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DEPARTMENT OF MINES
SOUTH AUSTRALIA

GEOLOGICAL SURVEY - REGIONAL SURVEYS SECTION

BARITE CLAIM NEAR ORAPARINNA H.S.

- H.E. HEPPNER, M. KUCHEL & R.O. SICKERDICK -

By J. E. Johnson - Technical Assistant

LOCATION: PLAN : 63- 447

Five miles south of Oraparinna H.S., adjacent to road from Hawker to S.A. Barytes mine, and 37 miles N.N.E. of Hawker. M.C. 3786 held by H.E. Heppner, M. Kuchel and R.O. Sickerdick, has its S.W. boundary in common with M.C. 4185, held by W.M. Sharp, c/- Industrial Rock Mines.

INTRODUCTION:

The claim was examined on February 15, 1963 in company with C.R. Dalgarno, when a tape and compass survey was made and the deposit sampled.

GEOLOGY:

The barite deposit occurs as a vein system filling sub-parallel fractures over a width of 75 ft., and striking N.E. to S.W., and dipping 78° to the S.E. The barite vein system is intimately associated with a fault, diapirically injected from the N.E., and cutting Sturtian slates. The vein filling consists of coarsely crystalline white barite intermixed with considerable amounts of hematite, limonite and siderite, with rare grains of chalcopyrite. The barite vein system contains very large lenticular inclusions of slate, which outcrop poorly and tend to be covered by barite debris, making tonnage calculations difficult.

The vein system is best exposed in a small creek, where three veins outcrop and have been tested by pits. Of these veins the central one is 17 ft. wide and is separated by 9 ft. of slate from a 13 ft. barite vein to the N.W., while

to the S.E. it is separated by 20 ft. of slate from a barite vein 31 ft. wide. As shown on the attached plan, these three barite veins were chip sampled over their full widths with the following results.

		$BaSO_4$	$SrSO_4$	SiO_2	Fe_2O_3
N.W. barite vein	Sample A339/63	87.75	4.15	1.0	5.51
Central barite vein	" A340/63	87.9	3.65	2.13	4.67
S.E. barite vein	" A341/63	81.1	3.30	4.42	8.01

200 ft. S.W. of the sample line the barite vein system splits and thins to a total of 25 ft. of barite in four veins, the widest 12 ft., against a total width of 55 ft. of slate, while 600 ft. N.E. of the sample line 32 ft. of poor grade barite occurs in two veins with 29 ft. of slate intervening in the main vein system with a third 12 ft. wide barite vein across the main creek to the S.W.

The barite vein system seems to be of slightly higher grade, and to contain less slate about 100 ft. N.E. of the sampled line.

RECOMMENDATIONS:

In view of a possible improvement in quality and quantity of the barite deposit existing 100 ft. N.E. of the sampled line, it is advisable for the lessees to cut a trench across the full width of the barite deposit at the position shown on the attached plan. Such a trench would serve the dual purpose of showing the true ratio between barite and slate, and also of producing true bulk samples of ore for submission to potential buyers. No other developmental work is advisable until a market be found for this material.

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