

NAME OF PROPERTY CROWNITE, QUESNEL (LOT 906)

OBJECT LOCATED - Quarry.

UNCERTAINTY IN METRES 1,000. Lat. 52°58' Long. 122°32'30"

Mining Division Cariboo District Cariboo

County Township or Parish

Lot Concession or Range

Sec Tp. R.

OWNER OR OPERATOR AND ADDRESS

HISTORY OF EXPLORATION AND DEVELOPMENT

The occurrence is located at the 2,300 foot elevation on Pre-emption Lot 906, 2 miles southwest of Quesnel.

The property was owned by R.G. Elliott in 1927. Eardley-Wilmot (1928) reported that a number of test holes had been drilled in the deposit.

Crownite Diatoms Ltd., incorporated in April 1963, acquired the property. Bulldozer trenching was carried out during the winter of 1958-59. One hundred tons of diatomite was mined in 1967. Dome Petroleum Limited acquired control of Crownite Diatoms Ltd. in 1967. The company name (Crownite) was changed in January 1968 to Crownite Industrial Minerals Ltd. Trenching, stripping, and sampling was carried out in 1968-69. Construction of a 100 ton-per-day industrial minerals plant was completed early in 1970. On Lot 906 approximately 40 acres were cleared. Five 10-foot high benches, 1,000 feet long, were established. About 10,000 tons of diatomite were stockpiled and 500 tons shipped. The plant operated intermittently in 1970, 71, and 72, processing some 3,000 tons of diatomite. Operations were suspended in 1973 for plant alterations.

DESCRIPTION OF DEPOSIT

The diatomite, thought to be of lower Upper Miocene age, overlies older Tertiary clays, sands and gravels. The diatomite beds which are 700 feet above Quesnel, stand out as white cliffs plainly visible from the town. The cliffs are about 30 feet high, within which there are three exposures of diatomite over a distance of about 300 feet. The foot of the banks are covered with talus, but test holes showed that the diatomite continued down for at least 15 feet, thus proving the beds to be 45 feet or more thick. Test holes between the deposits indicated the continuity of the beds. The exposures strike north and south, parallel to the valley. Toward the east the deposit has been denuded away by landslides, and to the west it is covered by basalt and humus. Between the main outcrops and Baker Creek canyon, two miles to the north, the diatomite was located by test holes and exposures, but the definite extent of the area was not determined.

The diatomite, which is very compact and of a pale cream colour, occurs in beds from a few inches to one foot thick. The see Card 2

Associated minerals or products of value

120564

Mineral Development Sector, Department of Energy, Mines and Resources, Ottawa.

HISTORY OF PRODUCTION

Production during the period 1967-1972 is estimated at about 12,600 tons of diatomite.

REFERENCES

- Eardley-Wilmot, V.L.; Diatomite, its Occurrence, Preparation, Uses; Rept. No. 691, pp. 45-51, Mines Branch, Ottawa, 1928.
- Reports of Minister of Mines, British Columbia: 1927, p. 171; 1947, pp. 209-211; 1959, p. 161; 1965, p. 262; 1966, p. 271; 1967, pp. 303, 315; 1968, p. 299.
- Geology, Exploration, and Mining; British Columbia Dept. of Mines: 1969, p. 389; 1970, p. 497; 1971, p. 461; 1972, p. 585; 1973, p. 545.
- Reinecke, Leopold; Mineral Deposits between Lillooet and Prince George, British Columbia; Memoir 118, pp. 76, 79, Geol. Surv. of Canada, 1920.
- Diatomaceous Earth at Quesnel; Western Miner, December 1969, p. 24.
- Lay, Douglas; Fraser River Tertiary Drainage-History in Relation to Placer Gold Deposits; Bulletin 3, pp. 15, 16, British Columbia Dept. of Mines, 1940.

MAP REFERENCES

Map 12-1959, Quesnel, (Geol.), Sc. 1":4 miles.

#Diatomite occurrences in the Quesnel Area; Sc. 1":2 miles, Fig. 25, Report of Minister of Mines, British Columbia, 1959, p. 157.

*Map 93 B, Quesnel, (Topo.), Sc. 1:250,000.

REMARKS

Comp./Rev. By	DMacR						
Date	11-75						

PRODUCT

DIATOMITE

PROVINCE OR
TERRITORY

British Columbia

N.T.S. AREA 93 B/15

Card 2 -
REF.DTM 1

NAME OF PROPERTY

CROWNITE, QUESNEL (LOT 906)

DESCRIPTION OF DEPOSIT (continued)

diatomite consists almost exclusively of various sizes of *Melosira granulata* diatoms, usually very small, with variable amounts of clay, silt, and volcanic ash. The highest grade material and the thickest beds occur over an interval of 60 feet in the middle of the deposit. Thin clay seams occur at from 5 to 10-foot intervals, and near the centre of the outcrops there is a 6-inch seam of dark, highly ferruginous clay, which is exposed throughout the whole deposit and serves to indicate the degree of movement within the mass subsequent to its deposition. These beds which have a general dip of 15 to 20 degrees to the west into the gently rising hill above them, are very much faulted. In places many small local faults are visible every few inches. The main fault in the exposure shows a throw of 20 feet. The best analysis from the deposit as reported by Eardley-Wilmot is as follows: SiO₂, 83.03%; Al₂O₃, 6.3%; Fe₂O₃, 3.36%; CaO, 0.85%; MgO, 0.32%.