

PE-026-01

TERRITORY OF ALASKA
DEPARTMENT OF MINES

REPORT ON THE EXAMINATION OF THE
SOURS CHROMIUM PROSPECT, NOATAK QUADRANGLE

by

Robert H. Saunders
Associate Mining Engineer

January

1955

In 1953, Mr. Marion Sours of Kotzebue submitted to the Nome Assay Office of the Department of Mines a specimen of chromium-bearing rock. He requested assistance from the Department in evaluating the deposit from which the specimen had been taken. On August 22, 1954, the deposit was examined by Peter O. Sandvik, Engineer-Assayer, and Robert H. Saunders, Associate Mining Engineer, of the Department of Mines, accompanied by Mr. Sours. The examination was made during a severe rain-and-wind storm that began before noon on August 22 and continued until early the next morning.

The Sours chromium prospect is at 67° 25' N latitude and 162° 30' W longitude in the Noatak Quadrangle. It is about 40 airline miles north-northwest of Kotzebue and five miles from the Agashashok River. It is four miles from a lake that is large enough for landings with small, pontoon-equipped aircraft; this lake is called Ikpikpalik Lake by the Eskimos. The prospect is at about 1000 feet altitude on the east side of the ridge that lies between Ikpikpalik Lake and the Agashashok River; the location is shown on Plate I.

There are no roads in the vicinity. The Noatak River and the lower part of the Agashashok River are navigable for small boats.

At the prospect there are two, and perhaps more, parallel bands of chromium-bearing material in a dark-colored, basic, igneous rock. The bands are one to two inches thick. The exposures are in blocks of rock that probably are not in place. The bands have well-defined walls, and there is a sharp contrast between the wall rock and the material within the bands, so that the bands have the appearance of narrow fissure veins. Mr. Sours stated that there is a similar exposure one-half mile to the southwest on the same ridge.

During this examination, two samples were taken. They consisted of material from within the narrow bands; no wall rock was included. The samples were assayed at the Department of Mines Assay Office at College, and the results were as follows:

Sample No.	Per Cent Chromium	Per Cent Iron
13	6.64	10.19
14	5.56	12.25

The U. S. Government Ore Purchase Depot at Grants Pass, Oregon, will purchase ores and concentrates containing chromium. In November 1954, the price offered for concentrates containing 48 per cent chromium oxide with a three-to-one chromium-iron ratio was \$110 per ton.¹ There are penalties for concentrates with chromium-iron ratios less than three to one and penalties for concentrates containing less than 48 per cent chromium oxide. Ores and concentrates containing less than 42 per cent chromium oxide are not accepted.

The bands of chromium-bearing material exposed at the Sours prospect are too narrow and too low-grade to be mined profitably.

¹ MINING WORLD, Vol. 16, No. 12, November 1954, p. 99

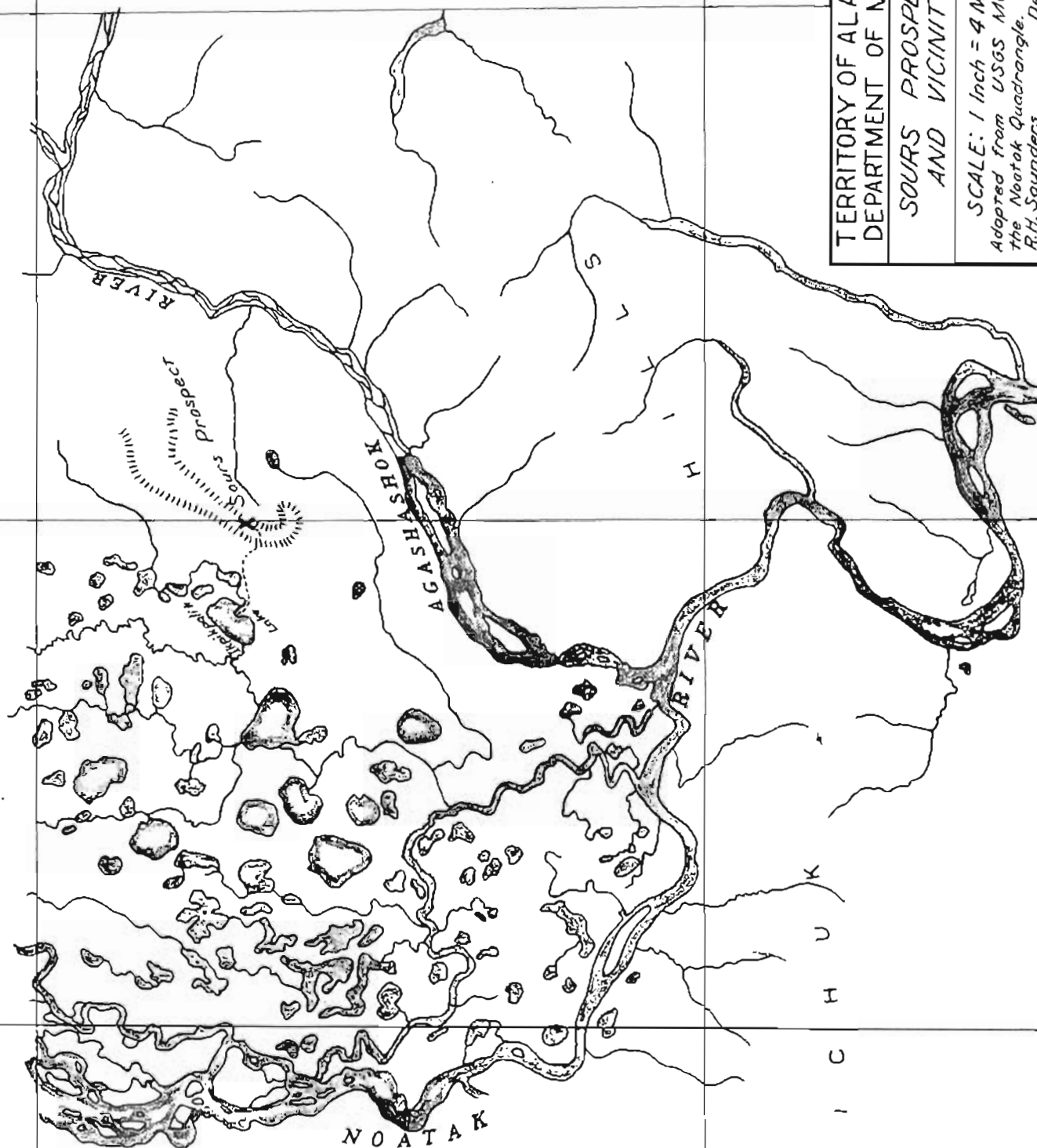
162°00'

162°30'

163°00'

67°30'

67°15'



TERRITORY OF ALASKA
DEPARTMENT OF MINES

SOURS PROSPECT
AND VICINITY

SCALE: 1 Inch = 4 Miles
Adapted from USGS Map of
The Nootak Quadrangle.
R.H. Saunders Dec. 1954