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MADRAS RECORD OFFICE.

Government of Madras.

Public works DEPARTMENT.

G.O. No.

1668-69

Press

Mis.

369-371

Dated

27

6

1876

Not to be folded or roughly handled

Public Works Dept. Proceedings, June, 1871. 14

Building and roads.

Civil Miscellaneous.

Godavery Canal.

Progs. (13-8) / December 1870. No 5-8

(1-1) / May 1871. No 13, Part B

No 1584 of 20th April 1871.

No 8. From Captain G. I. Skipwith R.E.

for offg. secretary to the Chief Commissioner
of the Central Provinces, in the P.W.D.

The Secretary to the Govt of India.
P.W. Department.

I am directed by the Chief Commissioner
to forward herewith, for information, postal
copy of a telegram despatched yesterday by
the Chief Commissioner to the Private Secretary
to the Viceroy reporting the discovery of coal
at Buddrachellum on the British bank
of the Godavery.

Dated 19th April 1871.
No 9. Telegram from Chief Commissioner, Nagpore,
to Private Secretary to Viceroy. Under.

Two seams of coal, each three feet, with 6 feet
shale between, struck at Buddrachellum on
British bank of Godavery below the first barrier,
and below the proposed long canal.

No 1597 of 22 April 1871.

1210) From Captain G. Smith R.A.
for Officer to the Chief Commissioner
of the Central Provinces in the P.W.D.
The Secretary to the Government
of India, P.W. Dept.

In continuation of letter No. 1584 of
yesterday, I am directed by the Chief Commissioner
to forward copy of a telegram since received
from the Supr Engineer, Upper Godavery
Circle, reporting further relative to the discovery
of coal below Hiddrachellum on the
left bank of the Godavery and on British
territory.

Dated 20 April 1871
Telegram from Supr Engineer, Doornagudem
Chief Engineer Nagpur
Sent at Siperpente, thirty miles
below Doornagudem; fifteen miles below
Hiddrachellum, left bank British territory,
about quarter mile from river. Red strata
lies forty one feet below surface; then three
feet of coal, then six feet shale, and again
3 feet coal, then three feet shale. Upper three
feet of coal said to be good, lower three feet
not so good, but no certainty; boring in
progress. No further news. Blanford come
down to examine extent; will telegraph,
when ascertained. Blanford has written
particulars; will send Map and Report

by post.
No. 1726. d/28 April 1871.
1212) From J. W. Armstrong Esq. Ch. Sec. to
Offg Secretary to the Chief Commr.
of the Central Provinces in the P.W.D.
The Secretary to the Govt of India,
P.W. Department.

In continuation of this Office letter No. 1577,
dated 22nd Instant, I am directed by the Chief
Commissioner to forward, for information
of the Govt of India, copy of Mr. Vanstavern's
Report on coal boring operations at two
places on the right bank of
the Godavery. The Executive Engineer appears
to have paid much attention to the duty
entrusted to him, and to have worked
with a praiseworthy industry.

Dated 11th April 1871
1213) Report by J. Vanstavern Esq. Executive
Engineer Workshop Division, Upper Godavery
Circle, on coal boring operations in 1870.
Mr. Blanford, Deputy Superintendent,
Geological Survey of India, arrived here
at the end of December 1870, and proceeded
to Turcaloosingarum to examine the
country and point out places for boring.
On the 2nd January 1871, I went up to
Turcaloosingarum to point out the places

in the River bed where I had previously found coal.

Mr. Blandford selected some spots where he recommended borings to be put down.

From Turicooloosungarum Mr. Blandford proceeded down by the river bank as far as Raighoodern, 6 miles below Madarum, where I joined him on the 9th of January 1871, and accompanied him on a survey of the surrounding country.

On the 11th Mr. Blandford and myself proceeded in a boat to Madarum, 15 miles below Raighoodern, on the way down examining the sand stone at Gompanapilly, Davaepilly and Damircherli.

On our arrival at Madarum, Mr. Blandford examined the country and selected places for borings to be put down.

The coal bearing rocks and fossils pointed out by me to Mr. Blandford, as well as his own examinations inland and down to Ellore, will appear in his report on the geological features of the country.

Boring operations at Madarum
On the 12th commenced several test-holes

with a 2 inch jumper, boring to 14 feet and 16 feet depth in rocks near the river side, but without any result as indicating nearness of coal.

These borings were continued till the 17th when the boring machines, ordered out from England by the Govt of India arrived.

These two boring machines will bore to a depth of 300 feet each, and are complete, fitted out with tools tubes, and windlass. A derrick triangle erected and windlass placed in position to commence boring at once.

On the 2nd March 1871, Mr. Keffel, Brewer, Mining Dept., sent down by the Messager Government, arrived at Madarum and took charge of the boring operations. Up to the end of last month, the following holes were bored in places pointed out by Mr. Blandford:—

N^o 1 Pit, 180 feet, striking 8 inches of coal at 158 feet depth and afterwards passing through some very thin layers of coal.
N^o 2 Pit, 145 feet, striking 3 inches of coal at 80 feet depth.

N^o 3 Pit, 20 feet depth, no result.

The sanction of Rs 3 1/2 per month for 6 months for coal boring operations arrived a few days ago; up to that time operations have

then carried on with funds supplied by Mr Stanford and myself; day books for the amount spent up to the end of last month are now being made out, and when completed, will be sent in.

Coal boring operations at Turcaloosingaram

On the 3rd January boring operations were commenced at Turcaloosingaram at places pointed out by Mr Stanford. I had only one boring machine here, complete in boring tools, but no windlass which had to be fitted up here.

Up to the end of last month borings were sunk to the following depths:—

N^o 1 Pit, 57 feet, going through 7 inches coal at 47 feet depth. This pit had to be stopped; we had heavy rain for one night which flooded it and destroyed the bore-hole.

N^o 2 Pit, 96 feet depth, going through 9 inches of coal at 57 feet depth; I had to stop having no great length of rods; the last boring was black clay.

N^o 3 Pit, 37 feet, in progress; no coal as yet.

A few days ago I discovered a seam of good coal close to the river bank, below Turcaloosingaram. This commences very thin, thickening to 2 feet in a very short distance, in towards and under the river bank.

This being my own research, I will on Mr Stanford's return to this place, who will be here in a few days, get him to examine the place, and if he considers it worthwhile, will put down a boring.

I am under the impression that coal exists on this side of the river; this, as well as the places where coal was quarried last year, will have to be examined.

From November 1890 to 2nd January 1891, no coal operations were carried on, as I was ordered up to the 3rd Bench by the Superintending Engineer.

N^o 1893 dated 6 May 1891

From J. W. Armstrong Esq. C.E.
Offg Secy to the Chief Commr.
of the Central Provinces, in the P. O.
To The Secretary to the Govt of India
M. Department.

904582 4/25 April 91
" 1597 - 22 " "
" 1726 - 26 " "

In continuation of his office letter as per margin I am desired by the Chief Commissioner to forward herewith the accompanying copy of a letter N^o 64.329 dated 28th Ultimo and enclosure from the Supg Engineer, Upper Godavery Circle, relative to the progress effected in the borings for coal at Singaram and Tiperpenti in the Godavery District.

2. An extract from a demi-official note from Mr Stanford dated 26 April 1891 on the subject is enclosed, also a copy of the map alluded to in para 13 of the Supy Engineer's Report.

3. I am to add that on the receipt of any further information of importance bearing on the subject in question, it will be communicated at once to the Government of India.

From No 9 dated 24 April 1891.
J. Vanitavenn, Esq
Engr. Engineer in charge Workshop &
Superintending Engineer
Upper Godavery Circle.

In continuation of report on coal sent in to you, dated 15th and 17th of this month, I have the honor to inform:-

1. That a boring was put down at Tiperpanti, a village on the British side below Diverpilly, and on going through black soil and sand stone to 41 feet depth, 3 feet of coal were bored, ^{through} then 6 feet of shale, then 3 feet of coal, and after that sand stone, in which they are at present. Mr Stanford is down there now to point out places for new bore holes on the British side to be put down.

The boring on the Nizam's side of the river will only be conducted so far as it will be necessary to ascertain the direction of any seam.

2. The bore-hole mentioned in Report dated 15th instant, at Lingaram getting out of order, I had to stop boring and commenced a new boring close to the bank at the place I discovered the 2 feet seam of coal; at the depth of 17 feet, I again got

W.S.

into the seam, $2\frac{1}{4}$ feet thick, and continued boring coming into white clay, then sandstone, and at 41 feet depth meeting with black clay and pieces of coal, evidently having gone through a very thin seam. On Saturday last, when I left, the depth of bore hole was 43 feet dark clay.

3. The work at Singaram will have to be stopped at the end of this month, the sanctioned amount, Rs 362.8... being expended.

4. With my Report, dated 17th instant, an estimate for Rs 130 per month for four months for boring at Singaram and Chingala has been forwarded; this I request may be sanctioned soon, it being the dry season and river low which will enable me to bore on the edge of the river bank on the British side, and also in bed of River Tall, where I got coal some four years ago.

5. The estimates for boring at Madaram, already temporarily sanctioned for a monthly expenditure for six months by the Chief Commissioner, Central Provinces, were made out before any boring was commenced; a revised estimate for a monthly expenditure of Rs 300 for six months is now sent on, for which sanction is

solicited.

Extract from a demi-official note from Mr. Stanford; d/28th April 1891 to Capt. G. J. Shipman.

Keppel put down a second bore hole to test the coal before I reached the place; it was only 150 yards from the first, but it gave a totally different section; below the sandstone was a thickness of 21 feet (as far as they had reached this morning) of alternating bands of shale and coal. Here is the section -

Shale light & dark mottled	1. 6
Coal	2. 2
Shale	6. 6
Coal	6. 6
Shale	1. 4
Coal	1. 4
Shale	1. 2
Coal	1. 2
Shale	1. 8
Coal	1. 2
Shale	1. 0
Coal	10. 0
Shale	1. 8
Coal	2. 8
Shale	1. 0
Coal Shale	

Part of the coal looks good so far as can be judged from the borings. It certainly is disadvantageous having such a mixture, although if the bands of coal are good, they may be workable; the remarkable

variation in the seam is decidedly objectionable.

I have arranged fresh borings to prove the extent of the coal, and I think the best plan is to put down a small temporary pit, merely a sinking close to the outcrop, which will only cost Rs. 50 to Rs. 100 at the outside. I have asked Vanstavern to take Graph about this.

N^o 175. B.C. of 23rd May 1891.

Endorsed by P.H. Dept.

Copy sent to the Home Department for disposal with reference to P.H. Department N^o 162 B.C. of the 11th Instant.

N^o 2068 of 17th May 1891

Y. W. Armstrong Esq. C.E.
Offg Secy to the Chief Commr of the
Central Provinces, in the P.W.D.

The Secretary to the Govt of India.

In continuation of this Office letter N^o 1893 of the 6th Current, I am directed by the Chief Commissioner to forward copies of Officiating Supp Engineer, Godavery Circle's N^o 65. 343 of 6 Current covering a Report by Mr Vanstavern, Executive Engineer, employed on the Godavery Coal explorations.

2. It will be perceived from Mr Rhind's

para

Boring N^o 1 passed through 2 beds of coal, each 3 ft thick, depth of boring 41 feet

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para 2, that boring N^o 2 at Tiperpenti has been sunk for a depth of 60 feet, and in that depth 9 seams of coal have been passed through. These coal beds vary in thickness from inches to 2 feet.
3. Boring N^o 1 is only 150 yards distant from boring N^o 2, yet the results attained from the two borings are not at all similar.

4. The sinking of the shaft reported in para 5 is a useful work, and when finished, the data obtained will be duly reported.

M. R. S.

Copy of a letter No 65/343 dated
Sunnagudin 6th May 1871 from
Supdg. Engineer, Upper Godavary Circle,
to Secy. to Chief Commissioner CR

When forwarding Mr Van
Stavern's report upon the progress
of coal operations of 25th April 1871,
I stated that since the date of
that report coal had again been
struck in another boring at Tiper
penki, at a distance of 150 yards
from the first, but that the thick-
ness of the bed had not then been
ascertained. I have now the honor
to forward a further report by Mr
Vanstavern, which shows the section
of the ground obtained from this
second boring. In this report the
pit called No 1 is the boring first
made, the section of which was
given in the letter above referred
to, where coal was struck at a
depth of 41 feet below the surface
of the ground, in two beds of

three feet each, with an intermediate stratum of shale.

The section called No 2 is that found, to date, by the second boring, and here coal was first struck at a depth of 29 feet two inches below the surface, which was of a sand stone rock.

This boring has reached a depth of nearly sixty feet, and has in that depth passed through nine seams of coal, varying in thickness, from two feet to 6 inches, the last seam passed through being eight inches in thickness, and underlaid by five feet of dark shale, and 3 feet two inches of sand stone.

A third boring has been commenced, but the strata as yet passed through are only sand stone, for a depth of 16 feet, the coal not having been reached.

The borings No 1 & 2 having been sunk at so short a distance

178/1
distance from each other, as 150 yards, it might have been supposed that the results obtained would have been more alike than the two sections ^{show} to be the fact, and this points to an extremely variable disposition of the beds, so that further borings will be required before anything well be required before anything can be said with certainty as to their probable extent.

For the purpose of ascertaining the quality of the coal already struck, Mr Vauclavert has directed a small shaft to be sunk at the point where it was first found, the results obtained from which experiment will be communicated in a future report.

Copy of a letter No 14 of 4th May 1871 from Executive Engineer in charge workshop &c, to Ruptg Engineer, U.S. Circle. See

In continuation of my letter of 25th April 1871, I have the honor to submit returns of borings at Madarum.

At Singarum the bore hole was sunk to the depth of 55 feet, black clay, the work has been stopped there, and borings commenced at Singala and examination of the mouth of River Tall, so as to enable to finish the work there before rains set in.

At Lolake Pilly on the North Tiperpente bank of Godavery.

No 1 Pit

Dark soil

Red ground

Brown sand stone

Yellow do

Light buff clay mixed with

Mineral Charcoal

Coal

Coal and shale

Dark shale

Coal

Dark shale

Dark clay mixed with sand stone

White sand stone

5' 6"

3' 0"

5' 0"

20' 0"

37' 0"

3' 2"

1' 10"

5' 0"

3' 0"

2' 10"

30' 0"

No 2 Boring

Yellow sand stone

Light buff clay

Coarse sand stone

Dark clay

Coal

Dark shale

Coal

Dark shale

Coal

Dark shale

Coal

Dark shale

Coal

Dark shale

Coal

Dark shale

Coal

Dark shale

Coal

Dark shale

Coal

Dark shale

Light sand stone

7' 0"

0' 10"

20' 0"

1' 11"

2' 0"

2' 2"

0' 6"

0' 6"

1' 4"

1' 4"

1' 0"

1' 2"

1' 2"

1' 2"

1' 11"

0' 10"

1' 0"

2' 8"

1' 9"

1' 4"

0' 8"

5' 0"

3' 2"

No 3

PUBLIC WORKS SECRETARIAT.

No. 2243

Nagpore, 29th May 1871.

FROM

nces.

ment
George
Hartman

The Chief
and herewith
to be
carrying
Superin-
Godavari
of its
progress
The Goda-
H. H. H.
Gazette

of the 13th Current, is also herewith
forwarded, and attention is invited
to the Memorandum therein
published, relating to the same

No. 3 Boring

Red sand stone 12' 0"
Light brown sand stone 4' 0"
1 small Juniper hole
Dark soil 2' 6"
Yellow sand stone 7' 0"

Have seen
of J. Vanistaden
Executive Engineer
workshop on N. B. C.

True copies
of Mr. M. F. L.
Head Clerk

No 3 Boring

Red sand stone

Light brown sand stone 12' 0"

1 small Jasper hole 4' 0"

Dark

Yellow

P. W. D. 56 9/71

21-1-71

W. 708

Transd. June 141 ch 2369

PUBLIC WORKS SECRETARIAT.

No. 2243

Nagpore, 29th May 1871.

FROM

Secretary to Chief Commissioner,
Public Works Department,
Central Provinces.

TO

The Secy. to Government
Fort Saint George
P. W. Department

SIR,

I am desired by the Chief Commissioner to forward herewith for information, as likely to be of interest, the accompanying copy of a letter, from the Superintending Engineer, Upper Godavari Circle, together with copy of its enclosure, bearing on the progress of coal explorations on the Godavari - a copy of the Supplement to the Central Provinces Gazette of the 13th Current, is also herewith forwarded, and attention is invited to the Memorandum therein published, relating to the same

No. 65/343 2/6
Current.

Public Works Department
No. 1668.
Proceedings of the Madras Government
Under date the 21st June/71.
Read the following

From

The Secretary to Public Works

May/71

25th

Papers

I am

and that

is sent:-

to the

informed

Provinces

being the

of the

243, I

am directed to convey

the thanks of the Government

Subject.

I have the honor to be,

Sir,
Your Most Obedt Servt.

McCumshay

Off Secy to Chief Commr

M.D.

Public Works Department
N: 1668.
Proceedings of the Madras Government
Under date the 21st Decr/71.
Read the following

From

The Secretary to Chief
Commissioners Central
Provinces

(P.C. No 2243 of 29 May/71)

P.W. 1871, Dept
P.W. of Govt. May
N: 2569

From.

The Secretary to Chief
Commissioners
Central Provinces
Dated 29th May
Recd. 5th June } 1871.

N: 2243

Sec: 2.1

Forwarding
papers relating to
coal explorations on
the Godavery.

N: 1668-1669-21st Decr/71

C to 369

6th June 1871 A. 9.

Ordered that these papers
be printed & placed on
the Editor's Table, and that
the following letter be sent:-
N: 1669.

The Secretary to the
Chief Commissioners
Central Provinces

Sir,
In acknowledging the
receipt of your letter of the
29th May 1871, N: 2243, I
am directed to convey
the thanks of this Government

50

to the Chief Commissioner

for the papers which have

been placed at their disposal

regarding the progress of the

explorations on the Godanery.

Dec 22/67

18

—

Enclosed herewith

is a copy of the

report of the

Commissioner

of the Godanery

CT 1000 A-9

Govt of 1871 Madras.

PUBLIC WORKS.

To The Editors Table.

And

To The Secretary to the Chief
Commissioner of the
Central Province

Dated

Recd.

1871

G O 21 June 1871, No 1668-1871

Nos. 364-370/371

12/1/71 P-91