Post Quartermaster's Office

April 20th 1890.

To
The Chief Quartermaster,
Department of Arizona,
(Through the Commanding Officer, Ft Huachuca, A.T.)

Sir:

I have the honor to forward herewith a plan and estimates for improving the quality and increasing the quantity of water at this Post.

This is a matter of great importance as the present supply is not sufficient for the uses of the Post and under existing circumstances is liable to become contaminated thereby endangering the health of the Post.

There are three sources of supply.

First. The spring "A" (see plan) which furnishes about $\frac{1}{3}$ the supply

Second. The spring "B" which furnishes another $\frac{1}{3}$ of the supply.

Third. The remaining $\frac{1}{3}$ is supplied from Huachuca Creek by water flowing into the basin "D" from the creek above it.

"A" and "B" are constant while the third source varies. Ordinarily this third part is sufficient without "B" &

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fill the pipe "DH" to its ~~utmost~~ capacity, but
to the slight snow-fall and ~~rain~~-fall in the Huachu
Mountains since last September this third source of
supply has for two months ~~been~~ insufficient to fi
the pipe "DH" to its capacity ~~even when joined with "B~~
This state of affairs ~~results~~ not from the ~~fact~~ th
the water flowing in the creek is insufficient but f
the fact that a great deal of this water escape
The basin "D" is only three feet deep and does no
therefore reach bed-rock. Beneath ~~this basin~~ there is
a layer of ~~sand~~ and gravel several feet thick which
separates it from bed-rock. Unless the quantity of wat
flowing in the creek bed, is sufficient to more ~~th~~
equal the seepage through this layer of sand and gra
no water will flow from the creek into the basin
This is the trouble at present. So small is the ~~quant~~
of water coming from up ~~the~~ creek into the basin ~~D~~
that the pipe "DH" is not filled to its capacity.
Flowing from beneath the basin "D" is a strong stre
of from 2" to 4" of water which escapes in the manne
described above and which if saved would be abundan
for the use of the Port.

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Temporary arrangements might be made for saving this water but at comparatively slight expense permanent arrangements could be made which would give an abundant and constant supply of water. The enclosed estimate if allowed will in my opinion overcome the difficulty. The dam being laid on bed rock will catch all water coming down the creek from above.

~~[illegible]~~ & the dam there should be a substantial fence around the springs and the dam. The ground about them being marshy, green grass springs up rapidly and the cattle, in dry weather and when feed is scarce, come to this place to eat the grass. They wade about in the marsh and stand in it for hours thus polluting the water. This fence is also of great importance as cattle standing about the spring "B" contaminate the water and render it dangerous to health and a good fence would keep them away.

Very respectfully
Your Obedient servant
W. F. McCleave
2d Lieut. 4th Cavalry,
A. A. Q. M., U. S.

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434 DEPT. ARIZONA 1890

841 C.Q.M.O., Dept. Ariz. Rec'd APR 26 1890

991 Fort Huachuca A.T. April 20th 90.

1443 HDQRS. DIV. PACIFIC RECEIVED MAY 7 189

568 2nd Lieut. 14th Cavalry

A.A.Q.M.

Transmits plan and Estimates for improving the quality and increasing the quantity of water at the post.

1st Endorsement

Fort Huachuca A.T. April 20th 1890

Respectfully forwarded to the assistant adjutant general Department of Ariz. approved.

[signature]

Major 4th Cavalry Comdg Post

5th INDORSEMENT.

Hdqrs. Dep't of Arizona,
OFFICE OF CHIEF QUARTERMASTER.
Los Angeles, California,
May 3, 1891.

Respectfully returned to the ASSISTANT ADJUTANT GENERAL, Department of Arizona, recommending approval and reference to the Chief Quartermaster, Division of the Pacific.

[signature]
Quartermaster, U. S. A.
Chief Quartermaster.

841/1890

3d Endorsement.

Headqrs. Dept. of Arizona.
Los Angeles, Cal. May 5 1890.

Respectfully forwarded to Headquarters Division of the Pacific, Estimate approved as recommended in the preceding endorsement.

[signature]
Brigadier General,
Commanding.

4th Endorsement.

HDQRS. DIVISION OF THE PACIFIC.
San Francisco, Cal. May 7 1890.
C.Q.M. Div. Pacific.

[5th Endorsement.]

CHIEF QUARTERMASTER'S OFFICE,
DIVISION OF THE PACIFIC,
San Francisco, Cal. May 9 1890

Respectfully forwarded to the Quartermaster General of the Army, Washington, D. C. recommending approval.

[signature]
Ass't Qr. Mr. General U. S. A.,
Chief Quartermaster.

991-90
Dep't plan & Est. with dism

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E.R.

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Fort Huachuca A.T.

991 April 20th 91.

1043

McClure N.F.

568 2nd Lieut. H. Carsky

A.A.Q.M.

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