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EXPLORATION LICENCE NO.
42/92

("LOONGANA")

PARTIAL RELINQUISHMENT REPORT

MAY 1994 - MAY 1995

(Volume 1 of 1)

95-3727

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21 APRIL 1995

Report No:

Distribution:

- Tasmanian Department of Mines
- RGC Exploration - Zeehan
- RGC Exploration - Perth

95-3727

EL 42/92 Loongana - Partial relinq. report 1995 - 1vol

SUMMARY

EL 42/92 - Loongana situated approximately 30 km southeast of Burnie in northern Tasmania was acquired for its potential to contain volcanic hosted massive sulphide mineralisation.

This report documents the results of exploration in the Native Track Tier and Crosby Creek areas which were relinquished from EL 42/92 - Loongana in May 1995.

Exploration to date has consisted of reconnaissance geological mapping over a major belt of Cambrian volcanics in the Native Track Tier and Crosby Creek areas. In the Native Track Tier - Leven Canyon area mapping has identified two mappable geological formations. Recent relogging of old CRAE drill core has indicated that the Cambrian rocks in the Crosby Creek area can be correlated with rocks mapped in the Misleven Road - Tulip Tree Creek area. The rocks in these areas are relatively unaltered and only minor base metal mineralisation near the contacts with andesite/microdiorite intrusions? has been observed.

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1. INTRODUCTION

EL 42/92 - Loongana is held by Renison Limited and is explored by RGC Exploration, both wholly owned subsidiaries of RGC Limited. The licence is located in northwestern Tasmania approximately 30 km southeast of Burnie and includes the Native Track Tier and Winterbrook areas (fig. 1). It was granted on May 21, 1993 and covers 220 sq km.

The major access to the area is achieved by following the Castra Road (B15) south from Ulverstone to Nietta and then taking either the Loongana Road (C128) or the South Nietta Road (C129). The Native Track Tier area can be accessed from Penguin via Pine Road (B17) to South Riana, then following the Loyetea Road to Ulstergren Road. Ulstergren Road can also be accessed via Loongana Road.

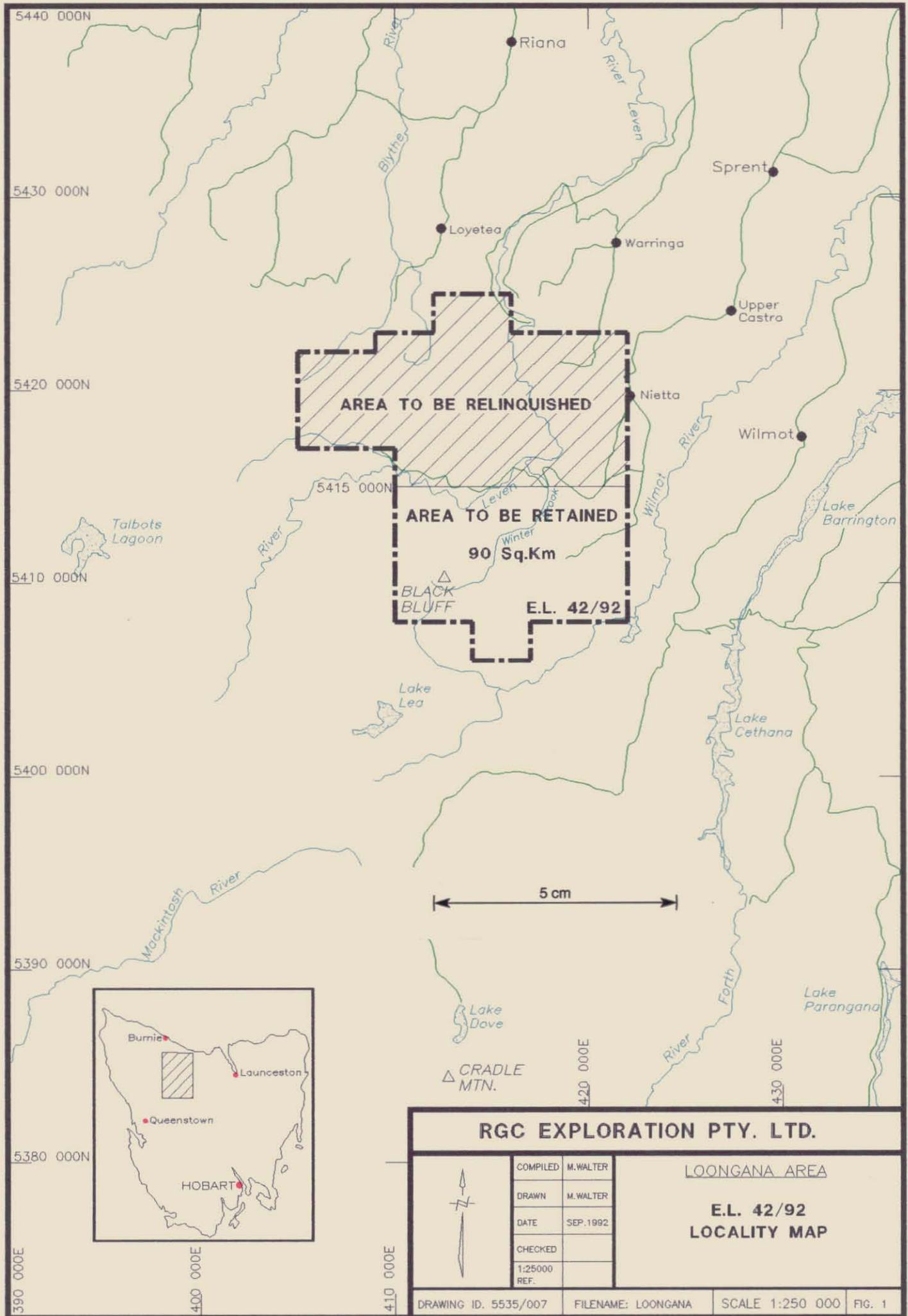
Topographically the lease is dominated by two distinct mountain ranges separated by a major valley at Loongana through which flows the Leven River. To the east of Loongana the Leven River changes from a dominantly east-west trend to a north-south trend and forms a steep sided gorge as it transects the general trend of the Native Track Tier.

The Native Track Tier is moderately elevated plateau 500-600 metres high with a peripheral ridge formed by resistive rock types up to about 900 metres high. It is deeply dissected by several steep sided creeks including Tulip Tree Creek. It is mainly covered by wet sclerophyll and myrtle dominated rainforest and has undergone extensive forestry operations.

The EL was acquired to assess the potential for volcanic hosted massive sulphide (VHMS) mineralisation in the northern extension of the Mount Read Volcanic

2. TENURE

The area comprises: Private Property, Crown Land - Deferred Forest Land, Crown Land, State Forest - Multiple Use Forest Land, the Winterbrook Falls RAP - State Forest and Crown Land, and part of the Black Creek RAP - State Forest. It includes the Leven River Gorge (Australian Heritage Commission Act, Registered Entry). A 2 ha Crown Reserve (a gravel pit at McHugh's Flats) and the 13 ha Jean Brook Forest Reserve have been excluded from the lease.



RGC EXPLORATION PTY. LTD.			
	COMPILED	M. WALTER	LOONGANA AREA E.L. 42/92 LOCALITY MAP
	DRAWN	M. WALTER	
	DATE	SEP. 1992	
	CHECKED		
	1:25000		
	REF.		
DRAWING ID. 5535/007		FILENAME: LOONGANA	SCALE 1:250 000
			FIG. 1

3. PREVIOUS EXPLORATION

The previous exploration history of EL 42/92 prior to 1993 has been summarised in the Annual Report for May 1993 - May 1994 (Vicary, 1994).

In the period of May 1993 to April 1994, the exploration completed on EL 42/92 Loongana includes a literature review of previous exploration, image processing of the digital topographic data for the Loongana and Loyetea 1:25 000 topographic sheets and 1:10 000 geological mapping and rock chip sampling of the Native Track Tier area.

Digital topographic data was purchased from the Lands Department (Hobart) and it was image processed by Geimage in Brisbane. The data was displayed as a series of rainbow colour-scaled altitude images and grey-scale images with a variety of "shade" directions to highlight faults, joints, and lithological units with distinct topographic expressions. This technique duplicates to some extent air photo interpretation, but shows up more detail and is particularly useful for identifying larger structures.

Native Track Tier was chosen as a starting point for the mapping project because of the lack of previous detailed mapping in the area. A composite 1:10 000 basemap of the Native Track Tier area was prepared from digital data obtained for the Loyetea and Loongana 1:25 000 topographic maps. Mapping was performed in four two week field trips between June 1993 and February 1994 using either Penguin and Loongana as a base. The numerous forestry tracks provided excellent access to the area but quite a few tracks were found to be overgrown and some bridge crossings in poor repair. Rock chip samples were routinely collected during traverses and were subsequently sent to Analabs and Becquerel Laboratories for chemical analysis.

4. WORK COMPLETED

In the period May 1994 to April 1995 the exploration conducted with in EL 42/92 Loongana included:-

- 1) 1:10 000 Geological Mapping and Compilation,
- 2) Collection and assaying of 9 rock chip samples, and
- 3) Relogging of old CRAE drill holes from Crosby Creek (DD75CC1, CC2 and CC3).

5. RESULTS AND DISCUSSION

5.1 REGIONAL GEOLOGY

The regional geology of EL 41/92 is shown in figure 2. The interpretation is slightly modified from interpretations shown on the Mines Department Sheffield (Jennings et al, 1959) and St Valentines (Baillie et al, 1986) Geological Map Sheets. The oldest rocks exposed in the EL are Cambrian volcanics, correlates of the highly prospective Mount Read Volcanics. They are overlain by a sequence of Late Cambrian to Early Ordovician siliciclastic sediments, (Owen Conglomerate) and the Ordovician Gordon Limestone. In the northwest corner of the lease the Owen Conglomerate is intruded by the Devonian Housatop Granite. In areas adjacent to the EL scheelite-magnetite skarn mineralisation is developed close to the contact between the Gordon Limestone and the intrusive granite. The younger cover is extensive Tertiary basalt flows and Quaternary alluvium and slope deposits.

The Cambrian rocks occur in two anticlinal core zones separated by a major E-W trending syncline. The northern Cambrian window in the Native Track Tier area is shown on the St Valentines Map (Baillie et al, 1986). Although no internal geological differentiation is shown on the map andesitic extrusives, vitric tuffs, crystal lithic tuffs, laminated mudstone, greywacke and lithicwackes have been recognised (Seymour, 1989). Late Middle Cambrian fossils found in this sequence and "Comstock Tuff"-like lithologies have suggested a Tyndall Group correlation. A second Cambrian lithology recognised by the above workers in the Laurel Creek area is now considered to be part of Late Cambrian - Early Ordovician Denison Group or Owen Conglomerate.

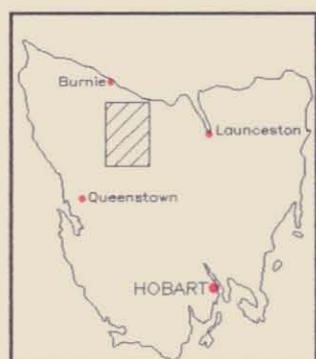
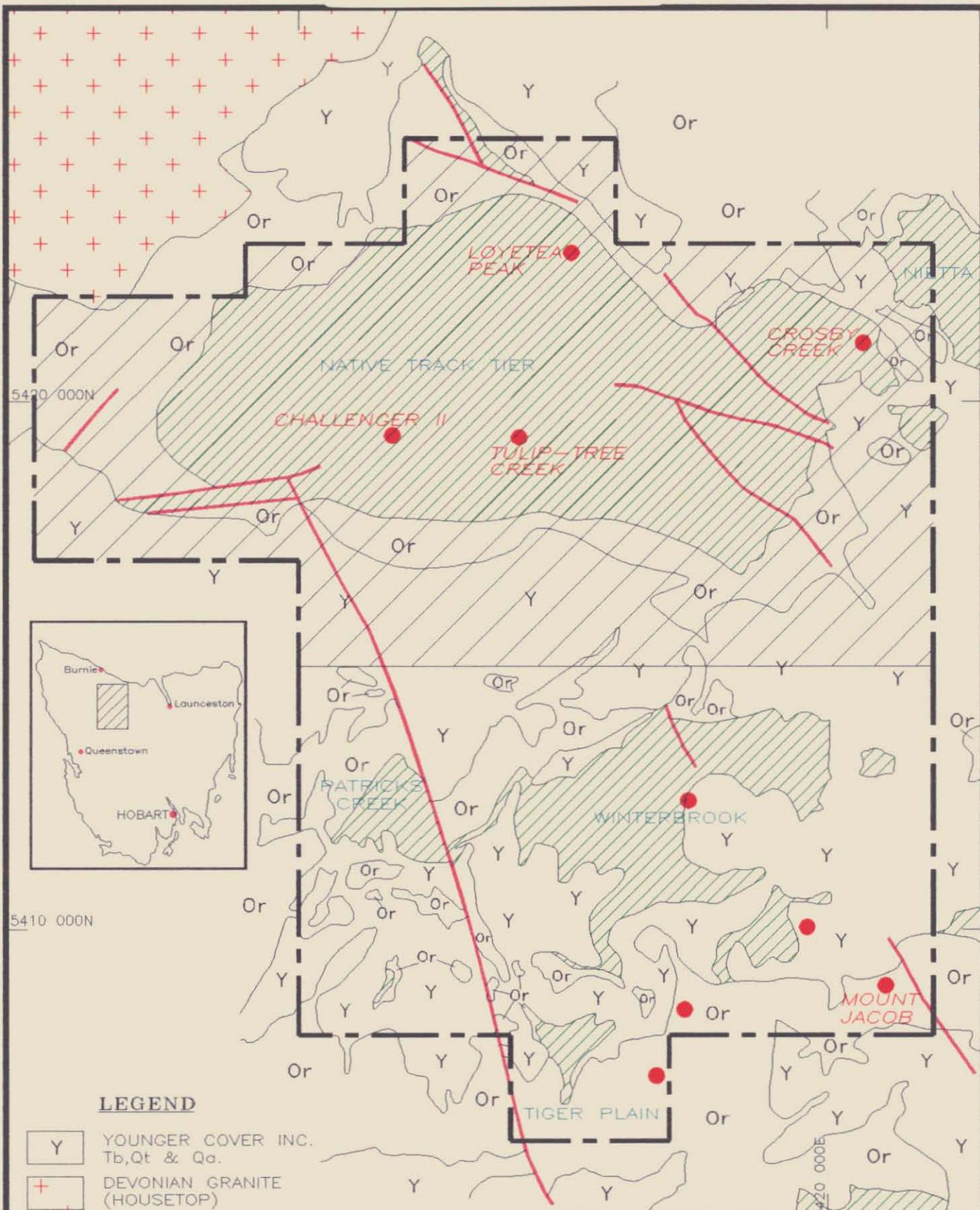
The Cambrian rocks in the Native Track Tier area continue into the Leven Canyon - Nietta area. Jennings et al, (1959) considered the dominant lithology in this area to be a correlate of the Gog Range Greywacke. They also recognised a small area of Minnow Keratophyre in the Three Brothers area.

Mapping by CRA geologists (Caithness, (1986) - see also Cethana Mineral Deposit Map - Bamford and Green, (1988)) has subdivided the Cambrian rocks in the Leven Canyon - Nietta area into two distinct subdivisions separated by a major WNW trending fault which occurs in the Leven River about 200 metres south of the Crosby Creek junction. To the north of fault the sequence has been correlated with the Minnow Keratophyre, while those to the south has been correlated with the Gog Range Greywacke with minor Minnow Keratophyre in the Three Brothers area.

Recent Mapping in the Native Track Tier - Crosby Creek by RGC has distinguished two mappable formations. A sequence of feldspar phyric volcanoclastic sediments and interbedded dacite lava flows has been mapped in the Alstergren Road - Query Road area. A second sequence of feldspar - quartz phyric volcanoclastic sediments with intrusive andesite/microdiorite bodies occurs in the Crosby Creek - Misleven Road area. This sequence is relatively unmagnetic compared to the felspar rich sequence. The stratigraphic correlation of both sequence remains unresolved but a favoured correlate places the feldspar phyric sequence with the Central Volcanic Complex and the felspar - quartz phyric sequence with the Mount Charter Group.

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LEGEND

- Y YOUNGER COVER INC.
Tb,Qt & Qa.
- + DEVONIAN GRANITE
(HOUSETOP)
- Or ORDOVICIAN ROCKS
- CAMBRIAN ROCKS
- FAULTS
- PROSPECT

RGC EXPLORATION PTY. LTD.			
	COMPILED	M.VICARY	LOONGANA E.L. 42/92 AREA TO BE RELINQUISHED REGIONAL GEOLOGY
	DRAWN	M.WALTER	
	DATE	4/94	
	CHECKED		
	1:25000 REF.		
DRAWING ID. 5535/006		FILENAME: LOONGEO	SCALE 1:100,000
			FIG. 2

410 000E

5410 000N

5420 000N

420 000E

5.2 LEVEN CANYON - CROSBY CREEK AREA

5.2.1 Geological Mapping in the Leven Canyon

The geology of the Leven Canyon - Watts Lookout area is presented on Plans 1 and 2. The geological interpretation is based on five days field mapping at 1:10 000 scale with additional information from Bamford and Green, 1988 and Virgoe, 1990.

In general, the Leven Canyon - Watts Lookout area consists of a core of Cambrian volcanics exposed within a major anticline, with limbs defined by elevated ridges of Owen Conglomerate. These ridges are commonly offset by a series of brittle NW trending faults. The Cambrian rocks behave less competently than the conglomerates and where these faults traverse areas of Cambrian rocks major displacements may not be apparent. A major zone of NW faulting is present in the Watts Lookout area and thrusting may be present.

The Owen Conglomerate is overlain by the Moira Sandstone and the Gordon Limestone in the Gunns Plains area. Large areas of Tertiary Basalt are present in the South Preston and South Nietta areas with silcrete locally developed at the contacts.

Two sequences of Cambrian rocks have been identified in the Native Track Tier area (Vicary, 1994) and can be recognised in the Leven Canyon. In the northern part of the gorge (ie. from the "Northern Gates" to about 500m North of the mouth of Tulip Tree Creek) a sequence of interbedded feldspar phyric volcanoclastic sandstones and well rounded granule - pebble volcanoclastic conglomerates outcrops. A unit of hematitic dacitic lava was also mapped. These rock types can be directly correlated with Cambrian volcanics mapped in the Alstergren - Query Road areas of the Native Track Tier area.

The middle and southern part of the Canyon is dominated by feldspar - (quartz) phyric volcanoclastic sandstones and interbedded ashy siltstones (Cvcq), with minor siliciclastic pebble - granule conglomerate (Cvccq). A large intrusive(?) body of medium grained andesite /microdiorite crops out in the Tulip Tree Creek area. This sequence is the along strike continuation of the rocks mapped in the upper parts of Tulip Tree Creek near Misleven Road. Bedding in this unit defines an east - west trending, east plunging anticline.

5.2.2 Geological Mapping in the Crosby Creek - Watts Lookout Area

Cambrian rocks crop out poorly in the Crosby Creek - Watts Lookout area and consist mainly of ashy siltstones with minor feldspar - (quartz) phyric volcanoclastic sandstones. Quartz-feldspar intrusives were mapped 1 km northwest of Watts Lookout, and andesite/microdiorite intrusives were logged in the drillholes at Crosby Creek (see Section 5.2.4) these rock can be correlated with the quartz phyric sequence present in the south of the Leven Canyon. Minor quartz - feldspar phyric lavas present in the Misleven Road area may be tentatively correlated with the quartz - feldspar phyric intrusive bodies 1 km north west of Watts Lookout.

5.2.3 Rock Chip Geochemistry

Nine rock chip samples were collected on a traverse from the Leven Canyon. They were analysed for Cu, Pb, Zn, Ag, Mn and Au and a suite of 28 elements by neutron activation analysis. The results are tabulated in Appendix 1. Preliminary treatment of the data suggests that these rockchip samples are similar to samples obtained from the Native Track Tier.

5.2.4 Relogging Old Drill Core

Three diamond drill holes were drilled at the Crosby Creek prospect by CRAE in 1975 to test soil geochemical anomalies. The holes only intersected minor Pb - Zn mineralisation in a black siltstone unit close to the contact with a massive (intrusive?) feldspar phyric medium grained andesite/microdiorite. The holes were relogged to aid regional correlation between the Crosby Creek and Native Track tier areas. Collar locations of DD75CC1, CC2 and CC3 are shown on Plan 1 and summary logs given in Appendix 3.

A medium grained feldspar phyric andesite/microdiorite unit is present in each of the three drill holes and is similar to bodies described from the Tulip Tree Creek area in the Native Track Tier (Vicary, 1994). These bodies are intrusive into an interbedded sequence of black siltstones, feldspar phyric volcanoclastic sediments and feldspar-quartz phyric volcanoclastic sediments. The presence of quartz phyric clastics supports a correlation with the Tulip Tree Creek sequence.

Inter-hole correlation between CC1 and CC3 is excellent with both holes intersecting similar units of feldspar and feldspar-quartz phyric volcanoclastic sandstones with interbedded black siltstones.

6. RECOMMENDATIONS

Exploration by RGC within the ground relinquished from EL42/92 been based on reconnaissance geological mapping in the Native Track Tier - Crosby Creek and Mount Jacob areas. In the Native Track Tier - Crosby Creek area two mappable Cambrian sequences have been identified. One of these sequences contains numerous intrusive(?) bodies of andesite/microdiorite. Previous exploration by CRAE at Crosby Creek in the mid seventies drilled three soil anomalies adjacent to the contact of one such andesite intrusion. The results were unencouraging with only minor Pb-Zn mineralisation encountered. Recent mapping has shown that the sequence of volcanics extends westward into the Native Track Tier area, which has been the subject of detailed exploration by Geopeko, CRA, Billiton, Pasminco and others. In view of the lack of evidence for hydrothermal alteration in these rocks and the paucity of untested anomalies it is recommended that no further exploration of these rocks is warranted.

REFERENCES

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APPENDIX 1

Rock Chip Analyses

RGC Exploration Pty Ltd
 GEOCHEM Data Management System
 Project: TASMANIA

Sample	True easting	True northing	Cu ppm ANALAB GA140	Pb ppm ANALAB GA140	Zn ppm ANALAB GA140	Ag_n ppm BECQUE INAA	As_n ppm BECQUE INAA	Au_n ppb BECQUE INAA	Ba_n ppm BECQUE INAA	Br_n ppm BECQUE INAA	Ce_n ppm BECQUE INAA	Co_n ppm BECQUE INAA	Cr_n ppm BECQUE INAA	Cs_n ppm BECQUE INAA	Eu_n ppm BECQUE INAA	Fe_n % BECQUE INAA30
40853	415640.00	5423115.00	5.000	-5.000	50.000	-5.000	3.110	-5.000	3200.000	-2.000	132.000	7.920	-5.000	7.260	1.600	2.620
40854	416015.00	5421690.00	27.000	-5.000	61.000	-5.000	6.400	-5.000	1220.000	-2.000	69.900	10.200	-5.000	4.160	1.530	5.170
40855	416255.00	5421300.00	8.000	-5.000	163.000	-5.000	1.970	-5.000	1810.000	3.590	73.800	12.000	-5.000	1.580	1.570	5.770
40856	418110.00	5417160.00	12.000	12.000	165.000	-5.000	2.230	-5.000	783.000	-2.000	65.400	15.600	9.700	8.580	1.450	5.730
40857	418165.00	5417425.00	9.000	18.000	100.000	-5.000	13.000	-5.000	919.000	2.660	93.000	34.400	-5.000	7.310	1.840	7.300
40858	418170.00	5417530.00	17.000	9.000	326.000	-5.000	-1.000	-5.000	1110.000	2.820	53.300	34.900	104.000	2.100	1.440	6.690
40859	417810.00	5416310.00	-4.000	-5.000	121.000	-5.000	1.060	-5.000	395.000	3.450	39.400	20.100	18.800	2.020	0.870	5.370
40861	416900.00	5420100.00	-4.000	-5.000	203.000	-5.000	-1.000	-5.000	1570.000	4.580	39.100	15.700	6.900	6.440	1.000	4.730
40862	416955.00	5420135.00	-4.000	67.000	198.000	-5.000	-1.000	-5.000	1980.000	3.110	45.600	22.300	6.600	2.450	0.760	5.740

Laboratory:	ANALAB	ANALAB	ANALAB	BECQUE												
Detection Limit:	5.000	5.000	5.000	5.000	2.000	5.000	100.00	2.000	2.000	1.000	5.000	1.000	0.500	0.050		
Method:																

RGC Exploration Pty Ltd
 GEOCHEM Data Management System
 Project: TASMANIA

Sample	True easting	True northing	Hf_n ppm BECQUE INAA	Ir_n ppb BECQUE INAA	K_n % BECQUE INAA30	La_n ppm BECQUE INAA	Lu_n ppm BECQUE INAA	Mo_n ppm BECQUE INAA	Na_n % BECQUE INAA30	Rb_n ppm BECQUE INAA	Sb_n ppm BECQUE INAA	Sc_n ppm BECQUE INAA	Se_n ppm BECQUE INAA	Sm_n ppm BECQUE INAA	Sr_n ppm BECQUE INAA	Ta_n ppm BECQUE INAA
40853	415640.00	5423115.00	7.360	-20.000	5.870	62.800	0.690	-5.000	0.057	316.000	7.920	9.330	-5.000	9.760		1.380
40854	416015.00	5421690.00	3.720	-20.000	2.700	32.000	0.480	-5.000	2.750	96.400	0.560	13.600	-5.000	7.470		1.050
40855	416255.00	5421300.00	5.240	-20.000	3.670	35.800	0.550	-5.000	2.610	126.000	0.330	15.100	-5.000	7.850		1.500
40856	418110.00	5417160.00	4.090	-20.000	3.500	32.000	0.470	-5.000	0.064	191.000	1.860	16.800	-5.000	6.480		-1.000
40857	418165.00	5417425.00	4.530	-20.000	3.690	44.100	0.620	-5.000	0.465	167.000	2.660	16.200	-5.000	8.120		-1.000
40858	418170.00	5417530.00	3.270	-20.000	1.080	28.200	0.410	-5.000	3.650	-20.000	0.500	27.300	-5.000	6.200		2.160
40859	417810.00	5418310.00	2.700	-20.000	0.570	20.400	0.290	-5.000	5.020	42.700	0.660	14.200	-5.000	3.740		2.420
40861	416900.00	5420100.00	3.900	-20.000	3.010	16.800	0.320	-5.000	3.570	130.000	-0.200	14.400	-5.000	4.770		2.920
40862	416855.00	5420135.00	3.620	-20.000	3.860	20.000	0.380	-5.000	2.860	145.000	0.290	14.900	-5.000	4.700		1.370

Laboratory:	BECQUE															
Detection Limit:	1.000	0.000	0.200	0.500	0.200	5.000	0.050	0.000	0.200	5.000	5.000	0.200	500.00	1.000		
Method:																

800015

Sample	True easting	True northing	Th_n ppm BECQUE INAA	U_n ppm BECQUE INAA3	W_n ppm BECQUE INAA3	Yb_n ppm BECQUE INAA	Zn_n ppm BECQUE INAA	BECQUE Zr ppmINAA30
40853	415640.00	5423115.00	20.900	4.750	-2.000	4.430	104.000	
40854	416015.00	5421690.00	9.010	-2.000	-2.000	3.060	-100.000	
40855	416255.00	5421300.00	12.100	-2.000	-2.000	3.570	236.000	
40856	418110.00	5417160.00	9.620	2.520	-2.000	3.360	229.000	
40857	418165.00	5417425.00	12.100	2.060	-2.000	4.090	158.000	
40858	418170.00	5417530.00	6.730	2.290	-2.000	2.780	443.000	
40859	417810.00	5418310.00	5.320	-2.000	-2.000	2.150	192.000	
40861	416900.00	5420100.00	7.070	2.560	-2.000	2.410	286.000	
40862	416955.00	5420135.00	7.160	-2.000	-2.000	2.460	270.000	

Laboratory:	BECQUE	BECQUE	BECQUE	BECQUE	BECQUE	BECQUE
Detection Limit:	0.500	2.000	2.000	0.500	100.00	100.00
Method:						INAA30

800017

APPENDIX 2

Symbols and Codes used in Drill Logs

SYMBOLS FOR COHERENT TEXTURES

- single line symbols for low to moderate phenocryst abundance
- double line symbols for abundant phenocrysts
- smaller symbols for fine grained phenocrysts
- larger symbols for coarse grained phenocrysts
- additional "+" symbol for coarse, phenocryst-rich granitoid texture

	basalt, poorly to moderately porphyritic basalt
	phenocryst-rich basalt
	andesite, poorly to moderately porphyritic andesite
	phenocryst-rich andesite
	dacite, poorly to moderately porphyritic dacite
	phenocryst-rich dacite
	fine, poorly to moderately porphyritic rhyolite
	coarse, poorly to moderately porphyritic rhyolite
	coarse, phenocryst-rich rhyolite
	coarse rhyolitic porphyry
	flow foliation
	spherulites, lithophysae, alteration spots, nodular devitrification texture

SYMBOLS FOR VOLCANICLASTIC TEXTURES

- closer spaced symbols for dominant grain size and grain type

	pumice or relict pumice
	angular, juvenile lava clasts
	fiamme/vitriclast or relict vitriclast
	accretionary lapilli
	angular, polymict lithic clasts
	rounded, polymict lithic clasts
	mudstone intraclast
	sand-size particles, granular texture
	mud-size particles
	distinct planar stratification
	diffuse planar stratification
	cross bedding
	micro-cross lamination
e.g.	
	pumice clasts in sand matrix
	angular polymict lithic clasts and mudstone intraclasts in sand matrix

SYMBOLS FOR JUVENILE-CLAST-RICH DEPOSITS

	jigsaw-fit texture of fine, moderately porphyritic rhyolite		pumice-clast-rich deposit, coarse, moderately porphyritic rhyolitic composition
	jigsaw-fit texture of coarse, moderately porphyritic rhyolite		pumice-clast-rich deposit, coarse, phenocryst-rich rhyolitic composition
	jigsaw-fit texture of coarse phenocryst-rich andesite		pumice-clast-rich deposit, coarse, moderately porphyritic dacitic composition

Fig. 9—Recommended composition and texture symbols for graphic logging of volcanic deposits.

(From:—Maphie, Doyle and Allen. CODES 1993)

ROCK TYPE

ALTR	Altered Rock	GLAN	Gneiss	QZQT	Quartzite
ALTR	Arenite	GRAN	Granite	SLSD	Sandstone
ALLB	Arenite, (shale)	GRAN	Granite	SCST	Schist
ALLI	Arenite, (lithic)	IRSN	Ironstone	SMSP	Semi-massive Sulphide
ALCS	Arkose	IRSN	Ironstone	SESP	Serpentinite
BRCC	Breccia	LAMP	Lamprophyre	SHAL	Shale
BRPH	Polysort Breccia	LIME	Limestone	SILT	Siltstone
CLIB	Carbonate	LITC	Lithic tuff	SISL	Siltstone with shale
CHRT	Chert	MSGR	Massive Graphite	STAR	Star
CLAY	Clay (unconsolidated)	MSPT	Massive Pyrite	SLAP	Slate
CONG	Conglomerate	MSSP	Massive Sulphide	STRK	Structural Reservoir (alt. STR)
CGPK	Polysort Conglomerate	RELA	Relay	TILL	Glacial Till
CGSC	Silicified Congl.	ROCK	Rock	TILT	Tillite
CLOS	Core Loss	RYLN	Rhyolite	TREN	Trenolite
SOLE	Solomite	ROCK	Rock (precolliar)	ULTR	Ultramafic
FALT	Fault	PSKH	Pebbly Sandstone	VEIN	Vein
FTRB	Fault Breccia				
FTRK	Fault/Shear Zone				

Volcanic Rocks

K	Spiclastic				
L	Lava				
P	Porphyry				
VO	Volcanic (General)				
V	Volcaniclastic				
A	Andesitic				
B	Basaltic				
H	Basaltic				
FL	Felsic				
MA	Mafic				
R	Rhyolitic				
U	Ultramafic				
X	Crystal-rich				
F	Feldspar Phyrac				
QF	Quartz-Feldspar Phyrac				
Q	Quartz Phyrac				
IK	Blocky				
JB	Breccia				
C	Coarse				
Z	Zedron (Sandy)				
S	Sine (Silty)				
S	Fery line (Shaler)				
/	Undifferentiated				

Granites

VOPL	Volc. Felsic Lava & Volcaniclastic
VHK	Blocky Volcaniclastic
VKAC	Coarse mafic Volcaniclastic
VDM	Sandy mafic Volcaniclastic
VS	Silty Volcaniclastic
VS	Shaly Volcaniclastic
VSP	Coarse fine-grained Volcaniclastic
VSPH	Felsic Volcaniclastic & Spiclastic
VLRB	Andesitic Volcaniclastic Breccia
VOQP	Quartz-feldspar Phyrac Volcanic
LRP	Feldspar-Phyrac Rhyolitic Lava
IQP	Quartz-feldspar Phyrac Porphyry
VX	Volc. IL-rich Volcaniclastic
VXQP	Quartz-feld. Phyrac IL-rich Volcaniclastic
KIC	Coarse IL-rich Andesitic Spiclastic
KIK	Sandy IL-rich Spiclastic
KIS	Silty IL-rich Spiclastic
KUL	Volc. mafic Spiclastic
KBC	Blocky Spiclastic
KC	Coarse Spiclastic
KDK	Sandy mafic Spiclastic
KS	Silty Spiclastic
KBS	Shaly mafic Spiclastic

TYPE

- U - Volcanic (general)
- V - Volcaniclastic
- E - Epiclastic
- L - Lava
- I - Intrusive
- P - Porphyry

COMPOSITION

- R - Rhyolite
- Y - Rhyodacite
- D - Dacite
- A - Andesite
- B - Basaltic
- F - Felsic
- M - Mafic
- U - Ultramafic

CRYSTAL TYPE

- X - Crystal rich
- A - Aphyric
- F - Feldspar phyric
- < - Feldspar - quartz phyric
- > - Quartz - feldspar phyric
- Q - Quartz phyric
- H - Hornblende phyric
- P - Pyroxene phyric
- B - Biotite phyric
- V - Vitric/glassy
- L - Lithic rich

GRAINSIZE

- B - Breccia
- C - Coarse
- M - Medium (Sandy)
- F - Fine (Silty)
- V - Very fine (Shaley)
- A - Ashy
- / - Undifferentiated

ALTERATION

- P - Pyrite
- \$ - Mineralised
- Q - Quartz
- O - Chlorite
- C - Carbonate
- H - Hematite
- S - Sericite
- K - K feldspar
- A - Albite
- E - Epidote
- F - Fuchsite
- M - Magnetite

N - Scale

- 1 - Very Weak
- 3 - Weak
- 5 - Moderate
- 7 - Strong
- 9 - Intense

APPENDIX 3

Diamond Drill Logs - Crosby Creek Area

RGC EXPLORATION PTY LTD

DRILL HOLE No DD75 CC1

SHEET 1 OF 2

- Bedding
- └ Cleavage
- ▲ Foliation
- ~ Fault, Shear
- ⚡ Breccia
- ▨ Broken core
- ▤ Disseminated
- Massive
- ▩ Pervasive
- ↘ Narrow vein
- * Visible gold

PROJECT :	Loongana
PROSPECT :	Crosby Creek
DATE :	March 1995
LOGGED BY :	Michael Vicary

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG	ALTERATION			GEOLOGY NOTES	SUMMARY	
					SIL.	SER.	PY.		ROCK	ALTERATION
10				NO CORE						
20				A				10-111m		
30				A				Major silt rich feld phytic Andesite (equigranular)		
40				A						
50				A						
60				A						
70				A				minor horn veins		
80				A						
90				A						
100				A				minor horn veins		
110				A						
120	SMA-20			* ▨				111-133.5 blk siltst minor pyrite-sphalerite veining		
130				▨						
140				▨				133.5-151.8 Brecciated feld phytic dacitic vlt sst		
150				▨						
160				▨				151.8-201.8		
170				▨				blk siltst, minor mgr feld vlt sst		
180				▨						
190				▨						
200				▨						

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REMARKS * Best interval 119.5-120.7 1.2m at 1.16% Zn, 0.31% Pb

RGC EXPLORATION PTY LTD

DRILL HOLE No DD75EE1

SHEET 2 OF 2

- Bedding
- └ Cleavage
- ▲ Foliation
- ~ Fault, Shear
- ⊠ Breccia
- ⊞ Broken core
- ⊞ Disseminated
- Massive
- ▨ Pervasive
- ↘ Narrow vein
- * Visible gold

PROJECT :	Loongana
PROSPECT :	Crosby Creek
DATE :	March 1995
LOGGED BY :	Michael Vicary

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG	ALTERATION			GEOLOGY NOTES	SUMMARY	
					SIL.	SER.	PHY.		ROCK	ALTERATION
210								201.8 - 263.4 M-F gr keld-qtz phytic volcanoclastic est Qtz. up to 3mm in diam. patchy chl-pak albite alteration - a bit like Comstock Tuff		
220										
230										
240										
250										
260										
270								263.4 - EOH f-m gr ashy volcanoclastic est/secton - minor blk siltst		
280										
290										
300										

REMARKS

800024

RGC EXPLORATION PTY LTD

DRILL HOLE No DD75 CC2

SHEET 1 OF 1

- Bedding
- └ Cleavage
- ▲ Foliation
- ~ Fault, Shear
- ⚡ Breccia
- ▨ Broken core
- ▤ Disseminated
- Massive
- ▨ Pervasive
- ↘ Narrow vein
- * Visible gold

PROJECT :	LOONGANA
PROSPECT :	CROSBY CREEK
DATE :	MARCH 1995
LOGGED BY :	MICHAEL VICARY

HOLE DEPTH	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG	ALTERATION			GEOLOGY NOTES	SUMMARY	
					SIL.	SER.	PY.		ROCK	ALTERATION
0				1 16				0-33m brown-cream silt		
10				1 2						
20				1 4				black silt after 20m		
30	Assayed			1 16						
60				1 16				33-200m		
50				1 16				Mg Feld phenocryst rich		
60				1 16				Andesite-dacite		
70				1 16						
80				1 16						
90				1 16						
100				1 16						
110				1 16						
120				1 16						
130				1 16						
140				1 16						
150				1 16						
160				1 16						
170				1 16						
180				1 16						
190				1 16						
200				1 16						
REMARKS EOH = 200										

800020

RGC EXPLORATION PTY LTD

DRILL HOLE No DD75 CC3

SHEET 1 OF 1

- Bedding
- └ Cleavage
- ▲ Foliation
- ~ Fault, Shear
- ⚡ Breccia
- ⊞ Broken core
- ⊞ Disseminated
- Massive
- ▨ Pervasive
- ↘ Narrow vein
- * Visible gold

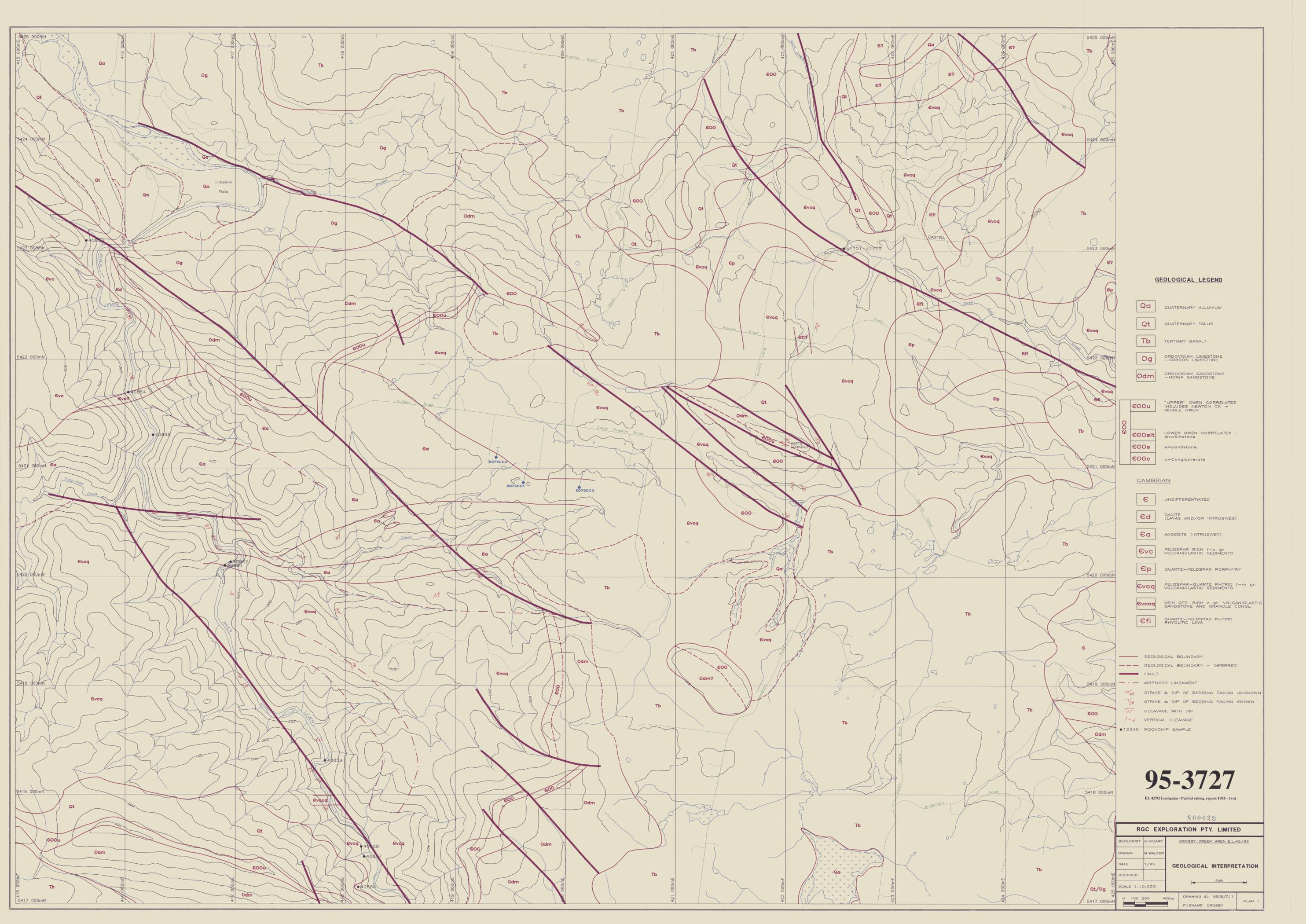
PROJECT :	LOONGANA
PROSPECT :	CROSBY CREEK
DATE :	MARCH 1995
LOGGED BY :	MICHAEL VILARY

HOLE DEPTH m	SAMPLE No PREFIX	ASSAY RESULTS	STRUCT.	GRAPHIC LOG	ALTERATION			GEOLOGY NOTES	SUMMARY	
					SIL.	SER.	PY.		ROCK	ALTERATION
0				^				0-79		
10				^				Mgr kld pheno rich Andesite - dacite		
20				^						
30				^						
40				^						
50				^						
60				^						
70				^						
80				^				79-88.5 blk siltst		
90				^				88.5-98 kld rich ulc est graded top		
100				^				98-141.5 blk siltst.		
110				^						
120				^						
130				^						
140				^				141.5-169 mgr kld-qtz ulc est.		
150				^						

REMARKS

EOH = 169 m

800025



GEOLOGICAL LEGEND

- Qa QUATERNARY ALLUVIUM
- Qt QUATERNARY TALUS
- Tb TERTIARY BASALT
- Og ORDOVICIAN LIMESTONE - GORDON LIMESTONE
- Odm ORDOVICIAN SANDSTONE - MOINA SANDSTONE

- E00u "UPPER" OWEN CORRELATES
INCLUDES NEWTON CK + MIDDLE OWEN
- E00sit LOWER OWEN CORRELATES
sit=Siltstone
- E00sa s=Sandstone
- E00sc c=Conglomerate

CAMBRIAN

- E UNDIFFERENTIATED
- Ed DAGITE (LAVAS AND/OR INTRUSIVES)
- Ea ANDESITE (INTRUSIVE?)
- Evc FELDSPAR RICH f-c gr. VOLCANICLASTIC SEDIMENTS
- Ep QUARTZ-FELDSPAR PORPHYRY
- Evcq FELDSPAR-QUARTZ PHYRIC f-m gr. VOLCANICLASTIC SEDIMENTS
- Evcqc VEIN QTZ. RICH c gr. VOLCANICLASTIC SANDSTONE AND GRANULE CONGL.
- Efl QUARTZ-FELDSPAR PHYRIC RHYOLITIC LAVA

- GEOLOGICAL BOUNDARY
- GEOLOGICAL BOUNDARY - INFERRED
- FAULT
- AIRPHOTO LINEAMENT
- STRIKE & DIP OF BEDDING FACING UNKNOWN
- STRIKE & DIP OF BEDDING FACING KNOWN
- CLEAVAGE WITH DIP
- VERTICAL CLEAVAGE
- 12345 ROCKCHIP SAMPLE

95-3727
 EL 4292 Luongana - Partial relinq. report 1995 - 1vol

S00029

RGC EXPLORATION PTY. LIMITED

GEOLOGIST M.VICARY	CROSBY CREEK AREA EL 42/92
DRAWN M.WALTER	
DATE 1/95	
CHECKED	

GEOLOGICAL INTERPRETATION

SCALE 1:10,000

5m

0 100 200 400m

DRAWING ID: 5535/011 PLAN 1
 FILENAME: CROSBY



95-3727
 E1.42/92 Loongana - Partial relog, report 1995 - Ivai

800030

RGC EXPLORATION PTY. LIMITED

GEOLOGIST: M. VIGARY
 DRAWN: H. WALTER
 DATE: 1/95
 CHECKED: _____

CROSBY CREEK AREA E.L. #2/92
 5 cm

FACT. GEOLOGY

SCALE: 1:10,000
 0 100 200 400m
 DRAWING ID: 9535/013
 FILENAME: CROSBY

PLAN 2

1/1/95