

CARPENTARIA EXPLORATION COMPANY PTY. LTD.

TECHNICAL REPORT

No. 1492

TITLE	EXPLORATION LICENCE NO.4927 "MOUNT BUNDEY", NORTHERN TERRITORY FIRST ANNUAL REPORT : YEAR ENDED JUNE 16, 1987
ISSUING DEPARTMENT	EXPLORATION
AUTHOR	P.G. SIMPSON
INVESTIGATIONS CONDUCTED BY	P.G. SIMPSON
SUBMITTED BY	A.D. MUNT
DATE	JULY, 1987.

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NORTHERN TERRITORY GEOLOGICAL SURVEY

CR 87 / 17 1A

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EXPLORATION LICENCE No.4927 "MOUNT BUNDEY" NORTHERN TERRITORY

FIRST ANNUAL REPORT : YEAR ENDED JUNE 16, 1987

1. INTRODUCTION

Exploration Licence No. 4927 "Mount Bundey" is located about 85km southeast of Darwin, in the Northern Territory.

The licence was acquired to search for gold, on the basis that the geology was favourable and that fine-grained and/or low grade stratiform or stockwork gold mineralisation missed by previous explorers might be found by a systematic stream sediment geochemical survey.

This was done, together with some reconnaissance rock sampling. A gold anomaly in the northeastern corner of the Licence was located, and follow up work revealed gold-bearing outcrops of a southerly dipping siliceous horizon in the Wildman Siltstone extending along a strike length of some 200m, and two metres thick at the largest exposure. The first 15 chip samples averaged 13.3 g/t Au. The prospect was named "Tom's Gully". Two short percussion drilling programmes were carried out in April and May 1987, which showed that significant gold mineralisation was continuous along an east-west strike length of some 400m. Four 20-hectare mineral claims were pegged over the prospect in May 1987. A further drilling programme is planned to start in early July 1987, to investigate the down-dip extension and the east and west ends of the target horizon.

2. LOCATION AND ACCESS

E.L.4927 is centred approximately 85km southeast of Darwin in the Mount Bundey area of the Northern Territory. The northeast corner of the Licence touches the Arnhem Highway at a point 4km northwest from the abandoned Mt. Bundey iron ore mine.

Driving from Darwin to the Tom's Gully prospect takes a little over one hour. There are a number of station fenceline tracks within the Licence area, but many parts of the E.L. are difficult to reach because of creeks, gullies and black soil flats which are impassable during and for some time after the wet season.

3. TENURE

E.L.4927, covering 58 sq.km., was applied for on December 6, 1985, and granted on June 17th, 1986. The expenditure commitment for the first year of tenure was set at \$10 000.

No special conditions apply to the Licence, other than a security bond against environmental damage being lodged to cover a small area of freehold land (NT Portion 3224) in the northwest part of the E.L.

The Aboriginal Sacred Sites Authority advised (letter dated October 3, 1986) that it had "no record of any Aboriginal traditional concerns" within the area.

Four 20-hectare Mineral Claims were pegged over the Tom's Gully prospect on May 18, 1987, but these claims have not yet been granted.

4. GEOLOGY

A description of the geology of the region is available in the explanatory notes accompanying the BMR/NTGS 1:100 000 scale Mary River - Point Stuart geology map.

Within E.L. 4927, the dominant geological features are large synclinal and anticlinal southwest plunging folds affecting the Early Proterozoic sediments of the Mount Partridge, South Alligator and Finniss River Groups. These sediments are intruded by the Mount Bundei Granite and the Mt Goyder Syenite along the east side of the E.L. Much of the bedrock is masked by areas of Recent alluvium, laterite and soils in low-lying parts of the Licence.

5. PREVIOUS EXPLORATION

Several exploration companies, the Bureau of Mineral Resources and the N.T. Geological Survey have at various times conducted investigations in and around the E.L.4927 area.

The BMR-NTGS 1 : 100 000 scale coloured geological map of the Mary River - Point Stuart region was published in 1983.

Geopeko Limited held a very large area including most of what is now E.L.4927 under A. to P. 2049 and later E.L.142, from the late sixties into the mid- seventies. That work located a number of anomalies and mineralised occurrences, including the "Quest 36" base metals prospect in the Koolpin Formation, about two kilometres south of Carpentaria's current Tom's Gully prospect. Uranium and base metals were the principal targets.

A joint venture between Pan D'Or Mining N.L., Aquitaine Australia Minerals Ltd and Jimberlana Minerals N.L. also searched an extensive part of this region, using a variety of techniques. The E.L.4927 area was covered by the northwestern part of E.L.1653. Again the main targets were uranium and base metals, with much of the work focussing on the Koolpin Formation in the area of current interest. The fieldwork was supervised by A.C.A. Howe Australia Pty Ltd for the joint venture partners, and was carried out from 1979 to 1981.

Agip Australia Pty Ltd applied for the same area now held by Carpentaria in April 1984, and the Licence (E.L.4642) was granted in September that year. Uranium and gold were the targets, with stream and rock geochemical work concentrated on the Koolpin and Mount Bonnie Formations. The Licence was surrendered on October 25, 1985.

6. WORK BY CARPENTARIA EXPLORATION COMPANY PTY LTD

6.1. Stream sediment geochemical survey

A stream sediment geochemical survey was carried out over the Licence in September 1986. A total of sixty-four sites were sampled, with a bulk sample of between 5kg and 12kg of sediment, sieved to -6mm, being taken from each site for cyanide leach gold assay, together with a -80 mesh sample for other element analysis. The elements assayed were Cu, Pb, Zn, As, Ag, Cr, Ni, Mo, Sb, Cd, Bi, U, Fe, and Mn. Sample locations are plotted on drawing no. 32626.

All the gold, arsenic, copper lead and zinc results, plus any higher than background values for the other elements, are plotted on drawing no. 32627, while the full results are listed in Appendix 1.

The highest of the bulk cyanide leach gold results (13.1 ppb Au) was followed up in November 1986, and the gold-bearing outcrops at what was later called "Tom's Gully" were found.

6.2. Rock Sampling

A number of rock samples were collected for assay during the course of the stream sediment work and later. Locations of these are shown on drawing no. 32626, and the assay results are included in Appendix 1.

The results of the samples taken from the outcrops of the auriferous horizon at Tom's Gully in November and December 1986 are shown on the sketch map of the prospect in the text.

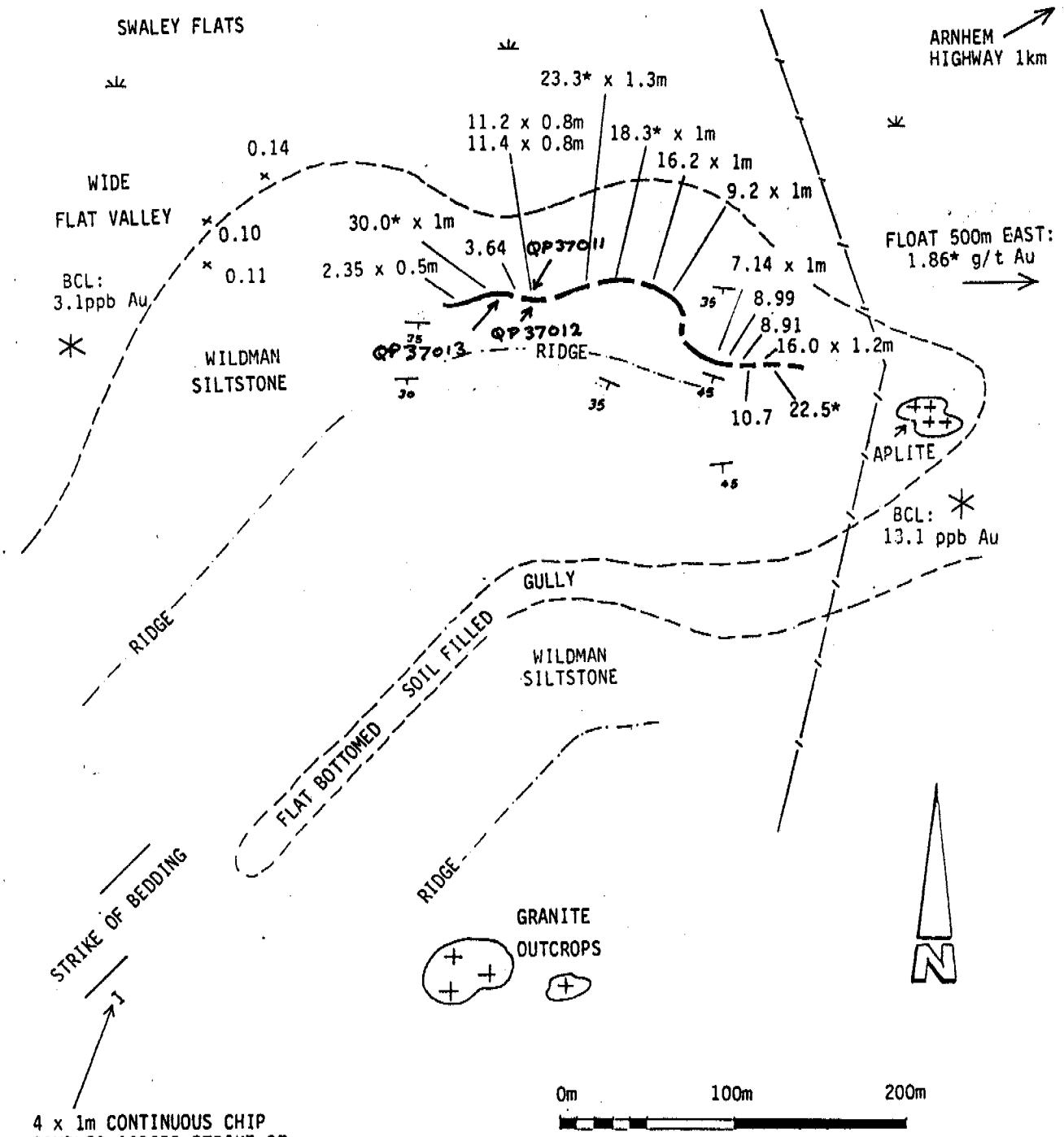
6.3. Drilling at Tom's Gully

After the wet season, two short percussion drilling programmes were carried out at Tom's Gully. The first, employing a Warman 1000 rig from Gaden Drilling Pty Limited, and totalling 398m over 15 reverse circulation holes, was completed in April 1987. The second programme using an Investigator Mk 5 rig owned by Bynoe Drilling, drilled 538m over 27 holes. These were open holes, not reverse circulation.

The positions of the drillholes are shown on drawing no. 32638, while the gold assay results are given on the drill logs, in Appendix 2. Drafted profiles are not yet ready for inclusion in this report.

So far, only gold has been assayed in the drill samples, except in the case of hole TGP-15, in which pyrite and quartz mineralisation was found underlying the target horizon over a vertical depth of 24m. Samples from this hole were assayed for Cu, Pb, Zn, Ag and As, as well as for gold.

The drilling to date has shown that the gold mineralisation



E.L. 4927 "MOUNT BUNDEY" NT
SKETCH MAP OF "TOM'S GULLY"

* = Fire Assay

Others by Acid Leach

QP 37011, -012, -013 : REFER TO PETROLOGICAL REPORT 187-710

is hosted in siliceous stratum about two metres thick which appears conformable with bedding in the enclosing Wildman Siltstone. The mineralised horizon and the host rock beds dip to the south at angles between 25 and 50 degrees, but most commonly at about 30 degrees. It is steepest at the extreme eastern end (5150E), where the gold-bearing layer terminates or is offset. To the west, the target horizon crops out intermittently as far as 4340E, which is the present limit of drilling in this direction. Here it also appears to be offset and has not been traced further.

To date the target horizon has been drilled along a total strike length of 800m. However, only the eastern 400m has so far shown gold values in drill or outcrop samples of above one gram per tonne.

6.4 Petrological study

Thin section studies were made of several specimens of mineralised outcrop and float rocks from Tom's Gully. The descriptions are given in the report by Croxford Mineralogical Services, in Appendix 3.

7. CONCLUDING COMMENTS

The exploration of the Tom's Gully prospect is still at an early stage. Detailed mapping and the forthcoming drilling programme are intended to find the limits of the gold mineralisation, and to ascertain the geological factors controlling it. At present it is not clear whether the gold and sulphides result from selective mineralisation of a particular stratum by emanations from the nearby syenite and granite mass, or from older, syngenetic mineralisation in the Wildman Siltstone.

Several minor stream sediment anomalies remain to be followed up in other parts of E.L.4927, and further geochemical work and geological mapping is required in the northeast quarter of the Licence area.



P.G.Simpson
3rd July, 1987.

CR 87/111
EL 4927

MOUNT ISA MINES LIMITED

EXPLORATION LICENCE NO.4927 "MOUNT BUNDEY"

STATEMENT OF EXPENDITURE FOR YEAR ENDED JUNE 16, 1987

	\$	\$
Administration	5 780	
Assaying	7 263	
Aerial Surveys	255	
Consultant Fees	800	
Drilling	25 842	
Equipment Charges	201	
Field Base Operations	11 857	
Freight	753	
Outside Services	2 546	
Operating Labour	17 588	
Rents - Mining Tenements	90	
Stores	2 448	
Transport	2 861	
Travelling Expenses	136	\$78 420
 <u>TOTAL - THIS PERIOD</u>		 \$78 420
Previously Reported		-
Total Project Expenditure to Date		\$78 420

A.E. Covacich
.....
A.E. Covacich
Administration Superintendent

APPENDIX I

STREAM SEDIMENT AND ROCK ASSAYS



Winton QLD

Australian Laboratory Services LTD

CONSULTING ANALYTICAL CHEMISTS

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Page 1 of 6

Batch Number: J551

Contact: MR. P. SIMPSON.

No. of Samples: 68
 Date Received: 30/09/86
 Date Completed: 13/10/86

Order No. 474501

Sample Type: -80# STREAM SED

SAMPLE NUMBER	Element Unit Method	Cu ppm IC586	Pb ppm IC586	Zn ppm IC586	Ag ppm IC586	As ppm IC586
474501		20	50	40	1	11
474502		25	45	45	1	7
474503		20	50	40	1	9
474504		15	65	45	1	8
474505		15	55	20	1	7
474506		20	70	60	1	8
474507		20	65	30	1	7
474508		20	55	30	1	10
474509		25	85	45	1	10
474510		15	85	20	1	42
474511		25	70	40	1	8
474512		35	100	35	1	12
474513		10	55	35	1	10
474514		20	35	30	1	14
474515		20	65	30	1	11
474516		35	65	55	1	11
474517		25	75	55	1	8
474518		35	65	30	1	11
474519		15	75	55	1	7
474520		25	60	55	1	7
474521		25	50	25	1	13
474522		35	45	45	1	8
474523		20	40	30	1	6
474524		115	70	45	2	13
474525		15	25	30	1	4
474526		25	50	55	1	11
474527		25	40	20	1	7
474528		55	65	40	2	12
474529		135	60	40	2	16
474530		30	50	25	2	9
Detection Limit:		5	5	5	1	1

Comments

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Batch Number: J551

Contact: MR. P. SIMPSON.

No. of Samples: 68
Date Received: 30/09/86
Date Completed: 13/10/86

Order No. 474501

Sample Type: -80# STREAM SED

SAMPLE NUMBER	Element Unit Method	Fe % IC586	Mn ppm IC586	Bi ppm IC586	Cd ppm IC586	Sb ppm IC586
474501		3.13	820	<5	<1	<5
474502		3.35	820	<5	<1	<5
474503		2.87	400	<5	<1	<5
474504		2.54	380	<5	<1	<5
474505		1.81	210	<5	<1	<5
474506		2.26	500	<5	<1	<5
474507		1.50	270	<5	<1	<5
474508		1.36	310	<5	<1	<5
474509		1.42	570	<5	<1	<5
474510		1.74	70	<5	<1	<5
474511		1.83	800	<5	<1	<5
474512		1.86	410	<5	<1	<5
474513		0.54	100	<5	<1	<5
474514		0.65	120	<5	<1	<5
474515		0.40	50	<5	<1	<5
474516		1.99	270	<5	<1	<5
474517		3.13	1000	<5	<1	<5
474518		2.14	400	<5	<1	<5
474519		2.37	165	<5	<1	<5
474520		1.96	280	<5	<1	<5
474521		2.20	130	<5	<1	<5
474522		2.13	70	<5	<1	<5
474523		1.73	30	<5	<1	<5
474524		3.64	100	<5	<1	<5
474525		0.33	55	<5	<1	<5
474526		2.27	380	<5	<1	<5
474527		1.30	50	<5	<1	<5
474528		1.77	55	<5	<1	<5
474529		2.67	240	<5	<1	<5
474530		2.05	210	<5	<1	<5
Detection Limit:		0.01	10	5	1	5

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Page 3 of 6

Batch Number: J551

Contact: MR. P. SIMPSON.

No. of Samples: 68
Date Received: 30/09/86
Date Completed: 13/10/86

Order No. 474501

Sample Type: -80# STREAM SED

SAMPLE NUMBER	Element Unit Method	Cu ppm IC586	Pb ppm IC586	Zn ppm IC586	Ag ppm IC586	As ppm IC586
474531		45	60	20	1	16
474532		20	50	25	1	7
474533		30	70	30	1	4
474534		20	55	50	1	9
474535		20	60	60	1	9
474536		20	45	55	1	10
474537		15	65	50	1	14
474538		25	70	65	1	18
474539		20	60	55	1	11
474540		15	55	45	1	9
474541		20	30	20	1	8
474542		30	40	35	1	9
474543		20	50	35	1	11
474544		25	40	25	1	7
474545		45	55	30	1	20
474546		40	55	40	1	13
474547		15	35	30	1	9
474548		15	45	25	1	44
474549		35	55	30	2	11
474550		35	65	50	2	20
474551		45	60	65	1	3
474552		15	70	25	1	3
474553		50	65	25	1	3
474554		20	35	25	1	5
474555		20	40	30	1	7
474556		30	50	25	1	8
474557		35	40	50	1	42
474558		45	40	60	1	13
474559		20	30	30	1	1
474560		40	45	55	1	1
Detection Limit:		5	5	5	1	1

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Page 4 of 6

Batch Number: J551

Contact: MR. P. SIMPSON.

No. of Samples 68
 Date Received: 30/09/86
 Date Completed: 13/10/86

Order No. 474501

Sample Type: -80# STREAM SED

SAMPLE NUMBER	Element Unit Method	Fe % IC586	Mn ppm IC586	Bi ppm IC586	Cd ppm IC586	Sb ppm IC586
474531		2.40	240	<5	<1	<5
474532		1.52	220	<5	<1	<5
474533		1.19	175	<5	<1	<5
474534		1.03	240	<5	<1	<5
474535		1.81	300	<5	<1	<5
474536		2.69	135	<5	<1	<5
474537		2.85	540	<5	<1	<5
474538		3.60	770	<5	<1	<5
474539		2.17	340	<5	<1	<5
474540		2.20	260	<5	<1	<5
474541		1.51	300	<5	<1	<5
474542		2.41	380	<5	<1	<5
474543		2.25	560	<5	<1	<5
474544		1.19	135	<5	<1	<5
474545		3.66	560	<5	<1	<5
474546		2.26	510	<5	<1	<5
474547		1.78	170	<5	<1	<5
474548		6.31	250	<5	<1	<5
474549		2.47	1350	<5	<1	<5
474550		5.14	270	<5	<1	<5
474551		0.86	135	<5	<1	<5
474552		0.88	200	<5	<1	<5
474553		1.20	430	<5	<1	<5
474554		2.15	470	<5	<1	<5
474555		2.15	270	<5	<1	<5
474556		2.29	1350	<5	<1	<5
474557		6.77	370	<5	<1	<5
474558		3.13	440	<5	<1	<5
474559		0.66	65	<5	<1	<5
474560		0.82	70	<5	<1	<5
Detection Limit:		0.01	10	5	1	5

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Page 5 of 6

Batch Number: J551

Contact: MR. P. SIMPSON.

No. of Samples: 68
Date Received: 30/09/86
Date Completed: 13/10/86

Order No. 474501

Sample Type: -80# STREAM SED

SAMPLE NUMBER	Element Unit Method	Cu ppm IC586	Pb ppm IC586	Zn ppm IC586	Ag ppm IC586	As ppm IC586
474561		25	35	15	1	1
474562		15	20	10	1	1
474563		20	30	25	1	7
474564		15	20	25	1	2
474565		25	25	15	1	3
474566		20	30	35	1	6
474567		20	35	35	1	2
474568		15	20	10	<1	<1
Detection Limit:		5	5	5	1	1

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Page 6 of 6

Batch Number: J551

Contact: MR. P. SIMPSON.

No. of Samples: 68
Date Received: 30/09/86
Date Completed: 13/10/86

Order No. 474501

Sample Type: -80# STREAM SED

SAMPLE NUMBER	Element Unit Method	Fe % IC586	Mn ppm IC586	Bi ppm IC586	Cd ppm IC586	Sb ppm IC586
474561		0.91	45	<5	<1	<5
474562		0.53	45	<5	<1	<5
474563		1.83	75	<5	5	<5
474564		0.88	40	<5	<1	<5
474565		1.07	95	<5	<1	<5
474566		1.69	75	<5	<1	<5
474567		0.97	145	<5	<1	<5
474568		0.33	35	<5	<1	<5
Detection Limit:		0.01	10	5	1	5

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LABORATORY REPORT

Client: CARPENTARIA EXPLORATION CO. PTY. LTD
 Address: P.O. BOX 21,
 BERRIMAH, N.T. 5788

Page 1 of 3

Batch Number: J551-1

Contact: MR. P. SIMPSON.

No. of Samples: 68
 Date Received: 30/09/86
 Date Completed: 13/10/86

Order No. 474501

Sample Type: -80# STREAM SED

SAMPLE NUMBER	Element Unit Method	Mo ppm IC586	Cr ppm IC586	Ni ppm IC586	U ppm XRF1	
474501		<5	50	15	8	
474502		<5	50	20	4	
474503		<5	50	15	4	
474504		<5	50	15	4	
474505		<5	40	10	8	
474506		<5	40	10	4	
474507		<5	70	20	8	
474508		<5	40	15	12	
474509		<5	60	15	4	
474510		<5	60	10	12	
474511		<5	40	15	8	
474512		<5	40	15	8	
474513		<5	30	5	12	
474514		<5	40	10	8	
474515		<5	50	10	4	
474516		<5	70	20	4	
474517		<5	110	25	8	
474518		<5	70	20	8	
474519		<5	110	20	4	
474520		<5	70	15	8	
474521		<5	50	15	12	
474522		<5	60	25	4	
474523		<5	60	15	4	
474524		5	80	40	16	
474525		<5	30	10	4	
474526		<5	60	20	8	
474527		<5	50	15	4	
474528		<5	60	30	8	
474529		<5	60	45	12	
474530		<5	60	20	8	
Detection Limit:		5	10	5	4	

Comments

Registered
Laboratory
No. 625

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Signatory:

FORM ALS O

Brisbane Head Office and Laboratory
 100 Edward Street, 10th floor, Q 4000
 Phone (07) 352 5977 Fax (07) 272 577
 Perth Office and Laboratory
 16 Bassendean Road, Bayswater, WA 6056
 Phone (09) 272 2300 Fax (09) 272 577
 Townsville Laboratory
 457 Bayswater Road, Garbutt, Q 4814
 Phone (07) 74 5045 Fax (07) 74 640

INCORPORATED
IN QUEENSLAND

Australian Laboratory Services PTY LTD

CONSULTING ANALYTICAL CHEMISTS

LABORATORY REPORT

Client: CARPENTARIA EXPLORATION CO. PTY. LTD
 Address: P.O. BOX 21,
 BERRIMAH. N.T. 5788

Page 2 of 3

Batch Number: J551-1

Contact: MR. P. SIMPSON.

No. of Samples: 68
 Date Received: 30/09/86
 Date Completed: 13/10/86

Order No. 474501

Sample Type: -80# STREAM SED

SAMPLE NUMBER	Element Unit Method	Mo ppm ICS86	Cr ppm ICS86	Ni ppm ICS86	U ppm XRF1
474531	<5	50	20	8	
474532	<5	30	10	8	
474533	<5	50	10	8	
474534	<5	30	10	4	
474535	<5	30	10	8	
474536	<5	40	15	4	
474537	<5	40	15	4	
474538	<5	40	15	8	
474539	<5	40	15	4	
474540	<5	40	15	4	
474541	<5	30	10	8	
474542	<5	40	15	4	
474543	<5	40	15	4	
474544	<5	40	10	4	
474545	5	50	25	8	
474546	<5	50	30	8	
474547	<5	50	15	4	
474548	5	160	10	4	
474549	<5	40	20	8	
474550	<5	70	20	4	
474551	<5	40	20	4	
474552	<5	20	5	8	
474553	<5	30	10	8	
474554	<5	30	10	8	
474555	<5	40	15	4	
474556	<5	30	10	8	
474557	<5	90	20	4	
474558	<5	60	30	8	
474559	<5	30	5	4	
474560	<5	50	15	4	
Detection Limit:		5	10	5	4

Comments

Registered
Laboratory
No. 825

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FORM ALS C



Incorporated
in Queensland

Australian Laboratory Services PTY LTD

CONSULTING ANALYTICAL CHEMISTS

LABORATORY REPORT

Client: CARPENTARIA EXPLORATION CO. PTY. LTD
Address: P.O. BOX 21,
BERRIMAH. N.T. 5788

Page 3 of 3

Batch Number: J551-1

Contact: MR. P. SIMPSON.

No. of Samples: 68
Date Received: 30/09/86
Date Completed: 13/10/86

Order No. 474501

Sample Type: -80# STREAM SED

SAMPLE NUMBER	Element Unit Method	Mo ppm IC586	Cr ppm IC586	Ni ppm IC586	U ppm XRF1
474561	<5	50	25	<4	
474562	<5	40	10	4	
474563	<5	80	25	4	
474564	<5	60	10	4	
474565	<5	40	15	4	
474566	<5	50	15	4	
474567	<5	50	20	8	
474568	<5	30	5	4	
Detection Limit:		5	10	5	4

Comments:



Registered
Laboratory
No. 825

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FORM ALS C



CARPENTARIA EXPLORATION COMPANY PTY. LTD.

EL 4927 "MOUNT BUNDEY" N.T.

RECONNAISSANCE ROCK SAMPLE GOLD ASSAY RESULTS.

SAMPLE NUMBER	AU PPM.	SAMPLE NUMBER	AU PPM.
QP 36426	0.40	QP 37057	< 0.005
36427	< 0.05	37058	< 0.005
36428	< 0.05	37059	< 0.005
36429	< 0.05	<u>— ANALABS METHOD 313</u>	
36430	< 0.05	QP 37081	< 0.1
36431	< 0.05	37082	0.3
36432	< 0.05	37083	0.1
<u>— AMDDEL METHOD A2/3</u>		37084	< 0.1
QP 37001	0.06	37085	< 0.1
37002	0.05	37086	0.1
37030	0.01	37087	< 0.1
37031	< 0.01	<u>— AMDDEL METHOD PM3/1</u>	
37032	< 0.01	QP 37555	0.10
37033	< 0.01	37556	0.04
37034	< 0.01	37557	0.02
37035	< 0.01	37558	0.06
37036	< 0.01	37559	0.01
37037	< 0.01	37560	0.18
37038	0.13	37561	1.67
<u>— AMDDEL METHOD A2/4</u>		37562	0.30
QP 37052	0.005	37563	0.40
37053	< 0.005	37564	0.02
37054	< 0.005	37565	< 0.01
37055	< 0.005	37566	0.02
37056	< 0.005	<u>— AMDDEL METHOD A2/4</u>	

APPENDIX 2

DRILLHOLE LOG SHEETS

CARPENTARIA EXPLORATION COMPANY PTY LTD.

RC , = REVERSE
CIRC. PERCUSS. TGP-1 ✓

PERCUSSION DRILL LOG

CARPENTARIA EXPLORATION COMPANY PTY LTD.

RC↓

PERCUSSION DRILL LOG

TYPE 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80	DRILL HOLE NAME TGP-2	HOLE SIZE 112	YEAR 87	MONTH 04	DAY 21	TIME MIN	A.P.M.	GEO PGS	EDIT BY 870422	FINISH YEAR MON DAY	COMMENTS			
											CONTRACTOR GADEN	METHOD Au by FIRE		
FROM S.0.0	TOTAL DEPTH 0.00.0	DECIMAL AZIMUTH P	±	DECIMAL INCLINE 90.00	DO	NOT	PUNCH	NORTHING 5188.00	EASTING 4950.00	ELEVATION 1215.0	LAB ANALABS			
FROM 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	TO 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60	RECOVERY SAMPLE NUMBER QP Au g/t								ROCK	COMMENTS	DO	NOT	PUNCH
0.00	1.00	i	3731.7	0.015							Light red/dark grey siltst + cherts.			
1.00	2.00	i	3731.8	0.005							"			
2.00	3.00	i	3731.9	BLD							"			
3.00	4.00	i	3732.0	BLD							Brown weathered siltst			
4.00	5.00	i	3732.1	0.030							"			
5.00	6.00	i	3732.2	0.335							"			
6.00	7.00	i	3732.3	0.045							Yellow br + pale green fine, sandy.			
7.00	8.00	i	3732.4	0.005							"			
8.00	9.00	i	3732.5	0.010							"			
9.00	10.00	i	3732.6	0.030							Grey-green + paler siltst.			
10.00	11.00	i	3732.7	0.290							Dark grey + green			
11.00	12.00	i	3732.8	0.135							"	"	Minor botryoidal	
12.00	13.00	i	3732.9	0.050							"	"	limonite	
13.00	14.00	i	3733.0	0.100							"			
14.00	15.00	i	3733.1	0.700							10% quartz, pyrite, limonite, W'd siltst.			
15.00	16.00	i	3733.2	24.500							"	"	Aspy in grt	
16.00	17.00	i	3733.3	1.410							"	"	"	
17.00	18.00	i	3733.4	0.630							"			
18.00	19.00	i	3733.5	0.280							Dark grey graphitic siltst.			
19.00	20.00	i	3733.6	0.205							"			
20.00	21.00	i	3733.7	0.110							"			
21.00	22.00	i	3733.8	0.070							"			
22.00	23.00	i	3733.9	0.055							"			
23.00	24.00	i	P 3734.0	0.035							"			
														END OF HOLE AT 24.00m

CARPENTARIA EXPLORATION COMPANY PTY LTD.
PERCUSSION DRILL LOG

CARPENTARIA EXPLORATION COMPANY PTY LTD.
Percussion Drill Log

CARPENTARIA EXPLORATION COMPANY PTY LTD.
PERCUSSION DRILL LOG

CARPENTARIA EXPLORATION COMPANY PTY LTD

PERCUSSION DRILL LOG

CARPENTARIA EXPLORATION COMPANY PTY LTD.
PERCUSSION DRILL LOG

FROM	TO	RECOVERY	SAMPLE NUMBER	QP	Au g/t	ROCK	COMMENTS
1 2 3 4	5 6 7 8 9 10	11 12 13 14 15 16	17 18 19 20	21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	51 52 53 54 55 56 57 58 59 60	DO NOT PUNCH	
0:00	1:00	i	37425	0.760			Pale grey, beige + dark grey siltst.
1:00	2:00	i	37426	0.090			" " "
2:00	3:00	i	37427	0.175			Dark grey chiaxt. Siltst. Some gr.
3:00	4:00	i	37428	0.075			Dark siltst. 20% Silic'd. Fe ox.
4:00	5:00	i	37429	1.380			Largely qtz chips Fe ox. Seric. Ag py
5:00	6:00	i	37430	4.800			40% qtz, Fe ox. Dark chiaxt siltst.
6:00	7:00	i	37431	1.200			dk. grey chiaxt. sch. Graphite
7:00	8:00	i	37432	0.360			" " Minor quartz "
8:00	9:00	i	37433	0.360			" " " " "
9:00	10:00	i	37434	0.260			Dark grey chiaxt. graph. Siltst.
10:00	11:00	i	37435	0.275			" "
11:00	12:00	i	37436	0.130			" "
12:00	13:00	i	37437	0.095			" "
13:00	14:00	i	37438	0.065			" "
14:00	15:00	i	37439	0.050			" "
							END of Hole at 15 m.

END of HOLE at 15 m.

CARPENTARIA EXPLORATION COMPANY PTY LTD.
PERCUSSION DRILL LOG

CARPENTARIA EXPLORATION COMPANY PTY LTD

PERCUSSION DRILL LOG

END OF HOLE AT 12.00m

CARPENTARIA EXPLORATION COMPANY PTY LTD.
PERCUSSION DRILL LOG

CARPENTARIA EXPLORATION COMPANY PTY LTD.
PERCUSSION DRILL LOG

CARPENTARIA EXPLORATION COMPANY PTY LTD.
PERCUSSION DRILL LOG

CARPENTARIA EXPLORATION COMPANY PTY LTD
PERCUSSION DRILL LOG

PAGE 2 of 2

PROPERTY NAME E.L.4927 "MOUNT BUNDY" N.T. SUBNAME TOM'S GULLY

HOLE NAME *TGP - 12*

FROM	TO	RECOVERY	SAMPLE NUMBER	QP	AU 9/E	ROCK	COMMENTS					
1 2 3 4	5 6 7 8 9 10	11 12 13 14 15 16	17 18 19 20	21 22 23 24 25 26	27 28 29 30 31 32	33 34 35 36 37 38	39 40 41 42 43 44	45 46 47 48 49 50	51 52 53 54 55 56	57 58 59 60	DO NOT PUNCH	
25:00	26:00	i	37645	BLD								
26:00	27:00	i	37646									
27:00	28:00	i	37647		N							
28:00	29:00	i	37648	BLD								
29:00	30:00	i	37649	BLD								
30:00	31:00	i	37650	0.015								
31:00	32:00	i	37651	BLD								
32:00	33:00	i	37652									
33:00	34:00	i	37653									
34:00	35:00	i	37654									
35:00	36:00	i	37655									
36:00	37:00	i	37656		V							
37:00	38:00	i	37657	BLD								
38:00	39:00	i	37658	0.010								
39:00	40:00	i	37659	BLD								
40:00	41:00	i	37660	0.015								
41:00	42:00	i	37661	BLD								
42:00	43:00	i	37662									
43:00	44:00	i	37663									
44:00	45:00	i	37664									
45:00	46:00	i	37665									
46:00	47:00	i	37666									
47:00	48:00	i	37667		V							

END at 48m.

CARPENTARIA EXPLORATION COMPANY PTY LTD.
PERCUSSION DRILL LOG

CARPENTARIA EXPLORATION COMPANY PTY LTD
PERCUSSION DRILL LOG

PAGE 2 of 2

PROPERTY NAME E.I.L. 4927 "Mount BUNDEY" N.T. SUBNAME TOM'S GULLY

HOLE NAME *TGP-13*

CARPENTARIA EXPLORATION COMPANY PTY LTD.
PERCUSSION DRILL LOG

CARPENTARIA EXPLORATION COMPANY PTY LTD

PERCUSSION DRILL LOG

PAGE 2 of 2

PROPERTY NAME E.L. 4927 "MOUNT BUNDEY" SUBNAME TOM'S GULLY
N.T.

HOLE NAME *TGP-14*

CARPENTARIA EXPLORATION COMPANY PTY LTD.

PERCUSSION DRILL LOG

CARPENTARIA EXPLORATION COMPANY PTY LTD
PERCUSSION DRILL LOG

PAGE 2 of 3

PROPERTY NAME EL 4927 "MOUNT BUNDEY" N.T. SUBNAME TOM'S GULLY

HOLE NAME TGP-15

FROM	TO	RECOVERY	SAMPLE NUMBER	QP	Aug/k	Ag	As	Cu	Pb	ROCK	COMMENTS		
											DO	NOT	PUNCH
1 12 25	2 12 26	0 00	1 3721/1	0. 025	BLD	180	35	140					
26	27	0	212	0. 030	BLD	440	60	245					
27	28	0	213	0. 020	BLD	500	115	510					
28	29	0	214	0. 055	BLD	600	55	285					
29	30	0	215	2. 810	5. 5	1350	155	3150					
30	31	0	216	6. 830	20. 0	5500	325	2. 05%					
31	32	0	217	0. 650	BLD	900	150	1850					
32	33	0	218	0. 190	2. 0	410	95	1150					
33	34	0	219	0. 065	2. 5	270	60	595					
34	35	0	220	0. 060	BLD	750	145	580					
35	36	0	221	0. 045	BLD	500	100	475					
36	37	0	222	0. 115	2. 5	3400	220	720					
37	38	0	223	0. 390	6. 5	3250	285	1350					
38	39	0	224	0. 545	2. 5	2400	295	1600					
39	40	0	225	0. 405	BLD	2750	235	1400					
40	41	0	226	0. 290		1450	140	1150					
41	42	0	227	0. 355		1600	185	1000					
42	43	0	228	0. 400		1500	165	795					
43	44	0	229	0. 165		1200	290	390					
44	45	0	230	0. 090		1100	170	360					
45	46	0	231	0. 050		800	140	220					
46	47	0	232	0. 035	V	1900	175	235					
47	48	0	233	0. 020	0. 5	1450	350	190					
48	49	0	234	0. 040	3. 0	800	330	440					
49	50	0	235	0. 015	BLD	900	115	215					

CARPENTARIA EXPLORATION COMPANY PTY LTD
PERCUSSION DRILL LOG

PAGE 3 of 3

PROPERTY NAME EL 4927 "MOUNT BUNDEY" A.T. SUBNAME TOM'S GULLY

HOLE NAME *TGP-15*

FROM 1 2 3 4	TO 5 6 7 8 9 10 11 12 13 14 15 16	RECOVERY 17 18 19 20	SAMPLE NUMBER 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60	ppm			COMMENTS					
				QP	As	Cu	Pb	ROCK	DO	NOT	PUNCH	
50i	51:00	i	37236	0.060	BLD	650	1.55	20.5				
51i	52:00	i	37237	0.080		300	3.20	28.0				
52i	53:00	i	37238	0.030		170	2.25	22.0				
53i	54:00	i	37239	0.025		120	2.75	20.0				
54i	55:00	i	37240	0.075		150	2.80	23.0				
55i	56:00	i	37241	0.010		110	2.25	17.0				
56i	57:00	i	37242	0.030		95	1.65	17.0				
57i	58:00	i	37243	0.005		380	1.75	19.0		"		Poor recoveries
58i	59:00	i	37244	0.116		550	1.10	31.0		"		mostly.
59i	60:00	i	37245	0.015		310	8.0	14.0		"		
60i	60:50	i	37246	0.025		160	1.05	18.0		"		

CARPENTARIA EXPLORATION COMPANY PTY LTD.

PERCUSSION DRILL LOG

END at 24m. QP 37297 = CEC

870 Ace

CARPENTARIA EXPLORATION COMPANY PTY LTD.
PERCUSSION DRILL LOG

CARPENTARIA EXPLORATION COMPANY PTY LTD.
PERCUSSION DRILL LOG

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PERCUSSION DRILL LOG

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PERCUSSION DRILL LOG

CARPENTARIA EXPLORATION COMPANY PTY LTD

PERCUSSION DRILL LOG

PAGE 2 OF 2

PROPERTY NAME E.L. 4927 "MOUNT
BUNDEY" N.T.

SUBNAME TOM'S GULLY

HOLE NAME TGP- 24

CARPENTARIA EXPLORATION COMPANY PTY LTD.
PERCUSSION DRILL LOG

TYPE	DRILL HOLE NAME	HOLE SIZE	START YEAR	MON	DAY	TIME HOUR	MIN	A/PM	GEO	EDIT BY	FINISH YEAR	MON	DAY	COMMENTS			DECIMAL GRID AZIMUTH																																																																									
														1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77
PROJECT		AREA NAME	EL 4927 "MOUNT BUNDEY" N.T.												CON-TRACTOR	BYNOE	METHOD	FIRE ASSAY ANALABS												LAB																																																												
TOM'S GULLY														DO	NOT	PUNCH																																																																										
FROM	TOTAL DEPTH	DECIMAL AZIMUTH	±	DECIMAL INCLINE													NORTHING	EASTING	ELEVATION																																																																							
S.0.0.0	0.0.0	21.00	P	VERT.													5191.5	4911.6	120.5																																																																							
FROM	TO	RECOVER%	SAMPLE NUMBER	QP	All g/t												ROCK	COMMENTS												DO	NOT	PUNCH																																																										
0.00	1.00	100	Q36829	0.0.08													Hard + soft weather'd silt & clay																																																																									
1i	2i	i	36830	0.0.017													" " + pale green																																																																									
2i	3i	i	36831	BLD													" " "																																																																									
3i	4i	i	36832	0.0.008													Variously weather'd silt & clay.																																																																									
4i	5i	i	36833	BLD													Lightly ferruginous. Silt? dyke?																																																																									
5i	6i	i	36834	0.0.032													" - probably f.g. dyke																																																																									
6i	7i	i	36835	0.0.032													" "																																																																									
7i	8i	i	36836	0.0.025													½ dyke rock, ½ dk grey silt &																																																																									
8i	9i	i	36837	0.0.032													Dark grey and brown siltstone.																																																																									
9i	10i	i	36838	0.0.088													" " + 5% g/t year																																																																									
10i	11i	i	36839	0.0.083													" " " 20% g/t																																																																									
11i	12i	i	36840	0.0.008													50% Corrensan g/t; rest Wld silt																																																																									
12i	13i	i	36841	1.220													80% " "																																																																									
13i	14i	i	36842	0.2.33													40% " "																																																																									
14i	15i	i	36843	0.1.00													Grey, lightly weather'd graph. silt																																																																									
15i	16i	i	36844	0.0.83													" " " + 20% g/t																																																																									
16i	17i	i	36845	0.0.67													" " " few % g/t																																																																									
17i	18i	i	36846	0.0.40													Well weather'd silt - " Dr. py																																																																									
18i	19i	i	36847	0.0.50													" "																																																																									
19i	20i	i	36848	0.0.40													" "																																																																									
20i	21i	i	36849	0.0.17													" "																																																																									

CARPENTARIA EXPLORATION COMPANY PTY LTD.

PERCUSSION DRILL LOG

CARPENTARIA EXPLORATION COMPANY PTY LTD

PERCUSSION DRILL LOG

PAGE 2 OF 2

PROPERTY NAME E.L 4929 "MOUNT
BUNDE

SUBNAME TOM'S GULLY

HOLE NAME TGP-30

CARPENTARIA EXPLORATION COMPANY PTY LTD.

PERCUSSION DRILL LOG

CARPENTARIA EXPLORATION COMPANY PTY LTD
PERCUSSION DRILL LOG

PAGE 2 OF 2

PROPERTY NAME E.L 4927 SUBNAME "MOUNT BUNDEY" N.T. TOM'S GULLY

HOLE NAME TGP-31

CARPENTARIA EXPLORATION COMPANY PTY LTD.
PERCUSSION DRILL LOG

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PERCUSSION DRILL LOG

PAGE 2 OF 2

PROPERTY NAME EL. 4927 "MOUNT BUNDEY" N.T. SUBNAME TOM'S GULLY

HOLE NAME TGA-33

CARPENTARIA EXPLORATION COMPANY PTY LTD.

PERCUSSION DRILL LOG

TYPE	DRILL HOLE NAME	HOLE SIZE	START YEAR	MON	DAY	TIME HOUR	TIME MIN	A/PM	GEO	EDIT BY	FINISH YEAR	MON	DAY	COMMENTS			DECIMAL GRID AZIMUTH																																																														
P.D.	TGP-33	106870619							PGS		870519					360°00'																																																															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
PROJECT						AREA NAME		EL 4927 "MOUNT BUNDEY" N.T.								CON - TRACTOR	BYNDE	METHOD	FIRE ASSAY																																																												
TOM'S GULLY																LAB	ANALABS																																																														
FROM	TOTAL DEPTH	DECIMAL AZIMUTH	±	DECIMAL INCLINE						DO	NOT					NORTHING	EASTING	ELEVATION																																																													
S.0.0.0	0.0.0	26.00	P	.	VERT											5187.5	5013.	116.																																																													

CARPENTARIA EXPLORATION COMPANY PTY LTD.

PERCUSSION DRILL LOG

(CONTINUED)

OPTIONAL DATA

WHITE COPY TO BASE OFFICE

YELLOW TO BRISBANE

PINK TO FIELD CAMP

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PERCUSSION DRILL LOG

PAGE 2 OF 2

PROPERTY NAME **EL 4927**
"MOUNT BUNDEY" N.T. SUBNAME **TOM'S GULLY**

HOLE NAME TGP-34

CARPENTARIA EXPLORATION COMPANY PTY LTD.
PERCUSSION DRILL LOG

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PERCUSSION DRILL LOG

OPTIONAL DATA

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PINK TO FIELD CAMP

APPENDIX 3

PETROLOGICAL REPORT

CROXFORD MINERALOGICAL SERVICES

REPORT NO. 187-710

SUBJECT : PETROLOGY OF ROCKS FROM MOUNT BUNDY, N.T.
SUBMITTED BY MR. P. SIMPSON

OBJECT

To examine the petrology of six (6) rock specimens from Mount Bundy, N.T. In particular it is required to ascertain the nature of gold occurrence and the rock types involved. Specimen details are:

<u>Laboratory No.</u>	<u>Client Rock No. and Description</u>
CX-19	<u>QP 37011-012.</u> E.L.4927. Rolled boulder below (N of) QP 37011-012.
CX-20	<u>QP 37011-012.</u> Rolled boulder below QP 37011-12.
CX-21	No number cited. Host Wildman Siltstone near the Iron Formation.
CX-22	<u>QP 37012.</u> Part duplicate of QP 37012, E.L.4927.
CX-23	<u>QP 37011 and QP 37012.</u> Reference rocks from around QP 37011 and QP 37012.
CX-24	<u>QP 37013.</u>

SUMMARY

- CX-19 - Essentially medium to coarse grained quartz with abundant limonite and jarosite after pyrite and arsenopyrite. Minor carbonaceous matter present. Numerous occurrences of gold. Minor covellite is secondary after chalcopyrite.
- CX-20 - Carbonaceous metaquartzite possibly derived from chert. Relict bedding may persist. Polished section CX-20C carries significant gold.
- CX-21 - A very carbonaceous andalusite (chiastolite) slate formed by contact metamorphism of a carbon-rich argillaceous quartz siltstone. Well preserved bedding lies at about 80 degrees to a pronounced slatey cleavage. Andalusite is altered characteristically to sericite.
(Dr. Croxford says the sericite is a weathering product.)
- CX-22 - Coarsely crystalline quartz with some limonite and carbonaceous matter. Limonite pseudomorphs after arsenopyrite in part. *- PGS.*
- CX-23A
CX-23B - Carbonaceous metaquartzite with indications of fine pyritic (not limonitized) bedding. Fine gold noted in jarosite and limonite.
- CX-24 - Quartz, limonite, jarosite rock with fine grained quartz, indicating a sedimentary chert origin. Carbonaceous matter is abundant in places and reflects a layered (?bedded) disposition. Small crystals of rutile are evenly dispersed through the rock matrix. Minor galena is distributed through the quartz.

N.W. Croxford
N.J.W. Croxford

RESULTS AND DISCUSSION

1. The Host Rocks

1.1. Quartz

Apart from the andalusite (chiastolite) slate, quartz is the major silicate mineral present. Generally it occurs as medium to coarse grained anhedral to subhedral crystals up to 1 x 5 mm in size. The quartz is highly strained, i.e. undulose, and reflects the directed metamorphic stress (see CX-19, CX-20 and CX22).

In several specimens (CX-20F and CX-23A) comparatively fine grained patches of mosaical quartz of average grain size about 0.05 mm (50 μm) reside in surrounding coarsely crystalline quartz. This fine grained quartz is fairly clean, i.e. inclusion free except for the presence of carbon (graphite). In CX-20F "spongy" aggregates of graphitic carbon are confined to the fine grained quartz. I suggest this is a primary texture arising from an original carbonaceous chert. A chert origin would also explain the relative "cleanness" of the quartz - apart from the carbon. Also, parallel carbonaceous traces in CX-20F and CX-24 probably represent original bedding.

1.2. Carbonaceous Andalusite Slate

Specimen CX-21 is diagnostic for a low grade contact metamorphic environment. The rock is formed from a thin to thickly bedded carbon-rich argillaceous quartz siltstone. Abundant subhedral to euhedral andalusite (var. chiastolite) porphyroblasts stud the rock and favour the more carbonaceous layers. A strong slatey cleavage lies at about 80° to the bedding. Typically, the andalusite has altered to sericite.

The carbon in the rock (sediment) supports the view that carbonaceous cherts occurred prior to metamorphism.

2. The Mineralization

2.1. Primary Sulphides

Only trace to minor amounts of pyrite, pyrrhotite, chalcopyrite, sphalerite and (?)arsenopyrite were noted still preserved in quartz. Locally galena is abundant.

Limonite is plentiful and shows a wide range of occurrences from porous yellow-brown material to characteristic light grey goethite. Red-brown limonite boxworks after medium to coarse grained pyrite occur but this was not the principal sulphide. Limonite pseudomorphs of rhomboid shape indicate original arsenopyrite and considerable fine gold reports in these (Fig.). Much of this limonite has a greenish yellow tint, indicating admixtures of fine grained limonite and scorodite. However primary siderite could provide similar limonite pseudomorphs except that no carbonate relicts were noted in the quartz as were arsenopyrite crystals.

Subparallel granular limonite threads are seen in the mosaical quartz of CX-23A. These may represent fine grained pyrite layers in the original chert.


2.2. Gold Mineralization

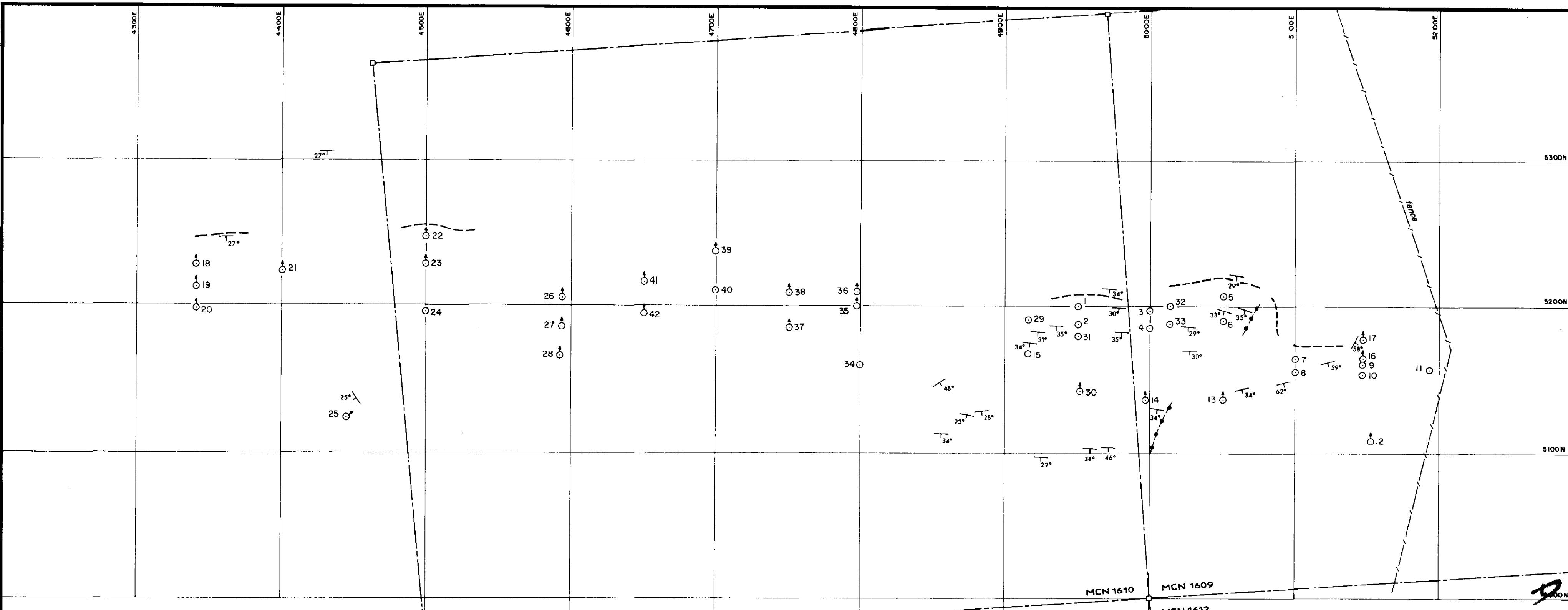
Numerous occurrences of gold were noted in specimens CX-19, CX-20C, CX-22, CX-23A, CX-23B and CX-24. Gold reports mostly in limonite but it occurs in jarosite crystals within CX-24. Since the jarosite is not pseudomorphing pyrite directly, it would seem this gold is supergene.

Some gold occurrences contain paler yellow material thought to be electrum. This should be reflected in the silver analyses. Both the "yellow" pyrite and "yellow-white" electrum accompany each other.

In CX-19, gold is especially plentiful and massive limonite + (?) scorodite after arsenopyrite carries much fine gold in the 1 to 10 micron range. Often it forms elongate grains up to 1 x 10 microns, suggesting its occurrence as "prills" in the original arsenopyrites. At least sixteen (16) gold particles were noted in a circle of about 0.5 mm diameter.

nsw Crawford
N.J.W. Crawford





LEGEND

- ● Percussion drill hole - vertical, inclined
Holes 1-15, reverse circulation percussion, April 1987
 - ↙ ↘ Dip and strike of Wildman Siltstone
 - Fine grained dyke
 - Outcrop of target horizon
 - Claim boundary
- Note: FOR LOCATION SEE DRG. No. 32626 or 32627

REVISION

SCALE: 1:2000

29-5-87	R.A.C.	GEO P.G.S.
16-6-87	P.G.S.	DRAFT: G.J.G.
		CHECKED:
		DATE: May 1987
	1:250 000	SE52-4
	1:100 000	5272

CARPENTARIA EXPLORATION COMPANY PTY. LTD.

E.L. 4927 "MOUNT BUNDEY" N.T.

TOM'S GULLY
DRILL HOLE LOCATIONS

DRG No.: 32638

