

- (1) பக்கங்களின் எண்ணிக்கை 14
 (2) புதுக்கித் திருப்பிய நாள் Nov 29
 (3) ஆதாரங்குறிப்பவர் கருக்கொப்பம் 6/2

தமிழ்நாடு ஆவணக் காப்பகம்.

(76)

தமிழ்நாடு அரசு

P.W.D. துறை

அரசாணை எண். மு. கோப்புத் தாள் எண்.	1053	அச்சகம் பலவகை
நாள் :	17-4-1889	198 .

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

227

7. sheets

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following paper :—

From A. PIERRE deCLOSETS, Esq., C.E., to the Secretary to Government,
Public Works Department, dated Madras, 3rd April 1889.

I have the honor of acknowledging the communication made to myself of the G.O., dated 5th February 1889, and containing Dr. King's report, and I will consider as a favor a printed copy of this order being forwarded to myself.

2. The Proceedings of Government and the report of Dr. King having been published by the local press, I think it is my duty to answer some paragraphs of the report to which I do not agree, paragraphs which may cause Government to entertain detrimental views upon the work done, and cause to myself some grievance as an Engineer.

Para. 1 of Dr. King.—In this paragraph Dr. King does not mention in what kind of formation the boring, now at 420 feet, has arrived, the stratum not being, according to Dr. King, the alluvium proper, seems to be nevertheless formed by successive alluvial deposits and may be an adventive alluvium.

In para. 2 Dr. King says that it is impossible for him to judge accurately of the ages of the different strata passed through, but he considers that these strata have been passed through to a depth of 190 feet below the Cuddalore sandstone, and that there cannot be available water sheet below. From a section of the country given by Mr. Bruce-Foote from Nagari to Pallavaram (G.S. 1, vol. X) it would appear that the gneiss may be met at 8 or 900 feet below; therefore I do not see any reason why the strata existing between the Cuddalore sandstones and the gneiss, strata formed by alluvial deposits, would not contain water-bearing strata. I think that if Dr. King had been able to see the specimens of the strata, he would have been able to ascertain the ages of these strata, their nature, and to form another opinion.

Para. 3.—The alluvium proper do not touch the gneiss certainly, but I think it would have been interesting, however, to decide to what serie the strata traversed from the Cuddalore sandstone to 420 feet belongs to.

Para. 4.—After having been so far as to expend about Rs. 6,000, it could only be regretted that the boring is discontinued; it is arrived at a small depth, and nothing prevents the furthering of operations for ascertaining whether the under-strata contains available water sheets or not. On the whole the work has been done at the rate of about Rs. 350 per mensem, sum insignificant, considering the importance of this work for geological information.

Para. 5.—As to the water-supply from the sheet at 42 feet, nothing could be said as yet; work is going on to ascertain what could be expected, and a report will follow in time on the subject.

Para. 6.—In the last paragraph Dr. King remarks that the expenditure in time is excessive, but he should have been informed that the boring was ordered and made at different stages; the first order was to bore to the depth of 60 feet, then by another to 100 feet, and so on to 150, 200, 300, 400 and 420 feet. If the order for boring had been given at once to 420 feet no unavoidable delays would have occurred; delays occasioned by correspondence, reports, time taken for measurements of the work done, besides two cyclones which swept the sheds and necessitated their reconstruction at our cost; all these causes of intermittances in the working should have been taken into consideration by Dr. King.

3. As regards the limestone beds, the aggregate thickness of these strata was 13 feet, 50 and not 11 inches as mentioned by Dr. King. There was at the beginning (stratum 409) a band of 12 inches of very hard limestone; after boring this bed of limestone it was found necessary to lower the protecting pipe through it, and for this to enlarge the hole, jumped from $7\frac{1}{2}$ inches to $9\frac{1}{2}$ inches; this work was done with much difficulty owing to the hardness of the rock and to the want of proper tools which could not be supplied by Government stores. I was therefore obliged to prepare such tools at my own cost, as well as all the bits used for drilling; and as these bits were soon worn out after being at work, it was necessary each time to rise up the rods, to repair the tools, and lower down again the rods.

I therefore do not accept the criticism of Dr. King when he says that the time for boring seems excessive.

4. The cost of boring the trial artesian well at Karani has not exceeded the cost paid generally in Madras Presidency; for instance, a well bored in Cuddalore station at a depth of 404 feet required Rs. 7,000.

A well at Messrs. Parry and Co.'s sugar works was bored to the depth of 425 feet for Rs. 6,500.

The cost of a well bored in Pondicherry in the Colonial garden by the Public Works Department and at a depth of 245 feet was Rs. 3,616.

Artesian wells vary in depths, the Pondicherry settlement being much favored by the proximity of the water underground offers no difficulties at boring; this also is the case for some parts of the English territory near the French settlement.

There are artesian wells very deep; for instance, in Paris at the "Butte aux Cailles" the depth of the bore hole reached 1,900 feet.

The well of Grenelle after eight years of incessant work attained a depth of 1,806 feet.

The well of Mr. Say's sugar works has a depth of 1,570 feet.

And the artesian well of Passy of 1 inch diameter was bored to the depth of 1,732 feet; the cost of this last well was Rs. 1,20,000.

In England the depth of artesian wells is moderate.

A well at Woolwich is bored at 608 feet; another near the same place is 550 feet, but the cost is greater than in India. At Agra, in Bengal, a boring was made to the depth of 600 feet.

5. Compared with such borings what is the Kortalayár boring; merely a beginning. However, it is greatly to be regretted that this boring should have been discontinued when perhaps the success was near at hand.

ORDER—dated 17th April 1889, No. 1053 W., Public Works.

Recorded.

(True Extract.)

(Signed) R. R. E. DRAKE-BROCKMAN, Lt.-Col., R.E.,
Ag. Joint Secy. to Govt., P.W.D.

To W. King, Esq., D.Sc.

„ Monsieur A. P. deClosets, with a copy of G.O., No. 319 W.,
dated 5th February 1889.

Editors' Table.

Exd. J. Henrious.

Spare Copies

1053

2

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1889} Madras.

PUBLIC WORKS.

Dated April, 17th.

Recd

Encs

G.O., 17th April 1889, No. 1053 W.

APRIL.

Artesian boring in the
Kortalayar Valley

Letter from Monsieur A. P. deClosets, C.E.,
submitting remarks on certain portions of
the report of Dr. King, Director, Geological
Survey in India, on the —, recorded.

Madras 3^d April 1889.

Dear Sir:

A. Pierre de Closets, C.E.

To
Colonel Mead R.E. 43
actg. Secretary to Government D.P.W.

Sir: 1053

I have the honor of acknowledging
the communication made to myself
of the G.O. dated 5 February 1889
and containing Doctor's King Report
and I will consider as a favor
a printed copy of this order being
forwarded to myself.

will be
attended to
when replying
to this.

The proceedings of Government
and the Report of Dr King having
been published by the local press
I think it is my duty to answer
some paragraphs of the Report
to which I do not agree, paras
which may cause Govt to entertain
detrimental views upon the work
done, and cause to myself some
grievance as an Engineer.

Para of Doctor King.

In this para Dr King do not
mention in what kind of formation
the boring, now at 420', has arrived.
the stratum not being, according
to Dr King, the alluvium proper,

3

3 5

Seems to be nevertheless formed
by successive alluvial deposits
and may be an adventive alluvium

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accurately of the ages of the
different strata passed through.
But he considers that these
strata have been passed through
to a depth of 190 ft below the
Cuddalore Sandstone and that
there cannot be available water
sheet below. From a section of the
country given by Mr Bruce Foote
from Naggery to Palaveram (G.S. 1 Vol X)
it would appear that the gneiss
may be met at 8 or 900 ft below,
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why the strata existing between
the Cuddalore Sandstones and the
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to see the specimens of the
strata, he would have been
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these strata, their nature and
to form another opinion.

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Strata traversed from the 2P
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to. 1053

Para 4. After having been so far
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the boring is discontinued, it is
arrived at a small depth, and
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whether the understrata contains
available water sheets or not.
On the whole the work has been
done at the rate of about Rs. 350,
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is excessive, but he should have
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Given at once to two' unavoidable delays
would have occurred, delays occasioned
by correspondence, reports time taken
for measurements of the work done,
besides two cyclones which swept
the shed, and necessitated their reconstruction,
at our costs, all these causes of intermission
in the working, should have been taken
in consideration by D^r. King.

As regards the Limestone bed,
the aggregate thickness of these
strata, was 13 ft. 50 and not 11 inches
as mentioned by D^r. King,
there was at the beginning (Stratum 109)
a band of 12 inches of very hard
limestone, after boring this bed
of limestone, it was found necessary
to lower the protecting pipe through
it, and for this to enlarge the
hole, jumped from 7 $\frac{1}{2}$ inches to
9 $\frac{1}{2}$ inches, this work was done
with much difficulty owing to
the hardness of the rock, and to
the want of proper tools, which
could not be supplied by
Government stores, I was therefore
obliged to prepare such tools
at my own cost, as well as
all the bits used for drilling,
and as these bits were soon
worn out after being at work
it was necessary each time to
raise up the rods, to repair the
tools, and lower down again
the rods.

I therefore do not accept the
criticism of D^r. King, when he
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seems excessive. 1053

The cost of boring the trial
artesian well at Karani, has
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for instance. A well
in Cuddalore was bored to a depth
of 400' required Rs 4000.
A well at Meppur Panyas
Sugar works was bored to the
depth of 425' for Rs 6500.

The cost of a well bored
in Pondicherry in the Colonial
garden, by the D.P.W. and at a
depth of 245' was Rs 3616.

Artesian wells vary in
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proximity of the water under
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boring, this also is the case for
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near the French Settlement.

There are Artesian wells very
deep; for instance in Paris at
the "Butte aux Cailles" the depth of
the bore hole reached 1900 feet.
The well of Grenelle after eight
years of incessant work attained

a Depth of 1806'

The well of Mr Jay's Sugar Works
has a Depth of 1540 ft.

P.W.C. 3209

And the Artesian Well of Paddy
of 1 mtr Diameter was bored to
the Depth of 1732', the cost of
this last Well was Rs. 1,20,000.

In England the Depth of Artesian
Wells is moderate.

A well at ~~the same place~~ is bored at
608'. another near the same place
is 550 ft but the cost is greater
than in India, at Agra in Bengal
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of 600 ft.

Compared with such boring
What is the Cortilyar boring, merely
a beginning. however it is greatly
to be regretted that this boring
should have been discontinued
when perhaps the Survey was near
at hand.

I have the honor
to be

Sir,

Your most Obedient

Wm. H. H. C.E.

B

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1053

P.W. Dept

Low. King Esq. D.Sc.
Director, Geological
Survey in India.

Sir,

I am directed to
inform you that on
receipt of your letter
no. 63 dated 26 January
89, the Govt issued
instructions for the
cessation of work in
connection with the
Artesian boring in
the Kotalayer valley.
~~and the settlement~~
~~the accounts of the work.~~

Monsieur de
Closets has addressed
the Govt on the sub-
ject in a letter in
which he remarks on
certain portions of
your letter referred to
above and I am
directed to forward
the

O. No. 319. W. & S. 2.89
copy attached)

I don't think it is worth while initiating
a further correspondence.

I would simply send Mr. De Closets
letter, address a copy to Mr. King &
have the papers on the P.T.

If then Mr. King chooses to join he
can.

Yours
84/10

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the communication
~~inquiries~~ with the
request that you
will favor the Govt
of Ladras with
any observations
you may have to
make regarding it.

~~Original~~
(Return requested)

4th 13th R
d works
No. 1053 Wap 17 April 1889

~~From order~~
C. No. 3209

Wm
6.4.89

Pine 84
8.4.89

Recorded.

Pine 84

Wm
16.4.89

12.4.89
J. W. King Esq. D. Sc. ✓
Mm P. de Clovis with a copy
of H.O. 319 Wap 5 Feb. 89
E.T.

et

SW
W

0
Apr. 1874 H. M. H. H. H.

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1053
1053

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Returned to Recd.

(Caption of the plan 2309 of 22.8.89)

Govt. of (1889) Madras.
PUBLIC WORKS.

Dated

EJ

7-5-89

Recd.

Encl.

G.O. 17 apt 1889 No 10534

Artesian boring in
=
the Kartalay or
=
Valley
=

Letter from Mons: A.P.
de Loreto, C.E. ~~for~~
~~submitting on report~~
submitting remarks
on certain portions
of the report of Dr.
King, Director of
Geological Survey in
India on the —

9

3

1. Apr. 1874 St. Michael's