

1. 11/18

Gollagudem
5. 81.

From Corporal J. Kille R. E.

To G. J. Walsh Esq
Superintendent of Works
Godavery District.

Sir, Dowlaiswarum

On Tuesday evening we were deep enough for 9th Ring and on Wednesday morning myself and Corporal Fuller started putting in same as the soil was very treacherous it not being safe to trust Sepoys. we had a slip of earth from the North side of shaft at about 11. A.M. we started then to plank that portion as we had put in on (4) from plining planks and placed Ring, we worked on, and had placed four planks in the North quarter, we then noticed the water gradually rise, and the pump would not keep it down. I then sent Corporal Fuller up to ascertain if the Engine was under proper Steam, he informed me as he was coming down in bucket that Steam gauge indicated 25 lbs. as I was in the act of guiding the bucket down, the water burst in from the South West side bringing with it, a large quantity of clay about 100 yards which knocked me down, Corporal Fuller said to me we had better take all tools up with us, but before he could get out of the

1. 11. 81.

bucket the water rose to my waist. I then said never mind the tools we must get above the water in case the rings in upper work give way, as I had put my arm in where water was rushing from, and found a large hole about 6" by 2', as the Clay could not be more than 1'-6" thick in front of the hole we had previously left, a beam of 6" in other work, and considering this work was very dangerous we left a berm of 1'-3".

We then cleared out of shaft as soon as possible with the water raising at the rate of 1 foot per minute leaving all tools at bottom as we could not get at them, on the water, I also kept Engine at work till 10.25 p.m. making 25 strokes per minute but the water still kept raising.

Rise of water 4-10 p.m. no water more than ordinary

Burst in at 4-15 p.m. 5' 8".

7 feet. 4-25.

21'-3" 5-50

26-8. 7-50

While taking measurement at 10 p.m. the pump gave out, depth of water at the above time 29'-4". I then gave orders to Engine Driver to draw fire, I then emptied Boilers as I have been under steam near 400 hours.

At present we cannot get pump clear as working bore is under water, the only remedy will be to get another set of top gear pipes and pump
was.

was, if it is the Godavery which is broke in upon us which I think it is, it will be useless.

Took measurements at 11-35 and 11-30 p.m. found 33'-4" and at 7 a.m. the 6th and found 38'-8".

Please give me further instructions in answer to this.

I beg to remain

Sir,

Your Most respectful Servant

/signed/ D. Hicks Corporal R.E.

/True Copy/

C. Swales

Superintendent of Works Godavery

compd by
EW

No. 3225

FROM

THE SUPERINTENDENT OF WORKS

GODAVARI DISTRICT.

TO

THE CHIEF ENGINEER

Pl. Department
FOR IRRIGATION

Dowlaiswaram, 31st January 1881.

Despatched 22 February 1881

SIR,

With reference to your telegram of 27th I have the honor to report that I have no means of here arranging for a more powerful pump for the Coal Shaft and can only suggest that one may be supplied from the Workshops at Madras or obtained from England.

2. Having had no experience in the work for which the pump is required and having no one here who has had such experience I cannot state with any certainty what is the nature and power of the pump required and it seems therefore that it is best for me to explain the conditions of the case and from them possibly some Mining Engineer or manufacturer of mining machinery will be able to decide what is wanted. The conditions are

Jan 77/81

Enclos. /

*Enclosure in letter
No 3225 dated 31st January
from the Superintendent
of Works Godavari.*

pgs-
could be carried by two coolies -
could not be got to the shaft till
next July because it could not
be taken by water much if at all
beyond Koida some 34 miles -
below Gollagudem and between
the two places there is no road
only a jungle track which in places
passes over rocky slopes of hills.

Have the honor to be,
Sir,

Your most obedient

C. Swales

Supt. of Works Godavari.

P.S. As all pumps occasionally get out
of order and all engines require to be
stopped now and then it will be highly
advisable if not necessary to have two
pumps & 2 Engines and it is of course
of great convenience that the working
parts of the pump should be easily
raised or got at.

J.W. C. No 776
From
The Superintendent of Works
Godavari

To
The Chief Engineer
P.W. Department
Madras

Dated 31st January
Despd 27 February 1881
Received 8th

No 3225

Enclosure

Coal shaft near Bhadrachalam. Reporting that there is no means of arranging for a more powerful pump for the and suggesting that one may be supplied from the Workshops at Madras.

Cir 17. 2. 81. Rd 18. 2. 81

f.o. 195 W. 25. 1. 81.
D.P.W. 3. 2. 81

J.W. C. No 932
No 3294
From
The Supt of Works
Godavari.

To
The Chief Engineer
Public Works Dept
6th February 1881
Despd 27 February 1881
Report No 12 on progress
of work at the Bhadrachalam Coal Field.
16th to 31st January 1881.

The abyssinian pump
(see para 2 of last report)
was fully rigged up by 19th
and pumping then com-
menced with it. by 24th
the water had been reduced
11' or to 29' in depths - & then
the working part of the
steam pump was got at.
2. The leather "buckets"
which had worn out
(they are constantly wearing
out owing to the action
of the gritty sand see para
(8) No 3225 - 31st January 1881).

Cir 17. 2. 81. Rd 18. 2. 81

PG 8
were renewed and the pump was started again on 25th; by the evening of 27th it had reduced the water by 8' or to 21' in depth below which it could not reduce it and the leather having again worn out it had to be stopped for a time when the water immediately rose against the Abyssinian pump to 30.7" depth.

3. It is quite evident that with the present pumping power it will be impossible to recommence sinking operations.

4. There can be little doubt that the water in the Shaft is in communication through some permeable stratum, with the water in the River. and that enormously powerful machinery and a very great expenditure will

PG 9
will be necessary to enable the shaft to be sunk to where it will reach the shale & inferior Coal which borings and geological researches have established to exist in small quantities in the locality.

C. Swales

Supt. of Works Godavari.

Comd.
G.C.

✓
Coal Linking
Indravari

Write to Sampson
about an report
15/2/81

D. W.

Pending further
information it
will suffice to
see about the
withdrawal
of the Sappers

Atta

16.2.81

17/2/81
For rules -
The undesignated
person that it will
justly be at least three
months before
material increase of
the pumping power can
be made available, and
even if the power be
felled it is questionable
whether any satisfactory
results will be obtained.

The undesignated con-
sider that before any
further money is expended
the opinion of an expert
in mining matters should
be obtained, and has
written to Calcutta

begin whether the
services of any qualified
person can be obtained -
In the mean time it
is recommended that
the work be suspended -

In any case it is urged
to keep the supplies
on the spot doing nothing,
and the S. of W. has
therefore been directed to
order their return to their
Company -

8

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the

Read the following:—

From
The Supt. of Works, Godavari (N.C. No. 3225 of 31st January 81)

It is clearly useless
to continue the operations,
without more powerful
pumping apparatus than
is at present available.

It has been ascertained
that the S. W. Workshops
can supply an 8" pump
within about six weeks,
but that the engine re-
quired to work the
pump, which must be of
12 H.P. cannot be supplied
until May next.

The General Supt.

Letter from the Supt. of Works, Godavari.

N^o 3225 of 31st January 1881.

FOR ORDERS.

The course prescribed in the enclosed draft appears to be the best under the circumstances. It might be possible to obtain a 12 H.P. engine locally from Messrs. Massey or the other private firm, but the cost would probably be much greater than that of the engine obtained direct from England, and the quality uncertain.

S. W. Stores & Workshops will at once take in hand the construction of the pump required, and the engine will be despatched to the Godavari immediately on arrival.

The pitman should be employed by the Supt. of Works in securing as far as possible the portion of shaft already sunk, by a substantial lining, and by filling with clay all spaces between the lining and the excavations.

In the meantime the Sapper party should be directed to rejoin their company -

S_{12/2}

2. It is not worth while
to keep the Sappers on
the spot for four or five
months.

to
on
Mr. Stanley Col. R.E.
for Secy: to Govt. M.S.

How to
FOR ORDERS.
Spencer
Council?
14-2

GOVT.
OF MADRAS.

188/.

P. W.
DEPT.

N^o 136 N. SECRETARY.

Chepauk,

9th Feb.

1881.

OFFICE NOTE.

To

Gen. Sup. at P. W.
Stores -

The steam pump lately
sent up from the
stores for the work
being operations in
the following has
been overpowered by the
influx of water, and
it is considered necessary
to rebel the pumping
power -

Can you supply the
necessary apparatus,
and within what

there can you describe it -

The steam pump has
withstood been worked by
an 8 H.P engine -

The depth of the
shaft is now 69 feet,
and it will probably
have to go down 80
feet more -

S
Dr

What was diameter of the
pump herein referred to?

ARB

An 8 inch pump could
be made up in about 6 weeks
- a 12 H.P engine would be
required to work this pump,
& it is expected that two
Engines of this power will
arrive in many weeks from England

The 8" pump would be sent
up complete with all necessary
gear so that it could be
worked quite independently
of the 5" pump which is
now in the shaft.

- Probably this arrangement
might require the shaft to
be ~~widened~~ widened, but I
think it is ~~for~~ preferable to
have two moderate sized
pumps such as 8" & 5"
instead of putting down
one large pump which would
require a very powerful engine
& great boiler power to work.

- on receipt of order I will at once
put the pump in hand, but
unless a 12 H.P engine is available
in the godown, the pump must
wait for the engine expected from
England -

Wm Buddell

Eng. Wm. Buddell

Can you advise
on this; I want to
send the papers up 7
miles at once -

My own belief is that
we are really wanting time
and labour and that
it would be much
better to abandon the
work than to prosecute
it in this doubtful
fashion, but the govern-
ment seems to go on with
it and I don't want
to recommend a stoppage
unless I see my way clear -

Watch wherever you
want the level of the
bottom of the shaft is
as compared with the
miles of soil of any kind

bed of the ponding - If
it is below the latter it
is useless to go on with
the work -

The time in which
is shorter as the real
quantity of water to be
dealt with, and the
most experienced mining
engineers in creation could
not tell as much from
the data given -

If you are going to
consult today you might
take these papers with
you & let H. E. see
them, sending them
back to me for formal
disposal -

Yours
L. J. /

My dear Cunningham

I gather from your letter
that the level of
the water in the shaft is
about that of the water
in the Godavari -
The bottom of the shaft is
now probably 30 feet or
20 below the bed of the
Godavari

I think that if the work
is to go on it will be necessary
to provide for lining the
shaft substantially, taking
care to fill up all spaces
between the lining and
the excavation with clay

The pumping power too must
be ample - Apparently
3 - 10 or 12 inch pumps
would not be too much

The water from the Godavari
cannot filter through a
mile of soil of any kind

at an overwhelming pace
but as the depth of the
shaft increases so does the
surface from which dis-
charge takes place and
occasionally cavities con-
taining a good deal
of water may be tapped.
I will take the papers to
Council if you wish.

Yours sincerely
J. H. Middleton
JH

Thanks -

Please take
them over -

JH
JH

Mr. H. Middleton thinks that
the shaft should go on at any
rate so long as the requisite
means of getting rid of the water
may be obtainable from the
Dorchester, or from or may
be procurable locally.

Mr. Welch does not say what
the diameter of the steam pump
in use was but probably it
does not exceed 8 inches as it is
hand worked by an 8 HP
engine. Perhaps it will suffice
to treble the pumping power.
If country boats be used or
composite punts there will not
need to be much water in
the river to get the machinery
up to the river bank opposite
the shaft. The natives are
clever in working boats over
shoals by damming the water
etc.

W. J. H.

*
It is 5 inches; the
engine working it is an
old one, and probably
not more than $\frac{1}{2}$ the
power of the 12 H.P.
engine proposed to be
sent up - J. H.

PUBLIC WORKS DEPARTMENT.

From the Dept of Works, Godavari No 3225 of 31st January 1881

do do .. 3294 .. 6 February 1881

FOR ORDERS.

Approved.
But about
papers on some
form or other that
be in force a
complete record
of the Government -
I'll like to send
a copy to the Order
No

It will probably be at
least three months before any very
material increase to the in-
pumping power can be made and
available, and even if the two
power be trebled it is re-
questionable whether any
satisfactory results will be
obtained.

2. The undersigned considers
that before any further
money is expended the
opinion of an expert in
mining matters should be
obtained, and has written to

Calcutta to enquire whether the services of any qualified person can be obtained.

3. In the meantime it is recommended that the work be suspended.

4. In any case it is useless to keep the Sappers on the spot doing nothing, and the Superintendent of Works has therefore been directed to order their return to their Company.

W. A. Lawrence
Colonel &c.
Secretary to Govt. P. W. D.
17th Feby/81.

FOR ORDERS.

Hon W. H. Jackson

N^o 493 W

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT

UNDER date the 22nd February 1881

Read the following:—

From the report of Mr. Kodavai (N^o 3225 of 31st Jan'y/81)
Do Do Do (N^o 3294 of 6th Feb'y/81)
Do Do Do (N^o 3370 of 6th Feb'y/81)

P 100

The Right Honorable the Governor in Council considers that before any further expenditure is incurred, the opinion of an expert in mining matters should be obtained. The Chief Engineer has, it is understood, written to Calcutta to enquire whether the services of any qualified person can be secured.

In the meantime the work should be suspended.

Orders have already been issued to the Superintendent.

R. S.