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RADIOMETRIC SURVEYS KATHERINE - DARWIN AREA
REPORT ON ACTIVITIES - MAY, 1954.

by

J. H. Lord.

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RADIOMETRIC SURVEYS KATHERINE - DARWIN AREA
REPORT ON ACTIVITIES - MAY, 1954.

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ADMINISTRATIVE SECTION:

STAFF

Movements:-

A.J.Barlow, geophysicist, and Mr.Stephens, geophysical assistant arrived in Darwin on 5th May.

N.Ashmore, storeman, commenced leave on 17th May.

F.Frankovich, geologist, returned to Darwin on 20th May.

H.Thomas, field assistant, returned from leave on 20th May.

A.J.Barlow, geophysicist, departed Darwin on 21st May.

J.Rade, geologist, arrived in Darwin on 25th May.

Additions:-

E.Daley, field assistant, commenced duty on 10th May.

L.R.Greenan, field assistant, commenced duty on 17th May.

P.G.Manning, field assistant, commenced duty on 21st May.

J.M.Drury, (Mrs.), office cleaner, commenced duty on 23rd May.

A.P.Miller (Miss), tracer, commenced duty on 31st May.

H.Robinson (Mrs.), office cleaner, commenced duty on 31st May.

Resignations:-

R.Crawford, geophysical assistant, resigned on 19th May.

J.M.Drury (Mrs.), office cleaner, resigned for domestic reasons on 25th May.

Note:-

Movements of the regional party under B.Walpole are not included.

OFFICE ACCOMMODATION

Although the building is not complete, it was possible to move into the office section of the new building on 19th May. The builder has a number of minor jobs to complete in the laboratory section and the Department of Works has yet to install an exhaust fan in the crushing room.

The power has not been connected.

HOUSING

One three-bedroom and two two-bedroom houses became available towards the end of May.

Mr.J.Rade moved into one when he arrived and the other two are awaiting the arrival of Messrs.Gardner and Clarke. The power has not yet been connected to Clarke's house.

The two remaining houses of this contract may be ready by the end of June.

The contractor commenced the next twelve houses at Fannie Bay early this month. The frame-work of one is almost complete and the foundations of two others are being erected.

Furniture:-

A number of items, including beds, dining-room suites and some kitchen furniture, arrived this month.

WINNELLIE STORE AND LABORATORY

Once again it is strongly recommended that a stores' clerk be appointed to the Winnellie Store. As the Administrative side of the store work cannot be handled properly by a wages hand, it is necessary for the clerk of the Darwin Office to do it. This results in overtime having to be worked and the Senior Geologist must do administrative work which should be handled by the clerk.

The laboratory continues to operate satisfactorily, except that the geophysical assistant carrying out the assaying resigned on 19th May, which has resulted in the delay of the assaying. The crusher-feeder (F. West) is capable of doing the work and has been recommended for promotion. When this is approved a new crusher-feeder will be appointed to ease the situation.

Seventy-five radiometric assays were done during the month but this is likely to increase greatly with the increased drilling activity.

Thirty-two instruments were repaired during the month, eight of which were for private persons.

TRANSPORT

The painting of vehicles was completed early in the month. Eleven Landrovers and six Morris 4 x 4 trucks were painted.

The average cost, including materials, wages and hire of compressor, for painting these vehicles was approximately £10 each compared with a quote of £30 for Landrovers at the local car painters.

VISITORS

Dr. H. G. Raggatt, Secretary of the Department of National Development, inspected the Winnellie laboratory on 5th May with members of the Mining Committee of the Atomic Energy Commission. On 6th May he visited the Darwin office and inspected building in progress.

Mr. John Webb of the Atomic Energy Commission departed from Darwin on 14th May.

Dr. D. Thomas, Government Geologist of Victoria, visited the Northern Territory from 8th to 14th May. He was conducted to the following localities:- Rum Jungle, Adelaide River, Brocks' Creek, Edith River, Yenberrie and A.B.C. Prospects.

Mr.H.J.Cook, Mining Engineer, after visiting the drilling operations with Mr.W.Rae, called at the Darwin office on 27th May.

Technical Section

A. B. C. Prospect

Drilling, which commenced at this Prospect on 7th May, has progressed satisfactorily. Two holes have been completed while two are in progress.

Although it is perhaps too early to draw any definite conclusions, the geologist directing the drilling appears to be correct in the following conclusions:-

- (a) the uranium mineralisation has so far been revealed only as a surface feature.
- (b) the uranium mineralisation is closely associated with what he has named a silicified hematitic breccia, which shows some characteristics of an acid volcanic or altered acid tuff.
- (c) the most likely direction for the dip of this bed is towards the south-east.

The position of the holes drilled is shown on Plate I. With closer drilling, it should be possible to obtain a better idea of this ore body by the end of June.

BURRUNDIE PROSPECT

An area of radioactivity was located by a regional party on 20th May, some $3\frac{1}{2}$ miles west-south-west of Burrundie siding. Details of the find are described by B.P.Walpole in Appendix II of this report.

A temporary reserve of 35 square miles was granted by the Acting Director of Mines pending the confirmation of the Director of Bureau of Mineral Resources.

After granting this reserve, the Mines Branch discovered an application, dated 17th May, which encroaches on the eastern portion of the proposed Bureau reserve (see Plate II). The Director of Mines is waiting until the Bureau decides the exact area which they require, before solving the problem.

ADELAIDE RIVER PROSPECT

Uranium Development and Prospecting N.L., who has an option over this area, has been actively prospecting the area throughout the month. The area has been mapped geologically by Geosurveys Ltd., who have had two geologists working on the Prospect. Prospectors (for the company) have also been searching for further signs of radioactivity within the five square miles.

A road has been bulldozed into the area. Costeans have been extended and a shaft has been collared and is down to a depth of eight feet. A diamond drill has been moved onto the area ready for drilling operations.

Mr.Reg Sprigg, who is in charge of the geological work, intends to make the results available to the Bureau.

The geophysicists of the Bureau have continued radiometric gridding of the area, but due to shortage of staff ten days only were spent on the area. However, it is now intended to continue the work until completed, without interruption.

REGIONAL PARTY

Due to the late rains, it was impossible for this party to move to the site originally planned. Instead a camp was established at Burrell Creek and mapping was carried out on the Burnside, Tipperary and Burrundie Sheets. At the end of the month, it was possible to establish a camp on the McKinley River.

A good start has been made on the regional mapping despite shortage of experienced staff. Details are set out in B.P. Walpole's monthly report, which is attached as an Appendix I. The plans are not attached because they have yet to be drafted.

A major change in the stratigraphic ~~necessary~~^{Succession} has been suggested by the regional party. The sandstones of the Upper Proterozoic, which probably correspond to the Buldiya Quartzite, have been moved to Lower Cambrian and placed below the Daly River Group with which they are said to be conformable. Although such a change may be correct, it is considered that more detailed study is required and more evidence should be produced before it could be justified.

NEW FINDS

During the first half of the month much of the country north of Pine Creek was impassable away from the main roads due to the late heavy rains in April. The country is drying out quickly but landrovers are still being bogged in some areas.

There were twenty-four Authorities to Prospect held at the end of May with fifty-two pending. There have been many applications for areas submitted this month, but mostly from companies who are already holding areas.

Members of the Bureau's regional party discovered an area of radioactivity $3\frac{1}{2}$ miles west-south-west of Burrundie on 20th May. (see Appendix II). No other finds have been reported during May.

The following companies are engaged in active development work:-

Brocks' Creek Uranium Co.N.L. has continued the inclined shaft to 42 feet and has drummed and transported ore to Rum Jungle.

Uranium Development and Prospecting N.L., has continued the vertical shaft at Deposit E at Edith River to a depth of 100 feet, and will now cross-cut before winzing on the lode. Shaft sinking at Deposit A has stopped and the crew has moved to Adelaide River. This company's activities at Adelaide River are described above.

Uranium Oxide N.L. at Yenberrie are continuing the three prospecting shafts which are now down to a depth of 32, 30 and 25 feet from north to south respectively.

North Australian Uranium Corporation N.L., are shaft-sinking on Authority to Prospect No.101 about five miles south of Edith River in a shear-zone in granite. One shaft (No.1) has been sunk to 50 feet and a second shaft-approximately 1300 feet north of No.1 has been commenced.

During the month several Authorities to Prospect have been inspected for the Director of Mines. The reports are attached as an Appendix III.

MONTHLY CONFERENCE

The first monthly conference was held at the Darwin office on 31st May. The following attended:- J.H.Lord, B.P.Walpole, J.Misz, D.White, J.Firman and J.Rade.

The discussion covered all activities of the Radioactive Section, including regional and detailed geology, geophysical operations and drilling programmes.

It was decided that such conferences are beneficial to all concerned, and that they would become more interesting as the season progressed.

APPENDIX I.

"REGIONAL PARTIES - RADIOACTIVE SECTION
MONTHLY REPORT - MAY, 1954."

General: Owing to the recent heavy rains and the impassable nature of most of the country east of the Stuart Highway, the original programme of work had to be abandoned. The Tipperary, Ban Ban and Ranford parties were all concentrated on the Burnside, Tipperary and Burrundie Sheets. A base camp was established at Burrells Creek on the Burnside (west) sheet on 7. 5. 54 and mapping of accessible sections of this sheet commenced on 10. 5. 54.

Each party retained its identity whilst camped at Burrells Creek. The Ban Ban and Ranford parties moved to the McKinlay River on 29. 5. 54 and commenced mapping the Ban Ban and Burrundie (east) sheets.

H. Quinlan and L. Fordon-Bellgrove, Geologists Gde. 1., joined the Ranford and Ban Ban parties respectively on 11. 5. 54.

E. Malone, Geologist Gde. 1., joined the Tipperary party on 12. 5. 54.

Geological Mapping.

Details of the areas mapped during May are shown on the plans accompanying this report. The area mapped includes part of the Burnside (western section) Burrundie (western section) Tipperary (eastern section) and Table Top (western section) 1 mile areas. The Tipperary mapping is not included in the accompanying plans as this work is still in an early stage.

Particular attention has been given to subdividing the Lower Proterozoic rocks (Noakes' Brocks Creek Group) into recognizable units and to the regional structure within these rocks. An attempt is being made to trace potentially uraniferous beds, in particular carbonaceous and graphitic slate horizons, beyond the Brock's Creek and Rum Jungle areas.

The succession within the area mapped is, briefly, as follows. The nomenclature is tentative and descriptions given are confined to the main lithological types present. The units are readily recognizable in the field but no useful purpose would be served in attempting a more complete subdivision at this stage.

Age.	Unit.	Description.
Tertiary to Recent.		Alluvium, lateritic etc.
Lower Cretaceous.	Mullaman Group. NONCONFORMITY.	Sandstone, conglomerate etc.
Cambrian.	Daly River Group.	
	Fenton limestone.	Flaggy limestone - fossiliferous.
	Stray Creek Sandstone.	Mainly arenaceous beds - laminated flaggy sandstone and shale, friable quartz sandstone.
	Edna Creek Sandstone. NONCONFORMITY.	Pink coloured siliceous and friable quartz sandstone - (probably corresponds to "Buldiva Quartzite.")
Upper Proterozoic.	George Creek Formation. NONCONFORMITY.	Maroon to grey-purple med. grained sandstone, greywacke, micaceous sandstone, fine grained sandstone and maroon shale.
	Granite intrusion.	
	<u>Cullen Granite</u>	Coarse porphyritic Hornblende Granite.
	<u>Prices Springs Granite.</u>	Biotite Granite (contaminated.)
	NONCONFORMITY.	
Lower Proterozoic.	<u>Burrells Creek Beds.</u>	Sandstone, greywacke, micaceous greywacke, greywacke siltstone, shale, conglomerate, shale, conglomerate siltstone and carbonaceous slates.
	CONFORMITY.	
	<u>Brocks Creek Beds.</u>	Require further definition. Main units are carbonaceous slates, diorite, limestone, sandstone, greywacke and siltstone.

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The diorite member of the Brock's Creek Beds has been folded with the sediments and may have been derived from a sedimentary formation.

Structure.

The Cambrian formations and the Edna Creek Sandstone are gently folded with dips up to 15° . The George Creek Formation is tightly folded with dips of up to 60° .

The folding of the Lower Proterozoic rocks is complex and dips are generally about 60° - 70° . The axes of the major fold structures trend 330° - 350° . Regional axes of pitch change are a very prominent feature and determine the strike and loci of the Adelaide River and Hayes Creek Faults. Both these faults are post Upper Proterozoic in age. Both may be described as Giants Reef Type fractures and both are of similar magnitude to the Giants Reef. The Adelaide River Fault is actually part of the same fault system, as the Giants Reef and joins with it in the Daly River area. These structures appear to have an important influence on mineralization in the area.

Prospecting.

Survey hands attached to the various parties have been trained as prospectors and a vigorous prospecting campaign is being carried out in conjunction with the geological mapping. This work has already resulted in the discovery of a radioactive gossan in the Burrundie area. A separate report has been forwarded which relates to this discovery.

Vehicles and Equipment.

Vehicle and Equipment statements for each party have been forwarded to Darwin Office.

Signed. B. Walpole.
Acting Supervising Geologist.

APPENDIX II.

PRELIMINARY REPORT ON RADIOACTIVE PROSPECT
BURRUNDIE AREA, N.T.Introduction.

The prospect was discovered by a party engaged in regional mapping in the Burrundie area on 20th May, 1954. The party included geologists B. Walpole and J. Best and survey hands M. Cowan and R. Hale.

The prospect is located at latitude $13^{\circ} 35'$ longitude $131^{\circ} 40'$ approximately, and is situated on the crest of a razor-back ridge, $3\frac{1}{2}$ miles on a bearing of 242 degrees (true) from Burrundie Siding on the North Australia railway line.

The location on the reference system adopted by the National Mapping Council is as follows:

Burrundie - Run 2 - Photo 71
Crest of ridge
Quadrant D
X- 0.71 inches
Y- 2.19 "
V- 2.30 "

General Geology.

The prospect occurs in a thick formation of carbonaceous slates. Limestone diorite (?) sandstone, siltstone and shale outcrop to the west almost certainly belong to the same sequence as that which outcrops at Rum Jungle and at Brock's Creek. A Biotite Granite which is shown on Noake's map of the region, outcrops approximately $1\frac{1}{2}$ miles to the north of the prospect.

The carbonaceous slate beds in which the prospect occurs, have been folded into a south easterly plunging anticline. The prospect is on the western limb of the fold and is apparently localised by a shear which strikes parallel to the bedding at 320° . The beds at the prospect dip to the south-west at 50 to 65 degrees.

Some small copper and copper-lead showings are known to occur to the north but have not yet been investigated. Of particular interest are the occurrences, about 1 mile west of the prospect of several large gossanous outcrops some of which are over 400 feet in length and up to 20 feet in width. These are apparently not radioactive. They do however, look to be more promising than the gossans at Brock's Creek.

Radioactivity.

Four anomalies were located along the crest line of the ridge over a length of about 900 feet. Rubble covers most of the surface and some of the anomalies may actually be continuous under the rubble cover.

In each case radioactivity on the surface was about 225 counts per minute measured with an austronic PRM 200 Geiger Counter. Carbonaceous slates on the hanging and foot walls of the anomalies gave counts of 75 per minute. A small pit scratched to a depth of 18 inches with a geological hammer on one anomaly gave counts of 400 per minute.

In some places the carbonaceous slates west of the anomalies gave counts of up to 200 per minute but in general the average count in this type of rock was about 100 per minute. The granite north of the prospect gave a count of 160 per minute in the only place where it was tested.

Description of Prospect.

The prospect has not yet been examined in any detail. The lode material is pulverent limonitic gossan. The material from the pit is very light in weight and has obviously been very highly leached. No radioactive minerals could be seen and specimens of the gossan showed only low activity. In view of the topography and the character of the gossan this is not surprising and should not be taken as an adverse feature.

One anomaly measures roughly 120 feet in length and 6-7 feet in width. The other anomalies were not measured.

Further Investigations.

A reserve of approximately 40 square miles will be applied for to protect the Bureaus' interests in the area surrounding the prospect.

Mapping of this reserve will be carried ^{out} immediately by one of the regional parties as part of their normal programme. Concurrently the reserve will be prospected for further anomalies.

In order to avoid dislocation of the programme of regional mapping and of detailed investigations at present being carried out, it is not intended that any detailed work on the prospect be undertaken until the regional parties have finished mapping and prospecting the proposed reserve. The programme, of detailed work be determined by the Senior Resident Geologist, Darwin, and will be to a large extent dependent on the results of the regional mapping.

Signed:

(B.P. Walpole.)

Acting Supervising Geologist.

//.

INSPECTION OF AUTHORITY TO PROSPECT NO. 41.

Location:

All that piece or parcel of Crown Land in the Daly River Goldfield, containing an area of about 5 square miles, commencing at a point on a bearing of 230 degrees from Mt. Giles (Mt. Giles being approximately 2 miles west of the Fergusson River Railway Siding), thence on a bearing of 180 degrees for a distance of 0.55 miles, thence on a bearing of 345 degrees for a distance of 5.2 miles, thence on a bearing of 90 degrees for a distance of 1.05 miles to the point of commencement, and excluding therefrom all mining tenements held or applied for.

Access:

The Dorisvale Track, which runs west from its junction with the Stuart Highway approximately $2\frac{1}{4}$ miles north of the Cullen River Bridge on the Stuart Highway, is followed for approximately $1\frac{1}{2}$ miles to a point west of Copperfield Creek. A bush track joins the Dorisvale Track at this point and runs south for about $1\frac{1}{2}$ miles. A major shear zone in granite is followed south for about 1 mile to the abandoned Expectation Copper Mine. Site 1 is located on the shear $\frac{1}{4}$ mile south of the mine and site 2 is located on the shear about 100 yards south of site 1.

SITE 1.

Topography and Geology

The site is located on a shear zone in granite with abundant quartz veins and stringers following the trend of the shear. The shear strikes 353 degrees and dips 80 degrees west.

A small cross-shear intersects the main shear at 70 degrees.

No mineralisation was seen and the geiger counter reading was 120 counts per minute, which is background in this area.

SITE 2.

Topography:

This site is located on the continuation of a lower ridge on which site 1 is located. The ridge marks the position of the shear.

Geology:

A shear zone in granite strikes 350 degrees and dips 80 degrees west. In some places the granite is unaltered, in others a reddish brown mylonite has been produced by shearing.

No mineralisation was seen at this outcrop.

Radioactivity:

Background at this site is 120 counts per minute.

Mylonised granite rock gave a reading of 400 counts per minute.

A granite outcrop 40 feet north of the site gave a reading of 400 counts per minute.

Recommendations:

Prospecting pits should be put down on the 'high spots' to test for uranium mineralisation.

May, 1954.

Sgd. J.B. Firman.
Geologist.

13.

INSPECTION OF AUTHORITY TO PROSPECT NO. 61.

Location:

All that piece or parcel of land in the Daly River Goldfield containing an area of five (5) square miles or thereabouts, commencing at a point which bears 315 degrees and is distant 1 mile 40 chains from the intersection of Fergusson River and Stuart Highway; thence running 2 miles 20 chains east; thence 2 miles 20 chains south; thence 2 miles 20 chains west; thence 2 miles 20 chains north to the point of commencement, excluding therefrom all existing mining tenements.

Access:

The site is located $\frac{3}{4}$ mile east of the Fergusson River Bridge at the Stuart Highway and 300 yards south of the Fergusson River.

There is no vehicle track to the site.

Topography:

The site is located on a low ridge trending 195 degrees which overlooks low ground on the south bank of the Fergusson River.

Geology:

An arcuate shear, which runs for over 100 yards, strikes 195 degrees at the north end, 175 degrees at the south end and dips 65 degrees east.

The granite contains much chlorite and has been injected by quartz veins.

Hematite occurs on joint fractures surfaces, but no other mineralisation is visible.

Radioactivity:

The background count on granite outcrops marginal to the shear zone is 100 counts per minute.

Readings of 200 counts per minute were obtained on an outcrop of medium-grained granite containing pink felspar and chlorite. This outcrop is approximately 5 feet long and 2 feet wide and is situated at the north end of the lode.

A reading of 200 counts per minute was obtained on granite containing abundant quartz stringers situated at the north end of the lode.

Recommendations:

A prospecting pit could be put down on the 'high spots' to test for uranium mineralisation.

May, 1954.

Sgd. J.B. Firman.
Geologist.

INSPECTION OF AUTHORITY TO PROSPECT NO. 77.Location:

All that piece or parcel of Crown Land situated on the Daly River Goldfield, containing an area of 10 square miles or thereabouts, commencing at a point 1.6 miles, on a bearing of 187 degrees 30 minutes from the Cullen Railway Siding, thence 2½ miles on a bearing of 270 degrees, thence 4 miles on a bearing of 180 degrees, thence 2½ miles on a bearing of 90 degrees, thence 4 miles on a bearing of 360 degrees to the point of commencement, excluding therefrom all mining tenements held or applied for.

Access:

The Dorisvale Track, which runs west from its junction with the Stuart Highway approximately 2¼ miles north of the Cullen River Bridge on the Stuart Highway, is followed for approximately 1½ miles to a point west of Copperfield Creek. A bush track which joins the Dorisvale Track at this point is followed south for about 1 mile to the site.

Topography:

The site lies west of Copperfield Creek on low undulating country.

Geology:

The rocks exposed are granite and quartz. The quartz occurs as veins up to 12 inches in width along a shear zone in granite which strikes north-south.

No mineralisation was seen at this outcrop.

Radioactivity:

Background, measured on quartz veins, is 50 counts per minute.

The sheared granite gave a reading of 100 counts per minute.

Recommendations:

No further work is recommended on this site.

May, 1954.

Sgd. J.B. Firman
Geologist.

15.

INSPECTION OF AUTHORITY TO PROSPECT NO. 98.

Location:

An area of approximately $7\frac{1}{4}$ square miles, in the Adelaide River District. Starting at a point at the south eastern corner of Section 30, Hundred of Waterhouse, thence $2\frac{1}{4}$ miles east, thence $\frac{3}{4}$ miles south, thence $2\frac{1}{4}$ miles west, thence $3\frac{1}{4}$ miles north back to starting point.

Access:

The prospect may be reached from the Stuart Highway via the Stapleton Track.

The Stapleton Track is followed for one mile westwards to the junction of the track with the Darwin-Birdum Railway. Site 1 is situated 450 yards on a bearing of 165 degrees from the rail and road junction. Site 2 is situated 250 yards from site 1 on a bearing of 310 degrees.

SITE 1.

Topography:

The site is located on the north slope of a hill spur which is flanked to the north by a small alluvial flat.

Geology:

The rocks near the site are thin beds of impure felspathic and micaceous grits and sandstones which are interbedded with thin beds of light brown slates. The rocks strike 340 degrees and have a near vertical dip.

Quartz veins and veinlets are common.

The bed with the greatest radioactivity is hematitic in places.

No mineralisation was seen in these rocks.

Radioactivity:

Background for this area is 50 counts per minute.

The slates gave a reading of 50 counts per minute, the hematitic sandstone a reading of 100 counts per minute and another portion of this sandstone bed, located within 3 feet of the hematitic sandstone, a reading of 150 counts per minute.

SITE 2.

Topography:

This site is located on the west slope of a long north-south trending ridge. A narrow stream flows past the site at the base of the hill slope.

Geology:

The rock giving counts above background is a thin bed of dark brown coarse-grained sandstone containing mica and felspar. This bed is underlain and overlain by light brown slate.

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The occurrence of alternate beds of impure sandstone and slate is a common feature in this area and is typical of the Snake Creek Beds.

The rocks strike 325 degrees and dip 70 degrees to the east.

No mineralisation is visible, but small quartz veinlets fill fractures in the sandstone.

Radioactivity:

Background in this area (measured on the slate) is 75 counts per minute.

A reading of 200 counts per minute was made on the sandstone and a reading of 100 counts per minute on the slate adjacent to the sandstone outcrop.

A count of about twice background is common for the impure sandstone in this area.

Recommendations:

A prospecting pit could be put down on site 1. Site 2 does not warrant further work, but the bed of impure sandstone should be checked elsewhere on the Authority to Prospect.

May, 1954.

Sgd. J.B. Firman.
Geologist.

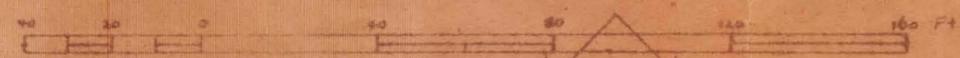
APPENDIX IV URANIUM COMPANIES AND SYNDICATES OPERATING IN
NORTHERN TERRITORY - 31. 5. 1954.

Name.	Local Represent- atives or Geologist.	Southern Connections.
Austral Uranium Co., N.L.	H.W.G. Good.	
Australian Mining and Smelting Co. Ltd.	H. Brennan.	Zinc Corp.
Brock's Creek Uranium Co., N.L.	E. McDonald.	
Centralia Mines N.L. Central Uranium N.L. Enterprise Exploration Co. Pty. Ltd.	H. Brennan.	Goodsir. Zinc Corp.
Gold Mines of New Guinea.		
Hidden Valley Mining Syndicate.	W. Power.	
North Australian Uranium Corporation.	E. Becker A.D.M. Bell.	
Northern Mines Development N.L.	K. Summers.	Dr. Garretty.
Northern Territory Prospecting and Development Co. Ltd.		Hopkins.
Northern Uranium Development N.L.	Fisher Barrett.	Mott.
Red Ned Gold Mine N.L.	J.S. Higgins.	
Rio Tinto Company.	R.S. Matheson.	
Uranium Corporation of Australia Pty. Ltd.	Trestrail.	Mr. Wharton. Rye Park Scheelite.
Utinium	Pitman	
Uranium Mines N.L.	W. Keys.	H.J.C. Connelly.
Uranium Oxide N.L.	Jensen.	Austral Mining Co. Poseidon N.L. Pioneer Mines.
Uranium Prospecting and Development N.L.	Coxon & Macdonald.	Drummond.
Y.M.C. Syndicate.	Young, Maslin & Cousins.	

GEOLOGICAL PLAN A.B.C. URANIUM PROSPECT

KATHERINE AREA
NORTHERN TERRITORY

SCALE



REFERENCE

Q_{ra} Soil and wash

P_{ucB} V

P_{ucA} Sandstone

Silicified and haematized veins

Section of costean assaying
> 0.1% U₃O₈

Baseline and peg

Contour (As datum 100 ft
of 100N)



PROPOSED RESERVE B. M. R.

Scale: 1 mile to an inch

