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naturally this would be subject to considerable fluctuations according to the variations in shipping rates generally, and as such can only be taken as an estimate taken at the current rates.

AND THE COST OF FURNACING. The question of furnacing the crude soda has received a considerable amount of attention and experiments have been tried at the works of Chance & Hunt Ltd. with a view of ascertaining the quality of coal most suitable for the purpose, and the quantity of coal necessary to completely furnace one ton of finished ash.

It has been ascertained that a coal containing some 60% Carbon (65% fixed) 5% Hydrogen, 8% Oxygen and 10% Nitrogen, ash, etc., is a suitable one and this can be obtained cheaply either at Newcastle or Cardiff, the cost being approximately 9/- per ton f.o.b. in each case.

This figure is based on a contract for a considerable quantity at the current market value, and is exclusive of the export duty of 1/- per ton, as such it is subject to fluctuations.

Mer Chance & Hunt Ltd. report that 5 1/2 cwts. of this coal will fully calcine one ton of finished ash from the crude soda in the furnaces which they are at present using. They add moreover that their furnaces have not been specially designed with the view of economising in coal, and they give it as their opinion that after experiments with different furnaces on a considerable quantity of crude soda (say 1,000 tons) they would be able to design a furnace which would materially reduce this figure.

The actual cost, however, from the foregoing data of the necessary coal to fully calcine one ton of ash may be summed up as follows:

Coal f.o.b. Newcastle or Cardiff	9/-	per ton
Export Duty	1/-	" "
Freight to Kilindini	11/-	" "
Landing charges (say)	1/-	" "
Transport to Lake	31/-	" "
Total	53/-	

l for
nacing
/6 p.ton
ash

and as 5 1/2 cwts. suffices to calcine 1 ton of ash the cost per ton of ash would be 14/6 per ton.

This cost should be considerably reduced if a more favourable rate of carriage can be arranged with the Uganda Railway, and it is a matter of the greatest importance that the most favourable rates possible should be granted by them.

The question of furnacing at the lake however is one which requires considerable further investigation as it seems possible that it may be found unwise to risk carrying the finished ash down the line during the rainy season owing to the difficulty of ensuring its being kept perfectly dry and it may therefore be found better in the long run to send the crude soda to England to be furnaced or to furnace at the lake sufficiently to drive off the water and surplus CO_2 and then refurnace in England, that is to say, complete operation (1) referred to on page 3 of this report, at the lake, and leave operation (6) to be done in England.

...T OF WORK DONE

The operations of the E.A. Syndicate seem now to have reached such a Stage that little further can be done without a greatly increased Capital.

The Syndicate may be said to have arrived at the following Conclusions:-

(1) The Lake contains what to all intents and purposes is an inexhaustible supply of natural soda of considerable purity.

(2) This can be converted into an ash of considerable commercial value by simply furnacing the crude soda.

(3) The furnaced ash has proved to contain some 86% of Soda as against the 58% of Ammonia Alkali and is equally as good as that for all commercial purposes except for the lower percentage of Soda that it contains and for the reddish color of the furnaced ash.

This latter is merely a surface disadvantage as it does not militate against its practical value.

(4) The maximum amount of coal necessary to furnace one ton of ash has been determined.

(5) It has been shewn to be practicable to connect the Lake with the Uganda line by a railway and the maximum cost of such a line has been ascertained.

(6) Agreements have been entered into with Chance & Hunt Ltd. and Messrs. W. Caudery & Co. by which the services of both firms have been placed at the disposal of the Syndicate.

(7) The questions of fuel and transport have been carefully and thoroughly examined and more exact information on these points can hardly be obtained except through work on a much larger scale than lies within the scope of the Syndicate as at present constituted.

(8) The labour question has been fully considered and in the opinion of those who are best informed on the subject is likely to cause little difficulty.

(9) In a word the property has been proved so far as could be done by a Syndicate whose aim was to ascertain whether the property was really of value with a view to its being eventually developed, and experts of the highest standing have been induced to interest themselves in the project with the result that they are convinced that it possesses very great possibilities.

REMARKS

It cannot be said however, that the property has been thoroughly proved on a large Commercial scale for it has been quite impossible to carry out the necessary manufacturing experiments on so small a quantity as 50 tons, nor has there been time to thoroughly settle such points as the effect of the rainy season on the industry, the willingness of the native to work on the lake, the cheapest method of obtaining fresh water at the lake, the minimum amount of coal or liquid fuel that must be used to fully calcine the ash, the minimum amount of fuel that will drive off the surplus CO_2 and water from the crude soda, or the effect of washing the Soda at the Lake.

These points all tend to make it very difficult to arrive at any reliable estimates of actual cost, and in order to settle them it will be necessary to bring over to this country such a quantity of soda as will suffice to enable a series of actual working experiments to be carried on.

ESTIMATES OF COST
DELIVERING AT THE LAKE

At the present time the rough estimate of cost of the Soda ex ship Thames if calcined at the Lake, may be summarized as follows:-

(a)	Cost of Coal at lake for 1 ton of ash	14/6	p. 9
(b)	Cost of labour, say - - -	2/-	
(a)	Cost of carriage to Kilindini - -	15/6	" 8
	Cost of freight to London - -	11/-	" 8
	Shipping Charges at Kilindini - -	2/6	" 8
	Total	43/6	

The two items marked (a) must however be taken as the probable maximum cost provided that it be found possible:-

(1) To calcine at the lake at all.

(2) To make an agreement with H.M. Government on the terms indicated above (p. 7.)

(3) To bring the calcined ash to the coast during the rainy season without ruining it.

On the other hand they should be greatly reduced in actual working, provided:-

(1) That an Agreement be made with H.M. Government on terms of a half penny per ton per mile both up and down the line for fuel and soda.

(2) That Chance & Hunt Ltd. be provided with 1,000 tons of the crude soda to enable them to devise a furnace which will greatly economize the use of coal, or liquid fuel as the case may be.

The item marked (b) can only be regarded as an estimate and it will be difficult to obtain any really reliable figures as to the cost of labour until there is a line actually built from the lake to the Uganda Railway, for until this is done it is impossible to give the natives such an ordinary necessity of life as water and no comforts of any kind.

Provided however that the negotiations with H.M. Government are carried to a successful issue and the figure of one half-penny per ton per mile is granted for Soda down and fuel up the whole line, and further that a furnace can be devised which would so economise fuel as to make 4 cwts. instead of 6 1/2 cwts. suffice to fully calcine 1 ton of ash the above figures would work out much more favorably.

Thus:-

Cost of 1 ton of Coal at the Lake

37/6 instead of 55/- (from figures on page 9.)

and

Cost of Coal at the lake for 1 ton of ash	7/6 instead of	14/6
Cost of labour, say,	2/-	2/-
Cost of carriage to Kilindini	15/6	15/6
Cost of freight to London	11/-	11/-
Shipping charges to Kilindini	-/6	-/6
Total	36/6	42/6

It must be borne in mind however that it may be found impossible to calcine the Soda at the lake on account of the risk of damage by rain, which would ruin the calcined ash but would not hurt the raw soda, and it may be therefore that one of the two following propositions may have to be adopted.

(a) Calcination in England

(b) Furnacing to complete operation (1) at the Lake and completion of operation (2) in England.

MINING IN ENGLAND

As to the former of these, estimates can be drawn up which may be regarded as fairly exact provided that the agreement be concluded with H.M. Government to carry the Soda for one half-penny per ton per mile and to build or permit to be built the pier at Kilindini

Thus,

Cost of extracting, say	1/-	per ton
Carriage to Kilindini	15/6	" "
Freight to London	11/-	" "
Charges at Kilindini	-/6	" "
Landing charges in London	-/6	" "
	28/4	

Now 1 ton of crude soda makes 14 cwts. of finished ash so this figure of 28/4 would become

$$\frac{28.4 \times 20}{14} \quad \text{or } 40/9.$$

for 1 ton of calcined ash.

To this must be added the cost of calcining and handling, say 5/- per ton.

Total 45/9 for calcined ash at works on Thames.

N.B. These figures are based on the assumption that there would be a works on the Niger Thames with every facility for unloading cargoes right on to the works, and it seems improbable that this figure will ever be greatly reduced, except by a fall in the cost of shipping freights, and is therefore, equally likely to

It must be borne in mind however, that if we be found sufficiently
calcining the soda at the lake on account of the risk of damage
by rain, which would risk the calcined ash but would not
the raw soda, and it may be therefore that one of the two follow-
ing propositions may have to be adopted.

(a) Calcination in England.

(b) Burning to complete operation (1) at the lake and
completion of operation (2) in England.

ING IN ENGLAND

As to the former of these, estimates can be drawn up which
may be regarded as fairly exact provided that the agreement be
concluded with H.M. Government to carry the soda for one half
penny per ton per mile and to build or permit to be built the
plant at Kilindini.

Cost of calcining say - /- per ton.
Carriage to Kilindini 15/
Freight to London 11/
Charges at Kilindini
Landing charges in London

Now 1 ton of crude soda makes 1½ cwts. of finished ash so this
figure of 26/- would become

$$\frac{26.8 \times 20}{14} \quad \text{or } 38/-$$

for 1 ton of calcined soda.

To this must be added the cost of calcining and handling
say 5/- per ton.

Total £3 for calcined ash at works on Thames.

These figures are based on the assumption that there would
be a works on the River Tsavo with [illegible]
[illegible] the work.
[illegible]
cost of shipping lightering and [illegible]

be increased.

CINING AT LAKE AND FINISHING IN ENGLAND

It would seem that this - fact holds out considerable possibilities but it is quite out of the question to give even approximate figures of cost until Chance & Hunt Ltd. have been able to make a series of tests with the actual raw soda on a considerable scale.

ADVANTAGES & DISADVANTAGES OF THE VARIOUS AGREEMENTS

It may be as well here to touch upon the question of the agreements which the T.A. Syndicate have concluded, as these present certain features which may militate against the success of the Syndicate's operations by too greatly hampering its movements, and thus possibly injure or delay indefinitely the full development of what promises in the future to prove a great and successful undertaking.

AFRICA SYNDICATE

There is no doubt that the fact of 30% of all profits being ear-marked for this Company in addition to the 8% for the Government will make it a matter of the greatest difficulty to obtain the large sums needed to develop the property, leaving as it does only 62% of the profits to be divided amongst those who subscribe the money and the T.A. Syndicate.

S & HUNT Ltd.

An Agreement has been made with this firm by which the T.A. Syndicate undertakes to supply a certain quantity of soda at a very low price no matter whether this leaves a profit to the suppliers or not.

It is the knowledge of the possibility that there may be no margin of profit which makes it difficult for the Syndicate to take further steps, even though such steps would probably [illegible] assured that the figure agreed with Chance & Hunt Ltd.

would leave a margin of profit.

GENERAL SUMMARY It will be seen from the foregoing that although the work done by the Syndicate has conclusively proved that the property has immense possibilities, and indeed may almost be said to hold out the certainty of its being an assured success if developed on proper lines, it has not been possible, nor is it possible, for the Syndicate in its present form to be able to definitely state what these proper lines are.

The questions of labour, fuel and transport have been dealt with as far as it has been possible for a Syndicate with a merely nominal capital to deal with them, but the work done is only sufficient to show that each of these problems can be effectively dealt with so as to ensure ~~the cost of~~ the calcined ash being delivered in London at a cheap cost, but it is impossible at this stage to say what is actually the best and cheapest method of extracting the Soda from the Lake and delivering it in London as commercial ash.

There yet remain the following points to be determined.

1. What the actual lowest cost of calcining at the Lake or elsewhere will be?
2. What the possibilities of calcining in toto at the Lake are, taking into account the nature of the country and the labour question?
3. What is the lowest cost that can be arranged with H.M. Government for carrying the soda and if necessary, fuel, up and down the Uganda line and its extension to the Lake.
4. What is the effect of washing the Soda at the Lake?
5. What effect the rainy season is likely to have on the industry?

These can only be ascertained by work on a much larger scale than hitherto and it will be necessary to increase the capital of the Syndicate in order to cope with them.

STIONS The following suggestions may perhaps merit consideration, as being the result of an attempt to view the present situation from every aspect.

In the first place the F.A. Syndicate should endeavour to so vary the terms of the Agreements with the East Africa Syndicate and Chance & Hunt Ltd. as will render them less likely to militate against the success of this Syndicate.

As to the lines of such alterations doubtless a larger interest in the F.A. Syndicate would offer inducements to both parties to meet us, the former by considerably reducing that arbitrary figure of 30%, and the latter by so adjusting the price paid for the soda to the cost to the Syndicate of the same as to leave always a fair margin of profit on the operation to the Syndicate.

Further, that the lease be secured from the East Africa Syndicate by raising the necessary £30,000. That this money be utilised in bringing over 1,000 tons of soda to this Country to be worked by Chance & Hunt Ltd., in having the route of the Railway thoroughly surveyed by several firms of the highest standing, and, that such questions as those mentioned on page 16 be cleared up as far as possible.

Lastly that a specially constituted Committee be appointed to enter into direct negotiations with H.M. Government in order to obtain such terms from them as will ensure the success of the undertaking.

(Signed) KENNETH M. CHANCE.

1, Fenchurch Avenue,

E.C.

Sept. 27th. 1905.

All figures have been taken exclusive of any cost of depreciation or any placing charges.

KMC

[illegible]

The following resolutions were carried with effect [illegible]
[illegible]

1. That as soon as the Railway is completed by a branch line of equal gauge to the Uganda line, it can be made a commercial success by shifting the base material direct to the Nyanza & following its line.

2. That as soon as the Railway is completed a Government should be made in calculating the Rate at the Lake & then reducing the cost of transport.

3. That the Government should be asked to give their Railway Rate for a longer period than the 15 years demanded & that consideration be given to it.

4. That the Government should be asked to give a loan and terms of for the for such for such growing of a the traffic to the.

5. That the money for the Railway should be raised by two classes of shares, by Ordinary shares & Debentures.

6. That £2,500,000 of Debentures should be offered to the [illegible] for the railway & that the Government should be asked to guarantee these Debentures.

With regard to the [illegible] it is proposed that the following Peers & Gentlemen be asked to form a Committee to the [illegible] & that the Committee should leave the shifting of the [illegible] & the terms should be a guarantee that it is the shortest possible. [illegible] & [illegible] [illegible] will be of the greatest advantage to each [illegible].

Lord Cranworth — Sir Thos. Sutcliffe Mackenzie
Lord Tweedmouth — Sir A. Stanley
Earl of Kerry — Earl of Dunleigh
Lord Phillips — Charles Ottley
Baron d'Erlanger — & [illegible]

Sir Thos. Sutcliffe Mackenzie — Birmingham
Alderman Dunkerley — Manchester
Sir Thos. Sutcliffe Mackenzie — Birmingham
Alderman Dunkerley — Manchester

} will give the Board of the Lake Railway

The railway will lead through a district [illegible]
in which the manufacture of soap will be carried on on a large scale.

It will attract a large number of people to Reading.

It will mean a large tonnage of goods, probably many hundreds of thousands of tons per annum, through the Reading line.

It will increase very greatly the shipping interest of Reading.

The branch line will be 100 miles in length & will be in the neighbourhood of Reading open up a large tract of country fit for European Colonization.

And the Government will with a guarantee of £50,000 per annum of the interest on a portion of the capital, but they will lose no money, as the interest will be only £4,500,000.

The advantages to the town & the province provided should a guarantee be given are so great.

£70,000 will be the amount in order to build the Reading & Pier Water at Lake Chegoyle & on the Thames.

These interests are great. If a guarantee of the interest of the loan for the above guarantee.

The present price of Reading land is 9/7/6. at £4.17.6. but the railway will enhance the price. Therefore it would be a commercial success. Thames frontage in the Thames at a popular watering place 50/. £2-10-0

Also the land is valuable but the extra value probably [illegible] consist.

1, GREAT CUMBERLAND PLACE,
W.

Oct. 15. 05.

Mr Antrobus.

I have heard from
[illegible] he has shown you
[illegible] in the [illegible] of
his [illegible]

He believes Allegan [illegible]
the position of [illegible] shown
[illegible] to the [illegible]

traced up by the Chinese. — are making and working

of these is to teach the natives making a total of 1-6

~~suppose thousand work out~~ of [illegible] for labour in the lode.

round 12 per man per month lode is estimated three

taking $\frac{1}{2}$ the work actual labour, the other half of the

is calculated in the Thames.

each for 1 day — 5 per [illegible] the Pass is properly constructed

Putting the lode and the [illegible] [illegible] made [illegible]

calculating the working at the [illegible]

cost of transferring the bodies p[illegible]
the tracks to the ships [illegible]
being been indemnified [illegible] the [illegible]
[illegible] it.

Therefore I propose [illegible]
order if [illegible] to the [illegible]
should come [illegible] to Port
Lyttelton.

I am sending this on to the Colonial [illegible]
[illegible] a letter to [illegible]
[illegible]

[illegible]
C. [illegible]

Left Here by [illegible]
If we have not got the mail
[illegible]
[illegible]

[illegible]
[illegible]
[illegible] Colonial Office
[illegible]
[illegible]
[illegible] Colonial Office [illegible]

[illegible] you know I am always [illegible]
of being [illegible] being known.

The R.C. [illegible] [illegible]
[illegible] of being [illegible] the [illegible]
& [illegible] etc.

When the Prospectus is [illegible]
it will be arranged that no [illegible]
taken any profit out of this
business. [illegible] the [illegible]

[illegible] for the carriage & the
[illegible] of £700, you have received
[illegible] letter for this money.

It really is infatuation that
[illegible] should be done. But like
[illegible] many people will go in
when the Government [illegible]
[illegible] being found.

Yours sincerely

C. H. Wilson.

[illegible] lines for 5000 [illegible]

As I conclude he is satisfied.
[illegible] to receive our first [illegible]
of [illegible] from [illegible] [illegible]
[illegible]

When you [illegible] [illegible] the [illegible]
you will [illegible] all [illegible]
[illegible] [illegible].

Except that [illegible] [illegible] on the
the [illegible]
of [illegible]
the [illegible]
to [illegible] in anything — the [illegible]
of the [illegible] to [illegible]
[illegible].