FRANCES CREEK IRON MINING
CORPORATION PTY. LTD.

Authority to Prospect 1872
Northern Territory

CONTENTS

7th March, 1968

Kenneth McMahon & Partners Pty. Ltd.

1. GENERAL APPRAISAL

A geological appraisal of the Company's leases and Authority to Prospect 1877 was carried out by our Senior Geologist, Dr. E. Dechow, in September, 1967. The recommendations contained herein have been made by Dr. Dechow following the drilling and exploration carried out since his visit.

An aerial magnetometer survey has already been flown over the mining leases and Authority to Prospect 1877 situated at Frances Creek. The results of this survey appear on the Burrundie One inch to One mile Total Magnetic Intensity map, a portion of which is shown in Plate 1.

Magnetic anomalies occur over most of the area covered by the Authority to Prospect. However, flight runs were positioned at half-mile intervals, and are probably too far apart to delineate all anomalies adequately. In addition, the plotting of known outcrops may not have been sufficiently accurate to correlate with magnetic data.

During late March/early April, 1968, it is intended to carry out trial surveys over known iron-bearing areas to assess the suitability of the ground magnetometer as a means of delineating likely drilling targets for the exploration programme now in hand.

The map appearing as Plate 1 shows that the greatest anomaly is associated with the Elizabeth Marion leases and extends into another large anomaly near the Rosemary, Jasmine and the Beryl leases.

Outcrops of iron ore at Elizabeth Marion are scattered and small. It is recommended that a ground magnetometer survey be undertaken on this area following successful work at Helene 6 & 7. This survey should extend well into the Authority to Prospect and not be confined to the leases only.

Only in this way will sufficient information be gained from present exploration, while keeping drilling costs to a reasonable figure.

In our opinion, the complex folding of the chloritic mudstones in which the iron ore occurs at Frances Creek has probably buried a number of deposits which could be worth working.

Aerial photographs are now being obtained which will help the interpretation of the structure. These will be enlarged to a scale suitable for this work.

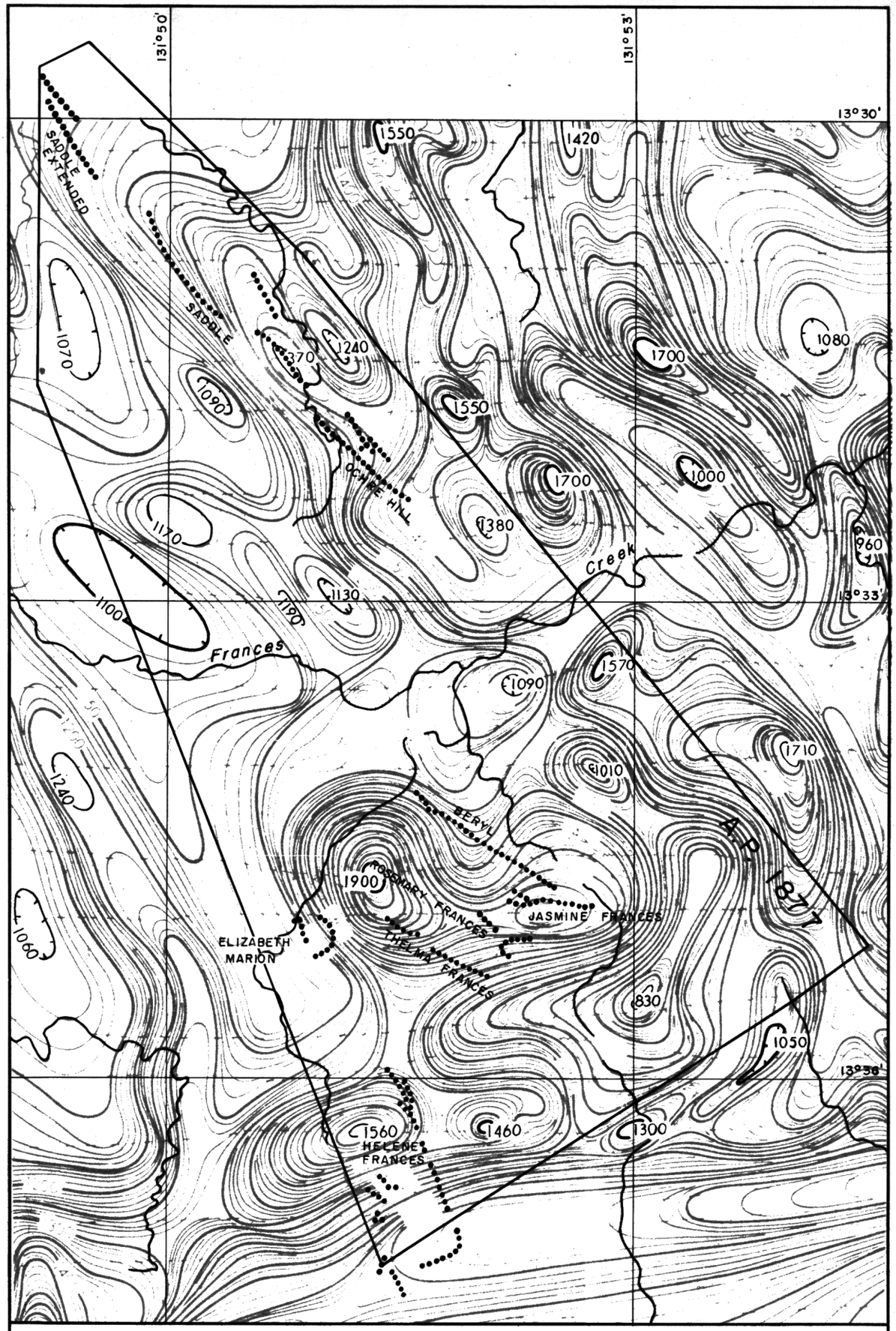
2. GENERAL GEOLOGY

The deposits of iron ore at Frances Creek are located within mudstones of the Lower Proterozoic Masson Formation of the Goodparla Group. These rocks have been extensively intruded by granite and basic dykes of Middle Proterozoic age, and have been folded along an axis trending NNW-SSE.

South-west of Helene 6 & 7, the mudstones dip steeply to the west to Helene 11, where an anticlinal structure is apparent. There is an associated syncline in the vicinity of Helene 6 & 7. The main ore horizon then extends through Helene 5 to Helene 1.

The mudstones dip steeply to the west as far as Elizabeth Marion, where another anticline is apparent, the east limb of which extends further south and becomes strongly folded in the region of the Thelma, Rosemary, Jasmine and Beryl leases.

It is clear that the deposits at Ochre Hill, Saddle and Saddle Extended are located along the limbs of a major anticline.



FRANCES CREEK IRON MINING CORPORATION PTY. LTD.

A.P. 1877, NORTHERN TERRITORY

Showing

AEROMAGNETIC CONTOURS AND IRON ORE OUTCROPS

SCALE OF MILES

0 ½ 1 2 3

APPROXIMATE LINE OF IRON ORE OUTCROPS

CONTOURS OF TOTAL MAGNETIC INTENSITY

Magnetic contours from BURRUNDIE 1:63360 by B.M.R.

PLATE I.