Iron Section

Rept. Bk. No. 55/48
G.S. No. 2421
D.M. 730/61

DEPARTMENT OF MINES
SOUTH AUSTRALIA

GEOLOGICAL SURVEY

IRON EXPLORATION SECTION

REPORT ON

IRONSTONE OCCURRENCES

HUNDREDS ALMA & LIGHT, Vicinity STOCKPORT

(H.V. Clark)

by

Graham Whitten
Senior Geologist

8/55/F

10th August, 1962

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CONTENTS

MAP REFERENCES

No.	Title	Scale
S 3216	Geological Plan Vicinity Stockport, Kapunda 1M Sheet	1" = 1M.

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Report on

IRONSTONE OCCURRENCES

HUNDREDS ALMA & LIGHT, VICINITY STOCKPORT

(R. V. CLARK)

ABSTRACT

See Conclusions for Summary.

1. INTRODUCTION

Following submission of ironstone samples for examination by Mr. R.V. Clark the department requested precise locality information to enable a field examination to be made. An inspection was carried out by G.R. Heath, Geologist, and the writer on 7th December, 1961.

2. LOCATION, TITLE etc.

The location given was Secs. 484 and 485, Hundred Light, County Light. A close inspection revealed no material in these sections resembling the samples submitted for testing.

West of Stockport however in Sections 121, 122, 602, Hd. Alma occur rocks capable of supplying such hand specimens.

No mining title is apparently held.

3. REGIONAL GEOLOGY

The location given, near Stockport, is on the Kapunda 1-Mile sheet mapped by Dickinson S.B., and Coats R.P., and published by the Mines Department in 1957.

The District is underlain by Adelaide System Rocks of Upper Proterozoic Age. All from Torrensian to Marinoan are represented, the area of interest being undifferentiated Torrensian Series, predominantly shales, phyllites and slates calcareous in part. A white marble facies appears to trend under Stockport and may be responsible for the topographical

low in the area. West of Stockport occur interbedded thin or lenticular quartzites and blue massive and slatey dolomites.

In general, outcrop conditions of the Precambrian are not good.

Immediately south of Stockport is an area 5-6 miles E-W and 1 to 2 miles N.S. made up of undifferentiated Tertiary sands, grits and clays overlain by fine white sands.

Immediately west of Stockport is an outcrop 1-2 s. miles in area of quartz conglomerates, grits and pebble beds, very ferruginous in part. It is thought that the specimens came from this area. Assuming a slight misidentification of the Section and Hundred names the plan submitted covers this outcrop.

Similar outcrops occur 4 miles south of Stockport and 3 to 5 miles northerly and were also examined. See Plan attached.

Stockport itself lies on the Gilbert River on a small alluvial flat of alluvium, gravels and creek conglomerate. Hydrologically these appear to be well saturated in their lower levels with fairly saline water, irrigation being successful only because of the good drainage through the upper layers.

4. ECONOMIC GEOLOGY

The Tertiary rocks inspected were mainly conglomerates and pebble beds with lenticular grits and sandstones. All have been cemented, at least in part by siliceous or ferruginous solutions. Where iron rich solutions have penetrated fine sand or silt horizons the resulting rock contains a fair amount of iron and has the appearance of a low to medium grade hematite ore. However such concentrations as exposed in the cliffs on the banks of the Gilbert River southwest of the town are clearly very lenticular and local and could not be worked even if there were sufficient tonnages available.

All of the deposits 3-5 miles north of Stockport appear to have a higher proportion of ferruginous beds but the outcrops are smaller and outcrop conditions poorer and here again economic development can not be considered.

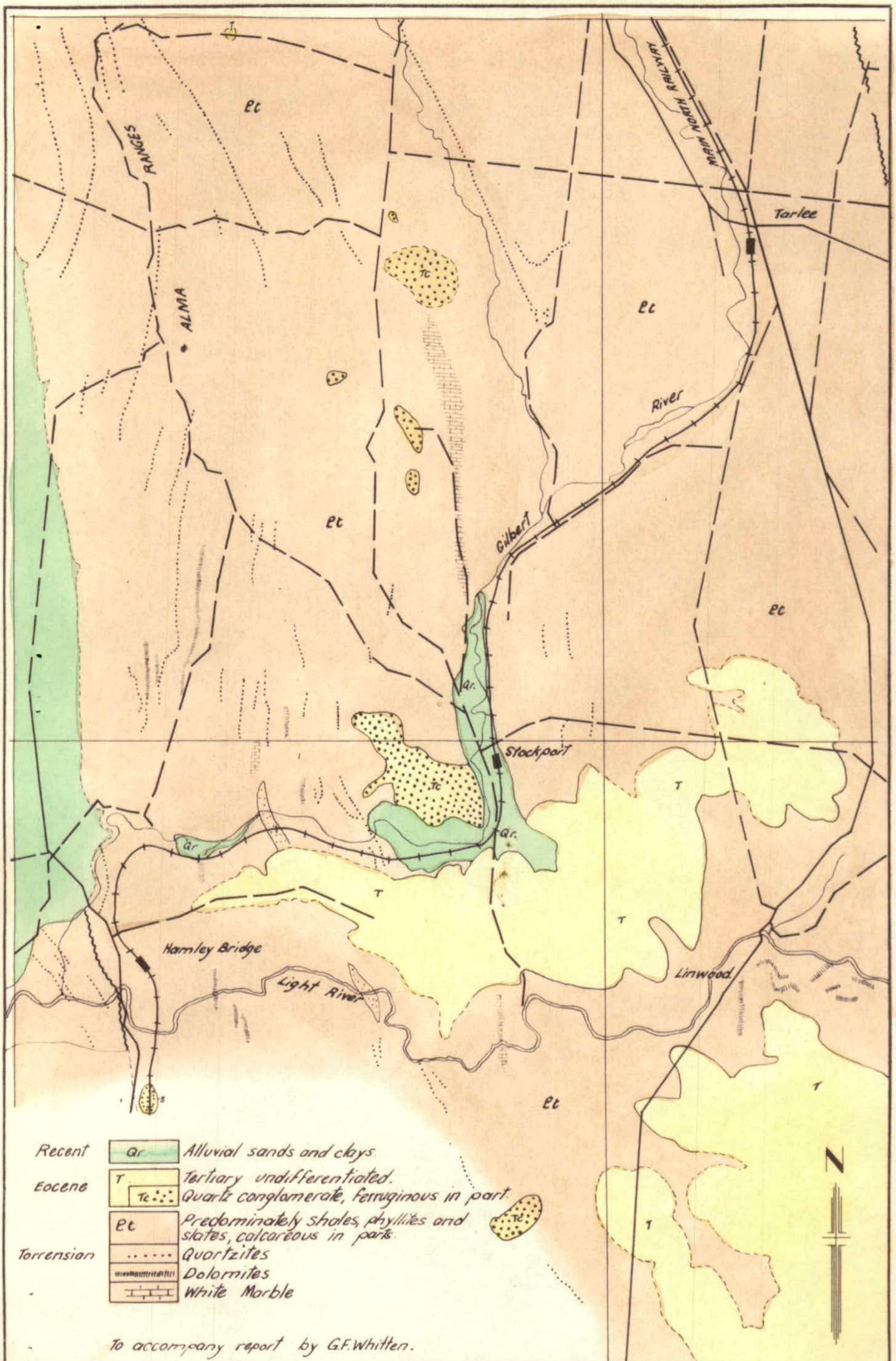
5. CONCLUSION

In the vicinity of Stockport occur Tertiary sands, grits and conglomerates, in part cemented by ferruginous material. Concentrations are too lenticular, too small and too low grade to consider development.

Mr. Clark should be thanked for his interest in drawing the Department's notice to these outcrops.

G. F. Whitten
Senior Geologist
IRON EXPLORATION SECTION

GFW:AGK
10/8/62



To accompany report by G.F. Whitten.

S.A. DEPARTMENT OF MINES

Approved	Passed	Drn.	GEOLOGICAL PLAN	D.M.	Scale 1mile to 1inch.
		Tcd. B.L.G.	VICINITY STOCKPORT	Req.	S 3216
		Ckd.	KAPUNDA IM SHEET		GjK
Director		Exd.			Date 8-8-62.

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