

SUMMARY:

Geological, geochemical, geophysical and drilling programs undertaken by Montroyal Mining N. L., on the eastern margin of the Palaeozoic sedimentary Henty Basin have successfully highlighted the region's potential to contain disseminated, sediment hosted, primary gold deposits.

These programs have concentrated on the extensively folded and faulted lower Palaeozoic sediments in the Coupon—Woody Hill area near Lynchford, where minor gold mining activity took place earlier this century.

Extensive soil and rock geochemical sampling have defined three substantial gold-arsenic anomalies in siliceous sediments adjacent to a major structural zone. These siliceous sediments are interpreted as overlying and essentially concealing calcareous Ordovician sediments, including the Gordon Limestone.

The principal such anomaly defined to date occurs over the old Coupon Mine. Detailed surface rock chip sampling, underground adit sampling and shallow reverse circulation drill holes and one cored drill hole have confirmed the gold-arsenic anomalism of both the siliceous and calcareous sediments in this area.

All data collected to date was re-assessed during the current tenement year, and interpreted as suggesting the area has untested potential for fine grained gold mineralisation, originating in the underlying Cambrian volcanics, replacing calcareous sediments in structurally prepared lower Palaeozoic formations. It is suggested that this geological setting is similar in many respects to the "Carlin deposit model".

An assessment of existing regional data indicates similar geology and potential may extend beyond the area already studied in detail on E. L. 9/84, into the adjacent E. L. 8/91.

To date, Montroyal Mining N. L., has spent \$ 335,635 and \$7,325 exploring E. L. 9/84 and E. L. 8/91 respectively.

It is proposed that the potential for carbonate replacement, disseminated gold deposits in the Coupon area be further valuated by a 3-4 hole core drilling program. In conjunction with this drilling, reconnaissance mapping and sampling should be undertaken on E. L. 8/91 to determine its basic potential to host similar deposits.

If the Coupon drilling program produces encouraging results, then the significant gold-arsenic anomalies to the North of Coupon should also be drill tested and areas of potential within E. L. 8/91 should be gridded and deep soil sampled.

The initial drilling program proposed at Coupon on E. L. 9/84 is estimated to cost \$90,000 and the reconnaissance mapping and sampling on E. L. 8/91 to cost \$20,000.

This Annual Report essentially consists of two reports compiled during the year for the tenement holders by Newnham Exploration and Mining Services viz:

- (i) "E. L. 9/84 and E. L. 8/91 Lynchford Area, Western Tasmania. Data Review and Mineral Resource Potential Assessment." by L. A. Newnham, 30th November, 1991.
- (ii) "E. L. 9/84 and E. L. 8/91 Lynchford Area, Western Tasmania. Proposed Exploration Program." by L. A. Newnham, 27th December, 1991.

The one cored drill hole on the Coupon anomaly, completed earlier in the year, was reported upon in detail in the report titled:

"E. L. 9/84— Lynchford Progress Report on Exploration Activity March 1991-July 1991"
by P. A. Jones, June 1991, DMMR Ref. No 91/3275.

NEWHNHAM EXPLORATION AND MINING SERVICES

**E.L. 9/84 and E.L. 8/91
LYNCHFORD AREA
WESTERN TASMANIA**

**DATA REVIEW
AND
MINERAL RESOURCE POTENTIAL ASSESSMENT**

Prepared for: Goldstream Mining N.L.,
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Date: 30th November, 1991

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TABLE 1: Geological Key

Approved for release by the Department of Energy, Mines and Technical Surveys

L SUMMARY:

Exploration Licences 9/84 and 8/91 held by Montroyal Mining N.L. lie on the fault disrupted eastern margin of the sedimentary Henty Basin, in close proximity to major basement structures such as the Great-Lyell Fault.

Exploratory work on the Licences to date has defined several strong gold-arsenic geochemical anomalies within a four kilometre zone adjacent to the Harveys Creek-Garfield River Fault zone. Gold anomalous rock chip samples extend this zone of interest a further three kilometres to the South. The Harveys Creek-Garfield River Fault is interpreted as a major, long lived basin margin extension fault which influenced both the pattern of Palaeozoic sedimentation and metallogeny in this area.

The gold-arsenic anomalism is particularly pronounced over a 400m x 150m zone coincident with the old Coupon Gold Mine workings. Initial soil and rock sampling at Coupon were followed by limited reverse circulation and core drilling programs which provided further evidence and encouragement that this area has remaining potential for the development of major gold deposits.

The two substantial soil and rock geochemical anomalies North of Coupon, known as Davie and 24-28 Anomalies, have yet to be followed up.

An interpretation of existing data suggests this area has potential for gold, and possibly base metal, deposits of the general Carlin - Irish style models (ie) carbonate hosted stratabound deposits associated with major structural zones within large sedimentary basins, preferably developed on mineralised basement rocks in areas of high thermal gradients. The following observations support this:

- The Coupon and adjacent workings occur at the structurally disturbed eastern margin of a major Palaeozoic sedimentary basin developed on mineralised Cambrian basement. The margins of this basin are all characterised by well mapped major growth or extension faults and associated fractured zones.
- East of this basin is the North-South trending Great Lyell Fault, which in combination with the Henty Fault, represents a major crustal suture running the full length of western Tasmania. Extension faults and thrusts off this major basement structure are arguably associated with much of the mineralisation in Western Tasmania.
- Western Tasmania is an area of high geothermal gradients which, in combination with major episodes of tectonism during the Palaeozoic, has resulted in extensive remobilisation and concentration of earlier mineralisation, as shown by recent studies on the adjacent Mt. Lyell field and elsewhere.
- The general Coupon Mine area is geochemically anomalous in gold, arsenic and antimony, all of which are geochemical features of major carbonate hosted gold and base metal deposits of the Carlin - Iberian - Irish types.
- The stratigraphy adjacent to the Harveys Creek-Garfield River Fault contains thick, calcareous units (Gordon Limestone) which would constitute ideal mineralisation hosts. Antimony mineralisation at the nearby Rinadeena Workings and anomalous gold in the one cored hole at Coupon are present in the Gordon Limestone. Elsewhere the limestone outcrops poorly in this environment.
- Of particular relevance is previous company mapping South of Coupon, which suggested the outcropping rocks might be younger than Gordon Limestone, not older as shown on Government maps. If this is confirmed, it would substantially

expand the area of Gordon Limestone adjacent to the Harveys Creek-Garfield River Fault, most of which would be concealed at relatively shallow depths below younger formations.

Anomalies such as Coupon, Davie and 24-28 could then be interpreted as leakage anomalies reflecting concealed carbonate hosted gold deposits.

Work completed to date on these Licences has highlighted the structural, stratigraphic and geochemical similarities between this area and a now well documented class of gold and base metal carbonate hosted stratabound deposits. This work has been of a shallow nature and has only tested geochemical haloes and leakage patterns in near surface sediments predicted to overlie more prospective carbonate units.

Further core drilling programs to test for carbonate hosted mineralisation adjacent to major structures are warranted along the Harveys Creek-Garfield River Fault zone.

Additional potential exists for the development of Henty style (structurally controlled) gold deposits, hosted by gold anomalous volcanoclastic Tyndall Group rocks adjacent to the Harveys Creek-Garfield River Fault zone between the Coupon Workings and the King River.

GEOLOGICAL KEY

The following symbols have been variously used on geological drawings in this Report

TERTIARY	TS	Sediments	
	PD	Undifferentiated Post-Devonian sediments	
DEVONIAN	D	Undifferentiated sediments	
	Dg	Granite	
	Db	Bell Shales	
	Df	Florence Quartzite	
SILURIAN	S	Silurian sediments undifferentiated	Eldon Group
	Sc	Crotty Quartzite	
ORDOVICIAN	Or	Rinadeena Formation	Junee Group
	Ors	sandstone	
	Orm	Shale	
	Og	Gordon Limestone	Denison Group
CAMBRO-ORDOVICIAN	Om-Dc	Moira Sandstone-Owen Conglomerate and equivalents	
CAMBRIAN	E	Undifferentiated	
	Ed	Dundas Group	
	Ev	Undifferentiated Mt. Read Volcanics	Mt. Read Volcanics
	Et	Tyndall Group	
	Ec	Central Volcanic Complex	
	Ew	Western Sequence	
	Ep	Porphyritic Intrusives	
	Eb	Gabbroic and ultramafic complexes	
PRECAMBRIAN	pe	Undifferentiated	

TABLE 1

2. LOCATION and TENURE: (Figure 1)

Contiguous Exploration Licences 9/84 and 8/91 lie approximately 10 kilometres South of Queenstown on the West Coast of Tasmania. (Fig. 1)

They are held by Montroyal Mining N.L., which currently has 100% equity in both tenements.

Perth based Montroyal Mining N.L. is a subsidiary of Goldstream Mining N.L.

E.L. 9/84, initially of 56 sq kilometres when granted in 1984, was statutorily reduced by approximately 50% to 27 sq kilometres after five years of tenure in 1989. It is due to expire in July 1994. If ongoing exploration between now and 1994 can indicate significant resource potential on the Licence, tenure may be secured beyond 1993 either as an E.L. extension or a Retention Licence, both of which can be granted at the discretion of the Minister of Resources and Energy.

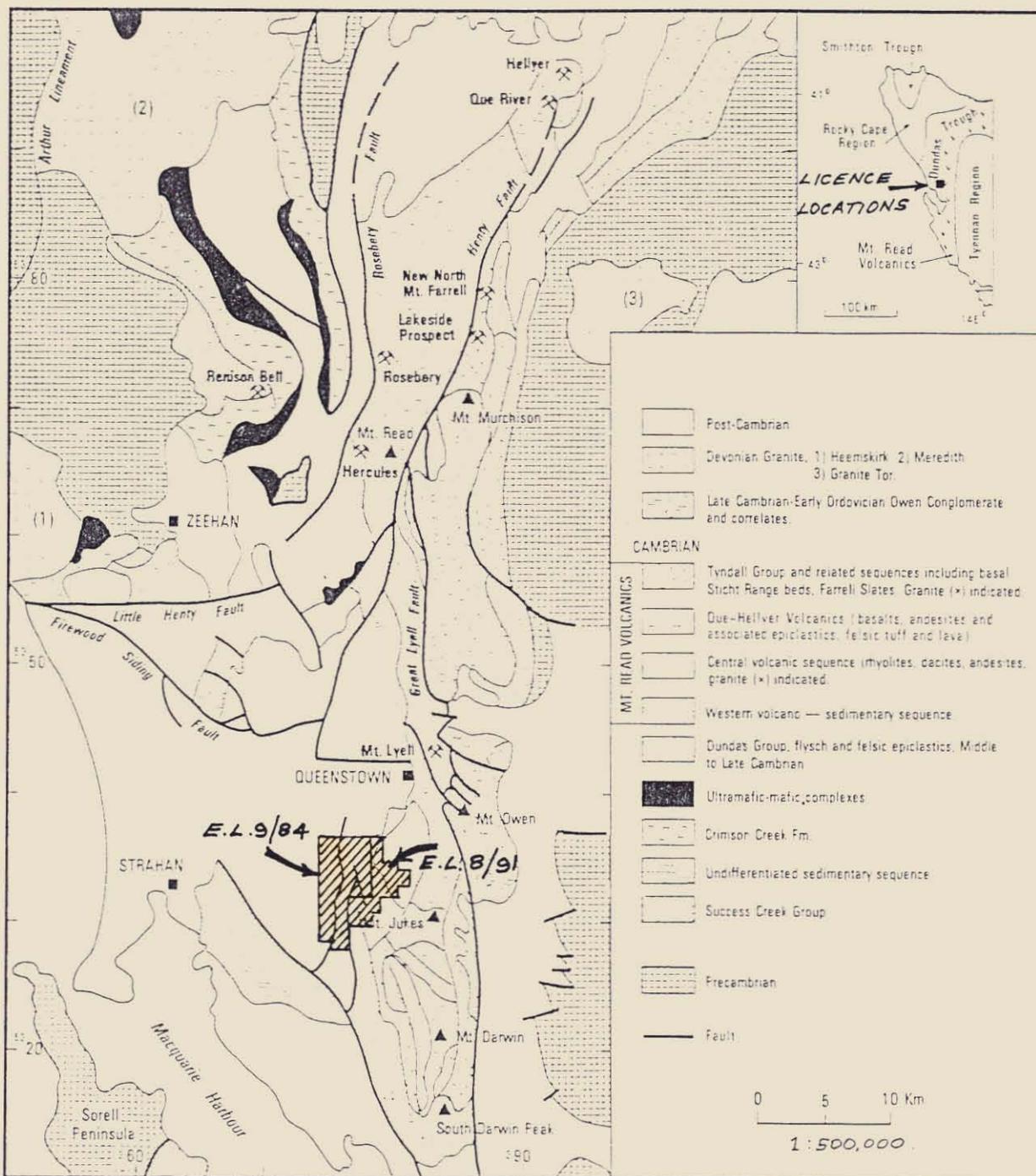
E.L. 8/91 of 14 sq kilometres was granted in July 1991. It must be reduced by at least 50% by July 1996 and relinquished by July 2001, unless extended under special circumstances by the Minister.

Both Licences are subject to annual renewal which is dependent upon the Licencee meeting certain expenditure and work performance conditions.

Current expenditure requirement on E.L. 9/84 is \$2,000/sq km or \$54,000 for 1991-92 and \$5,000/sq km or \$135,000 p.a. for 1992-94 (unless reduced in area).

The expenditure requirement on E.L. 8/91 is \$5,000 p.a. for each of the first two years, then increasing on a sliding scale for the remaining eight years.

Performance conditions relate largely to environmental management.



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Base map from Division of Mines and Mineral Resources publication "Mt. Read Volcanics Project Geological Report 5"

NEWNHAM EXPLORATION AND MINING SERVICES

E.L. 9/84 and E.L. 8/91

WESTERN TASMANIA

LOCALITY PLAN

Scale 1:500,000

Drawn L.A.N. Date Nov 91 Figure 1

3. LAND CLASSIFICATION AND ACCESS: (Figure 2)

Exploration Licences 9/84 and 8/91 lie within the Municipality of Lyell, except for 0.5 sq km at the southern end of E.L. 9/84 which lies within the Municipality of Strahan.

The northern half of E.L. 8/91 and a small North-East section of E.L. 9/84 lie within the Queenstown town boundary.

The combined Licences are Crown land, but are variously administered by four Government agencies.

The eastern half of the combined Licence areas is largely uncommitted Crown land, administered by the Department of Environment and Planning. This category of land is not regarded by Government as a "sensitive area" and is subjected to standard conditions of exploration and mining. The area of current maximum exploration interest lies within this classification.

The western half of the combined Licence areas will be classified as Multiple Use Forest Land under the new Public Land (Administration and Forests) Bill 1991, currently before Parliament. As such, the management prescription for the area provides for the promotion and encouragement of responsible exploration and mineral resource development. This land will be administered by the Forestry Commission.

A four square kilometre area in the centre of E.L. 8/91 is classified as Hydro Electric Commission vested land. As such, it is administered by the HEC as if it was private land. An access agreement is required with the HEC prior to the commencement of any exploration. Normally such agreements are relatively straight forward matters to organise. Once the King River power scheme is completed in the near future, this area will probably revert to an uncommitted Crown land classification.

A 0.5 sq km area South of the King River at the southern end of E.L. 9/84 is within the South West Conservation Area and is administered by the Department of Parks, Wildlife and Heritage. Exploration and mining are permitted but it is regarded as a "sensitive area" and all such work must be approved by the Government's Mineral Exploration Working Group, and must be conducted in a highly sensitive manner so as to minimise environmental impacts. Exploration completed to date has not highlighted this area as having a high mineral resource potential.

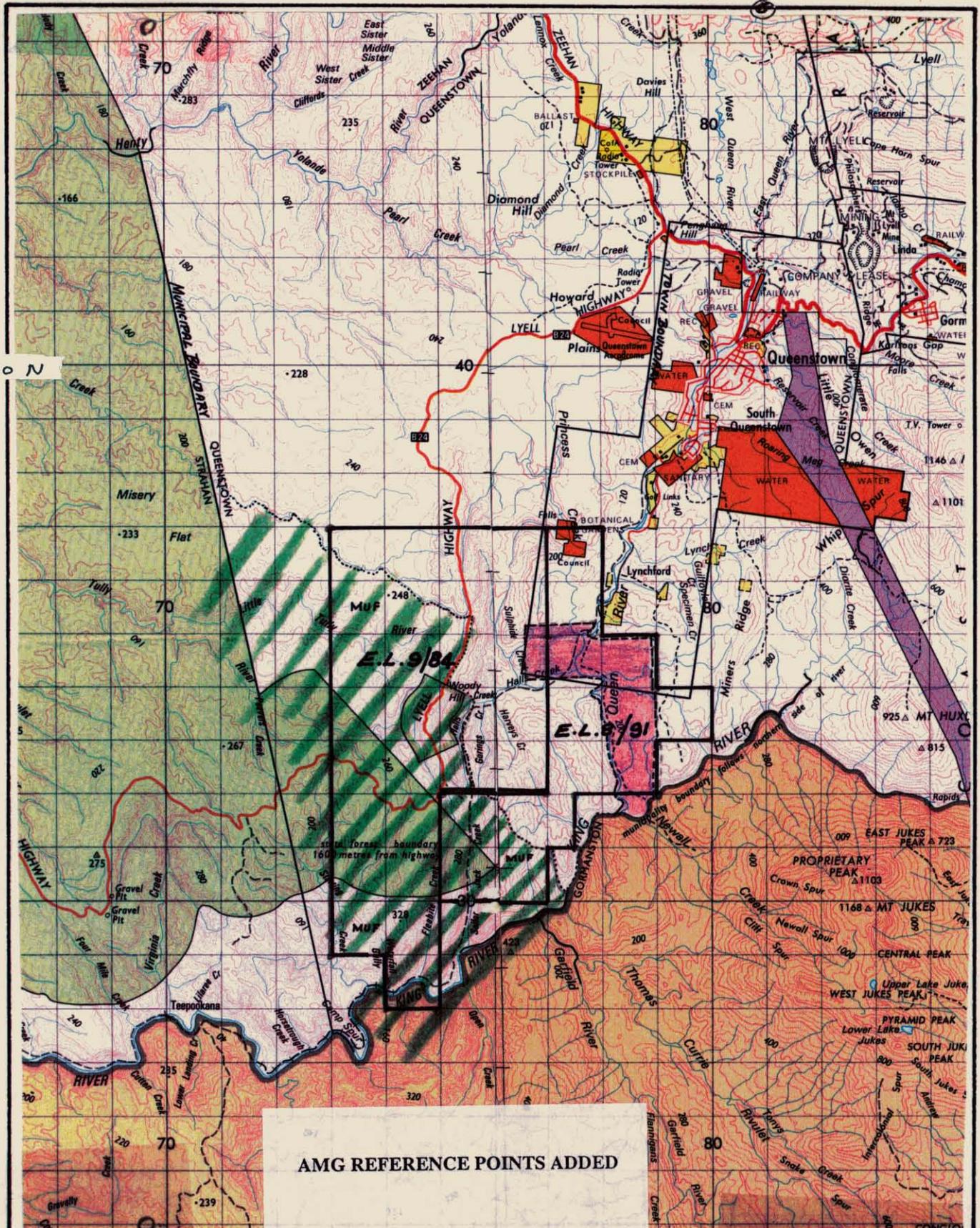
The region is one of high rainfall (2500 mm pa), falling mainly in the non-summer months. It is moderately rugged and covered by dense scrub and rainforest regrowth.

Access is, by western Tasmanian standards, generally very good. The central section of E.L. 9/84 is traversed by the sealed Lyell Highway and the unsealed but all weather disused Abt Railway formation.

The central section of E.L. 8/91 is cut by the sealed Mt. Jukes Road, and the western section by the Abt Railway formation which in this area is only suitable for foot access.

Away from these major routes, access is difficult due to the dense regrowth. Systematic detailed exploration normally requires track cutting.

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AMG REFERENCE POINTS ADDED

-  Uncommitted Crown Land admin. by Dept. Environment and Planning
-  Land administered by Hydro Electric Commission
-  Multiple Use Forest Land / State Forest admin. by Forestry Comm.
-  Conservation Area admin. by Dept. Parks, Wildlife, Heritage
-  Crown Reserve admin. by Dept. Environment and Planning

NEWNHAM EXPLORATION AND MINING SERVICES

E.L. 9/84 and E.L. 8/91
MONTROYAL MINING N.L.

LAND TENURE

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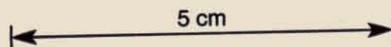
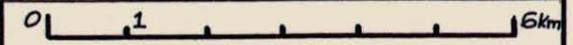


Figure 2.

4. GEOLOGY

4.1 Regional: (Figure 3)

Tasmania lies at the southern extremity of the Palaeozoic Tasman Fold Belt system which transects eastern Australia.

In western Tasmania, Precambrian extension resulted in the formation of the Dundas Trough between the sedimentary Rocky Cape and Tyennan Precambrian blocks.

During the Cambrian, the Dundas Trough was infilled in the West by thick sequences of turbidites, calcareous sediments and submarine basic volcanics, collectively known as the Dundas Group, and accompanied by tectonically emplaced gabbroic and ultramafic rocks. In the East, the trough was infilled with a thick pile of essentially felsic volcanics, overlain by extensive volcanoclastic sediments and collectively known as the Mt. Read Volcanics.

The tectonic instability which commenced as extension rifting in the Precambrian, continued through this period of Cambrian sedimentation and volcanism, and major faults such as the Great Lyell, Henty and Rosebery Faults are now thought to be long lived, deep crustal structures importantly associated with the metallogeny of the Dundas Trough.

Late Cambrian - early Ordovician conglomerates and sandstones were deposited extensively and often unconformably over the eroded earlier Dundas Trough volcanics and sediments. These in turn were followed by a thick, conformable sequence of Ordovician to Devonian shallow marine and terrestrial shelf deposits, which included extensive carbonate sedimentation in the Ordovician.

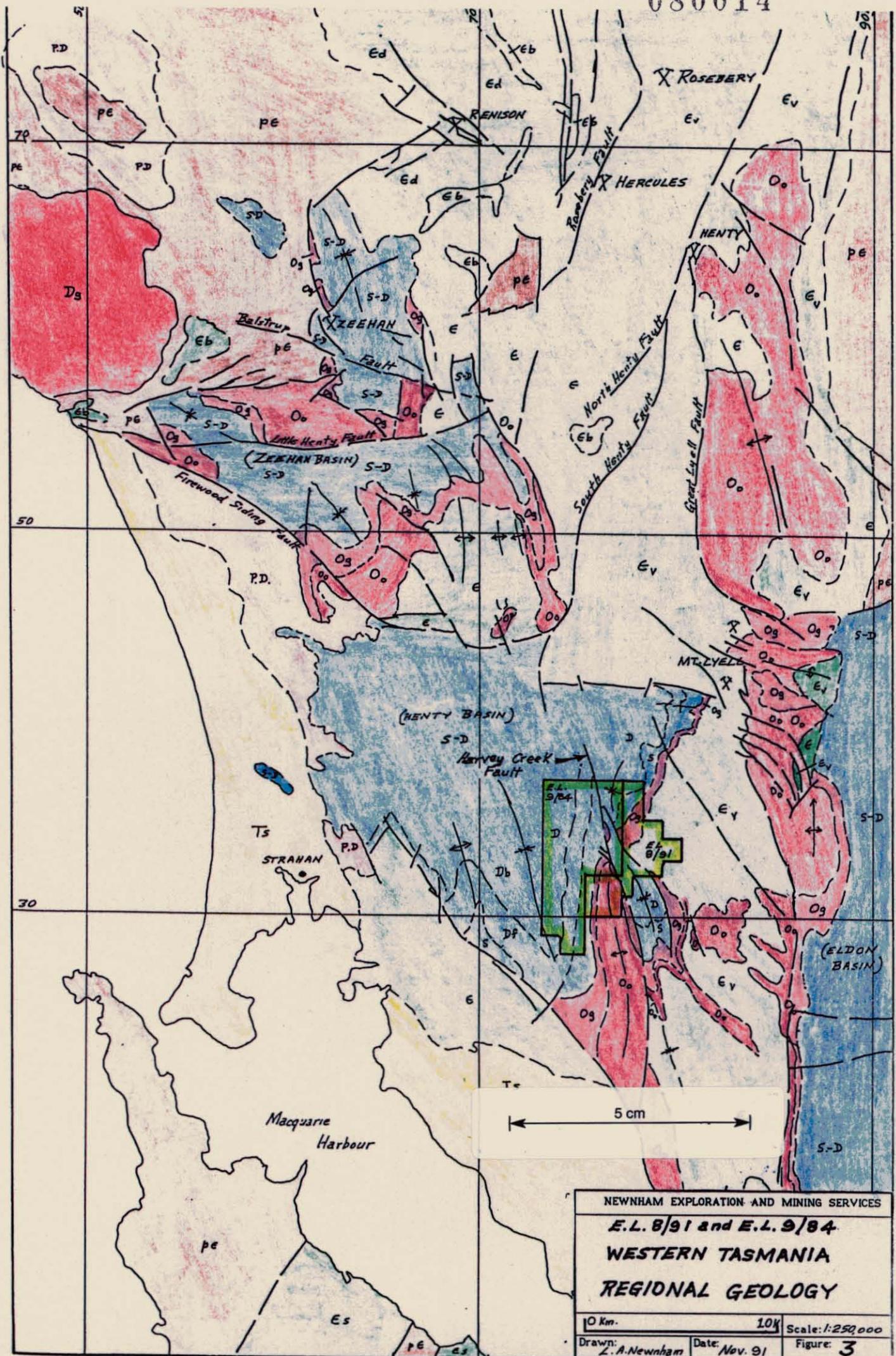
These thick sequences of Ordovician - Devonian sediments were deposited in a number of sedimentary basins formed along the length of the Dundas Trough. Three of these basins are shown in Figure 3 and are named the Zeehan, Henty and Eldon Basins. Their margins are normally marked by major fault structures and it would appear that they were tectonically active throughout the Palaeozoic, with the pattern of sedimentation strongly influenced by continual tectonic adjustment.

A major orogenic event in the mid-Devonian resulted in the widespread folding and faulting of these sedimentary basins and their adjacent older rocks, and was followed in the mid to late Devonian by the intrusion of a series of S-type granites.

E.L.'s 9/84 and 8/91 lie on the eastern margin of the Henty Basin. This basin, which covers an area of approximately 200 sq km, is bounded to the North by the Firewood Siding Fault, to the South by the Teepookana Fault and in part on the East by the Harveys Creek-Garfield River Fault.

During the Devonian orogeny, the Henty Basin was strongly deformed. Basin margin faulting was accentuated and subsidiary faults developed along with brittle fracturing of sandstone units and pervasive shearing of softer beds. The Basin was strongly folded in a North-West direction.

Known gold and base metal mineralisation is widespread around the northern and eastern margins of the Henty Basin.

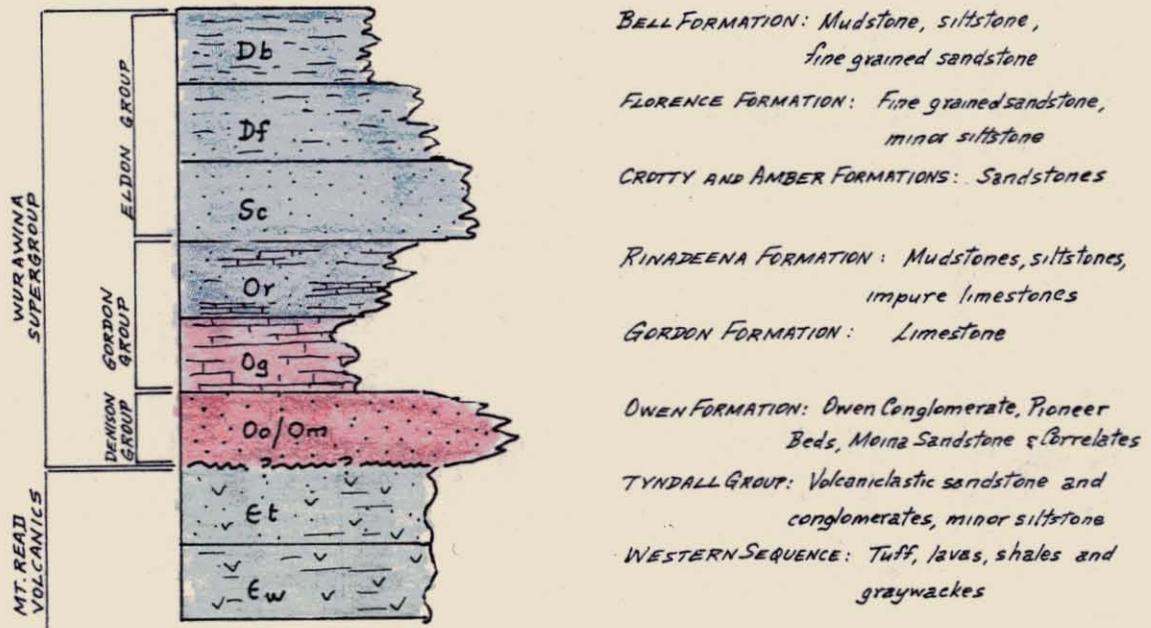


Data Sources: E.L. Mapping; Queenstown 1:250,000 Map Sheet; MRVP Map 6, 1:100,000

4.2 Local: (Figure 4)

E.L.'s 9/84 and 8/91 are underlain by a strongly folded, faulted and deformed sequence of Cambrian - Ordovician - Silurian - Devonian sediments, overlying Mt. Read Volcanics on the eastern margin of the Henty Basin.

The general stratigraphic column is illustrated below:



Due to the poor outcrop combined with the difficult nature of the country, geological interpretation is substantially subjective in some areas and accounts for the variation between the interpretation shown on a number of geological maps.

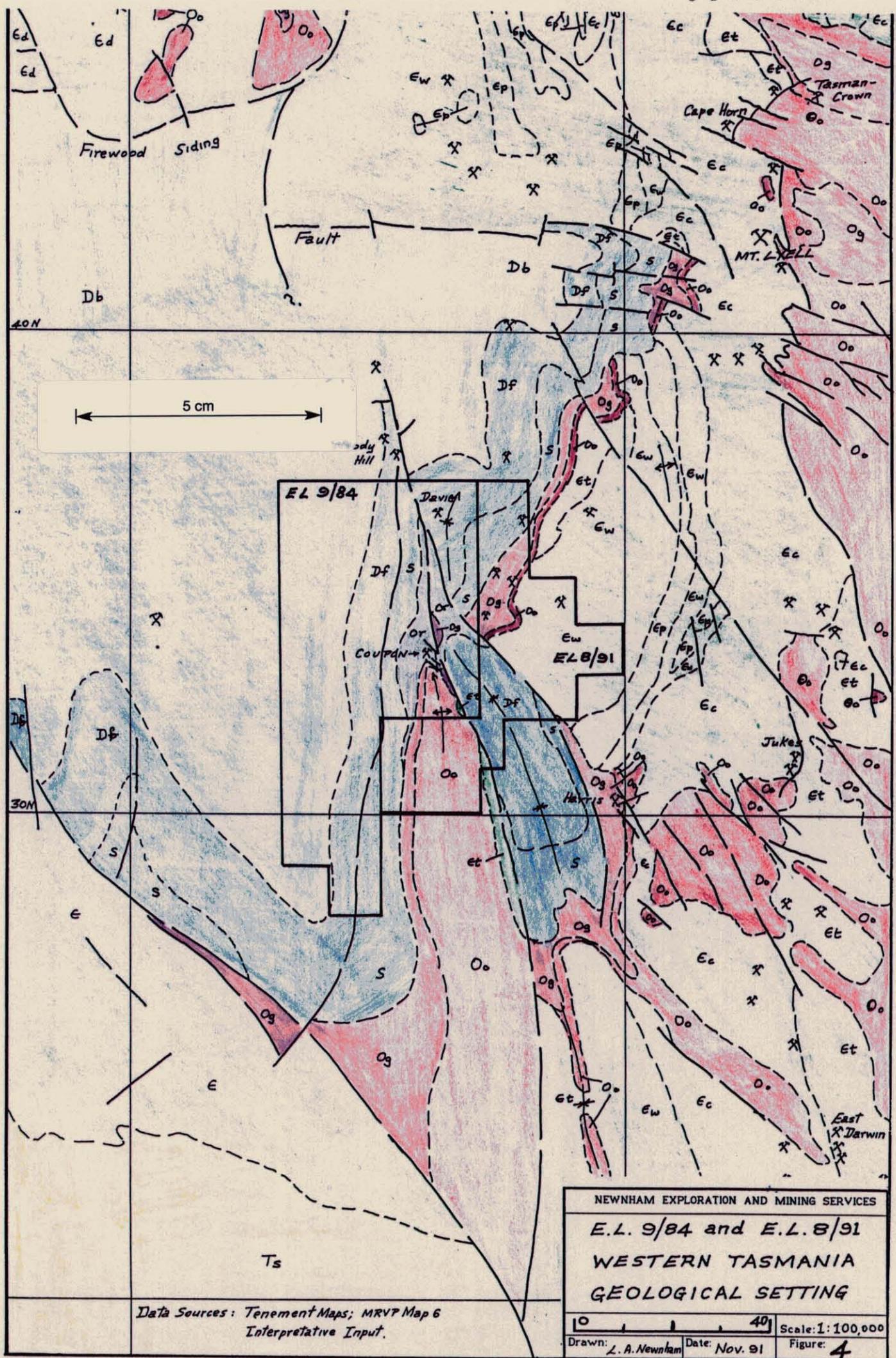
The Mt. Read Volcanics which underlie the eastern half of E.L. 8/91 are correlated with the lower Cambrian Western Sequence which typically consists of interbedded tuffs, lavas, shales and graywackes.

They are overlain, possibly unconformably, by a Cambro-Ordovician sandstone sequence equated with the Moina Sandstone elsewhere in Tasmania. The upper section of this unit is often hematitic and can lie on an unconformable erosion surface directly on the Mt. Read Volcanics.

The Cambro-Ordovician sandstones are conformably overlain by the thick Ordovician Gordon Limestone. Outcrop of this formation is usually very poor on the West Coast because of deep erosion and intense weathering. Its presence is often predicted on geological maps by adjacent formation outcrop patterns, soil profiles and drainage patterns. Typically it is present to shallow depths as black clay and pug.

Gordon Limestone is conformably overlain by Rinadeena Mudstone which consists of interbedded slates, siltstones and impure limestones (1). Small brachiopods are occasionally seen in outcrop.

The Ordovician Gordon Limestone and Rinadeena Mudstone Formations are the dominant calcareous formations in the Henty Basin.



Data Sources: Tenement Maps; MRVP Map 6 Interpretative Input.

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E.L. 9/84 and E.L. 8/91		
WESTERN TASMANIA		
GEOLOGICAL SETTING		
0 40		Scale: 1:100,000
Drawn: L. A. Newham	Date: Nov. 91	Figure: 4

Rinadeena Mudstone is conformably overlain by Silurian and Devonian sandstones and shales of the Eldon Group including the Crotty Quartzite, Amber Slate, Keel Quartzite, Florence Quartzite and Bell Shale Formations. The complete sequence can be up to 1800 m thick.

Within the Licence areas, the sediments have been strongly folded and faulted. Fold axes generally trend NNW and the two principal fold structures have been named the Coupon Anticline (north plunging) and the Harris Syncline (Figure 4).

Of particular note is the variation between mapping interpretation along the Coupon anticline South of the Coupon Workings. Government maps show the area as underlain by lower Ordovician sandstones (Moina Sandstone equivalents) whereas mapping by Norgold in the mid 1980's South of E.L. 9/84 suggest it was underlain by Rinadeena Mudstone or Crotty Quartzite.

The implications of the Norgold interpretation are significant because, if correct, it would mean the whole region South of, and including the Coupon Workings, was underlain by concealed Gordon Limestone against the Harveys Creek-Garfield River Fault.

This would not be the first time in Tasmania where sandstone sequences immediately above Gordon Limestone have been mistaken for the sandstones immediately below, with similar exploration implications.

The faulting pattern is dominated by the NNW trending Harveys Creek-Garfield River Fault which is interpreted as being a steeply East dipping fault on which the East block has moved down and North.

The Harris Syncline is faulted on the East by another major fault structure herein named the Harris Fault. It is mapped as striking NW and possibly intersects the Harveys Creek Fault in the vicinity of the Davie Workings. It is postulated that the Harris Fault dips West and that the West block moved down and North.

Mineralisation in the Licence areas is widespread and is commented upon in greater detail in Section 5 below. The majority of known mineralisation appears to be gold in fracture zones adjacent to major structures, for example Coupon, Davie, Mays, Woody Hill and Princess Gold Mines, whilst the poorly known geology at deposits such as Rinadeena, Lynchford and Harris Reward suggests a carbonate replacement genesis for these deposits.

5. PREVIOUS EXPLORATION:

Exploration on the area now covered by E.L.'s 9/84 and 8/91 has taken place over two widely spaced periods:

- 1890 to 1920: a period of early prospecting and production by way of shallow adits and shafts.
- 1965 to present: contemporary exploration by various organisations including Pickands Mather, E.Z., Trikon, Montroyal, Cyprus, Perilya-Noranda, Norgold, CRA and Aberfoyle.

This work included various geological mapping, geochemical, geophysical and drilling programs.

5.1 Early Prospecting Work: (Figure 4,5)

Following discovery of the Mt. Lyell deposits in the 1880's, prospecting of the general Queenstown area for gold and base metals was intense. This work was facilitated and encouraged in the current Licence areas South of Lynchford by the completion of the railway between Strahan and Queenstown and the clearing of the nearby hills of trees to be used in the smelters and for domestic purposes.

Alluvial gold was panned in many of the streams in the Lynchford area, and rapidly traced back to prospective source rocks, which were further explored and tested by shallow shafts and tunnels.

Records of this work are uncharacteristically poor but the approximate locations of the principal workings are shown on Figure 5.

Main data sources on these workings are:

- Queenstown 1:50,000 metallogenic map.
- Secretary of Mines Quarterly Reports 1894-1913
- Mine plans held at DMMR, Hobart.

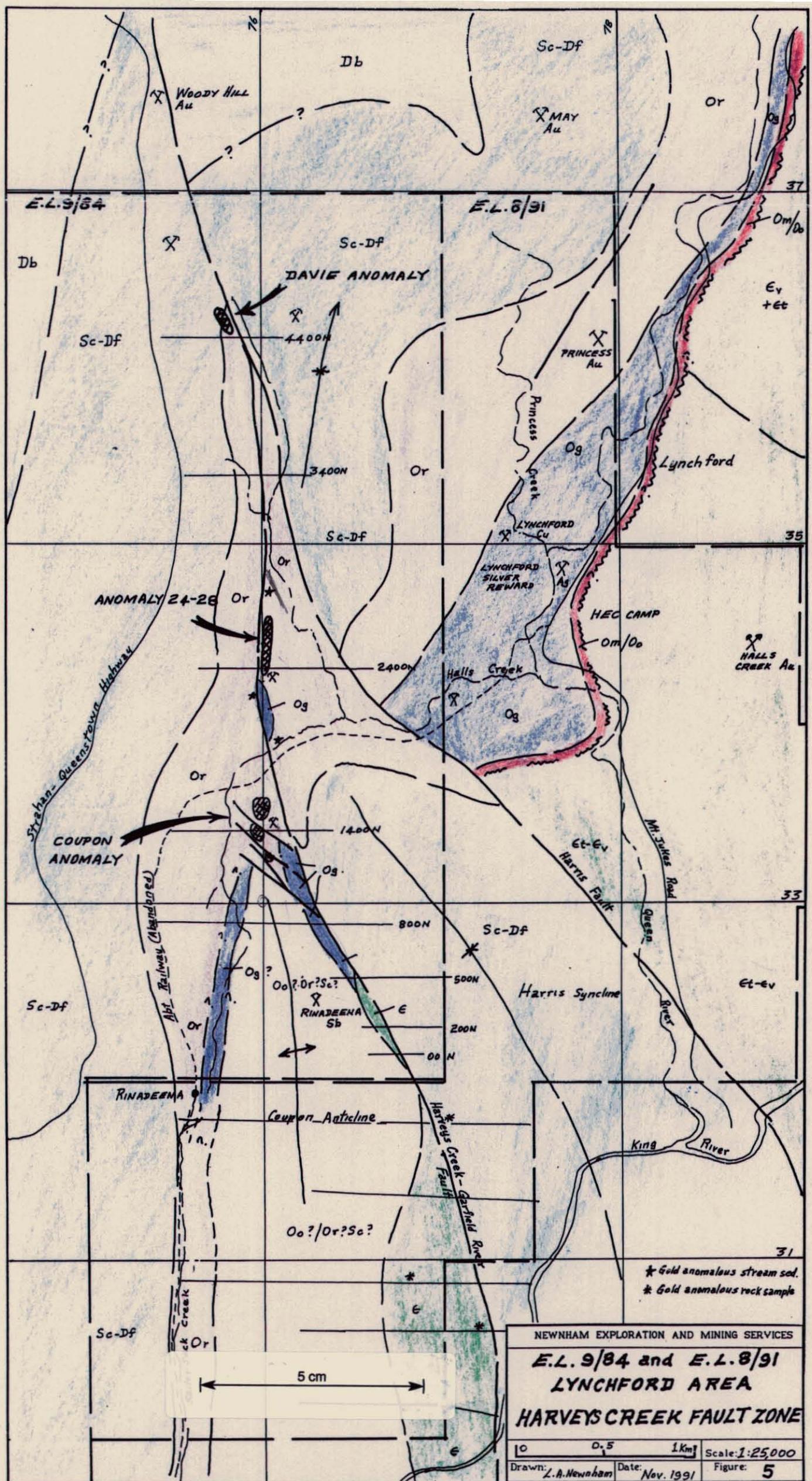
Woody Hill Gold Mine (1,2) adjacent to the Harveys Creek Fault immediately North of E.L. 9/84, was worked intermittently from 1887-1907. Recorded production was 4.6 kg gold from 265 tonnes ore at an average recovered grade of 17.6 g/t, produced from two adits driven WSW on narrow quartz veins in Florence and Crotty Quartzites. Green (1) suggested the mineralisation might represent material remobilised from deposits in underlying Cambrian rocks.

The Davie Workings (2) approximately 1.25 km South of Woody Hill along the Harveys Creek Fault consisted of several shafts and adits developed on quartz reefs which produced encouraging assay results of up to 14 g/t gold at surface. From the brief records, these workings appear substantial and have probably not been re-located by the contemporary exploration work.

The Coupon Workings (2) lie South of the Davie Workings, a further three kilometres along the Harveys Creek Fault. At least six tunnels together with shafts and winzes have prospected auriferous limonitic zones crosscutting a prominent North-South ridge between Harveys and Gorings Creek.

Little is recorded about these workings. However in 1913, 32 tonnes were mined at an average grade of 12 g/t gold.

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NEWNHAM EXPLORATION AND MINING SERVICES
E.L. 9/84 and E.L. 8/91
LYNCHFORD AREA
HARVEYS CREEK FAULT ZONE

0 0.5 1km Scale: 1:25,000
 Drawn: L.A. Newnham Date: Nov. 1991 Figure: 5

Data Sources: Norgold, Trikon, Perilya, Cyprus, DMMR Mapping. Minor interpretation by writer.

The Rinadeena Reward Claim was prospected for antimony (2,3). An adit was driven 120m, largely in black pug, from which samples containing stibnite nodules were obtained.

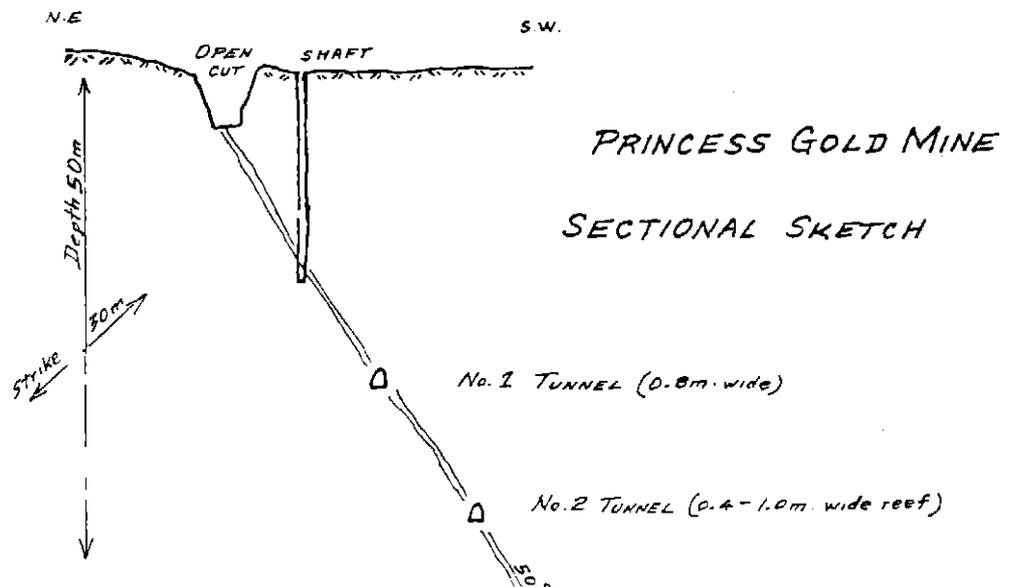
The exact location of this adit is not known but it was described as being near Halls Creek at the saddle of the Abt railway. The fact that it was in black pug and cavernous ground suggests to this writer that there is little doubt it was driven in Gordon Limestone, probably on the western flank of the Coupon Anticline in the vicinity of Gorings Creek.

Because the stibnite was high in lead, it was virtually unsaleable in those days, so development work was not persisted with. However, the presence of antimony in calcareous rocks is of great significance in evaluating this region for sediment hosted gold mineralisation as discussed later in this report.

The May Gold Mine (DMMR Mine Dwg 117,2,4) lies immediately North of E.L. 8/91 and adits at two levels were developed on quartz veins striking 106° (mag) in Silurian - Devonian quartzites. In 1904, 52 tonnes quartz were mined at an average grade of 16 g/t gold.

The Princess Gold Mine (DMMR Mine dwg 205-01) was developed on a quartz reef striking South East, dipping approximately 50° S.W. in Ordovician sediments striking North East and dipping North West. The reef was 0.5-1.0m wide and was developed by a shallow open-cut, shallow shaft and two tunnels. It was stoped for 30m strike length over a vertical depth of 50m.

No production records could be found.



No records of the Lynchford Copper Mine or the Lynchford Silver Reward Mine could be located but it is instructive to note that they are shown on the metallogenic map as occurring in Gordon Limestone within E.L. 8/91.

A thorough search of the archive records of the Mt. Lyell Mining and Railway Co. Limited might reveal information on these mines.

The **Harris Reward Mine** (2) occurs two kilometres South-East of E.L. 8/91 in Gordon Limestone adjacent to the Harris Fault, which strikes North West into E.L. 8/91.

A shaft and at least two levels appear to have been sunk on the faulted (?) contact between possible Gordon Limestone and Mt. Read Volcanics (schists and porphyries). Production records are unavailable, but in 1901, 20 tonnes were mined at 33 g/t gold.

In summary, known former mine workings within and adjacent to E.L.'s 9/84 and 8/91 suggest widespread gold and possible base metal sulfides are present in both structural settings and carbonate stratigraphy adjacent to major fault zones.

5.2 Contemporary Exploration 1965-91:

5.2.1 Pickands-Mather 1965-68:

In 1965-68, Pickands Mather International undertook a stream sediment survey through this area as part of a major regional exploration program in western Tasmania. Only those streams cut by the Abt Railway were sampled and assayed for copper, lead, zinc and nickel. No anomalies were defined.

Interestingly, they did define a significant geochemical anomaly in Bell Shales near the Queenstown Airport, North of E.L. 9/84, close to where a number of old gold workings occur. Subsequent grid based soil sampling highlighted several strong arsenic anomalies but it would appear that the anomaly was never explained (5).

5.2.2 Cyprus

In the early 1970's, the area was covered by E.L. 47/70 held by Cyprus Mines Corporation. They undertook some regional traverse mapping, but no specific work was undertaken in the current Licence areas. (6,7,8)

5.2.3 Mines Department 1981:

In 1981, the area was the subject of a regional aeromagnetic survey completed by the Department of Mines (9). Two unexplained anomalies were defined within the current Licences - one in the South of E.L. 9/84, and one in the South of E.L. 8/91 (10). These were later examined in detail by Trikon and Norgold respectively.

5.2.4 E.Z.-Trikon 1981-83:

The area currently held as E.L. 9/84 was acquired in March 1981 as Special Prospecting Licence 806 by Trikon International Pty Ltd, who entered into a Joint Venture with the Electrolytic Zinc Company of Australasia Limited to further explore the area.

E.Z. considered the area had potential for:

- a) vein style tin deposits of the Queen Hill type
- b) disseminated gold deposits of the Carlin type
- c) base metal mineralisation of the Mississippi Valley type.

They undertook some regional mapping, rock chip and stream sediment sampling.

Reports are sparse (11,12) and contain little detailed information.

One interesting aspect of their stream sediment samples was that many of them were tungsten anomalous. This may either reflect an analytical problem or be real. If the results are real, it is significant because a common feature of gold deposits in structurally active sedimentary basins is their tungsten anomalism. However, this writer suspects analytical problems.

SPL 806 was allowed to lapse but was re-issued to Trikon in 1984 as Exploration Licence 9/84

5.2.5 Mt Lyell 1981-82

Mt Lyell Mining and Railway Co. Limited held this area as part of E.L. 9/66 and referred to it as the West Huxley area.

As part of much wider surveys, they covered sections of E.L. 8/91 with airborne EM - magnetic and stream sediment geochemical programs. (13,14)

In February 1982, they undertook a Dighem II survey at 150m line spacings over the volcanics on the eastern side of E.L. 8/91. Apart from some mild magnetic relief over the volcanics, no substantial anomalies were defined.

Eastern Tributaries of the Queen River were sediment sampled. Several base metal and low order gold anomalies were defined.

Under pressure from the Mines Department to reduce the size of E.L. 9/66, this area was relinquished in 1983.

5.2.6 Norgold (E.Z.) 1984-85:

As part of a major exploration effort for Irish style base metal deposits, Norgold acquired E.L. 31/83 over much of the Eldon and Henty Basins.

Part of E.L. 31/83 known as "Macquarie", covered the southern section of E.L. 8/91 where the Harveys Creek-Garfield River Fault extended South from the Coupon Workings on the adjacent E.L. 9/84.

In order to follow up the southern most of the two unexplained airborne magnetic anomalies defined in 1981 by the Mines Department, they established a small 8 kilometre grid, known as the Rinadeena Grid, of five East-West lines and one base line.

On this grid area, they undertook mapping, rock, soil and stream geochemical surveys, and ground magnetic surveys. (15)

Stream sediment and hand-augered soil sample results were low order. Three rock chip samples were gold anomalous, but re-sampling could only reproduce one of these anomalies. The anomalous results were from sediments and volcanoclastics in the general region of the Harveys Creek-Garfield Fault zone.

Ground magnetic results were noisy and appeared to suffer from instrument problems.

Geological mapping suggested the aeromagnetic anomaly was caused by a tuffaceous conglomerate unit, probably of the Tyndall Group.

They concluded gold anomalism in the area was due to quartz veining in siliceous sediments.

As noted in the summary section above, Norgold was uncertain whether the siliceous siltstones and sandstones outcropping to the West of the fault were Rinadeena Mudstone and Crotty Quartzites (above Gordon Limestone) or Moina Sandstone (below Gordon Limestone). The significance of this uncertainty is obvious and important. Is the whole area underlain by Gordon Limestone concealed by these younger formations and do the thin auriferous quartz veins in the overlying formations indicate concealed carbonate hosted gold deposits at moderate depth adjacent to the Harveys Creek-Garfield River Fault Zone?

5.2.7 Trikon 1984-87:

Trikon, initially undertook a stream sediment and reconnaissance mapping program on E.L. 9/84. A number of gold anomalies were defined in tributaries of Halls Creek (16).

In 1985-86, the source of the northern most of the two unexplained aeromagnetic anomalies defined in 1981 by the Mines Department, which occurred in the South-East corner of E.L. 9/84, was investigated. Grid based mapping, soil geochemistry and magnetics located a small wedge of Cambrian volcanoclastics. Geophysical modelling combined with geological interpretation led to the recognition of the major Harvey's Creek Fault. (17).

In 1986-87, this grid was extended to cover a five kilometre section along the Harveys Creek Fault Zone. (18) Grid Lines were widely spaced at 200-1000m intervals.

This grid was soil sampled at 10 or 20m intervals, with B or C horizon samples taken with either a hand auger where the profile was thin or a Wacker drill where it was thick. In all, 155 samples were collected and analysed for Cu, Pb, Zn, Au, As, Sb.

A number of rock chip samples were also taken.

During the cutting of this grid, the Coupon Mine workings were located and sampled where accessible. A total 180 channel samples over 2m intervals were taken.

The soil sampling indicated several substantial Au-As anomalies adjacent to the Harveys Creek Fault zone over a three kilometre strike length. The principal anomalies were named the Coupon, 24-28, and Davie anomalies (Figure 5).

Samples of limonitic quartz veined float at line 2400 N/000E assayed 16 g/t Au and 0.44% As. Several rock chip samples near the Coupon workings returned values between 0.11-4.00 g/t Au and generally in the vicinity of 0.1% As. Quartz veined siltstones at 1415N/180W assayed 3.48 g/t Au and 0.62% As.

Sampling of the four main adits produced encouraging results in adits 2,3,4 (Figure 7):

Adit 2: 6m 1.4 g/t Au including 2m 3.46 g/t

Adit 3: A broad zone of patchy anomalous gold including 2m 1.84 g/t

Adit 4: 14m 0.28 g/t

All intesections occurred in sheared and veined sediments with high As values.

5.2.8 Cyprus Joint Venture 1988-89

In October, 1987, Montroyal Mining N.L., acquired E.L. 9/84 from Trikon and subsequently negotiated a joint venture agreement with Cyprus Gold Australia Corporation in May 1988 to continue exploration under the management of Cyprus. (19):

Cyprus considered the area had potential for:

- sediment hosted disseminated gold of the Carlin type
- vein styled Beaconsfield gold
- structurally related gold of the Henty type.

Cyprus undertook the following major work programs:

- a) infilled the Harveys Creek Fault grid, and completed further soil and rock chip sampling programs. In total, 600 hand augered soil, 31 bedrock Wacker and 41 rock chip samples were collected.
- b) constructed 800m of drill access roads on the Coupon Workings, which were mapped and chip sampled.
- c) completed 13 reverse circulation drill holes totalling 737m and ranging in length from 25-82m.

- a) **Grid based soil and rock sampling** confirmed and detailed the existence of the three major Au-As anomalies indicated by previous surveys along the Harveys Creek Fault zone. (Figure 6).

The Coupon Anomaly extended over a 400m x 150m area with soils generally in excess of 0.1 g/t Au and 100 p.p.m. As. Float samples assayed up to 21 g/t Au and chip samples from outcrop to 2.5 g/t Au.

Anomaly 24-28 was gold anomalous over 250m x 50m with values to 0.24 g/t and arsenic anomalous over 400m x 75m with values to 460 p.p.m. Limonitic float assayed up to 16 g/t Au and 0.44% As.

Davie Anomaly was gold anomalous over 250m x 75m with values to 0.07 g/t and arsenic anomalous over 400m x 100m with values to 0.56% As. Outcrops assayed up to 0.76 g/t Au and 0.65% As and selected samples from the old workings assayed 14 g/t Au.

- b) **Systematic sampling and mapping of the drill access roading** over the Coupon anomaly highlighted widespread anomalous gold and arsenic in intensely fractured and veined sediments. Often, but not always, anomalism was associated with limonitic weathering, probably after pyrite and arsenopyrite.

Of particular interest is the high grade zone along roads in the vicinity of Line 15N, where most five metre samples assayed in excess of 1 g/t Au and up to 2.5 g/t. (Figure 7).

- c) **The reverse circulation drilling program** was hampered by technical and ground condition problems and few of the holes reached their target depths. However, several significant gold and arsenic anomalous intersections were obtained (Figure 7).

Because stratigraphy and structures in this area are steeply dipping, drill widths shown on Figure 7 are approximate horizontal widths.

Best results were:

CRC3:	Basically Au anomalous from 0-54m but including			
	0-8m:	8m	0.31 g/t Au	0.15%As
	26-38m:	12m	1.7 Au	0.38 As
	48-54m:	6m	0.7 Au	0.26 As
CRC4:	24-30m:	6m	0.44 Au	low As
	50-54m:	4m	0.43 Au	
CRC5:	12-24m:	12m	0.34 Au	0.1 As
CRC8:	72-78m:	6m	0.11 Au, possibly stopped in	
			anomalous zone	
CRC11:	42-46m:	4m	0.2 Au, " " " "	
CRC13:	22-25m:	3m	0.53 Au, stopped in amonalous zone.	

Cyprus withdrew from the joint venture in 1990 (20).

In July 1989, E.L. 9/84 was reduced by 50% to 27 sq km, which is a statutory requirement for Licences reaching their fifth anniversary.

5.2.9 Perilya-Noranda Joint Venture:

In 1991, Montroyal entered into a joint venture agreement with the Perilya Mines N.L.-Noranda Pty Limited consortium to continue exploratory work (21).

In May 1991, Montroyal applied for an additional Exploration Licence over a contiguous area to the East of E.L. 9/84, so as to provide a more complete coverage over this structurally complex area. This Licence, formerly held as part of E.L. 47/83 by CRA - Aberfoyle, was granted in July 1991 as E.L. 8/91.

During the first half of 1991, Perilya completed the following work:

- i) additional grid line cutting, mapping, and sampling over the three major anomalous areas along the Harveys Creek Fault zone.

- ii) additional detailed mapping and sampling of roads, adits and RC chips in the Coupon Mine area.
- iii) core drilling of one hole LT91-1
- iv) surveying

i) **Additional grid work:**

In-fill lines were cut between 9N and 40N and C-horizon soil sampled every 25m.

This meant that a four kilometre length of the Harveys Creek Fault was now covered by grid lines no more than 200m apart and soil sampled every 25-30m.

Over the Coupon Workings, the line spacing was reduced to 50m or 100m.

In addition to the obvious major anomalism at the Coupon Workings, Perilya confirmed the existence and substantial nature of the Davie and 24-28 Anomalies.

Sampling of an old adit just South of Line 24 located in a major ferruginous shear zone returned results up to 0.4 g/t Au and 0.05% As.

Ferruginous float on Line 24N returned 1.66 g/t Au and 0.15% As, whilst ferruginous sandstone on 26N gave 0.145 g/t Au and 0.12% As.

Results on lines between Anomaly 24-28 and the Davie Anomaly to the North, and the Coupon Workings to the South were generally low in both Au and As.

Results from lines South of the coupon Workings were encouraging and indicated a long narrow Au anomalous zone with soil values up to 0.17 g/t Au extending for up to 300m South of the main workings (Figure 6).

It is interesting to reflect that such an anomaly may represent leakage from mineralised, non-outcropping Gordon Limestone on the western flank of the coupon Anticline.

ii) **Additional Mapping and Sampling at Coupon Workings:**

All drill access tracks and adits were re-mapped and further chip sampled. Reverse circulation chips were logged and several additional close spaced grid lines were soil sampled.

This work confirmed the broad, high amplitude Au-As anomalism of a zone at least 400m x 150m, and possibly extending further South.

However, the detailed stratigraphic and structural interpretation of the Coupon area by Perilya was substantially different to that of previous workers. (Figures 6,7), and is generally supported by this writer.

They interpreted the area as being underlain by a series of steeply East dipping quartzites and siltstones occurring on the eastern flank of a N-W trending anticline (Coupon anticline), and severely disrupted by a number of NW trending shears and faults dipping 30-80° to the N.E.

The sediments have been strongly sheared and quartz veins developed parallel to schistosity. Abundant flat dipping quartz veins infill brittle fractures in quartzites, and limonite, probably after pyrite and arsenopyrite, is developed along shear zones.

Perilya believed most of the mineralisation was confined to these N.W. trending fault and shear zones with lesser variable mineralisation in adjacent rocks, principally in quartz veined units.

Additional rock chip sampling along roads confirmed the earlier Cyprus results and tended to expand and heighten some anomalous areas. Significant zones were:

-	5m	5.76 g/t Au	near CRC 2 collar
-	8m	2.32 Au	on the access road to CRC 10
-	25m	2.00 Au	on the access road to CRC 10 (oblique section)
-	10m	1.45 Au	access road to CRC 11
-	5m	1.61 Au	access road to CRC 11
-	5m	1.49 Au	near CRC 7 collar

Studies of rock chips from the broad Au anomalous zone in CRC 3 indicated disseminated pyrite and arsenopyrite in quartz veins within a gray siltstone and shale sequence.

ii) Core Drilling:

To test one of the predicted mineralised shear zones, Perilya drilled a cored hole LT91-1 from the lower access road just North of line 15N (Figure 7).

The planned 80m hole was abandoned at 61m because of drilling problems.

Perilya's summary of the hole is:

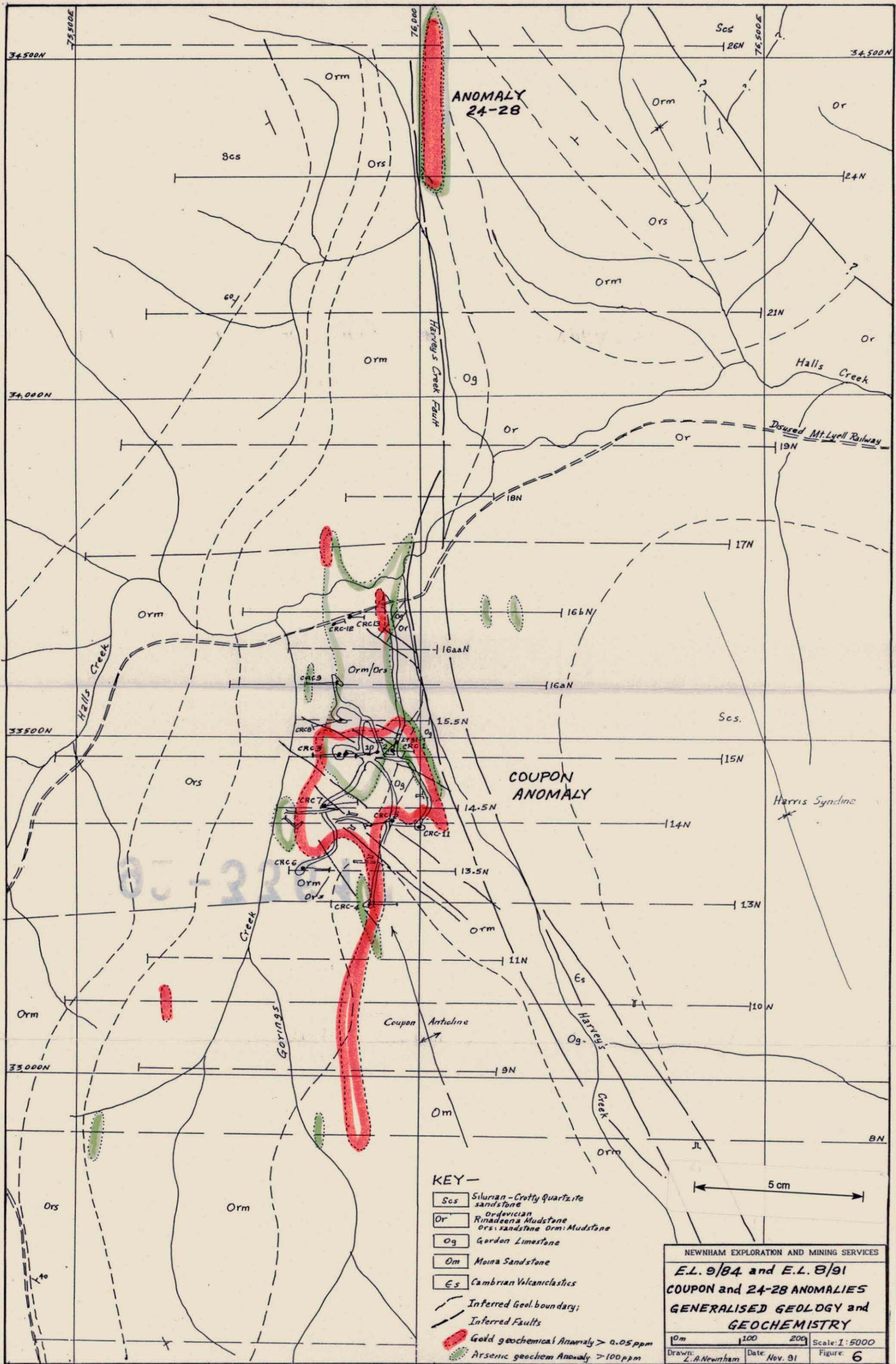
0-46m	Gordon Limestone, present as black-orange clay and pug. Fault
46-61m	Rinadeena Mudstone present as weathered shales, siltstones, sandstones and quartzites.

Of special note, is the gold anomalism in the weathered limestone, which from 10.3-19.0m assayed 0.19 g/t Au, including 1.0m 0.74 g/t Au, and from 39.0-41.0m assayed 0.12 g/t Au, both units also having elevated As values.

Also of note is the interpretation that the hole passed through a fault and into Rinadeena Mudstone not Moina Sandstone.

Gold anomalism of this magnitude in the Gordon Limestone is exceedingly rare in Western Tasmania.

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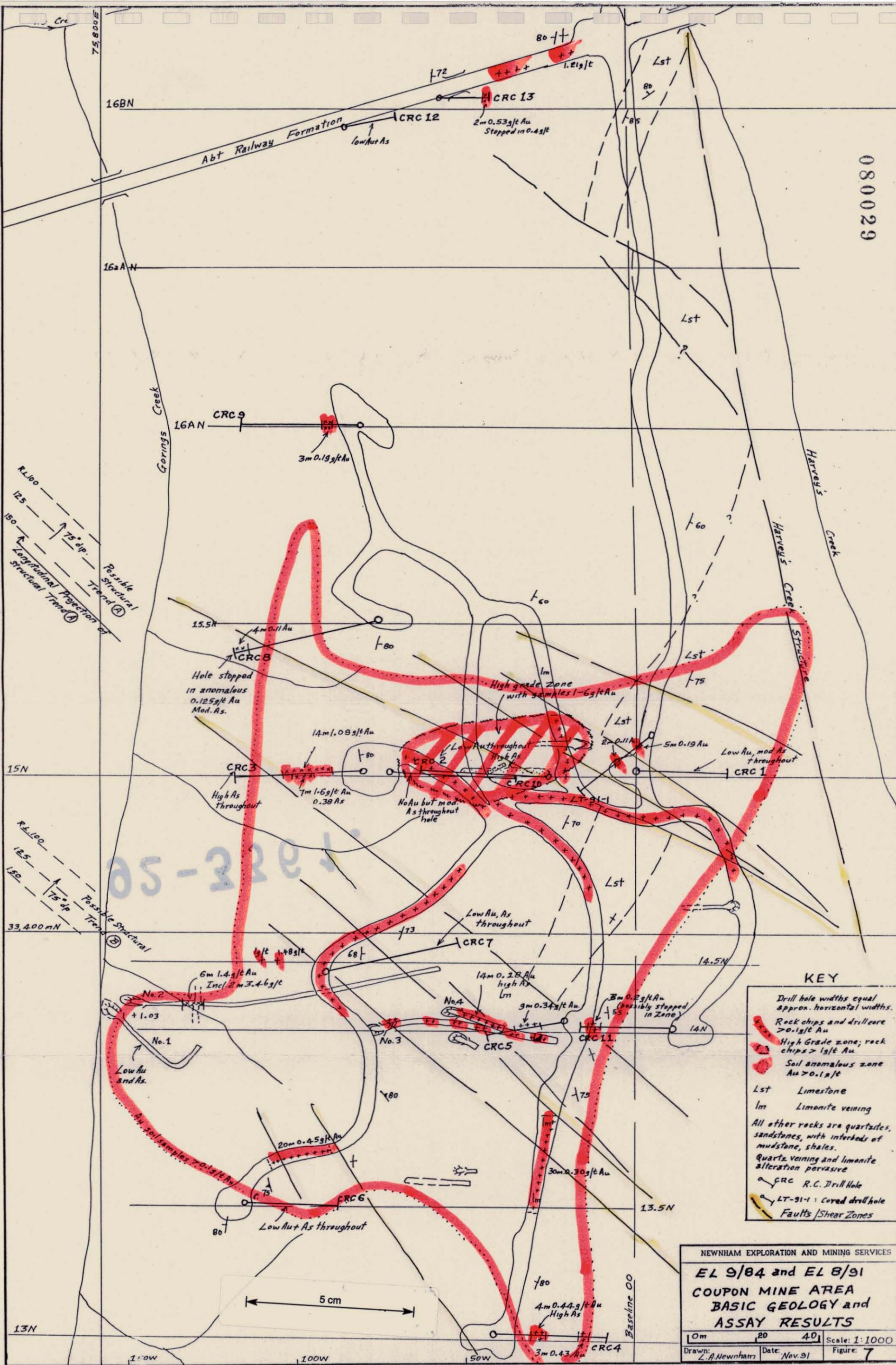
KEY -

- Scs Silurian - Crotty Quartzite sandstone
- Or Ordovician Rindeena Mudstone
Ors sandstone Orm: Mudstone
- Og Gordon Limestone
- Om Moira Sandstone
- Es Cambrian Volcaniclastics
- - - Inferred Geol. boundary;
- - - Inferred Faults
- Red outline Gold geochemical Anomaly > 0.05 ppm
- Green outline Arsenic geochem Anomaly > 100 ppm

NEWHAM EXPLORATION AND MINING SERVICES
E.L. 9/84 and E.L. 8/91
COUPON and 24-28 ANOMALIES
GENERALISED GEOLOGY and
GEOCHEMISTRY

10m 100 200 Scale: 1:5000
 Drawn: L.A. Newham Date: Nov. 91 Figure: 6

Data Sources: Tenement maps by Trikon, Cyprus, Perilya



KEY

- Drill hole widths equal approx. horizontal widths.
- Rock chips and drillcore > 0.1g/t Au
- High Grade zone; rock chips > 1g/t Au
- Soil anomalous zone Au > 0.1g/t
- Lst Limestone
- lm Limonite veining
- All other rocks are quartzites, sandstones, with interbeds of mudstone, shales.
- Quartz veining and limonite alteration pervasive
- CRC R.C. Drill Hole
- LT-91-1: Cored drill hole
- Faults/Shear Zones

NEWMHAM EXPLORATION AND MINING SERVICES

**EL 9/84 and EL 8/91
COUPON MINE AREA
BASIC GEOLOGY and
ASSAY RESULTS**

0m 20 40 Scale: 1:1000

Drawn: L.A. Newham Date: Nov. 91 Figure: 7

Data Source: Tenement maps by Tekon, Curvus, Periva plus additional interpretation by Author.

iv) **Surveying:**

Perilya re-surveyed all existing tracks and workings in the Coupon area, presumable with tape and compass. This highlighted several differences with the earlier data presentation of Cyprus.

However, significant discrepancies in data presentation remain between drawings at various scales and it is difficult to know which is correct.

Such discrepancies can have a significant impact on the interpretation of existing detailed stratigraphic, structural and assay data and the problem requires clarification.

At the conclusion of the above work program, Perilya-Noranda concluded that the potential of the area did not conform with their exploration objectives and they withdrew from the joint venture.

5.2.10 CRA-Aberfoyle 1985-1990

The northern section of E.L. 8/91 was previously part of E.L. 47/83 held by CRA Exploration and explored under a joint venture agreement with Aberfoyle.

The area was relinquished from E.L. 47/83 as part of the 50% statutory reduction requirement in March 1990, and then applied for by Montroyal as part of E.L. 8/91.

Initial work was undertaken by CRA, primarily searching for fine grained gold deposits. A stream sediment survey was completed in 1986 with disappointing results.

Later work, completed under the joint venture with Aberfoyle as operators, was concentrated on VMS deposits in the Mt. Read Volcanics in the eastern section of E.L. 8/91 (22)

Aberfoyle established a grid, known as the Specimen Creek Grid, over the volcanics. Several of these lines reached into the eastern part of E.L. 8/91.

Geochemical sampling programs failed to highlight any substantial anomalies.

Re-interpretation of the pre-existing Dighem data together with follow up ground geophysical surveys also failed to define anomalous areas.

The western half of E.L. 47/83 was selected for relinquishment because it was essentially underlain by sediments and Western Sequence volcanics which didn't conform to the VMS model sought.

The relinquishment report (22) contains a good bibliography of previous work in this area, by the joint venture partners.

6. DISCUSSION OF RESULTS:

This discussion firstly offers an interpretation of the existing data on the Coupon Mine area, secondly overviews all available data on the two licence areas and thirdly provides a conceptual ore deposit model for the region as a basis for on-going work.

6.1 Coupon Mine Area:

The gold-arsenic soil anomaly over the Coupon Mine is a high amplitude, spatially large anomaly supported by anomalous lithogeochemistry derived from surface sampling and shallow drilling.

The anomaly requires a thorough analysis and explanation, and an interpretation of existing data is presented below.

Sediments in the Coupon area consist of Cambro-Ordovician sandstones and siltstone (Moina Sandstone), conformably overlain by Ordovician Gordon Limestone and Rinadeena Mudstones (shales, siltstones and impure limestones) and Silurian Crotty Quartzites (Figure 6).

The uncertainty regarding the correct recognition of Moina Sandstone, and the on-going exploration importance of this uncertainty, has been mentioned in Section 4.2 above.

These formations have been strongly folded along NNW axes and the Coupon workings exist on the steeply dipping eastern flank of a North plunging anticline, called the Coupon Anticline.

A major East dipping normal fault (Harveys Creek Fault) developed on the highly stressed East flank of this anticline, and a set of splayed WNW striking normal faults, dipping NE from 30°-80° formed across the nose of the Coupon Anticline to further relieve tectonic stress.

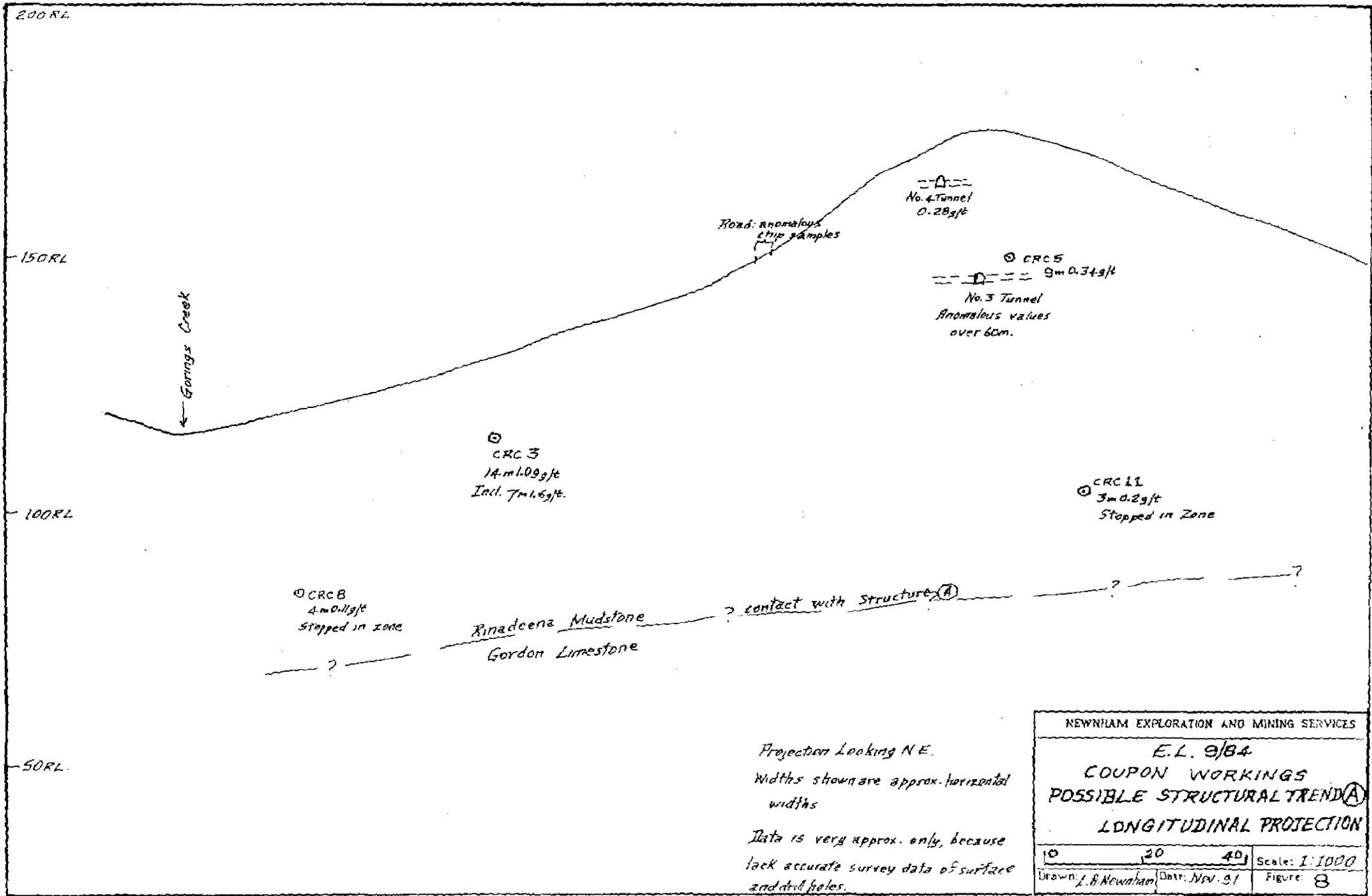
Interestingly this structural pattern of stress relief is almost identical to that developed on the eastern side of the Renison Anticline in the vicinity of the Renison Mine and bears testament to the effectiveness of the resultant hydrothermal plumbing system that can be developed in such circumstances.

Competent sandstone-quartzite units have suffered brittle fracturing and more ductile calcareous and muddy units have been strongly sheared.

Siliceous pyrite - arsenopyrite - gold bearing hydrothermal solutions entering this structurally disturbed area would initially have moved along the Harveys Creek Fault zone then along the transverse faults and migrated into the adjacent stratigraphy, forming quartz-sulfide fracture fillings in the brittle fractured units, and replacement deposits in the calcareous beds. Subsequent weathering of the faults and veined rocks would produce Au-As anomalous limonitic outcrops and Au-As anomalous clays from calcareous beds.

Much of the mineralisation recorded to date in drill holes, road exposures and adits can be assigned to several proposed WNW transverse faults, corresponding to ones mapped by Perilya.

Proposed Structure A (see Figure 7), striking NW and dipping 75° NE could account for the significant Au-As intersections in CRC 3, 5, 8 and 11, together with exposures on roads to holes CRC 4 and 7 and the anomalous results in adits 3 and 4. A crude longitudinal projection of these intersections is presented as Figure 8.



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Proposed Structure B (Figure 7) with similar strike and dip to A, would account for the intersections in CRC 4, adit 2 and on the road to CRC 6.

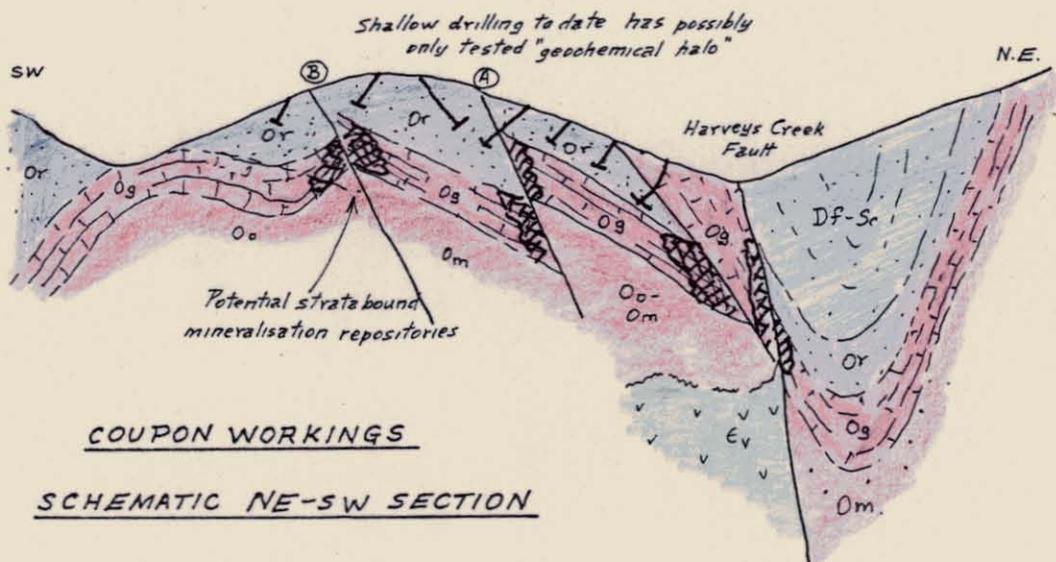
More difficult to explain is the high grade outcrop zone in the vicinity of CRC 2 and CRC 10 collars. One possible explanation is a fault striking WNW and dipping shallowly to the N.E., outcropping just North of CRC 10 and with associated mineralisation in adjacent shattered and veined quartzite units.

The most attractive targets for substantial deposits in this proposed geological setting would be carbonates adjacent to major feeder structures, in particular, fault blocks of Gordon Limestone. Such locations can be predicted as shown on Figure 9, but to do so with a high degree of confidence would require accurate recognition and mapping of Moina Sandstone, Rinadeena Mudstone and Crotty Quartzite.

Gordon Limestone should be in contact with Harveys Creek Fault in a number of areas, principally East of the Fault, West of the Fault, in outcrop SE of the workings and beneath Rinadeena Mudstone to the North of the workings.

It should also exist at relatively shallow depths in the area tested by shallow reverse circulation drilling where it would be in direct contact with the cross structure feeders such as Structures A and B, as illustrated below.

If the Coupon Anticline to the South of workings is underlain by Rinadeena Mudstone rather than Moina Sandstone, then Gordon Limestone would be concealed beneath the whole area and present a major stratabound gold target, represented at surface by leakage anomalies such as the Coupon Workings, and inaccessible to the early prospectors.



Because of the predicted strike-slip movement on the Harveys Creek Fault, and the plunge on the Harris Syncline, Gordon Limestone will outcrop East of the fault against Rinadeena Mudstone to the West of the fault, in that area between the Coupon Mine and Anomaly 24-28.

6.2 Overview of Results and Potential:

E.L.'s 9/84 and 8/91 lie on the strongly faulted and folded eastern margin of a substantial Palaeozoic sedimentary basin developed on a mineralised Cambrian basement.

The Harveys Creek-Garfield River Fault has been identified as a major fault zone developed along the flank of a tight, shattered fold. A number of old gold workings occur adjacent to this fault over a five kilometre strike length. Extensive gridding and rock chip sampling has identified three major gold-arsenic anomalous areas, termed Davie, 24-28 and Coupon Anomalies, which coincide with a number of these workings.

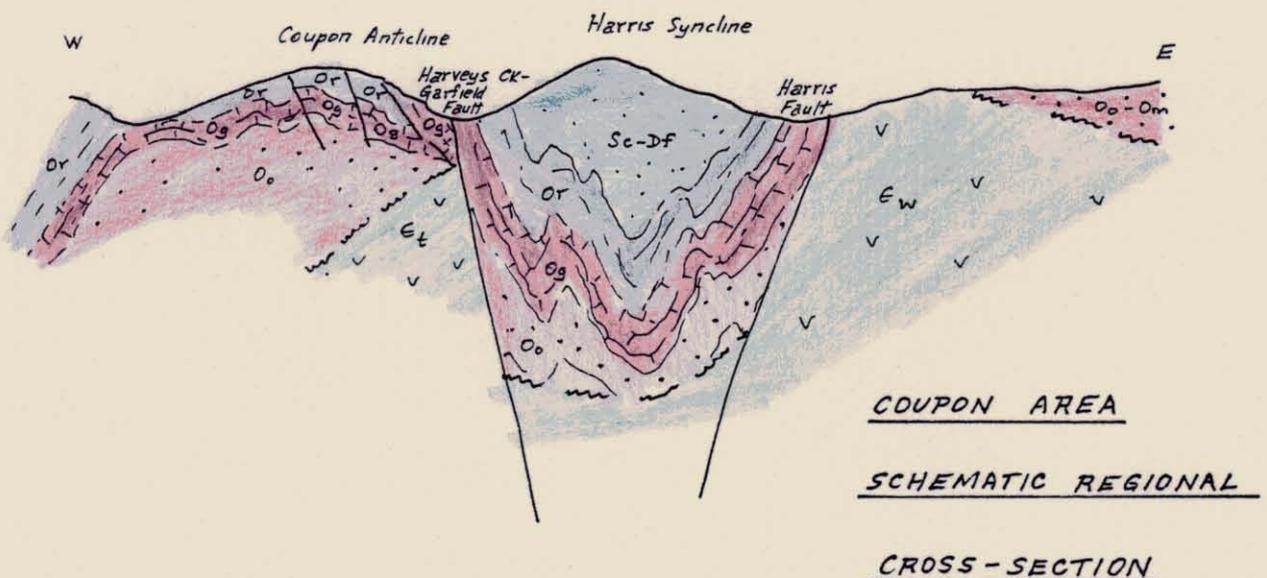
Gold anomalous rock samples South of Coupon on E.L. 8/91 indicate gold anomalism associated with this fault over a seven kilometre strike length. Further South of E.L. 8/91, alluvial gold in the Garfield Valley may also be shedding from formations associated with this fault zone.

Mapping, rock and soil sampling, shallow reverse circulation and core drilling programs at Coupon have highlighted extensive gold mineralisation associated with a postulated hydrothermal plumbing system. Calcareous rocks in the vicinity of this system have to date not been drill tested.

The major anomalies at 24-28N and Davie have not been pursued beyond the soil sampling stage. Both these areas would be underlain by Ordovician carbonates concealed beneath younger siliceous sediments.

A second major NW striking structure, called the Harris Structure, exists to the East of the Harveys Creek Fault, on the eastern flank of the Harris Syncline. It predictably would converge upon, and contact, the Harveys Creek Fault in the vicinity of the Davie Anomaly. The Harris Reward gold mine South of E.L. 8/91 may occur in Gordon Limestone faulted by the Harris Fault against Mt. Read Volcanics.

The Harris Syncline would be underlain by Gordon Limestone between these two significant fault zones.



Known mineralisation appears to be of two broad styles:

- Au in fractured siliceous sediments adjacent to major structural zones.
- Au and possibly base metal mineralisation replacing Gordon Limestone in structurally fractured areas.

Major anomalies and exploration opportunities have been identified with respect to both of these styles.

6.3 Conceptual Deposit Models:

The ore genesis model most favoured for this area is stratabound gold (possibly base metals) in carbonate formations adjacent to active margins of substantial sedimentary basins, which have developed on mineralised basements and whose geometry and evolution has been influenced by major basement structures or crustal sutures.

Such a model incorporates elements of the Carlin family of gold deposits and the Irish style of base metal deposits.

Observations on the geology of western Tasmania relevant to this concept are:

- a) the Dundas Trough is a highly mineralised zone affected by basement structures such as the Henty-Great Lyell Fault zone, which is now considered to have been active throughout the Palaeozoic.
- b) the mineralised Cambrian rocks in the Dundas Trough probably form the basement for a number of substantial post Cambrian Palaeozoic sedimentary basins which developed along the Trough, including the Henty Basin.
- c) the evolution and geometry of most of these basins were strongly influenced by major growth or extension faults around their margins.
- d) the Dundas Trough since the Cambrian has been a zone of very high thermal gradients. Hydrothermal convection cells, developed within this thermal gradient and passing through mineralised basement rocks, would have been concentrated by basement structures and their subsidiary growth faults.
- e) extensive carbonate formations, known to exist adjacent to these faulted hydrothermal conduits, would provide ideal repositories for mineralisation.
- f) the hydrothermal process would have been accelerated during periods of major igneous and orogenic activity such as the upper Devonian.

E.L.'s 9/84 and 8/91 possess all the critical prerequisites for this style of deposit formation:

- tectonically active basin margin adjacent to a major basement fault structure.
- mineralised Cambrian basement
- several significant basin margin extension faults
- high natural geothermal gradients accentuated by Devonian deformation

—extensive carbonate beds adjacent to structures.

Additional encouragement is derived from the fact that Carlin style deposits are typified by a geochemical signature with elevated As, Sb, W values, all of which are reported from these Licence areas.

Evidence for the possible development of Carlin - Irish styles of deposits in Tasmania is steadily growing. The Zeehan Basin, adjacent to the Henty Basin, contains all the necessary genetic elements outlined above, and past mining and recent exploration activity have defined significant areas of stratabound base metal mineralisation which conform broadly to the Irish model.

At the Henty gold deposit North of Queenstown, high grade gold and lesser base metal mineralisation have deposited in a severely fractured zone of volcanics and volcanoclastic sediments adjacent to the Henty-Great Lyell Faults. The mineralisation was probably leached from the adjacent volcanics and concentrated in this structural setting by ascending hydrothermal fluids, with this process being accelerated by a shallow underlying ridge of Devonian Granite.

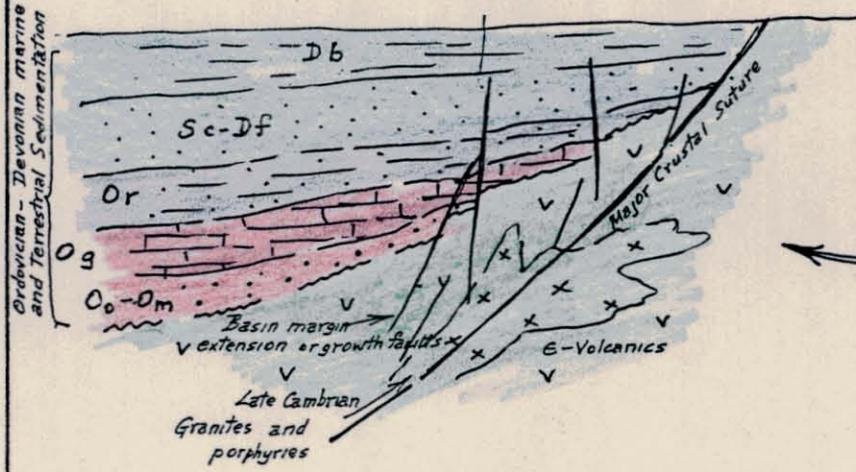
There are several fundamental differences between the Henty setting and the Lynchford licence areas, but there are also some common principles and features.

A number of stratigraphic, structural and geochemical features of the Beaconsfield (Tasmania) Gold Mine are present at Lynchford.

The main Beaconsfield deposit occurs as vein infillings in a fault splayed off the major Tamar Rift structure. The fault cuts lower Ordovician sandstones and limestones equated with the Gordon Limestone and Moina Sandstone. Whilst the stratigraphy adjacent to the mineralised fault is itself not mineralised, it is strongly Arsenic anomalous over widths of up to 50 metres. The source of gold at Beaconsfield is not well understood but it is generally thought to have been leached from mineralised basement rocks by ascending hydrothermal fluids whose movements and depositional patterns were controlled by major structures and stratigraphy.

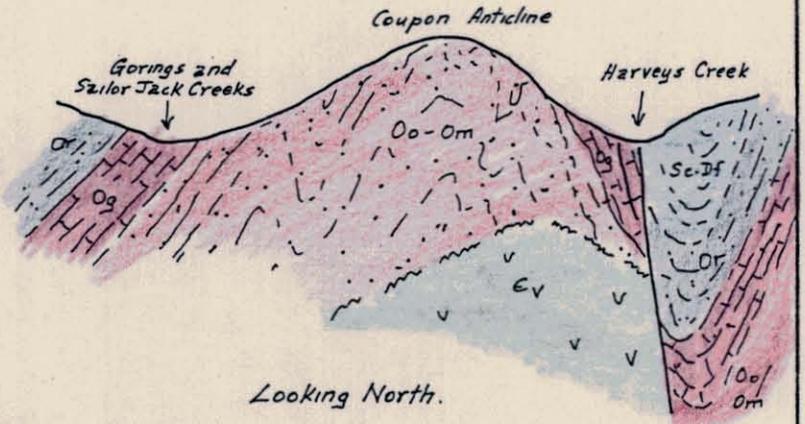
Potential for either Devonian granite related or Cambrian volcanogenic massive sulfide deposits characteristically associated with western Tasmania has not been indicated on the licence areas by data gathered to date.

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ORIGINAL BASIN
MARGIN ENVIRONMENT

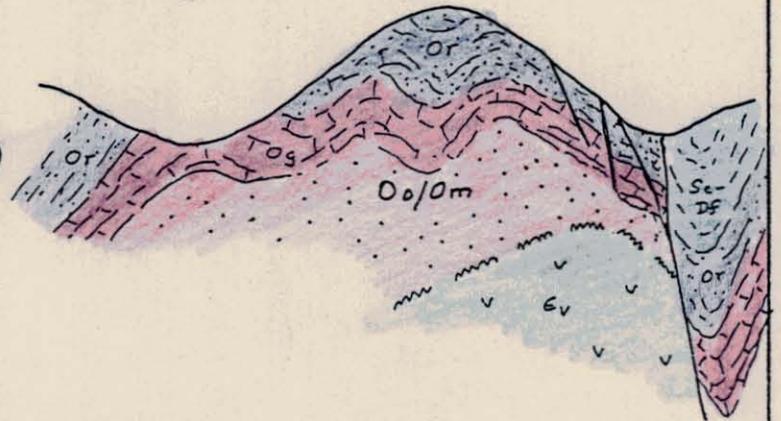
OPTION (A)



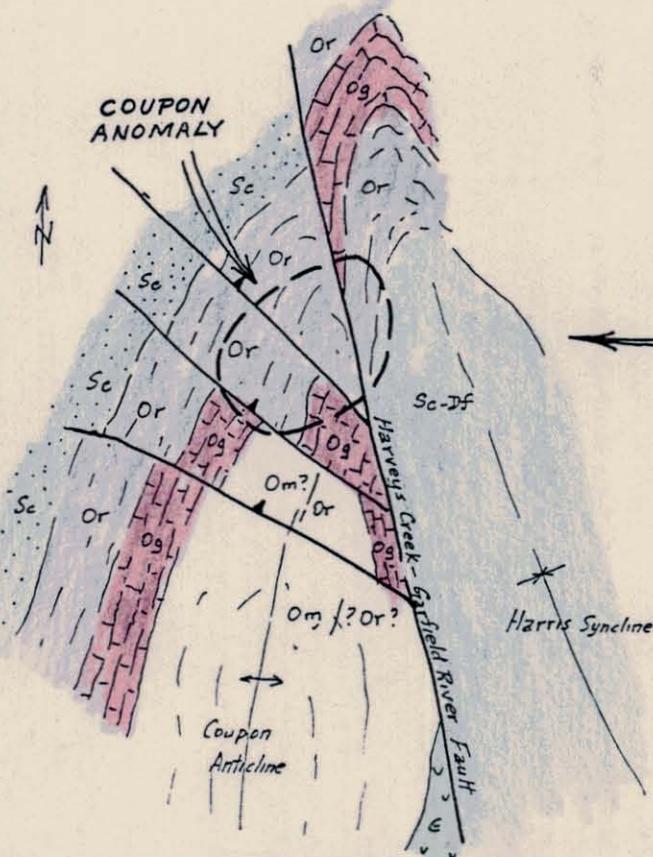
Looking North.

OPTIONAL GENERALISED SECTIONS
SOUTH OF COUPON WORKINGS -
SHOWING EFFECT OF
HARVEYS CREEK - GARFIELD RIVER FAULT

OPTION (B)



COUPON ANOMALY



GENERALISED PLAN - COUPON AREA
SHOWING POSSIBLE EFFECT OF
HARVEYS CREEK - GARFIELD RIVER FAULT
AND SPLAY FAULTS

NEWHAM EXPLORATION AND MINING SERVICES
E.L. 9/84 AND E.L. 8/91
HARVEYS CREEK FAULT AREA
CONCEPTUAL
GEOLOGICAL EVOLUTION

Scale: _____
Drawn: _____ Date: _____ Figure: 0

7. RECOMMENDATIONS:

Existing data on E.L. 9/84 and E.L. 8/91 has been interpreted to suggest that there is substantial potential for the development of carbonate hosted stratabound gold deposits adjacent to major fault zones.

Potential is also indicated for Henty style (structurally controlled) gold deposits South of Coupon.

It is not within the scope of this report to detail specific work programs to assess this potential. However, the following broad recommendations are submitted:

- a) Core drill test the 24-28 and Davie Anomalies, with the specific intention of intersecting Gordon Limestone close to its contact with the Harveys Creek Fault.
- b) Core drill test the Coupon anomaly firstly to the NE of the workings where the Gordon Limestone should contact the Harveys Creek Fault beneath protective Rinadeena Mudstone cover rocks, and secondly adjacent to the main workings where structures such as Faults A and B would intersect Gordon Limestone, again beneath a protective cover of Rinadeena Mudstone - such holes could be collared on existing roads and angled SW at dips of 50-55°.
- c) Conduct reconnaissance mapping and geochemical sampling programs along the Harris Fault zone to determine its potential to host similar mineralisation to that postulated along the Harveys Creek Fault zone.
- d) Thoroughly map the area South of the Coupon Workings along the Coupon Anticline to ascertain whether the outcropping rocks are Moina Sandstone or Rinadeena Mudstone.
- e) Map and sample the Harveys Creek-Garfield River Fault zone South of Coupon to determine the potential of this area for Henty style gold deposits.

It is strongly recommended that any further drill testing in this region be by core drilling. Reverse circulation methods are considered inappropriate for a variety of reasons.

8. REFERENCES:

References are listed in the sequence referred to in the report rather than the conventional alphabetic way.

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2. Extracts from Secretary of Mines Quarterly Reports 1894-1913.
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5. "Status of Anomalies near Queenstown, Tasmania" Pickands Mather Report, March 1967, DMMR Ref. 67-459.
6. "Preliminary Investigations of E.L. 47/70 Western Tasmania" by A.M. Robinson for Cyprus Mines Corporation, October 71. DMMR Ref. 71-810.
7. "Results of Initial Reconnaissance Programme for E.L. 47/70, West Tasmania Oct-November 1971" Cyprus Mines, DMMR Ref. 71-814.
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9. "The 1981 West Coast Aeromagnetic Survey; Summary of Information and Results" by Corbett, K.D. et. al., Tas. Dept. of Mines Unpub. Rept. 1982/39.
10. "Interpretation and Evaluation Report on 1981 West Tasmania Aeromagnetic Survey" by D.E. Leaman, 1986. Tas. Dept. of Mines Mt. Read Volcanic Project Report.
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13. "Dighem II Survey of Queenstown Area, Tasmania" by Dighem Limited, April 1982. DMMR Ref. 83/2029.
14. "Relinquishment Report Henty-Yolande and West Huxley Areas Tyndall E.L. 9/66, Western Tasmania" by J.G. Purvis, for Gold Fields Exploration Limited, August 83, DMMR Ref. 83-2029.
15. "Part Exploration Licence 31/83, Macquarie, Rinadeena Area Report for work completed October 84-June 85" by D.L. Hopton and I.J. Mathison, July 85, E.Z. Rep. T207. DMMR Ref. 85-2460.
16. "E.L. 9/84 Lynchford. Stream Sediment and Reconnaissance Geology" R. Poltock, 1985 for Trikon International Pty. Ltd.
17. "E.L. 9/84 Lynchford - Tasmania. The Harveys Creek Magnetic Anomaly. Compilation of Geology and Mineral Potential" by R. Poltock, July 1986, for Trikon International. DMMR Ref. 86-2582

18. "E.L. 9/84 Lynchford Tasmania. Annual Report July 1986 - June 1987" by R. Poltock for Trikon International. DMMR Ref. 87-2672.
19. "E.L. 9/84 Lynchford Tasmania. Annual Report July 87 - June 88" by R. Poltock for Montroyal Mining N.L., DMMR Ref. 88-2817.
20. "Lynchford E.L. 9/84. Progress Report. Twelve months to July 89" by R. Poltock for Cyprus Gold Corp. Aust., Report 669. DMMR Ref. 89-3033.
21. "E.L. 9/84 - Lynchford Progress Report on Exploration Activity March 1991 - July 1991" by P.A. Jones, June 1991, for Perilya Mines N.L., DMMR Ref. No. 91-3275.
22. "E.L. 47/83 Lynchford, Tasmania. Report on Exploration in the area to be Relinquished, 10th Mar 1990" by D.J. Noonan, Jan 1990. DMMR Ref. 90-30861.

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NEWNHAM EXPLORATION AND MINING SERVICES

**E.L. 9/84 and E.L. 8/91
LYNCHFORD AREA
WESTERN TASMANIA**

PROPOSED EXPLORATION PROGRAM

Prepared for: Goldstream Mining N.L.,
12 Kings Park Road
WEST PERTH, 6005

By: L.A. Newnham
Box 1002
Devonport 731

Date: 27 December, 1991

1. SUMMARY

Potential exists on Exploration Licences 9/84 and 8/91 near Lynchford in western Tasmania for the development of stratabound gold deposits hosted by extensive carbonate beds in strongly deformed zones adjacent to major fault structures.

Reconnaissance geological mapping and geochemical (soil and rock) sampling have defined a series of extensive, high amplitude gold-arsenic anomalies within a five kilometre long zone adjacent to the Harveys Creek-Garfield River Fault Zone (HG Fault). This zone is thought to be largely underlain by Gordon Limestone concealed beneath the calcareous Rinadeena Formation.

At the Coupon Workings, systematic rock and soil sampling, supported by 13 shallow reverse circulation and one cored drill holes, have outline a strong gold-arsenic anomalous area 400 m. by 150m. The anomaly has been interpreted as occurring in highly fractured and sheared sediments, adjacent to the H.G. Fault. The area is potentially underlain by Gordon Limestone, which was gold anomalous in the one cored hole.

No drill testing of other geochemical anomalies adjacent to the H.G. Fault has been undertaken.

Potential predictably exists elsewhere in the Licences areas, within similar stratigraphic settings in fractured zones adjacent to major faults.

A program of exploration designed to both core drill test the major gold-arsenic anomalous zones already defined adjacent to the HG Fault and to search for similar anomalous settings elsewhere on the Licences is proposed, and summarised on *Fig. 1*.

Major components of this programme are:

Stage 1, 1991-92:

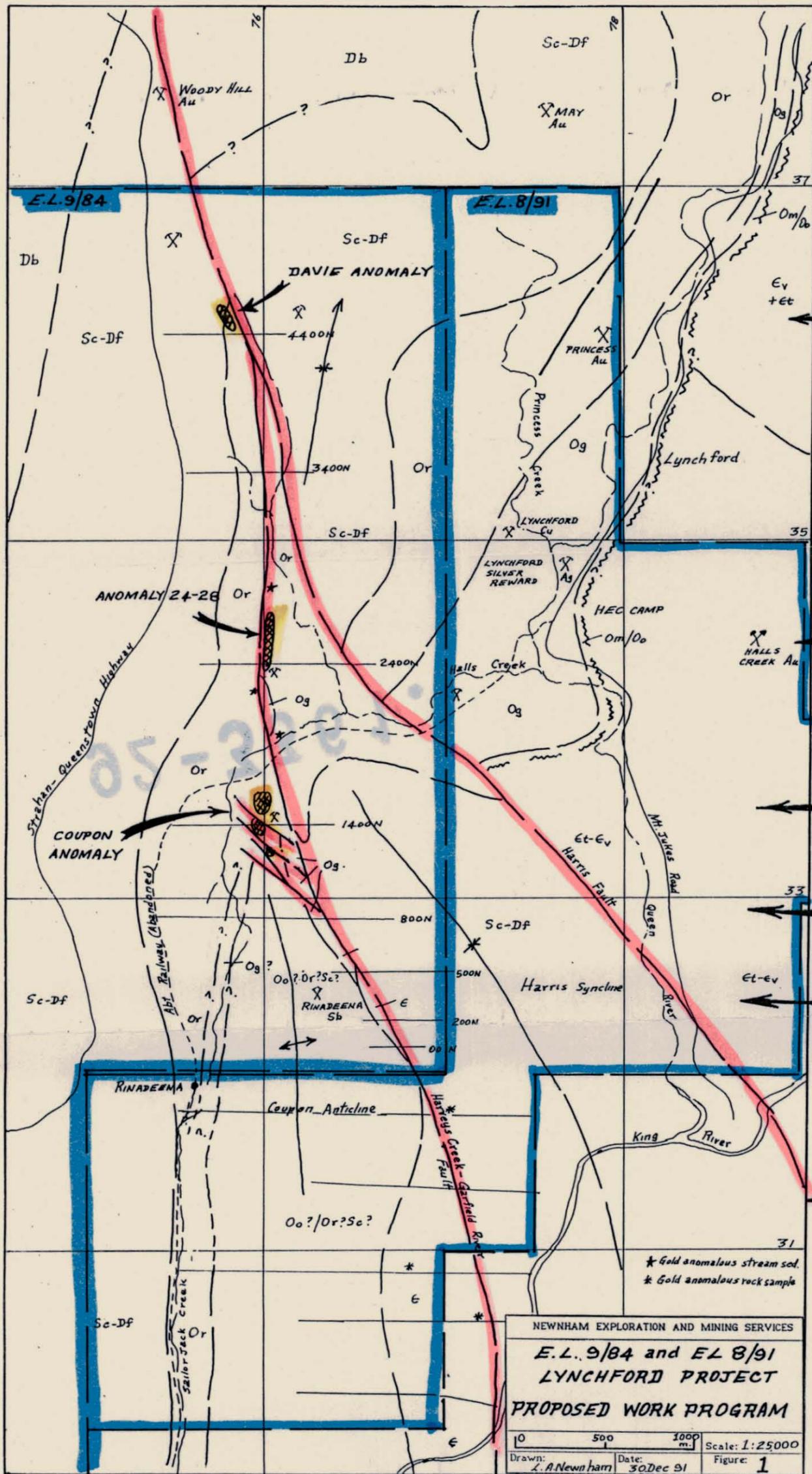
- drill test the Coupon Anomaly with 4 x 200m. HQ-NQ cored drill holes
- detail map the Coupon Anticline to the South of the Coupon Workings to better define stratigraphy
- reconnaissance map and sample the Harris Fault and the southern extension of the HG Fault, both within E.L. 8/91

These three components of Stage 1 would cost an estimated \$110,000.

Stage 2, 1992-93:

- drill test the 24-28 and Davie Anomalies to the North of Coupon with a series of 5 x 50m 46TT cored holes: Estimated cost \$50,000
- follow up core drilling of the Coupon Workings area if results from the Stage 1 drilling program are encouraging:
Estimated cost \$150,000
- complete grid based mapping and sampling programs over areas indicated as encouraging from Stage 1 reconnaissance work:
Estimated cost \$50,000

Program schedules attached reflect climatic constraints and anticipated availability of preferred contractors.



DAVIE ANOMALY
 Stage 2: 2x50m. cored holes in Spring 92-93

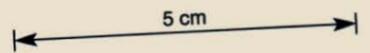
ANOMALY 24-28
 Stage 2: 3x50m. cored drill holes, late Spring 92-93

COUPON WORKINGS
 Stage 1: 4x200m HQ-NQ holes - Autumn 91-92
 Stage 2: Further core drilling - Spring 92-93

HARRIS FAULT
 Stage 1: Reconnaissance mapping in conjunction with Coupon drilling

COUPON ANTICLINE
 Stage 1: Recon. mapping in conjunction with Coupon drilling.

SOUTHERN H-G FAULT ZONE
 Stage 1: Recon. mapping in conjunction with Coupon drilling, possibly followed by Stage 2: gridding and soil sampling



2. TENEMENT DETAILS:

Contiguous E.L.'s 9/84 and 8/91 lie 10 kilometres South of Queenstown.

E.L.9/84 of 27 square kilometres carries a minimum expenditure commitment of \$54,000 for 1991-92 and \$135,000 p.a. for each of the following two years, unless reduced in area.

The Licence expires in June '94 but may be extended if a significant resource is indicated.

E.L. 8/91 of 14 square kilometres carries a minimum expenditure commitment of \$5,000 for each 1991-92 and 1992-93, and increasing beyond then on a sliding scale. The Licence expires in July 2001.

The proposed exploration programs therefore exceed the minimum expenditure requirements on both Licences.

3. PROGRAM DETAILS

The proposed program is dealt with in two stages, viz., 1991-92 and 1992-93. The tenure position on E.L. 9/84, combined with climatic conditions, are significant factors determining the scheduling of these two stages.

3.1. Stage 1, 1991-92:

The following work program is proposed for the remainder of 1991-92 at an estimated cost of \$110,000:

- drill test the Coupon Workings anomaly by completing 4x200m. cored holes
- detail map the Coupon Anticline South of the Coupon Workings to establish structure and stratigraphy as a precursor to possible further drilling in that area.
- reconnaissance map and sample the HG Fault to the South of Coupon on E.L. 8/91 and the Harris Fault also on E.L. 8/91

3.1.1. Coupon Core Drilling:

Four cored holes are proposed to test the concept that previous shallow RC and core drilling only tested an extensive and substantial geochemical leakage anomaly in strongly faulted and sheared sediments overlying mineralised Gordon Limestone.

The proposed hole locations are shown on *Fig. 2*.

Hole sections are illustrated on *Figs 2(a)* and *2(b)*.

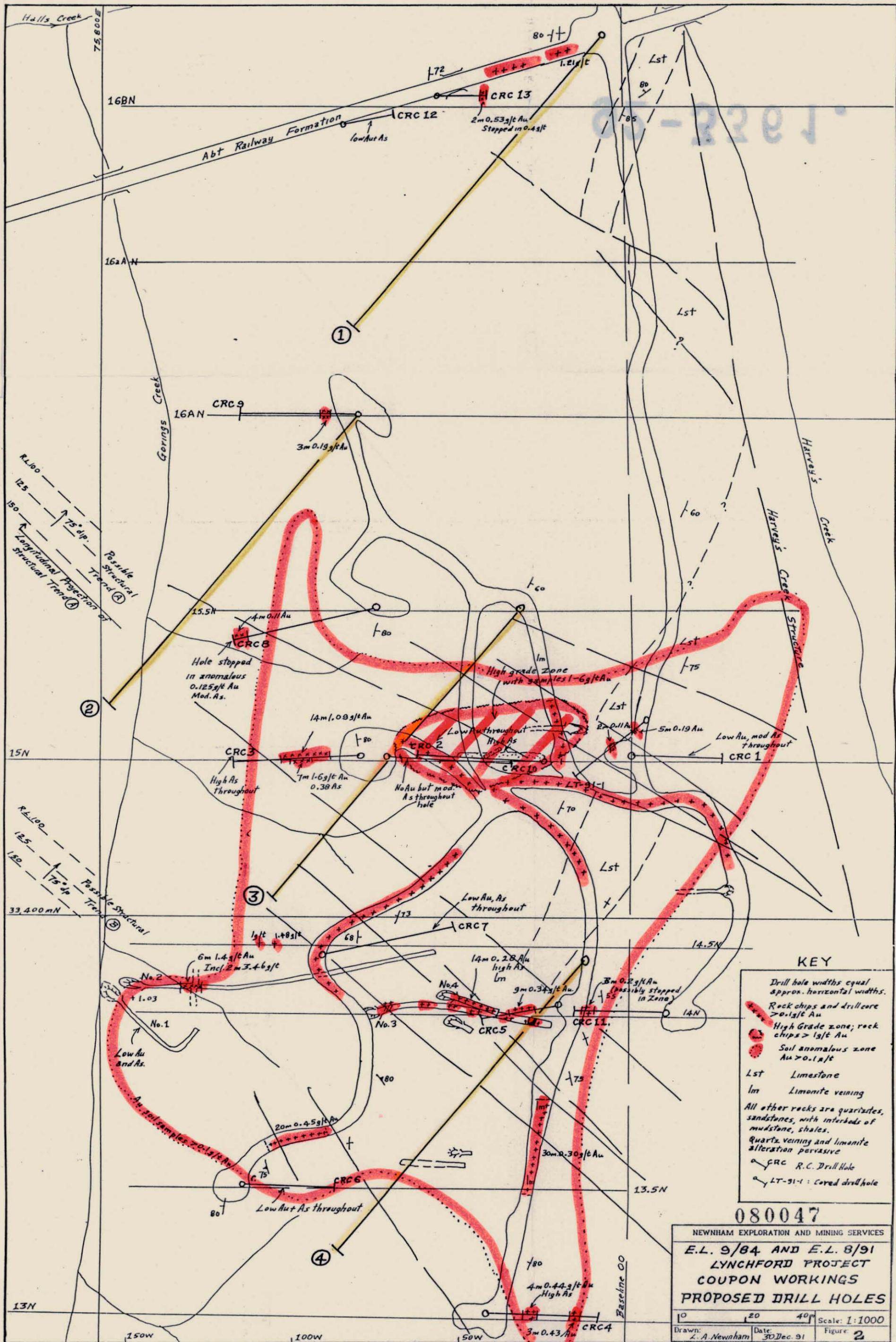
They would be cored HQ-NQ using a skid mounted rig.

The holes are angled to maximise intersection angles with mapped faults, shearing and bedding orientations, and are sited away from Gordon Limestone outcrop areas where the limestone is typically weathered (and altered) to black pug.

Hole 1 (200m., -55° dip, 220° AMG) would test for Gordon Limestone close to the HG fault zone beneath gold anomalies obtained in both outcropping Rinadeena Mudstone and RC hole 13, which stopped in sediments carrying 0.4 g/t Au.

Hole 2 (200m., -55° dip, 220° AMG) is designed to test Gordon Limestone adjacent to structural trend 'A', which was extensively mineralised in a number of existing shallow holes.

Gordon Limestone was intersected in a similar structural position in hole LT-91-1 where, despite the fact that it was shallow and severely weathered and leached, it was significantly gold anomalous.



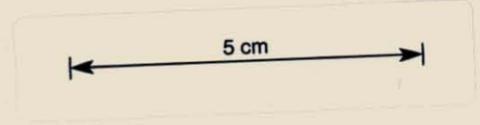
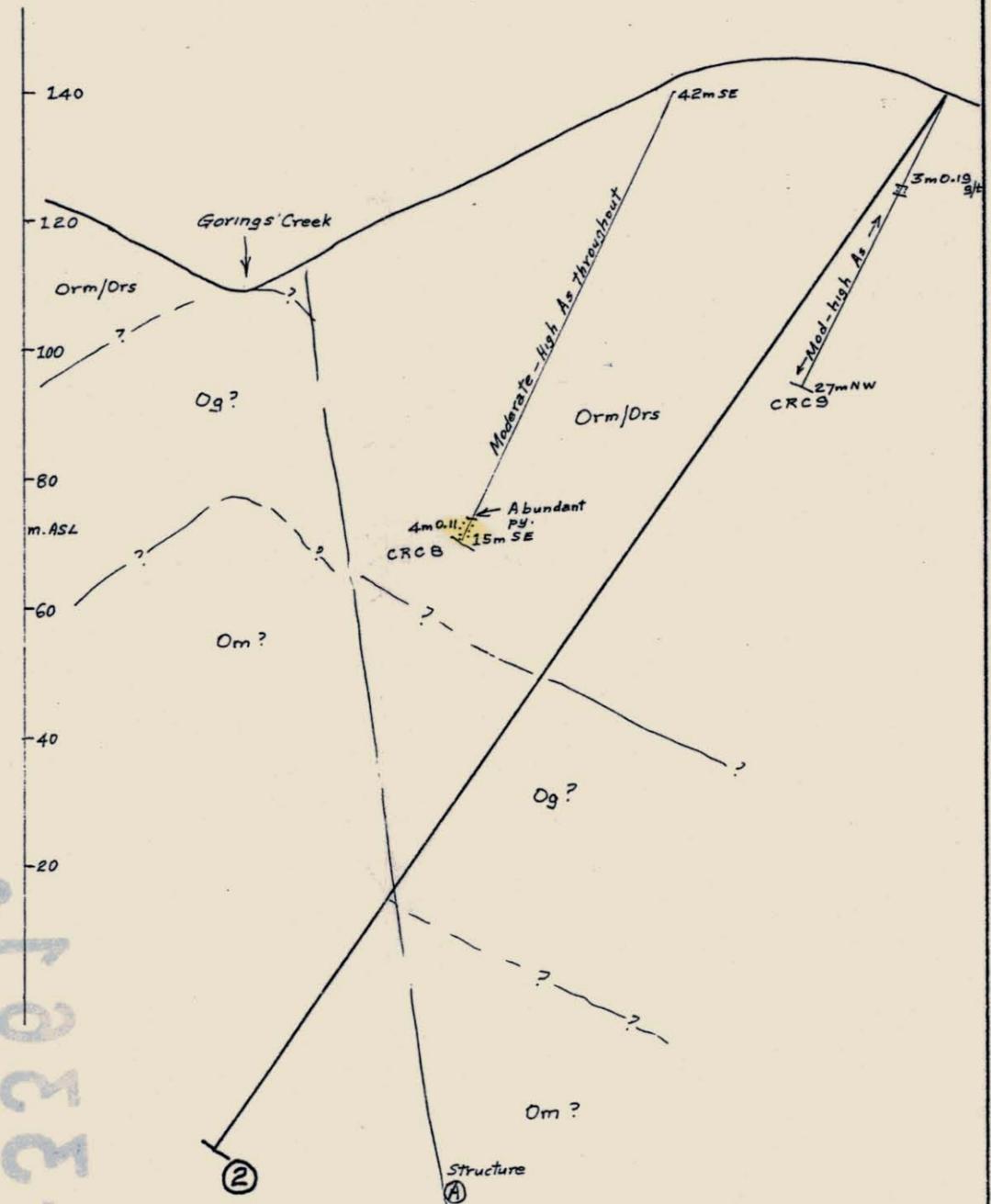
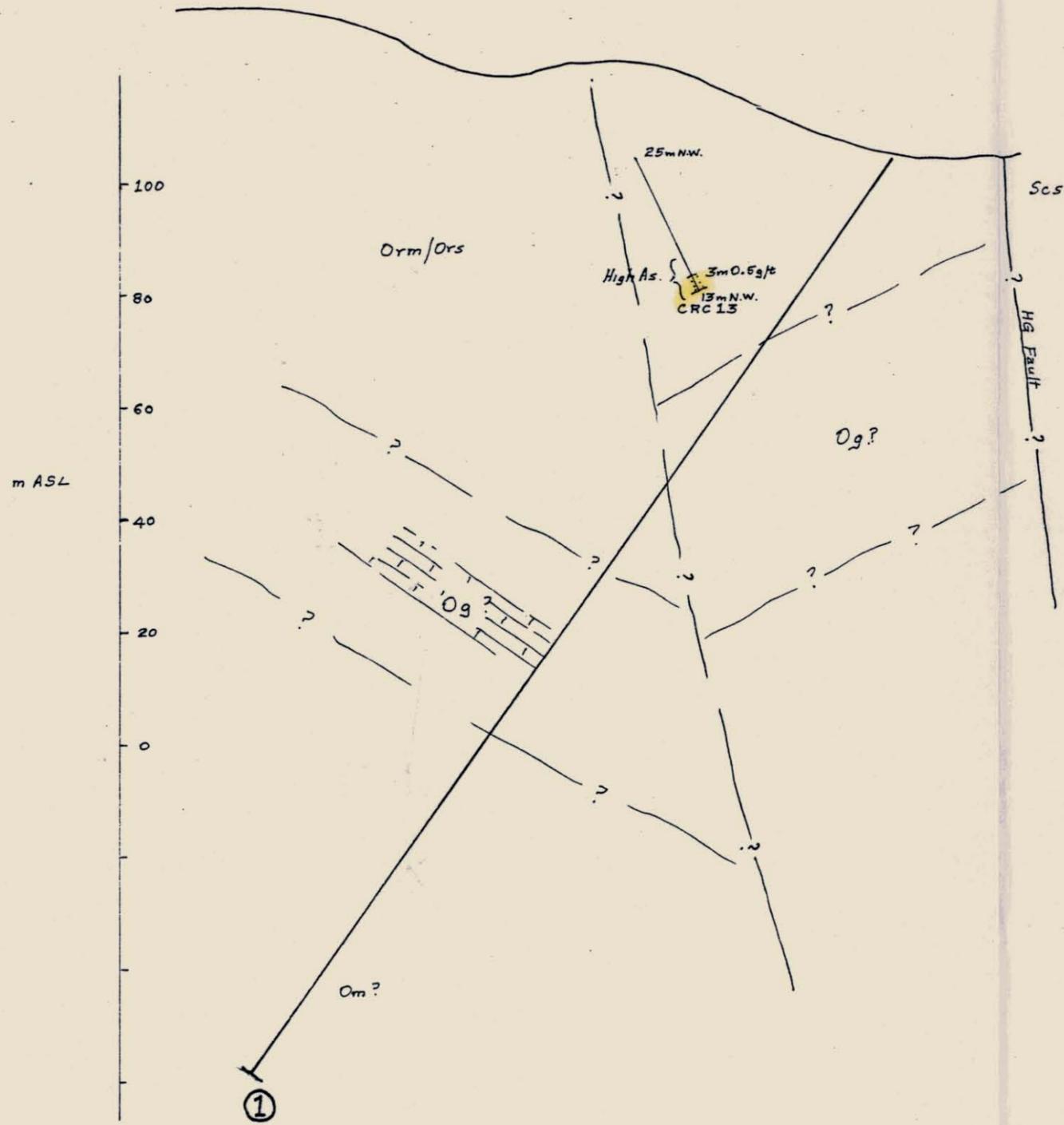
KEY

- Drill hole widths equal approx. horizontal widths.
- Rock chips and drill core > 0.1g/t Au
- High Grade zone; rock chips > 1g/t Au
- Soil anomalous zone Au > 0.1g/t
- Lst Limestone
- lm Limonite veining
- All other rocks are quartzites, sandstones, with interbeds of mudstone, shales.
- Quartz veining and limonite alteration pervasive
- CRC R.C. Drill Hole
- LT-91-1: Cored drill hole

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NEWNHAM EXPLORATION AND MINING SERVICES
 E.L. 9/84 AND E.L. 8/91
 LYNCHFORD PROJECT
 COUPON WORKINGS
 PROPOSED DRILL HOLES

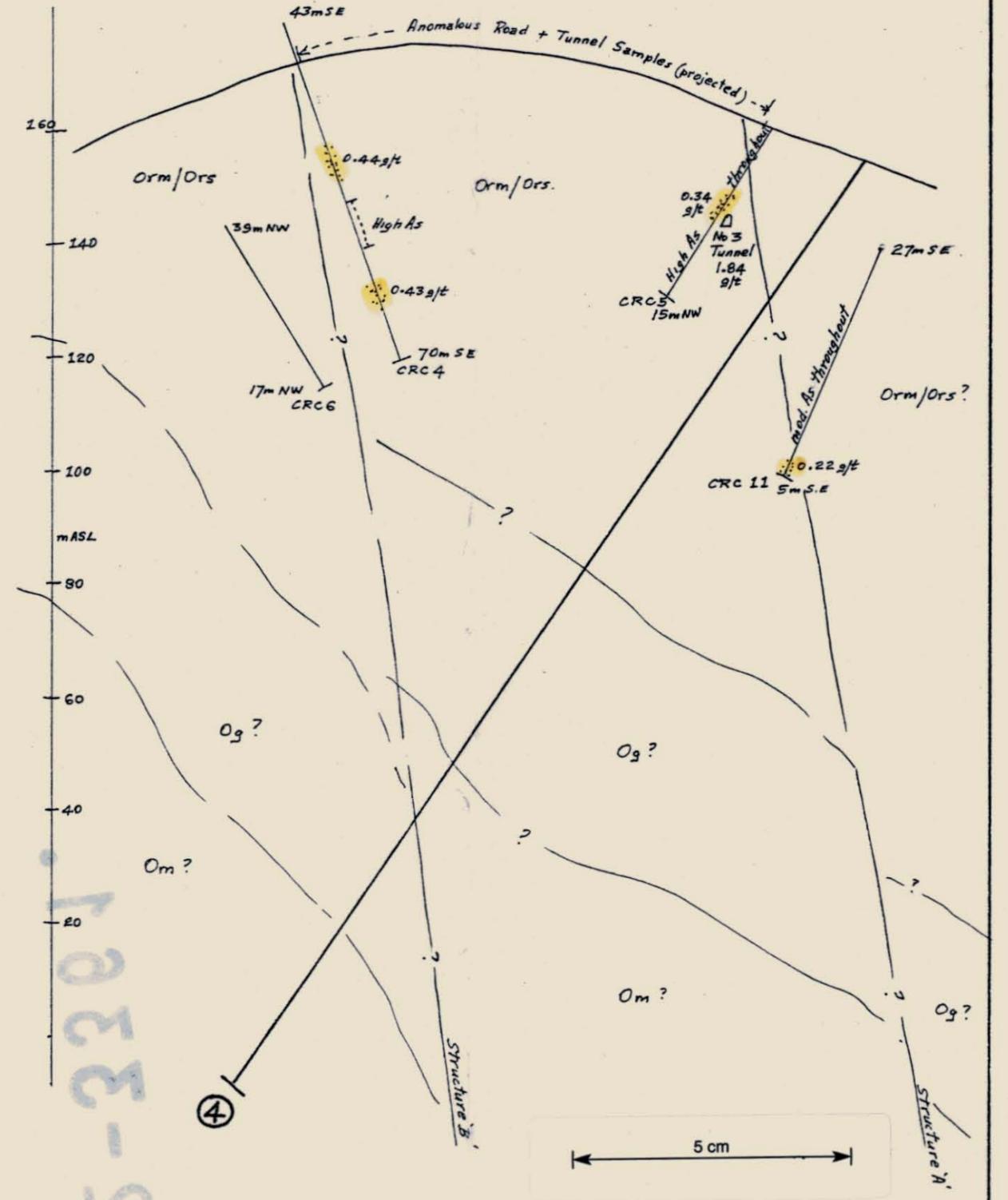
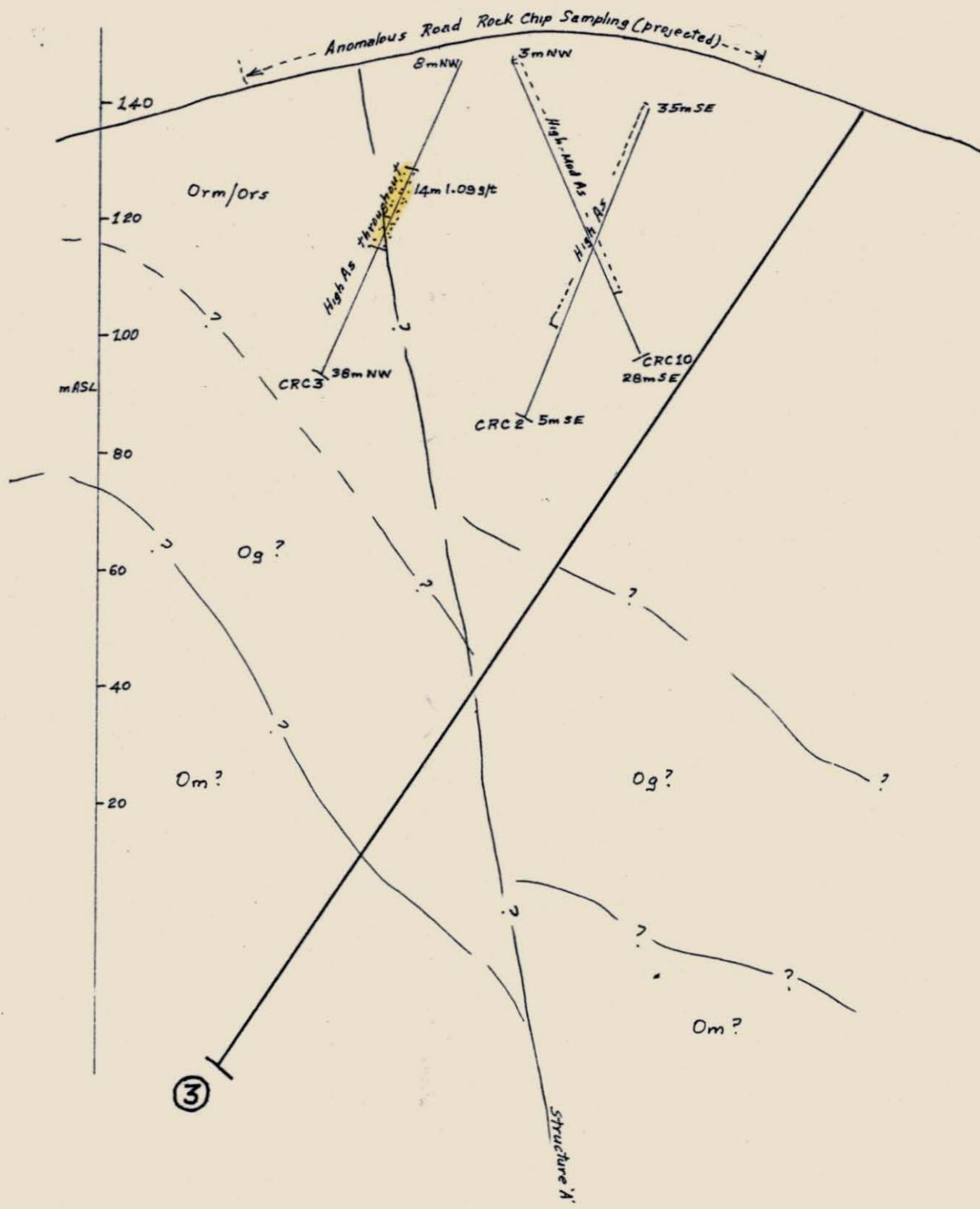
Scale: 1:1000
 Drawn: Z. A. Newnham Date: 30 Dec. 91 Figure: 2



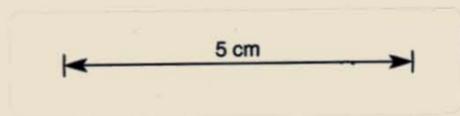
05-3201

Sections Looking North West

NEWHAM EXPLORATION AND MINING SERVICES		
E.L. 9/84 AND EL 8/91 LYNCHFORD PROJECT		
COUPON WORKINGS PROPOSED DRILL HOLES 1,2		
0 20 40	Scale: 1:1,000	Figure: 2(a)
Drawn: L. A. Newnham	Date: 30 December 91	



05-3301



Sections looking North West

NEWNHAM EXPLORATION AND MINING SERVICES	
EL 9/84 AND EL 8/91	
LYNCHFORD PROJECT	
COUPON WORKINGS	
PROPOSED DRILL HOLES 3,4	
0 20 40m	Scale: 1:1000
Drawn: L.A. Newham	Date: 30 Dec 91
	Figure: 2 (b)

Hole 3 (200m, -55° dip, 220° AMG) is designed to test the Gordon Limestone between structures 'A' and 'B', 100m. South-East of Hole 2, beneath an area of gold anomalous surface samples and several old adits.

Hole 4 (200m, -55° dip, 220° AMG) is designed to test for mineralised Gordon Limestone immediately North and South of structural trend 'B'.

The above drilling would take approximately six weeks to complete. No new site developments would be required. However, a new low gradient access track would be constructed joining the Abt Railway formation to Site 2.

All access development and rig movement should be by excavator to minimise environmental disturbance.

Drilling should be preceded by an accurate survey of all roads. Holes would be down-hole camera surveyed, and core appropriately stored under cover in metal trays.

Preferred Contractors:

- drilling: Wayne How
- surveying: Garry Watts
- excavator: Claude Williams
- assaying: Analabs, Burnie.

Timing: April/May, 1992

Costs:

Drilling 800m. @ \$75/m	\$60,000
Mobilisation—Demobilisation	2,000
Track Construction, rehab, rig shifts	4,000
Surveying	3,000
Splitting and Assaying (400m. @ \$20/m)	8,000
Core Trays, etc. (\$5/m.)	4,000
Travel and Accommodation	5,000
Planning, supervision, collation reporting (40 days)	14,000
Drafting, Report Prep.	4,000
Contingencies	<u>6,000</u>

Total Estimate \$110,000

3.1.2. Coupon Anticline Mapping and Sampling:

Mapping and rock chip sampling South of the Coupon Workings to establish the stratigraphy West of the HG Fault is required to indicate the possible extent of shallow, concealed Gordon Limestone in that area. The predicted presence of limestone would substantially enlarge the stratabound gold potential of the Coupon region.

This work would be undertaken in conjunction with supervision of the drilling program on the Coupon Workings and therefore does not constitute an additional cost, apart from minor assaying charges.

3.1.3. Reconnaissance Mapping and Sampling:

Reconnaissance mapping and sampling along the Harris Fault and the southern extension of the HG Fault on E.L. 8/91 is recommended to identify structural and stratigraphic settings similar to the Coupon Area.

Again, this work would be undertaken in conjunction with the supervision of the Coupon drilling, and apart from assaying costs, would not represent an additional cost.

3.2 Stage 2, 1992-93

The following work program is proposed for 1992-93 at an estimated cost of \$250,000.

- shallow core drill test both the 24-28 and Davie Anomalies
- further core drill the Coupon Workings
- grid based mapping and geochemical sampling over areas selected on the results of the 91-92 reconnaissance program (3.1.3 above)

3.2.1. Anomaly Drilling:

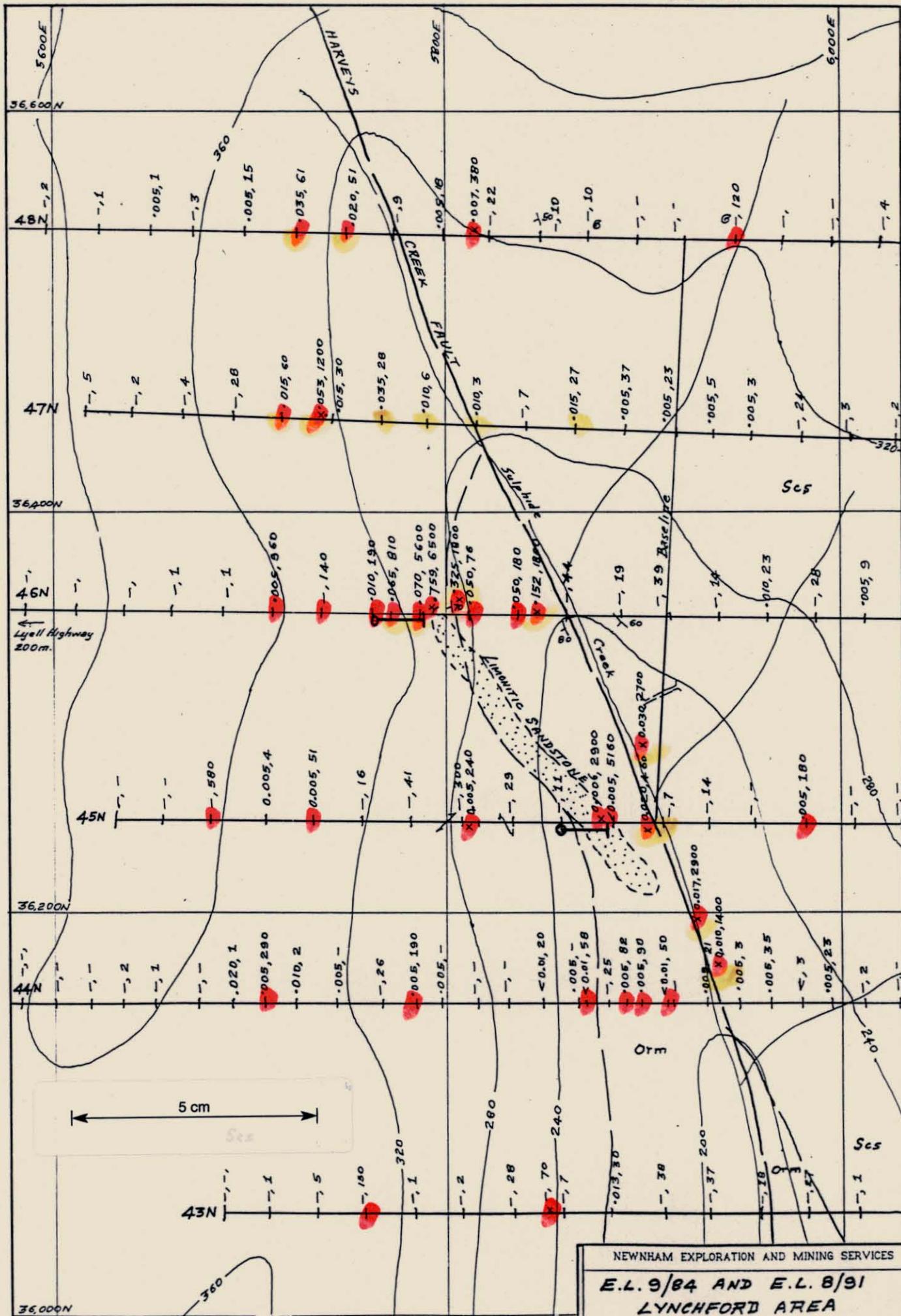
The 24-28 and Davie anomalies are extensive, high amplitude Au-As soil and rock chip anomalies occurring over post Gordon Limestone sediments adjacent to the HG Fault.

The David Anomaly occurs close to the predicted intersection of the HG and Harris Faults.

Both anomalies warrant further evaluation by way of drilling—a task complicated by their locations in rugged, densely timbered areas.

It is proposed that three short (50m.) cored holes be drilled on Anomaly 24-28 and two similar holes on Davie Anomaly using a small portable rig. Drill site locations and sections are illustrated on *Figs 3(a) and 3(b)* (Davie Anomaly) and *4(a) and 4(b)* (24-28 Anomaly).

The rig could either initially be located in the general area by helicopter and carried between sites or totally mobilised manually.



● Au, As Soil } Trikon and Cyprus Results
x Au, As Rock }
 Proposed drill holes
 Sc5 = Croftly Quartzite Orm = Rinadeena Mudstone

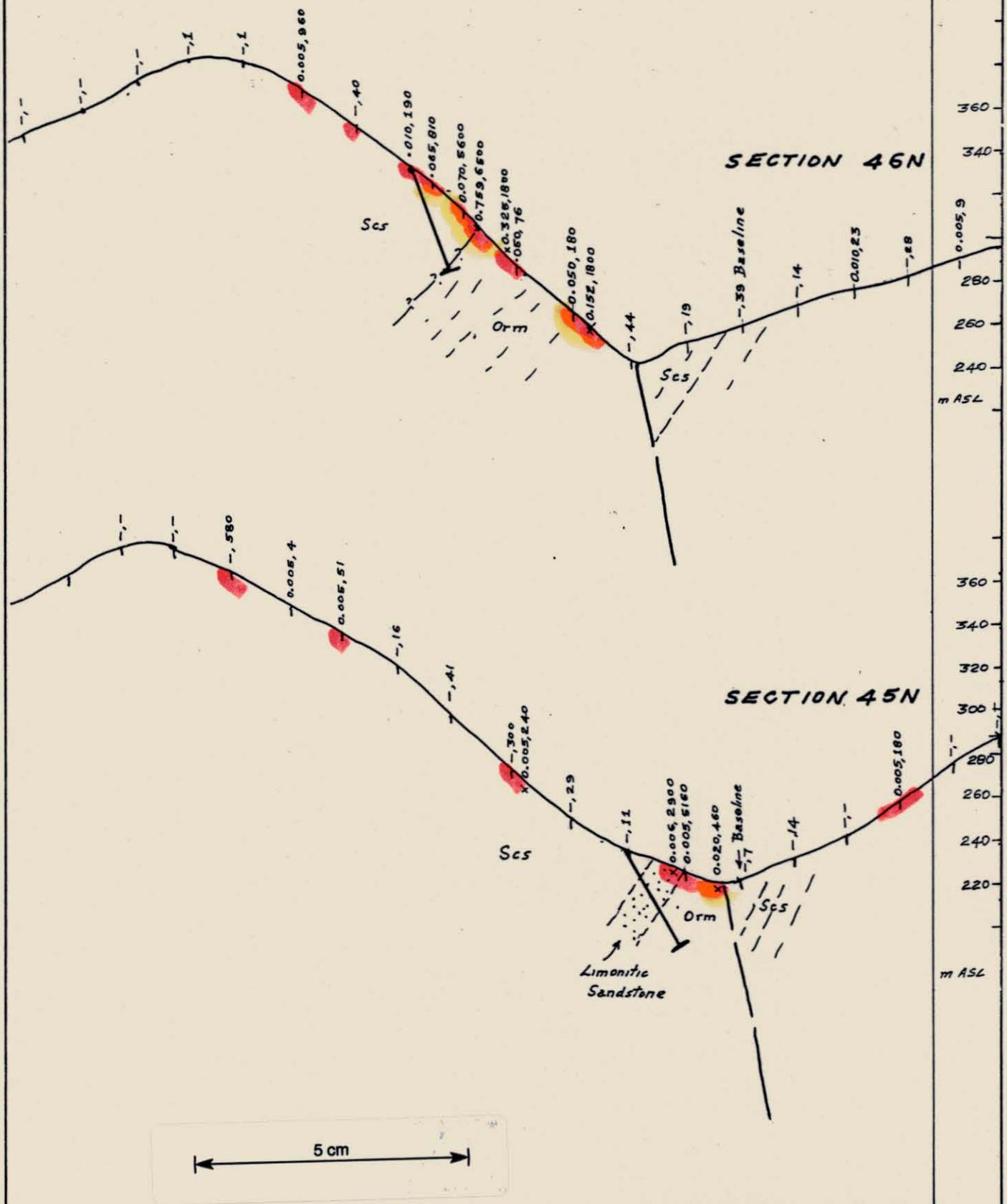
NEWNHAM EXPLORATION AND MINING SERVICES		
E.L. 9/84 AND E.L. 8/91		
LYNCHFORD AREA		
DAVIE ANOMALY		
PROPOSED DRILL HOLES		
0	50m	100
Scale: 1:2500		Figure: 3(a)
Drawn: L.A. Newnham	Date: 30 Dec 91	

5600E

5800E

080053

6000E



- Notes:
1. Sections Looking North
 2. No vertical exaggeration
 3. Soil sample Au, As. (represented by a red circle)
Rock sample (represented by a cross)

NEWNHAM EXPLORATION AND MINING SERVICES

E.L. 9/84 AND E.L. 8/91

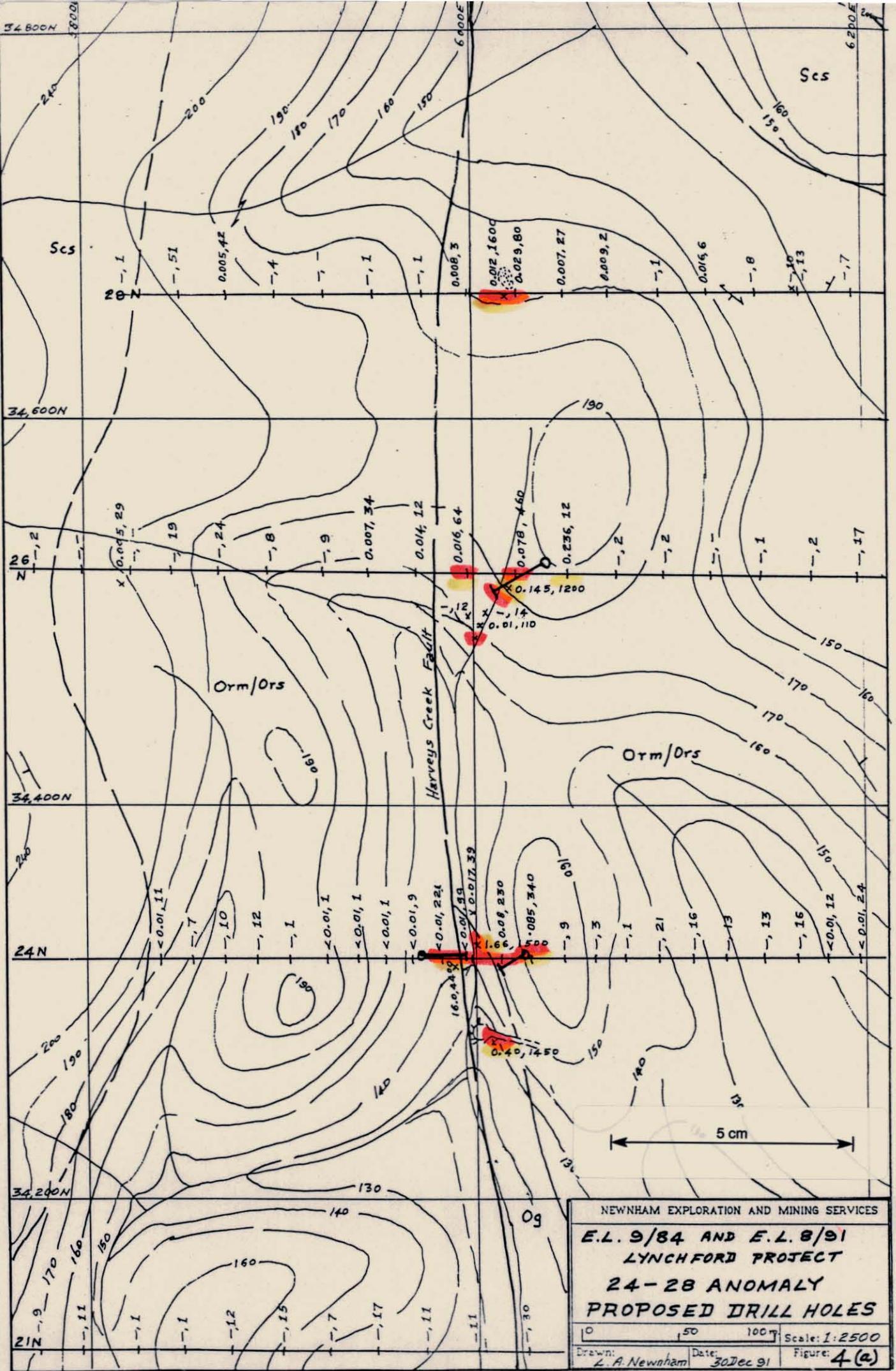
LYNCHFORD PROJECT

DAVIE ANOMALY

SECTIONS PROPOSED DRILL HOLES

0	50m	100m	Scale: 1:2500
Drawn: L.A. Newnham	Date: 30 Dec 91	Figure: 3(b)	

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NEWNHAM EXPLORATION AND MINING SERVICES
E.L. 9/84 AND E.L. 8/91
LYNCHFORD PROJECT
24-28 ANOMALY
PROPOSED DRILL HOLES

0 50 100m Scale: 1:2500
 Drawn: L. A. Newnham Date: 30 Dec 91 Figure: 4(a)

Au, As soil } Trikon, Cyprus Results
 Au, As rock }
 Proposed drill holes
 Scs = Crotty Quartzite Og = Gordon Limestone
 Orm/Ors = Rinadeena Fm

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5800E

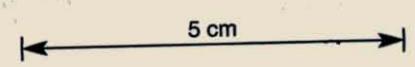
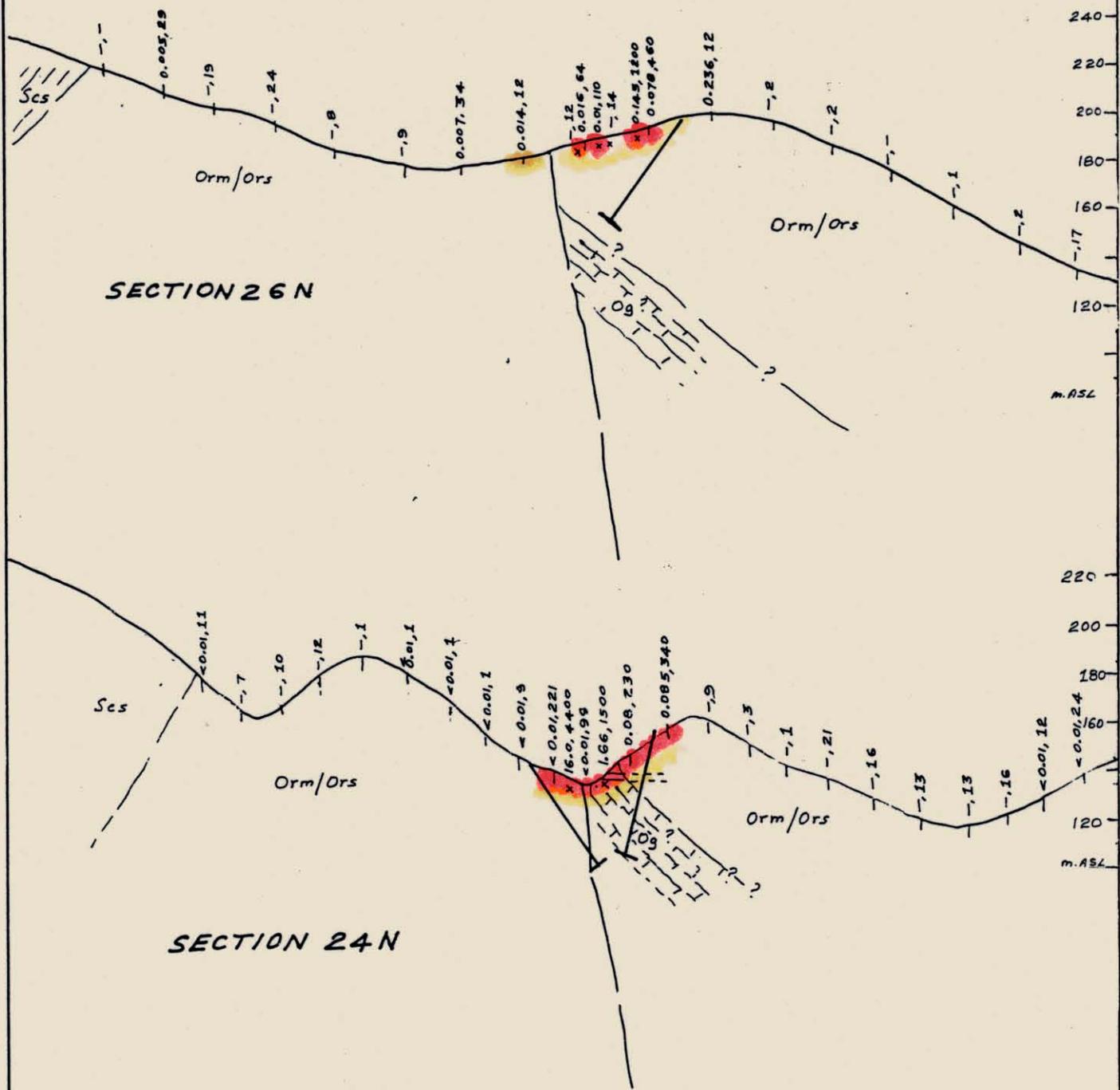
6000E

6200E

260
240
220
200
180
160
120
m. ASL
220
200
180
160
120
m. ASL

SECTION 26 N

SECTION 24 N



Notes: Sections looking N
 No vertical scale exaggeration
 x Soil sample Au, As
 x Rock sample

NEWHAM EXPLORATION AND MINING SERVICES		
E.L. 9/84 AND E.L. 8/91		
LYNCHFORD PROJECT		
24-28 ANOMALY		
SECTIONS PROPOSED DRILL HOLES		
0	50	100m
Scale: 1:2500		Figure: 4(b)
Drawn: Z.A. Newham	Date: 30 Dec 91	

The respective costs of these two alternatives would be similar, and a decision could be made following a detailed ground inspection of the sites.

Holes would be angled between 55°-70° and drilled 46TT size.

This style of drill evaluation is expensive per metre but represents the most effective method in rugged, poorly accessed areas for testing anomalies to determine if deeper drilling with larger drill rigs is warranted.

Preferred Contractors

- drilling: Nick Poltock
- helicopter: Helicopter Resources

Timing: November-December 1992

Costs:

Drilling approx. 250m. @ \$55/m	\$14,000
Access development	7,000
Mobilisation/demobilisation	1,000
Splitting/Assaying (200m. @ \$20/m)	4,000
Core trays, etc. \$4/m	1,000
Travel, accommodation	5,000
Planning, supervision, collation, reporting (30 days)	10,000
Drafting, report preparation	4,000
Contingencies	<u>4,000</u>

Total Estimate \$50,000

Note to Costs:

Normally the portable rig has a crew of two. However when manually shifting and operating in a rugged area such as this, a third crew member is required. Efficiency is maximised if the project geologist fills this role.

3.2.2. Coupon Core Drilling:

If the results of the 1991-92 core drilling program are encouraging, further drilling should naturally be undertaken. The magnitude of this further work can only be surmised at this point in time.

As seen from the cost estimate in 3.1.1 above, HQ-NQ coring in this area has an all inclusive cost (assaying, supervision, the lot) of approximately \$120-140/m.

Hence a budget of \$150,000 would be adequate for a further 1200m. of drilling in 92-93. This seems a reasonable level of expenditure if results are encouraging.

Following a short break to assess results of the first (1991-92) program, this drilling could be undertaken in Winter-Spring 1992-93.

3.2.3. Grid Mapping and Sampling:

If reconnaissance work along the southern HG and Harris Faults in 1991-92 highlighted anomalous areas of continuing interest, these should be followed up by detailed grid based mapping and auger soil sampling.

The location and quantity of this work cannot be predicted at this stage, but a \$50,000 program in Summer (January-February) 1992-93 would be sufficient to develop and evaluate several modest sized grids and therefore progress this work adequately.

Cutting, mapping and sampling can cost approximately \$2,000/kilometre in this type of area, depending on the conditions encountered.

4. SCHEDULE AND BUDGET

A program schedule and budget to complete the above work over the next 18 months are presented as Tables 1 and 2.

Both tenements are due for renewal in mid-July 1992. Application for renewal must therefore be lodged by early—mid-June 1992.

The proposed 1991-92 program, if implemented as per the following schedules, would constitute both adequate and timely support for the renewal applications.

	1991-92						TOTALS	1992-93						TOTALS					
	January	February	March	April	May	June		July	August	September	October	November	December		January	February	March	April	May
STAGE 1																			
COUPON DRILLING																			
Direct drilling costs				20,000	40,000		60,000												
Mob- demob, access			1,000	3,000	2,000		6,000												
Surveying					3,000		3,000												
Materials			1,000	2,000	1,000		4,000												
Splitting and Assaying					3,000	5,000	8,000												
Supervision, management			1,000	3,000	3,000	3,000	10,000												
Travel and accomm.			1,000	2,000	2,000		5,000												
Drafting, reporting						4,000	4,000												
Contingencies			1,000	2,000	2,000	1,000	6,000												
COUPON MAPPING																			
				2,000			2,000												
RECONNAISSANCE MAPPING																			
					2,000		2,000												
STAGE 1 TOTALS																			
			5,000	34,000	58,000	13,000	110,000												
STAGE 2																			
COUPON DRILLING																			
Direct drilling charges								20,000	30,000	40,000									90,000
Mobilisation and access								3,000	2,000	2,000									7,000
Surveying								1,000		1,000									2,000
Materials								2,000	3,000	1,000									6,000
Splitting / Assaying									4,000	5,000	3,000								12,000
Supervision / Management								2,000	3,000	5,000	5,000	3,000							18,000
Travel and accomm.								1,000	1,000	2,000	2,000								6,000
Drafting, reporting										1,000	3,000								4,000
Contingencies								1,000	2,000	1,000	1,000								5,000
DAVIE / 24-28 DRILLING																			
Direct drilling costs											5,000	9,000							14,000
Access development										3,000	2,000	2,000							7,000
Mob. / Demob											1,000								1,000
Splitting, assaying												2,000	2,000						4,000
Materials										1,000									1,000
Travel, Accomm.										1,000	2,000	2,000							5,000
Supervision, Management										1,000	4,000	3,000	2,000						10,000
Drafting, Reporting												1,000	3,000						4,000
Contingencies										1,000	2,000	1,000							4,000
GRID BASED EXPLORATION																			
Track cutting												7,000	8,000						15,000
Soil sampling												4,000	6,000						10,000
Assaying													3,000	3,000					6,000
Mapping												4,000	4,000	2,000					10,000
Travel, accomm.												2,000	2,000	1,000					5,000
Drafting and reporting														2,000	2,000				4,000
STAGE 2 TOTALS																			
								3,000	31,000	48,000	65,000	26,000	20,000	24,000	23,000	8,000	2,000		250,000

Table 1: LYNCHFORD PROJECT 1991-92 and 1992-93 BUDGET

	1991-92						1992-93											
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June
STAGE 1																		
COUPON DRILLING				=====	-----													
COUPON MAPPING				=====														
RECONNAISSANCE MAPPING					=====													
PROJECT REVIEW							=====											
STAGE 2																		
COUPON DRILLING							=====	-----										
DAVIE / 24-28 DRILLING											=====	-----						
GRID BASED EXPLORATION													=====	-----				
PROJECT REVIEW																	=====	
EL 9/84 RENEWAL							* (Appln.)				* (Grant)							*
EL 8/91 RENEWAL							* (Appln.)				* (Grant)							*

Table 2 : LYNCHFORD PROJECT 1991-92 and 92-93 SCHEDULE