

**MEMORANDUM**

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June 21 19 77

SUBJECT: Cross Sections in McTavish and Cresswell  
 Roads area - North Saanich, B.C.

OUR FILE 0239013  
 YOUR FILE

This memo is intended to outline the general conditions apparent in the cross sections drawn for the McTavish and Cresswell Roads area in North Saanich. The water levels were drawn from data obtained during the July 1976 to February 1977 period. Information on the wells was obtained from existing well records and from field records. The well head elevations in section A-A' have been surveyed relative to one another while the well head elevations in section B-B' are taken from a ten foot interval contour map.

The bedrock in this area ranges from five to twenty feet below ground surface, most of the wells being completed in this material. The surficial wells are generally dug and completed to depths of up to eighteen feet.

The purpose of the cross section is to show any possible link between water levels in the existing wells. This in turn could give an insight into well interference problems which occur in this area. It can be seen from cross section A-A' that possible water tables can be drawn through the bedrock wells, however it appears that although there is a hydraulic connection between the bedrock and surficial deposits that the water table in the surficial wells do not reflect that of the bedrock wells. This phenomena may be explained by the fact that when the surficial deposits are recharged with water from the bedrock, it can then flow more readily across the top of the bedrock following the natural gradient. In section B-B' a water level is plotted after pumping of one well. This water level shows the extent of influence at that time, further readings would be required in order to estimate the extent of influence during pumping conditions.

*N.T. Lomas*

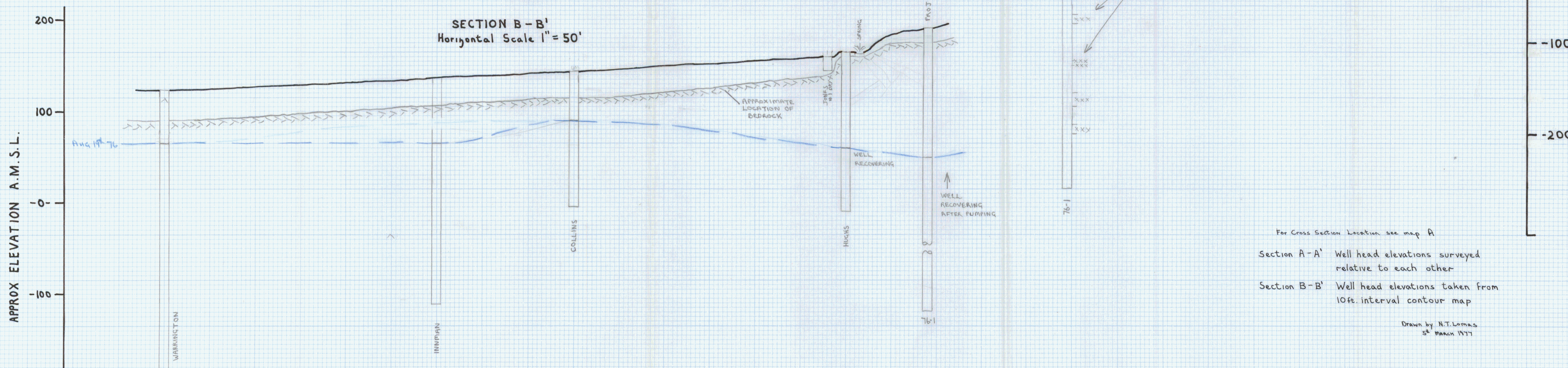
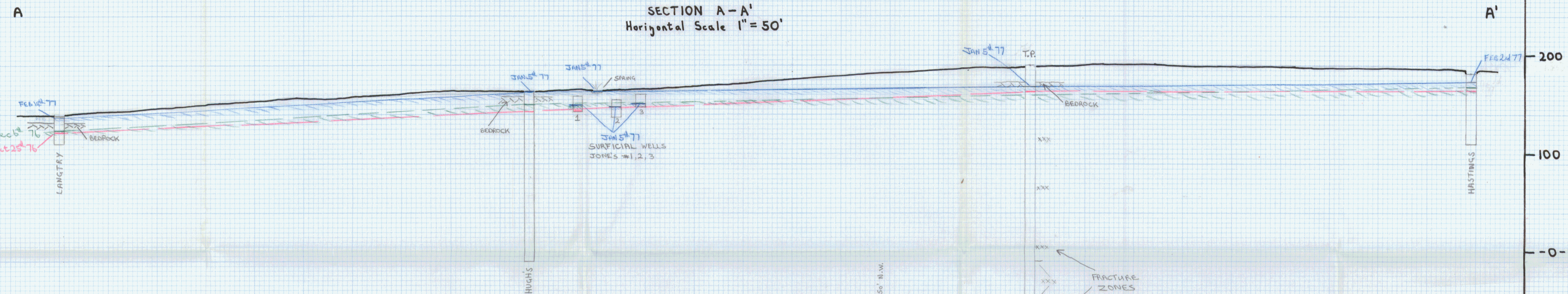
N. T. Lomas

NTL/dmc *APK* It is interesting that it appears the bedrock aquifers are recharging the surficial water table aquifer, i.e. shallow dug wells are in the same flow system - when the bedrock wells are pumped the shallow wells are drained. Water levels in the shallow wells however are not the same as levels in the bedrock!

*Noted  
 97 20 July 77*



CROSS SECTIONS IN McTAVISH + CRESSWELL ROADS AREA  
NORTH SAANICH



For Cross Section Location see map A  
 Section A-A' Well head elevations surveyed relative to each other  
 Section B-B' Well head elevations taken from 10ft. interval contour map

Drawn by N.T. Lomas  
5<sup>th</sup> March 1977