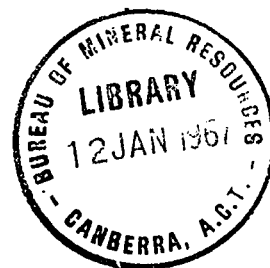


COMMONWEALTH OF AUSTRALIA

DEPARTMENT OF NATIONAL DEVELOPMENT
BUREAU OF MINERAL RESOURCES
GEOLOGY AND GEOPHYSICS

RECORDS:

1966/202



REPORT ON PHOTO-INTERPRETATION OF CROYDON 1:250,000 SCALE
SHEET, QUEENSLAND

by
J.C. Rivereau
Institut Francais du Petrole

The information contained in this report has been obtained by the Department of National Development, as part of the policy of the Commonwealth Government, to assist in the exploration and development of mineral resources. It may not be published in any form or used in a company prospectus without the permission in writing of the Director, Bureau of Mineral Resources, Geology and Geophysics.

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SUMMARY

Most of the Sheet area consists of a flat, sandy and alluvial plain. The north-eastern corner of the Sheet is occupied by granite and by jointed rhyolite crossed by numerous dykes - these rocks are capped by scattered mesas of Lower Cretaceous sandstone.

INTRODUCTION

CROYDON 1:250,000 scale Sheet is situated in the Carpentaria Basin (between 19° & 18° S latitude and 141° & $142^{\circ}30'$ E longitude). The photo-interpretation of this area has been carried out with the purpose of assisting in the planning and execution of the field work. The air photographs used were flown in 1951 at a scale of 1:48,000. Detail from individual photo scale overlays has been reported on overlays of the Royal Australian Survey Corps photo-scale compilation sheets and then reduced to a scale of 1:250,000.

PHYSIOGRAPHY

Most of the area covered by the Sheet is a flat, sandy and alluvial plain. The only outcrops recorded are situated in the north-eastern corner of the Sheet and consist of rhyolite and granite capped, in places, by tablelands of Lower Cretaceous sandstone.

In the western part of the area, the Norman river, the main river, flows northwards; and its tributaries Belmore Creek, the Yappar, Clara and Borer rivers flow from east to west across the Sheet in many braided channels.

Many small clay pans occur throughout the Sheet area, specially toward the northern border.

STRATIGRAPHY

In assigning possible geological equivalents to the geological units reference has been made to the adjoining GEORGETOWN 1:250,000 scale geological Sheet (White, 1962).

PERMIAN

Pc, Rhyolite, Croydon Felsite

This is a light-toned formation of hard appearance which forms a series of low ranges in the north-eastern corner of the Sheet area. It consists of rhyolite crossed by numerous joints and dykes with a wide range of directions. It is associated with a closely spaced network of faults, most of them of minor displacement. The trend of faulting is north and north-west. The formation labelled Pc₁ has a slightly different photogeological aspect from Pc.

Pg, Granite

It crops out on the southern border of the rhyolite, especially with a wedge-shaped faulted contact with the surrounding outcrops of rhyolite. The aspect of the contact suggests that this granite slightly post-dates the rhyolite.

The granite forms lower, more weathered areas than the rhyolite and is probably mostly covered by residual sand.

LOWER CRETACEOUS

K1

Scattered outcrops of Lower Cretaceous are observed overlying either the rhyolite or the granite. They are probably composed of sandstone and form tablelands covered with timber.

QUATERNARY

The rest of the sheet area is uniformly covered by sand and river alluvium. Alluvium becomes predominant west of the Norman river.

Some lineaments, suggested by the drainage pattern, have been shown on the map.

REFERENCES

WHITE, D.A., 1962 - GEORGETOWN, Q. 1:250,000 Geological Series. Bur. Min. Resour. Aust. explan. Notes SE 54/12.

CROYDON

Table 1

Stratigraphic Table

Photogeological character		Possible geological equivalent
	Qa Alluvium	QUATERNARY
	Qs Sand	
Mesa-form, with timber cover	Kl Sandstone	LOWER CRETACEOUS
Very low relief, rounded outcrop	Pg Granite	PERMIAN
Light grey toned, hard appearance,	Pc } Rhyolite, Croydon Felsite	
no bedding, ridge-forming,	Pc ₁ }	
numerous joints and dykes.		

Photogeological Character

Possible Geological Equivalent

	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Qa</div> Alluvium	} QUATERNARY	} CENOZOIC
	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Qs</div> Sand, soil		
	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Qt</div> Travertine, caliche, calcareous duricrust		
Mesa-form, timber cover	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Kl</div> Sandstone	LOWER CRETACEOUS	MESOZOIC
Light grey tone, hard appearance, no bedding but numerous joints and dykes	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Pc</div> Rhyolite	} CROYDON FELSITE	} PALAEOZOIC
	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Pd</div>		
Very low, rounded outcrop	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Pg</div> Granite	PERMIAN	

-
- Legend:**
- Lithological boundary**
- Probable lithological boundary**
- Anticlinal axis**
- Synclinal axis**
- Fault**
- Probable fault**
- Edge of bed**
- Probable edge of bed**
- Edge of bed expressed as scarp**
- Estimated dips**
- Horizontal
- Very low
- Low
- Medium
- Steep
- Vertical
- Trend line**
- Joint pattern**
- Topographic scarp**
- Laterite (L), Terrace (T), Scree (S)**
- Dyke**
- Principal road**
- Minor roads and tracks**
- Railway line**
- Telephone line**
- Fence**
- State boundary**
- Mine**
- Homestead**
- Yard**
- Windpump**
- Airport or Airfield, Landing ground**
- Bore**
- Tank**
- Well**
- Spring**
- Waterhole**
- Dam**
- Clay pan**
- Photo-centre points**
- Photo-centre points- adjoining sheet**

BURKETOWN	NORMANTON	RED RIVER
DONORS HILL	CROYDON	GEORGETOWN
DOBBYN	MILLUNGERA	GILBERTON

E54/A11/I