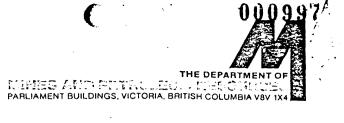
MEMORAHDUM FROM	Gordon Whate
to Dr. E. Grove	E.J.B.
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DATE May 26, 1976

Re: Herman Plank, Swan Units 1-4, Osoyoos M. D., 82E/12W, 49°43', 119°55', Limited Production Permit.

This property is located immediately outside (?) the Darke Lake Park, Class "A", around l_2 miles (2.5 Km) west of the south end of Darke Lake, and 17 miles (27.2 Km) from Summerland to the east.

The property is accessible from Darke Lake using a 4-wheel drive vehicle and in order to do so it is necessary to traverse the park.

The showing is on a steep (40 degree) northeast facing slope at an elevation of 4500 feet (1475 M).

A relatively pure white to vitreous quartz occurs with felsite, pegmatite and pockets and layers of pearly white subhedral to euhedral radiating clusters and books of coarse to fine grained muscovite. Molybdenite has been reported associated with the mica. The quartz is fractured on the average with 3 cm centers with the main strike of the fractures being 45 degrees with average 60 degree dips to the northwest.

Feldspar is present as orthoclase and albite. Sections of the deposit show blurry 2 mm bands of light white mineral alternating with greyer more vitreous mineral. The minerals are probably bands of quartz and albite and the attitude of the bands is similar to 45 degree/60 degree NW fracture pattern.

At right angles to the 45 degree fracture strike direction there is a coarse 0.7 to 1.0 M banding marked with 1 cm to 3 cm wide seams of muscovite. These seams are not constant throughout the silica mass but where they occur, strike 135 degrees and dip SW into the hill.

The host rock in the area is an altered, coarse-grained, intergranular quartz monzonite? The feldspars are clouded and epidote and chlorite are common. The rock is often malachite stained but not highly fractured. Biotite is the only dark mineral easily recognized. A fine sulphide is present in the matrix; 2 mm wide Q/albite? veinlets cut the intrusive.

Although not frequent, masses of the intrusive are present within the quartzose mass, periphally accompanied by malachite and limonite staining. The precise dimensions of the intrusive are not clear because of overburden.



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Similarily, due to overburden, the size of the siliceous body is not apparent. The dimensions in plan view must be 50 M by 75 M and the vertical exposures indicate at least 75 M of height.

Depending on the end product the material would have to be selectively mined, but there appears to be sufficient of the "pure" quartz to produce a high SiO₂ product. The topography and 135^o fractures would be an aid in bench mining the material.

Mr. Plank wishes to make application for a 5 mile access road to gain access to the ground from the southwest by passing the Darke Lake Park area. From the Darke Lake road the approach looks quite feasible and by doing this Mr. Plank would not be interfering with fish camps on Darke Lake. He estimates the cost of the road to be about \$30,000.

Mr. Plank currently has a water supply at the site using gravity feed. I don't know how long this would last in the summer.

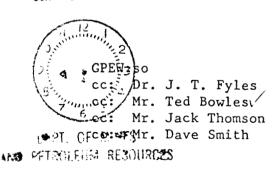
Mr. Plank has received static from the Pollution Board or Fish and Wildlife because he drives through a non-culverted stream approaching the property.

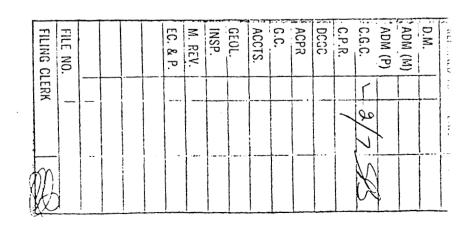
Mr. Plank's plant site is located along the east bank of Darke Creek at a Kettle Valley Rail station site. He has encountered great pressure from the Summerland town council concerning downstream pollution from a plant.

If able to satisfy other departments, if markets are procured, this showing looks viable as a silica deposit.

Silica samples were gathered at the site and are available for analysis or inspection.

Gordon P. E. White Distric Geologist





JUN - 3 '76 AM