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COBALT LAKE DRAINAGE PROJECT

METHODS ADOPTED FOR DEWATERING COBALT LAKE AND FOR SUPPLYING WITH WATER FROM OTHER SOURCES THE VARIOUS INTERESTS WHICH FORMERLY PUMPED FROM COBALT LAKE—NOTES ON CONSTRUCTION OF SHORT LAKE DAM, PIPE LINES, ETC.

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A QUANTITY of silver estimated at over two and one-half million ounces is blocked out in high-grade ore beneath the bed of Cobalt Lake. It is impossible, however, to mine this ore under present conditions, because the workings would be flooded. The Cobalt Lake Mining Company, which owns

from Cobalt Lake was being used by the town of Cobalt to supply a portable fire engine which was permanently located on the shore of the lake; also to supply the Northern Ontario Light & Power Company with water to cool its transformers and for use in its compressors. Furthermore, and still more important, about 2,850 gals. per min. were being pumped from Cobalt Lake to supply four concentrating mills.

A method to supply these mills and the other interests affected, was evolved late in 1913 by Mr. M. B. R. Gordon, formerly manager of The Cobalt Lake Mining Company,

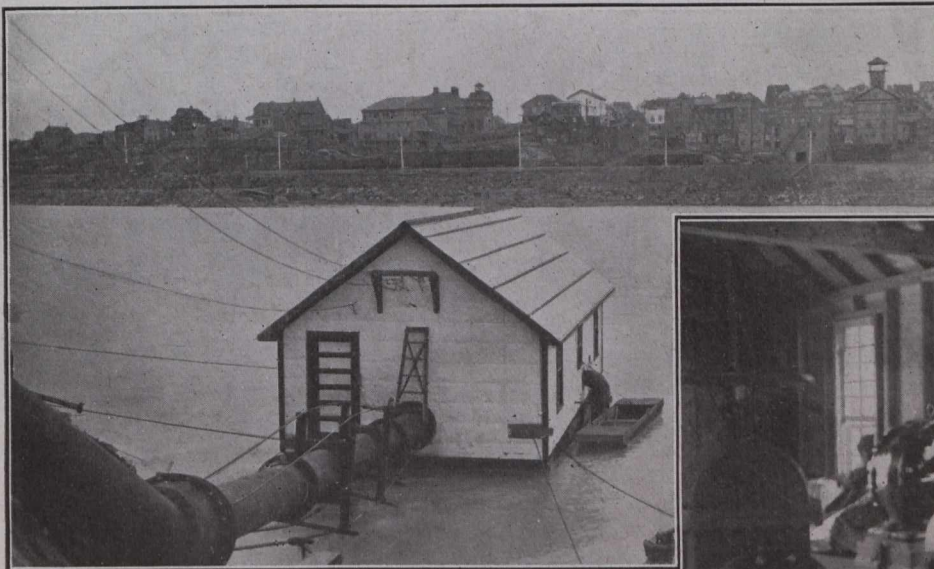


Fig. 1.—Views of COBALT LAKE PUMPING STATION. Two Centrifugal Pumps are Mounted on Scow, Discharging Through Two Flexible Joints.



the Cobalt Lake property, therefore conceived the idea of draining Cobalt Lake, the area of which is 57 acres, containing nearly five hundred million gallons of water, besides a large quantity of mud and semi-liquids. (NOTE—For personal convenience, the writer has used U.S. gallons, instead of Imperial gallons, throughout this article, as the original lay-out of the work was entirely in terms of U.S. gallons.)

To drain the lake would seem to be merely a matter of pumping and fluming to a lower level, but a number of objections had to be satisfactorily met. The water

which concern is now part of the Mining Corporation of Canada. Messrs. C. H. & P. H. Mitchell, consulting engineers, Toronto, were asked by the mining company to report on the feasibility of Mr. Gordon's scheme and upon the details of the whole project. They reported that the scheme was entirely feasible, and about May 1st, 1914, work was begun under the supervision of the writer, with G. F. Hendricks, M.E., as assistant engineer.

It was proposed to discharge the water from Cobalt Lake into a gully which would carry it to Farr Creek