

OPEN FILE

MEMORANDUM

Dr. H. Sargent,
Chief Mining Engineer,
Dept. of Mines, Buildings.

December 27, 1945

Re: Princeton Coal Basin

Several days in October, 1945 were spent by the writer and W.J. Lynott **studying** the geology with a view to the feasibility of making a geological study of the Basin. E.R. Hughes assisted greatly through his knowledge of operations and of geography in the district.

The Princeton Coal Basin is **accurately outlined** in Rice's Princeton Sheet. No geological work other than that by **Camsell** and Rice has been done.

The Basin is naturally divided **into two** parts by the Tulameen-Similkameen valley. The southern part has been developed and is fairly well known, but the northern part contains no known coal and very few outcrops.

P.W. Gregory has prepared a 300 foot to 1 inch topographic map of much of the southern part of the basin, on which the several mine workings are plotted. **K.C. Fahrni**, Granby Geologist, has written a short report on the Granby holdings, a copy of which accompanies this memorandum.

The Basin appears in general to possess a relatively simple structure with the coal measures folded and buckled at the margins. There appears to have been intrusive action at some marginal points and the grade of the coal is reputedly raised by this action at some points, as at the Blue Flame mine. Outcrops are predominantly of sandstone, but there is some shale in the section.

It is doubtful whether a reasonably **accurate** section of the southern part of the Basin can be obtained from the natural outcrops alone, but in regions of shallow cover dressing down of **banks and diggings of small pits** can materially expand the information available. **THE BEST NATURAL SECTION IS THAT ALONG THE SIMILKAMEEN RIVER, T** along an approximately N-S line and a secondary line of

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section exists along the **Similkameen-Tulameen** rivers following an E-W line. Some bore holes have been put down and there are random spot outcrops. With **the partial** knowledge of the stratigraphy gained from these sources the gaps in that knowledge can be at least partly bridged by digging test pits in areas of no drift and light soil cover.

In the northern part of the Basin the knowledge gained in the southern part may be used to advantage to determine what height in the section is represented by the few areas of outcrop. Without that prior knowledge it is doubtful whether anything can be done.

A geological study of the Basin would be an advantage in correlating the existing mines. Some doubt exists as to the equivalence of seams, and also as to the configuration of the margins of the Basin. Crumpling may be excessive in some parts but in others coal seams might be uncovered without much cost if geological work **were** done.

Much work could be done in a month and all useful geology might be accomplished in two months, or it might be found advisable for a geologist to spend a full season. One **assistant should** be sufficient, and digging could be done when and if **desirable** by casual **labour**.

It is unlikely that the geological work would provide a thesis. The structure and stratigraphy may not be worked out in a sufficient degree of completeness to satisfy university requirements, even though the information would prove useful to the coal **mining** industry. It seems improbable that studies of the sediments themselves would be sufficiently worthwhile to provide thesis material.

"M. S. HEDLEY"

M. S. Hedley,
Mining Engineer

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