5-1143

DEPARTMENT OF THE INTERIOR

UNITED STATES INDIAN IRRIGATION SERVICE

SUPERINTENDENT OF IRRIGATION

Albuquerque N. M., October 21, 1916.

Mr. W. M. Reed, Chief Engineer,
WASHINGTON.

Dear Sir:

I submit for your approval the development of the following springs in the Hopi country.

They are approximately shown on the accompanying map and are described as follows:

JETTITO SPRING Is located on the map in 6-D and is about six miles south of Keams Cañon. It has a good flow of water coming from a sand hill, most of which is lost in the sand before it can be used. It can be developed and all of the water conserved, sufficient to supply all of the stock in the surrounding country for a radius of at least [illegible] miles. Good grazing.

AWATOBI Spring. Is located in 6-C and is at the abandoned village of the same name. This comes from near the top of the mesa, and is in the midst of a good grazing area. There many shhep and cattle to water

LOCASICAD SPRING. Is located in 4-D about 30 miles South of Keams Cañon. Is in the head of a cañon and will have to be piped about 300 feet to a place where the stock can get down to the troughs. The flow is light, but by making a storage reservoir it is thought that all the cattle and sheep that will need water can be supplied.

HOSTITADATO SPRING is located in 4-D and comes from a conglomerate, and can be developed by excavating to solid formation, the water concentrated and piped out a distance of abo ut 100 feet to troughs. This spring is like all of the others in this list, has many Indians depending on it for their domestic and stock supply.

SOCOTASPRING is located in 5-D and is a seep 2½ miles east of a larger spring with a similar name. It is thought that this can be developed into a good spring and will be where is will supply a considerable number of cattle and sheep as the stock can easily come down from the mesa to where there is fine grazing, which has not been fed off because of the lack of water.

COTTONWOOD SPRING is located in 6-D in the southern part of the reservation and is in a good grazing country. Many Indians live in this section and water here but as they have to depend on an open pond to hold the water it soon becomes foul and the cattle will not drink it. For this reason the cattle do not do well, and many sheep bloat and die from its use. It can be developed by excavating and piping out to a line of troughs where the water can be kept clean and fresh. The quality os excellent.

BACACHIVITO SPRING is located in 4-D and is in a good grazing country, and when this spring is developed the Indians will move their flocks to this section and relieve other portions now overstocked.

CROOKED ARM SPRING is also located in 4-D but about two miles from the above. This spring will be accessible from a table country as the spring is just over the rim-rock and by blasting a short trail it will be get-at-able from the valley and the mesa both.

QUIAMPO SPRING is located in the Weepo valley (5-C) and is good water. The Indians are anxious to have it developed and it is thought the usefulness of this section will be increased several hundred percent.

It is almost impossible to estimate the cost of the development of these springs as the amount of excavating is always problematical as it often runs into quick sand which demands a large amount of work. The amount of pipe is also only a guess as sometimes it is necessary to follow as seep back for a long distance before the water can be confined so it will run into the pipes. The springs already developed run from $50. to $150 each for the actual development work, and it is thought that the above will run about the same.

For plans heretofore followed you are referred to the Annual report for 1916 which shows the actual development of nine springs in this country.

All of the above springs are being used by the Indians now, but their usefulness will be greatly increased by the work it is proposed to do.

Very truly,

F. C. Robertson

Superintendent of Irrigati

Approved Nov 2 1916
F. H. Schanck
Acting Ch Engr.