the S.W. but this did not last. Dykes of Porphyry rhyolitic rock, porphyrite and other intrusions were seen, dips continuing mostly to the N.E. at 75 deg. from the 460 ft to the 850 ft. level. At the latter elevation an interbedded basalt sheet and some tuffs underlying it were seen, and several greenstone (doleritic) sills or beds were passed at lower levels.

At higher levels other basalt sheets were passed, but they gave no clear indication of whether they were intrusive or effusive.

The dip in the schists between 850 ft and the summit (1320 ft.) was variable between N.E. and N.W. at 60 deg. to 70 deg., the inconstancy being due to contortion. At the Mission House steps highly contorted beds of crushed indurated schist were seen.

I have dealt at some length with NOB-O-NOB, because this type of country is characteristic of the northern part of the Ormildah Oil licence at ASTROLABE BAY. The GUM River and Upper branches of the GOGOL west of MADANG drain similar metamorphic rocks in which folding and crumpling are intense and on N.W. axial directions, the dips being mostly N.E. and S.W.

Looking at the map of the Territory it will be seen that the NOB-O-NOB to POTSDAM, coastal range strikes the same as the geological formations. It is in fact a series of parallel ranges all having the same strikes and formed by sharp folding along parallel lines.

BOUGIA and POTSDAM. I landed at POTSDAM and examined the hills there on April 13 and 14th and at BOUGIA in April 29th. My observations confirmed entirely those of Mr. Stanley as recorded on pages 24 and 25 of his report. (op. cit.) The Upper Tertiary (Pleistocene) calcareous sandstones, conglomerates and limestones are very sharply folded with N.E. and S.W. dips at angles of from 30 deg. to 55 deg. They cut out inland, erosion having exposed the core of the uplift consisting of metamorphic and igneous rocks and serpentine. The POTSDAM limestones are probably of the same age as the AMELI beds, but may be younger, for instance, equivalent to the beds between MADANG and the GUM and those between SIAR GOMURRA.

Now coming to the big journey made with Mr. Beazley between May 8th and May 21st the following is a geological summary which is illustrated by maps and sections:

May 8th. Left MADANG. We found recent coral limestone up to 6 ft. above sea level as far as the south end of MODOLONG plantation. Here in a rubber forest we left the sea, turned west and found gullies with blue and yellow shales and brown sandstone lying flat. These rocks contained remains of some sea-shells and are quite recent. We now rose up on WOGOL station on to limestone hills rising to a height of 200 ft. The limestones were coralline and had interbedded calcareous sandstone outcrops, but no exposures indication dip could be seen. They are no doubt a Pleistocene coral formation fringing the NOB-O-NOB island. Only from topography could an easterly dip be assumed.

Crossing the GUM River near KESUB we met with andesitic and basaltic rock as far as a mile S.W. of KESUB and then tuffs for a quarter of a mile. Probably these eruptives belong to the same period and magma as the andesites intruding the NOB-O-NOB series near GOMURRAH (NERAU Creek) They would then be older than the Pleistocene sedimentaries between MADANG

and YELSO, but newer than the AMELI limestone. The horizon of the volcanics lies in the sandstone and shale and tuffs, which we found between HILU and YELSO. Under the KESUB tuffs we found a conglomerate bed, then proceeding west a sandstone dipping N.E. at low angles. At LITTLE YELSO a bed of limestone was met with, then more conglomerates were seen, yielding to shaly soapy mudstones south of HAIYAR. Then we got calcareous mudstone with fossil shells to MATTO, more shales, then some conglomerate and then the AMELI limestone series which at AMELI contains some conglomerate bands. The dip of the AMELI limestone at AMELI was N. at 10 deg. at the Mission and at some springs S.E. of the Mission the dip was N. at 7 deg. The trend of the limestone range shows however, that the average dip is to the N.E. The AMELI limestone has the same appearance and fossil coral contents as the MARIENGERG limestone.

On May 9th we proceeded to TAMAL and studied TAMAL Creek, which has massive limestone in both banks seeming on the southern side to overlie a coarse conglomerate. The conglomerate beds in the AMELI limestone contain boulders of pyritous slate, granite, chert and some basalt and diorite all derived from the erosion of the NOB-O-NOB series. As the conglomerate beds noticed around AMELI are not existing to any extent in the same lime formation at MARU it is fair to assume that an uprising of the older rocks must exist no long way north of AMELI.

May 10th we went from TAMAL to the GOGOL traversing conglomerate first, then shale, crossing the river brown sandstone showed in places between the river and OUHAL (WAHU) conglomerate again at OUHAL, though the soil indicated a predominance of shale country. About 1 mile west of OUHAL we crossed some conglomerate beds, and a little further on we found in a creek, shales and soapstones dipping N.E. but slightly contorted by pressure as soft beds sometimes are. These shales were full of plant fossils - large leaves. We now went N.W. over ridges of conglomerate shale and sandstone dipping N.E. At WAGUN there was a large stone and at KASEIDE mudstone prevailed. Conglomerate was again the formation at TAHIM and this alternating with shale continued to BERIN. From BERIN we proceeded on a round trip of 7 or 8 miles going in a different route. The seep occurs in a gorge like valley west of MISA village, a few yards from a strongly running freshwater creek. Many villages get salt water here.

On our return journey in a creek near BERIN the shales showed up beautifully, dipping N.E. at 10 deg. The country from BERIN to the salt springs consists almost wholly of black and brown shales and mudstones.

On May 11th we went south to SEEHAN on which hill conglomerate occurred, thence south along NIM Creek to the KOKHUN River, and thence to BARUM wholly in shale and mudstone country. The KOKHUN River contained boulders of brown sandstone, shale and mudstone locally derived, limestone and conglomerate out of the same series higher up and fragments of lignitic coal derived from bands in the brown shales. In addition numerous pebbles of metamorphic rock and lava derived as will be seen later from the boulder and beds of conglomerate in the lower horizons of the Tertiary series. In NIM Creek a very good dip to the N.E. at about 10 deg. showed up. Very important and interesting is the occurrence of lignitic coals in the Tertiary series.

On May 12th we left BARUM (mudstone) for MEISA and saw en route conglomerate overlying foraminiferal shales dipping N.N.E. at 15 deg. Sandstones too, were met with. Both in the sandstones and shales were seen remarkable interlaced masses of sandstone in mudstone or vice-versa (Vide Fig.4) These could have been formed by the pressure of a stranded iceberg on the soft strata. As one also saw in places huge smooth igneous boulders dumped in soft shale and fine sandstone and many boulders polished but only with doubtful striations there is some evidence of pleistocene glacial action. OBA where we lunched was of mudstone formation. We left OBA (300 ft.) in a west direction for WAIUSSU crossing nothing but shale in the interval excepting one limestone bed.

To the south lay high mountains, the bold configuration of which indicated the presence of limestones and conglomerates dipping north at 15 deg. In WAIUSSU Creek, near WAIUSSU the dip was 10 deg. on the direction 260 deg. We now proceeded 4 miles up this creek and saw sandstone, shales and conglomerates interbedded, but dipping in a variable manner between N.N.W., north and east at angles ranging from 15 deg. to 30 deg. (vide Fig. 1).

On the 13th we left WAIUSSU, travelled east by north over sandstone and calcareous shales containing macra shells for 1½ miles. We continued over calcareous sandstones dipping N.N.W. following a course along the valley of the KOKHUN River. We passed several hills of shaly sandstone, in the first of which I noticed a dip of N.N.W. at 25 deg. and in the second a westerly dip at 30 deg. The latter became accentuated to 46 deg. as we reached the AWASSESEA River, a branch of the KOKHUM. A large body of limestone is met with here. lying in a syncline. On crossing the steep ridge between the AWASSESEA River and the BOGASIN River, we again encounter N.E. dips at from 30 deg. to 45 deg. in massive sandstone. We meet with conglomerate, mudstone and soapstone dipping in one place E. at 60 deg. and then conglomerate dipping N. to N.N.E. at 45 deg. On the climb from the river bed (which was followed for miles) to BOGASIN, conglomerate and calcareous sandstone were crossed. At BOGASIN where the rock is calcareous sandstone at an elevation of 1,000 ft. the dip appeared to be S.W. The NARU Range as seen from BOGASIN is illustrated in Fig. 5.

On the 14th we went nearly S.E. from BOGASIN following the BOGASIN River spur up into the NARU divide over conglomerations, mudstones and limy sandstones, with W. to S.W. dips. In two miles a large peak (Mt.Eba) S.E. of BOGASIN was reached. This consists of limestones with a N.W. dip. More shale, sandstone and conglomerate followed until KOMMUS or MINARAR was reached. From this village to BOGAS, LEPTOBOGOS and to NEGIG, sandstones predominated, north of LEPTOBOGOS the contours of the heights indicate N.W. dips, and to the south S.W. dips.

Both north and south of these places the mountain knot that divides the GOGOL, NARU and RAMU waters in cut up gorges. Most fantastic pinnacles both of limestone and of conglomerate rise both north and south of those places. A narrow wedge shaped razorback connects NEGIG with the high ranges to the South and in it dips to the N.W. at from 45 deg. to 55 deg. are easily seen by the conglomerate bands in the

sandstone. The heights climbs on the range were MINARU (1450 ft.) LEPTOBOGUS (1500 ft.) and a range between NIGRI and GASUA rising to 2000 ft. This was all shale. Near GASUA the range dropped to 1650 ft. still shale dipping S.E. at 45 deg.

On May 15th we left GASUA travelled S.E. 2 miles, then east 4 miles over shale country and then we descended abruptly to the 1000 ft. level where we found ourselves on brown conglomeratic sandstone. A few miles further on in a N.E. direction we again descended abruptly to the TOONAR River here running at a level of 330 ft. In this were boulders of calcareous sandstone, shale, limestone, conglomerate &c., and pebbles of all the various kinds of rock found in the conglomerates. The TOONAR River was followed about 5 miles to its junction with the NARU through sandstone country.

We crossed the NARU seven times in $1\frac{1}{2}$ miles, with Mt. KAUTOPAU showing well on the left bank. In this mountain a landslide has resulted in a steep cliff on the southwest side exposing a beautiful view of two small but steep anticlines which agree remarkably with the topography of the mountains. (Fig.6) Dark and light coloured shales and sandstones are closely interbedded, making the cliff look like a text-book figure. On the southern bank opposite KAUTOPAU outcropped contemporaneous andesites and tuffs dipping N.W.

The NARU River, which here according to the aneroid flowed at a level of 250 ft., contained boulders of granite, quartz, crystalline, limestone, schist, slate etc. indicating the presence of mineral country cut far to the south.

From the river near Mt. KAUTOPAU we went south to BOWRY over a range that formed a strong anticline, containing volcanic rock, conglomerate, shale and sandstone, mudstone and limestone as shown in Fig. 7 We then on May 16th, followed the BOWRY Creek back to the NARU River noticing a northerly dip in shale about 1 mile east of BOWRY, later near the NARU junction an easterly dip in shale about 1 mile east of BOWRY, later near the NARU junction an easterly dip in mudstone and later near BARAU there was a sharp outcrop of limestone closely resembling the AMELI limestone dipping south at 45 deg. All the tributaries entering the NARU from the south are full of metamorphic and igneous rocks to such an extent that the country is as completely disjointed and broken up as the Anglo-Persian geologists found the KEKU area. It is therefore hopeless for oil. The gravel in the PANOPA River near ERIKA also consisted mainly of igneous and metamorphic rocks. We reached ERIKA in the afternoon.

On the 18th we returned to ATO, crossed the NARU and at the crossing saw interbedded brown and blue shales and conglomerates in thin layers. These dipped in one place 35 deg. on 70 deg., in another about 200 yds. further east the dip was 20 deg. on the same direction. Similar formations continued all the way to VERINA. Between the latter place and KANYAMSON and thence to JUBJUBE and TADABAU similar beds continue and have judging on the topography a N.E. dip.

On May 20th we found about 1 mile south of TADABU a gorge in which dips were clearly delineated in both banks, displaying a most defined anticline, the creek having followed an anticlinal axis. The anticline pitches to the east so that dips were N.E. on the N.E. Bank, and S.E. on the S.E. bank. Conglomerates, shale and black carbonaceous sandstone occurred in the structure. All the way from TADABU to WARABU conglomerates abounded. From WARABU to ATAU (550 ft.) all the country consisted of shale with brown sandstone bands. Sandstones also prevailed to $\frac{1}{2}$ mile west of ATAU and then limestones to NIRINE. The general dip appears here to be north at 45 deg.

The salt seeps south of BEMARI and ATAU were then visited. Here I discovered an ebullition of inflammable gas, burning or exploding with a yellow flame. A slight oily film was noticed on the water but it was far too thin for me to collect it or pronounce it definitely mineral oil. Similar films on spring water I have also seen on other places e.g. near BERIN, near AJURRU and near GASUA, but in jungle country oily films due to decomposed vegetation are not unusual. The gas issues direct from dark grey shale.

In MIMINE Creek south of BEMARI shale and calcareous sandstone beds dipping W. at 75 deg. were seen, for a short distance pointing either to a fault or to a landslide here.

On the 20th we proceeded from TADABU to AJURRU over shale with conglomerate bands changing to shale country near AJURRU where a good dip at 15 deg. in a direction 30 deg. E. of N. was observed. From AJURRU we went east to DERINE over shale with occasional grit bands. At GUNARI we still had shale on mudstone over shale dipping N.E. at a gentle angle. Similar country existed as far as BAGUA on the north bank of the GOGOL where the AMELI limestones were met with in outcrop. From BAGUA (about 60 ft.) we ascended the range to BAITAPU (580 ft.) passing beautiful waterfalls and cascades in a limestone gorge. Coral limestone with clam and oyster shells was the formation. Over this class of country we continued to OMARU. Between this village and AYAR we had alternate limestone, calcareous, mudstone and limy sandstone-conglomerate outcrops, dipping gently N.E.

On the 21st we proceeded to HILU over shaly limestone dipping gently east, then conglomerate beds with a N.E. dip, then more calcareous shale and sandstone until in HILU we meet with a thin bed of coral limestone. Similar rocks occurred as far as LITTLE YELSO, but the creek crossed south of this village contained also andesite and andesitic tuff of the KESUE type, which evidently belong to this horizon. From LITTLE YELSO to MADANG the country was as already described.

E. Geological Summary. The net result of these investigations is that a dome exists between TADABU and AMASSEA Creek. This dome has a gentle dip to the N.E. but sharper dips to the south and west. The country south and west of the dome is too disturbed to recommend, but the country N.W. of it is worth further reconnoitering for other domes of a similar type. The most undisturbed belt is the north-east flank of the anticline which has N.E. dips at an average angle of 10 deg. or 1 in 6. Hence between AMELI and OBA a distance of about 10 miles we have deposited a thickness of over 8,000 ft. of late Tertiary strata, a phenomenal

thickness.

Two thirds of this great series consists of shales and mudstones, which contain in some places as shown by the flotsam of the KOKHUN, lignite seams, in others as seen near WAGUN, fossil leaf deposits, in others as at MEISA and thence to WAIUSSU, foraminafera and marine or estuarine shells. The other thirds consist of conglomerates, sandstones and limestones. A series consisting of two-thirds probable oil producing beds and one third reservoir beds is considered very favourable. Throughout the big shale series extending from FRIMA-BUSCH to BERIN, and thence N.W. through unexamined territory brine springs are frequent, supplying the natives with salt water for cooking purposes. We heard from the natives that in addition to the brine spring at Berin (200 ft. above sea level) and that near MIMINE (about 400 ft. above sea level) which we personally examined, there are similar springs near BARUM (100-150ft.) OBA (300 ft.) BOWRY (300ft.) BOGASIN (1,000ft.) GABUA (1,650ft.) and other places. The shalebeds are therefore definitely saline, a fact strongly in favour of the discovery of oil.'

GAS. In the MIMINE salt soaps that we examined inflammable gas escaped out of solid rock. Several seeps of inflammable gas and some sulphuretted hydrogen springs were recorded by the Anglo-Persian geologists in the KEKU district. These gas seeps are additional evidence favouring oil.

OIL. Oily films have been noticed (as already recorded) in several places, but in each case the film was too slight to attach importance to. Ferruginous waters often form films showing fine iridescence and the natives took us to many spots in their anxiety to help. I have not seen any positive oil seep in the area traversed, but generally speaking there are sufficient other favourable factors to permit one to anticipate good results from oil drilling in the area. I advise drilling on the N.E. that is more gently dipping flank of the anticline or dome. The first bore should be sunk at TADABU, and in case of favourable results there other holes should follow along a line joining TADABU to MEISA. the latter village is between BARUM and OBA.

ROAD. TADABU is in a direct line about 12 miles from ERIVA Harbour. The country rises gently and gradually. A very fair native road exists all the way. For traction and haulage of machinery on this road, the road would have to be widened and corduroyed in a few places, and some culverts would have to be made over boggy creeks in shale country. Some cuttings into and out of creeks would have to be made in conglomerate rises between VERIMA and TADABU. Good timber for culverts is obtainable along the road all the way. The natives are friendly and willing to work in their own district, especially on roads which they have to make at present for nothing, with bad tools; hence they would appreciate making roads for pay supplied with good tools. I have given Mr. Beazley who was with me, a good many hints in roadmaking, in this class of country, and he would be able to handle the work, which would not be costly since material is abundant and labour is cheap. The NARU River is only 2 or 3 feet deep at the crossing except in heavy rains, after which it soon subsides. It has gentle banks and flows in a very wide gravelly bed.

MACHINERY FOR BORING. I would advise a plant capable of going 1500 ft. for a start and supplied with a traction engine to haul the machinery and supply power for drilling. Between TADABU and MEISA I would expect oil to be struck at less than 1000 ft.

F. Matters of Scientific interest.

- (a) Beds of coarse boulder conglomerates become very frequent in the lower members of the Tertiary series in the heart of the anticline south of OBA. These with the occasional dumped boulders in fine grained rocks point to Pleistocene or Pliocene glacial action.
- (b) Interesting also is the abundance of large masses of volcanic rock washed down the creeks from the heart of the anticline. They differ from those of KESUB and are mostly amygdaloidal andesites resembling those south of the NARU. I am inclined to think that these boulders do not all come from the conglomerates, but that in the heart of the NARU Range some of the lower interbedded lavas have been turned up in the dome uplift.
- (c) The Tertiary beds have become intensely plicated by the Finisterre uplift on the southern fringe of the belt of the deposition. The Finisterre uplift must have amounted to over 10,000 ft. in Pleistocene times.
- (d) The probable oil belt seems to extend N.W. through a break of relatively low country right to the RAMU River through the N.W. portion of the company's property and then on Stanley's information it would seem to follow the RAMU to the great swampy region south of MARIENBERG. North of the GUM and south of the NARU the country seems unfavourable for oil, being too intensely disturbed by volcanic rocks, and upthrust metamorphics.
- (e) Most important to the Ormildah Coy. is the light which this area casts on the structure of the MARIENBERG area where folding is not as steep and exposure rare. The AMELI and MARIENBERG limestone are probably the same series. We may therefore expect under the MARIENBERG limestones to find soapy mudstones, sandstones, conglomerates and saline shales.

G. Conclusions.

- 1. As already stated I can recommend the sinking of trial bores between TADABU and MEISA.
- 2. In case of favourable results from these I would advise later a deep bore near YELSO.

I finally desire to make mention of the good assistance of Mr. Beazley in the survey work and to express my appreciation of the kindly sympathy and assistance of the Catholic Mission at SEC, and the Rhonish Lutheran Mission at AMELI.

Yours etc

Consulting Geologist.

PROSPECTUS FOR BARUM RIVER OIL
COMPANY

PROSPECTUS OF Barum River Oil Fields Limited

(To be incorporated under the Companies Acts of New South Wales.)

Nominal Capital, £50,000, divided into 50,000 Shares of £1 each.

DIRECTORS.

JOHN F. ROFE, Esq.,

Solicitor, Sydney.

N. H. D. HOPSON, Esq.,

Company Secretary, Sydney.

LESLIE T. DAVIS, Esq.,

Merchant, Sydney.

E. H. STIEFVATER, Esq.,

Company Manager, Sydney.

BANKERS.

English, Scottish and Australian Bank Ltd., Martin Place, SYDNEY.

Commonwealth Bank of Australia, RABAUL.

SOLICITORS.

Messrs. GARLAND, SEABORN and ABBOTT, SYDNEY.

ARTHUR C. BAXTER-BRUCE, Esq., RABAUL.

AUDITORS.

Messrs. HOLT and THOMPSON, SYDNEY.

SECRETARY.

P. E. ROCHFORD.

OFFICE.

21 Macquarie Place, SYDNEY.

Capital of £50,000 divided into 50,000 shares of £1 each as follows:—

20,000 shares are to be issued credited as fully paid up to ORMILDAY OIL DEVELOPMENT COMPANY, LIMITED, as Vendors to the Company in payment of the Assets to be sold to the Company in terms of the draft agreement hereinafter referred to.

20,000 Contributing shares are offered for subscription under this prospectus, payable as follows:—

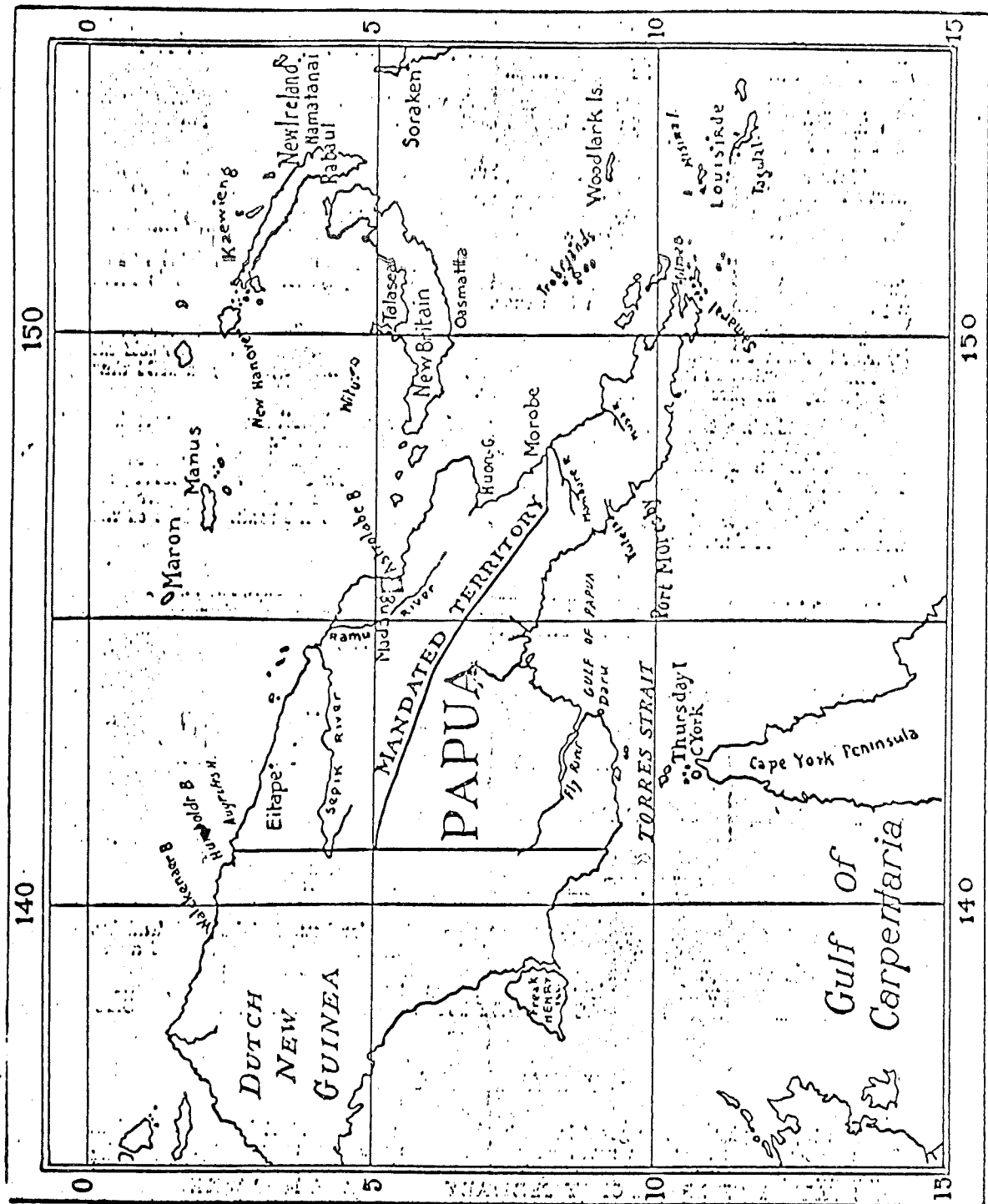
5/- per share on application.

5/- per share on allotment.

and the balance as and when required in calls of not more than 2/6 per share payable at intervals of not less than one month.

10,000 shares of £1 each are held as reserved Capital available for future issue as the expansion and requirement of the business warrant.

50,000



OBJECTS OF THE COMPANY.

This Company is being formed primarily to prospect for oil in the Mandated Territory of New Guinea and elsewhere, and carry on the business of boring for, obtaining, treating, and dealing in petroleum and other mineral oils, and with this in view a contract has been entered into to acquire from Ormildah Oil Development Company Limited, a license to prospect for oil and coal in respect of an area situated near Astrolabe Bay in the Mandated Territory of New Guinea, and on which area it is proposed that the Company shall commence boring for oil as soon as practicable.

TRANSPORT.

The eastern Boundary of the area covered by the license abovementioned is situated on Astrolabe Bay, near Madang, and has an excellent harbor at Erima, so the facilities of transport offer exceptional advantages.

CONTRACTS.

The only agreement affecting the Company is as follows:—

15th Sept., 1925—Agreement of this date made between Ormildah Oil Development Company Limited of the one part and John Angus Lancaster Gunn, as Trustee for this Company, of the other part.

A copy of the above Agreement and of the proposed Memorandum and Articles of Association may be inspected at the office of the Solicitors to the Company in Sydney.

PRELIMINARY EXPENSES.

Preliminary expenses, including stamp duty, legal costs and fees, and brokerage, will be borne by this Company.

DEVELOPMENT.

Dr. Jensen has inspected the area comprised in the said license and his reports and maps will be made available to the Company.

Mr. A. Macdonald, with ~~Capt. Macpherson, F.R.G.S., as chief assistant,~~ and party of natives, are now at work on the field making roads and erecting huts.

MACHINERY.

It is proposed to purchase and instal as early as possible on the said area a complete drilling plant.



OUTCROP OF LIMESTONE, GULLY NEAR BARTAPU.



LIMESTONE WITH BIG OYSTER FOSSILS IN CREEK NEAR BARTAPU.
AMELI LIMESTONE BELT.

GENERAL REMARKS.

It is generally conceded that the importance to Australia in particular and to the British Empire in general, of the discovery of payable oil in the Mandated Territory of New Guinea can hardly be exaggerated.

No form of speculation to-day offers such wonderful returns to the investor as the history of the Oilfields in the United States of America and other parts of the World so amply illustrates.

Natural gas, brine springs, and sulphuretted hydrogen springs exist in large numbers on the abovementioned area and their presence points very strongly to the probability of a large oilfield existing in this area, which lies in about the same latitude as Borneo, Sumatra, Java, Celebes and other adjacent oil producing islands.

While it is admitted that all oil ventures are highly speculative, the Directors feel justified in taking the view that the discovery of oil in payable quantities is more a probability than a possibility in this case.

It should be particularly noted that the Commonwealth Government, for some years after the Mandate over German New Guinea was granted, reserved to itself all oil and coal contained in the Territory, and it was not until the beginning of 1924 that the country was thrown open for prospecting.

In considering the Company's prospects of success, subscribers will appreciate the fact that they have the very favourable opinion of such an eminent authority as Dr. H. I. Jensen, D.Sc. (late Queensland Government Geologist and Director of Mines Northern Territory), who has probably examined German New Guinea more thoroughly than any other Geologist of wide and favourable reputation, and also that operations will be conducted within the confines of what is recognised as the main oil belt of the world outside of America.

EXTRACTS FROM DR. JENSEN'S REPORT TO ORMILDAH OIL DEVELOPMENT CO., LTD.

Dr. Jensen states:—

I first went to Berin, having heard that THE ROAD WAS UNDULATING SO THAT OUTCROPS MIGHT BE SEEN, AND THAT A SALT WATER SEEP EXISTED IN THE VICINITY. THE LATTER I VISITED AND TASTED AND FOUND GENUINE.

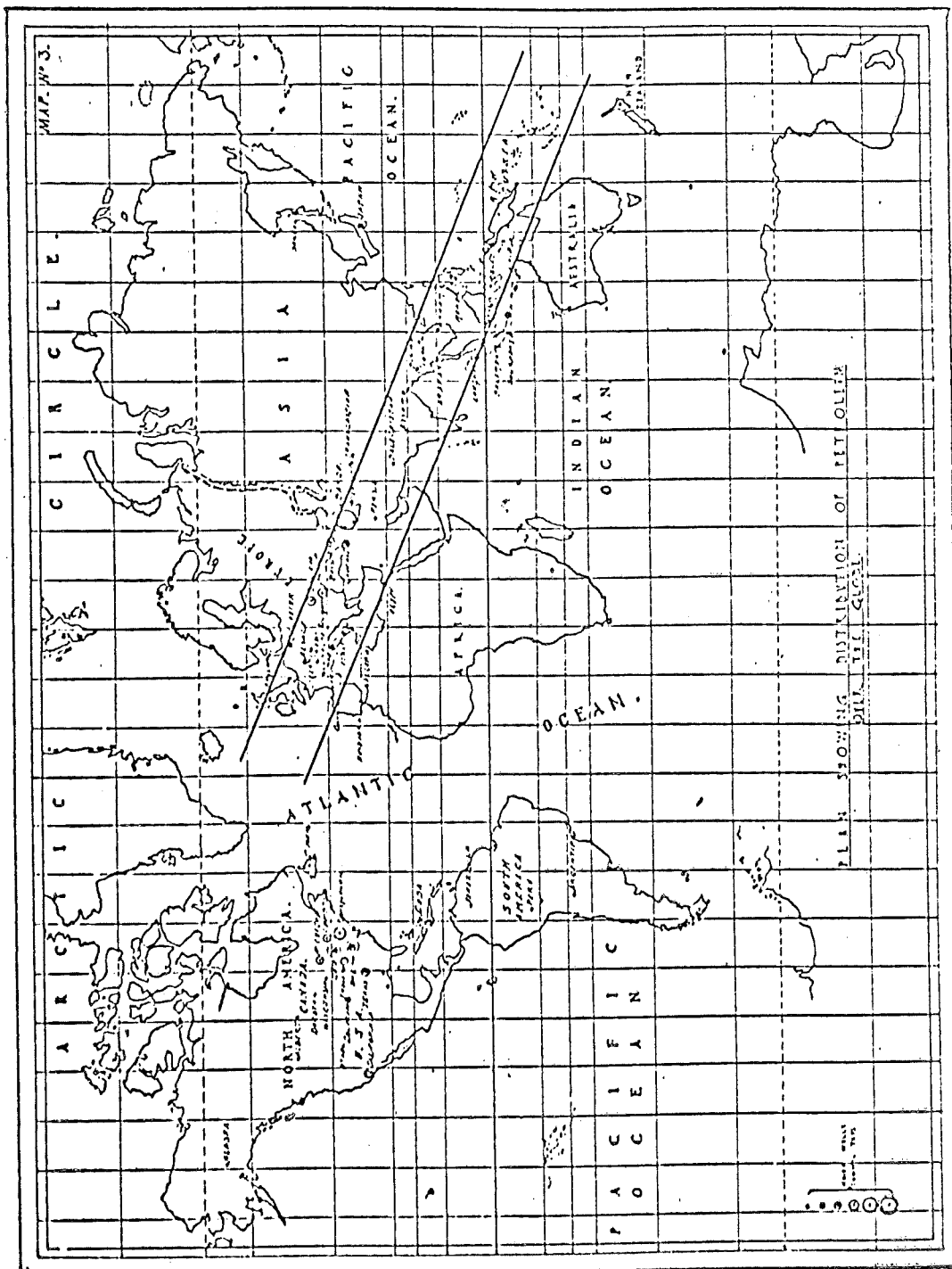
The salt seep is west of Berin and near Mis-Misa.

"NATURAL INFLAMMABLE GAS."

From the Naru crossing we went to Verina, Komjambou, Jujube and Tadabu. From this place we made an incursion to Mimine (750ft.) owing to rumours of a gas seep in that vicinity. On getting there none of the available natives could tell us where it was, and we left to view some salt seeps near Atan. HERE WE FOUND NATURAL INFLAMMABLE GAS SLOWLY ISSUING FROM THE SHALY ROCKS.

"TERTIARY STRATA."

The topography shows a great break in the mountains that stretch from the Erima Coast on Astrolabe Bay in a north west direction to the Ramu Valley. This trough is a down thrown synclinal between the Funistere uplift and the Nob-O-Nob uplift. IN THIS VALLEY OR BREAK ONLY TERTIARY ROCKS ARE MET WITH.



GEOLOGICAL CONDITIONS.

The following sketch map, which shows the line of strike, or trend lines, from the European oil bearing formations, is taken from "Technology of Petroleum," by Henry Newburger and Henri Noalhat, published in 1901.

It is significant that practically all the great oil fields of the world outside of America are situated in the line shown.

"UNDULATING TERTIARY BASIN."

The Tertiary basin suitable for oil prospecting strikes north west from Erima and occupies a belt between ten and fifteen miles wide, in which the dip is consistently north east. This basin, judging by the physiographic appearance of the country, which shows a belt of relatively low land only 700 or 800 feet high pinched in between two high mountains regions strikes north west over to the Ramu River, and on Stanley's report one may conclude that it continues away down the Ramu, since Stanley reported only shales, conglomerates and sandstones in the bank of that River as far as he went—there can be no doubt that it continues across the swamps between the Ramu and Sepik as far as Marienburg.

"PLANT FOSSILS."

About one mile west of Ouhai we crossed some conglomerate beds, and a little further on we found in a creek, shales and soapstones dipping north east, THESE SHALES WERE FULL OF PLANT FOSSILS—LARGE LEAVES.

"BRINE SPRINGS—BLACK AND BROWN SHALES AND MUDSTONES."

From Berin we proceeded on a round trip seven or eight miles going in a westerly direction first, then north to the salt seeps, then back by a different route. These seeps occur in a gorge-like valley west of Misa-Misa village, a few yards from a strongly running fresh water creek.

MANY VILLAGES GET SALT WATER HERE. ON OUR RETURN JOURNEY IN A CREEK NEAR BERIN THE SHALES SHOWED UP BEAUTIFULLY DIPPING NORTH EAST AT 10 DEGREES. The country from Berin to the salt spring CONSISTS ALMOST WHOLLY OF BLACK AND BROWN SHALES AND MUDSTONES.

"LIMESTONE—LIGNITIC COAL AND BROWN SHALES."

The Kokhun River contained boulders of brown sandstone, shale and mudstone locally derived, limestone and conglomerates out of the same series higher up, and FRAGMENTS OF LIGNITIC COAL DERIVED FROM BANDS IN THE BROWN SHALE. VERY IMPORTANT AND INTERESTING IS THE OCCURRENCE OF LIGNITIC COAL IN THE TERTIARY SERIES.

"CALCAREOUS SHALES AND MACTRA SHELLS."

On May 13th we left Waiussu, travelled west by north over sandstones and calcareous shales containing mactra shells.

"CLIFF LOOKS LIKE TEXT BOOK FIGURE."

We crossed the Naru seven times in 1½ miles with Mt. Maupau showing well on the left bank. In this mountain a downslide has resulted in a steep cliff on the south west side EXPOSING A BEAUTIFUL VIEW OF TWO SMALL, BUT STEEP, ANTICLINES, WHICH AGREE REMARKABLY WITH THE TOPOGRAPHY OF THE MOUNTAIN. DARK AND LIGHT COLORED SHALES AND SANDSTONES ARE CLOSELY INTERBEDDED, MAKING THE CLIFF LOOK LIKE A TEXT BOOK FIGURE.



DR. JENSEN IN VILLAGE OF HILU ON THE AREA.



SHALES DIPPING N.E. AT ABOUT 15-Deg. AT MAISA (MAIDE), NEAR OBA.

"GAS BURNING WITH YELLOW FLAME."

The salt seeps south of Beramu and Atua were visited. HERE I DISCOVERED AN EBULLITION OF INFLAMMABLE GAS, BURNING OR EXPLODING WITH A YELLOW FLAME. THE GAS ISSUES DIRECT FROM DARK GREY SHALE.

"OILY FILM ON WATERS."

A slight oily film was noticed on the waters, but it was far too thin for me to collect it or pronounce it definitely mineral oil.

DR. JENSEN'S CONCLUSIONS:—

The net result of these investigations is that a dome exists between Tadobu and Awassia Creek. This dome has a gentle dip to the north east, but sharper dips to the south and west. The most undisturbed belt is the north east flank of the anticline, which has north east dips at an average angle of 10 degrees or 1 in 6. HENCE, BETWEEN AMELI AND OBA, A DISTANCE OF ABOUT 10 MILES, WE HAVE DEPOSITED A THICKNESS OF OVER 8,000 FEET OF LATE TERTIARY STRATA—A PHENOMENAL THICKNESS.

Two-thirds of this great series consists of shales and mudstones, which contain in some places as shown by the siltstone of the Kokhun River, lignite seams, in others, as seen near Wogan, fossil leaf deposits; in others, as at Meisa and thence to Waiussu, foraminifera and marine or estuary shells. The other third consists of conglomerates, sandstones and limestones. A SERIES CONSISTING OF TWO-THIRDS PROBABLY OIL PRODUCING BEDS, AND ONE-THIRD RESERVOIR BEDS IS CONSIDERED VERY FAVOURABLE.

Throughout the big shale series extending from Erima—Busch at Berin, and thence north-west through unexamined territory, BRINE SPRINGS ARE FREQUENT, SUPPLYING THE NATIVES WITH SALT WATER FOR COOKING PURPOSES. We heard from the natives that in addition to the brine springs at Berin (200ft. above sea level), and that near Mimine (about 400ft. above sea level), which we personally examined, there are similar springs near Barum (100–150ft.), Oba (300ft.), Bowry (300ft.), Bogassin (100ft.), Gasua (1650ft.), and other places. THE SHALE BEDS ARE, THEREFORE, DEFINITELY SALINE, A FACT STRONGLY IN FAVOUR OF THE DISCOVERY OF OIL.

In the Mimine salt seeps that we examined, inflammable gas escaped out of solid rock. SEVERAL GAS SEEPS OF INFLAMMABLE GAS AND SOME SULPHURETTED HYDROGEN SPRINGS WERE RECORDED IN THE Keku District. THESE GAS SEEPS ARE ADDITIONAL EVIDENCE FAVOURING OIL.

I have not seen any positive oil seep in the area traversed, but generally speaking, there are sufficient other favourable factors to permit one to anticipate good results from oil drilling in this area.

I advise drilling in the north-east, that is the more gently dipping flank of the anticline or dome. The first bore should be sunk at Tadobu, and in case of favourable results there, other holes should follow along a line joining Tadobu and Maisa; the latter village is between Barum and Oba. Tadabu is in a direct line about 12 miles from Erima Harbour on Astrolabe Bay.

BETWEEN TADABU AND MAISA I EXPECT OIL TO BE STRUCK AT LESS THAN 1,000 FEET.

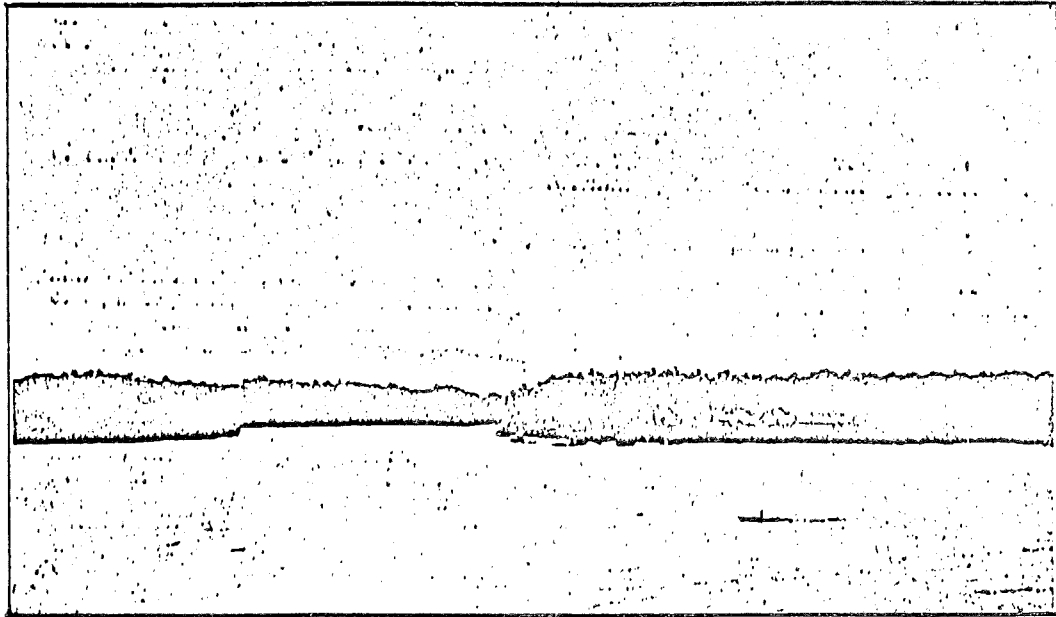
APPLICATIONS.

Applications for shares should be made on the accompanying form and sent to the Secretary, together with a remittance of 5/- per share.

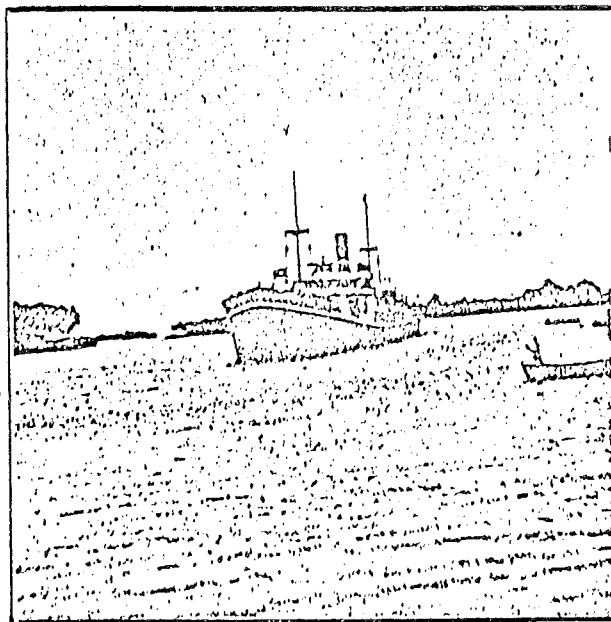
Applicants for shares must be British Subjects.

The Directors reserve the right to refuse any application for shares, either wholly or in part.

The Company will pay brokerage on all Shares applied for and allotted, whose applications are identified as coming through members of the Sydney Stock Exchange or other agent or booked duly approved of by the Directors.



MADANG HARBOR, SHOWING NOBONOB IN DISTANCE.



S.S. TREVEAN IN HARBOR, MADANG, 12 MILES FROM ERIMA.

Barum River Oil Fields Limited

(To be incorporated under the Companies Acts of New South Wales.)

Capital - £50,000

Divided into 50,000 Shares of £1 each.

Form of Application

To the Directors of
BARUM RIVER OIL FIELDS LTD.,
21 Macquarie Place, SYDNEY.

Gentlemen,

I hereby enclose you Cheque for the sum of £.....
being a deposit of 5/- per share on application for.....
shares of £1/- each in the above Company. I agree to accept the above or any
lesser number of shares, which may be allotted to me, and to pay the balance according
to the terms of the prospectus, and subject to the Memorandum and Articles of
Association of the Company, and I authorise you to register me as the holder of the
said shares. I hereby declare that I am a British Subject.

PLEASE
WRITE
DISTINCTLY.

Ordinary Signature

Name in full

(State here whether Mr., Mrs., or Miss in title)

Address

Occupation

Date 1925.

If remittance be made by cheque, the same should be crossed, marked "not negotiable"
and drawn in favour of the Company, with exchange added. Applications will be
received in multiples of 10 shares only.

LETTER TO AUSTRALIAN NEWSPAPERS DISCUSSING THE
BARUM RIVER OIL COMPANY

BY

DR. H.I. JENSEN

My attention has been drawn to a full page advertisement - in Beckett's Budget soliciting support for the Barum River Oil Company and using my name freely, and having been asked my views on it, I wish to say that this advertisement is illustrative of everything that to my mind is objectionable in modern stunt methods of company promotion and unfair alike both to the public and to the geologist. For years I have protested against these methods and advocated their suppression by Commonwealth and State Company laws.

The advertisement is absolutely untruthful in saying that I have "predicted" oil at less than 1000 feet. The two insets are also misrepresenting the facts. Why should misrepresentation be necessary when the truthful supposition of the prospects of the company should be sufficient inducement for any bona fide investor? These shortcuts to getting in the capital are most unfair to the public and to the misrepresented geologist and are apparently used only because the majority of investors are deemed incapable of logical thought.

I may state a few facts. I have never reported for the Barum River Oil Company or received any fee from that company, and in view of my tackling their advertisement am not likely to either. But when in the Mandated Territory two years ago making investigations for the Ormildah Oil Company, I located two areas which I could recommend as likely oil areas for prospecting by boring, one being the Marienberg Area, which is being bored by the Ormildah Oil Company, and the other the Astrolabe Area which I notice is being floated as the Barum River Oil Fields. In both areas bore sites were selected by me after the geological structure being investigated. Under the oil ordinance of the Mandated Territory, only one area can be held by one company, hence the separate flotation. The flotation was tried earlier, but the time was not favourable, and at the time the vigilant "Smith's Weekly" sensed some misrepresentation, apparently perused my report and pointed out how modest my statements were compared with the claims of the directors. I was in the back blocks then, as I am now, and had no chance to protest.

My report on the area was favourable to the expenditure of a large sum on oil boring, because the structure of the area is very favourable, the age of the beds is Pliocene and Miocene as in the Malaysian oil fields, and the strata are of the same nature as in typical oil areas, and throughout the area salt seeps abound and in places gas seeps. I went so far as to point out that if oil is present in the series, which appeared likely, it might be got at my bore sites at less than 1000 feet. But that is different from "predicting" that oil will be struck at less than 1000 feet. The inset stating that "Dr Jensen has never reported more favourably on any other oil field" is ludicrous to the man who follows these matters, since I have never reported in my professional career on any actual producing oilfields, but on several possible oilfields. The inset carries a misleading suggestion that I am a foreign oil expert with extensive experience on producing fields. The other inset alleging that I have stated that some cliff section is like an oil text book figure is unimportant, except that it carries some suggestion to people whose mentality is fed by pictureshows.

The sentence asserting that 'if Dr. Jensen is correct there is wealth and competence for life in a few shares' is most misleading to the public and unfair to me. Everything in my report is correct as far as possible in reading the rocks and structures. There is no if about it at all, but I object to being saddled with responsibility for assertions which I have not made.

I regret to have to draw attention to these matters because I consider the Barum River area a most promising field for investigation by boring, and a probable oil field, and I hope that the company will get the necessary finance to carry out its programme, but I hope also that it will promptly alter its advertising methods, or else leave my name out.

The Bruce Page government promised an alteration of the Company Law before last election - so far the reform has not eventuated, and the government has managed to back out of this and other promises by putting the Referendum proposals in a hurry, so as to ensure their defeat. The government can now face the electors next time and tell them that the reason they did not carry out their promises was because the people defeated the Referenda. The Labour party helped to bring this position about.

I hope the politicians will wake up to the necessity of a Company Law to prevent misleading advertisements and prospectus and to put an end to share canvassing. These things are doing bona fide mining much harm, and as in the present instance. Even Companies which have a good case adopt a wrong course as a shortcut to their objective, because the law permits it and the majority of people prefer mental pap to thinking matter. They follow daydreams of wealth inordinate, rather than the prospect of attaining success by steadfastly working for their objective by some methods on a solid basis and supporting ventures on the score of scientific facts and reasonings.

Send: Smith's Weekly, Sydney Morning Herald, Industrial Mining Standard, Daily Mail, Brisbane Chem. Mining and Engineering Review, Cairns Post, N.Q. Register and Melbourne Age, Brisbane Courier. All will publish.

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