

REPORT

on

SITE OF PROPOSED RESERVOIR. KELCIE'S TIERIntroduction

It is proposed by the Devonport Municipal Council to construct a reservoir on Kelcie's Tier to provide for an adequate supply of water during the summer dry period. At present the requirements of the Municipality severely tax the supply from the Palooka reservoir, the main source of supply for Devonport. An accident to the main pipe line from that reservoir would interrupt industry and prove a serious inconvenience to residents. However, it is considered that provision should be made now for the increasing requirements of this rapidly growing town.

In furtherance of this object the writer was instructed - at the insistance of the Council - to pay a visit of inspection to the site selected by Mr. Tucker, the Municipal Engineer. Access is had to the site by means of a metalled road.

Situation, Area, etc.

The site of the proposed reservoir is at the summit of Kelcie's Tier, a northerly trending range about 3 miles from Devonport. Here there is a watershed of 120 acres, the drainage from which finds its way through a narrow gorge on the east side. At the head of this gorge it is proposed to construct a concrete wall, 45 feet (max.) high and 150 feet (max.) long. This dam, when full, will hold 10,000,000 gallons of water.

Geologic Relations

The area is wholly occupied by diabase which rests sill-like on strata of Permo-Carboniferous age, ledges of which project from the sides of the mountain over 100 feet below. Except the place where it is proposed to construct the concrete wall the massive rock is covered with its decomposition product, a light yellow clay. At the entrance to the gorge the rock stands out clean and massive. So far as can be seen the diabase is not faulted but is fissured on the outside where subjected to weathering.

General Remarks

It is necessary that another inspection be made of the dam site when the rock is trenched and exposed. This is considered advisable in order to ascertain whether there are any serious fissures, not visible at present. As a foundation for a reservoir the rock appears perfectly safe and there should not be any effect on it from the added weight of water. The clay soil will serve to caulk any surface fissures that may occur in the rock underneath.

All things considered the site appears suitable in every way for the purpose in view.

(A. McIntosh Reid)
GOVERNMENT GEOLOGIST.

Wynyard,
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