

WELL DRILLING STORIES

What I learned over 47 years in British Columbia

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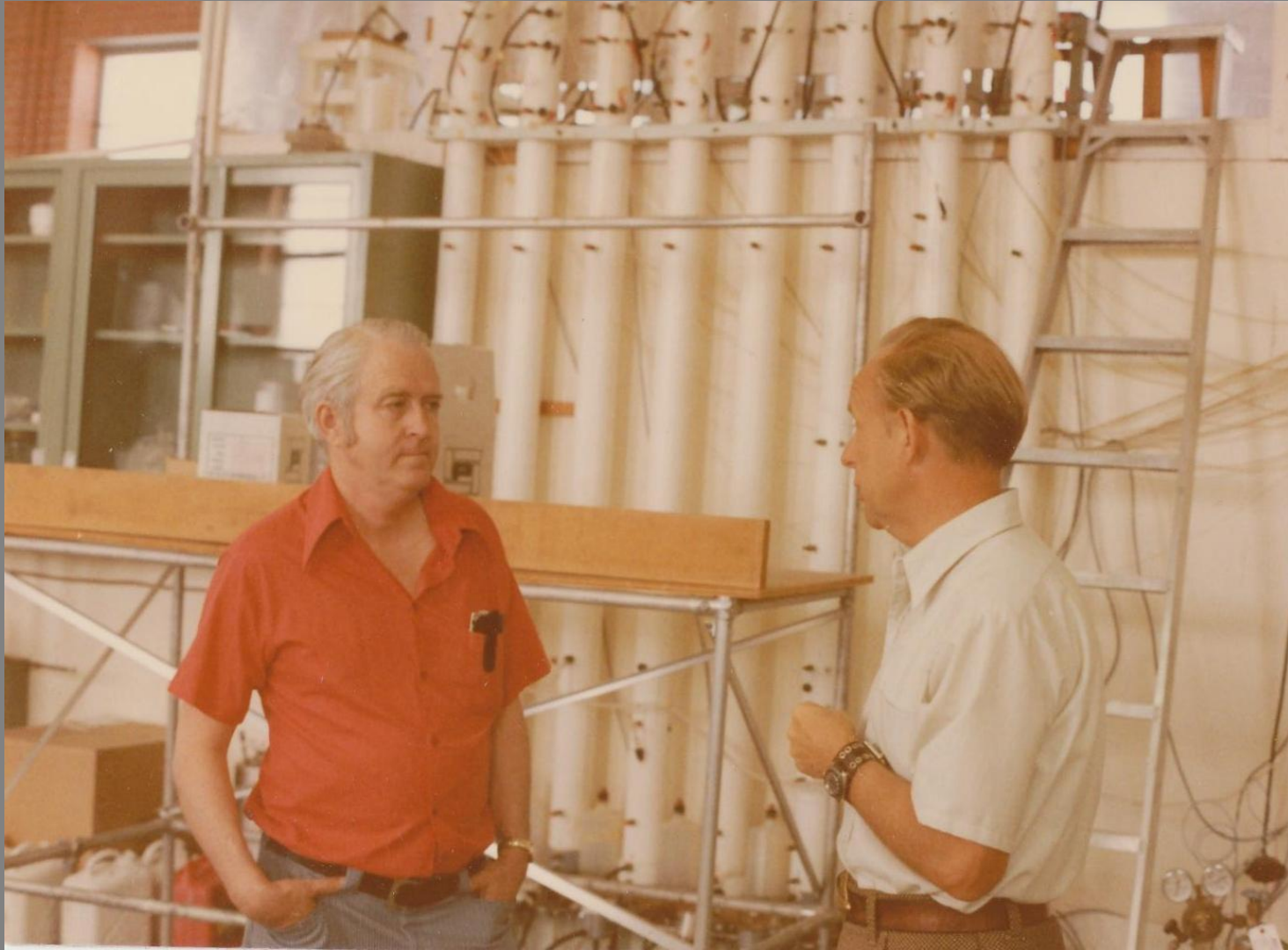
A hydrogeologist learns the basics of well drilling from an expert.

OVERVIEW OF PRESENTATION

- Groundwater consulting in BC – the beginnings
- My first project
- Dealing with artesian aquifers
- A few memorable projects
- General observation.

Groundwater Consulting in B C - the Beginnings

- Prior to arriving in BC, I worked for the New Zealand Government and my first, and only groundwater project, involved assessing an artesian aquifer.
- 1969 - I arrived in BC and started working with Bill Brown and Dick Erdman
- 1950 - John Robinson and Fred Roberts formed a geological consulting firm in Tacoma Washington
- Late 1950's - Dick Erdman was seconded to work on the Highbury Tunnel dewatering project in Vancouver
- Early 1960's Bill Brown formed Robinson Roberts and Brown



Bill Brown and Herman Bouwer

FIRST PROJECT

A water supply well for the Takla Mill located near Fort St. James



My first BC well drilling site –at Takla mill site



30gpm discharge from completed 40m deep Takla mill well

EXPERIENCE WITH ARTESIAN WELLS

- Fort St. James
- Holberg Camp
- Middlepoint property on Sunshine Coast
- Lillooet
- Chilliwack Hatchery

FORT ST JAMES WELLS

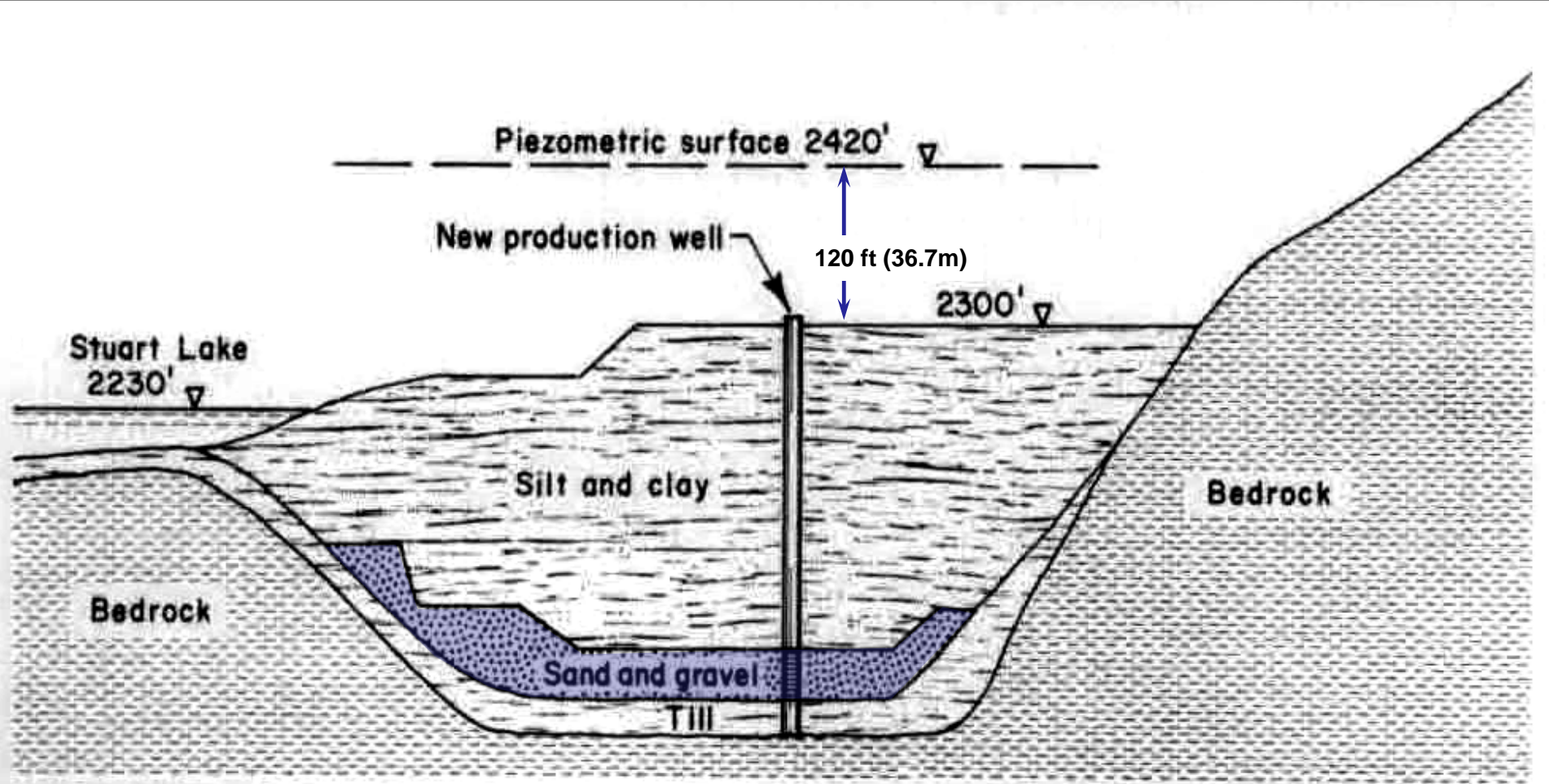
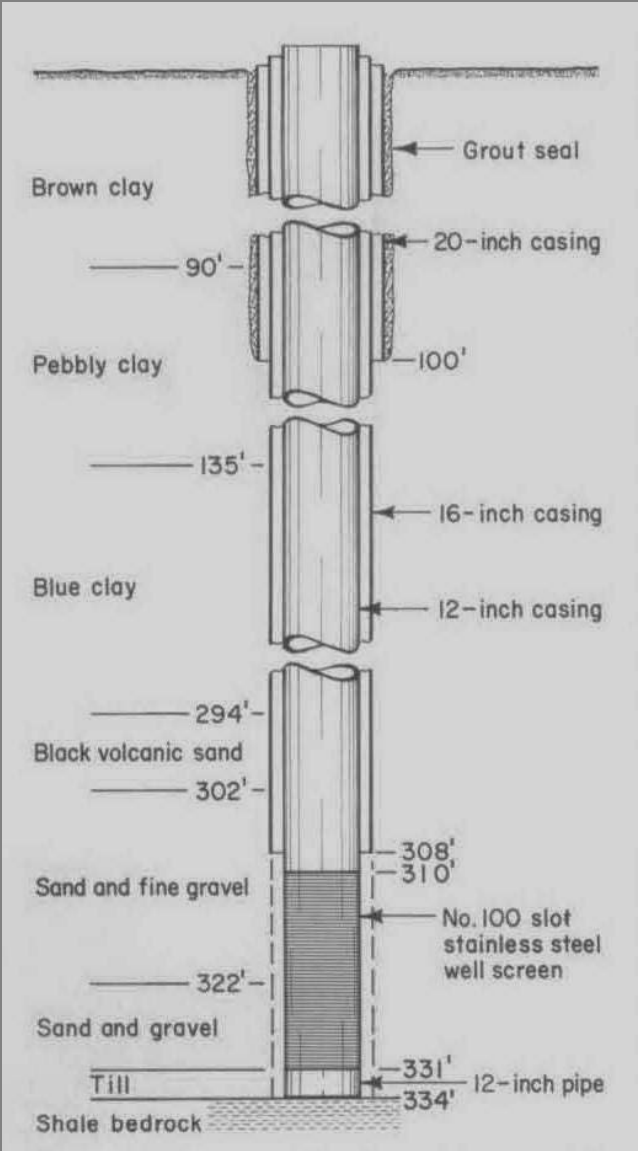


Figure 3. New well is completed in sand and gravel sandwiched between silt and clay above and impermeable glacial till below.



Log of Fort St James Production Well



Dick Erdman standing alongside the well with a 4,200 gpm artesian flow.



Nigh work on old Fort St. James Well

HOLBERG CAMP WELL



Ron Geering and Sorenson completing the Holberg artesian well in 1969.

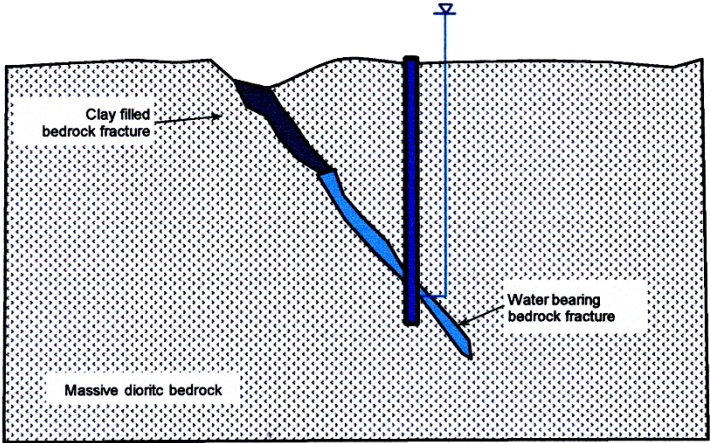
MIDDLEPOINT PROPERTY



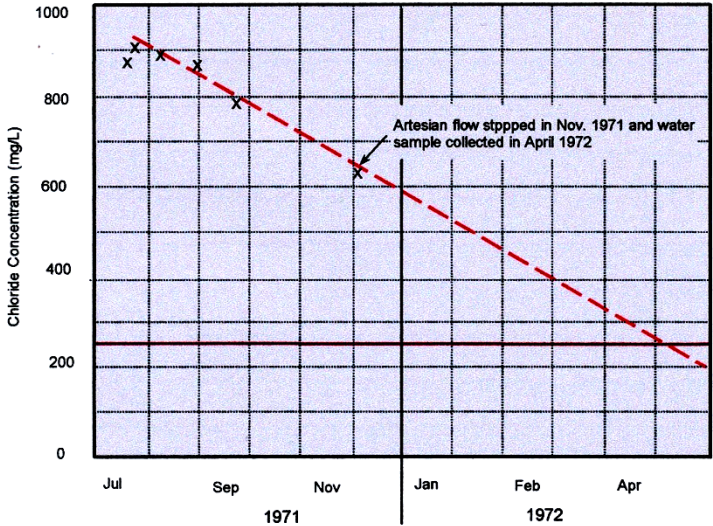
Map of Middlepoint property showing well locations



Drilling of Middlepoint Well No. 1



Section through bedrock fracture



Middle Point Well Fracture Profile and Chloride Trend

LILLOOET WELL



Installing a well screen.

CHILLIWACK HATCHERY WELL



Pump testing Chilliwack Hatchery well

MEMORABLE PROJECTS



Blast hole rig used to drill a well in Bamfield



Air lift development of Kinnaird well near Castlegar



Gordon Monkman works on a Grand Forks Well

Observations

- Assessing artesian aquifers can be very difficult.
- The drilling equipment has got a lot more sophisticated and the expertise of the rig operators has improved very significantly over the past 47 years.
- The number of full time professionals working on groundwater assessments, both in the private and public sectors, has expended significantly.
- Information on water wells and aquifers is much more comprehensive and accessible.
- Close cooperation between the professionals and the well drilling and pump industry has led to a much better knowledge of groundwater resource in BC and this bodes well for the future.

Questions?

North to south profile near the west end of the Property

North to south profile near the west end of the Property

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Ken Keating watches while samples are examined

North to south profile near the west end of the Property

North to south profile near the west end of the Property