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BEACONSFIELD GOLD MINES LIMITED

EXPLORATION REPORT FOR THE PERIOD
OCTOBER 1987 TO JANUARY 1989

Volume 1

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BEACONSFIELD GOLD MINES LIMITED

EXPLORATION REPORT FOR THE PERIOD
OCTOBER 1987 TO JANUARY 1989

by: J Hicks

July 1989

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SUMMARY

A detailed programme of exploration was conducted by Beaconsfield Gold Mines Limited (BGML) between October 1987 and January 1989. The objective of the programme was to augment existing gold reserves at the former Tasmania gold mine by exploring for and delineating additional resources within the Beaconsfield area.

The exploration programme encompassed geological mapping, a BLEG and airborne geophysical survey, drilling and costeaning. Overall, a total of 175 BLEG samples were collected, 2900 line km of geophysical survey were flown and 37 shallow exploratory drillholes were drilled as part of the exploration programme.

The overall results of the exploration programme were very disappointing. Regionally, only one BLEG anomaly was identified. The source of the anomaly was subsequently located, tested and found not to warrant further work. Drill testing and costeaning of several targets which were identified near the former Tasmania mine all proved negative. Based on the exploration results it is concluded that the <u>outcrop</u> extent of the lower Palaeozoic rock sequence which hosts the Tasmania mine has been adequately explored and does not warrant further exploration.

A review of all geological data at the completion of the exploration programme has concluded that the exploration prospectiveness of the Beaconsfield area is restricted to new discoveries of Tasmania reef type deposits within previously unexplored areas of the Cabbage Tree Formation. The most prospective and effectively the only remaining unexplored area of the Cabbage Tree Formation is its <u>buried</u>, northerly strike continuation between Brandy Creek and the West Arm inlet; a distance of approximately 4.5 km.

As a consequence of the geological review two recommendations are made. Firstly, that BGML direct future exploration programmes toward the discovery of other Tasmania reef type deposits between Brandy Creek and West Arm inlet, where the Cabbage Tree Formation is covered by a veneer of Tertiary and Permian sediments. A small Exploration Licence will be required to secure tenure of this area. Secondly, it is recommended that when required to halve the size of EL7/88 in October 1993, BGML should relinquish the southern half.

1. INTRODUCTION

Beaconsfield Gold Mines Limited (BGML) was formed in early 1987 for the principal purpose of re-developing the former Tasmania gold mine in Beaconsfield, Tasmania. The Tasmania gold mine is developed on the Tasmania reef - a large auriferous quartz carbonate reef. During its operating life (1877-1914) the mine produced 26,578 kg of gold from 1,085,000 tonnes of ore.

Until the mine is re-commissioned, Australian Consolidated Minerals Ltd (BGML's largest shareholder) provide management to BGML through its management company, AA Management Pty Ltd.

In April 1987, BGML commenced a programme of work designed to recover the Hart Shaft, dewater the mine and excavate two exploratory sill drives below the old mine workings. To run concurrently with the rehabilitation programme, BGML commenced a programme of exploration in October 1987 to explore for additional gold resources within the window of lower Palaeozoic rocks which host the Tasmania mine; an area slightly in excess of 100 square kilometres. Exploration was directed toward the discovery of auriferous reefs similar to the Tasmania reef and near surface "stockwork" mineralisation which would be amenable to open cast mining.

The purpose of this report is to document the exploration activities completed and the results and conclusions arising therefrom. The report is presented in two parts. Volume 1 contains the text of the report and the figures and plates referred to therein. Volume 2 contains two reports prepared by outside consultants, as well as drill logs and assay data. Exploration expenditure for the period October 1987 to January 1989 amounted to $260,000.

2. LOCATION AND ACCESS

The former Tasmania gold mine is located in Beaconsfield, Tasmania at latitude 41°12′S, longitude 146°49′E on the Beaconsfield 1:63,360 and Launceston (SK 55-4) 1:250,000 scale geological map series. Beaconsfield is 40 km NW of Launceston on the West Tamar Highway (Figure 1). Access throughout the Beaconsfield area is provided by an extensive network of public roads, farm and forrestry tracks.

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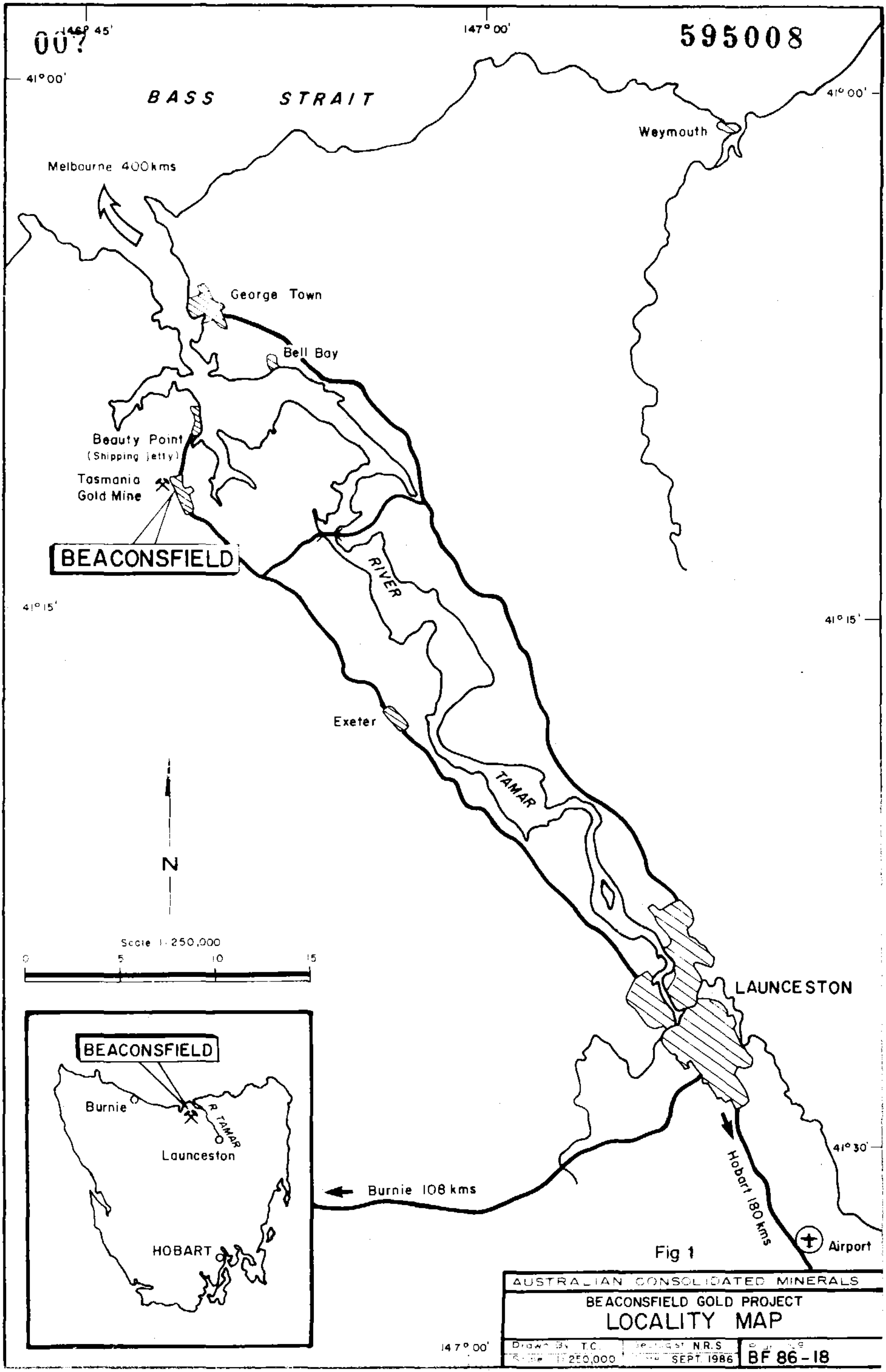

Fig 1

AUSTRALIAN CONSOLIDATED MINERALS

BEACONSFIELD GOLD PROJECT

LOCALITY MAP

Drawn By T.C.
Geologist N.R.S
Scale 1:250,000
Date SEPT 1986
Drawing No
BF 86-18

3. TENURE

BGML hold title to Exploration Licence 7/88; a 46 square kilometre licence covering the former Tasmania mine and its immediate exploration potential (Figure 2). BGML successfully tendered for Exploration Licence 7/88 after Exploration Licence 17/73, the licence previously covering the area, expired on 12 January 1988. Exploration Licence 7/88 was granted to BGML on 14 October 1988. Providing all statutory Tasmanian Department of Mines' regulations are satisfied, the licence is valid for a maximum period of ten years. By year five, the size of the Exploration Licence must be reduced by half.

Within EL 7/88 BGML hold title to Temporary Licence TF 11572, covering the company's mine site operation and office. Also within the EL are several prospecting and gravel leases which are not controlled by BGML. The largest of these is the Gravel Lease owned by BHP and from which they quarry silica rich sediments in joint venture with Boral Limited.

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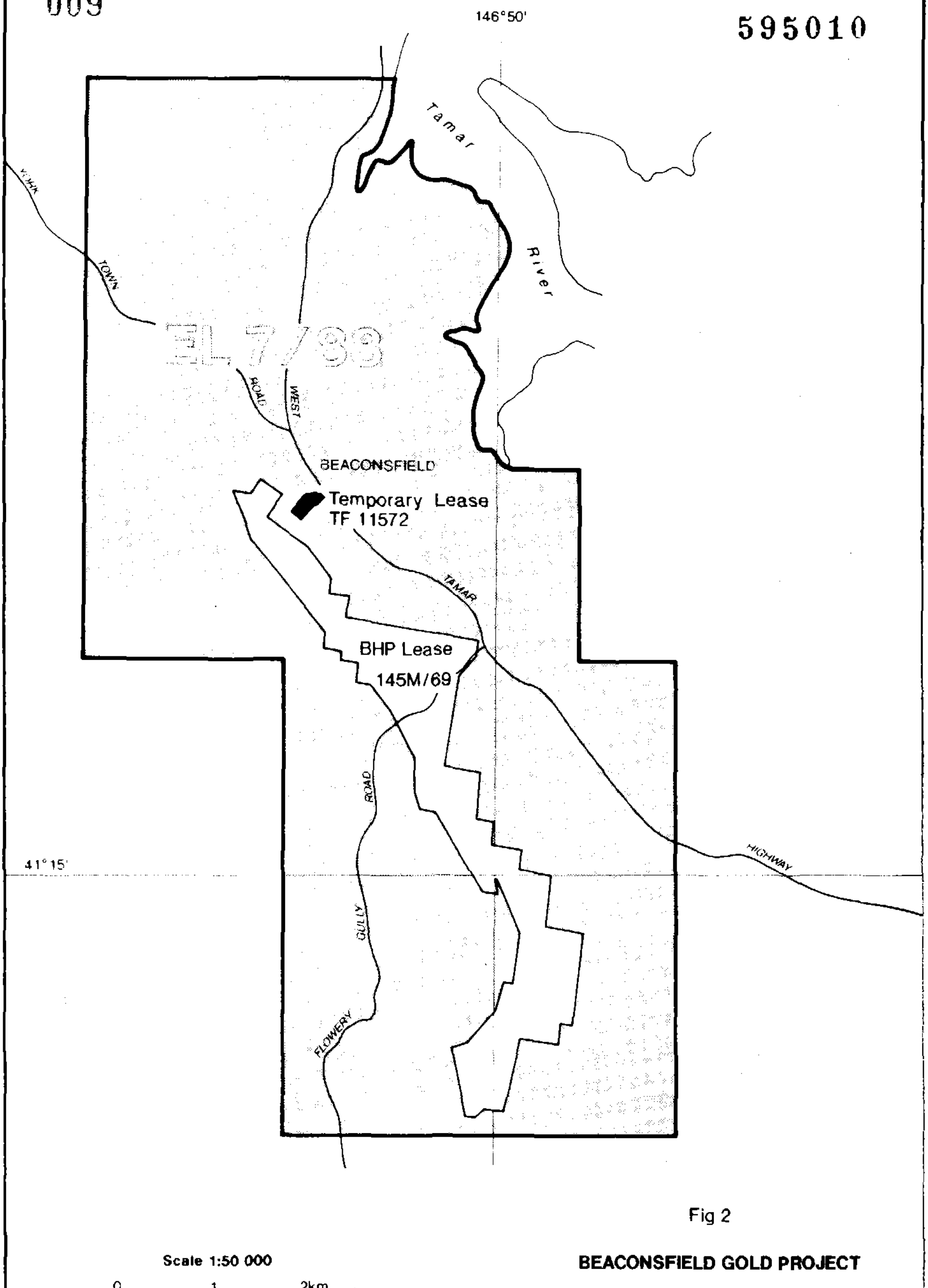

Fig 2

BEACONSFIELD GOLD PROJECT

TENEMENT MAP

BF89-1

4. PREVIOUS INVESTIGATIONS AND EXPLORATION HISTORY

Reef gold was first discovered on the eastern flank of Cabbage Tree Hill, immediately to the west of Beaconsfield, in 1877. Surface prospecting and underground development downslope from the initial discovery led, shortly thereafter, to the discovery of the Tasmania reef and the subsequent development of the Tasmania gold mine.

Between 1877 and 1914 the Tasmania reef was worked continuously from surface to a vertical depth of 454m, producing a total of 26,578 kg of gold from 1,085,000 tonnes of ore at a recovered average grade of 24.5 g/t. Historical records indicate that the closure of the mine in 1914 was for reasons other than any fundamental change in the width or grade of the orebody.

Early geological accounts of the Tasmania mine and the Beaconsfield Goldfield in general were written by Thureau (1883), Montgomery (1891) and Twelvetrees (1902, 1903a, 1903b). In the years following the closure of the mine several reports describing the Tasmania mine and/or various prospecting operations underway in the Beaconsfield area at the time were written by Department of Mines' geologists and inspectors.

Between 1938-1942 the Tasmanian Department of Mines drilled three surface exploration drill holes near the Tasmania mine. Details of the drill holes which were designated B1, B2 and B3 are poorly documented and no assay data was recorded.

In 1953 Hughes described the geology of the Beaconsfield and Lefroy goldfields and Green described the geology of the Beaconsfield district, including the Anderson Creek Ultrabasic Complex, in 1957.

The Department of Mines embarked on a second deep drilling programme at the Tasmania mine in 1964. This time three excellent intersections (B4, B4A and B4B) of the Tasmania reef were achieved from a single drill hole (Noldart 1964, 1968).

Allstate Exploration NL acquired title to the Tasmania mine and environs in 1969. Over the following ten years Allstate conducted several exploration programmes. Notable of these were:

- The completion of a deep diamond drilling programme and bedrock geochemical drill programme during 1969-1972. The diamond drill programme which was designed to test the Tasmania reef 450m below the deepest mine level failed to achieve an intersection. The geochemical bedrock programme was designed to use geochemical trace elements to locate possible reef structure. No structures were located.

- In joint venture with Tricentrol Australia Pty Ltd, Allstate successfully drilled two excellent intersections of the Tasmania reef during 1973-1974. Designated A6 and A7 the intersections were achieved 120m and 112m respectively, below the deepest mine level.

- During 1978-1979 Allstate mapped and sampled EL 17/73 (Bates 1979a). Several target areas were identified and subsequently drill tested (Bates 1979b). The results were generally disappointing except for the recognition of a possible small reef structure at Brandy Creek and the intersection of two low grade auriferous zones immediately to the north of the Tasmania reef.

During this period of exploration by Allstate the Tasmanian Department of Mines mapped the Beaconsfield area (Geological Atlas 1 Mile Series - Gee and Legge 1971, second edition 1979).

AMAX Iron Ore Corporation entered into a joint venture agreement with Allstate and Tricentrol in 1979. AMAX undertook a work programme designed to recover the Hart Shaft and dewater the Tasmania mine. In conjunction with this, AMAX geologists mapped and sampled several old adits on Cabbage Tree Hill and Salisbury Hill. For financial reasons AMAX suspended operations in 1982, prior to completion.

Renison Goldfields Consolidated Ltd (RGC) entered the joint venture in 1982. In a programme comprising approximately 6,000m of drilling, RGC achieved eight primary and five wedge repeated intersections of the Tasmania reef between 1982-1984 (Newnham and Pease 1983, Pease 1984, 1985). The most significant intersection (B11) was achieved 250m below the deepest mine level. RGC withdrew from the joint venture in 1985 after the programme failed to delineate the reef in sufficient detail to outline an ore reserve.

In 1984 AMAX Iron Ore Corporation incorporated its interest in the Beaconsfield joint venture into its Australian float of Austamax Resources Limited. Australian Consolidated Minerals Ltd subsequently acquired the Austamax interest in 1986.

ACM, Allstate and Tricentrol agreed to incorporate their joint venture interests to form a new company, Beaconsfield Gold Mines Limited (BGML), in 1986. BGML was listed on Australian Stock Exchanges in May 1987.

5. REGIONAL GEOLOGY

The Tasmania reef is exclusively developed within an upwardly fining sequence of conglomerate, grits, sandstones and calcareous shales which Gee and Legge (1979) defined as the Cabbage Tree Formation (CTF). Earlier workers (Green 1957) had subdivided the formation into a number of smaller informal units based on particular lithologies. The CTF outcrops as a prominent strike ridge for 7 km, forming two distinct hills; Salisbury Hill in the south and Cabbage Tree Hill in the north, adjacent to the Beaconsfield township.

The CTF is part of a small window of NW trending lower Palaeozoic rocks which outcrop over approximately 100sq km in the Beaconsfield area between the Badger Head Block and the Tamar River Graben (Figure 3). Limited palaeontological evidence (Green 1957) indicates the rocks are of Cambrian and Ordovician age.

Gee and Legge (1979) describe the lower Palaeozoic sequence as consisting of Cambrian slates and Ordovician arenites which were imbricately thrusted against the Precambrian Badger Head complex during the Tabberabberan Orogeny. Based on lithological similarities Gee and Legge (1979) interpreted four separate thrust slices containing CTF between the Badger Head Block and the Tamar Graben.

The Badger Head Group is a basement structural high consisting of a relatively unmetamorphosed, structurally complex sequence of quartzwacke, siltstone and mudstone. These rocks form the prominent Asbestos and Dazzler Rangers 5 km west of Beaconsfield. Close to the Precambrian basement, the lower Palaeozoic sequence has been intruded by the Anderson Creek Ultramafic Complex a large, elongate, NNW trending body of serpentinite, pyroxenite and gabbro.

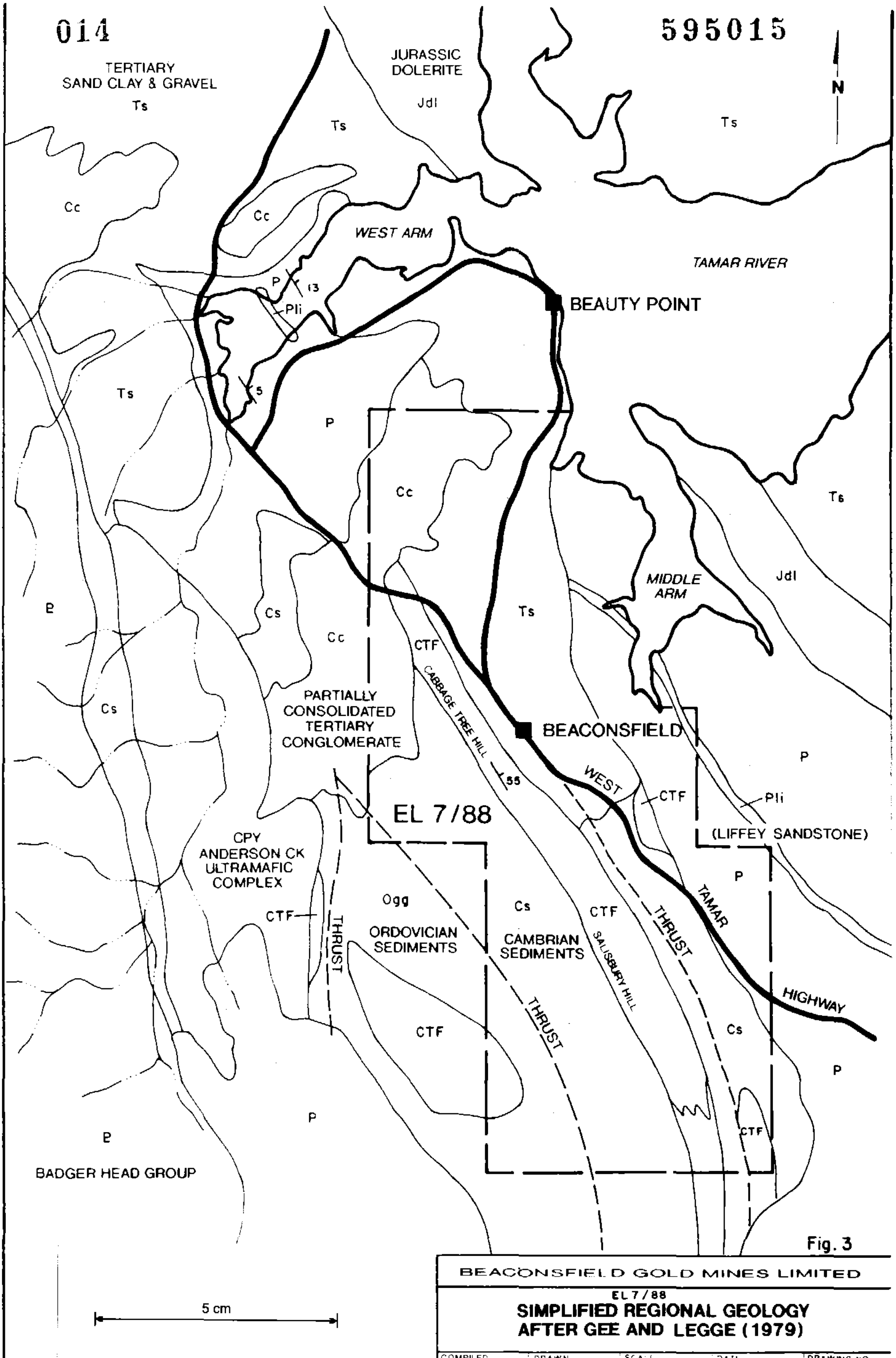

Fig. 3

BEACONSFIELD GOLD MINES LIMITED

EL 7/88

SIMPLIFIED REGIONAL GEOLOGY
AFTER GEE AND LEGGE (1979)

COMPILED	DRAWN	SCALE	DATE	DRAWING NO
J. HICKS	T.C	1:63360	JUNE 1989	BF 89-13

Unconformably overlying the lower Palaeozoic rocks is a gently dipping (10° to 15° NE) sequence of Permian sediments. Overlying the Permian sediments are Triassic sandstones. Jurassic dolerites intrude all Palaeozoic and Triassic rock types, preferentially forming extensive sills in the Permian and Triassic units. Detail descriptions of these rocks are given by Green (1957) and Gee and Legge (1979).

Elsewhere in the Beaconsfield area the important lower Palaeozoic sequence is covered by extensive Tertiary deposits of semi-consolidated terrestrial sediments.

6. LOCAL MINE GEOLOGY

6.1 Stratigraphy

In the vicinity of the Tasmania mine the CTF strikes 325° (AMG) and dips towards the NE at 55°. Based on lithological differences the CTF can be subdivided into four informal, conformable sub-units (Figure 4). In ascending stratigraphic order the sub-units are:

1. Basal limestone (about 100m thick). Interbedded with the limestone at depth (B13) are numerous thin sand and pebble rich siliciclastic horizons. The coarser pebbly horizons invariably contain detrital chrome and secondary fuchsite. Nearer to the surface (GIDDH2) the limestone is devoid of siliciclastics, exhibiting ubiquitous stylolitic textures instead and several interbedded dolomitic (?) horizons.

2. Pebble conglomerate (about 60m thick), composed of subangular to rounded pebble size clasts of indurated carbonaceous sandstone, sericitic sandstone, stressed vein quartz, chert and quartzite set in a fine grained matrix of quartz, sericite and ankerite. Several thin horizons, containing cobble size clasts occur infrequently towards the base of the pebble conglomerate. They are always rich in detrital chrome and secondary fuchsite and as a general rule the clasts are more angular.

3. Lower "transition beds" (about 150m thick), an interbedded alternating black sequence of sandstone (quartzite), grits and pebble conglomerate. The sequence is lithologically identical to the pebble conglomerate stratigraphically below except that it is finer grained. The early miners referred to this sequence as the "wet beds" because of the numerous water bearing fractures encountered in them.

4. Upper "transition beds" (about 220m thick), an interbedded sequence composed of light green calcareous sandstones, siltstone and shale with the occasional thin limestone horizon. Overall the sequence becomes progressively finer grained and more calcareous as it approaches the overlying Gordon Limestone. The sandstones have a framework of subrounded stressed quartz grains, incipiently recrystallised, with interstitial sericite and carbonaceous matter.

6.2 Tasmania Reef

The Tasmania reef is a auriferous quartz-carbonate (ankerite) vein which developed exclusively within the CTF (Figure 4). To the east of the No 2 Crosscourse fault the reef strikes 055° and dips, on average, at 60° towards the SE. West of the No 2 fault the reef is developed in the stratigraphically lower part of the CTF as a weaker, more irregular feature along a trend of 315° (AMG).

This section of the Tasmania reef supported several minor workings in the early days of the goldfield. However, the gold was patchy and did not persist at depth. With the exception of the Moonlight-Wonder workings which closed in 1903, all activity had ceased on this line by 1881.

The Tasmania reef gold orebody is confined to that part of the reef which transgresses the two stratigraphically highest subunits of the CTF, the transition beds. This simple geometric relationship between the reef and the transition beds has resulted in a 400m long ore panel which plunges steeply to the east. In the former mine workings the Tasmania reef attained a maximum true thickness of 5.4m, but overall it averaged 1.96m.

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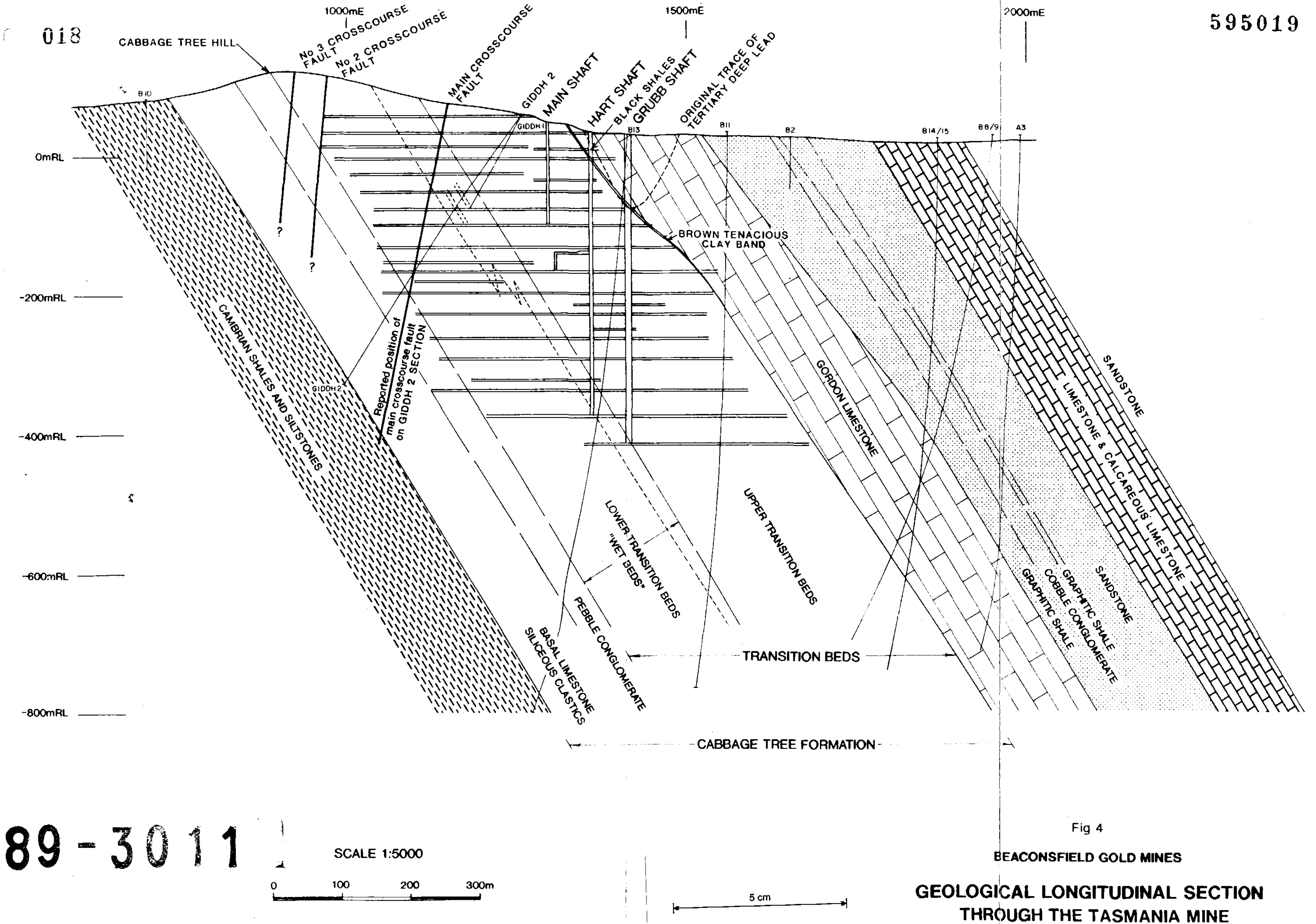

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Fig 4

BEACONSFIELD GOLD MINES

GEOLOGICAL LONGITUDINAL SECTION THROUGH THE TASMANIA MINE

BF89-2

The deposit is bounded to the east by the overlying Gordon limestone. To the west the deposit is bounded by the No 2 Crosscourse fault and the second lowest subunit of the CTF, the pebble conglomerate. Limited drill data at depth indicate the reef is developed within the pebble conglomerate subunit, but is poorly mineralised.

The essential character of the reef changes along strike. A simple, single vein is typical of the westernmost third where the reef traverses rudaceous rocks. In the central part there is a tendency to form parallel veins, and in the easternmost third, where calcareous sandstones and shales dominate, the reef is disrupted by major branching and minor faulting. The ends of the reef where it encounters the pebble conglomerate and limestone units are typically "ragged", with several branching veins. These bifircations of the reef, regardless of whether they form diverging branches or parallel reefs, appear to plunge parallel to the controlling plunge of the orebody, suggesting that the gross elastic properities of the transition beds had a role in their formation.

6.3 Faulting

Where the Tasmania reef traverses the transition beds it occupies a right lateral fault which has an estimated displacement of 30m. It is not known if the lateral movement was accompanied by a dip separation. Elsewhere the Tasmania reef has been affected by three fault types.

The largest and most important faults are the crosscourse faults, which trend between NW and N and dip steeply W. Along the Main Crosscourse fault the Tasmania reef has been offset 70m. It has long been thought this movement was accompanied by a west block up movement of 90m. However, recent mapping and hydrogeological drilling indicate this is not the case (section 9.2). The No 2 Crosscourse fault is situated approximately 100m to the west of the Main Crosscourse fault. It has long been a contentious issue whether the reef west of the No 2 fault is the continuation of the Tasmania reef.

Smaller displacements of the reef have occurred due to the effects of a flat lying and longitudinal set of faults. In the former mine workings between 1744m RL and 1714m RL a single flat dipping (35°) fault, striking 050°, displaces the lower reef block by between 15 to 20m to the north.

The flat lying fault is itself displaced by a series of small faults which trend approximately 008° with an easterly dip averaging 60°. These were described in old mine reports as "longitudinal" faults and were responsible for displacing the reef by up to 8m to the south.

6.4 Mineralisation

Descriptions of the Tasmania reef in the old mine workings are sketchy. The following description is based largely on drill intersections of the reef below the mine workings.

Where the Tasmania reef is well developed and mineralised it is a "zoned", carbonate (ankerite) - quartz reef containing varying quantities of sulphide. The reef interior often dominates in volume and consists of massive, coarsely cystalline cream coloured ankerite with minor translucent quartz. Typically, sulphides (pyrite mainly) are fine grained and sparsely disseminated in this zone. Gold values are generally low.

The outer margins of the reef which are generally more quartz rich are almost barren of sulphides at the contacts with the wall rocks. Sulphides, predominantly pyrite, are abundant in this quartz zone at the contact with the inner carbonate zone. Subsidiary sulphides are arsenopyrite and chalcopyrite with very minor galena and sphalerite. Tetrahedrite was recorded by previous workers but has not been observed in drill core.

Where the reef branches, the zoning is preserved in each branch. The finer grained adjacent wall rocks may be weakly carbonatised (veined) and pyritised. Localised wall rock assimilation is evident.

There is a strong correlation between pyrite abundance and gold grades. Gold has been observed mineragraphically as multiparticulate grains of less than 5um in pyrite and occasionally in chalcopyrite. Visible gold (flakes to 2mm diameter) is restricted to the quartz rich portions of the reef. Rare fine gold has been observed in ankerite. The ankerite rich core and wall rocks are typically low grade. A gold:silver ratio for the reef of 6.5 to 1.0 is indicated by drill hole assay data.

7.0 WORK COMPLETED

7.1 Geochronology

It is commonly believed that the auriferous quartz reefs of NE Tasmania were formed during the upper Devonian Tabberabberan Orogeny, possibly as the result of regional granite emplacement. Recent age dating work by the CSIRO supports this view. Although field relationship indicate a similar formation age for the Tasmania reef it was decided, because of its many unique and atypical features, to have the CSIRO analyse samples of the Tasmania reef.

Two core samples of the Tasmania reef from drill holes B11 and B11A were submitted to the CSIRO (Division of Mineral Physics and Mineralogy) in Sydney for Pb isotope determinations. The CSIRO procedure involved comparing the isotopic (Pb) composition of the Tasmania reef samples with their isotopic data base of rock types throughout Tasmania.

7.2 Base Map Preparation

Two base map sets were prepared by the NW Computer Aided Drafting Centre to cover the exploration areas of interest. The smaller scale set consisted of two 1:25,000 base sheets, covering the entire exploration area and showing roads, drainage and certain cultural features (Plates 1 and 2). The larger scale set consisted of three 1:5,000 scale sheets covering the outcrop extent of the CTF (Plates 3, 4 and 5). In addition to the features shown on the 1:25,000 scale maps 10m topographical contours were incorporated on the 1:5,000 scale maps.

7.3 Geological Mapping

Exploration Licence 7/88 was geologically mapped at 1:5,000 scale. Colour 1:20,000 scale aerial photographs were enlarged to 1:5,000 scale to use for the mapping base.The principal purpose of the mapping was to produce a single geological map covering the outcrop extent of the CTF. Numerous mapping traverses were also undertaken outside the EL to verify the 1:63,360 scale Department of Mines' mapping.

7.4 BLEG Survey

In order to assess the regional prospectivity of the exploration area a combined BLEG sediment and soil survey was conducted. The objective of the programme was to delineate with assurance those areas bearing anomalous levels of gold. Approximately two samples per sq km were collected over the exploration area, increasing in density in areas of interest.

A total of 175 BLEG samples, comprising of approximately 6kg of seived (minus 6mm) material, were collected from non trap sites. Where stream coverage was deemed inadequate base of slope soil samples were collected. Also collected at each BLEG site was a 250-500 gram geochem sample. All samples were analysed by Australian Laboratory Services (ALS) in Brisbane. The 6kg BLEG samples were analysed by Bulk Cyanide Leach Gold technique for Au. The geochem samples were analysed for As by XRF technique and for Cu, Pb and Zn by AAS technique using a perchloric acid digest.

7.5 Geophysics

A combined, detailed aeromagnetic/radiometric survey was conducted over the entire exploration area. The survey was flown to help locate structures of potential interest and map geology beneath areas of cover. Mitre Geophysics of Elliot (Tasmania) were engaged as consultants to BGML.

The survey was flown by Austrix International Ltd during March and April 1988. Flight lines were flown E-W (AMG), with a line spacing of 150m and a tie-line interval of 1500m. The nominal terrain clearance was 100m and the data sampling interval approximately every 15m. Survey instrumentation consisted primarily of a Scintrex cesium magnetometer with a resolution of 0.01nt and a cycle rate of 0.2 seconds, and a 33.56 litre spectrometer with a cycle rate of 1.0 second. Austirex used their own Strike Commander
aircraft for the survey.

7.6 Drilling

Exploratory drill testing of three target areas was conducted during November and December 1988. A combined total of 37 reverse circulation and open hole hammer drillholes were drilled, resulting in an aggregate drilled metreage of 1,768m. Stacpoole Drilling Services of Launceston were engaged to carry out the drill programme. Reverse circulation drilling was undertaken where ground conditions permitted. Experience showed that in areas where sticky, binding clays occurred it was necessary to employ open hole drill techniques. A constant two metre sample interval was employed throughout the programme and all drillholes were depressed at 60°.

Twenty one (21) drillholes were drilled adjacent to the former Tasmania mine workings. The objective being to test the immediate wall rocks of the Tasmania reef for low grade "halo" mineralisation which could be amenable to open cast mining. Samples were submitted to the Department of Mines' Launceston laboratory for gold analysis by fire assay technique (FA 50). Evidence of possible wall rock mineralisation was provided by two earlier Allstate drill holes (RB9 and RB79) which intersected, immediately to the north of the Tasmania reef, 9m grading 3.2 g/t and 3m grading 4.5 g/t Au, respectively.

A single traverse, comprising of nine drillholes was drilled between the Tasmania reef and the BGML/Boral lease boundary to the north; a distance of 400m. The traverse of drill holes was designed to test for possible reef structures, at the same time testing two low priority VLF geophysical targets. For these drillholes the 2m assay samples were composited in to 6m composite samples and submitted to the Department of Mines' Launceston laboratory. Gold content was determined by acid digest and AAS.

The remaining seven drillholes were drilled near Brandy Creek to test the narrow reef(?) structure which Allstate identified in 1979 in drill holes RB34 and RB35. The objective of the follow-up drilling was to determine the attitude of the structure and assess its significance. Assay samples were submitted to Australian Laboratory Services' Bendigo (Vic) laboratory for gold determination by fire assay technique.

7.7 Costeaning

Six costeans were excavated in the vicinity of the former Tasmania mine to test several subtle magnetic linears and VLF anomalies. The magnetic linears were identified by Mitre Geophysics following enhanced computer processing of the aeromagnetic data. They were interpreted to cross the CTF, parallel to the Tasmania reef. Where possible the costeans were excavated near the crest of Cabbage Tree Hill to take advantage of the relatively shallow soil cover on the hill.

Each costean was carefully examined and sampled. Five metre channel (chip) samples were collected systematically along the length of each costean. The samples were fire assayed for gold at the Department of Mines' Launceston laboratory.

8. EXPLORATION RESULTS

8.1 Geochronology

A copy of the CSIRO Pb isotope report is contained in Volume 2 Appendix 1 of this report. The study concluded that the Pb isotope composition of the Tasmania reef is consistent with the isotopic composition of other Devonian mineralisation in Tasmania. A Devonian age for the formation of the Tasmania reef is therefore indicated.

8.2 Geological Mapping

Plates 6, 7, and 8 at the rear of this report depict the results of the geological mapping programme.

The mapping programme was hindered by the lack of outcrop. A thick soil profile, invariably supporting pasture or thick forest covers most of the mapped area. A detailed understanding of the lower Palaeozoic bedrock sequence on and adjacent to Cabbage Tree Hill is possible however due to the presence of old mine workings and recent quarrying and exploration activities (Plate 7). Within the mapped area the lower Palaeozoic sequence trends consistently NW and dips on average between 45-70° towards the NE.

To the west and conformably underlying the CTF is a thick, interbedded sequence of shale and siltstone. The sequence is carbonaceous in part and thin sandstone beds occur infrequently. Good exposures of this sequence can be seen at 37100m N, 84250m E and along the HEC Power Transmission line track south of Salisbury Hill between 84600m E and 86500m E.

Outcrop of the overlying basal limestone subdivision of the CTF is virtually non-existent. Several small, highly weathered outcrops adjacent to the BHP quarry access road on the west side of Cabbage Tree Hill are possible expressions of the limestone. The limestone and its gradational and conformable contact with the underlying shale sequence can be seen in diamond drillholes B13 and GIDDH 2 (Figure 4).

Good exposures of the stratigraphically lower conglomerate and grit rich part of the CTF can be seen in the BHP quarry at 37550m N, 84550m E and in the Flowery Gully road cutting at 36450m N, 85300m E. The upper sandstone rich part of the CTF is also well exposed in the road cutting and in the Bonanza Adit and Walkers Hole at 38450m N, 84200m E. Also exposed in the road cutting is an unusual basaltic (?) dyke.

Conformably overlying the CTF is the Gordon Limestone. The only exposure of this limestone, albeit poor, can be seen in the disused limestone pits at 37300m N, 85500m E. Its position opposite the mine can be fixed from exploration drill holes. On the east side of the main pit the sharp contact with the overlying graphitic shale can be seen. The shale is approximatley 200m thick here, whereas near the Tasmania mine drilling indicates a consistent 100m thickness. Near the stratigrpahic top of the shale is a chlorite? rich cobble conglomerate. It consists of well rounded, pebble to cobble size clasts of sandstone, grit and quartz set in a highly sheared chloritic? matrix. The chloritic matrix material gives way gradually to graphitic shale either side of the conglomerate. The conglomerate can be seen in the deep exploration diamond drillholes at the mine and in outcrop on Blyth's Creek at 37550m N, 85575m E.

Approximately 15m east of the conglomerate outcrop, in a small cuddy on the north side of Blyth's Creek, a sharp contact can be seen with the overlying unit; a 150m thick sequence of calcareous sandstone and siltstone. Good, albeit weathered, exposures of this unit can be seen at the junction of the West Tamar Highway and the Flowery Gully Road (37200m N, 86050m E). Up to this point the same lithological succession described above is readily recognisable in exploration drill core from the mine area. Poor outcrop to the east of this stratigraphic level means recognition of the remaining sequence is based largely on exploration drill core.

Conformably overlying the calcareous sandstone unit is a thin calcareous mudstone unit which in turn passes conformably in to a coarse, styloitic limestone. Several thin grit and pebble rich horizons occur within the limestone. They invariably contain detrital chrome and secondary fuchsite.

The limestone is overlain by a sandstone sequence of unknown thickness. At approximately this point on the surface the lower Palaeozoic sequence is unconformably blanketed by 10°-15°, east dipping Permian sediments. Near the West Arm inlet in the northern part of the mapped area the Permian sediments are extensively covered by a relatively thin (20m) layer of semi-consolidated Tertiary clays and gravels. A good exposure of these Tertiary sediments overlying CTF sandstone can be seen in a small disused quarry at 40700m N, 82950m E.

Other rock types mapped in the EL were Jurassic dolerite and an albite-epidote-chlorite-amphibole keratophyre body situated immediately to the east of Salisbury Hill. More detail descriptions of these and most other rock types described in this report are given by Gee and Legge (1979).

Several lithological facies changes were recognised in the lower Palaeozoic rock sequence. The basal limestone subdivision of the CTF is not present at the southern end of Salisbury Hill. In its place is a chloritic? pebble to cobble size conglomerate, similar to the one described in the graphitic shale above the Gordon Limestone except here the clasts are composed predominantly of mafic and ultramafic material.

The graphitic shale unit overlying the Gordon Limestone thickens considerably between the mine area and Blyth's Creek. Over the same distance there is some evidence to suggest a concomitant thinning, albeit to a lesser degree, of the Gordon Limestone. Compared to a combined thickness of at least 210m near the Tasmania Mine and 180m at the Flowery Gully road cutting, the lower conglomerate and grit rich portion of the CTF appears to be no more than 4-7m thick at the southern end of Salisbury Hill. Similarly, the upper sandstone rich portion of the CTF appears to become finer grained and more shale rich towards the southern end of Salisbury Hill.

The recognition of major faults within the Palaeozoic rocks near Beaconsfield is extremely difficult due to the small amount of outcrop. Historically three major faults were recognised near the Tasmania mine; the Main, No 2 and No 3 Crosscourse faults. The position of the Main Crosscourse fault, which cannot be seen on the surface, can be fixed from old mine plans. Its trace passes through the Bonanza Adit but no evidence for this could be found in the adit. The No 2 and No 3 faults can be traced intermittently along the western side of Cabbage Tree Hill to the mine. Good exposures of both faults can be seen in the Garfield Adit (39300m N, 83400m E). Between the two faults the beds dip consistently to the west. Nowhere else in the mapped area was bedding observed to dip west.

All three faults, particularly the No 2 and No 3, appear to be intimately related to the formation of the Tasmania reef. No trace of the No 2 and No 3 faults could be found to the south of the Tasmania reef, in spite of intensive efforts to do so.

8.3 BLEG Survey

Sample locations and analytical results for the combined BLEG sediment/soil survey are plotted on Plates 9 and 10.

Overall the results of the survey were very disappointing. Only one anomaly, sample number 18 (32500m N, 85400m E), was identified away from known mineralisation. A traverse upstream from location 18 located a small collapsed adit. Several pieces of gossonous quartz material found near the adit returned gold values ranging between 0.5 and 1.5 g/t. Follow up soil sampling around the area returned only background gold values.

8.4 Geophysics

A copy of the Mitre Geophysics report is contained in Volume 2, Appendix 2 of this report.

The magnetic data was dominated by the response from the Anderson Creek Ultramafic Complex. The true size and previously unknown lateral extent of this body was clearly reflected by the magnetics. Due to the strong magnetic influence of the ultramafic complex, enhanced data processing was required to filter out its influence.

This resulted in the delineation of several, subtle linears cross-cutting the CTF more or less parallel to the Tasmania reef (Figures 16a and 16b Appendix 2 Volume 2). Mitre Geophysics recommended the linears be tested. Several VLF traverses were conducted across the linears to see if they could be detected by this technique. Several weak VLF anomalies were identified but correlation with the magnetic linears was poor.

The magnetic data clearly indicates that the trend of the Anderson Creek Ultramafic Complex is transgressive to the overall trend of the lower Palaeozoic rock sequence to the east. If the trend of the CTF remains unchanged to the NW of Brandy Creek beneath the Permian and Tertiary cover it will intersect the ultramafic body just north of the West Arm inlet.

The most notable feature of the radiometric data was the clarity with which the total count and thorium channel delineated the CTF along Cabbage Tree Hill and Salisbury Hill. The different responses recorded in those areas where earlier workers have suggested the CTF is thrust repeated, is evidence against the repetition model.

8.5 Drilling

The position of all exploration drillholes is shown on Plate 11. Copies of the drill-logs are contained in Volume 2, Appendix 3 of this report. All assay results are recorded on the drill logs.

Overall the results of the exploration drill programme were very disappointing. Some early encouragement was provided by the two drillhole traverses (drillhole Nos 1-9 incl) which were drilled adjacent to Allstate drillholes RB9 and RB79, immediately to the north of the old mine workings. The best insitu bedrock intersection achieved by BGML was 3.45g/t Au over 2m in drillhole RC4. Several higher assays (up to 6.64g/t) were recorded in the upper sections of these drillholes. These reflect auriferous alluvial/eluvial material shedding down off the Cabbage Tree Hill in narrow gutters. The gutters are small and offer no exploration potential. The results suggest that the AAS assay and RAB drill techniques used by Allstate overstated the width and grade of the mineralisation encountered in drill holes RB9 and RB79.

The assays results for the remainder of the drillholes which were drilled about the old mine workings (drillhole Nos 10-21 incl) to explore for "halo" mineralisation, were uniformly low. The only significant 2m sample assay was 4.9g/t recorded in drillhole OHH 19.

For the single traverse of nine drillholes (Nos 22-30 incl) which was drilled to explore the ground between the Tasmania reef and the BGML/Boral lease boundary no obvious reef structure was encountered and the highest gold assay recorded was 0.4g/t. At Brandy Creek (drillhole Nos BCI-7 incl) the drilling failed to delineate the structure encountered earlier by Allstate in drill holes RB34 and RB35. The assay results were uniformly low, (highest 2m assay 0.4 g/t) confirming the thin and insignificant nature of the structure.

8.6 Costeaning

The position of the six excavated costeans are shown on Plate 12. Recorded adjacent to each costean are the assay values for the 5m channel (chip) samples.

Apart from a small, cross cutting, open fracture in Costean No 4 which coincided approximately with the linear no other feature was observed in the costeans which might explain the magnetic linears or the VLF anomalies. The channel sample assays were consistently low.

Magnetic linear numbers 6 and 7 and were not costeaned. Expressions of their presence were looked for in the BHP quarry. On one particular face a significant fault did coincide with linear number 7. However, the attitude of the fault did not coincide with the linear on successive benches.

The origin of the magnetic linears and VLF anomalies identified by Mitre Geophysics remains unclear. There is no evidence to indicate they are expressions of hidden reef structures.

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9. DISCUSSION

There is no disputing the fact that the results of this latest exploration programme at Beaconsfield are disappointing. The programme has, however, led to a significant improvement in our geological understanding of the Beaconsfield area, the Tasmania reef and its formation. Part of this increased knowledge was derived from several geotechnical and hydrogeological investigation programmes which were undertaken as part of the mine rehabilitation programme. Certain geological aspects of these programmes warrant discussing in this report.

9.1 Geotechnical Drilling

During 1987-88 several geotechnical drilling programmes were conducted in and around the Hart Shaft, from which a detail geological picture emerged (Figure 4). The original (excavated) groundlevel about the shaft is approximately 9-10m below the present shaft collar (BSC). Between 10-50m BSC is a very soft, weathered, easterly dipping sequence of black shales. The shales are graphitic in part. At 50m BSC a thin (up to 5m thick), brown clay layer separates the shales above from highly weathered CTF sandstones and shales below. The CTF sandstones become progressively less weathered with depth until relatively fresh sandstones are encountered at 90m BSC. The black shales, and clay horizon appear conformable with the CTF sandstones.

The clay band and the underlying weathered sandstones encountered in the Hart Shaft are in many ways similar to a geological description written by Twelvetrees in 1903(b) about the eastern end of the No 7 (700′) level of the Tasmania mine. "At 66′ behind the face the level entered limestone, which continues to the end .... Behind the limestone, conformable with it and underlying it, the level passed through a bed of dense, tenacious clay ... equal to a true thickness of 32.5′ (about). This clay band is known as "the dyke". Westward it merges gradually into a zone of what can best be described by the term "broken formation" ... This consists of sandy material showing lines of false deposition, and containing angular fragments of sandstone, giving place to the west to more solid renmants of rock ..."

Given the proximity of the two clay bands and their relative stratigraphic position it is probable they are one of the same and that a zone of deep weathering has preferentially developed adjacent to the clay band. The clay band may represent a weathering surface since it is not clear whether the black shales are facies equivalent to the Gordon Limestone or they represent a wedged-out tongue of sediments between the Gordon Limestone and CTF. The black shales and clay band are unequivocally not present at depth in deeper exploration diamond drill holes.

The geology recognised in the Hart Shaft challenges the historical account that the nearby Grubb Shaft was sunk through a 120m deep alluvial (Tertiary) channel, which has long been believed to run along the base of the Cabbage Tree Hill. The constraints now placed on the position of this alluvial channel by the Hart Shaft mean it could not exist unless it had a near vertical western wall; an unreasonable proposition given the soft nature of the rock sequence in this area. Therefore the Grubb Shaft was in all probability sunk through a combination of soft, weathered shales and Gordon Limestone to a depth of 120m before passing into CTF. Drill hole B13 (RGC 1982-84) which was drilled just south of the Grubb Shaft supports this conclusion.

9.2 Hydrogeological Drilling

As part of a hydrogeological study commissioned by BGML late in 1988 an investigative diamond drillhole (GIDDH2) was drilled through the lower CTF stratigraphy immediately to the north of the Tasmania mine (Figure 4). The purpose of the drill hole was to provide quantitative permeablility data on the "lower transition beds" as well to assess the hydrological significance of the Main Crosscourse fault, a structure which was identified as a potentially significant pathway for groundwater flow to the mine.

Although the ground was highly jointed and broken for 240m (150m BSC) no expression of the fault could be identified. More importantly, the bedding angles and lithological contacts cored in GIDDH2 are consistent with those on the surface and in drillhole B13 at depth indicating a continuous, uninterrupted lower CTF sequence. The 90m west block up movement associated with the Main Crosscourse fault therefore does not occur. This conclusion is supported by geological mapping in the Bonanza Adit and historical accounts of the geology encountered in the Olive Branch Adit, situated to the north of the mine. The available evidence now suggests that the Main Crosscourse fault is a small, pre-existing fault along which the Tasmania reef fault was refracted or alternatively, a small fault which formed as an integral part of the Tasmania reef fault system.

Based on the available geological, geophysical and drilling evidence the lower Palaeozoic rock sequence at Beaconsfield is a single, unique rock succession, in which individual lithological units reflect unique depositional events. Those rock units which some workers have suggested are thrusted repetitions of other units, simply reflect similar depositional conditions over time. The recognition of pronounced lithological changes along strike within the Palaeozoic succession supports this interpretation.

The formation of the Tasmania reef appears to be is intimately related to the formation of the No 2 and No 3 Crosscourse faults. These two large "transcurrent" faults, possibly in conjunction with a similar fault(s) to the east of the Gordon Limestone, created the "tensional" stress regime which was responsible for forming the Tasmania reef fault, which in turn provided the pathway for the mineralising fluid. The absence of similar "transcurrent" faults elsewhere along the CTF explains the position and apparent uniqueness of the Tasmania reef.

The origin of the mineralising fluid is unclear. A metamorphic derived fluid is theoretically impossible given that the Palaeozoic sequence is essentially unmetamorphosed. A fluid derived from a localised heat source is the most likely origin. Ignoring the Anderson Creek Ultramafic Complex, there is no magnetic or gravity evidence to suggest the presence of a large buried intrusive body beneath the Tasmania mine. Given the stratigraphically high (unmetamorphosed) level of the Tasmania reef and the absence of any obvious heat source it is unlikely that a deeply buried body could have sustained the necessary hydraulic (temperature and pressure) gradient to form a "stockwork" type deposit near the present erosional surface. For this reason the primary prospectiveness of the Beaconsfield area is for the discovery of other Tasmania type reefs.

The most favourable host units for reef development are those that contain coarse grained, brittle (siliceous) rock types. In these terms the CTF is unequalled. Lithofacies changes to finer grained, less brittle rock types and the apparent absence of transcurrent faulting to the south of the Tasmania mine, reduces the potential of this area. The greatest, untested potential for the discovery of another Tasmania reef type deposit lies beneath the Tertiary and Permian covered strike continuation of the CTF between Brandy Creek and West Arm inlet, a distance of approximately 4.5 km.

10. CONCLUSIONS AND RECOMMENDTIONS

The results of the exploration programme conducted by BGML were uniformly disappointing. Outside known mineralised areas only one regional BLEG anomaly was identified. The source of the anomaly was subsequently located, tested and found not to warrant further work. Several targets identified near the former Tasmania mine were either costeaned or drill tested. All returned negative results.

Based on the results of this latest exploration programme it is concluded that the outcrop extent of the lower Palaeozoic rock sequence in the Beaconsfield area has been adequately explored and does not warrant further exploration. The BGML exploration programme has however, significantly improve our geological understanding of the Beaconsfield area. The available geological data now indicate that:

- The lower Palaeozoic rock sequence exposed throughout the Beaconsfield area is a single, unique rock succession and not a series of repetitious thrust slices. Consequently the contention that the prospectiveness of the area is enhanced by the thrusted repetition of the CTF is not valid.

- The formation of the Tasmania reef is intimately related to the formation of the No 2 and No 3 Crosscourse faults. The absence of such large faults elsewhere within the CTF explains the uniqueness of the Tasmania reef.

- The exploration potential of the lower Palaeozoic rock sequence is restricted to the discovery of other Tasmania reef type deposits within previously unexplored parts of the CTF.

- The most prospective and effectively the only remaining unexplored part of the CTF is buried northward strike continuation between Brandy Creek and the West Arm inlet; a distance of approximately 4.5km.

- The large deep alluvial channel which has long been thought to run along the eastern base of Cabbage Tree Hill, does not exist.

On the basis of the exploration activities described in this report two recommendations are made. Firstly, BGML direct future exploration programmes towards the discovery of other Tasmania Reef type deposits between Brandy Creek and West Arm inlet where the CTF is covered by a veneer of Tertiary and Permian sediments. A small EL will be required to extend the company's tenement holding in this area. Secondly, when required to halve the size of EL 7/88 in Ocobter 1993 the company should surrender the southern half.

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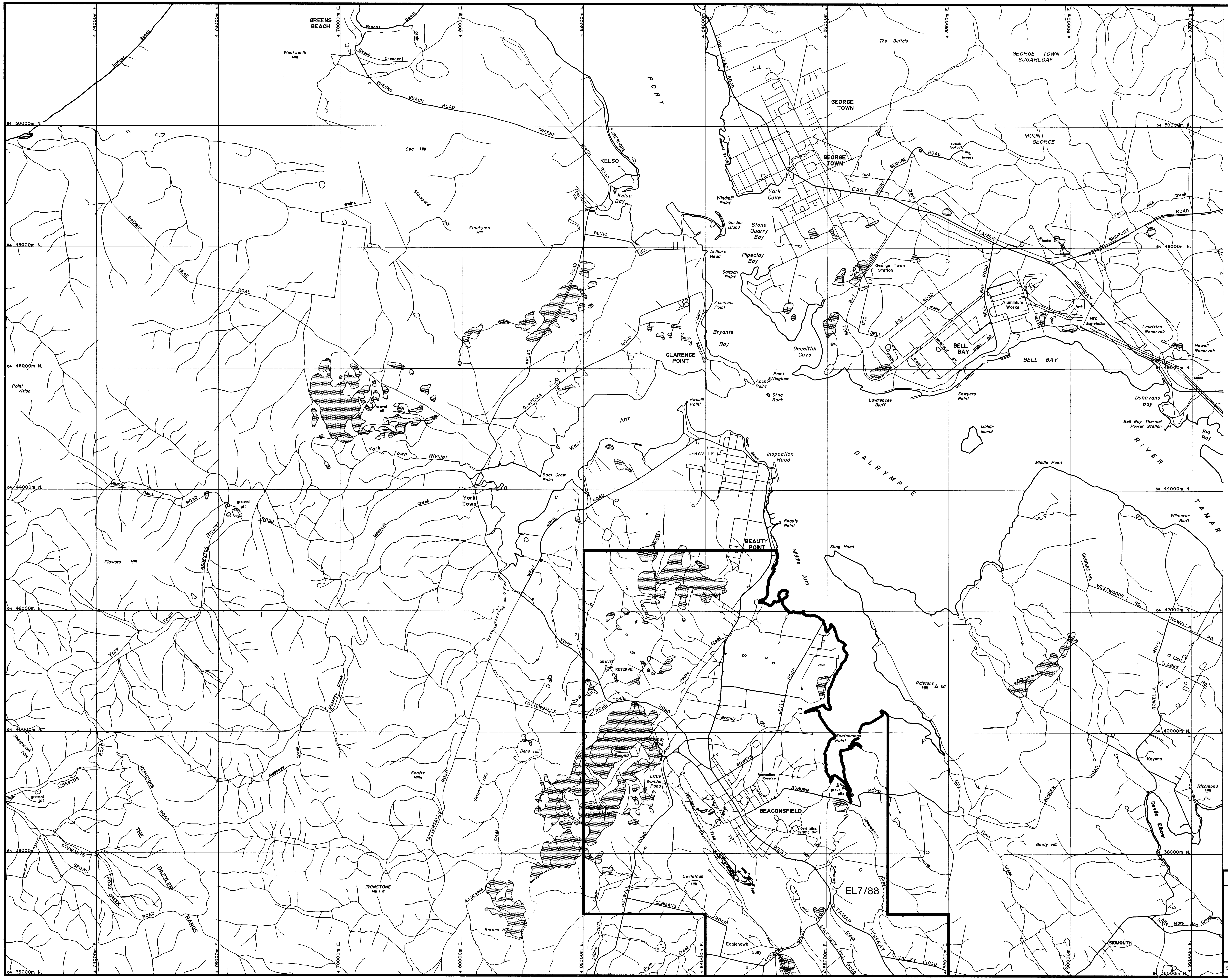

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89-3011

Plate 1

BEACONSFIELD GOLD MINES LIMITED

BEACONSFIELD EL 7/88

BASE MAP
Sheet 1

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FILE No.

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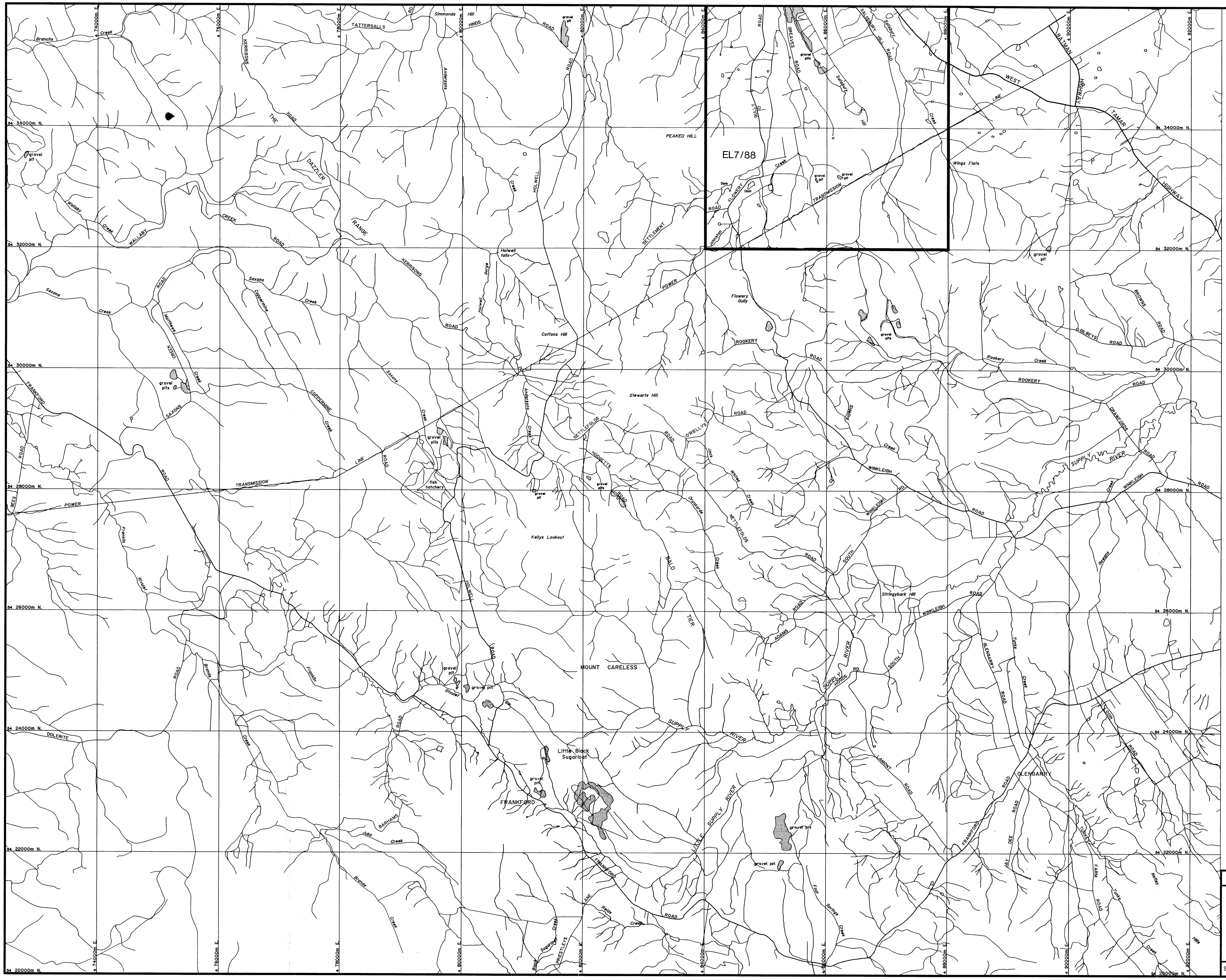

GN
TN
MN
GRID CONVERGENCE
GRID/MAGNETIC ANGLE 12.9°

595042

5 cm

89-3011

Plate 2

BEACONSFIELD GOLD MINES LIMITED

BEACONSFIELD EL 7/88

BASE MAP
Sheet 2

DRAWN BY :
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DATE :
REVISIONS :
FILE No.

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METRES

Dwg No BF 89-4

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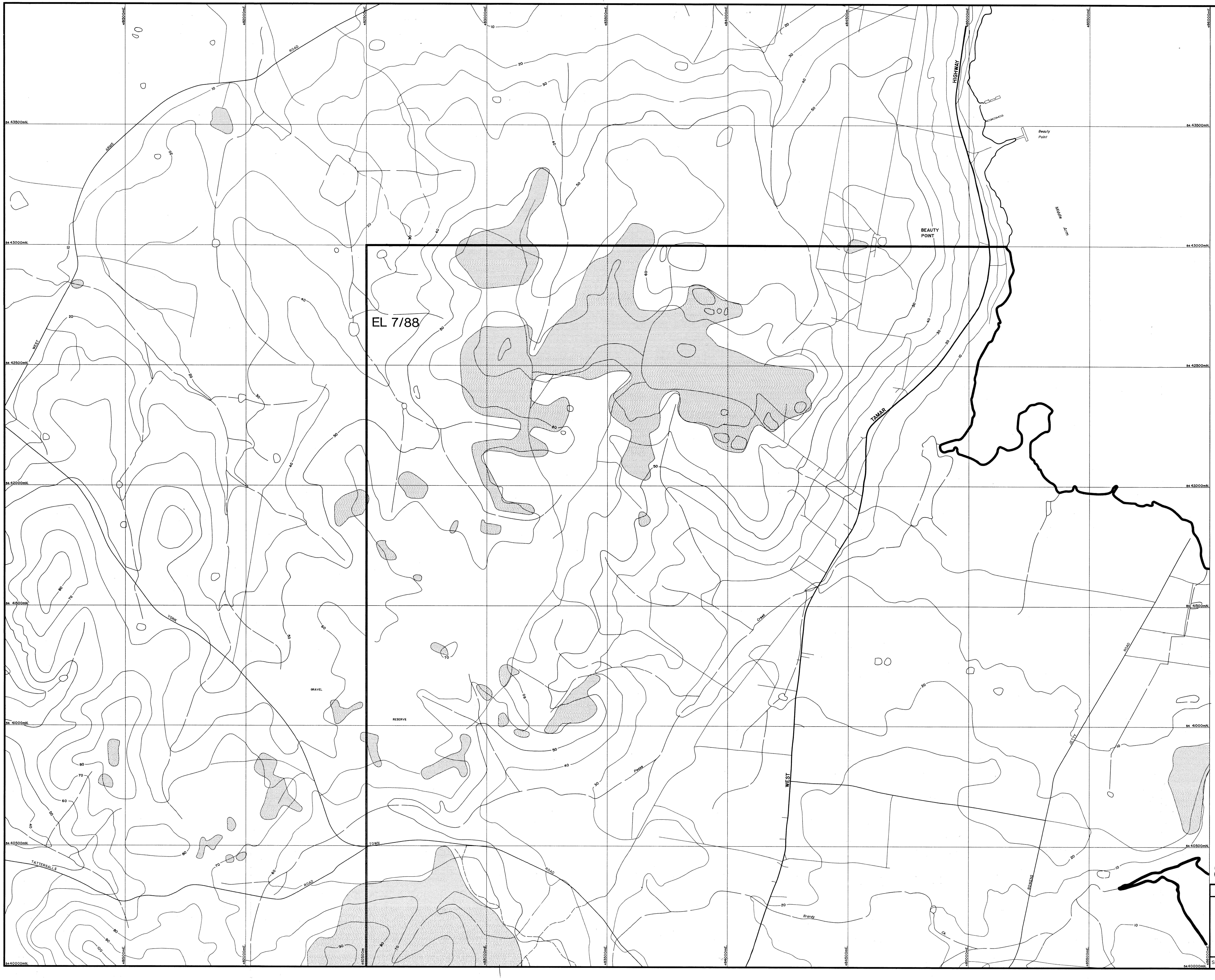

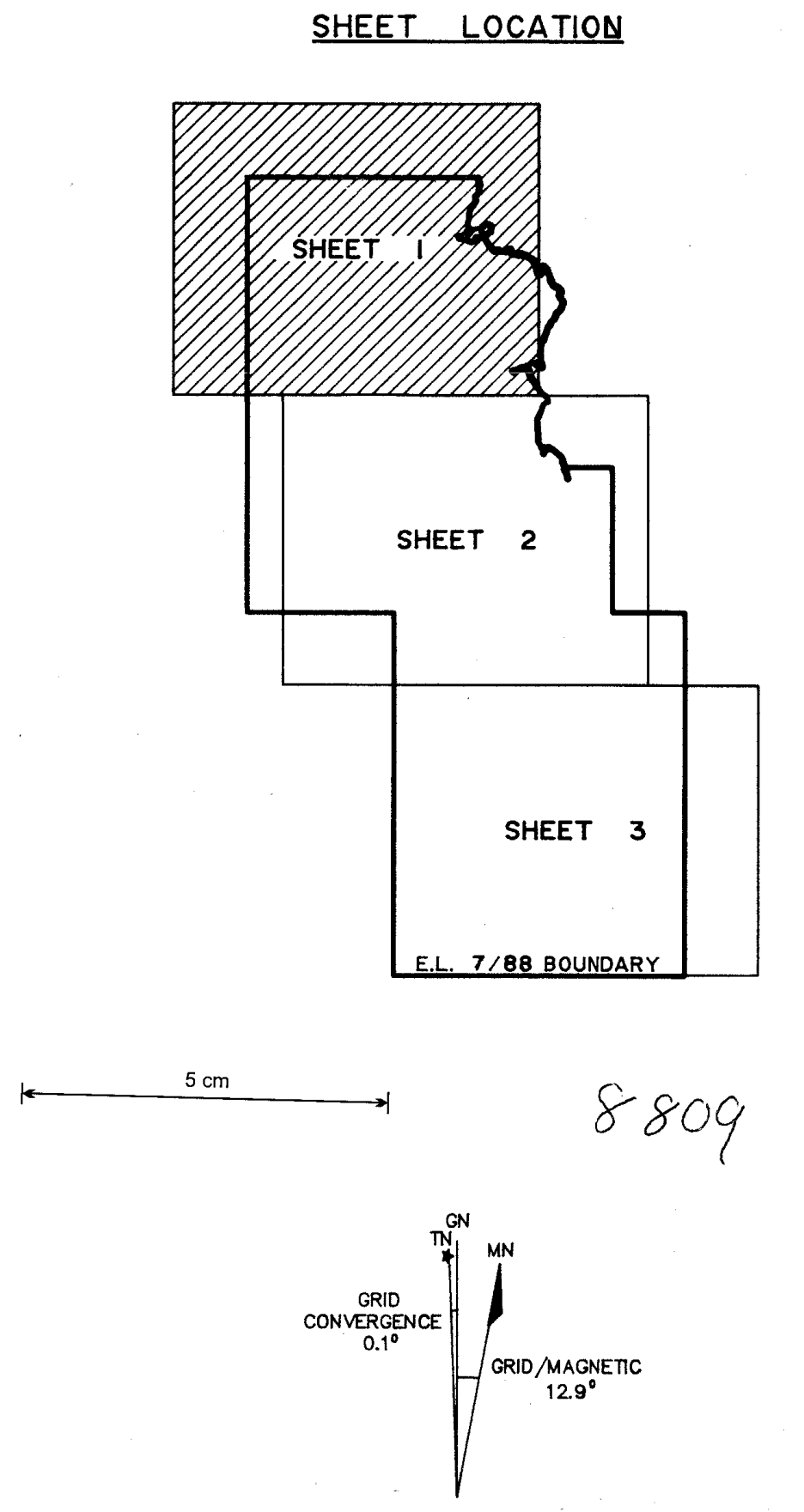

8809

595043

89-3011

Plate 3

BEACONSFIELD OPERATIONS PTY. LIMITED

BEACONSFIELD EL 7/88

BASE MAP
Sheet 1

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DATE : Dec. '87
REVISIONS :
FILE No.

SCALE 1 : 5000 — METRES 100 0 100 200

Dwg No. BF 89-5

N.W. Computer Aided Drafting Centre (Ph. 004 354315 Fax. 004 354495)

8810

8810

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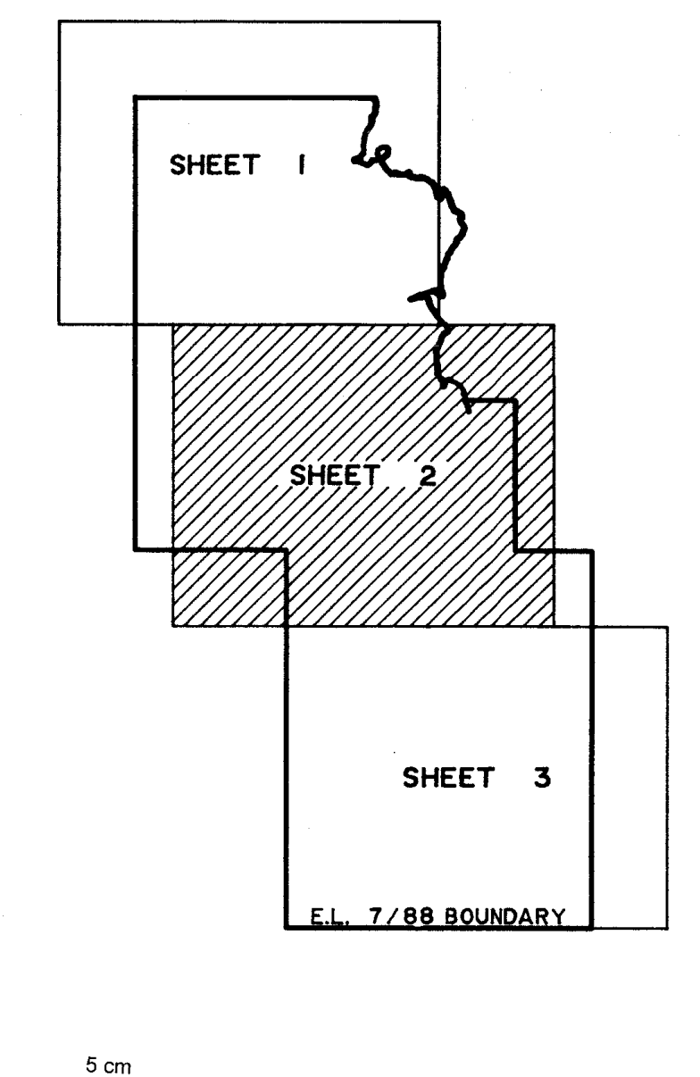

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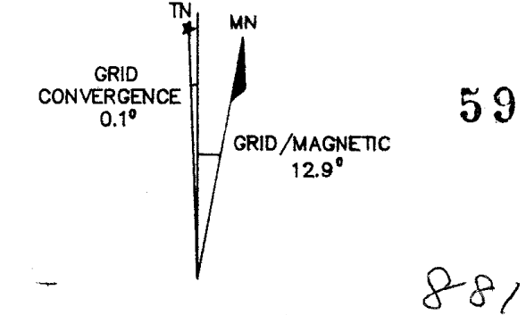

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89-3011

Plate 4

BEACONSFIELD OPERATIONS PTY. LIMITED

BEACONSFIELD EL 7/88

BASE MAP
Sheet 2

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DATE : Dec. '87
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N.W. Computer Aided Drafting Centre (Ph. 004 354315 Fax. 004 354495)

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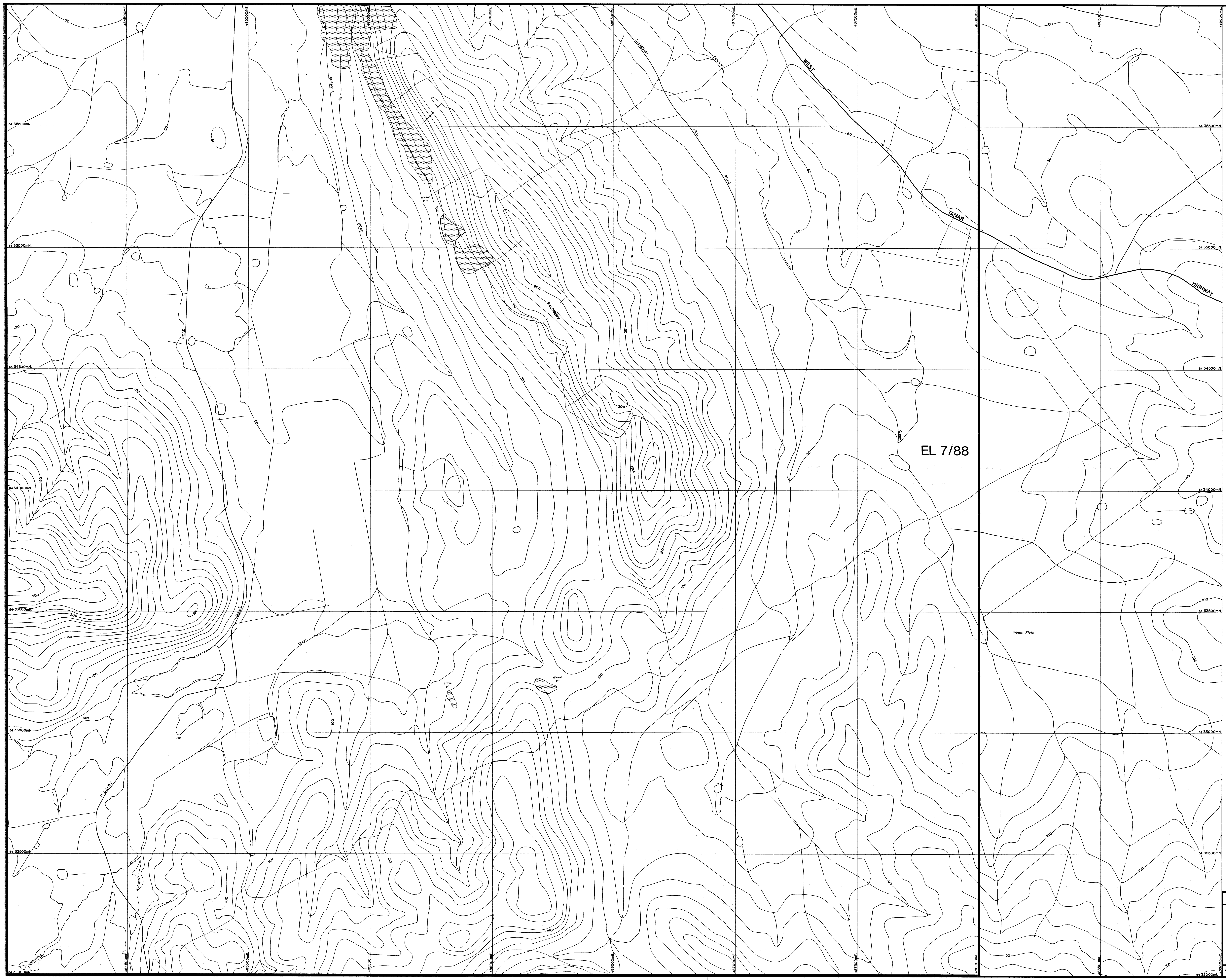

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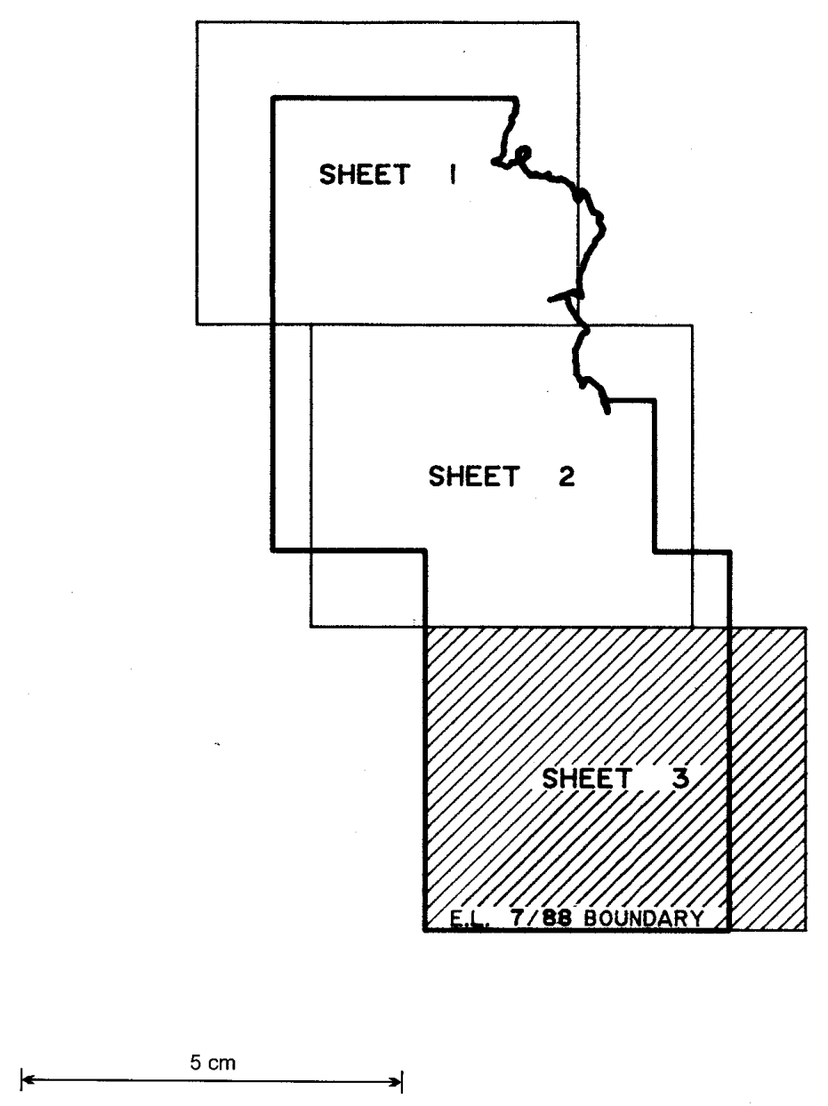

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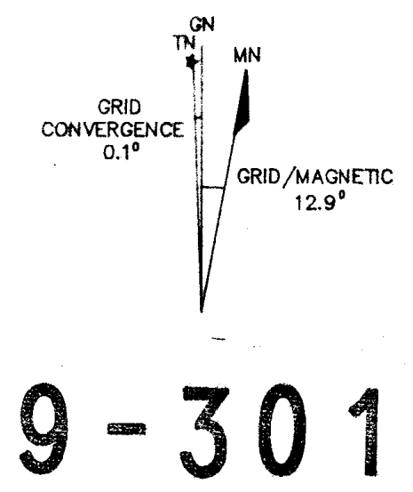

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Plate 5

BEACONSFIELD OPERATIONS PTY. LIMITED

BEACONSFIELD EL 7/88

BASE MAP
Sheet 3

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DATE : Dec. '87
REVISIONS :
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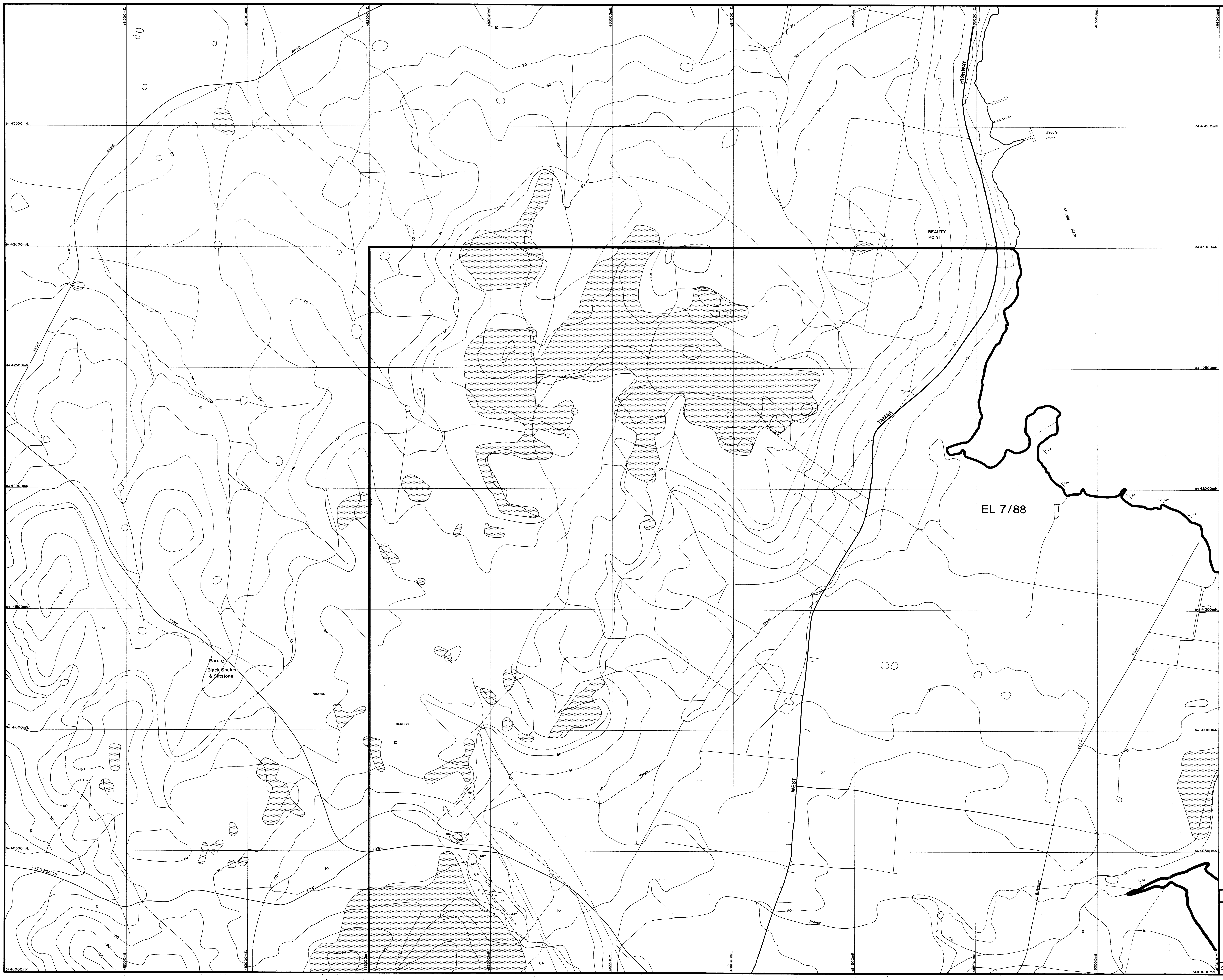

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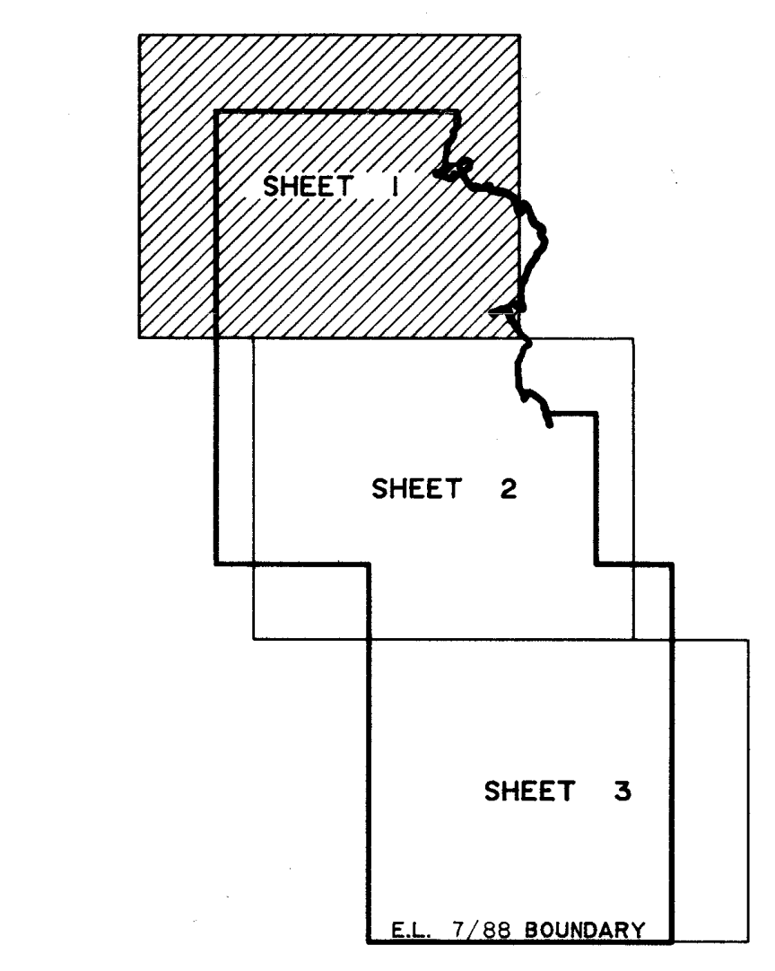
LEGEND

	RECENT
2	Alluvial – sand, silt and gravel
	TERTIARY
10	Laterite – ferruginous indurated laterite
8	Terrestrial unconsolidated sediments – quartz rich gravels
	PERMIAN
32	Undifferentiated sediments – flat lying
	LOWER PALAEOZOIC
57	Sandstone – occasional grit and shale horizons
22/23	Limestone – (22) Gordon limestone, dark grey to black fine grained/ (23) whitish medium grained, stylolitic limestone with thin siliciclastic horizons
25	Calcareous mudstone
29	Calcareous sandstone/siltstone sequence
67	Graphitic shale
45/46	Cobble conglomerate – siliceous clasts/mafic clasts
	CABBAGE TREE FORMATION
58	Upper transition beds – fine to medium grained calcareous sandstones
64	Lower transition beds – including pebble conglomerate subdivision
25	Basal limestone – whitish fine grained, stylolitic in part, occasional siliciclastic horizons
55	Cobble (chromiferous) conglomerate
51	Shale siltstone sequence – carbonaceous in part
	INTRUSIVE
14	Keratophyre
20	Jurassic dolerite
12	Basaltic dyke
60°	Strike and dip of bedding
55°	Strike and dip of foliation
S1 ●	Diamond drillhole
◩	Shaft
≻—	Adit
═	Costean
	Outcrop
	Sub-outcrop
	Geological contact – position accurate
	Geological contact – position inferred
F	Fault – dip direction indicated

SHEET LOCATION



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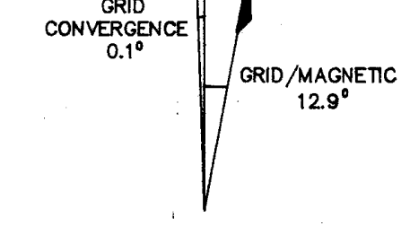

595046

8812

89-3011

Plate 6

BEACONSFIELD OPERATIONS PTY. LIMITED

BEACONSFIELD EL 7/88

FACT & INTERPRETED GEOLOGY
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DRAFTSMAN : T.G.D.S.
DATE : Dec. '87
REVISIONS :
FILE No.

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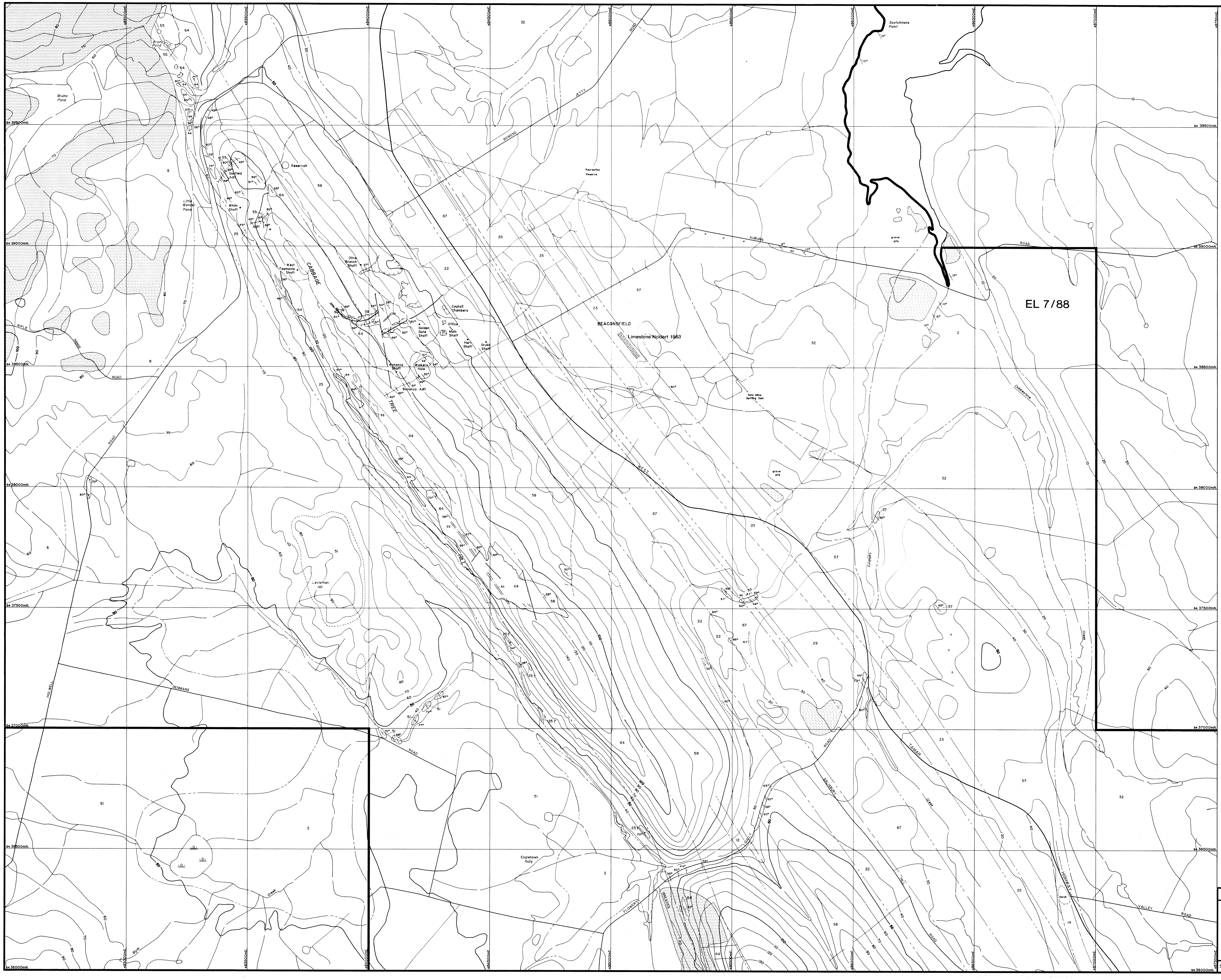
Dwg No. BF 89-8

N.W. Computer Aided Drafting Centre (Ph. 004 354315 Fax. 004 354495)

8813



LEGEND

RECENT

2	Alluvial – sand, silt and gravel

TERTIARY

10	Laterite – ferruginous indurated laterite
8	Terrestrial unconsolidated sediments – quartz rich gravels

PERMIAN

32	Undifferentiated sediments – flat lying

LOWER PALAEOZOIC

57	Sandstone – occasional grit and shale horizons
22/23	Limestone – (22) Gordon limestone, dark grey to black fine grained/ (23) whitish medium grained, stylolitic limestone with thin siliciclastic horizons
25	Calcareous mudstone
29	Calcareous sandstone/siltstone sequence
67	Graphitic shale
45/46	Cobble conglomerate – siliceous clasts/mafic clasts

CABBAGE TREE FORMATION

58	Upper transition beds	– fine to medium grained calcareous sandstones
64	Lower transition beds	– including pebble conglomerate subdivision
25	Basal limestone	– whitish fine grained, stylolitic in part, occasional siliciclastic horizons
55	Cobble (chromiferous) conglomerate	

51	Shale siltstone sequence – carbonaceous in part

INTRUSIVE

14	Keratophyre
20	Jurassic dolerite
12	Basaltic dyke

Strike and dip of bedding

Strike and dip of foliation

Diamond drillhole

Shaft

Adit

Costean

Outcrop

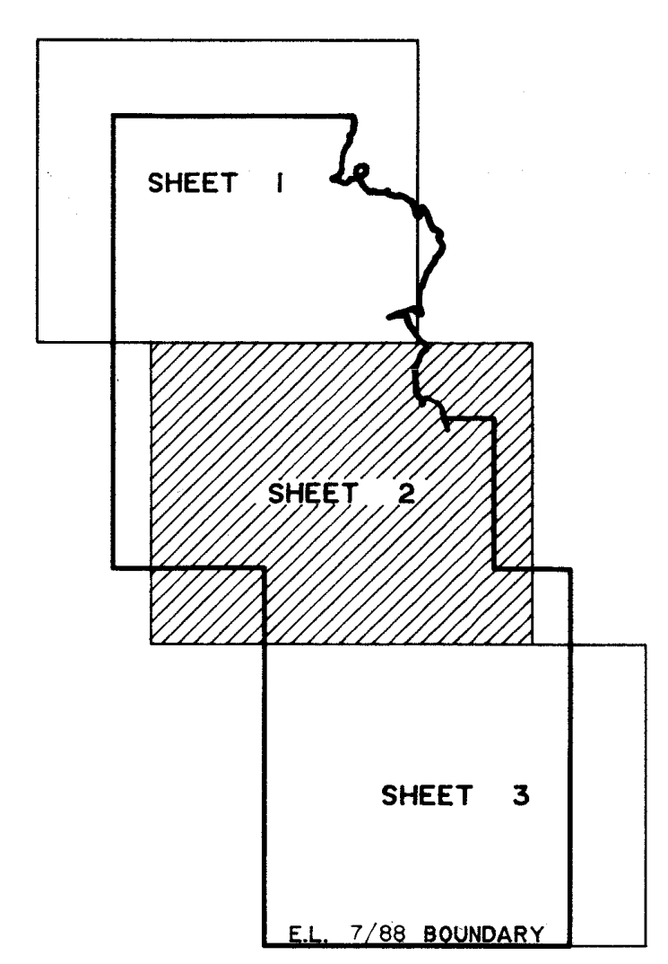
Sub-outcrop

Geological contact – position accurate

Geological contact – position inferred

Fault – dip direction indicated

SHEET LOCATION



5 cm

595047

8813

GRID CONVERGENCE 0.1°

GRID/MAGNETIC 12.9°

GN TN MN

89-3011

Plate 7

BEACONSFIELD OPERATIONS PTY. LIMITED

BEACONSFIELD EL 7/88

FACT & INTERPRETED GEOLOGY
Sheet 2

DRAWN BY :

DRAFTSMAN : T.G.D.S.

DATE : Dec. '87

REVISIONS :

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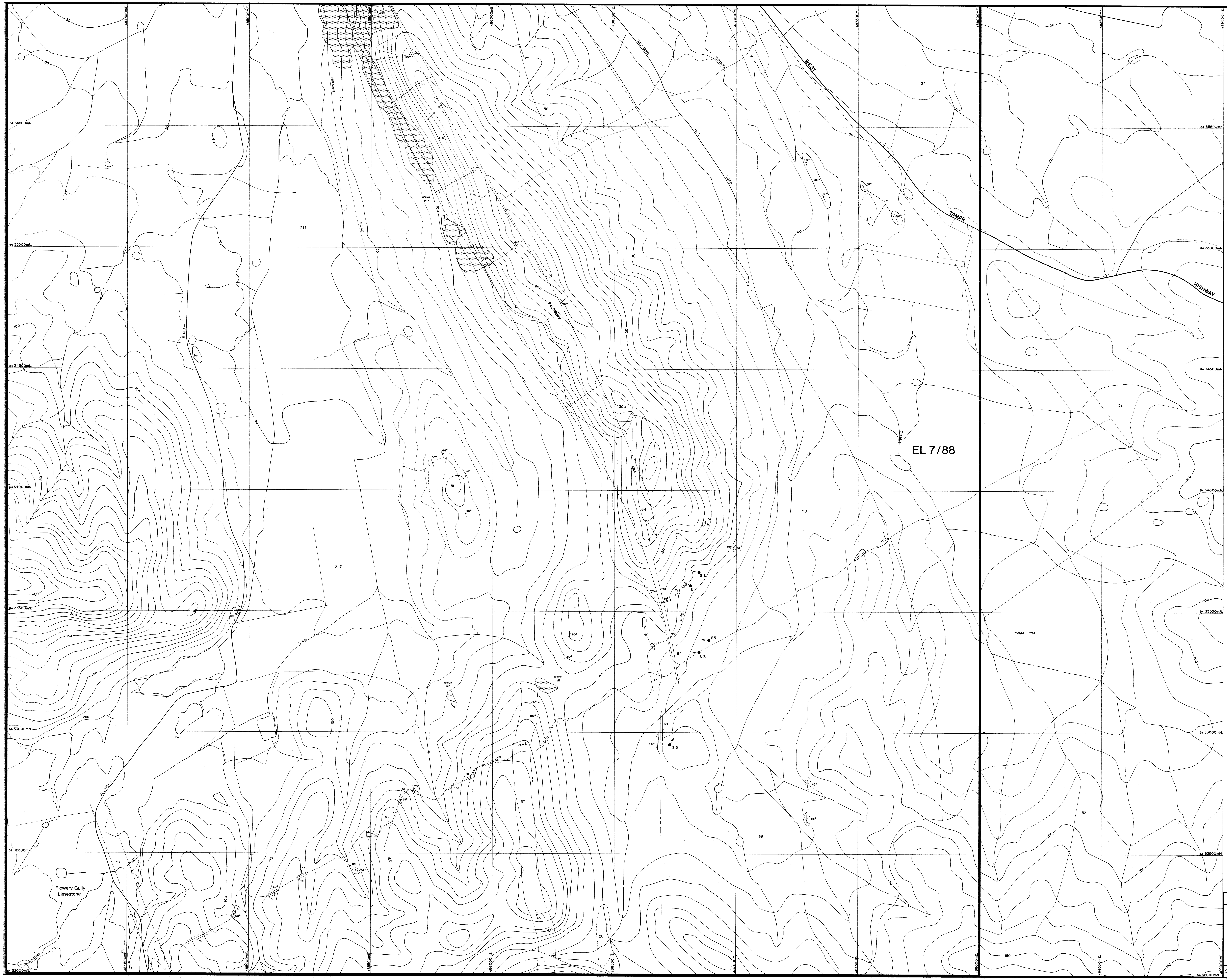

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LEGEND

RECENT

2	Alluvial – sand, silt and gravel

TERTIARY

10	Laterite – ferruginous indurated laterite
8	Terrestrial unconsolidated sediments – quartz rich gravels

PERMIAN

32	Undifferentiated sediments – flat lying

LOWER PALAEOZOIC

57	Sandstone – occasional grit and shale horizons
22/23	Limestone – (22) Gordon limestone, dark grey to black fine grained/ (23) whitish medium grained, stylolitic limestone with thin siliciclastic horizons
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45/46	Cobble conglomerate – siliceous clasts/mafic clasts

CABBAGE TREE FORMATION

58	Upper transition beds – fine to medium grained calcareous sandstones
64	Lower transition beds – including pebble conglomerate subdivision
25	Basal limestone – whitish fine grained, stylolitic in part, occasional siliciclastic horizons
55	Cobble (chromiferous) conglomerate
51	Shale siltstone sequence – carbonaceous in part

INTRUSIVE

14	Keratophyre
20	Jurassic dolerite
12	Basaltic dyke

60° Strike and dip of bedding

55° Strike and dip of foliation

S1 Diamond drillhole

Shaft

Adit

Costean

Outcrop

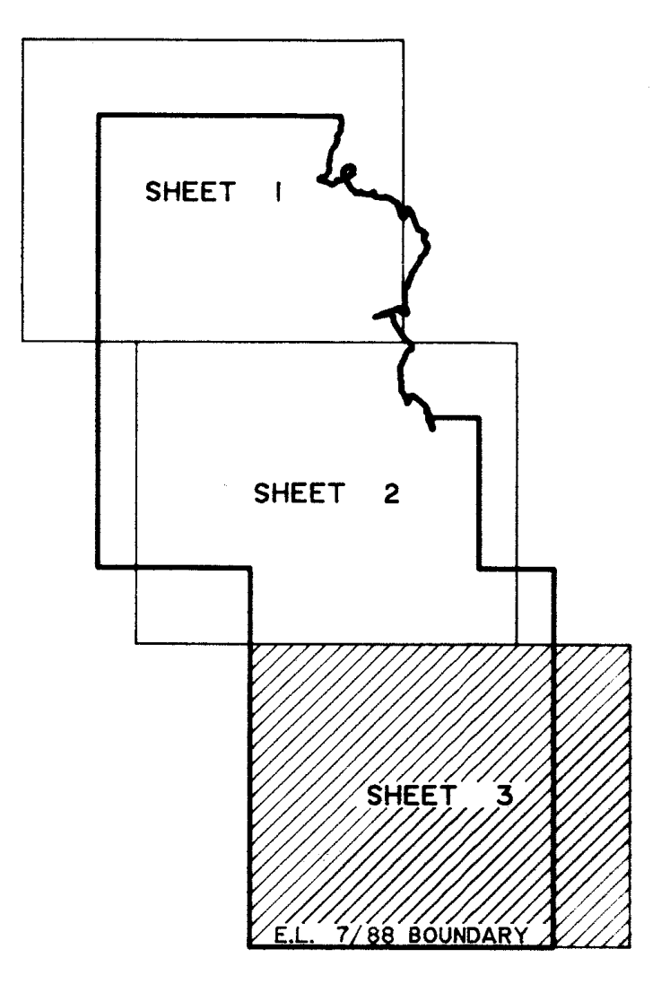
Sub-outcrop

Geological contact – position accurate

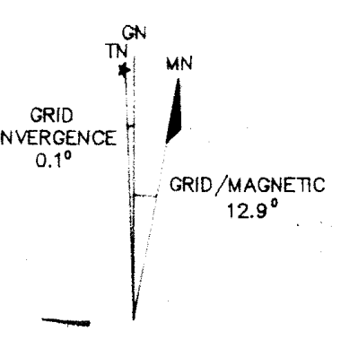
Geological contact – position inferred

F Fault – dip direction indicated

SHEET LOCATION



5 cm



8814

595048

89-3011

Plate 8

BEACONSFIELD OPERATIONS PTY. LIMITED

BEACONSFIELD EL 7/88

FACT & INTERPRETED GEOLOGY
Sheet 3

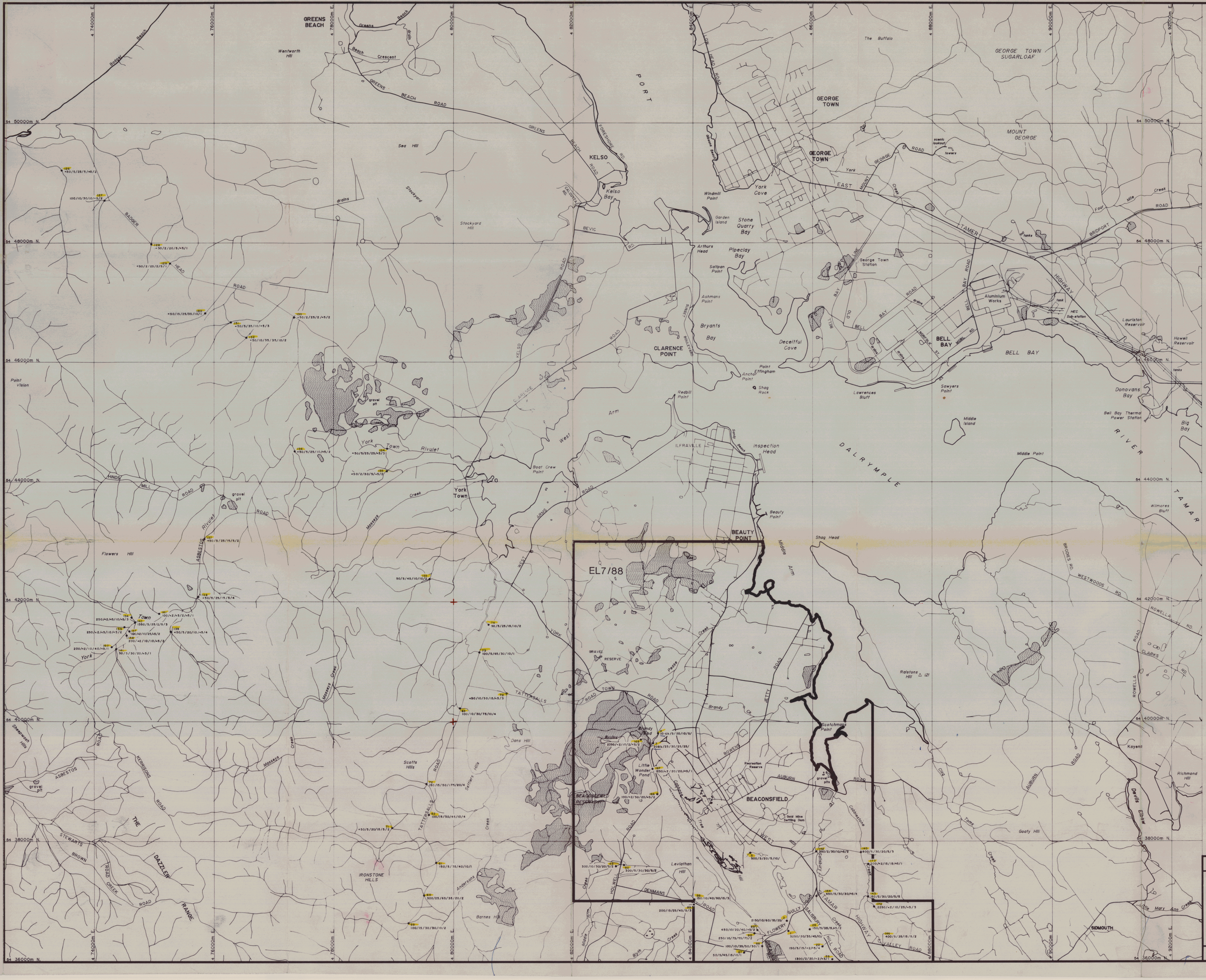
DRAWN BY :
DRAFTSMAN : T.G.D.S.
DATE : Dec. '87
REVISIONS :
FILE No.

SCALE 1 : 5000 100 0 100 200 METRES

Dwg No. BF 89- 10

N.W. Computer Aided Drafting Centre (Ph. 004 354315 Fax. 004 354495)

8815



5 cm

SAMPLE NOS 1-173
DATA BASE NOS 7401-7573

SAMPLE NUMBER
SAMPLE LOCATION
● 50
300/5/30/30/5/2
Cu (ppm)
Pb (ppm)
ORGANIC CONTENTS (1-5)
As (ppm)
Zn (ppm)
Au ___ (ppt)
Au ___ b (ppb)

GN
TN
MN
GRID CONVERGENCE 0·1°
GRID/MAGNETIC ANGLE 12·9°

595049

89-3011

SHEET 1
SHEET 2

Plate 9

BEACONSFIELD GOLD MINES LIMITED

BEACONSFIELD EL 7/88

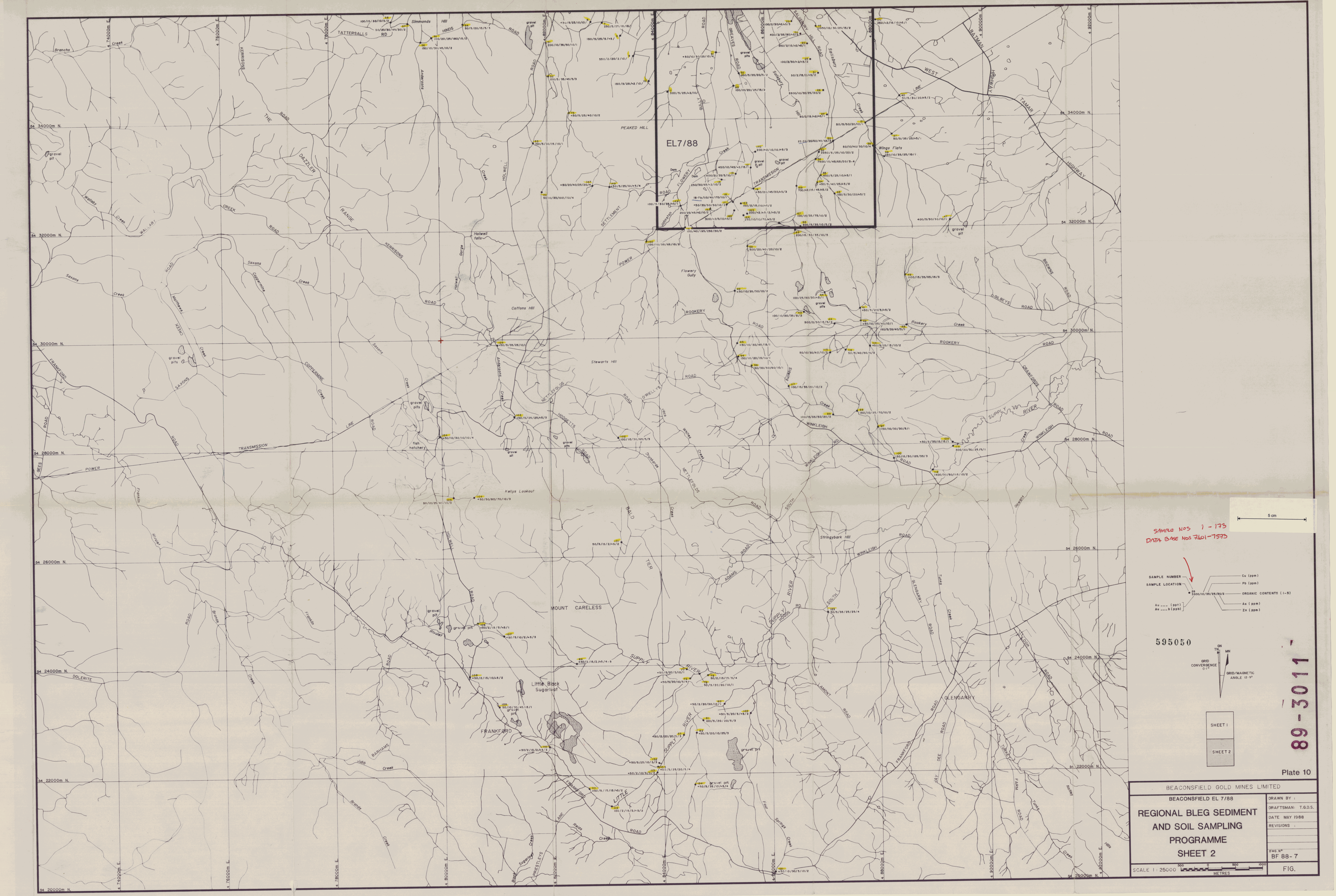
REGIONAL BLEG SEDIMENT AND SOIL SAMPLING PROGRAMME SHEET 1

DRAWN BY :
DRAFTSMAN: T.G.D.S.
DATE MAY 1988
REVISIONS :
DWG. Nº. BF 88-6

SCALE 1 : 25000 500 0 500 1000 METRES

FIG.

8816



SAMPLE NOS 1 - 173
DATA BASE NOS 7401-7573

595050

89-3011

Plate 10

BEACONSFIELD GOLD MINES LIMITED

BEACONSFIELD EL 7/88

REGIONAL BLEG SEDIMENT AND SOIL SAMPLING PROGRAMME
SHEET 2

DRAWN BY :
DRAFTSMAN: T.G.D.S.
DATE MAY 1988
REVISIONS :
DWG. No. BF 88-7
SCALE 1 : 25000 (500 0 500 1000 METRES)
FIG.

8817

LEGEND

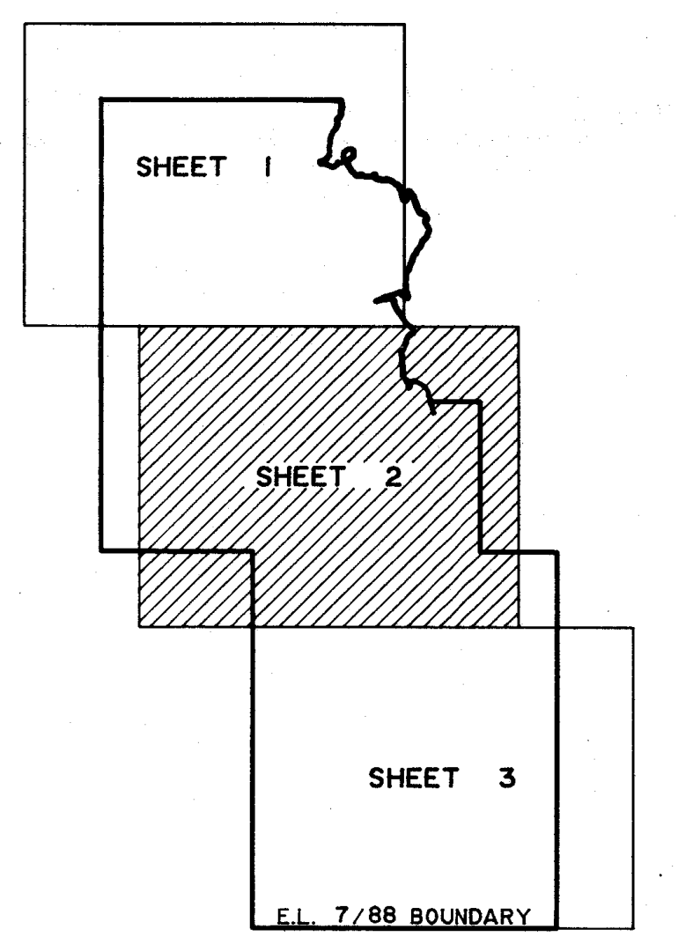
- ● PB1 PIEZOMETER/HYDROLOGICAL INVESTIGATION DRILLHOLE
- ○ B13 EXPLORATION DIAMOND DRILLHOLE
- ⊕→ GIDDH 2 GROUT INVESTIGATION DIAMOND DRILLHOLE
- x RB 34 ALLSTATE EXPLORATION RAB DRILLHOLE (1979)

1988 EXPLORATORY DRILLHOLE

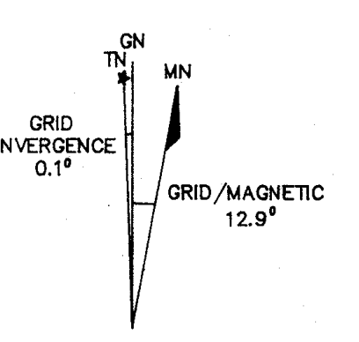
- ↑ 1 REVERSE CIRCULATION DRILLHOLE DEPRESSED 60° IN DIRECTION INDICATED
- ↑ BC1 8 OPEN HOLE HAMMER DRILLHOLE DEPRESSED 60° IN DIRECTION INDICATED (BC DENOTES BRANDY CREEK)

5 cm

SHEET LOCATION



8817



89-3011 595051

Plate 11

BEACONSFIELD OPERATIONS PTY. LIMITED

BEACONSFIELD EL 7/88

SHEET 2

DRILLHOLE LOCATION PLAN

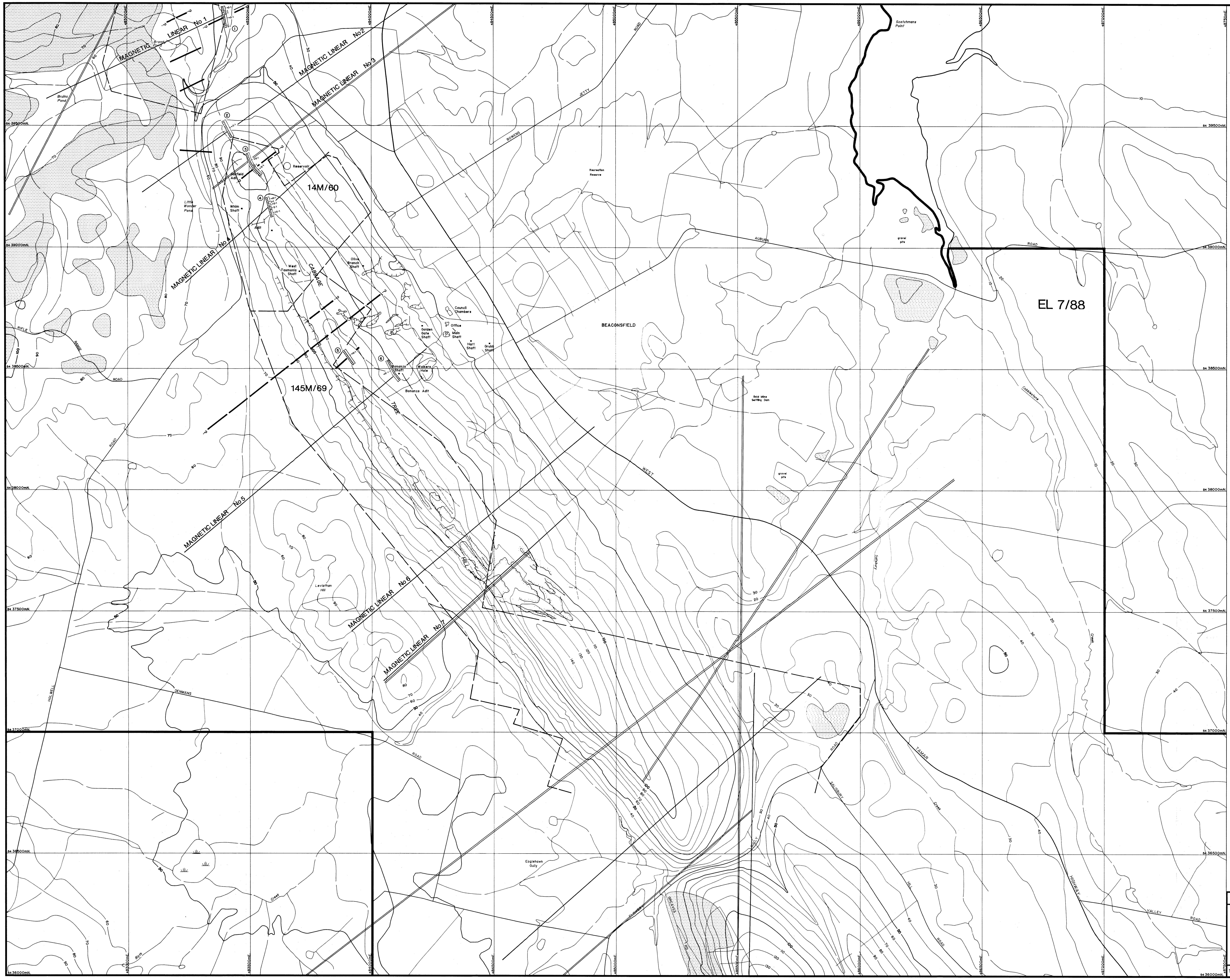
DRAWN BY :
DRAFTSMAN : T.G.D.S.
DATE : Dec. '87
REVISIONS :
FILE No.

SCALE 1 : 5000 100 0 100 200 METRES

Dwg No. BF 89-11

N.W. Computer Aided Drafting Centre (Ph. 004 354315 Fax. 004 354495)

8818



8818

LEGEND

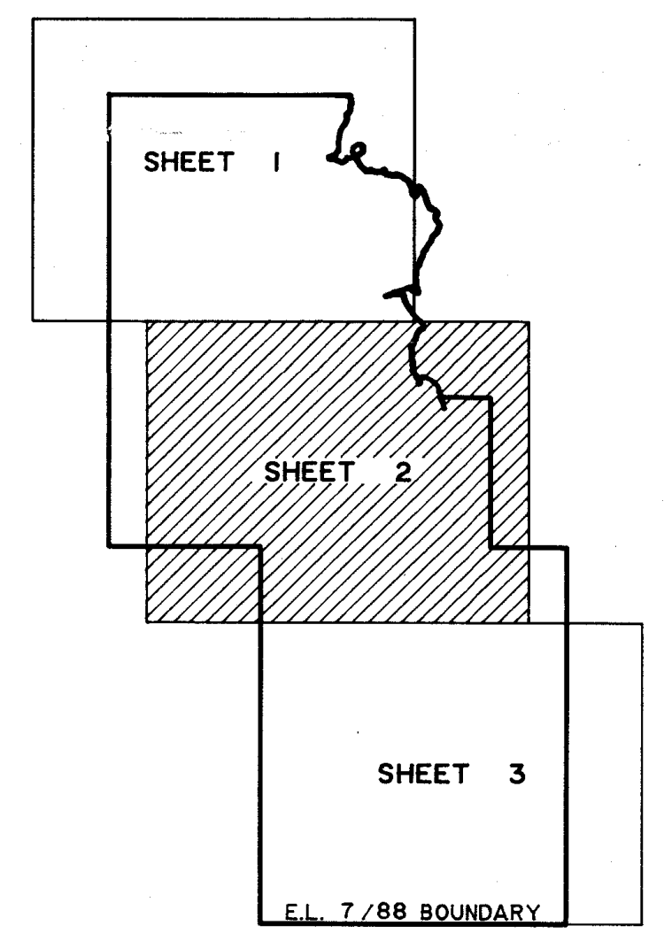
═══	MAGNETIC LINEAR FROM PROCESSED IMAGES (Fig. 5)
───	MAGNETIC LINEAR FROM FILTERED FLIGHT LINE PROFILES (Fig.9)
━━━	VLF ANOMALY
? ━ ━ ?	POSSIBLE VLF ANOMALY

② ← COSTEAN No.

<0·1 ← Au ASSAYS EXPRESSED IN G/T

EXPLORATION COSTEAN SHOWING 5m CHANNEL (CHIP) SAMPLE INTERVALS

SHEET LOCATION



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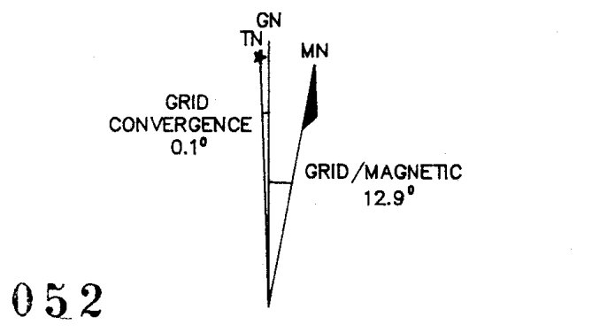


595052

89-3011

5 cm

Plate 12

BEACONSFIELD OPERATIONS PTY. LIMITED

BEACONSFIELD EL 7/88

COSTEAN PROGRAMME
Location and Assay Plan

DRAWN BY :
DRAFTSMAN : T.G.D.S.
DATE : Dec. '87
REVISIONS :
FILE No.

SCALE 1 : 5000 (100 0 100 200 METRES)

Dwg No. BF 89-12

N.W. Computer Aided Drafting Centre (Ph. 004 354315 Fax. 004 354495)

040

595053

magnetic tape &
transparencies held.

BEACONSFIELD GOLD MINES LIMITED

EXPLORATION REPORT FOR THE PERIOD
OCTOBER 1987 TO JANUARY 1989

Volume 2

MINES
File Ref. E.L. 7/88
-5 SEP 1989
Doc. Ref.

Action Officer	Initials
Refer to	
letter 1.9.89	
Resubmit to	Date

OPEN FILE

CONTENTS

APPENDIX 1

043

595056

Sirotope

CSIRO
AUSTRALIA

Division of Exploration Geoscience
Delhi Road, North Ryde, NSW. Postal Address: PO Box 136, North Ryde NSW 2113
Telephone (02) 887 8666. Telex AA25817. Fax (02) 887 8909

Chief: Dr. B.J.J. Embleton

REPORT TO
BEACONSFIELD OPERATIONS
ON
A Pb ISOTOPIC STUDY
OF
TASMANIA REEF, BEACONSFIELD

GRAHAM R. CARR
5/2/88

1. AIMS OF STUDY

The aim of the study was to determine whether ore from the Beaconsfield mine in northern Tasmania was emplaced during the Devonian as is commonly believed, or during the Tertiary.

2. SAMPLES

Two samples of drill core from the Tasmania Reef were provide by John Hicks.

3. TARGET

Lead from Devonian rocks in NW and NE Tasmania has a wide range of isotopic compositions. Feldspar and galena Pb from the Devonian Coles Bay and Murchison Granites have similar isotopic compositions with $^{206}Pb/^{204}Pb$ ratios of about 18.30 (Figs 1 and 2). However, vein mineralization such as at Queen Hill and the Murchison Gorge in Western Tasmania have variable but more radiogenic (i.e. higher $^{206}Pb/^{204}Pb$). Although no Pb isotopic data is available on Tertiary mineralization in the region, estimates can be made of the possible range of compositions: these do not overlap with the Devonian mineralization and can thus be readily discriminated. In Figures 1 and 2 estimates of the least possible $^{206}Pb/^{204}Pb$, $^{207}Pb/^{204}Pb$ and $^{208}Pb/^{204}Pb$ ratios for Tertiary Pb are plotted for reference.

4. METHODS

Sulfide-rich portions of the drill core were hand picked and crushed in an agate mortar. These were then digested in a 7N nitric + 7N hydrochloric solution prior to ion exchange and electroplating as above. The samples were analysed on an ISOMASS 54E solid source thermal ionization mass spectrometer in fully automated mode. Precision estimates representing 2 standard deviations about the mean of over 700 analyses of standards are shown in the top left hand corner of the figures presented below.

5. RESULTS

The results are presented in Table 1 and are plotted in Figures 1 and 2 (marked as points 1-3). Despite the range in Pb contents from 52 to 4800ppm, sample B11 and the two subsamples of B11A have the same Pb isotopic compositions. The results fall into the range for Lower Palaeozoic Pb from eastern and northern Tasmania as defined by the granites and vein mineralization. In contrast to the ^{206}Pb/^{204}Pb ratio of 18.38 for the Beaconsfield samples, Tertiary Pb should have a minimun ratio of about 18.7 as is shown in Figures 1 and 2.

7. CONCLUSIONS

The Pb isotopic composition of the Tasmania Reef at Beaconsfield is consistent with a Devonian age. There is no isotopic evidence of a Tertiary overprint.

Table 1. Lead isotope ratios of Beaconsfield ores.

Sample	$\frac{^{208}Pb}{^{206}Pb}$	$\frac{^{207}Pb}{^{206}Pb}$	$\frac{^{206}Pb}{^{204}Pb}$	$\frac{^{207}Pb}{^{204}Pb}$	$\frac{^{208}Pb}{^{204}Pb}$	Pb(ppm)
1 B11/1	2.0830	0.8500	18.381	15.624	38.287	115
2 B11/2	2.0842	0.8504	18.374	15.625	38.295	4,860
3 B11A	2.0846	0.8504	18.386	15.636	38.328	52

Sample number prefixes are used to plot the points in Figures 1 and 2.

Figure 1.

047

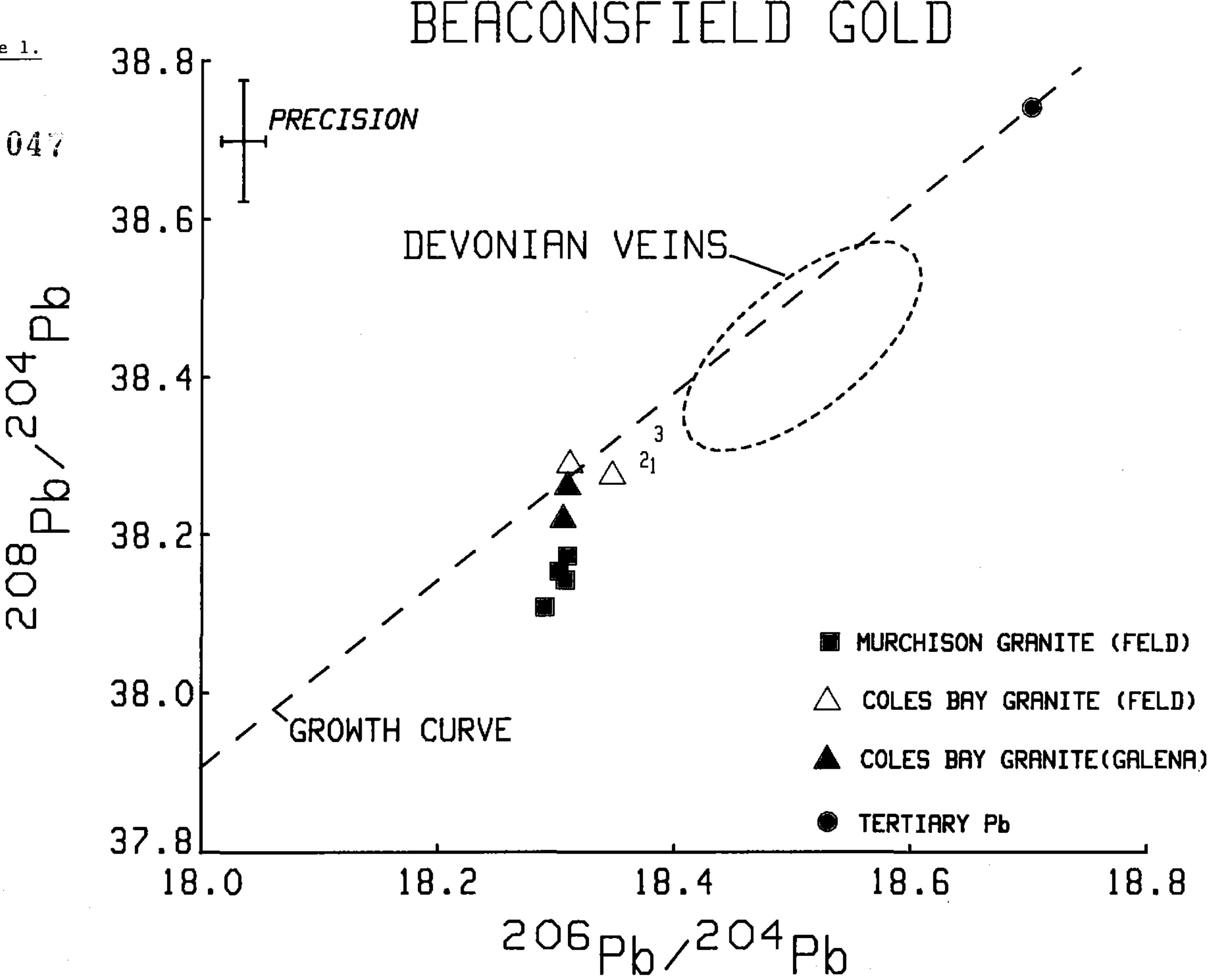
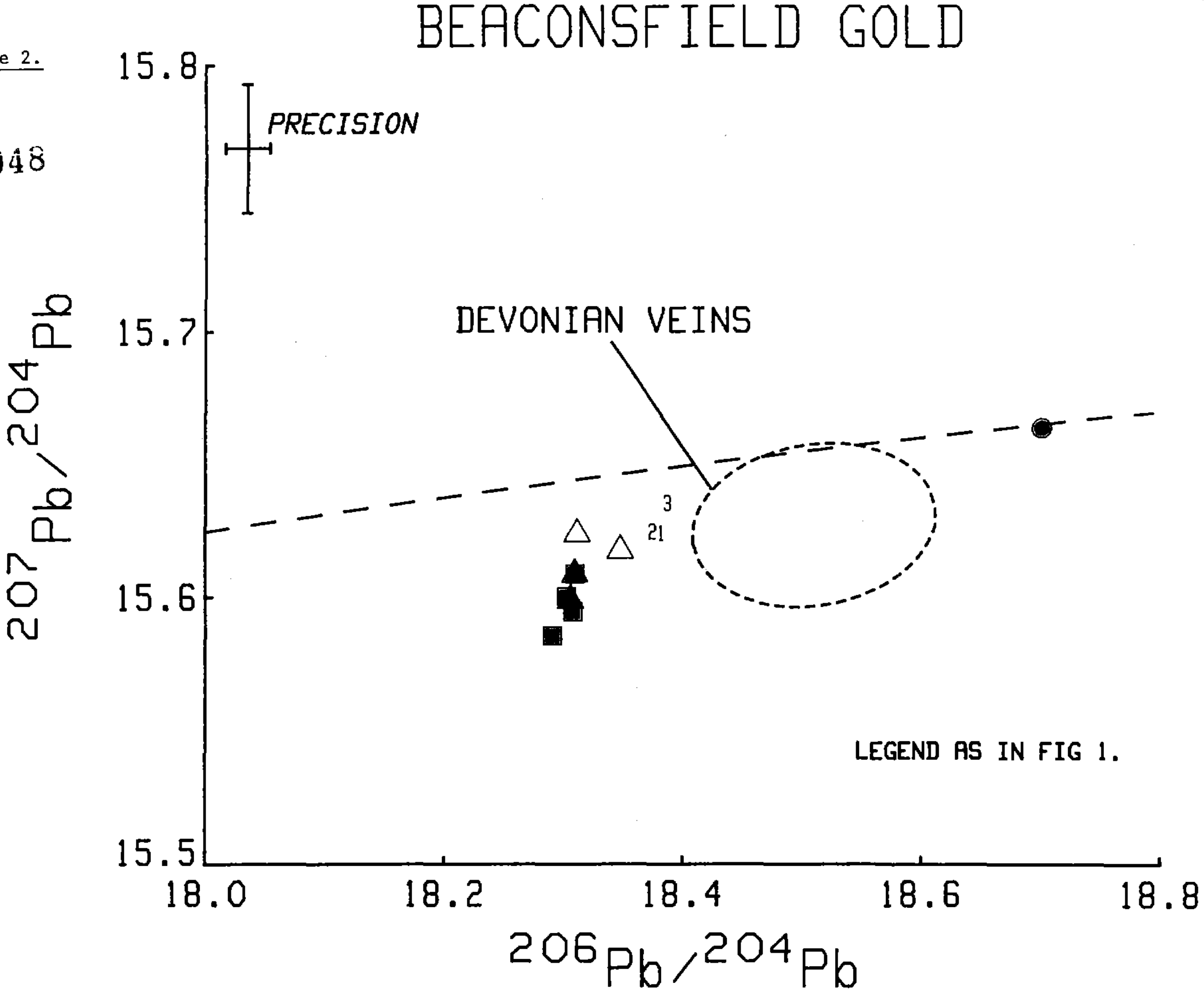

BEACONSFIELD GOLD
PRECISION
DEVONIAN VEINS
3
2
1
GROWTH CURVE
MURCHISON GRANITE (FELD)
COLES BAY GRANITE (FELD)
COLES BAY GRANITE(GALENA)
TERTIARY Pb
$^{208}Pb/^{204}Pb$
38.8
38.6
38.4
38.2
38.0
37.8
18.0
18.2
18.4
18.6
18.8
$^{206}Pb/^{204}Pb$

Figure 2.

048


BEACONSFIELD GOLD
PRECISION
DEVONIAN VEINS
3
21
LEGEND AS IN FIG 1.
15.8
15.7
15.6
15.5
18.0
18.2
18.4
18.6
18.8
$^{207}Pb/^{204}Pb$
$^{206}Pb/^{204}Pb$

APPENDIX 2

595063

050

MITRE GEOPHYSICS PTY LTD
MINERAL EXPLORATION AND ENGINEERING CONSULTANTS
BUGGS LANE ELLIOTT TASMANIA 7325 PHONE 004-363143

INTERPRETATION OF THE BEACONSFIELD AEROMAGNETIC SURVEY
(E.L. 7/88)

for

Beaconsfield Gold Mines Ltd

by

Dr J.R. Bishop

BGM/MG88/01
July, 1988.

CONTENTS

LOGISTICS REPORT

LIST OF TABLES AND FIGURES

SUMMARY

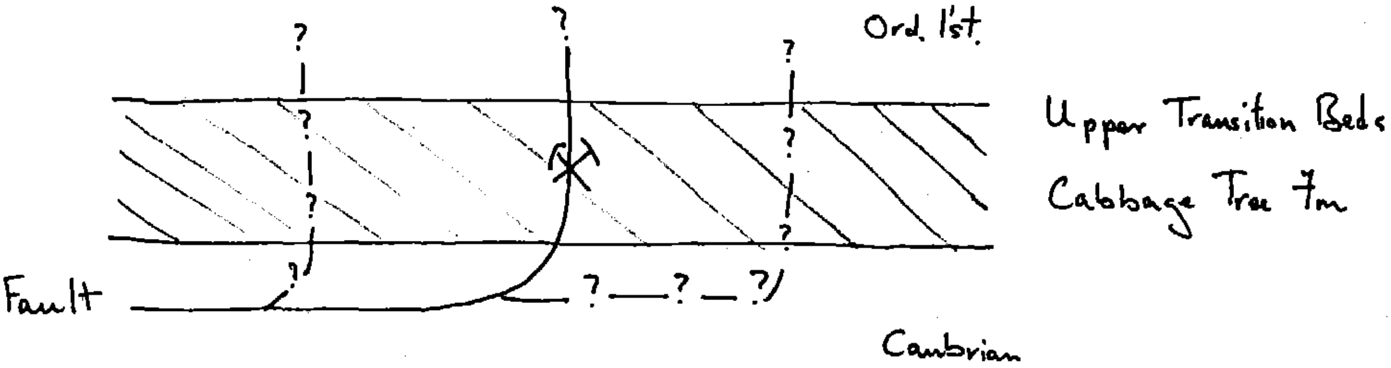
A detailed aeromagnetic survey has been flown in the region surrounding the old Beaconsfield gold mines to help locate structures of potential interest and map geology beneath the extensive Tertiary cover. The results were dominated by the response from the Anderson's Creek ultramafic body, but processing of the data has revealed some subtle magnetic features cross-cutting the Ordovician Cabbage Tree Formation which hosts the known gold. Testing of these zones is recommended. A lack of structure in the regional gravity data suggests that Ordovician and Cambrian rocks may extend to the north west of Beaconsfield beneath the Tertiary and Triassic cover. Although there is a sudden change in the character of the magnetics here (as seen in the processed data), the magnetic responses defining this character are of very low amplitude and the cover may not be too thick for prospecting. Along-strike drilling is recommended to determine the thickness of the cover and the underlying rock types.

INTRODUCTION

The Tasmania Mine at Beaconsfield was discovered in 1877. Producing some 26,580kg from 1,084,690 tonnes, it has been the state's richest gold mine. Production ceased in 1914 because of metallurgical problems, excessive water intake, etc (Noldart and Threader, 1979) and Beaconsfield Gold Mines are now trying to re-establish the main shaft to mine below the old workings. As part of a concurrent exploration program, an aeromagnetic/radiometric survey was flown to help identify lithotypes and any structures of potential interest; especially beneath the recent sediments which cover much of the surrounding area. This report gives an interpretation of the survey with some reference to the regional gravity data.

EXPLORATION TARGETS AND GEOLOGIC SETTING

The Tasmania Mine mineralisation is a fault-controlled quartz reef with the ore shoots apparently restricted to that section of the fault which traverses the sandstones and grits of the upper sequences of the Ordovician Cabbage Tree Formation (CTFm). Possible repetitions of this type of structure along the prominant ridge of the Cabbage Tree Hill as shown in the sketch are one obvious type of exploration target.



One might also expect other occurrences of reef gold in similar rock types in the near vicinity and possibly other styles in other lithologies. For example, a replacement deposit in calcareous Silurian sediments or a gold-pyrite body in disseminated volcanics. One potential resource which received some attention from earlier explorers (including a gravity survey, which is referenced later in this report) is alluvial gold in a deep lead lying to the east of the Tasmania Mine. The base of this lead has apparently not been tested. Nor apparently has there been any proper exploration, as distinct from prospecting, in the region around the mine with the posible exception of some work on Salisbury Hill which is a southern extension of the CTFm. The source of the Beaconsfield gold has been the subject of some speculation. The gold occurrences to the east, such as at Lefroy, are generally attributed to Devonian granitic intrusives, but no such rocks have been encountered on the west bank of the Tamar. The Cambrian ultramafic complex outcropping some 2 kms to the west is probably now the favoured source though it has a very low gold content (Hicks, pers. comm.).

The immediate areas on both sides of the CTFm are covered by Tertiary sediments and this extends for several kilometres to the north (Figure 1). Although making the discovery of any deposit more difficult, this cover also makes the ground more prospective. The early prospectors (and possibly any later geochemical sampling) are most unlikely to have found any repetition of the Tasmania Mine beneath perhaps quite shallow depths of cover.

A 1 inch to 1 mile geological sheet of the Beaconsfield area has been produced by the Tasmanian Mines Dept and Figure 1 is an enlargement of this map to 1:25,000 scale[*] . In the explanatory notes (Gee and Legge, 1979) the structure through Cabbage Tree Hill has been interpreted as a repeated series of faulted Cambrian and Ordovician sediments, dipping to the east (Gee and Legge, 1979: figure 9). Thus a large area of similar lithology to the CTFm is shown in Figure 1 (labelled as 'Oct'); although it is suggested later in this report that this may not be so.

A quartz reef gold deposit does not usually have a direct geophysical signature[#] and it was suspected that neither the CTFm nor its immediately adjacent lithologies would have readily distinguishable physical charactertistics (see Table 1). Nevertheless it was expected that a magnetic survey might detect the deposit's constraining structure as well as defining structure and rock types beneath the surrounding cover.

SURVEY DETAILS

The survey was flown by Austirex during March - April, 1988. Flight lines were flown east-west (AMG), with a line spacing of 150m and a tie-line interval of 1500m. The nominal terrain clearance was 100m and the data sampling interval approximately 15m (for the magnetics). A Scintrex cesium magnetometer with a resolution of 0.01nt and a cycle rate of 0.2secs, and a 33.56 litre spectrometer with a cycle rate of 1.0 seconds were installed in a Shrike Commander aeroplane, together with the digital data aquisition system.

The magnetic results were produced as two 1:25,000 scale contour maps, at a 2nt contour interval (Figure 2) and plans of the flight line paths were also produced at the same scale (not included in this report). No contour plans of the radiometric

---

[*] This map is on a digital data base and can thus be produced at any desired scale.

[#] Mitre Geophysics has carried out some experiments on the piezelectric exploration method, which is apparently well established in the USSR for auriferous quartz reef exploration. However the method has not been sufficiently developed here for routine work.

data were produced, but total count, 'potassium', 'uranium' and 'thorium' data sets have been processed. Both the magnetic and radiometric data were 'image processed' and photographic slides made of the screen images. Paper copies of some of these have been included in this report.

INTERPRETATION

AEROMAGNETICS

The magnetic data is dominanted by the response from the Cambrian 'Anderson's Creek' intrusive ultramafic complex (eg, Figure 3) which extends much further to the south and north than the small area of outcrop indicated on Figure 1.* Three cross-sections of the body have been modelled (Figure 4). The results indicate a large body, perhaps ~2.5kms at its widest, with a near vertical eastern contact against Ordovician sandstone and probably a west dipping western contact against Cambrian sediments. The anomaly near the southern edge of the survey has not been modelled, but a deeply buried body is indicated which may well be an offset (folded/faulted?) southern extension of the ultramafic complex. The band of short wave-length anomalies along the north-eastern boundary of the survey are caused by (partially covered) Jurassic dolerite as are most of the small isolated anomalies scattered through the contour plan. The only other large scale feature is a response from a body centred near 488500E/5434000N. Preliminary modelling indicates a big body of low magnetic susceptibility; perhaps 3kms wide (east-west), at least 5km long and possibly as close to the surface as 250m. A source different from the outcropping Permian rocks is suggested, but no alternative lithology is offered here (see further comments in the Conclusions and Recommendations). There has been some response from the township of Beaconsfield and other (low-amplitude) responses can be correlated with cultural features. The most obvious being those over the power line which runs north-easterly through the southern sheet. This feature has been much enhanced on the processed images.

Because of the strong influence of the ultramafic body on the results, more than the usual attention was given to processing the data, to try and enhance the structure associated with the known mineralisation and to reveal any other similar features in the area. This took a considerable amount of time with little to show at the end of it. Figure 5 shows the magnetic 'linears' interpreted from the processed images. Also shown on this plan are the positions of the published faults and the approximate extents of the ultramafic body and the dolerite within the Tamar graben. The interpreted linears show both cross-cutting and conformable features. The former presumably due to faulting or

---

* For details and comments on the modelling and imaging, see Appendix. Figure 5 is best used as a transparent overlay on the geology.

dykes and the latter reflecting (mostly) subtle differences in magnetic susceptibilities within the various rock types. One exception is the linear coinciding with a Cambrian "keratophyre"; the response to which can be seen in the original contours. Apart from the ultramafic complex, the Jurassic dolerite and some Tertiary basalt, this appears to be the only other rock type with a recognisable response in the* raw data. Some of the processed images (eg, Figures 6a and 8) show a strong contrast in character immediately to the north and west of the northern end of the CTFm. This is clearly due to the less-magnetic Tertiary sediments and Triassic/Permian rocks to the north. However the magnetic effects causing the features shown in Figures 6a, etc, have very small amplitudes and the amount of cover required to subdue the response is probably only a few tens of metres. Again in Figures 6a & b, a number of linears can be seen truncated against the power line response and it is suggested that for at least part of its length the line is coincident with, or very close to, a fault. (This is also suggested in the thorium data; Figure 13.) However in other images (eg, Figure 7), there is a suggestion of some continuous structure through the power line. Certainly there is no linear coincident with the terminating fault on the published geology. Figure 6 shows a well-defined 'hook' on the southern end of the ultramafic complex. This has not been transferred to Figure 5 since there is no other supporting evidence (including other images) for this 'structure' which is probably an artifact of that particular processing.

To better define the cross-cutting features in the vicinity of the Tasmania Mine, the flight line profiles covering this area were individually filtered# and the results contoured (Figure 9). A number of linears cross-cutting the CTFm were interpreted (Figure 10). None of these coincide with the surface position of the reef, but one, offset some 120m to the south, may be defining its down-dip location. (Certainly the low-pass filtering carried out on the data would act to minimise the near-surface responses.) If this is so, surface testing of these linears (probably by costeaning) should try and take dip into account. Unfortunately, dips cannot be obtained from this processed data.

RADIOMETRICS

The radiometric data is presented in this report as paper copies of the screen images for total count, potassium and thorium (Figures 11, 12 & 13). There are several features in this data and one of the most prominant is the difference in response between the CTFm and the other area of Ordovician sediments

---

* Two types of image presentation are included in this report. Figure 8 is a high resolution print: the remainder are 'production-line' photographs (all taken from photographic slides of a computer screen).

\# For details and comments, see Appendix.

immediately to the west: the CTFm being defined by a strong low. This suggests that the two areas of 'Oct' are actually different strata. Figure 11 shows two breaks in the low over the CTFm, which may reflect cross-cutting structure (although other causes such as sediment in stream beds are also probable) and these have been included in Figure 10. It is suggested that the radiometric data would prove useful in a more widespread and thorough re-evaluation of the geology.

GRAVITY

It is argued in the Conclusions that a wider appreciation of the geology than merely that area covered by the aeromagnetic survey is required for effective exploration around the Beaconsfield mine. Towards that goal, the gravity data of the region was examined and some preliminary modelling carried out. A network of gravity stations exists within and around the surveyed area. These were established to define the structure of the Tamar trough (Leaman et al, 1973). The data clearly reflects the volume of unconsolidated material within the trough, but also shows a number of other features. Figure 14 is a contour map of the residual Bouguer data (ie the Bouguer gravity from which a 'regional' surface has been extracted) with the station positions also marked. Breaks in the contours occur at the centres of large gaps in the coverage. Lateral changes in density, marked by regions of close contours, were enhanced by processing the data (ie, the horizontal gradient) and those contacts within the map boundaries are shown on Figure 5. Three cross-sections have been taken through this data in an attempt to better define the basement stratigraphy and some modelling has been carried out along these three sections (Figure 15). The central section AA' clearly shows the strong low over the Tamar trough: due locally to Tertiary sediments and more regionally to a thick section of Permian sediments. The slight rise at the Tasmania Mine is interpreted to be due to easterly dipping Cambrian rocks. The high values at the north-eastern end of the line are attributed to denser Silurian 'Mathinna' sediments. Some density variations have been invoked within the PreCambrian to better match the model to the observed data. Although there is apparently no geological evidence for this, a* similar variation has been invoked on section CC' (see below) .

The central portion of BB' is mapped as Permian with two small inliers of Ordovician. However the positive density contrast required for the model indicates only a relatively thin cover of Permian (~130m minimum in Figure 15b) overlying a large area of potentially prospective rocks (assuming Ordovician rocks at a

---

* The effective depth of the removed regional has not been calculated and the indicated depths in the sections, down to ~4kms are somewhat arbitrary. It should also be noted that the 'points' shown on the profiles do not represent gravity stations, but rather values where the sections cut the contours.

distance from the immediate mine site may still be regarded as likely hosts). The north profile CC' shows a broad positive anomaly to the west of the Permian/Triassic basin, over the ultramafic body. However this body is unlikely to account for all of the response and it is suggested that some Ordovician - Cambrian rocks are present to the east of the intrusive. A variation of density within the PreCambrian has also been suggested to better fit the model to the data. Whether or not this is the case, the model does indicate that the CTFm may extend well to the north of the Tasmania mine.

It was mentioned earlier in the report that some gravity work had been carried out to help locate a gold-bearing deep lead. The survey appears to have successfully defined the path of the lead (Howland-Rose, 1965), but this has not been tested since the results were never followed up. Unfortunately the original data from this survey was apparently not retained by the Bureau of Mineral Resources, who undertook the work, and thus the values have not been entered onto the Mines Dept's gravity base. The success of the survey indicates that this technique could perhaps be used to define the depth of unconsolidated sediment to the east and north of the mine.

OTHER METHODS

Some seismic refraction and resistivity traverses have been carried out as part of a hydrogeological study concerned with the dewatering of the mine. The aim of this program was "to map the extent and depth of the alluvial deep lead..." (Australian Groundwater Consultants, 1980). The earlier gravity work appears not to have been considered, but the work is of interest here because of the possible application of these two techniques for defining depth to bedrock in areas of interest around the mine; eg, along strike to the north of the northernmost outcrop of CTFm. Results from these surveys provide some quantitative values for any future survey planning. (The data from these surveys has not been studied in detail, but apparently some loss of signal was encountered in the seismic survey.)

A number of traverses have recently been carried out to see if the linears interpreted by the processed magnetic data could be detected by VLF*. (It was considered that ground magnetics would have too high a noise level to detect such subtle features.) Some of the linears shown on the 1:25,000 scale Figure 10 have been transferred to the 1:5,000 scale Figure 16 (with a corresponding increase in imprecision), which has the VLF traverses indicated. There was little correlation between the magnetic linears and the

---

* This Very Low (radio) Frequency electromagnetic method is ideally suited to detecting large scale, but often weak, conductors such as are commonly formed at geologic contacts and along faults or fractures. Attempts had been made to include VLF with the airborne survey, but no receiver was available at that time.

VLF results recorded along the Cabbage Tree Hill ridge (profile 1; Figure 17a), nor did the VLF respond to the Main Cross-cutting fault which is host to the Tasmania Mine. However, two interesting responses were obtained along profile 3, Figure 17. Response 3/3 corresponds with an old shaft, which was apparently sunk on some structural feature. The southernmost response, 3/1, is a strong anomaly on a thin cover of Tertiary sediments and it coincides with a magnetic linear. This linear was not detected on VLF profile 1 and such a strong change in amplitude over such a short distance seems unlikely in the one feature. A fault at some angle to the linear is a likely explanation* and further investigation of this is recommended.

CONCLUSIONS AND RECOMMENDATIONS

The aeromagnetic survey was carried out to help define the structure and hopefully also the lithologies in the vicinity of the Tasmania Mine at Beaconsfield. The dominating response from the nearby ultramafic body and the non-magnetic nature of the host and adjacent rocks has meant that more than the usual reliance has had to be placed on various enhancement techniques. Concepts or models for further economic deposits are also rather sparse. An obvious one is another occurrence of the Tasmania Mine type; ie, a quartz reef within a fault cross-cutting the CTFm. Perhaps the most important task is to positively identify the source of the gold; whether it is from a deep-seated granite; the ultramafic body; another intrusive or has some other genesis. There is no evidence for a less-dense granitoid body similar to the Devonian Dolcoath Granite which lies some 65kms to the southwest and around which are numerous gold 'shows'. However more extensive modelling than has been undertaken here would establish the size and depth limits such a body could have, without it distorting the observed gravitational field. Leaman et al (1973) note that the granodiorites beneath the Lefroy goldfield on the eastern side of the Tamar have a positive density contrast and presumably such a body could be invoked for the Beaconsfield gold. (Again, further modelling is required to test the various possibilities.)

The main recommendation resulting from the survey is the definition of a number of linears cross-cutting the CTFm. A number of linears also lie along strike, to the north of the mine, overlying unconsolidated Triassic sediments of undetermined thickness. These may perhaps be considered the more prospective,

---

* A cultural source is another possibility. The southern end of Profile 3 ran parallel to the power line crossed by Profiles 2 and 4 and this should not have caused the response. However a buried telephone line or similar, which may be responsible for the large amplitude response at the northern end of Profile 2 should be investigated.

if a repeated Tasmania Mine type of deposit within the outcropping CTFm would also be expected to show some near-surface indication of gold. Evidence within the magnetics for a continuation of the CTFm to the south of the boundary on the published geology is tenuous and no sites have been picked here for gold sampling. However analysis of the gravity data indicates denser bodies beneath Silurian sediments on the southern sheet (Figure 1) and a possible extension of Cambrian/Ordovician rocks well to the north of Beaconsfield. A more complete treatment of the gravity data, together with the magnetics should provide an interpretation of the geology that was not forthcoming from the magnetics alone.

The greatest potential for further deposits must lie beneath the extensive surrounding cover of Permian, Triassic and Tertiary sediments. Whilst drilling would unequivocally determine the thickness of this cover, it should be mentioned in this geophysical report that seismic refraction, resistivity soundings and possibly gravity (depending upon lateral variations within the bedrock) could probably provide near continuous profiles, especially if verified with occasional drill holes.

J.R. Bishop
August, 1988

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Noldart, A.J. and Threader, V.M., 1979. 'Economic geology' in: Beaconsfield 1 inch to 1 mile geological sheet: explanatory report (by Gee, R.D. and Legge, P.J., 1979).

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Appendix

Details and Comments on Modelling and Processing

Modelling

The magnetic modelling assumed no remanent magnetisation and used estimated susceptibilities of 0.1 and 0.11cgs for the two bodies in the central section and 0.007 and 0.0075cgs for the northern and southern models. These values are somewhat higher than the 0.0025cgs measured on the serpentinised dyke intersected by DDH B13 (see Table 1), but are likely to be representative of the body. If the bulk susceptibilities are lower than those used for the modelling, the true cross-sections will be larger than those shown in the figures, but similar shaped bodies could still fit the data. The cross-sections indicate a depth of about 6km, but this is arbitrary: somewhat shallower or deeper bodies will give much the same response. Modelling not included here has shown that a considerable bulk of material can be included at depth with little change to the observed response. Any thin dykes of material emanating from the main body would have also little effect on the anomaly if remaining at ~100m+ below the surface. Note that vertical and horizontal scales in Figures 4a, b & c are different (having been auto-scaled to best fit an A4 page), however all have a vertical to horizontal scale ratio of 2 (V:H=2).

Imaging

Figure 5 was produced by projecting photographic slides of the screen images at approximately 1:25,000 scale and marking on to an overlay the observed features. Because of the distortion of the computer screen, the vertical and horizontals scales were not 1 to 1. Also, because the data covered only a small portion of the screen (and all of the screen was photographed), a very long projection distance was required to produce the right scale, with a corresponding loss of clarity.

The usual gradients and 'sun illumination' images were made (see Table 2), but also tried was a process of 'automatic gain control' (Rajagopalan, 1987), which attempts to normalise the variations in response amplitude. This very effectively dampened the response of the ultramafic body (see Figures 6a & 8).

The processing used to produce Figure 9 consisted of low pass filtering, taking the square root of the second horizontal derivative (eg, McIntyre, 1981) followed by further filtering on a line by line basis. This produced a much better result than operating on the gridded data which retained much of the 'tares' due to high gradients and elevation differences existing in the raw data.

Table 1

Petrophysical Measurements

Samples: drill-core and outcrop

date: Dec., 1987.

measured at: Univ. of Sydney

DDH B13

SAMPLE No.	DEPTH (m)	DENSITY (t/cm)	MAGNETIC SUSCEPTIBILITY (x 10^{-6} cgs)	VELOCITY Vp (m/sec)	RESISTIVITY (Ohm-m)	IP EFFECT (phase mr)	LITHOLOGY
34/1	289	2.83	30.	5060.	26000.	9.	calcareous sst-mudst. Ord. Upper Transition Beds.
34/2	406	2.70	20.	5440.	61.	375.	dark, m.g. sst within Transition Beds.
34/3	655	2.64	0.	6130.	1390.	387.	pebble cong. Pyrite in matrix (pyrite more common @ 650m-660m)
34/4	766	2.78	10.	5500.	4400.	5.	Blyth's Ck Fm (?) (beneath Cabbage Tree Fm)
34/5	840	2.59	2500.	3250.	564.	4.	serpentinised dyke intrusive. down-hole thickness: ~13m. Thrust plane(?).
34/6	851	2.69	10.	4460.	13000.	28.	Cambrian black slate.

DDH B10

34/7	416	2.77	30.	4100.	280.	152.	black shale above limestone.
34/8	554	2.71	0.	5490.	5300.	73.	limestone.

OUTCROP

34/9	0	2.34	20.	2860.	49.	30.	Liffey Sst. (south side of W. Arm)
34/10	0	crumbled	10.	1500.	74.	32.	Triassic Sst. (north side of W. Arm)

Table 2

Processed Images

066

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IMAGE PROCESSING OF AIRBORNE MAGNETICS
BEACONSFIELD SURVEY

FOR

MITRE GEOPHYSICS PTY. LTD.

P de Broekert
AUSTIREX INTERNATIONAL LTD.

GRIDDING SPECIFICATIONS

Central Meridian:	147
Grid Origin:	x = 485000 y = 5435000
Grid Cell Size:	50 m
No. of Columns:	427
No. of Rows:	645
No. of Defined Points:	140847

VARIABLE STATISTICS

	Min.	Max.	Mean
Magnetics	60653	66293	61391
Total Count	-	-	-
Potassium	-	-	-
Uranium	-	-	-
Thorium	-	-	-

DISPLAY SPECIFICATIONS

No. of Samples:	427
No. of Lines:	645
Pixel Size:	50 m
Colour Scaling:	Arbitrary
Dynamic Range:	4096 grey levels for magnetics and total count data.
:	256 for radiometrics data.

LIST OF SLIDES

Frame Count 2	Grey scale of all values
4	Pseudo colour, as for FC 2
6	Grey scale of scaled values
8	Pseudo colour, as for FC 6
10	Grey scale of north gradient
12	Pseudo colour, as for FC 10
14	Grey scale of west gradient
16	Pseudo colour, as for FC 14
18	Grey scale of sun angle (azimuth = east, zenith = 80°)
20	Pseudo colour, as for FC 18
22	Grey scale of sun angle (azimuth = northeast, zenith = 80°)
24	Pseudo colour, as for FC 22
26	Grey scale of sun angle (azimuth = north, zenith = 80°)
28	Pseudo colour, as for FC 26
30	Grey scale of sun angle (azimuth = southeast, zenith = 80°)
32	Pseudo colour, as for FC 30
38	Grey scale of vertical gradient computed on data to which AGC has been applied
40	Pseudo colour, as for FC 38
42	Grey scale of vertical gradient
44	Pseudo colour, as for FC 42
46	Grey scale of vertical gradient of a sun angle (azimuth = east, zenith = 80°)
48	Pseudo colour, as for FC 46
50	Grey scale of vertical gradient of a sun angle (azimuth = east, zenith = 80°) to which AGC has been applied
52	Pseudo colour, as for FC 50
54	Grey scale of horizontal gradient
56	Pseudo colour, as for FC 54
60	Grey scale of horizontal gradient computed on data to which AGC has been applied
62	Pseudo colour, as for FC 60
64	Grey scale of horizontal gradient of a sun angle (azimuth = east, zenith = 80°)

Frame Count 66	Pseudo colour, as for FC64
68	Grey scale of horizontal gradient of a sun angle (azimuth = east, zenith = 80°) to which AGC has been applied
70	Pseudo colour, as for FC 68

NOTES

Compass Bearing gradients are computed on image data using a 3 x 3 convolution kernel that travels in the direction specified.

Vertical and horizontal gradients are computed using a one dimensional convolution on the line data which is later gridded for imaging.

Sun Angles are designed to simulate the response produced by shining a point source of light at a specified azimuth and zenith angle on the magnetic grid which has a totally reflective surface. Those surfaces normal to the incident light ray reflect back the most and produce the highest response. Since each point is treated individually, obstruction by shadowing does not take place.

Automatic Gain Control is designed to normalise the magnetic amplitude so that areas of high amplitude are attenuated and areas of low amplitude are accentuated.

GRIDDING SPECIFICATIONS

Central Meridian: 147

Grid Origin: x:485000 y: 5435000

Grid Cell Size: 50 m

No. of Rows: 645

No. of Columns: 427

No. of Defined Points: 140847

VARIABLE STATISTICS

	Min.	Max.	Mean
Magnetics	-	-	-
Total Count	173	2233	942
Potassium	-2	165	43
Uranium	-1	66	15
Thorium	1	85	28

DISPLAY SPECIFICATIONS

No. of Samples: 427

No. of Lines: 645

Pixel Size: 50 m

Colour Scaling: Arbitrary

Dynamic Range: 4096 grey levels for magnetics and total count data.

: 256 for radiometrics data.

LIST OF SLIDES

Frame Count 2 - Potassium grey scale

4 - Potassium pseudo colour

6 - Thorium grey scale

8 - Thorium pseudo colour

10 - Uranium grey scale

12 - Uranium pseudo colour

14 - Total count grey scale

16 - Total count pseudo colour

18A - Radiometrics colour Composite.
Potassium in red
Thorium in green
Uranium in blue

18B - Radiometrics colour Composite, scaled to preserve natural relative distributions.
Potassium in red
Thorium in green
Uranium in blue

2066
FILE COPY

595086

LOGISTICS REPORT

AIRBORNE GEOPHYSICAL SURVEY
BEACONSFIELD AREA, TASMANIA

FOR

BEACONSFIELD OPERATIONS PTY. LIMITED

BY

AUSTIREX INTERNATIONAL LIMITED

CONTENTS

1. SURVEY DETAILS

1.1 Area - Beaconsfield

Location	Approximately 345 square kilometres located between the Dazzler Range and the Tamar River and within the 1:100,000 scale sheet 8215.

Flight line direction	090 - 270 degrees
Flight line spacing	150 metres
Tie line direction	000 - 180 degrees
Tie line spacing	1500 metres
Mean terrain clearance	100 metres AGL
Line distance	2913.9 kilometres
Nominal flying speed	240 kilometres/hour

1.2 Photography and Navigation

Navigation was visual from pre-planned flight lines on enlargements of aerial photography. Photographic horizontal control was established from 1:25,000 scale series topographic mapping.

1.3 Flight Path Recovery

Flight path recovery was carried out using visual image recognition from tracking films on a duplicate set of photographs provided for navigation.

The average distance between recovered points was one kilometre along traverse lines and tie lines where sufficient photographic detail was present.

2. LOGISTICS AND OPERATIONAL STATISTICS

2.1 Operating Base

The operating base was Launceston, Tasmania.

2.2 Survey Field Crew

Pilots	G. Kalotay, N. Bouvey
Navigator	L. Coremans
Engineers	K. Harrington, I. Armitage
Technician	S. Durko

2.3 Aircraft

Survey aircraft	Aerocommander 500S
Registration	VH-EXH

2.4 Daily Log

Mobilization	25th February
Magnetometer compensation, calibrations	26-27th February
Flight 1	27th February
Flight 2	28th February
Flight 3	29th February
Flight 4	1st March
Flight 5	2nd March
Demobilization	3rd March

2.5 Logistic Summary

Production flights number	5 flights
Production flights hours	33 hours
Survey duration, days	7 days
Production days	5 days

2.6 Low Level Flying Dispensation

Special permission for survey flying over the townships of Beaconsfield and Ilfraville was approved by the Shire Council and the Department of Aviation.

2.7 Climatic Conditions

Fine weather was recorded during the period 26th February-2nd March, 1988.

2.8 Geo-magnetic Conditions

The diurnal field was stable during this period.

3. INSTRUMENT SPECIFICATIONS

3.1 Airborne Magnetometer

Type	Scintrex, V2321 alkali vapour
Resolution	0.01 nanoTeslas
Operating range	17,000 - 95,000 nanoTeslas
Mounting	Tail stinger
Sampling rate	0.2 seconds

3.2 Ground Magnetometer

Type	Geometrics G-856A
Resolution	0.1 nanoTeslas
Recording interval	20 seconds
Recording unit	HP 85B
Location	Sited at the airfield

3.3 Spectrometer

Channels	256
Type	Exploranium, GR-800D
Sampling rate	1.0 seconds
Crystal volume	33.56 litres (2048 cubic inches)

Spectral windows:

	Channel		Energy (MeV)	
	from	to	from	to
Total count	2	254	0.321	2.995
Potassium	101	120	1.368	1.579
Uranium	128	147	1.653	1.853
Thorium	198	236	2.393	2.805
Cosmic	255	255	2.995	6.000

3.4 Altimeter

Type	Radar Sperry AA100
Resolution	0.1 metres
Range	0 - 610 metres

3.5 Tracking Camera

Type	Scientific, Vinten MkII
Lens	5.9mm

3.6 Data Acquisition System

System type	Hewlett Packard
Digital output	DC300 magnetic tape
Sampling rate	0.1 seconds
Analogue output	Watanabe, six channel recorder of magnetic, radiometric and altimeter data.

4. SYSTEM CALIBRATIONS AND CHECKS

4.1 System Calibration

a. Magnetometer heading/manoeuvre compensation.

Differences	North	-.6 nT
	South	+.1 nT
	East	-.4 nT
	West	-.4 nT

b. System parallax calibration.

Magnetometer	3.5 fiducials

c. Spectrometer hand sample checks using Cs, U and Th sources were completed before and after each day's production flight recorded and noted on the flight logs. Refer to appendix 1.

d. Resolution of the gamma ray spectrometer were carried out using a Cs137 source. The average resolutions were 10.8%.

e. Test lines were flown prior to and after each day's production to ensure system repeatability and compliance with specifications.

4.2 Data Acquisition Checks

The checks performed on the data acquisition system involved a read after write check on the tape.

On receipt of data from the field, statistics of each variable are computed, as well as each production line is profiled and the results checked for data integrity.

4.3 Radiometric Correction Coefficients

4.3.1 Analogue Coefficients

The following stripping coefficients are applied to the data prior to presentation on the analogue:

Thorium/Uranium	0.3
Thorium/Potassium	0.5
Uranium/Potassium	0.7

4.3.2 Digital Coefficients

The following coefficients are to be used for stripping the digital data:

Thorium/Uranium	alpha	0.251
Thorium/Potassium	beta	0.335
Uranium/Potassium	gamma	0.817
Uranium/Thorium	a	0.022

4.3.3 Aircraft Background and Cosmic Correction

These coefficients were determined from high altitude flights. The aircraft background is to be removed before stripping.

	Aircraft Background	Cosmic Correction
Total Count	230.6	2.107
Potassium	15.4	0.108
Uranium	7.3	0.090
Thorium	3.3	0.111

4.3.4 Altitude Attenuation

Total Count	0.007073
Potassium	0.007144
Uranium	0.005079
Thorium	0.006983

5. GEOPHYSICAL DATA

5.1 PROCESSING

The field tapes are decoded and corrected for errors. All lines voided in the field are removed. The data is then automatically edited to remove any major spikes. Any errors not detected in the automatic edit are manually corrected.

On receipt of flight path recovery the photos with control are digitized and transformed to grid coordinates. The flight path is then plotted and checked for any errors which are then corrected.

Diurnal values are read off cassettes and edited to remove high frequency noise. Profiles of diurnal are plotted and any errors remaining are corrected. The diurnal is the interpolated to produce a diurnal value for every fiducial and removed from the magnetic data along with the IGRF value. The data is corrected for system parallex and a new set of coordinates are computed. Tie line levelling is then applied, if necessary, to remove any linear variations between traverse lines. The data is then gridded and contoured.

5.2 LINE NUMBERING SERIES

Pre calibration	5010 - 5040
Post calibration	6010 - 6040
Pre low level test line	5080
Pre high level test line	5090
Post low level test line	6080
Post high level test line	6090
Traverse lines	1010 - 1940
Tie lines	7010 - 7310
Heading checks	8200 - 8290
Equipment tests	9000 - 9999

5.3 PROCESSED DATA

5.3.1 Flight Path Maps

1:25,000 scale

5.3.2 Contour Maps

1:25,000 scale Total magnetic intensity and 1:50,000 colour magnetic intensity.
~~Total count~~
~~Potassium~~
~~Thorium~~
~~Uranium~~

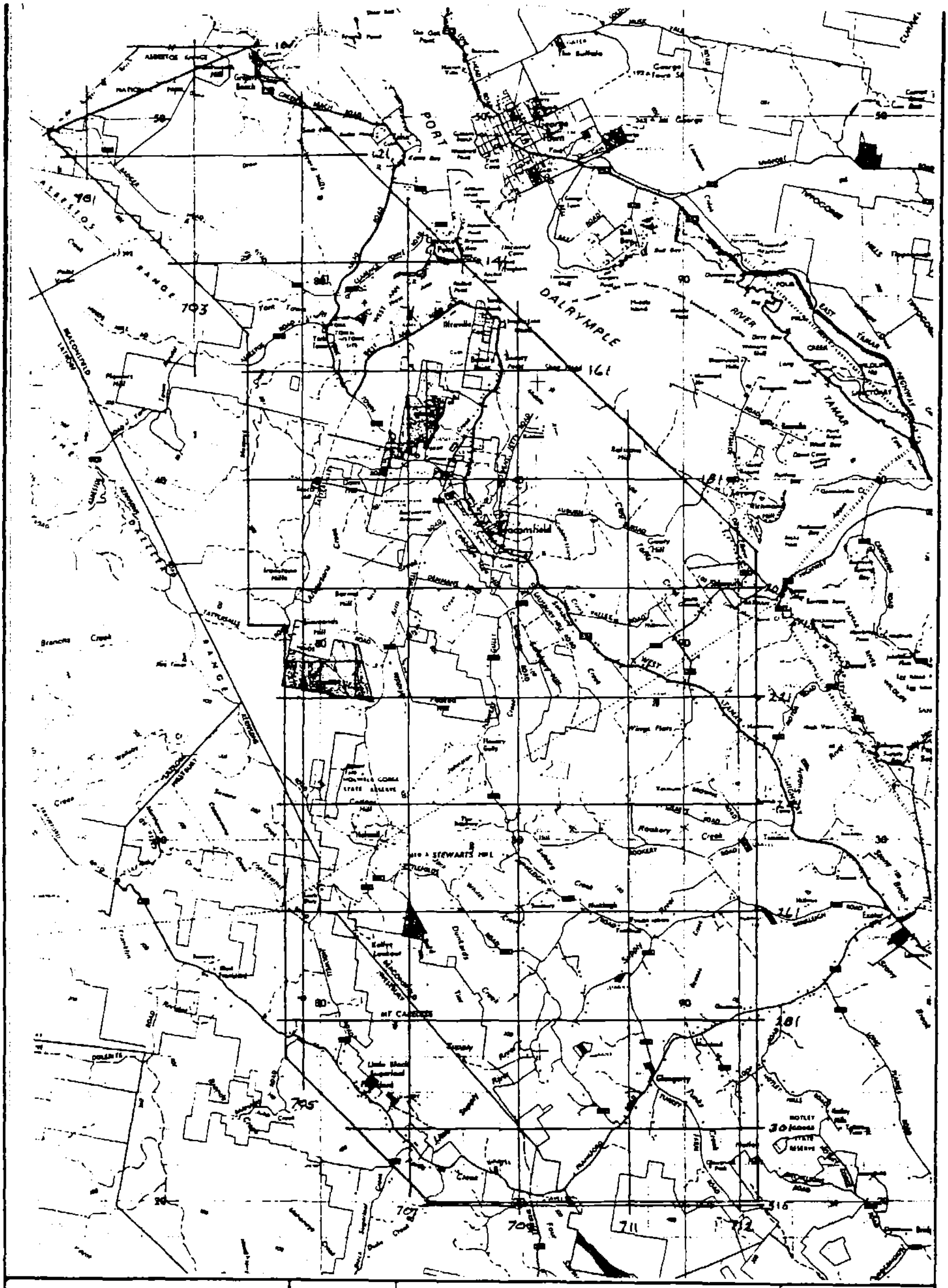
5.3.3 Data Tapes

Located in ASCII format
Gridded in binary format

5.3.4 Image Processing

Processing of total magnetic intensity and radiometric data and copy to 35 mm slides.

595094

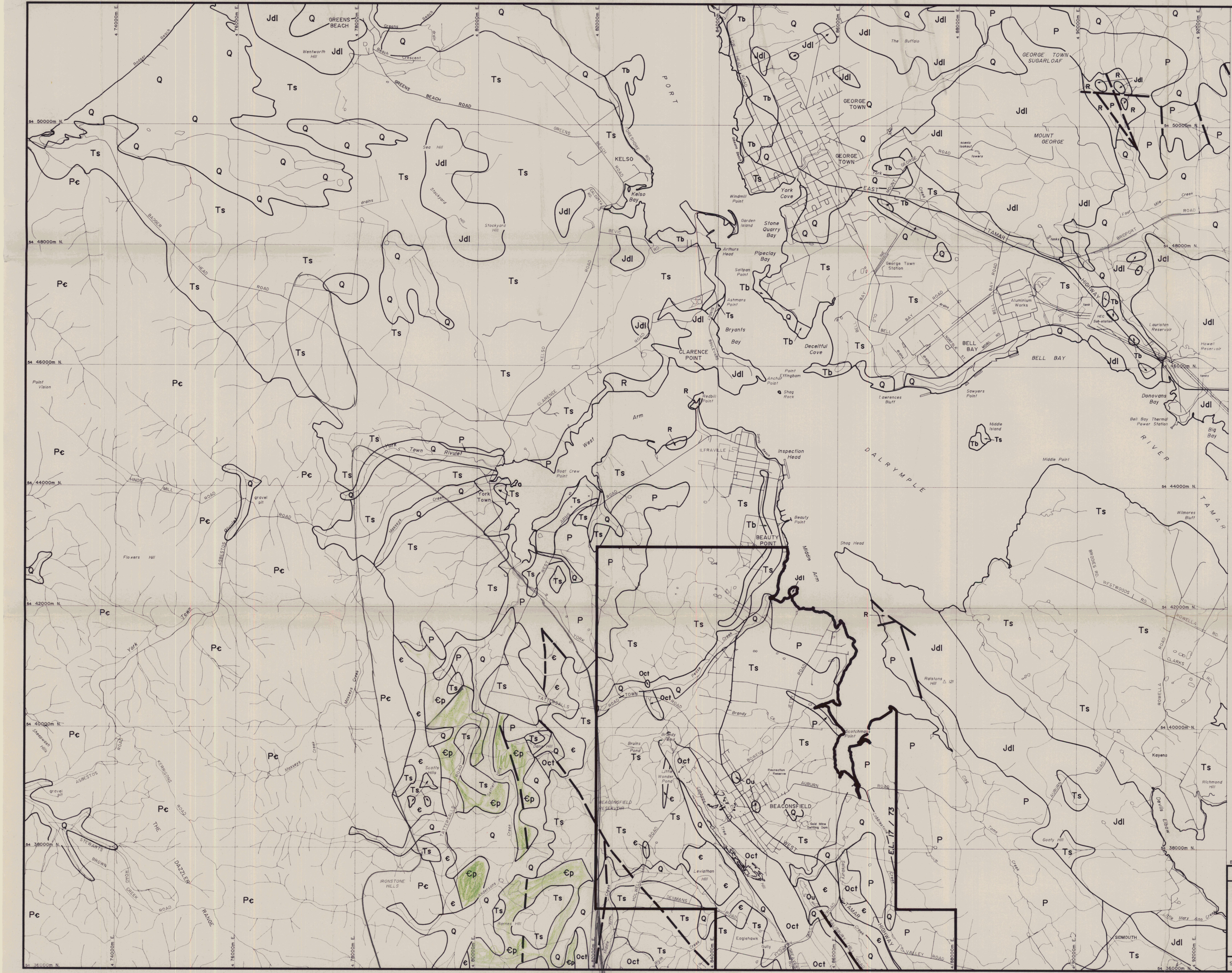


AUSTIREX INTERNATIONAL LTD.

JOB No. 2066

LOCALITY	DAZZLER RANGE, TAS
AREA	BEACONSFIELD
PLAN SHOWS	SURVEY AREA
DATE	2-3/88

8822



LEGEND

6 Q Quaternary

8 Tb Tertiary Basalt

16 Ts Tertiary & Younger Sediments

11 Jdl Jurassic Dolerite

41 R Triassic Sediments

32 P Permian Sediments

22 Ou Ordovician, Undifferentiated (younger than Oct)

20 Oct Ordovician, Cabbage Tree Formation

26 € Cambrian Sediments

47 €p Cambrian Pyroxinite

17 P€ Precambrian Sediments

— — Fault

595095

5 cm

89-3011 I

Geology from Tas. Mines Dept. 1:63360 Series Maps.

BGM/MG88/01

BEACONSFIELD GOLD MINES LIMITED

BEACONSFIELD – E.L. 17/73

SHEET 1

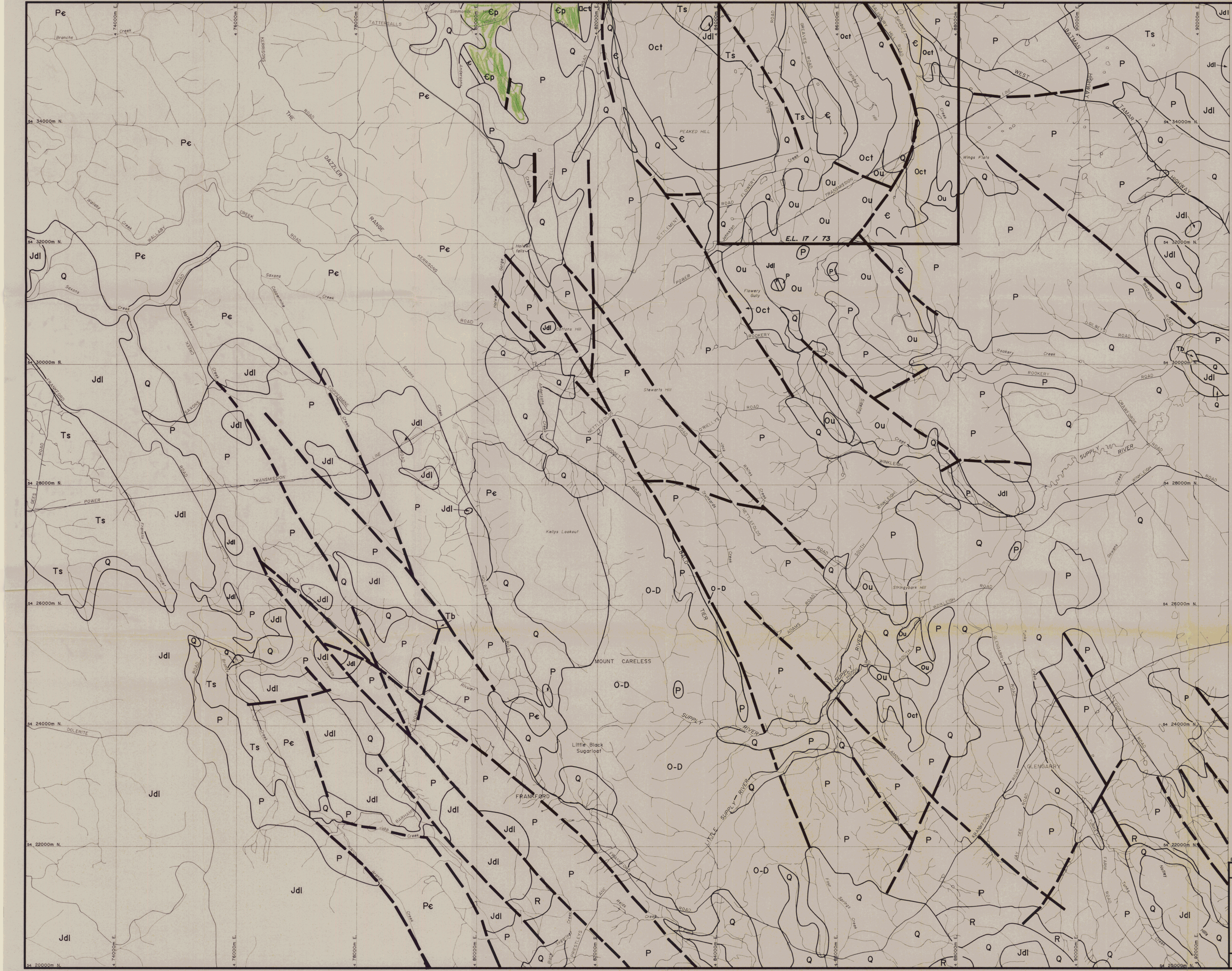
INTERPRETIVE GEOLOGY

DRAWN BY : T.G.D.S.
DRAFTSMAN: T.G.D.S.
DATE : April '88
REVISIONS :
FILE No.

SCALE 1 : 25000 500 0 500 1000 METRES

FIG. 1a

8821



LEGEND

6	Q	Quaternary
8	Tb	Tertiary Basalt
16	Ts	Tertiary & Younger Sediments
11	Jdl	Jurassic Dolerite
41	R	Triassic Sediments
24	O-D	Ordovician - Devonian Sediments
32	P	Permian Sediments
22	Ou	Ordovician, Undifferentiated (younger than Oct)
20	Oct	Ordovician, Cabbage Tree Formation
26	€	Cambrian Sediments
47	€p	Cambrian Pyroxenite
17	P€	Precambrian Sediments

▬ ▬ Fault

5 cm

GN
TN
MN
GRID CONVERGENCE 1.2°
GRID/MAGNETIC ANGLE 12.9°

595096

89-3011

Geology from Tas. Mines Dept. 1:63360 Series Maps.

BGM/MG88/01

BEACONSFIELD GOLD MINES LIMITED

BEACONSFIELD – E.L. 17/73

SHEET 2

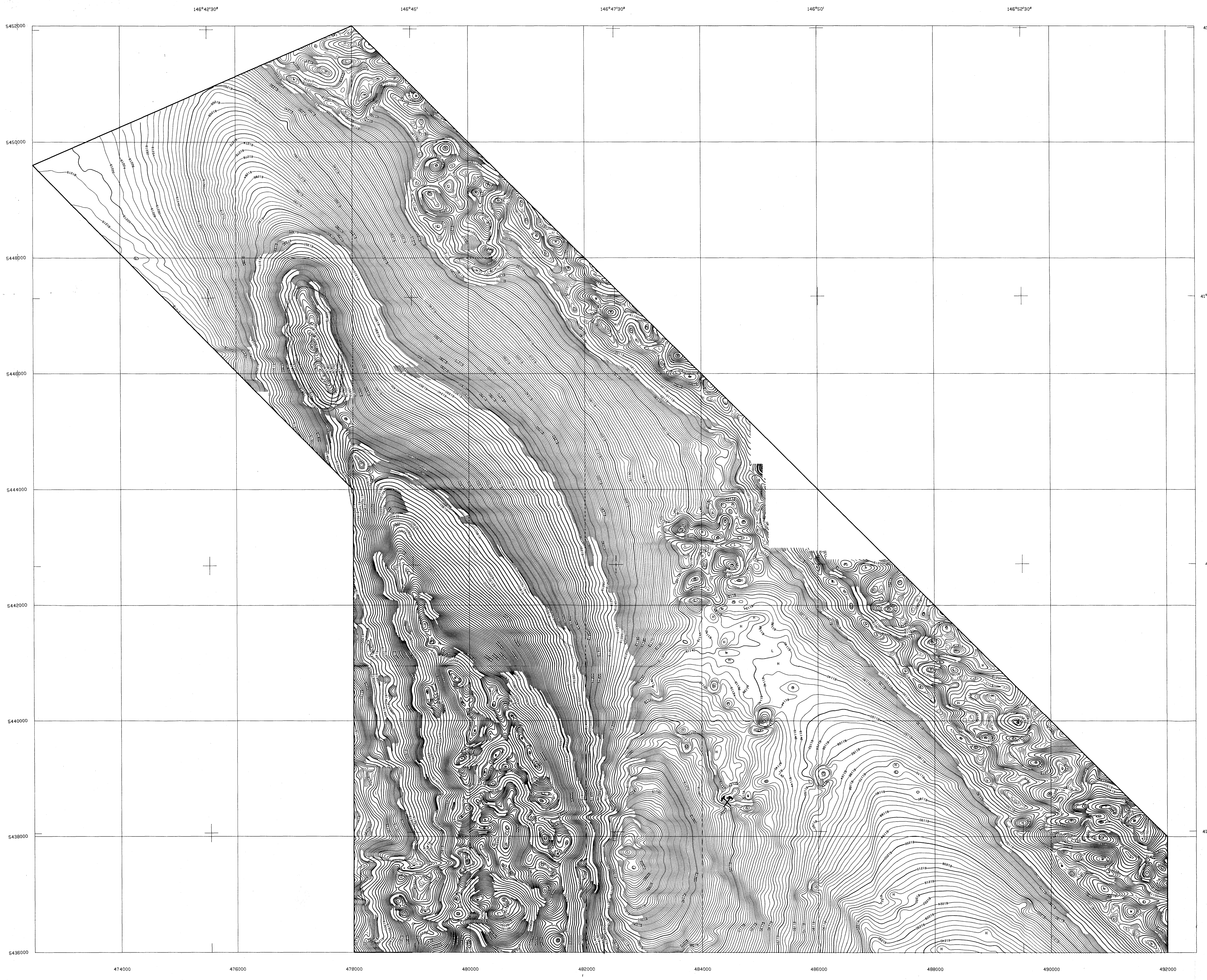
INTERPRETIVE GEOLOGY

DRAWN BY : T.G.D.S.
DRAFTSMAN: T.G.D.S.
DATE : April '88
REVISIONS :
FILE No.

SCALE 1 : 25000 500 0 500 1000 METRES

FIG. 1b

S820



AIRCRAFT
VH-EXH ROCKWELL SHRIKE COMMANDER 500S
MAGNETOMETER
SPLIT BEAM CESIUM SCINTREX V201
RESOLUTION 0.01 nanoTesla
CYCLE RATE 0.2 seconds
SAMPLE INTERVAL 13 metres
SPECTROMETER
256 CHANNEL EXPLORANIUM GR800B
VOLUME 33.56 litres
CYCLE RATE 1.0 seconds
SAMPLE INTERVAL 60 metres
DATA ACQUISITION
8 CHANNEL WATANABE MC 6700 CHART RECORDER
HEWLETT PACKARD 9000 SERIES COMPUTER
AERODATA DIGITAL ACQUISITION SYSTEM
FLIGHT LINE SPACING
TRAVERSE LINES 150 metres
TIE LINES 1500 metres
FLIGHT LINE DIRECTION
TRAVERSE LINES 090 - 270 degrees
TIE LINES 180 - 360 degrees
SURVEY HEIGHT
100 metres - MEAN TERRAIN CLEARANCE
NAVIGATION
VISUAL FROM PLANNED FLIGHT STRIPS
FLIGHT PATH RECOVERY
ONTO AMG CONTROLLED PHOTOGRAPHS

Surveyed and compiled by AUSTIREX INTERNATIONAL LIMITED
March - April 1988

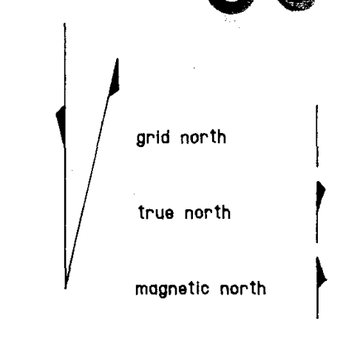
austirex

DATA PROCESSING

REGIONAL FIELD	IGRF MODEL 1985 REMOVED
GRID CELL SIZE	50 metres
CONTOUR INTERVAL	2 nanoTeslas
PARALLAX CORRECTION	3.5
BASE VALUE ADDED	61290 nanoTeslas

5 cm

89-3011



north point relationships are
shown for the centre of the map.
magnetic north is true for 1980.

grid/magnetic angle	12°52'11"
grid convergence	-0°8'14.44"
secular variation	0°3'1" east per year

595097

500 0 500 1000 1500 2000 2500 metres
AUSTRALIAN MAP GRID

BGM/MG88/01

BEACONSFIELD GOLD MINES LIMITED

BEACONSFIELD - E.L. 17/73

SHEET 1

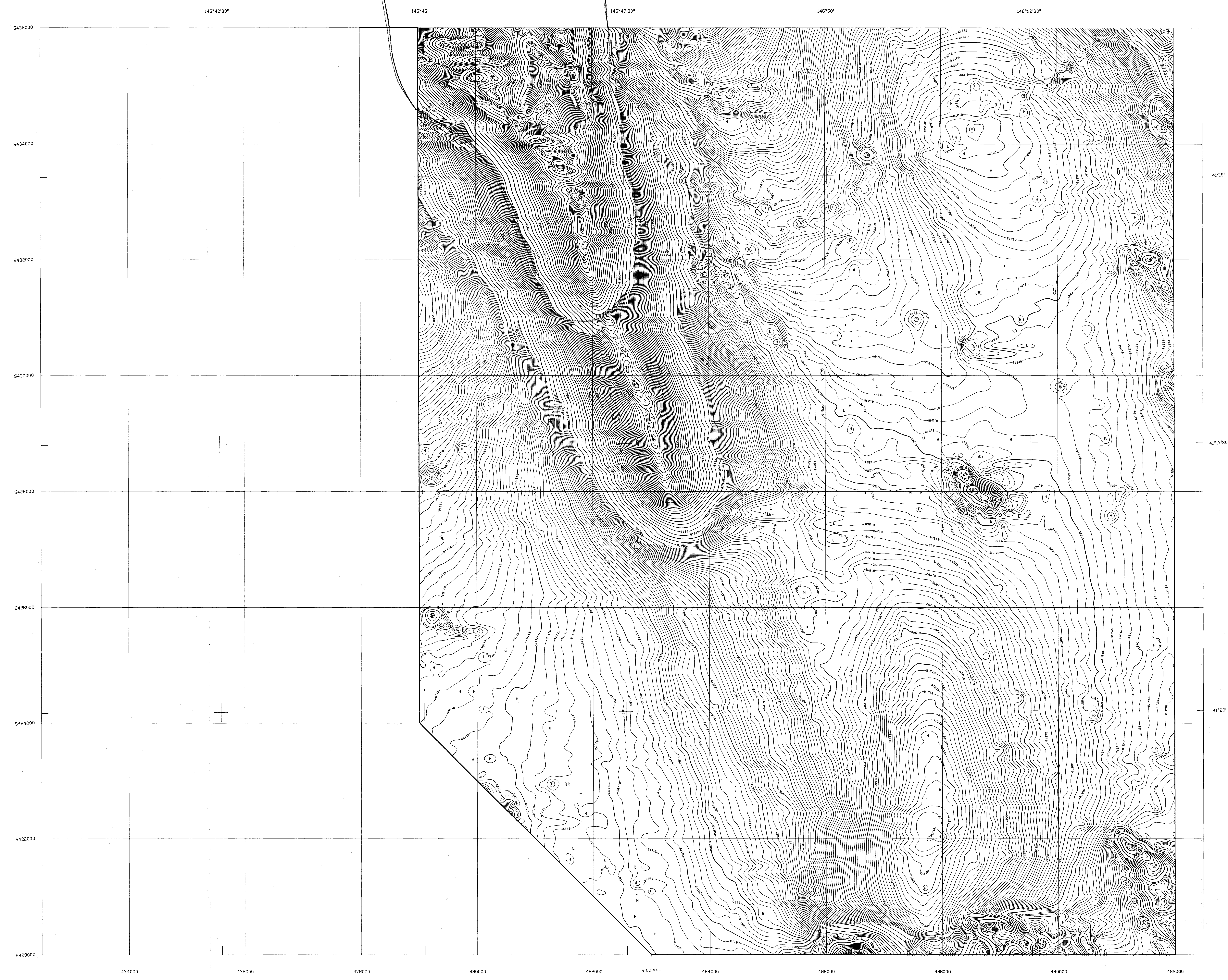
MAGNETIC INTENSITY CONTOURS

SCALE 1:25 000

DRAWN BY :
DRAFTSMAN:
DATE :
REVISIONS:
FILE No.

FIG. 2a

8819



AIRCRAFT
VH-EXH ROCKWELL SHRIKE COMMANDER 500S

MAGNETOMETER
SPLIT BEAM CESIUM SCINTREX V201

RESOLUTION	0.01 nanoTesla
CYCLE RATE	0.2 seconds
SAMPLE INTERVAL	13 metres

SPECTROMETER
256 CHANNEL EXPLORANIUM GR800B

VOLUME	33.56 litres
CYCLE RATE	1.0 seconds
SAMPLE INTERVAL	60 metres

DATA ACQUISITION
8 CHANNEL WATANABE MC 6700 CHART RECORDER
HEWLETT PACKARD 9000 SERIES COMPUTER
AERODATA DIGITAL ACQUISITION SYSTEM

FLIGHT LINE SPACING

TRAVERSE LINES	150 metres
TIE LINES	1500 metres

FLIGHT LINE DIRECTION

TRAVERSE LINES	090 - 270 degrees
TIE LINES	180 - 360 degrees

SURVEY HEIGHT
100 metres - MEAN TERRAIN CLEARANCE

NAVIGATION
VISUAL FROM PLANNED FLIGHT STRIPS

FLIGHT PATH RECOVERY
ONTO AMG CONTROLLED PHOTOGRAPHS

Surveyed and compiled by AUSTIREX INTERNATIONAL LIMITED
March - April 1988

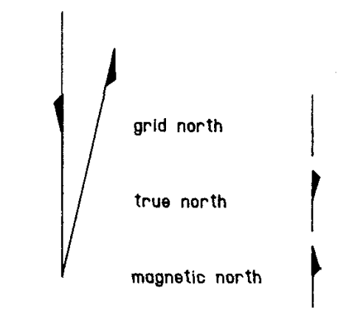
austirex

DATA PROCESSING

REGIONAL FIELD	IGRF MODEL 1985 REMOVED
GRID CELL SIZE	50 metres
CONTOUR INTERVAL	2 nanoTeslas
PARALLAX CORRECTION	3.5
BASE VALUE ADDED	61290 nanoTeslas

5 cm

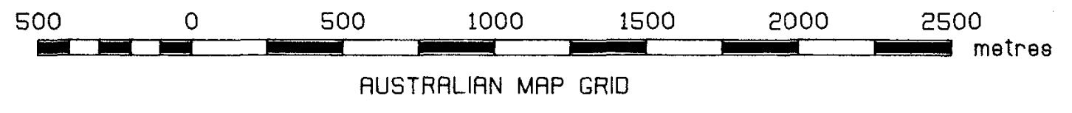
89-3011



north point relationships are
shown for the centre of the map.
magnetic north is true for 1980.

grid/magnetic angle	12°55'16"
grid convergence	-0°8'16.96"
secular variation	0°3'1" east per year

595098



BEACONSFIELD GOLD MINES LIMITED

BEACONSFIELD - E.L. 17/73

SHEET 2

MAGNETIC INTENSITY CONTOURS

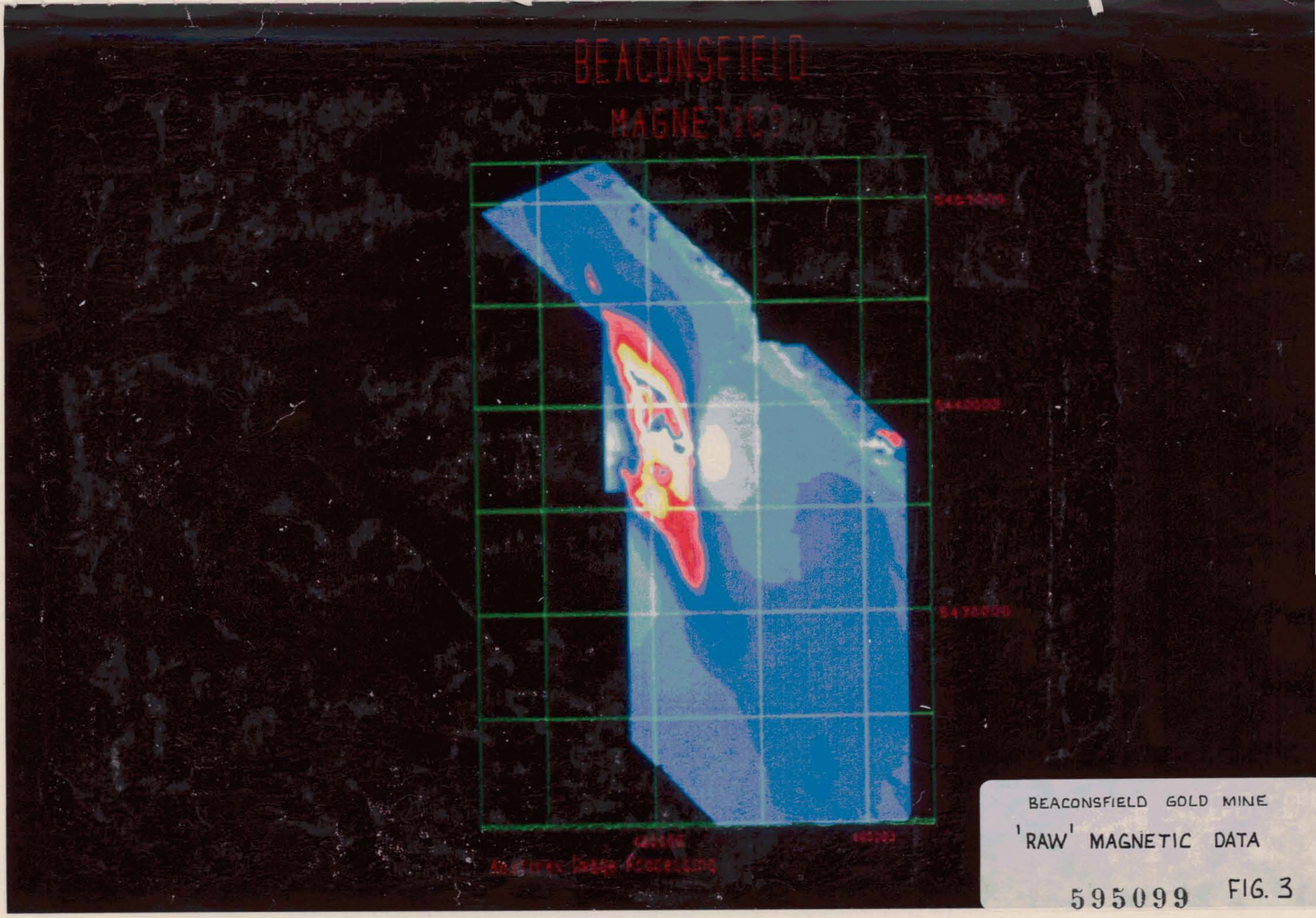
SCALE 1:25 000

DRAWN BY :
DRAFTSMAN :
DATE :
REVISIONS :

FILE No.

FIG. 2b

BGM/MG88/01

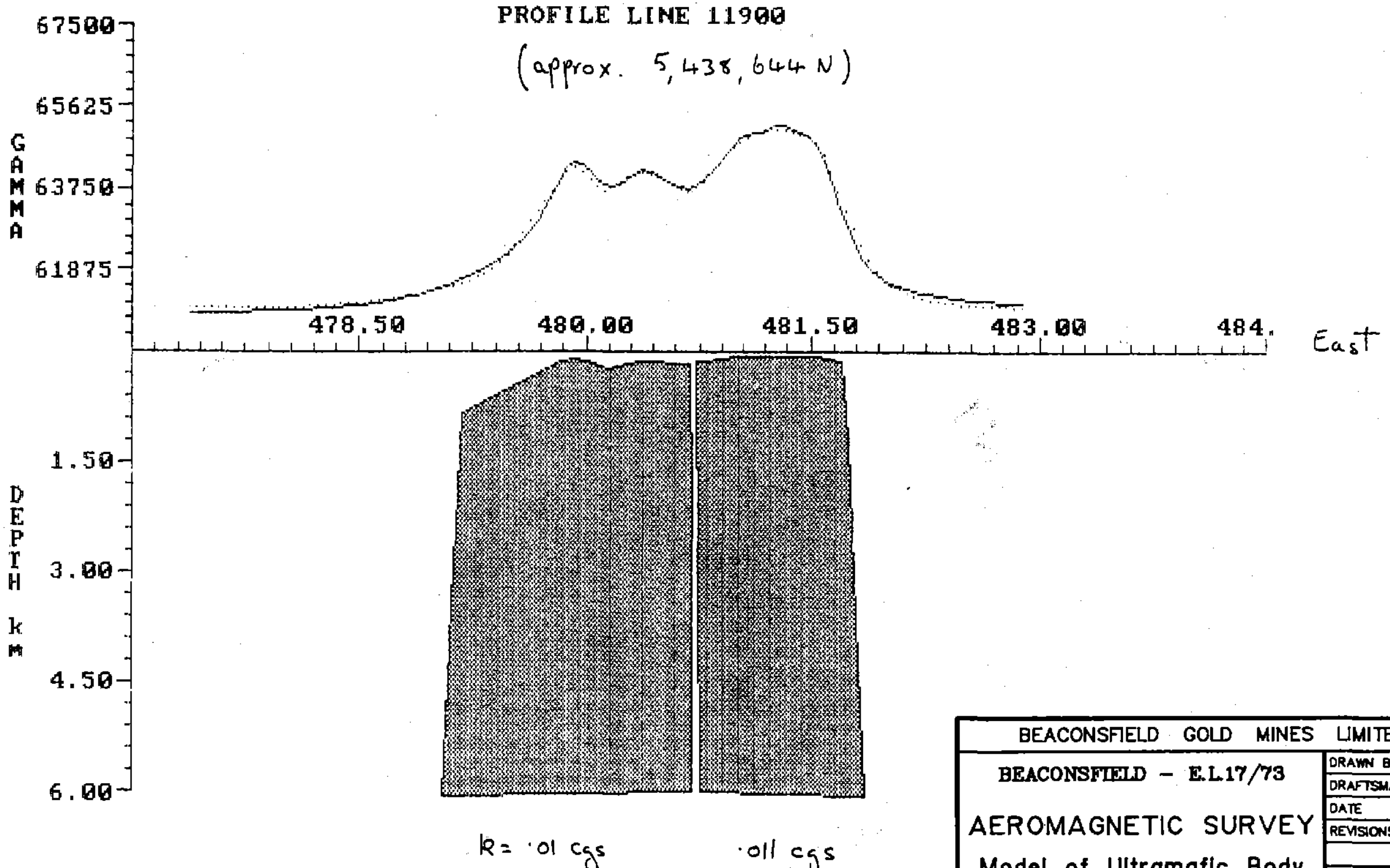


BEACONSFIELD GOLD MINE

'RAW' MAGNETIC DATA

595099 FIG. 3

074



PROFILE LINE 11900

(approx. 5,438,644 N)

BMG/MG88/01

BEACONSFIELD GOLD MINES LIMITED

BEACONSFIELD – E.L.17/73

AEROMAGNETIC SURVEY

Model of Ultramafic Body
Central Section

DRAWN BY : J.R.B.
DRAFTSMAN: T.G.D.S.
DATE : Aug.'88
REVISIONS :

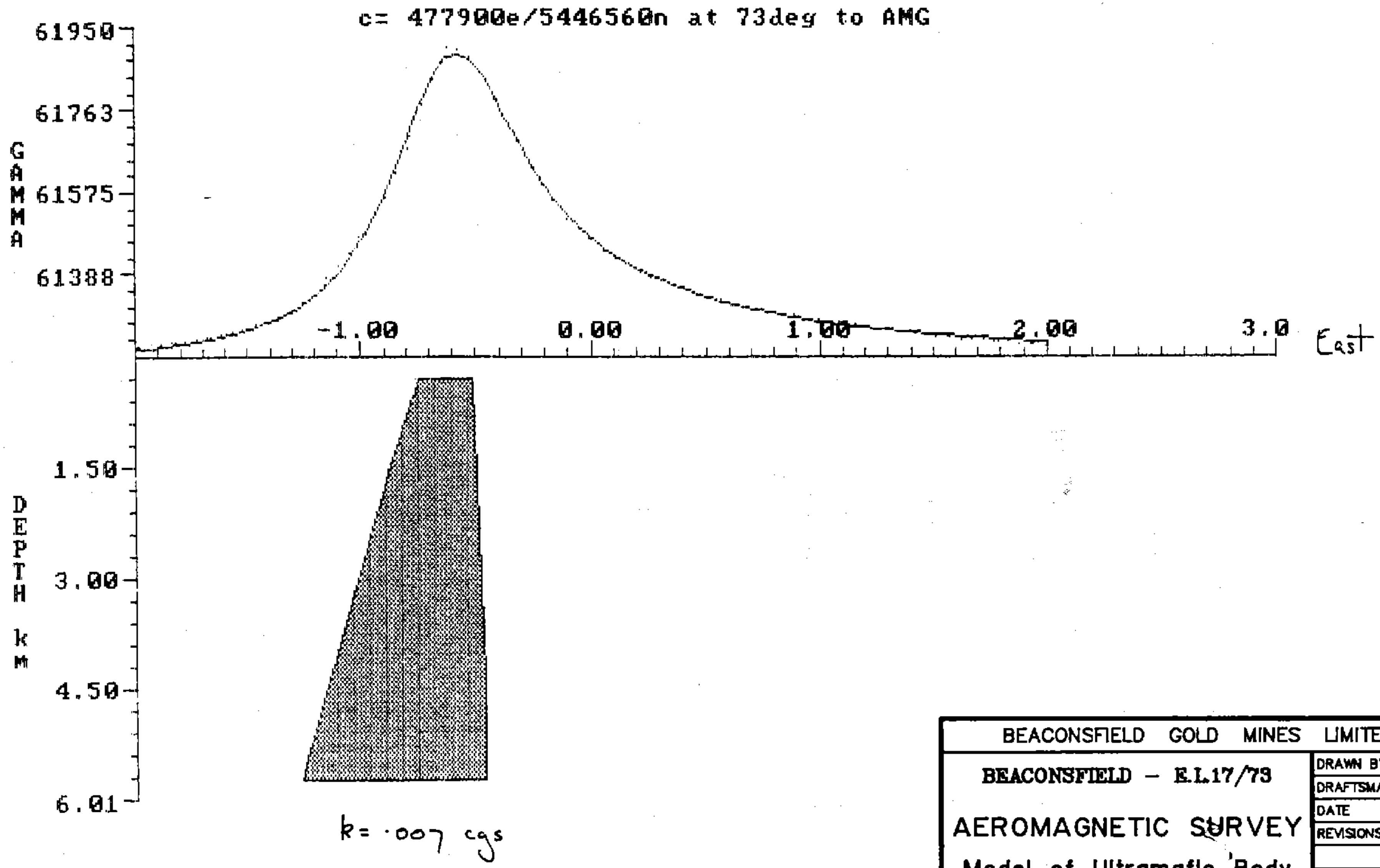
FILE NO.

SCALE 1:

METRES

FIG. 4a

595100



BEACONSFIELD GOLD MINES LIMITED

BEACONSFIELD – E.L.17/73

AEROMAGNETIC SURVEY

Model of Ultramafic Body
Northern Section

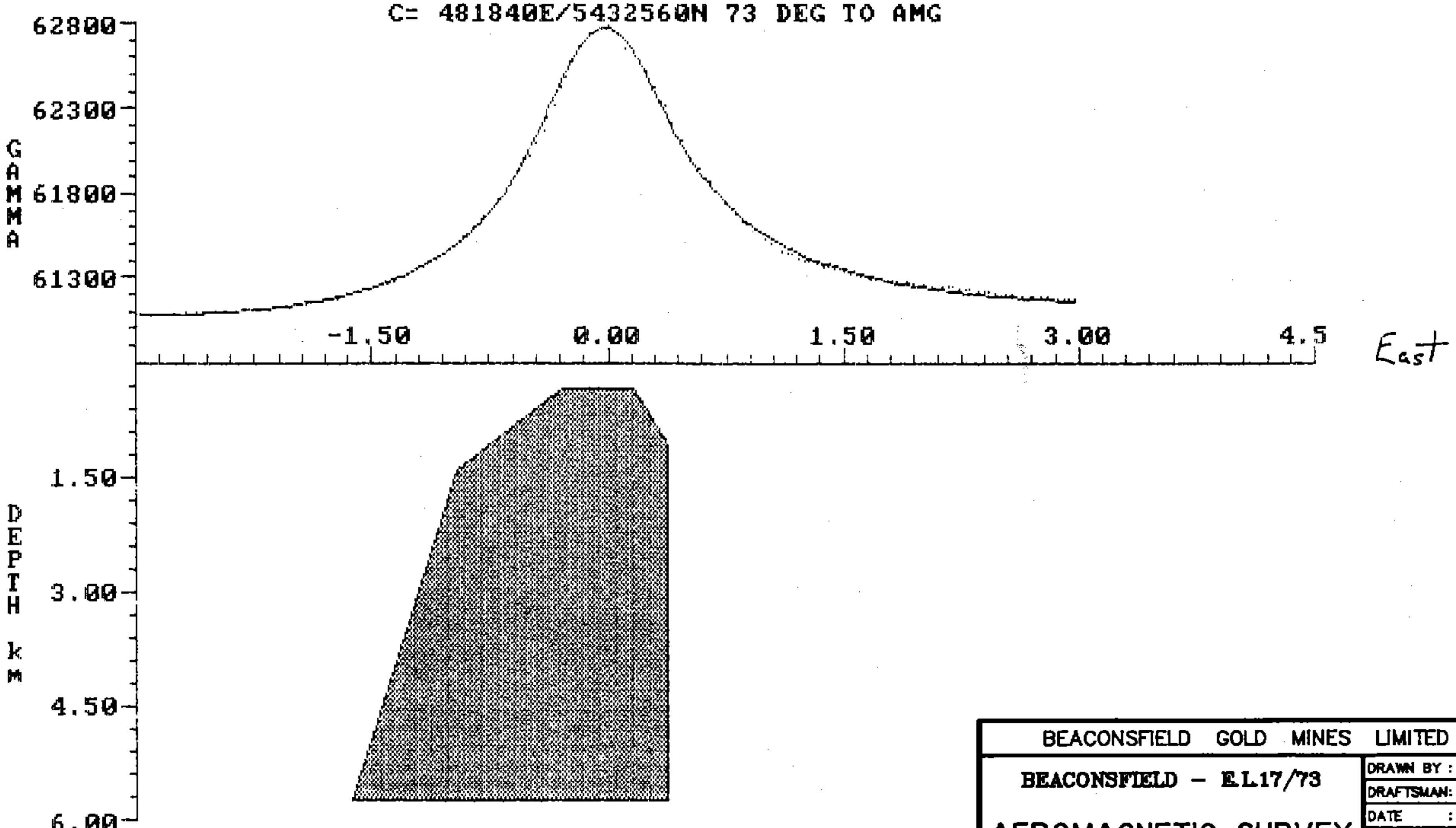
DRAWN BY :	J.R.B.
DRAFTSMAN:	T.G.D.S.
DATE	: Aug.'88
REVISIONS :	
FILE NO.	

SCALE 1:
METRES

FIG. 4b

BMG/MG88/01

076



k = ·0075 cgs

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BEACONSFIELD GOLD MINES LIMITED

BEACONSFIELD – E.L.17/73

AEROMAGNETIC SURVEY

Model of Ultramafic Body
Southern Section

DRAWN BY : J.R.B.
DRAFTSMAN: T.G.D.S.
DATE : Aug.'88
REVISIONS :
FILE NO.
SCALE 1:
METRES

FIG. 4c

595102

8823

LEGEND

89-3011

BGM/MG88/01

595103

BEACONSFIELD GOLD MINES LIMITED

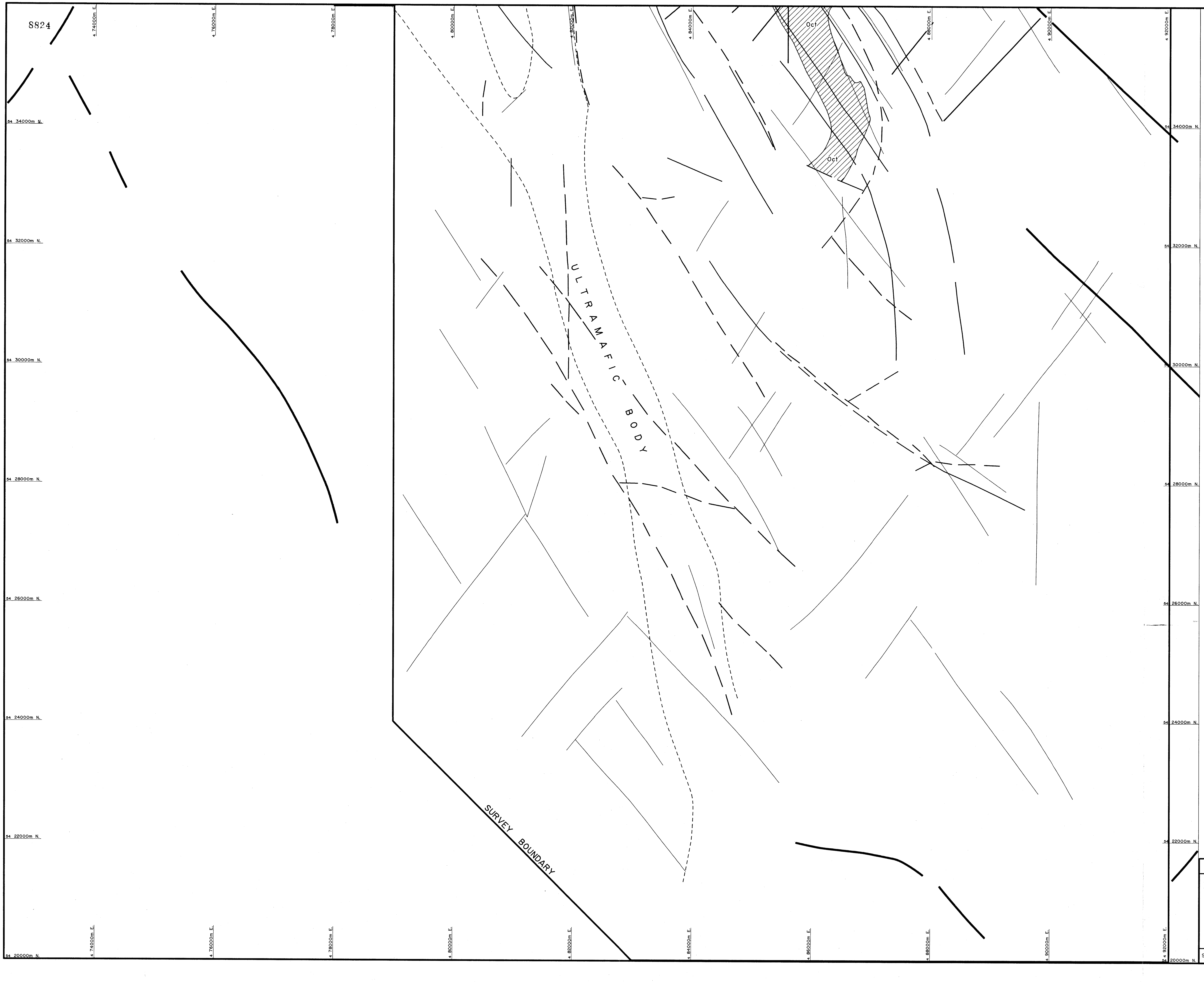
BEACONSFIELD – E.L. 17/73
SHEET 1

INTERPRETED LINEARS FROM PROCESSED IMAGES

DRAWN BY : J.R.B.
DRAFTSMAN: T.G.D.S.
DATE : Aug.'88
REVISIONS :
FILE No.

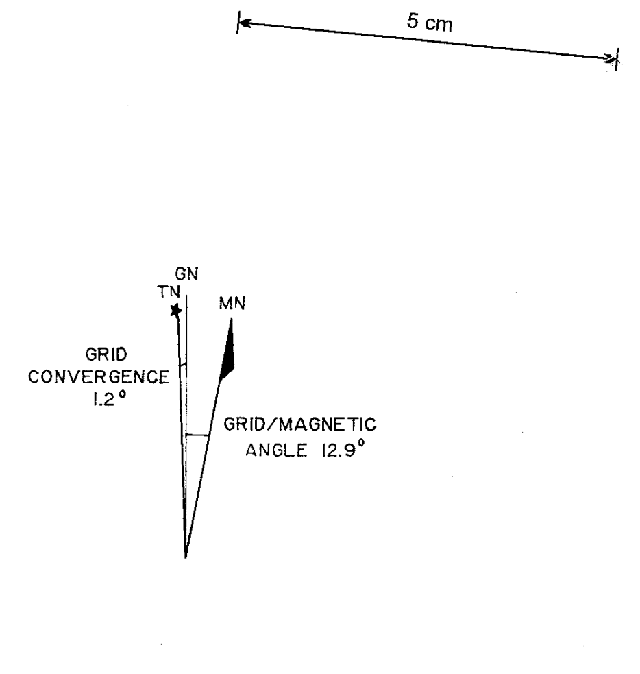
SCALE 1 : 25000 500 0 500 1000 METRES

FIG. 5a



LEGEND

- MAGNETIC 'GRAIN'
- CROSS - CUTTING MAGNETIC LINEAR
- CONFORMABLE (?) MAGNETIC LINEAR
- MAGNETIC DOMAIN BOUNDARY
- GRAVITY DEFINED CONTACT
- PUBLISHED FAULT



2

89-3011

595104

BGM/MG88/01

BEACONSFIELD GOLD MINES LIMITED

BEACONSFIELD – E.L. 17/73

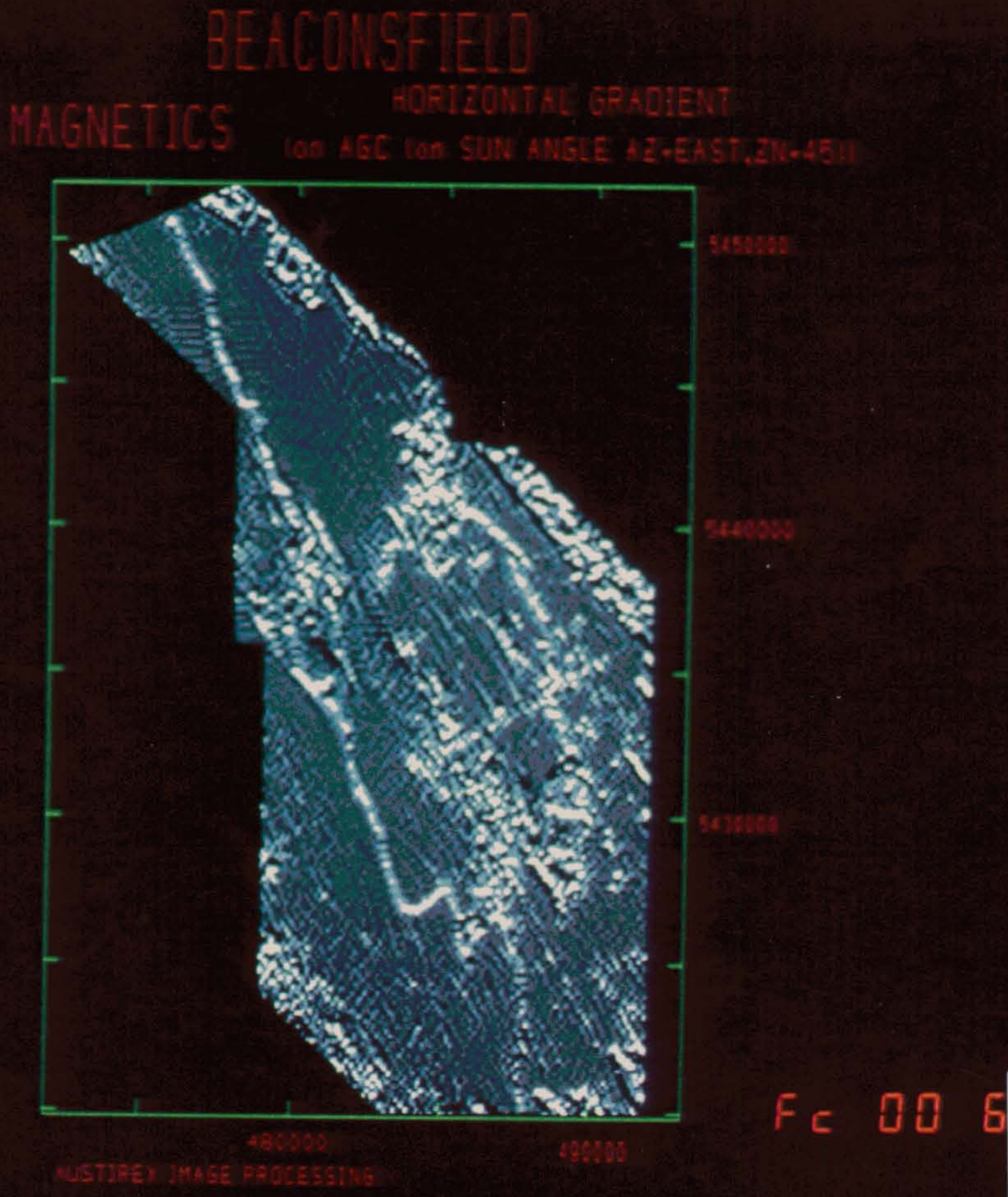
SHEET 2

INTERPRETED LINEARS
FROM
PROCESSED IMAGES

DRAWN BY : J.R.B.
DRAFTSMAN: T.G.D.S.
DATE : Aug.'88
REVISIONS :
FILE No.

SCALE 1 : 25000 500 0 500 1000 METRES

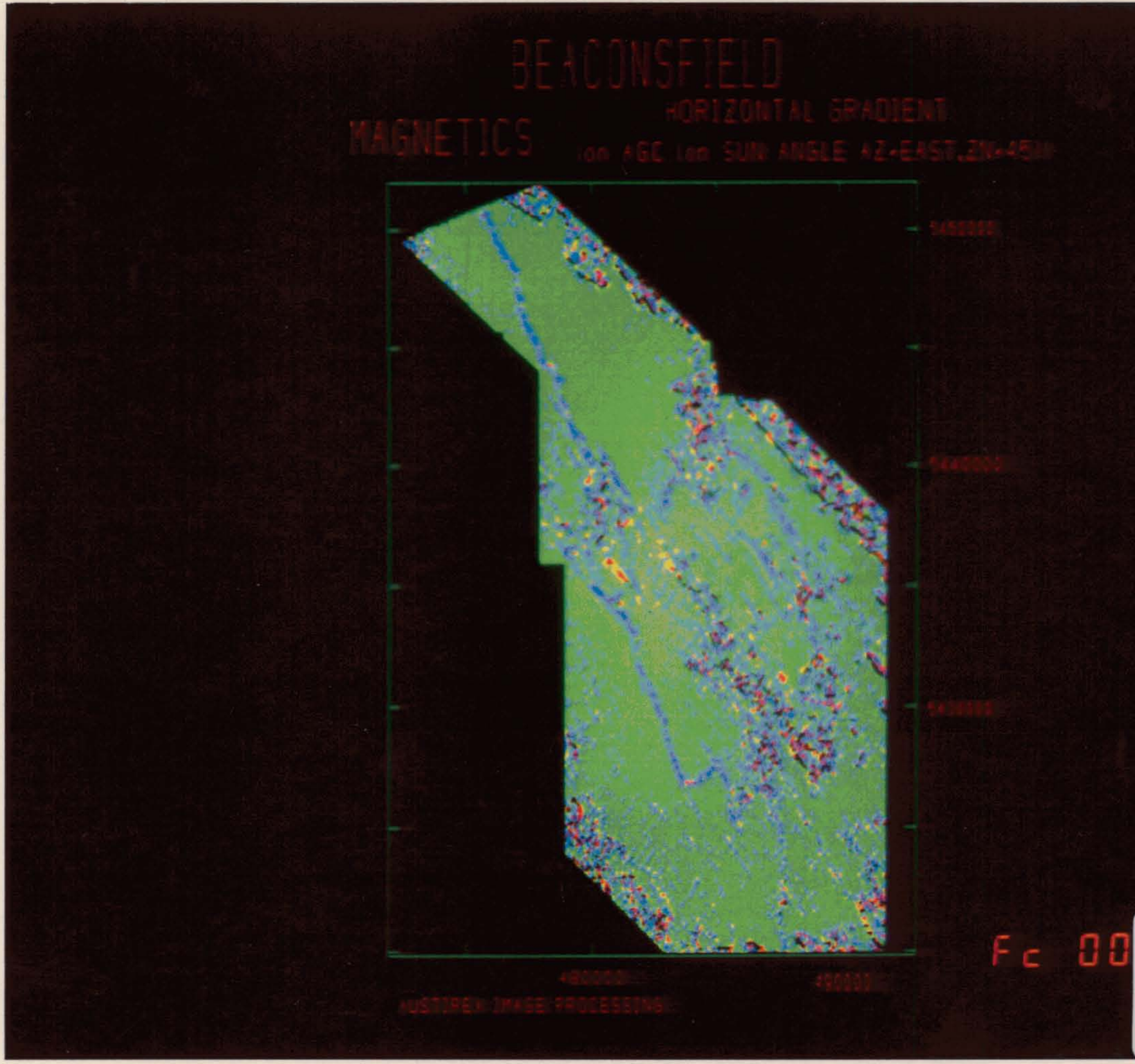
FIG. 5b



BEACONSFIELD GOLD MINES

PROCESSED IMAGE: HORIZONTAL GRADIENT WITH 'AGC'

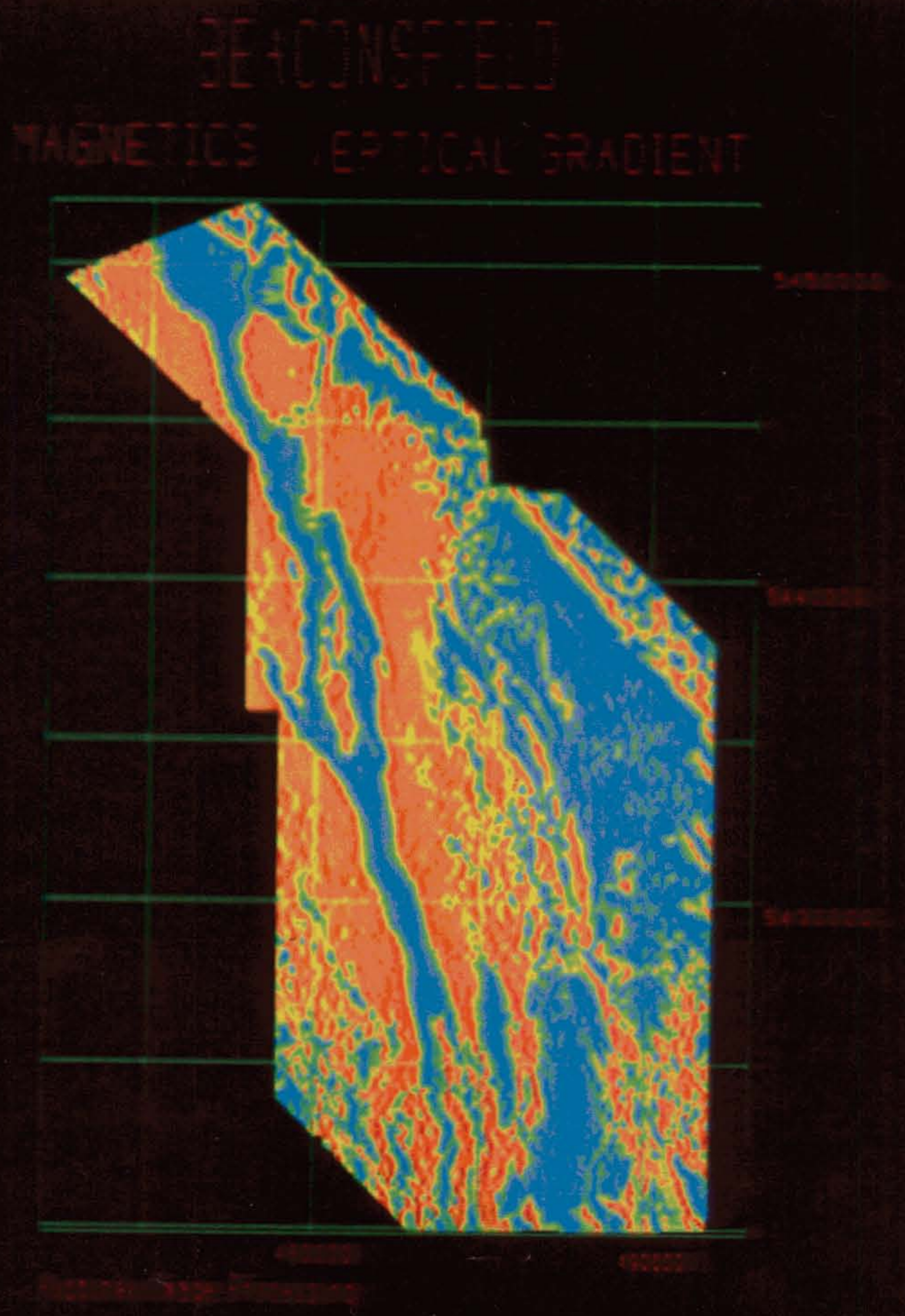
FIG. 6a



BEACONSFIELD GOLD MINES

PROCESSED IMAGE: HORIZONTAL GRADIENT WITH 'AGC' COLOUR ADDED

FIG. 6b



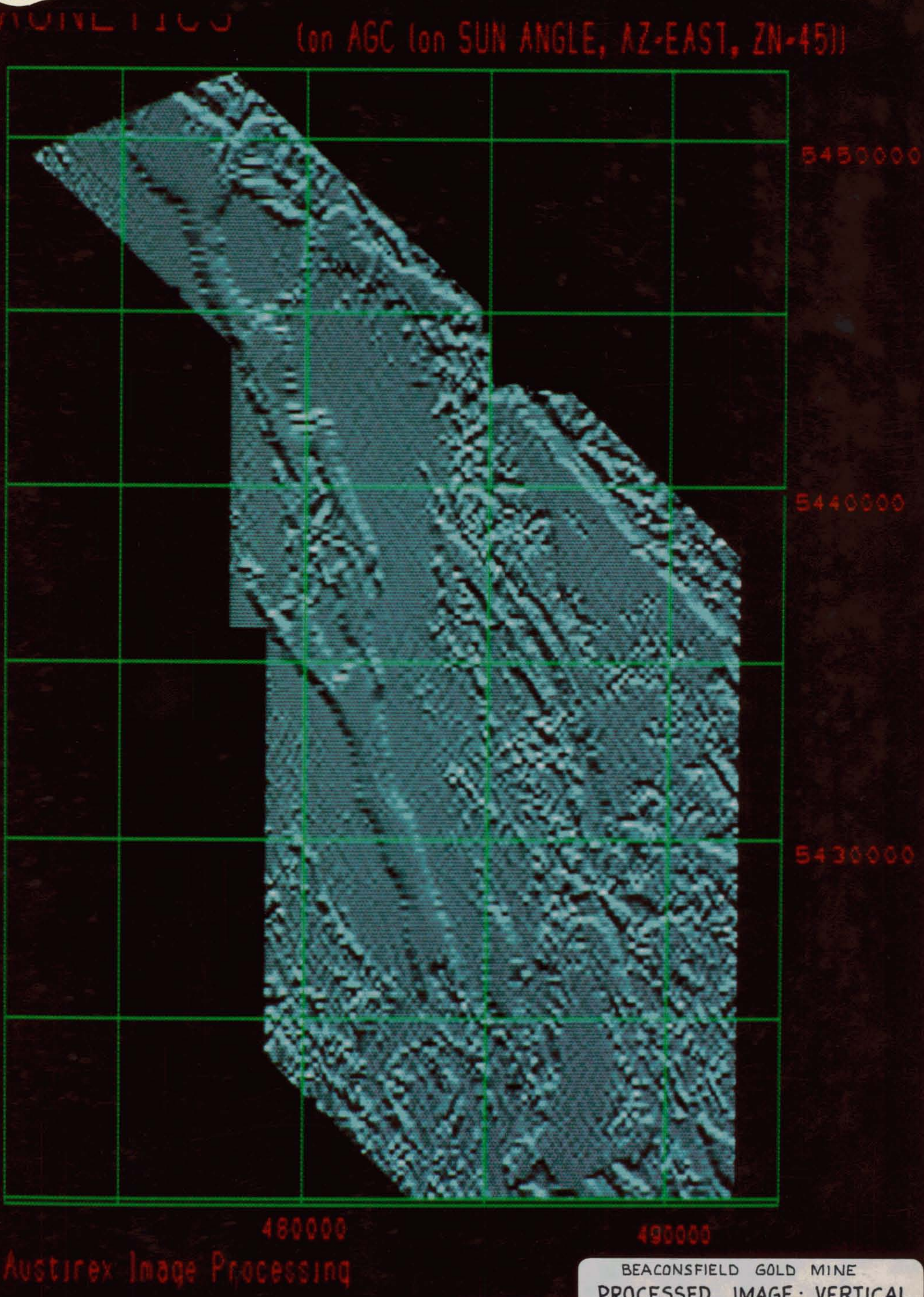
Fc

BEACONSFIELD GOLD MINE

PROCESSED IMAGE :
VERTICAL GRADIENT

FIG. 7

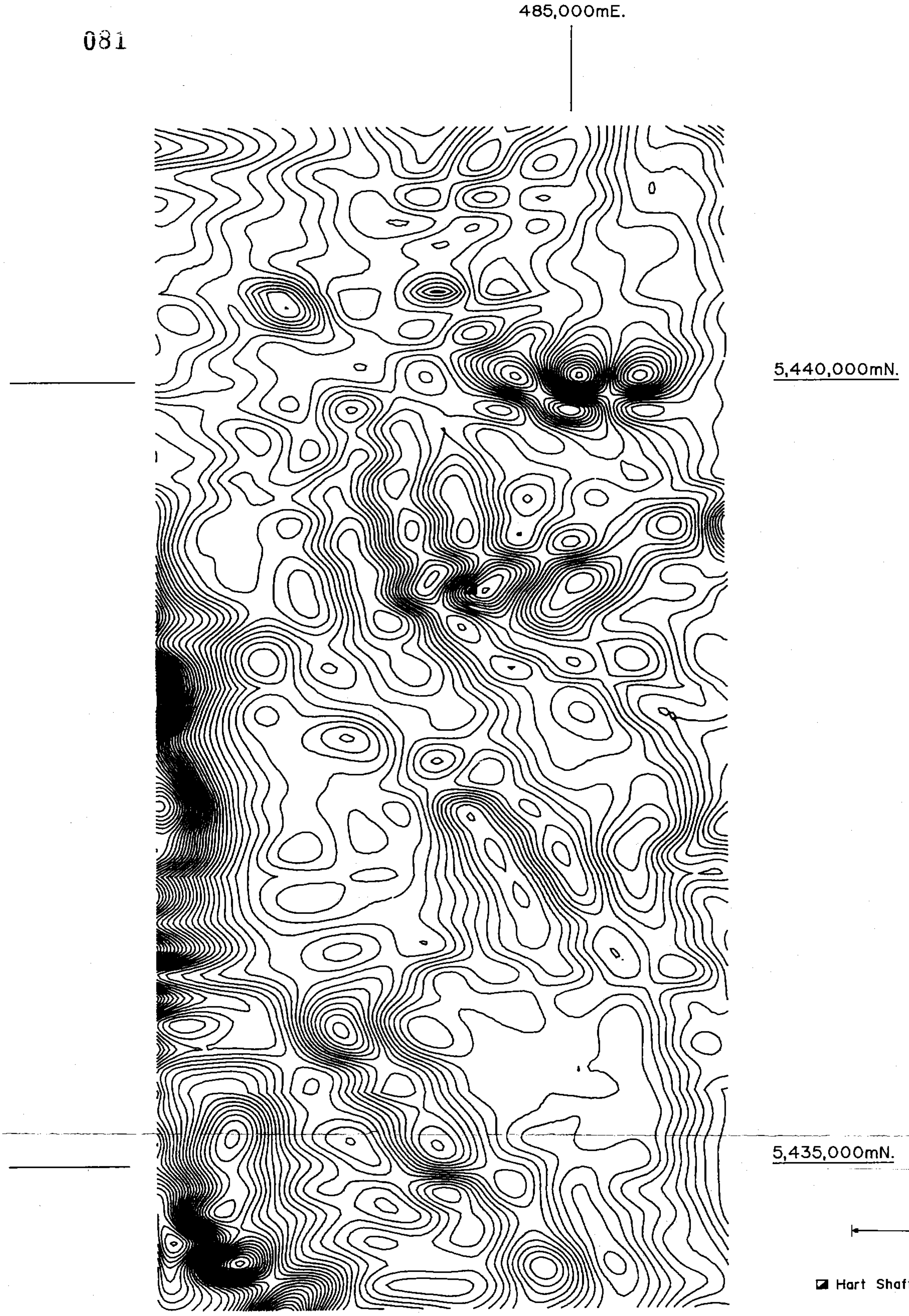
030



BEACONSFIELD GOLD MINE
PROCESSED IMAGE: VERTICAL GRADIENT WITH 'AGC'
FIG.8

595108

081



5 cm

◩ Hart Shaft,Tasmania Mine.

BEACONSFIELD GOLD MINES LIMITED

BEACONSFIELD – E.L. 17/73

AEROMAGNETIC SURVEY

FILTERED MAGNETIC CONTOURS

DRAWN BY : J.R.B.
DRAFTSMAN : T.G.D.S.
DATE : Aug. '88
REVISIONS :
FILE No.

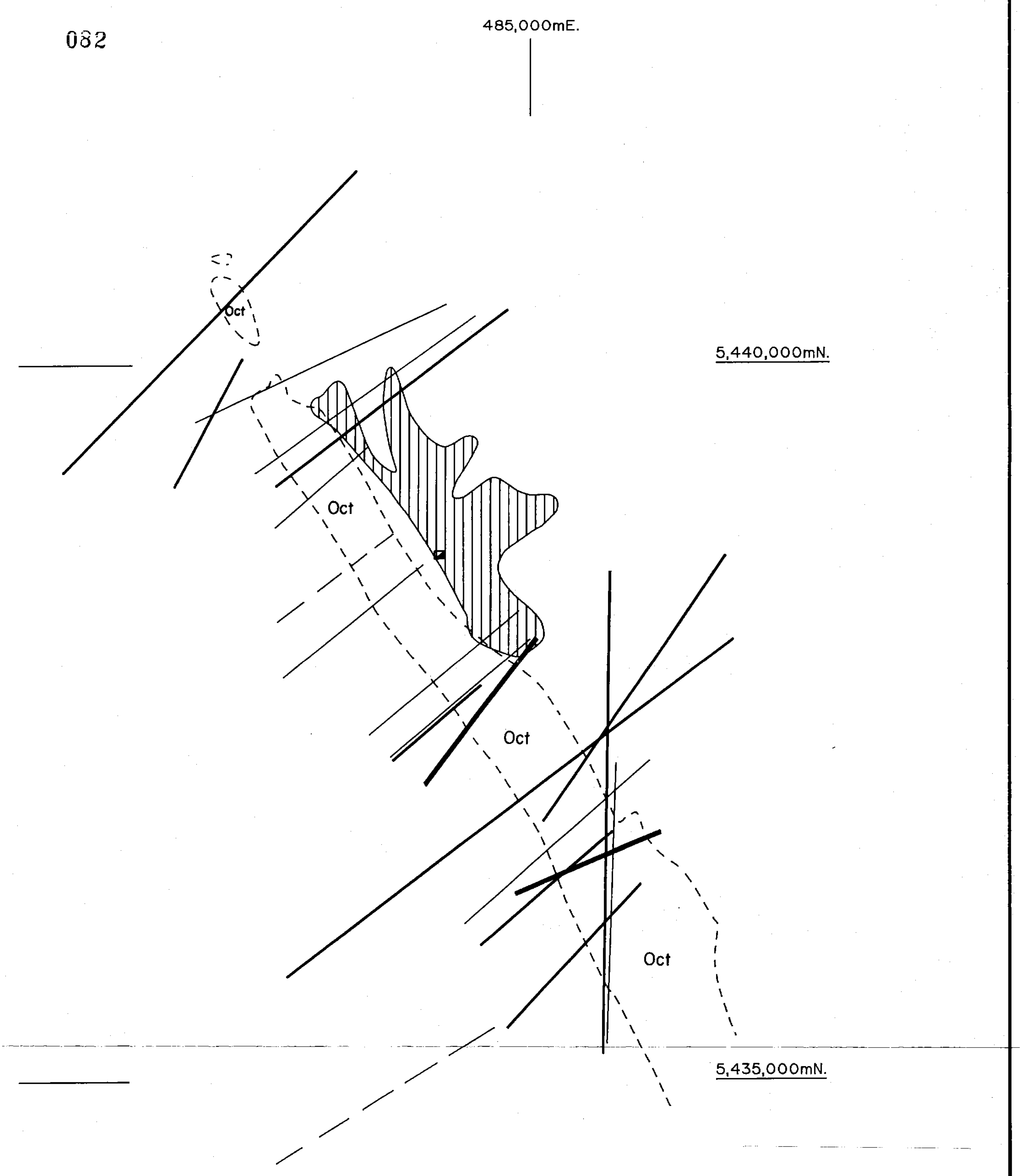
SCALE 1 : 25000 200 0 400 800 METRES

FIG. 9

89-3011

BGM/MG88/01

595109



5 cm

LEGEND

- Linears from Figure 5
- Linears from Figure 9
- Linears from Figure II
- Township of Beaconsfield
- ◪ Hart Shaft, Tasmania Mine.

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BEACONSFIELD GOLD MINES LIMITED

BEACONSFIELD – E.L. 17/73

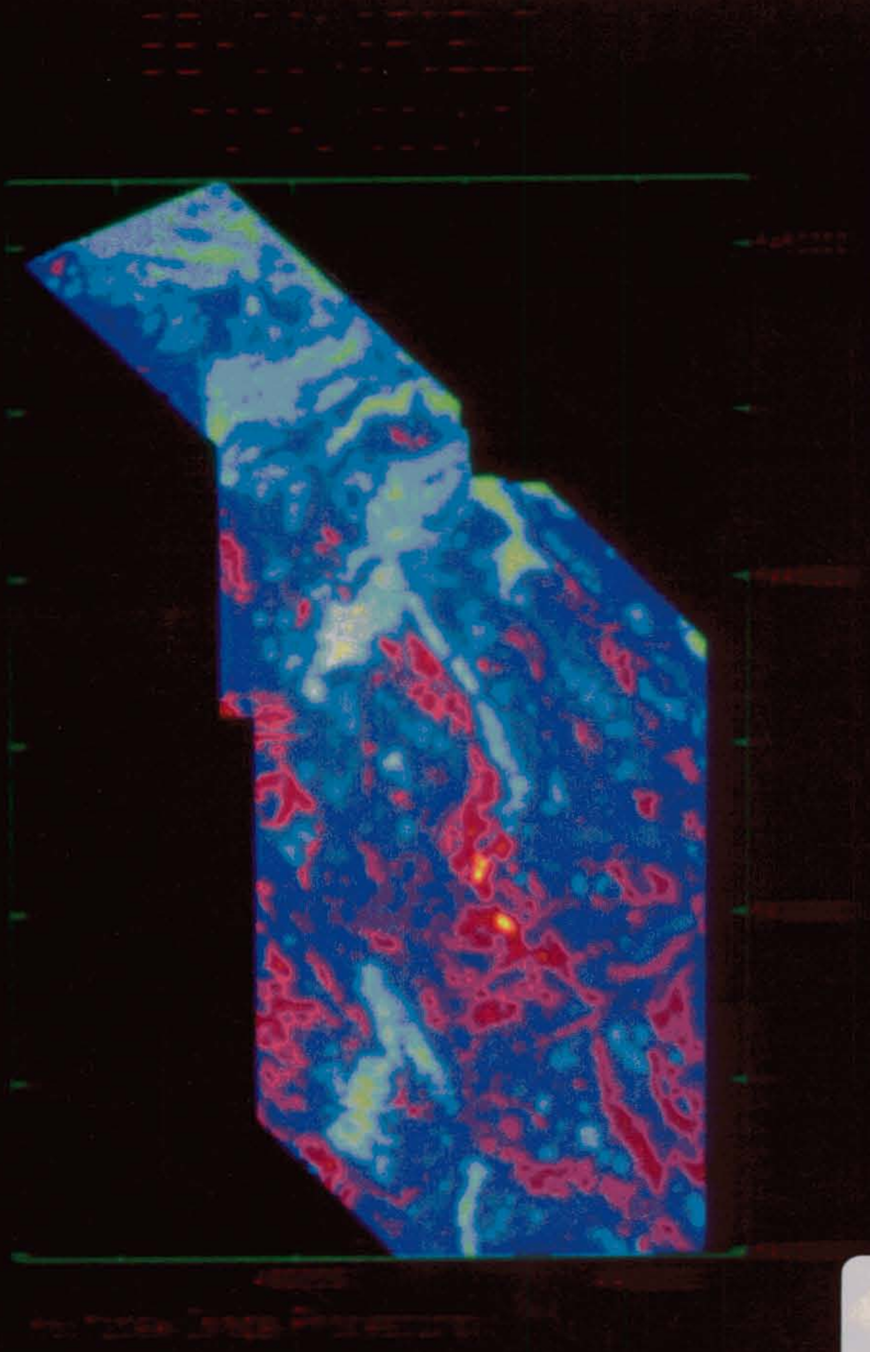
AEROMAGNETIC SURVEY

INTERPRETED LINEARS

DRAWN BY : J.R.B.
DRAFTSMAN : T.G.D.S.
DATE : Aug. '88
REVISIONS :
FILE No.

SCALE 1 : 25000 200 0 400 800 METRES

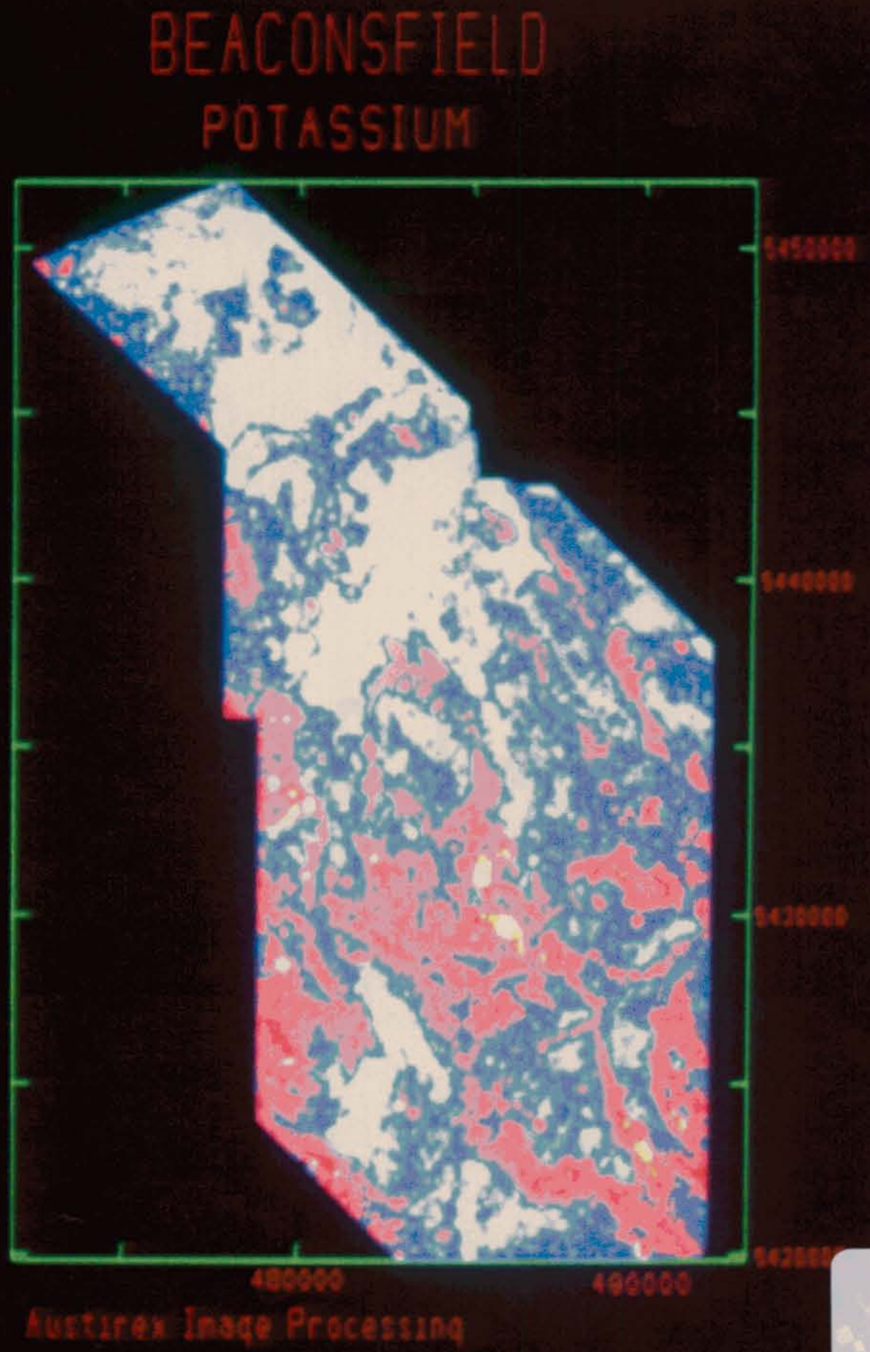
FIG. 10



BEACONSFIELD GOLD MINE

PROCESSED IMAGE:
TOTAL COUNT RADIOMETRICS

FIG. 11

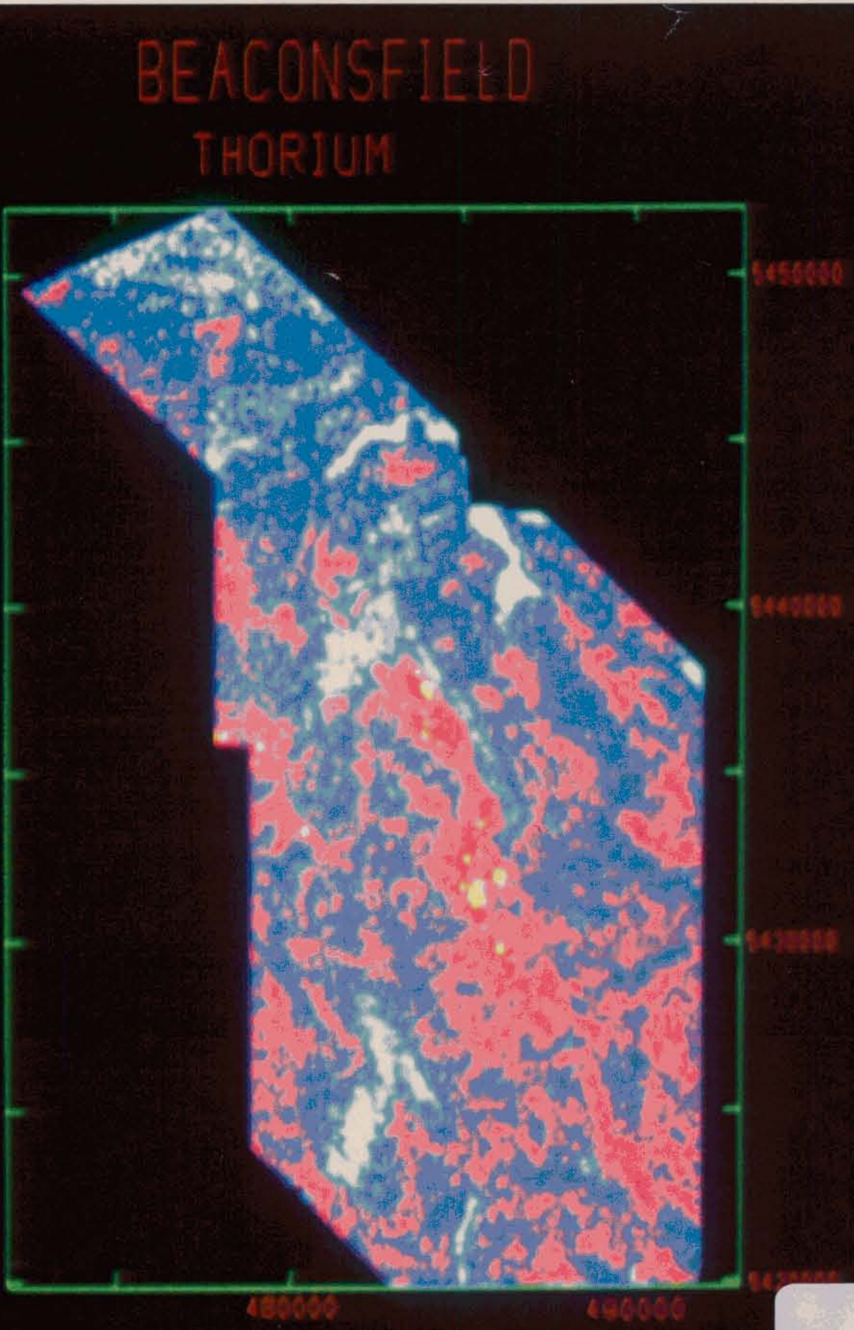


BEACONSFIELD GOLD MINE

PROCESSED IMAGE:
POTASSIUM RADIOMETRICS

FIG. 12

85



Austirex Image Processing

BEACONSFIELD GOLD MINE
PROCESSED IMAGE:
THORIUM RADIOMETRICS
FIG.13

595113

8825 595114

BGM/MG88/01

89-3011

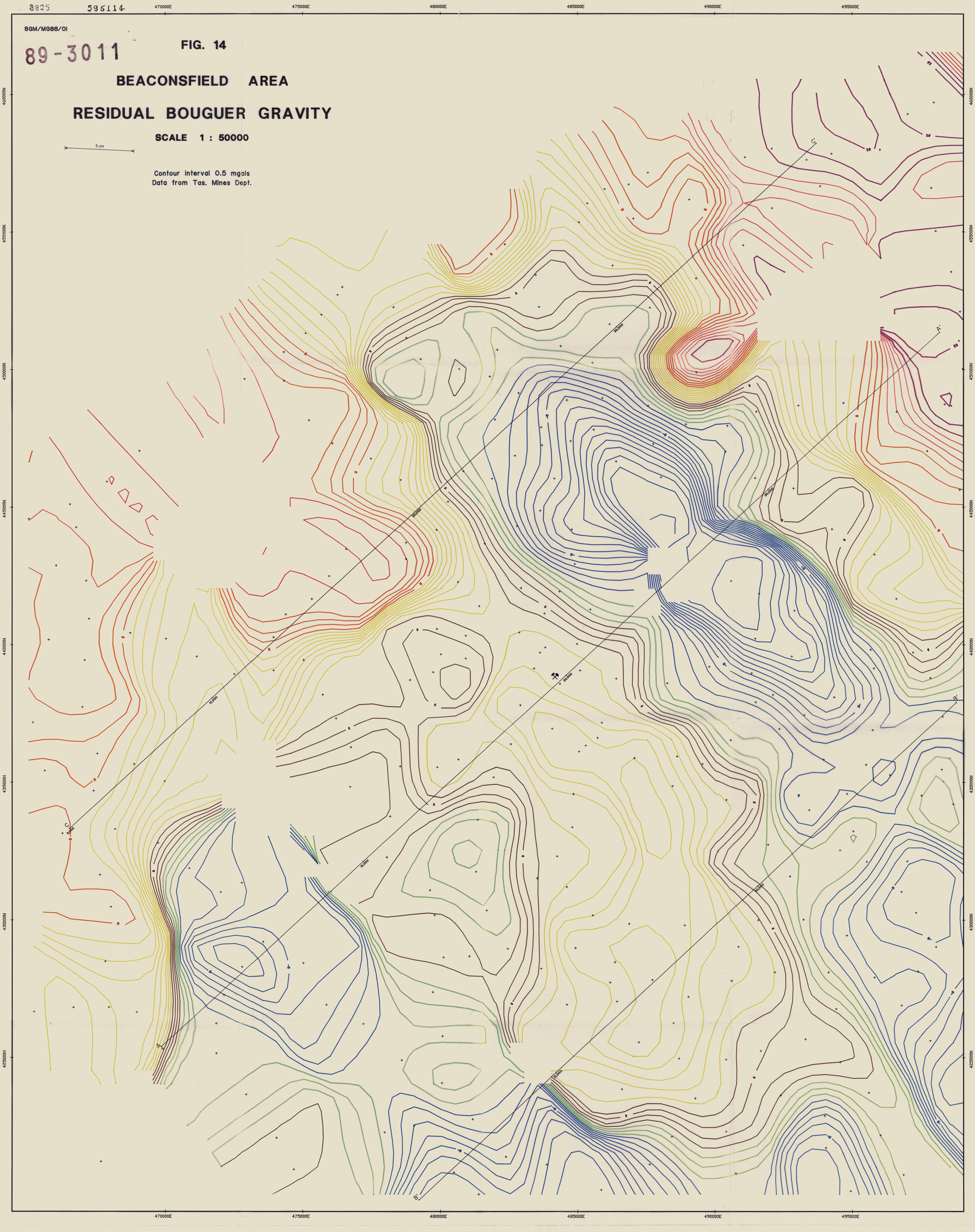
FIG. 14

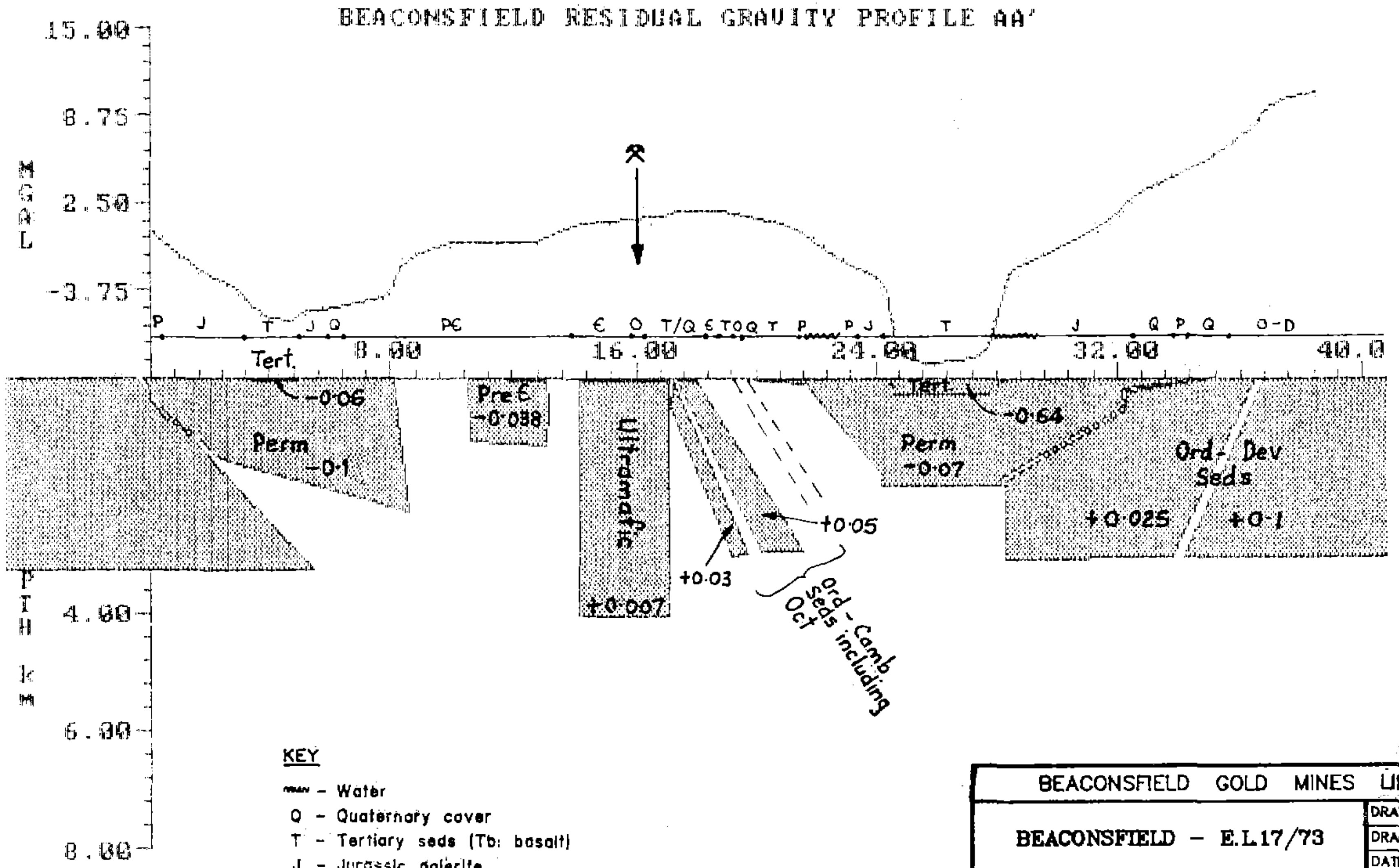
BEACONSFIELD AREA

RESIDUAL BOUGUER GRAVITY

SCALE 1 : 50000

Contour interval 0.5 mgals
Data from Tas. Mines Dept.





KEY

~ – Water
Q – Quaternary cover
T – Tertiary seds (Tb: basalt)
J – Jurassic dolerite
P – Permian seds
O-D – Ord - Dev. seds
O – Ord. seds
€ – Cambrian, including ultramafic
P€ – Pre Cambrian

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BEACONSFIELD GOLD MINES LIMITED

BEACONSFIELD – E.L.17/73

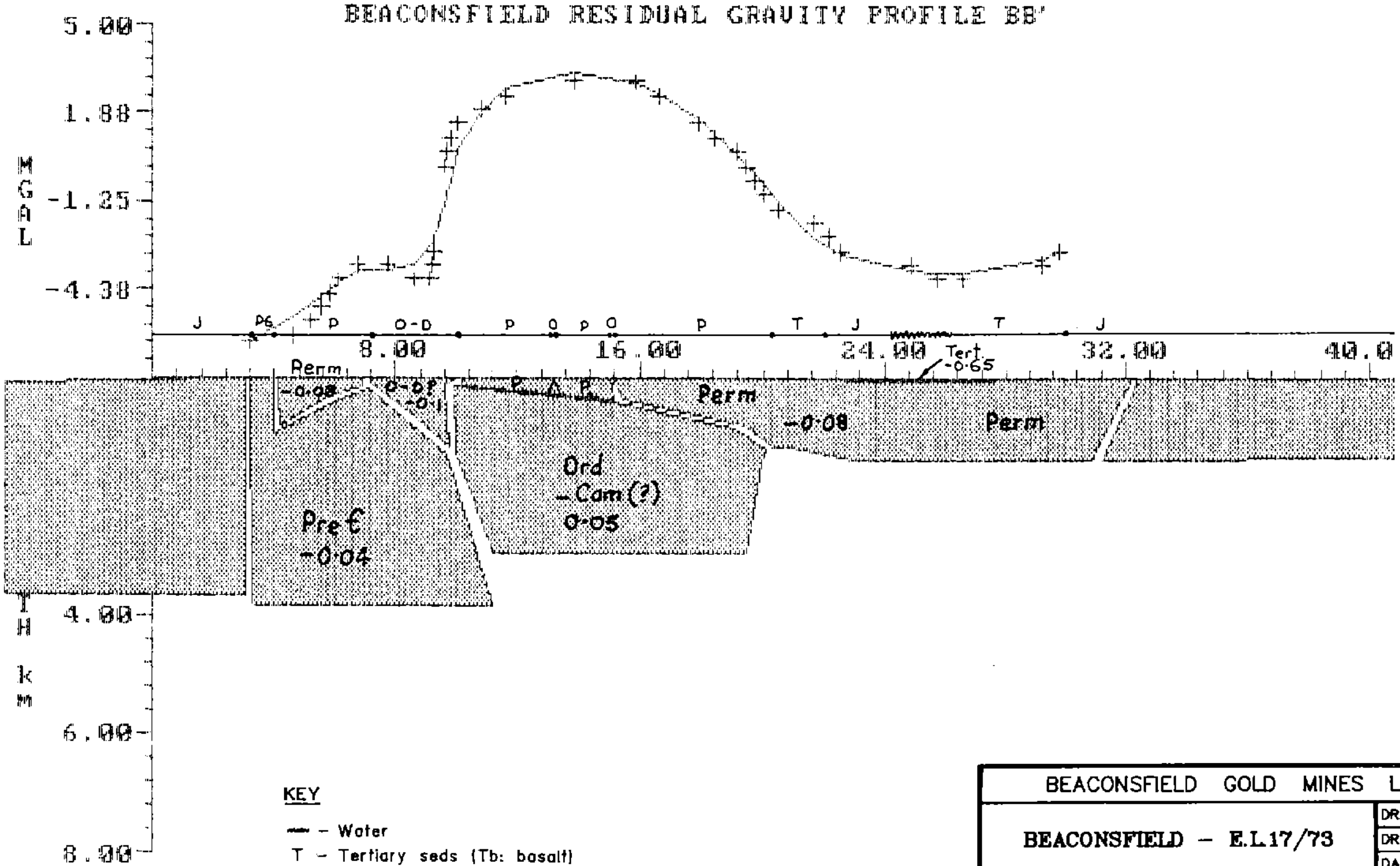
GRAVITY MODELLING
AA'

DRAWN BY : J.R.B.
DRAFTSMAN: T.G.D.S.
DATE : Aug.'88
REVISIONS :

FILE NO.

SCALE 1:
METRES

FIG. 15a



KEY

- ▬ - Water
- T - Tertiary seds (Tb: basalt)
- J - Jurassic dolerite
- P - Permian seds
- O-D - Ord - Dev. seds
- O - Ord. seds
- PЄ Pre Cambrian

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BEACONSFIELD – E.L.17/73

GRAVITY MODELLING
BB'

DRAWN BY : J.R.B.
DRAFTSMAN: T.G.D.S.
DATE : Aug.'88
REVISIONS :

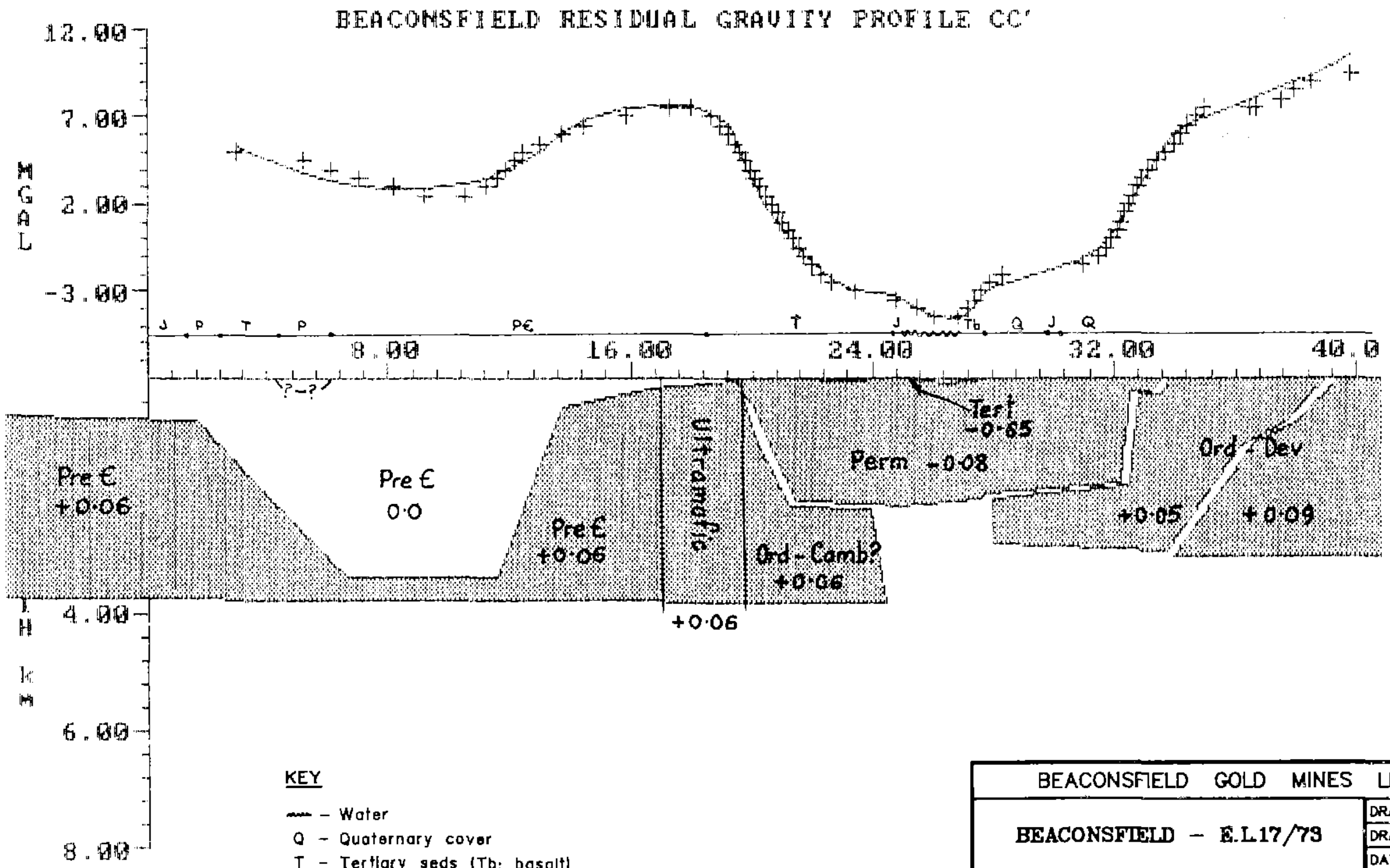
FILE NO.

SCALE 1:

METRES

FIG. 15b

595116



KEY

- Water
Q - Quaternary cover
T - Tertiary seds (Tb: basalt)
J - Jurassic dolerite
P - Permian seds
PЄ - Pre Cambrian

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BEACONSFIELD – E.L.17/73

GRAVITY MODELLING
CC'

DRAWN BY : J.R.B.
DRAFTSMAN: T.G.D.S.
DATE : Aug.'88
REVISIONS :

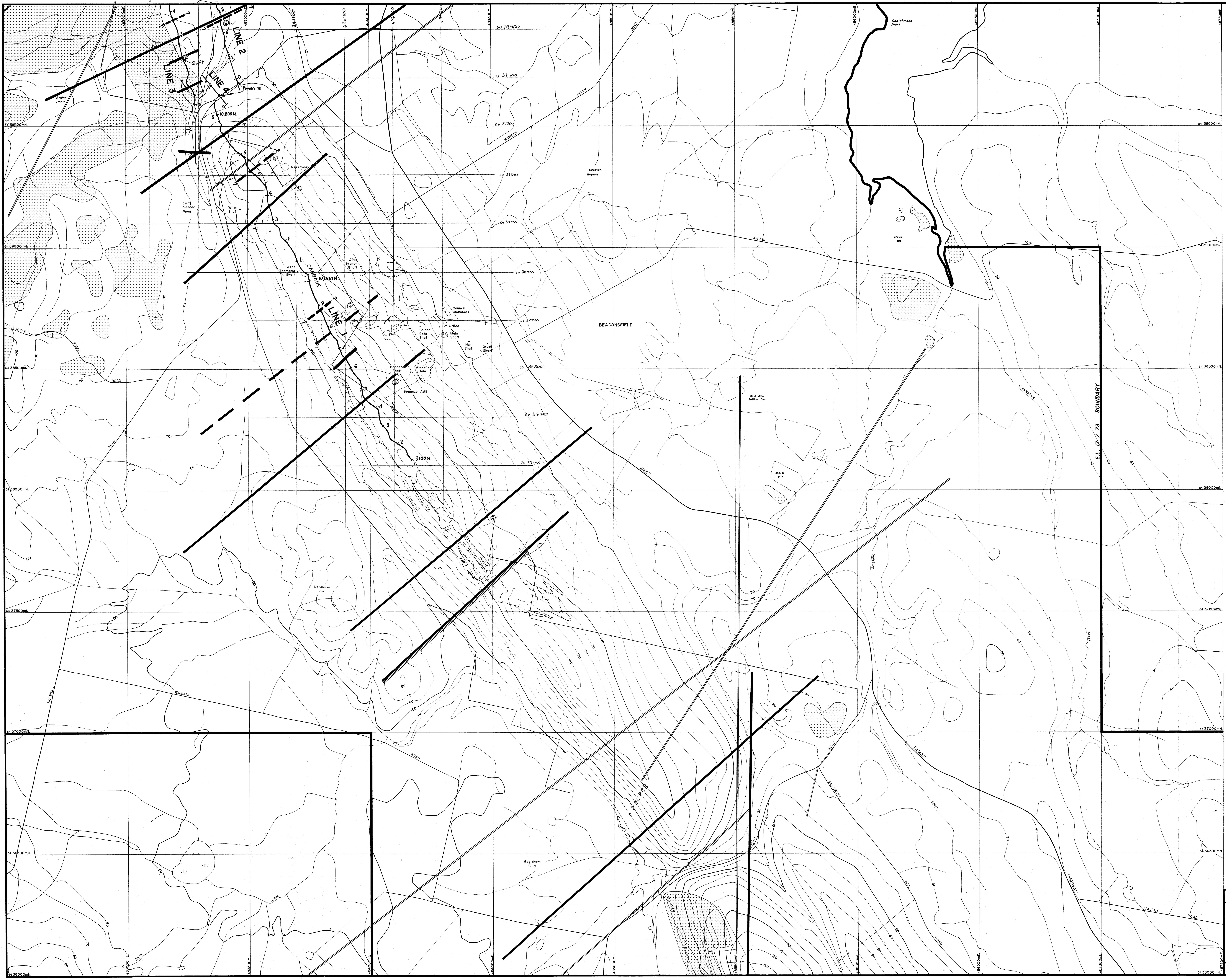
FILE NO

SCALE 1:

METRES

FIG. 15c

8826



LEGEND

═ MAGNETIC LINEAR FROM PROCESSED IMAGES (FIG.5)

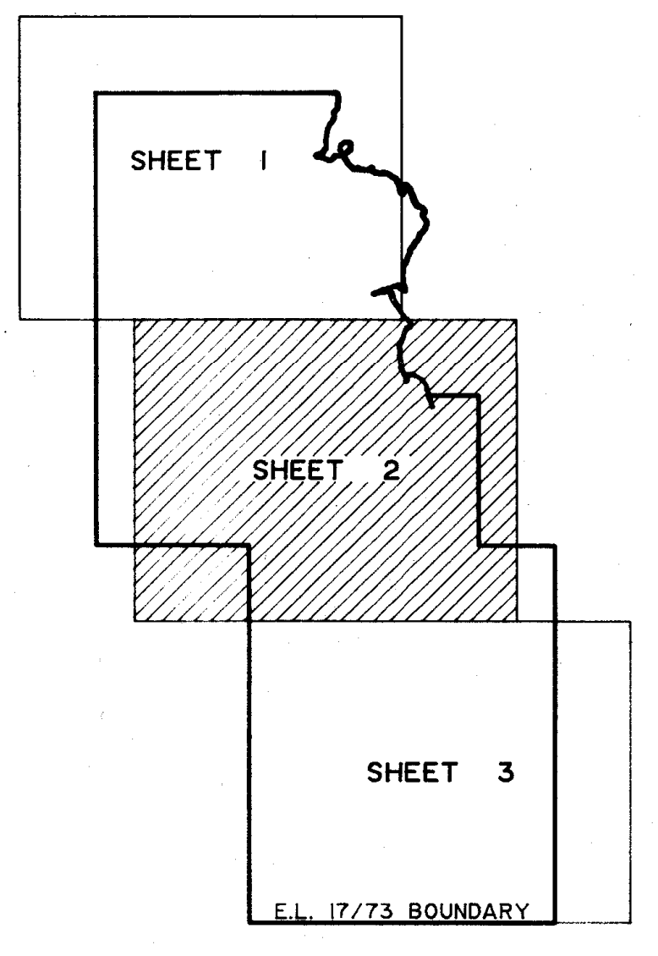
━ MAGNETIC LINEAR FROM FILTERED FLIGHT LINE PROFILES (FIG.9)

VLF TRAVERSE

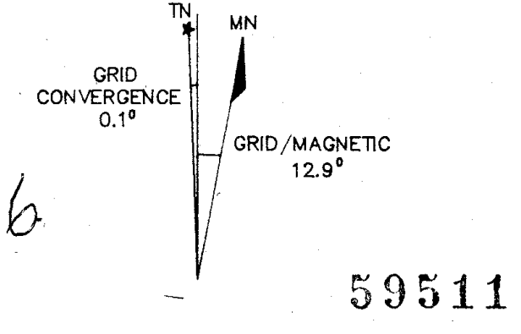
VLF ANOMALY

? Possible VLF Anomaly

SHEET LOCATION



5 cm



8826

595118

89-30111

BGM/MG88/01

BEACONSFIELD OPERATIONS PTY. LIMITED

BEACONSFIELD – E.L. 17/73

SHEET 2

MAGNETIC LINEARS & VLF TRAVERSES

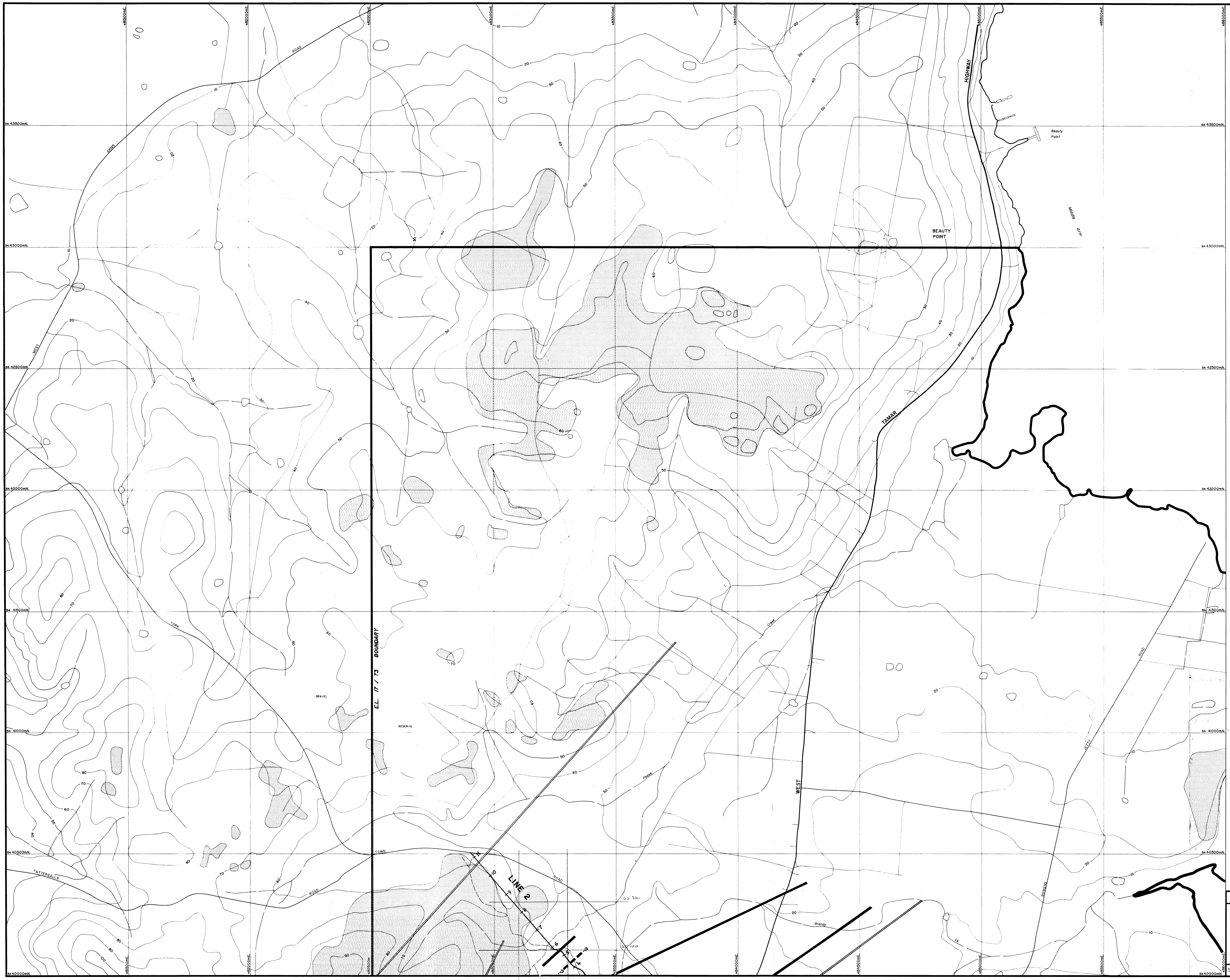
DRAWN BY : J.R.B.
DRAFTSMAN : T.G.D.S.
DATE : Aug. '88
REVISIONS :
FILE No.

SCALE 1 : 5000 100 0 100 200 METRES

FIG. 16a

N.W. Computer Aided Drafting Centre (Ph. 004 354315 Fax. 004 354495)

8827



LEGEND

MAGNETIC LINEAR FROM PROCESSED IMAGES (FIG.5)

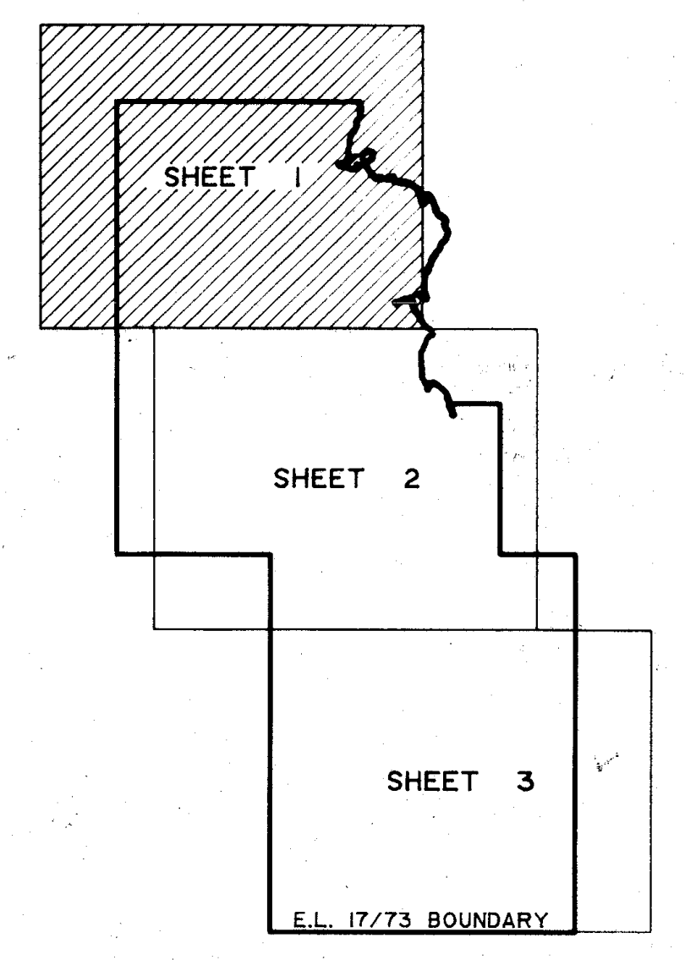
MAGNETIC LINEAR FROM FILTERED FLIGHT LINE PROFILES (FIG.9)

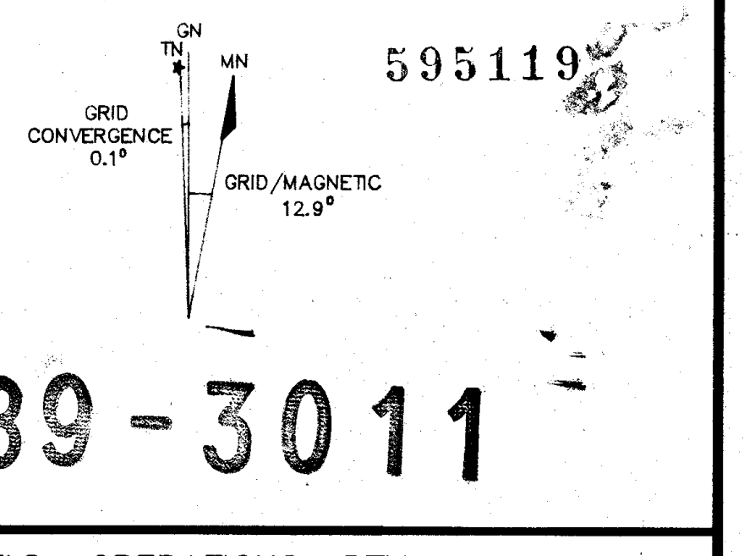
VLF TRAVERSE

VLF ANOMALY

Possible VLF Anomaly

SHEET LOCATION





8827

595119

89-3011

BGM/MG88/01

BEACONSFIELD OPERATIONS PTY. LIMITED

BEACONSFIELD – E.L. 17/73

SHEET 1

MAGNETIC LINEARS & VLF TRAVERSES

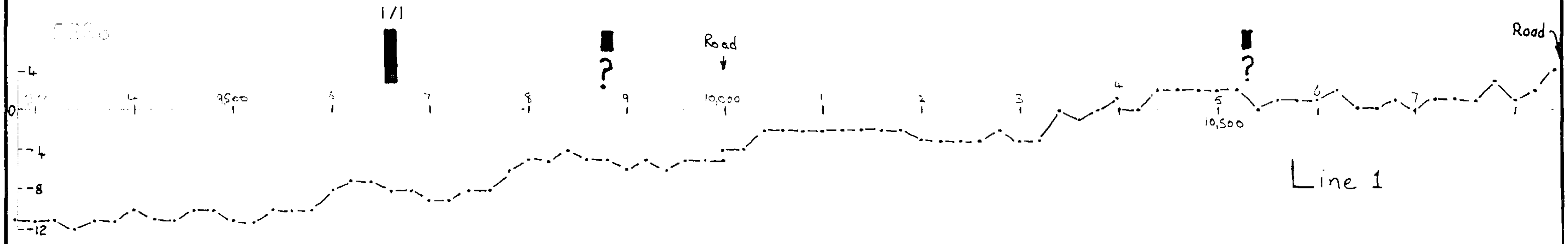
DRAWN BY : J.R.B.
DRAFTSMAN : T.G.D.S.
DATE : Aug. '88
REVISIONS :
FILE No.

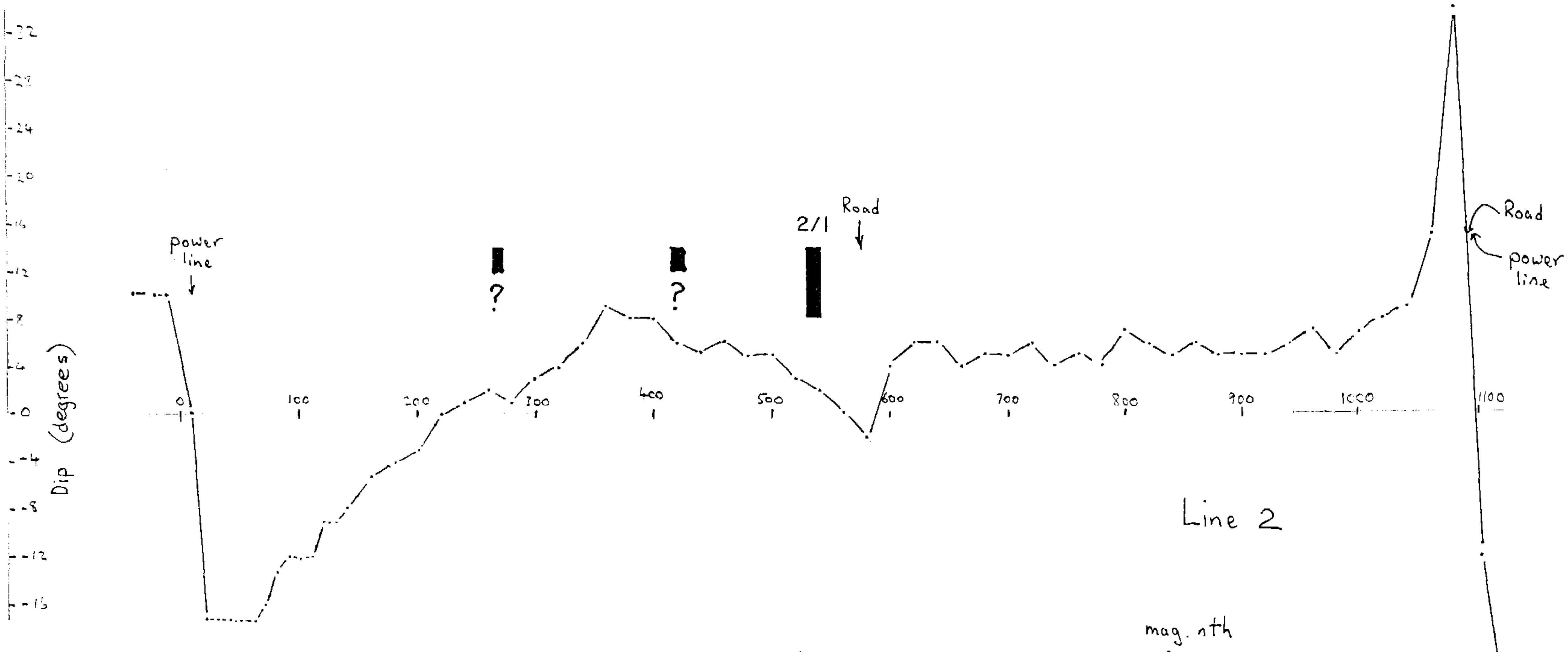
SCALE 1 : 5000

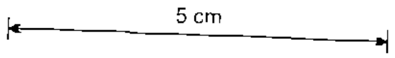
100 0 100 200 METRES

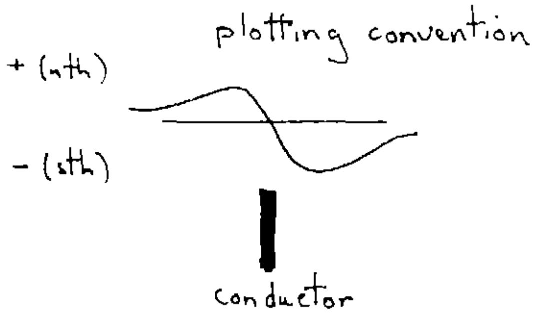
FIG. 16b

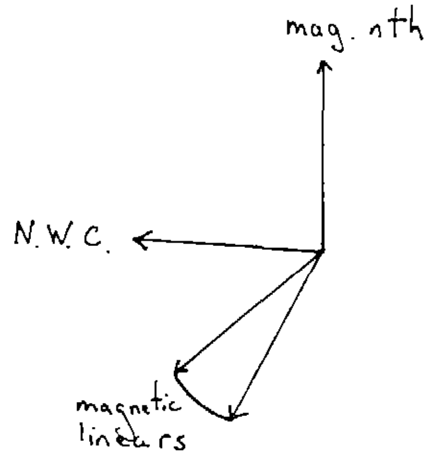
N.W. Computer Aided Drafting Centre (Ph. 004 354315 Fax. 004 354495)











BMG/MG88/01

BEACONSFIELD GOLD MINES LIMITED

BEACONSFIELD - E.L.17/73

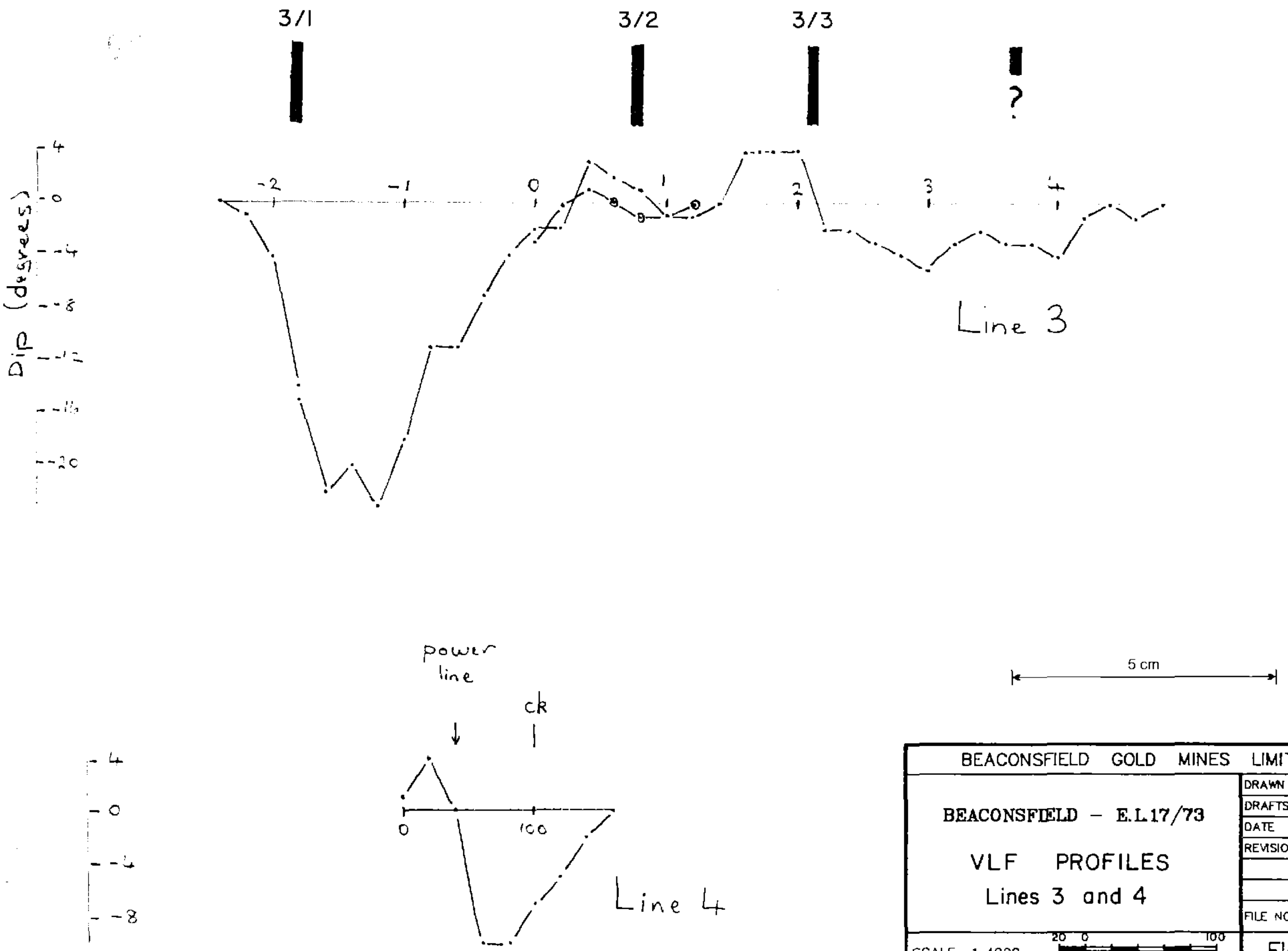
VLF PROFILES
Lines 1 and 2

DRAWN BY :	J.R.B.
DRAFTSMAN:	T.C.D.S.
DATE	: Aug. '88
REVISIONS :	
FILE NO.	

SCALE 1: 4000

20 0 100
METRES

FIG. 17a



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BEACONSFIELD GOLD MINES LIMITED

BEACONSFIELD – E.L.17/73

VLF PROFILES
Lines 3 and 4

DRAWN BY : J.R.B.
DRAFTSMAN: T.G.D.S.
DATE : Aug.'88
REVISIONS :
FILE NO.

SCALE 1: 4000 20 0 100 METRES

FIG. 17b

595121

APPENDIX 3

595123

GRID	SURVEY DATA (AMG)		
Depth	0		
Dip	60°		
Azimuth	330		

DRILL LOG

PROSPECT: BEACONSFIELD
LICENCE No.:
Hole No.: RC-1
Sheet No.: 1 OF 1 PLAN No.:
Date Drilled:
Driller: W.B
Geologist: D.S.

Total Depth: 36m
Elevation: 54.30
Datum:
Grid Ref.: 484 204.8 mE 38768.3 mN
Hole Size & Type:
Sampling Method:
Samples sent to: Date: NOV 1988
Spl. Des. Advice Sheet No.:

Drilling				Description
from	to	Au PPM	rec.	
0	3	0.65	1	Black Sandstone, phyllite, minor grey sandstone minor qtz & clay, v.v. fine sulphides (pyr) in black SS
3	5	0.47	2	Black Sast with v-v-minor sulphides, phyllite, minor grey sast minor qtz veinlets
5	7	0.19	3	Black Sast with vv-minor sulphides (pyr), phyllite, minor grey sast, v-minor qtz, Fe staining along fractured surfaces.
7	9	0.30	4	Light brown ferrogenous gritty clay, minor Black & grey (ferrog) sandstone
9	11	0.31	5	Light brown (powder) clay, minor grey sandstone v-minor qtz
11	13	1.14	6	Light brown (powder) clay, minor grey sandstone, minor gossanous material v-minor qtz, v-minor black sandstone
13	15	0.28	7	Light grey phyllite, grey/black sandstone, minor light brown clay
15	17	0.09	8	Light brown Sandstone, light grey phyllite minor light brown gritty clay
17	19	0.08	9	Light brown Sandstone, light grey phyllite minor light brown gritty clay
19	21	0.05	10	Grey Sandstone, v-minor grey phyllite, minor light brown gritty minor black sandstone with v-fine sulphides (pyrite)
21	23	0.13	11	Grey Sandstone with minor Fe oxide staining minor brown gritty clay, v-minor black sandstone
23	25	0.16	12	Grey Sandstone with minor Fe oxide staining, minor phyllite minor brown gritty clay
25	27	2.66	13	Grey Sandstone, minor light brown/grey clay, minor phyllite Abundant Fe oxides ie oxidised pyrite clusters, pyrite
27	29	0.21	14	Grey Sandstone, minor phyllite, minor black sandstone v-minor qtz, minor limonite
29	31	0.06	15	Grey Sandstone, Black Sandstone with very fine pyrite grey phyllite, v-minor qtz, pyrite nodules (v-minor)
31	33	0.03	16	Grey/Black Sandstone containing very fine sulphides (pyr) v-minor qtz veining containing pyrite
33	35	0.13	17	Black Sandstone containing pyrite, minor grey sandstone also contains numerous pyrite clusters
35	36	0.10	18	Grey Sandstone / Black sandstone minor, minor sulphide (pyr) clusters v-minor qtz veinlets containing dark sulphides

[illegible]

CLAY

GREY SANDSTONE

Au SAMPLE
[illegible]

~ SULPHIDE ZONE

595124

SURVEY DATA (AMG)			
Depth	0		
Dip	60°		
Azimuth	330°		

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. RC-2
Sheet No. 1 OF 1 PLAN No:
Date Drilled
Driller W.B.
Geologist D.S.

Total Depth 36m
Elevation 55.31
Datum
Grid Ref. 484 214.3 mE 38 750.0 m N
Hole Size & Type
Sampling Method
Samples sent to Date NOV 1988
Spl. Des. Advice Sheet No.

Drilling				Description
from	to	Au PPM	rec.	
0	3	0.17	1	Carbonaceous ferrogenous elluvial material ie silt, sand, pebbles
3	5	0.26	2	Carbonaceous ferrogenous elluvial material ie silt, sand, pebbles minor black coal, minor limonitic balls. (lateritic?)
5	7	6.64	3	Ferrogenous alluvial material ie silt, sand, pebbles + slightly ferrogenous clay
7	9	0.27	4	Fine light grey clay "powder" minor calcite?
9	11	0.23	5	Fine light grey clay powder + very minor sandstone (black) with limonitic alteration.
11	13	0.20	6	Fine grey clay "powder" with minor grey sandstone. clay color changing from grey to light brown.
13	15	1.56	7	Fine light brown clay powder, minor grey/black sandstone Limonitic nodules noted.
15	17	0.16	8	Grey sandstone + fine grey/green clay powder V-minor limonite.
17	19	0.26	9	Grey sandstone + fine grey/green clay powder V-minor limonite
19	21	0.25	10	V-fine light brown clay, Grey Sandstone (major constituent) V-minor limonite staining.
21	23	0.62	11	Grey Sandstone, minor light brown clay. V-minor qtz (vacant)
23	25	1.21	12	Grey Sandstone, orange (ferrogenous) clay, minor qtz + v-minor limonite staining
25	27	0.26	13	Grey Sandstone, orange (ferrogenous) Clay, minor qtz minor limonitic staining.
27	29	0.03	14	Grey Sandstone, orange brown Clay, minor qtz v-minor limonitic staining
29	31	0.05	15	Grey Sandstone, green/brown clay "powder" minor limonite staining, v-minor qtz
31	33	<0.03	16	Grey Sandstone, green/brown clay minor limonitic staining, v-minor qtz
33	35	<0.03	17	Black sandstone, Grey sandstone, minor green brown clay very fine sulphides (pyr) in Black SS
35	36	<0.03	18	Black Sandstone containing fine pyrite. minor Grey sandstone + v-minor brown clay

MINOR ZONE

Au SAMPLE
Nº

~ SULPHIDE ZONE

595125

SURVEY DATA (AMG)			
Depth	0		
Dip	60°		
Azimuth	330°		

DRILL LOG

PROSPECT BEACON FIELD
LICENCE No.
Hole No. RC-3
Sheet No. 1 OF 1 PLAN No:
Date Drilled
Driller W.B
Geologist D.S

Total Depth 36m
Elevation 55·41
Datum
Grid Ref. 484,223·7 E, 38,732·1 mN
Hole Size & Type
Sampling Method
Samples sent to Date NOV. 1988
Spl. Des. Advice Sheet No.

Drilling				Description
from	to	Au PPM	rec.	
1	3	0·10	1	Slightly ferrogenous clay, black sandstone, light brown/green Sust red Sust. "Elluvial material"
3	5	0·26	2	Slightly Ferrogenous clay, minor light brown sandstone, angular fragments ie qtz "Elluvial material"
5	7	<0·03	3	Ferrogenous clay, with abundant grit, silt, sand, v-minor sandstone, minor qtz
7	9	0·06	4	Light brown powder clay, minor sand/silt predominantly qtz grains, v-minor sandstone pebbles.
9	11	1·24	5	Light brown powder clay, minor sand/silt predominantly qtz grains v-minor sandstone pebbles.
11	13	0·06	6	Light brown powder clay, vv-minor sand + silt.
13	15	0·07	7	Light brown powder clay, becoming gritty sand + silt. minor grey sandstone
15	17	<0·03	8	Light brown/grey powder clay, sand silt, grey sandstone content increasing, v-minor iron oxide staining
17	19	<0·03	9	Grey clay powder + grey sandstone chip pieces upto 8mm
19	21	<0·03	10	Grey clay powder, grey sandstone chip pieces upto 10mm
21	23	<0·03	11	Grey Sandstone, with minor limonitic staining, light brown clay chip piece just over 10mm
23	25	0·03	12	Grey Sandstone with minor limonitic staining, minor light brown clay powder, chip pieces upto 1·5cm
25	27	<0·03	13	Grey Sandstone with v-minor limonitic staining, minor light brown/grey clay powder., v-minor qtz
27	29	<0·03	14	Grey/Brown Sandstone, v-minor Fe staining, minor light brown/grey clay powder.
29	31	<0·03	15	Grey/Brown sandstone, v-minor limonitic staining minor light brown clay powder.
31	33	0·22	16	Grey/Brown/Green Sandstone, minor Fe oxide staining, v-minor qtz v-minor light brown clay, minor light brown shale, v-minor pyrite
33	35	2·70	17	Black Sandstone, qtz veining prominent, abundant sulphide (pyrite) Strong Arsenic smell, sulphides fine + slightly pasty
35	36	0·33	18	Black Sandstone, very fine sulphides pyrite, limonitic staining minor qtz, some stockwork.
36	36·5			AA
36·5	37·0			VOID (OLD WORKINGS)
				NOTE 33-35m main ore body zone

Au SAMPLE
a/a N°

~ Sulphide Zone

SURVEY DATA	AMG		
Depth	0		
Dip	60°		
Azimuth	330°		

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. RC-4
Sheet No. 1 OF 1 PLAN No:
Date Drilled 19/10/88
Driller WAYNE
Geologist D.S

Total Depth 35m
Elevation 52·5m
Datum
Grid Ref. 484223·5 E 387729 N
Hole Size & Type
Sampling Method
Samples sent to Date NOV. 1988
Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t Ag g/t	
from	to	run	rec.			
0	3			Scree: Grey, Green, Black Ferrogenous Sandstone/Siltstone qtz with minor sulphides, gossenous material, limonitic Staining	1·07(1·1)(1·2) <5	1·07 1·26 1·28 1·46
3	5			Minor Scree (AA) → Black Sandstone, pyritic, qtz veinlets	0·26 <5	
5	7			Black Sandstone → Ferrogenous brown sandstone, minor limonitic staining.	0·18 <5	
7	9			Ferrogenous black & brown Sandstone, minor limonitic staining v-minor qtz, Ferrogenous silty clay, minor gossanous matter	0·10 <5	
9	11			Ferrogenous clay with sand & silt, minor black/brown sandstone v-minor qtz, gossanous material	0·14 <5	
11	13			Ferrogenous clay minor silt & sand.	0·09 <5	
13	15			Ferrogenous clay	0·15 <5	
15	17			Ferrogenous Clay, with abundant qtz, with limonitic staining, gossanous material, minor sst (brown/green/black)	3·45(4·4)(4·3) <5	4·3 4·54 2·78 4·82 4·7
17	19			Ferrogenous Clay, minor brown sandstone (contamination)	0·91 <5	
19	21			Ferrogenous Clay, Brown/Green Sst minor limonitic staining minor qtz, v-minor gossanous material	0·40 <5	
21	23			Brown Sandstone, minor phyllitic, v-minor qtz minor black pyritic sandstone	0·31(0·24)(0·29) 8	0·33 0·32 0·56 0·52
23	25			Black/grey sandstone abundant fine sulphides (pyr) minor qtz with dark sulphides.	1·03 52	
25	27			Light brown, Grey Sandstone, minor sulphides (pyrite) minor limonitic staining, minor qtz with sulphides	0·08 <5	
27	29			Light brown/Grey Sandstone, minor sulphides (pyrite) (Weathered) ferrogenous	0·07 27	
29	31			Ferrogenous grey sandstone, v-minor gossanous material, limonitic staining	<0·03 <5	
31	33			Ferrogenous Grey/Brown weathered sandstone, minor qtz, v-minor pyrite, minor gossanous material	0·11 <5	
33	35			Slightly Ferrogenous siltstone/sandstone (Grey) limonitic staining (minor), minor pyrite clusters	0·08 <5	

595127

SURVEY DATA (AMG)			
Depth	0		
Dip	60°		
Azimuth	330°		

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. OHH-5
Sheet No. 1 OF 1 PLAN No.
Date Drilled 21/10/88
Driller WAYNE
Geologist D.S.

Total Depth 12.5 m
Elevation 53.4 m
Datum
Grid Ref. 484 233 / mE 38 757 / mE
Hole Size & Type
Sampling Method
Samples sent to Date
Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t (Ag g/t)
from	to	run	rec.		
0	3			Ferogenous Clay (Sand Silt), minor gossanous material minor qtz, Black Slag	1.7 (1.7)
3	5			Ferogenous Clay, with qtz, minor sandstone minor conglomerate, minor black sulphides in qtz	0.06 (0.06)
5	7			Ferogenous Clay, with qtz, minor black Sast v-minor Grey Sast, v-minor Pyrite	17.6 (0.39)
7	9			Ferogenous Silt, weathered grey and black sandstone minor qtz	0.67 (0.19)
9	11			Ferogenous Clay, Ferogenous Black/brown Sandst vacant qtz, minor gossanous material	3.9 (1.3)
11	12.5			Void (Hit Old Workings)	

595128

	SURVEY DATA AMG		
Depth	0		
Dip	60°		
Azimuth	330°		

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. OHH-6
Sheet No. 1 OF 2 PLAN No.:
Date Drilled 21/10/88
Driller WAYNE
Geologist D.S.

Total Depth 53 m
Elevation 52.9 m
Datum
Grid Ref. 484 281·0 mE 38 741·4 mN
Hole Size & Type
Sampling Method
Samples sent to Date NOV. 1988
Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
0	3			Ferrogenous clay, v-minor sandstone, qtz, lateritic nodules.	0·07
3	5			Red Ferrogenous Clay, minor silt + sand.	0·03
5	7			Red Ferrogenous Clay, minor silt + sand.	0·07
7	9			Red Ferrogenous Clay, minor grey weathered Sdst + minor black sdst + qtz	0·77
9	11			Ferrogenous Clay, minor brown sandstone, v-minor qtz	0·07
11	13			Ferrogenous Clay, minor brown sandstone, v-minor qtz v-minor gossanous material.	0·14
13	15			Silty Ferrogenous clay, minor brown sandstone, minor qtz with v-minor Fe oxide staining, v-minor gossanous	2·2
15	17			Silty Ferrogenous Clay, v-minor brown sandstone	0·78
17	19			Ferrogenous silty clay powder, brown sandstone v-minor qtz, minor limonitic staining	0·05
19	21			Brown/Green Sandstone (moderately weathered), minor silty clay, v-minor limonitic staining	0·01
21	23			Silty Clay Powder, moderate brown/green weathered sandstone	0·01
23	25			Silty Clay Powder, moderate brown/green weathered sandstone	0·01
25	27			Slightly Ferrogenous Silty Clay Powder, Green/Brown sandstone, minor limonitic staining	0·01
27	29			Fine silt powder, minor sandstone (brown/red/green) limonitic staining, v-minor qtz	0·22
29	31			Brown/Green Sandstone, minor limonitic staining v-minor gossanous material	0·26
31	33			Dark Green Sandstone, moderate limonitic staining v-minor qtz	0·25
33	35			Dark green sandstone, minor limonitic staining v-minor gossanous material	0·16
35	37			Grey Sandstone, minor limonitic staining	1·9 (2·1)
37	39			Grey Sandstone, minor limonitic staining v-minor qtz	0·37
39	41			Grey Sandstone, minor black Sandstone with v-fine sulphides (pyrite), minor limonitic staining.	0·21
41	43			Grey Sdst, v-minor qtz, v-fine pyrite (minor)	0·27
43	45			Grey Sandstone, minor Black Sandstone — v-minor sulphides (pyrite)	0·10

595129

SURVEY DATA			
Depth			
Dip			
Azimuth			

DRILL LOG

PROSPECT

LICENCE No. OHH-6

Hole No.

Sheet No. PLAN No :

Date Drilled

Driller

Geologist

Total Depth

Elevation

Datum

Grid Ref.

Hole Size & Type

Sampling Method

Samples sent to Date

Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
45	47			Grey Sandstone, v-minor pyrite	0·03
47	49			Grey Sandstone	NA
49	51			Grey Sandstone	NA
51	53			Grey Sandstone	NA

595130

SURVEY DATA		AMG	
Depth	0		
Dip	60°		
Azimuth	330°		

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. OHH-7
Sheet No. 1 OF 1 PLAN No.:
Date Drilled 24/10/88
Driller WAYNE
Geologist D.S.

Total Depth 10 m
Elevation 53.4 m
Datum
Grid Ref. 484 234.4 m E 38 754.5 m N
Hole Size & Type
Sampling Method
Samples sent to Date NOV 1988
Spl. Des. Advice Sheet No.

Drilling				Description	
from	to	run	rec.		
0	3			Ferrogenous Clay, minor ferrogenous sandstone, minor qtz ash, 0-0.5m Red Clay Bricks.	N A
3	5			Ferrogenous Clay, minor sandstone with limonitic staining, minor qtz	N A
5	7			Ferrogenous silty (gritty) Clay, minor sandstone & qtz with v-minor Fe oxide staining.	N A
7	9			Ferrogenous gritty clay, v-minor sandstone, moderate qtz, minor limonitic material	N A
9	10			Void	
10				Fine grained ferrogenous sandstone & qtz plus charcoal.	

595131

DRILL LOG

SURVEY DATA			AMG
Depth	0		
Dip	60°		
Azimuth	330°		

PROSPECT BEACONSFIELD

LICENCE No.

Hole No. OHH - 8

Sheet No. 1 OF 1 PLAN No.:

Date Drilled 25/10/88

Driller Wayne

Geologist D.M.S.

Total Depth 12·5m

Elevation 53.4m

Datum

Grid Ref 484235·7mE 38752·1 mN

Hole Size & Type

Sampling Method

Samples sent to Date NOV 1988

Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
0	3			Ferrogenous Clay, minor Ferrogenous Sandstone minor qtz partially limonitic	NA
3	5			Highly Ferroganous Clay, minor Sandstone (limonitic staining)	NA
5	7			Ferrogenous Clay with abundant (vacant) qtz, minor sandstone (grey)	NA
7	9			Conglomerate (Acidic) Black/White, minor sandstone with limonitic staining, minor qtz	NA
9	12·5			Void	
12·5				Highly weathered (ferrogenous) sandstone, slightly wet.	

SURVEY DATA AMG			
Depth	0		
Dip	60°		
Azimuth	330°		

DRILL LOG

PROSPECT BEACONSFIELD

LICENCE No.

Hole No. OHH-9

Sheet No. 1 OF 2 PLAN No :

Date Drilled 26/10/88

Driller WAYNE

Geologist D.S.

Total Depth 47m

Elevation 55·3m

Datum

Grid Ref. 484 225·2 mE 38724·1 mN

Hole Size & Type

Sampling Method

Samples sent to Date NOV 1988

Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
0	3			Red Ferrogenous Clay, with qtz, Ferrogenous Sandstone v-minor lateritic material, v-fine dark suphides.	NA
3	5			Red Ferrogenous Clay, minor qtz, Ferrogenous Sandstone v-fine dark sulphides.	NA
5	7			Light brown/red slightly ferrogenous clay (pasty) minor qtz with v-fine black su	NA
7	9			Light brown (slightly ferrogenous) clay, v-minor sand (qtz + sandstone)	NA
9	11			Light brown (slightly ferrogenous) clay v-minor sand. (qtz + sandstone)	NA
11	13			Light brown (slightly ferrogenous) clay, v-minor sandstone "highly weathered" slightly ferrogenous	NA
13	15			Light brown (slightly ferrogenous) powder clay, minor grey sandstone, with limonitic staining.	NA
15	17			Light brown grey clay powder, moderate grey sandstone with minor limonitic staining	NA
17	19			Grey Sandstone, moderate limonitic staining v-minor light brown silty clay.	NA
19	21			Grey Sandstone, v-minor limonitic staining v-minor clay (weathered sast)	NA
21	23			Grey Sandstone, moderate limonitic staining v-minor light brown silty clay.	NA
23	25			Grey Sandstone, moderate limonitic staining v-minor light brown	NA
25	27			Grey Sandstone, minor limonitic staining	NA
27	29			Grey Sandstone, minor-moderate limonitic staining.	NA
29	31			Grey Sandstone, v-minor phyllite, moderate limonitic staining.	NA
31	33			Grey Sandstone, minor phyllite, limonitic staining.	NA
33	35			Grey Sandstone, minor phyllite, limonitic staining.	NA
35	37			Green/Grey Sandstone, prominant limonitic staining	0·17
37	39			Ferrogenous Black Sandstone, limonitic staining minor qtz + gossanous material + minor brown sast.	1·04
39	41			Ferrogenous Black Sandstone, abundant limonitic staining, minor qtz + gossanous material (moderate)	0·35 (0·29)(0·33)
41	43			Ferrogenous phyllitic Green/Grey/brown/black sandstone minor qtz, gossanous material, arsenic smell *	0·18
43	45			Grey Sandstone (Ferrogenous), gossanous material minor phyllitic sandstone	0·09

595133

SURVEY DATA			
Depth			
Dip			
Azimuth			

DRILL LOG

PROSPECT
LICENCE No
Hole No. OMH-9
Sheet No. 2 OF 2 PLAN No.
Date Drilled
Driller
Geologist

Total Depth
Elevation
Datum
Grid Ref.
Hole Size & Type
Sampling Method
Samples sent to Date
Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
45	47			Ferrogonous Sandstone → Black/Grey Sandstone with limonitic staining.	0·05
				* 41 – 41·5 HIT SEMI-VOID AREA	
				ie Hammer hit 3 times.	
				LOST return for a short while	
				(air come up RC-3).	
				Was able to get sample	
				return after that short period.	

SURVEY DATA (AMG)			
Depth	0		
Dip	60°		
Azimuth	330°		

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. OHH-10
Sheet No. 1 OF 1 PLAN No :
Date Drilled 27/10/88
Driller WAYNE
Geologist D.S.

Total Depth 37m
Elevation 64.1
Datum
Grid Ref. 484 195.9 mE 38 692.1 mN
Hole Size & Type
Sampling Method
Samples sent to Date NOV 1988
Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
0	3			Ferrogenous clay, minor Ferrogenous sandstone v-minor qtz	0·07
3	5			Light brown powder clay, minor sandstone (grey) with minor Limonitic staining	<0·01
5	7			Light brown powder clay. → very light grey (bleached) powder clay + minor grey sandstone	0·01
7	9			Light Grey / Brown Powder Clay, minor sandstone, v-minor Fe staining.	0·32
9	11			Light Grey Brown Powder Clay, minor qtz v-minor Fe Staining.	0·32
11	13			Qtz (Buck) + Grey/Brown Powder clay, minor silicous sandstone, v-minor sulphides.	0·08
13	15			Light Grey Powder Clay, with v-minor qtz.	0·15
15	17			Light brown slightly Ferrogenous clay powder minor grey sandstone, with Limonitic staining.	0·07
17	19			Ferrogenous Sandstone, Limonitic staining, minor grey/brown clay powder, v-minor qtz	0·07
19	21			Ferrogenous Sandstone, v-minor gossanous material	0·15
21	23			Highly Ferrogenous sandstone, minor gossanous material v-minor qtz (vacant)	0·08
23	25			Moderately Ferrog Sandstone, minor gossanous material, v-minor qtz	0·28
25	27			Grey/Black Sandstone, Limonitic staining on exterior surfaces	0·13
27	29			Grey/Green Sandstone, Limonitic staining. minor qtz	0·29
29	31			Black Sandstone with Limonitic staining, minor-moderate qtz with Fe oxide, minor gossanous material	0·53
31	33			Black Sandstone Limonitic staining, minor gossanous material 40% qtz with Fe oxides.	0·41
33	35			Black Sandstone, Limonitic staining (surfacial) minor qtz, slightly Ferrogenous	0·25
35	37			Black sandstone, surfacial Limonitic staining v-minor qtz vacant.	0·06

595135

SURVEY DATA (AMG)			
Depth	0		
Dip	60°		
Azimuth	355°		

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. RC-11
Sheet No. 1 of 2 PLAN No.:
Date Drilled
Driller W.B.
Geologist D.S.

Total Depth 50.3m
Elevation 99.7
Datum
Grid Ref. 483 493.7 mE 38 650.2 mN
Hole Size & Type

Sampling Method
Samples sent to Date NOV 1988
Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
0	3			Elluvial material; Quartz generally vacant, however some chips with blue fringes. minor weathered sandstone (Sandy)	0.03
3	6			Weathered light grey sandstone (bleached & powdery) v-minor qtz	<0.01
6	8			Qtz with minor blue fringe? and dark brown Sandstone (Ferrogenous)	<0.01
8	10			Light grey sandstone, v-minor dark brown ferrogenous sandstone.	<0.01
10	12			Grey Sandstone, plus v-v-minor vacant qtz.	<0.01
12	14			Grey Sandstone with v-minor limonitic staining, v-minor vacant qtz.	<0.01
14	16			Grey Sandstone. v-minor surface (limonitic) staining	<0.01
16	18			Grey Sandstone with minor qtz (vacant except for blue/black fringes)	<0.01
18	20			Light to dark grey sandstone.	<0.01
20	22			Grey Sandstone + very minor vacant qtz.	0.06
22	24			Grey Sandstone, v-v-minor qtz.	0.05
24	26			Grey Sandstone, v-v-minor limonitic staining and quartz	0.05
26	28			Grey Sandstone, v-v-minor limonitic staining and qtz	0.07
28	30			Grey Sandstone, minor qtz. minor-moderate limonitic staining	0.12
30	32			Grey Sandstone (speckled, Black, White, Grey). v.v-minor qtz, v-v-minor dark brown staining.	0.07
32	34			Qtz with blue/black partial discolorization (v-fine) v-minor sandstone, with dark brown (Fe) discolorization	0.06
34	36			Qtz, predominantly vacant except for the odd blue/black discolorization. Blue/Black fine Sast, minor grey sast, minor Fe staining	0.03
36	38			Quartz with minor ultra fine sulphides. (pyr) Black/Grey sandstone (silicious)	0.03
38	40			Grey/Black Sandstone, minor qtz with slight blue/black fringe.	0.02
40	42			Grey Sandstone, minor Black Sandstone, minor vacant qtz.	0.03
42	44			Grey-Black Fine Sast (55%), vacant qtz (45%)	0.05
44	46			Quartz (vacant) + minor silicified Sandstone, moderate dark brown staining, minor dark blue/black ultrafine sulphides.	0.12

SURVEY DATA			
Depth			
Dip			
Azimuth			

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. RC-11
Sheet No 2 of 2 PLAN No :
Date Drilled
Driller W.B.
Geologist D.S.

Total Depth 50·3
Elevation
Datum
Grid Ref
Hole Size & Type

Sampling Method
Samples sent to Date
Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
46	48			Silicified Sandstone, Qtz veinlets, strong dark brown discolorization (Ankeritic?)	0·09 (0·10)
48	50			Silicified Sandstone, Qtz veinlets, strong dark brown discolorization.	0·15 (0·2)
50	50·3			Silicified Sandstone. Qtz veinlets, strong dark brown discolorization	
50·3	53·0			VOID : OLD WORKINGS. (CIRCULATION LOSS)	

595137

SURVEY DATA	AMG		
Depth	0		
Dip	60°		
Azimuth	330°		

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. RC-12
Sheet No. 1 OF 1 PLAN No:
Date Drilled
Driller W.B.
Geologist D.S

Total Depth 30m
Elevation 88.8m
Datum
Grid Ref. 484 095.3 mE 38626.4 mN
Hole Size & Type
Sampling Method
Samples sent to Date NOV 1988
Spl. Des. Advice Sheet No.

Drilling				Description	Au	Ag
from	to	run	rec.			
0	3			Grey Sandstone, v-minor surficial limonitic staining minor light brown/grey clay (slightly ferruginous)	0·22	<5
3	6			Grey Sandstone, minor brown/black sdst, v-minor surficial limonitic staining, v-minor slightly ferruginous clay (light brown)	2·4	<5
6	8			Grey Sandstone, v-minor surficial limonitic staining v-minor grey clay + ferruginous brown clay.	0·4	<5
8	10			Grey Sandstone, v-minor limonitic staining, minor bucky vacant qtz. v-minor grey clay	0·03	<5
10	12			Grey Sandstone, v-minor limonitic staining, v-minor vacant qtz, v-minor grey clay	0·05	<5
12	14			Grey Sandstone, very minor limonitic staining	0·42	<5
14	16			Grey Sandstone, v-minor limonitic staining v-minor slightly ferruginous clay.	0·34	<5
16	18			Grey Sandstone, v-minor limonitic staining	1·1	<5
18	20			Grey (moderately dark) Sandstone, minor vacant qtz	0·68	<5
20	22			Grey Sandstone, v-v-minor Fe oxide staining	0·29	<5
22	24			Grey Sandstone, v-minor slightly ferruginous clay v-minor gossanous material.	0·14	<5
24	26			Grey/Black Sandstone, v-minor surficial limonitic staining	0·11	<5
26	28			Grey Sandstone, minor Black sandstone, v-minor limonitic staining, v-minor qtz veinlet through sdst.	0·10	<5
28	30			Black Sandstone, minor grey sdst, v-minor Fe staining minor qtz with v-minor v-fine dark sulphides?	0·33	<5
30	31·2			AA + TIMBER SPLINTERS		
31·2	32·8			HIT OLD WORKINGS.		

SURVEY DATA			
Depth	0		
Dip	60°		
Azimuth	330°		

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. RC-13
Sheet No. 1 OF 1 PLAN No:
Date Drilled
Driller W.B.
Geologist D.S

Total Depth 26m
Elevation 82·3m
Datum
Grid Ref 484 122·2 m E 38647·4 m N
Hole Size & Type
Sampling Method
Samples sent to Date NOV 1988
Spl. Des. Advice Sheet No.

Drilling				Description	Au	Ag
from	to	run	rec.			
0	3			Grey, light brown, minor red sandstone minor ferrogenous clay/soil, minor qtz	<0·01	<5
3	6			Grey Sandstone, minor orange, red staining (Fe,) minor slightly ferrogenous light brown clay.	<0·01	<5
6	8			Grey Sandstone, minor black sandstone, minor limonitic and hematite(degraded) staining.	<0·01	<5
8	10			Grey Sandstone, v-v-minor Fe staining	<0·01	<5
10	12			Grey Sandstone, v-v-minor Fe staining	<0·01	<5
12	14			Grey Sandstone, v-v-minor Fe staining v-minor surficial grey clay.	<0·01	<5
14	16			Grey Sandstone, v-v-minor Fe staining v-minor surficial grey clay	<0·01	<5
16	18			Grey Sandstone, minor black sast, v-minor surficial clay minor qtz (5%) vacant	0·33	<5
18	20			Grey Sandstone, minor black sast, v-minor surficial clay minor qtz 5% containing v-fine dark sulphides?	0·26	<5
20	22			Grey Sandstone, minor surficial Fe staining v-minor qtz 1%	0·32	<5
22	24			Grey Sandstone, minor black sast, v-minor light brown sast v-minor vacant qtz	0·47	<5
24	26			Grey Sandstone, minor black sandstone (slightly phyllitic) minor qtz containing v-dark fine sulphides? (Fine material)	1·0	<5
26						
				HIT OLD WORKINGS.		

595139

SURVEY DATA			
Depth	0		
Dip	60°		
Azimuth	175°		

DRILL LOG

Total Depth 54m
Elevation 95·8
Datum
Grid Ref. 483995·7mE 38711·9mN
Hole Size & Type

Sampling Method
Samples sent to Date
Spl. Des. Advice Sheet No.

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. RC - 14
Sheet No. 1 of 2 PLAN No :
Date Drilled
Driller W.B.
Geologist D.S.

Drilling				Description	Au	Ag
from	to	run	rec.			
0	3			Ferrogenous clay, v-minor weathered grey sandstone, minor ferrogenous sandstone (brittle), minor vacant qtz	0·03	<5
3	6			Minor ferrogunous clay → light grey weathered sist/sast minor vacant qtz	<0·01	<5
6	8			Light-moderate grey sandstone, v-minor surficial limo staining v-minor vacant qtz	0·01	<5
8	10			Grey Sandstone, v-minor vacant qtz.	0·04	<5
10	12			Grey Sandstone, v-minor vacant qtz	0·05	<5
12	14			Grey Sandstone, minor qtz (black fringe)	0·04	<5
14	16			Grey Sandstone, minor qtz (black fringe)	0·07	<5
16	18			Grey Sandstone, v-minor qtz	0·06	<5
18	20			Grey Sandstone, v-minor vacant qtz	0·04	<5
20	22			Grey Sandstone, v-minor vacant qtz	0·05	<5
22	24			Grey/Brown sandstone, v-minor vacant qtz.	0·07	<5
24	26			Grey Sandstone, v-minor qtz (black fringe)	0·04	8
26	28			Grey Sandstone, minor dark brown sast (Ankeritic?)	0·07	8
28	30			Grey Sandstone with v-v-minor dark brown discolorization	0·07	8
30	32			Grey Sandstone with minor dark brown discolorization. (surficial)	0·07	<5
32	34			Grey Sandstone with minor surficial dark brown discolorization	0·05	<5
34	36			Grey Sandstone, minor qtz. minor dark brown discolorization.	0·11	<5
36	38			Grey/Black Sandstone, with minor vacant qtz	0·20	<5
38	40			Quartz (Buck) with brown surficial discolorization minor brown sandstone, v-v-fine dark sulphides?	0·17	<5
40	42			Quartz & Highly silicified sandstone Dark brown discolorization (Ankerite?)	0·18	<5
42	44			Grey Sandstone & Brown Sandstone, v-minor qtz fine cutting size (zone broken up)	0·15	<5
44	46			Quartz & minor highly silicified sandstone, minor brown sast, moderate brown discolorization (Ankerite?)	0·12	<5

595140

SURVEY DATA			
Depth			
Dip			
Azimuth			

DRILL LOG

PROSPECT BEACONSFIELD

LICENCE No.

Hole No. RC-14

Sheet No 2 of 2 PLAN No :

Date Drilled

Driller W.B.

Geologist D.S

Total Depth 54 m

Elevation

Datum

Grid Ref.

Hole Size & Type

Sampling Method

Samples sent to Date

Spl. Des. Advice Sheet No.

Drilling				Description	Au	Ag
from	to	run	rec.			
46	48			Qtz + Highly silicified sandstone, containg minor fine Dark brown surficial discoloration (Strong) sulphides (pyr)	0·07	<5
48	50			Qtz, moderately silicified sandstone, dark brown surficial discolorization	0·21	21
50	52			Qtz with minor brown staining minor sandstone (brown/dark grey color).	0·19	8
52	54			Quartz + Grey/Black Sandstone, v-minor brown staining.	0·22	<5

595141

SURVEY DATA	AMG		
Depth	0		
Dip	60°		
Azimuth	155		

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. RC-15
Sheet No. 1 OF 2 PLAN No :
Date Drilled
Driller W.B.
Geologist D.S

Total Depth 50m
Elevation 78.5
Datum
Grid Ref. 484 100.8 mE 38655.5 mN
Hole Size & Type
Sampling Method
Samples sent to Date NOV 1988
Spl. Des. Advice Sheet No.

Drilling				Description	Au	Ag
from	to	run	rec.			
0	3			light grey + light brown sandstone, v-minor ferruginous (dark brown) sast, light brown/grey clay, minor vacant qtz.	0.07	<5
3	6			Grey Sandstone, v-minor surficial limonitic staining minor light brown/grey clay, v-minor vacant qtz.	0.06	<5
6	8			Grey Sandstone, v-minor surficial limonitic staining minor grey clay.	0.05	<5
8	10			Grey (light-dark) Sandstone, v-minor surficial limonitic staining	0.04	<5
10	12			Light Grey Sandstone, v-minor surficial limo staining	0.05	<5
12	14			Grey Sandstone, with surficial limonitic staining (light brown + red)	0.05	<5
14	16			Grey Sandstone + minor red + light brown stained sast minor light brown silty clay.	0.06	<5
16	18			Grey Sandstone + minor Black sast, surficial limo staining	0.16	<5
18	20			Grey Sandstone + minor Black Sast (small chips) surficial limonitic staining	0.06	<5
20	22			Black/Blue Sandstone, minor grey sast, surficial limonitic staining, v-minor vacant qtz.	0.04	<5
22	24			Black/Blue Sandstone, minor grey sast surficial limonitic staining.	0.01	<5
24	26			Black/Blue Sandstone, minor grey sast surficial limonitic staining.	<0.01	<5
26	28			Black/Blue Sandstone, minor light grey sandstone surficial limonitic staining.	<0.01	<5
28	30			Grey Sandstone, minor Black Sast, surfical limo staining	0.01	<5
30	32			Dark Grey Sandstone, dark red/brown surface staining. v-v-minor vacant qtz	<0.01	<5
32	34			Grey Sandstone + Light-moderate (slightly to moderately ferrug) Brown Sandstone. (rounded cuttings)	0.02	<5
34	36			Light grey + Dark grey/blue sast (rounded cuttings) v-minor surficial Fe staining.	0.01	<5
36	38			Grey/Blue/Black Sandstone, minor surficial limo staining. (rounded cuttings)	0.03	<5
38	40			Grey/Blue/Black Sandstone, minor surficial limo staining. (rounded cuttings)	0.04	<5
40	42			Light Grey Sandstone, minor blue/black sandstone v-v-minor Fe staining. (rounded cuttings)	0.04	<5
42	44			Light Grey Sandstone, minor surficial limonitic staining.	0.04	<5
44	46			Light Grey Sandstone, v-v-minor Black sast.	0.02	<5

595142

SURVEY DATA			
Depth			
Dip			
Azimuth			

DRILL LOG

PROSPECT BEACONSFIELD

LICENCE No.

Hole No. RC-15

Sheet No. 2 OF 2 PLAN No:

Date Drilled

Driller W.B.

Geologist D.S.

Total Depth

Elevation

Datum

Grid Ref.

Hole Size & Type

Sampling Method

Samples sent to Date

Spl. Des. Advice Sheet No.

Drilling				Description	Au	Ag
from	to	run	rec.			
46	48			Light Grey Sandstone (60%) Black Sandstone (40%) v-minor vacant qtz v-fine sulphides	0·01	<5
48	50			Light grey Sandstone 45%, Black Sandstone (55%) v-minor limonitic staining v-fine sulphides	0·01	<5

SURVEY DATA	AMG		
Depth	0		
Dip	60°		
Azimuth	340°		

DRILL LOG

PROSPECT BEACONSFIELD

LICENCE No.

Hole No. RC - 16

Sheet No 1 OF 1 PLAN No :

Date Drilled

Driller W.B.

Geologist D.S.

Total Depth 30m

Elevation 78.2m

Datum

Grid Ref. 484096.6mE 38693.6mN

Hole Size & Type

Sampling Method

Samples sent to Date NOV 1988

Spl. Des. Advice Sheet No.

Drilling				Description	Au	Ag
from	to	run	rec.			
0	3			Ferruginous Brown Sandstone (weathered, easily breakable) Grey Sandstone (moderately hard)	0·17	<5
3	6			Grey Sandstone + minor Ferruginous brown Sandstone minor grey clay.	0·06	<5
6	8			Grey Sandstone v-minor vacant qtz, v-minor ferrug sst v-minor (surficial) grey clay.	0·02	<5
8	10			Ferruginous (mod-dark brown) Sandstone minor grey sandstone	0·02	<5
10	12			Ferruginous Sandstone (mod-dark brown) → Grey Sst.	0·03	<5
12	14			Grey Sandstone, minor ferrug brown sst minor surficial limonitic staining, v-minor qtz.	0·03	<5
14	16			Grey + minor brown (Slightly ferrug) Sandstone minor surficial limonitic staining	0·02	<5
16	18			Grey Sandstone, minor slightly ferrug Brown Sandstone minor limonitic staining.	0·01	<5
18	20			AA	0·01	<5
20	22			Light Grey Sandstone (v-fine cuttings) v-minor slightly (ferrug) brown sandstone	<0·01	<5
22	24			Light Grey Sandstone (minor) → light brown slightly ferrug sandstone	0·03	<5
24	26			Light brown slightly ferrug sandstone Light grey Sandstone	0·01	<5
26	28			Brown Ferruginous Sandstone	0·01	<5
28	30			Light brown/red Sandstone, Black Sst Slightly ferrug (Fine cuttings)	0·01	<5

595144

SURVEY DATA			
Depth	0		
Dip	60°		
Azimuth	340°		

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. OHH-17
Sheet No. 1 of 1 PLAN No :
Date Drilled
Driller W.B.
Geologist D.S.

Total Depth 30m
Elevation 78·3m
Datum
Grid Ref. 484 089·3 m E 38 708·4 mN
Hole Size & Type

Sampling Method
Samples sent to Date NOV 1988
Spl. Des. Advice Sheet No.

Drilling				Description	Au	Ag
from	to	run	rec.			
0	3			Grey Sandstone, minor Brown (ferrug) Sandstone minor limonitic staining.	0·03	<5
3	6			Light Grey (bleached) Sandstone v-minor light brown (Fe) staining.	0·03	<5
6	8			Light Grey Sandstone, minor limo staining. v-minor dull brown (Fe) stained Sast.	0·02	<5
8	10			Grey (green/brown tinge) Sandstone, minor Fe surficial staining	0·02	<5
10	12			Light Grey Sandstone, minor slightly ferrug phyllitic sast/sist.	0·01	<5
12	14			Light Grey Sandstone, dull brown Sast (moderately ferrug) v-minor black shale.	0·01	13
14	16			Grey/Black Sandstone, Ferruginous (dull brown) Sast (Highly weathered G/B Sast)	0·01	<5
16	18			Grey/Black Sandstone + minor light grey bleached Sast v-minor (brown) staining (Fe)	0·01	<5
18	20			Light grey sandstone, v-minor surficial (fine) pyrite minor surficial limonitic staining	0·02	<5
20	22			Light grey sandstone, minor slightly ferruginous sast	0·01	<5
22	24			Light brown (slightly - moderately ferrug) Sandstone v-minor light grey sast	0·12	<5
24	26			Minor light brown slightly - moderately ferruginous sandstone (40%) → light grey sandstone (60%)	<0·01	<5
26	28			Light grey sandstone, minor surficial limonitic staining v-minor black shale	<0·01	<5
28	30			Light grey sandstone, minor surficial limonitic staining.	<0·01	<5

SURVEY DATA			
Depth	0		
Dip	60°		
Azimuth	340°		

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. OHM-18
Sheet No. 1 of 1 PLAN No.:
Date Drilled
Driller W.B.
Geologist D.S.

Total Depth 30 m
Elevation 79.2 m
Datum
Grid Ref. 484 082.5 m E 387233 m N
Hole Size & Type
Sampling Method
Samples sent to Date NOV 1988
Spl. Des. Advice Sheet No.

Drilling				Description	Au	Ag
from	to	run	rec.			
0	3			Light brown moderately ferruginous sandstone minor light grey bleached sandstone, minor greyclay	0·04	<5
3	6			Grey Sandstone (slightly phyllitic), minor surficial limonitic staining, minor - slightly ferrug light brown sast.	0·02	<5
6	8			Light grey Sandstone, minor surficial limonitic staining	0·03	<5
8	10			Grey Sandstone, surficial limonitic staining slightly ferrug sast (light brown - red color)	0·02	<5
10	12			Grey Sandstone, surficial limonitic staining. moderately ferrug sast (light brown - red color)	0·01	<5
12	14			Grey/Green/Black Sandstone, with prominent limonitic staining (brown discolorization), slightly ferrug sandstone.	0·01	<5
14	16			Grey/Green/Black Sandstone, minor surficial limonitic staining, v-minor vacant qtz	0·01	<5
16	18			Grey/Black sandstone, limonitic staining (brown) minor slightly ferrug red/brown sandstone	<0·01	<5
18	20			AA	0·02	<5
20	22			Grey/Black Sandstone, moderate limonitic staining giving rise to dark brown discolorization	<0·01	<5
22	24			Grey/Black Sandstone, moderate limonitic staining (light - dark brown discolorization)	0·01	<5
24	26			Light brown/dark brown slightly - moderately ferruginous sandstone.	0·01	<5
26	28			Grey Sandstone, minor surficial limonitic staining Light brown (slightly ferrug) sandstone	0·01	<5
28	30			Light grey sandstone, minor surficial limo staining.	<0·01	<5

595146

SURVEY DATA				
Depth	0			
Dip	60°			
Azimuth	330°			

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. OHH-19
Sheet No. 1 OF 1 PLAN No :
Date Drilled 17/11/88
Driller W.B
Geologist D.S.

Total Depth 40m
Elevation 56·4m
Datum
Grid Ref. 484 179·9 mE 38760·3 m N
Hole Size & Type

Sampling Method
Samples sent to Date NOV 1988
Spl. Des. Advice Sheet No.

Drilling				Description	Au	Ag
from	to	run	rec.			
0	3			Light grey/brown clay (primary constituent) Grey Siltstone, v-minor surficial Fe staining	0·08	<5
3	6			Grey Siltstone, surficial Fe (light brown) staining v-minor dark brown ferrug sast, Qtz (35%) Fe staining.	0·19	<5
6	8			Grey Siltstone, surficial Fe (light brown) staining, v-minor dark brown Ferrug sast, Qtz (55%) oxidized sulphides (dark brown)	(0·22) 0·23	<5
8	10			Grey Sast (60%), minor Black (40%) Sist/Sast surficial limonitic staining, v-minor qtz with Fe oxides	0·15	<5
10	12			Black Sandstone, minor brown sast, surficial limonitic staining, v-minor qtz with Fe oxides	0·12	<5
12	14			Dark Grey + minor brown sandstone + minor black sast Surficial limonitic staining (slightly phyllitic)	0·04	<5
14	16			Dark Grey Sast, minor brown sast, minor black sast strong surficial Fe staining	0·03	<5
16	18			Dark Grey + Brown Sast, moderate surficial Fe staining, minor black sast	0·02	<5
18	20			Grey + Black Sandstone (small cuttings) surficial Fe staining, minor qtz.	4·9	<5
20	22			Black Sandstone + light brown sast. Strong surficial Fe staining, minor gossanous material (fine cuttings)	0·02	<5
22	24			Black Sandstone, surficial limonitic staining v-minor gossanous material	0·03	<5
24	26			Dark Grey/Black Sandstone, surficial limonitic staining.	0·03	<5
26	28			Dark Grey/Blue/Black Sandstone, v-minor (Fe) surficial staining. minor pyrite	0·09	<5
28	30			Light Grey + Dark Grey/Black Sandstone/siltstone abundant fine sulphides (pyrite), Slight As smell.	0·01	<5
30	32			Light Grey + Dark Grey/Black Sandstone/siltstone. moderate fine sulphides (pyrite) Slight As smell	0·02	<5
32	34			Grey + Dark grey/black sandstone As smell moderate fine sulphides (pyr). pyrite clusters.	(0·04) 0·03	<5
34	36			Black siltstone/sandstone, Highly abundant sulphides pyrite clusters, v-minor qtz with sulphides Strong As smell	(0·09) 0·07	<5
36	38			Black siltstone/sandstone (60%), light grey Sast (40%) abundant sulphides pyr, v-minor qtz (Fe oxides) As smell	(0·15) 0·19	<5
38	40			Light grey (60%), generally vacant of sulphides, As Slight smell Dark grey (40%) sast/sist with fine sulphides, pyrite	(0·12) 0·08	5
				CIRCULATION LOSS, OLD WORKINGS.		

DRILL LOG

SURVEY DATA	AMG		
Depth	0		
Dip	60°		
Azimuth	330°		

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. OHH-20
Sheet No. 1 OF 1 PLAN No:
Date Drilled 18/11/88
Driller W.B.
Geologist D.S.

Total Depth 42m
Elevation 57.8
Datum
Grid Ref. 484 175.7mE 38780.7 mN
Hole Size & Type
Sampling Method
Samples sent to Date NOV. 1988
Spl. Des. Advice Sheet No.

Drilling				Description	Au	Ag
from	to	run	rec.			
0	3			Light grey Sandstone, minor surficial limonitic staining minor slightly ferrug clay.	0·16	
3	6			Grey/Green/Light Brown Sandstone, minor surficial limonitic staining	0·20	
6	8			Grey/Green Sandstone, surficial limonitic (Fe) staining qtz (40%), gossanous material (Dark brown discolorization)	(0·37) 0·40	
8	10			Ferruginous Sandstone, moderate limonitic staining 20% gossanous material	(0·69) 0·65	
10	12			Grey Sandstone, light brown slightly ferrug sast surficial limonitic staining v-minor gossanous material	0·11	
12	14			Grey Sandstone, Light brown (v-slightly ferrug) Sast surficial limonitic staining	0·03	
14	16			Grey Sandstone, surficial limonitic staining (overall orange appearance)	0·03	
16	18			Grey Sandstone, surficial limonitic staining v-minor qtz with gossanous material	0·02	
18	20			Grey Sandstone, surficial limonitic staining (overall orange appearance)	0·02	
20	22			Grey/Green Sandstone, surficial limo staining Brown ferrug Sast, slightly gossanous.	0·02	
22	24			Grey/Green Sandstone, surficial limonitic staining minor brown ferrug sast, slightly gossanous	<0·01	
24	26			Grey Sandstone, Light brown sandstone, moderate surficial Fe oxide staining, v-minor qtz, v-minor slightly ferrug clay	<0·01	
26	28			Grey Sandstone, Light brown sast, moderate surficial Fe oxide staining, v-minor slightly ferrug clay	<0·01	
28	30			Grey/Black Sandstone, v-fine pyrite surficial limonitic staining (prominent), v-slightly ferrug (lt) sast	<0·01	
30	32			Dark Grey Sandstone, v-minor qtz (vacant) surficial Fe Oxide staining.	0·70	
32	34			Dark Grey Sandstone, surficial limonitic staining	<0·01	
34	36			Dark Grey/Black Sandstone, surficial limonitic staining	<0·01	
36	38			Black and Dark Grey Sandstone, surficial limonitic staining	<0·01	
38	40			Black + Dark Grey Sandstone, surficial limonitic staining v-minor vacant qtz.	<0·01	
40	42			Black/Dark Grey Sandstone, minor light grey Sast surficial limo staining, v-minor vacant qtz.	<0·01	

DRILL LOG

SURVEY DATA (AMG)			
Depth	0		
Dip	60°		
Azimuth	330°		

PROSPECT BEACONSFIELD

LICENCE No.

Hole No. OHH-21

Sheet No. 1 OF 1 PLAN No.:

Date Drilled 18/11/88

Driller W.B.

Geologist O.S.

Total Depth 42 m

Elevation 61.5 m

Datum

Grid Ref. 484 182.4 mE 38735.3 mN

Hole Size & Type

Sampling Method

Samples sent to Date NOV. 1988

Spl. Des. Advice Sheet No.

Drilling				Description	Au	Ag
from	to	run	rec.			
0	3			Grey Sast, Light Brown Sast, minor Black Sast, minor dark brown ferrug sast, minor slightly ferrug clay, minor qtz (vac), minor gossanous	0·08	
3	6			Grey Sast, Light Brown Sast, v-minor ferrug sast, qtz and gossanous material, Grey/Brown clay (Elluvial/Alluvial)	0·10	
6	8			Light Grey Sandstone, minor dark brown highly ferrug sast minor black sast, slightly ferrug light brown clay. (El/Al)	0·75	
8	10			Light grey silt/sast, light grey/brown clay v-minor surficial Fe oxide staining.	0·23	
10	12			Light grey sist/sast (slightly phyllitic), Light grey clay v-v-minor surficial Fe oxides, v-minor vacant qtz.	0·19	
12	14			Light Grey Siltstone/Sandstone. v-v-surficial Fe oxide v-minor light grey clay.	0·14	
14	16			Grey Siltstone/sandstone,	0·20	
16	18			Grey Siltstone/Sandstone, v-minor surficial Fe oxide staining, v-minor vacant qtz	0·15	
18	20			Black Sandstone, light grey Sandstone, minor ferrug sast Qtz (sulphidic cavities), minor gossanous material	(0·85) 0·77	
20	22			Black sandstone, with strong surficial Fe oxides minor qtz with limonitic staining.	(0·77) 0·79	
22	24			Black + Light brown sandstone, minor red/brown ferrug sast, minor qtz, surficial limonitic staining.	0·78	
24	26			Light brown sandstone, minor dark brown ferrug sast v-minor vacant qtz	0·07	
26	28			Grey and light brown sandstone, v-minor qtz surficial limonitic staining	0·04	
28	30			Dark grey + light brown sandstone, minor dark brown ferrug sast, surficial limo staining.	0·04	
30	32			AA	0·02	
32	34			Grey Sandstone, surficial limonitic staining v-minor qtz with Fe oxide staining (surficial)	0·29	
34	36			Black Sandstone, minor grey sast minor surficial limonitic staining.	0·02	
36	38			Black Sandstone, minor grey sast, v-v-minor vacant qtz minor surficial limonitic staining	0·02	
38	40			Black Sandstone, minor grey sast surficial limo staining, v-slightly gossanous.	0·02	
40	42			Blue/Black Sandstone, v-minor limo staining Slight As small.	0·01	

SURVEY DATA (AMG)			
Depth	0		
Dip	60°		
Azimuth	310°		

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. OHH-22
Sheet No. 1 OF 3 PLAN No:
Date Drilled 21/11/88 - 22/11/88
Driller W.B.
Geologist D.S

Total Depth 100m
Elevation 750
Datum
Grid Ref. 484 090·7 mE 38771·3 mN
Hole Size & Type
Sampling Method
Samples sent to Date NOV. 1988
Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
0	3			Red ferroginous sandstone 45%, Grey Sandstone 45% Ferruginious clay (10%)	0·1
3	6			Grey Sandstone, minor grey clay, v-minor red ferrug sandstone	
6	8			Grey Sandstone, minor vacant qtz	
8	10			Grey Sandstone, v-minor surficial limonitic staining	0·1
10	12			AA	
12	14			Grey Sandstone, v-minor limonitic (surficial) staining minor surficial grey clay 5% vacant country qtz	
14	16			Grey Sandstone, v-minor surficial clay minor red sandstone, vv-minor limonitic staining.	0·1
16	18			Grey Sandstone with minor limonitic staining	
18	20			Grey Sandstone (90%) minor surficial limonitic staining. Slightly ferrug light brown sast	
20	22			Grey Sandstone (slightly phyllitic), minor surficial limonitic staining, v-minor vacant qtz	<0·1
22	24			Grey Sandstone, minor limonitic surficial staining v-minor qtz	
24	26			Grey Sandstone, moderate limonitic staining minor - v-minor qtz veins (vacant). (Harder ground)	
26	28			Black & Grey Sandstone, surficial limonitic staining qtz (15%) vacant except for surficial limo staining.	<0·1 (0·01)
28	30			Dark Grey Sandstone (40%) with surficial limonitic staining Black (country) qtz (60%) (vacant) except for surficial Fe staining.	
30	32			light - dark grey sandstone, v-minor qtz minor surficial limonitic staining.	
32	34			Grey Sandstone, with surficial limonitic staining V-minor vacant qtz	<0·1
34	36			Grey Sandstone, surficial dark brown/red limonitic staining, v-minor vacant qtz	
36	38			Grey Sandstone, minor surficial limonitic staining v-v-minor vacant qtz	
38	40			Grey Sandstone, minor surficial limonitic staining (55%) Black Sandstone with minor fine sulphides (pyr) 45%	<0·1
40	42			Dark Grey + Black Sandstone, surficial limonitic staining v-v-minor qtz.	
42	44			Grey Sandstone, minor dark grey sast minor surficial limonitic staining.	
44	46			Grey Sandstone (Dark), minor surficial limonitic staining, minor light grey sast	<0·1

595150

SURVEY DATA			
Depth			
Dip			
Azimuth			

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. OHH-22
Sheet No. 2 OF 3 PLAN No:
Date Drilled 22/11/88
Driller W.B.
Geologist D.S.

Total Depth 100m
Elevation
Datum
Grid Ref.
Hole Size & Type
Sampling Method
Samples sent to Date
Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
46	48			Grey (moderately dark) Sandstone, v-minor surficial limonitic staining	
48	50			Grey Sandstone → light grey green sast with minor surficial limo staining.	
50	52			Grey Sandstone, v-minor surficial limonitic staining.	<0.1
52	54			Grey Sandstone, minor surficial limonitic staining v-v-minor vacant qtz.	
54	56			AA	
56	58			Light grey/brown sandstone, minor grey sast minor surficial limonitic staining	0.1
58	60			Light grey sandstone, with surficial limonitic staining giving rise to a light brown appearance.	
60	62			Grey Sandstone, minor surficial limonitic staining	
62	64			Grey Sandstone, surficial limonitic staining (minor) v-minor vacant qtz.	<0.1
64	66			Grey Sandstone, v-minor surficial limonitic staining v-minor vacant qtz.	
66	68			Dark Grey, Light Grey Sandstone (phyllitic) minor surficial limo staining	
68	70			Grey Sandstone, minor surficial limonitic staining	<0.1
70	72			AA	
72	74			Grey Sandstone, minor surficial limonitic staining (fine – small cuttings: well grounded up).	
74	76			Light & Dark Grey Sandstone, with surficial limonitic staining, v-minor vacant qtz.	<0.1
76	78			Grey Sandstone, surficial limonitic staining v-v-minor vacant qtz.	
78	80			Grey/Green/Brown Sandstone, moderate surficial limonitic staining, v-minor vacant qtz	
80	82			Grey Sandstone, minor surficial limonitic staining v-minor vacant qtz	<0.1
82	84			Sandstone (Blue/Grey Color) v-minor fine sulphides (pyr) moderate limonitic staining ie surficial (fractures)	
84	86			Sandstone (Blue/Grey) containing minor sulphides surficial limonitic staining	
86	88			Grey/Green/Brown Sast (20%), Black Sandstone (80%) minor surficial limonitic staining v-v-minor vacant qtz.	<0.1
88	90			Black Sandstone, minor surficial limo staining.	

595151

SURVEY DATA			
Depth			
Dip			
Azimuth			

DRILL LOG

PROSPECT BEACONSFIELD

LICENCE No.

Hole No. OHH-22

Sheet No. 3 of 3 PLAN No :

Date Drilled 22/11/88

Driller W.B.

Geologist D.S

Total Depth 100m

Elevation

Datum

Grid Ref.

Hole Size & Type

Sampling Method

Samples sent to Date

Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
90	92			Black Sandstone, minor surficial limonitic staining U-U-minor vacant qtz.	0·2
92	94			Black Sandstone, U-U-minor vacant qtz	
94	96			Black Sandstone (30%) Grey Sandstone 70% U-U- minor vacant qtz.	
96	98			Grey/Black Sandstone, U-U-minor vacant qtz.	<0·1
98	100			Grey Sandstone, minor black Sst U-U-minor vacant qtz.	

SURVEY DATA	AMG		
Depth	0		
Dip	60°		
Azimuth	310°		

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. OHH-23
Sheet No. 1 OF 3 PLAN No :
Date Drilled 22/11/88 - 24/11/88
Driller W.B.
Geologist D.S

Total Depth 72 m
Elevation 78·3
Datum
Grid Ref 484 052·7 mE 3803·2 mN
Hole Size & Type
Sampling Method
Samples sent to Date DEC 1988
Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
0	3			Moderately Ferruginous clay minor grey + red ferrug sdst, minor qtz (vacant)	<0·1
3	6			Grey Sandstone, minor light brown/grey clay	
6	8			Grey Sandstone, v-minor dark red oxide (Fe)	
8	10			Grey Sandstone, v-minor surficial limonitic staining	<0·1
10	12			AA	
12	14			Grey Sandstone, v-minor surficial dark red oxide staining.	
14	16			Grey Sandstone, v-minor surficial limo staining	<0·1
16	18			Deep red/orange stained grey sandstone, v-minor vacant qtz.	
18	20			Grey/Brown Sandstone, minor surficial brown/red staining v-minor vacant qtz. (orange pile)	
20	22			Grey Sandstone, minor surficial brown/red staining (orange pile)	<0·1
22	24			Grey Sandstone, moderate surficial limonitic staining (light orange pile)	
24	26			Grey Sandstone, surficial limonitic staining minor vacant qtz. (light orange pile)	
26	28			AA	<0·1
28	30			Dark Grey (green) Sandstone, minor surficial limo staining.	
30	32			Black (small cuttings) + light grey sandstone minor vacant qtz	
32	34			Grey Sandstone, minor surficial limonitic staining minor vacant qtz.	<0·1
34	36			Grey Sandstone, minor surficial limonitic staining minor vacant qtz (15%)	
36	38			Moderately dark grey sandstone, minor surficial limonitic staining, v-minor vacant qtz.	
38	40			Grey Sandstone, surficial limonitic staining v-minor vacant qtz (orange pile)	<0·1
40	42			Grey Sandstone, minor surficial limonitic staining	
42	44			Grey Sandstone. surficial limonitic staining	
44	46			Blue/Black Sandstone, minor fine sulphides (pyr) strong surficial limonitic staining, v-minor vacant qtz.	<0·1

595153

SURVEY DATA			
Depth			
Dip			
Azimuth			

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. OHH-23
Sheet No. 2 of 2 PLAN No:
Date Drilled
Driller W.B.
Geologist D.S.

Total Depth 72m
Elevation
Datum
Grid Ref
Hole Size & Type

Sampling Method
Samples sent to Date
Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
46	48			Blue/Black Sandstone, minor fine sulphides (pyr) strong surficial limonitic staining, v-minor vacant qtz	
48	50			Black (shaley) sast/sist, minor v-fine sulphides (pyr) light Grey/Brown Sandstone, limo staining, v-minor (vac) qtz	
50	52			Grey/Light Grey/Light Brown Sandstone, limonitic staining, minor black shaley sast/sist	<0·1
52	54			Light grey sandstone, Fe oxide staining purple/red/brown discolorization	
54	56		SHATTER ZONE?	Grey Sandstone, v-minor limonitic staining minor sulphides (pyrite) Fine broken cuttings (Powder)	
56	58			Grey Sandstone, minor black sandstone, v-minor (vacant) qtz, minor fine sulphides (pyr) (Powder)	<0·1
58	60			Light Grey Sandstone, v-minor sulphide (pyr) along (dark) fractures (Powder)	
60	62			Light Grey Sandstone, minor sulphides (pyr) (Powder) vacant qtz (30%) v-v-minor black sandstone with fine sulphide	
62	64			Light grey sandstone, v-minor sulphides (pyr) (v-fine powder) minor black sast, minor surficial staining (contamination)	<0·1 (0·01)
64	66			Light Grey Sandstone, minor surficial limonitic staining v-minor qtz (contamination) (v-fine powder)	
66	68			AA	
68	70			V-fine grey sandstone, minor light brown/orange slightly ferrug sast, minor vacant qtz (v-fine powder)	<0·1
70	72			V-fine grey/green sandstone (Sand) minor qtz with minor sulphides (pyr) v-fine powder	

Sample Blockage 62-64m

V-Soft Ground 62-72m

HOLE ABORTED AT 72m DUE TO CONTAMINATION + LOSS OFF SAMPLE RETURN.

SURVEY DATA			AMG
Depth	0		
Dip	60°		
Azimuth	310°		

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. OHH-24
Sheet No. 1 OF 2 PLAN No:
Date Drilled 24/11/88 - 25/11/88
Driller W.B
Geologist D.S.

Total Depth 72m
Elevation 78·6
Datum
Grid Ref. 484 037 9 mE 38816·4 mN
Hole Size & Type
Sampling Method
Samples sent to Date DEC 1988
Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
0	3			Grey Sandstone (soft easily breakable), limonitic staining (0-1m), v-minor ferrug. clay.	<0·1
3	6			Light Grey Sandstone, minor surficial limonitic staining minor qtz veinlets (vacant)	
6	8			Grey Sandstone, red (Fe stained) Sandstone v-minor vacant qtz	
8	10			Light Grey / Black Sandstone, minor red discolorization v-minor vacant qtz.	<0·1 (0·05)
10	12	FAULT?		Grey Sandstone with minor red surficial discolorization + vacant qtz, red/grey/brown clay Highly broken up.	
12	14			Buck qtz reef (98%) + v-minor weathered grey sdst vacant (Highly broken up)	
14	16			Buck qtz (vacant) 15% → Grey Sandstone with minor surficial limonitic staining.	<0·1 (0·01)
16	18			Grey Sandstone, minor bright red discolorization v-minor qtz with red discolorization.	
18	20			Red brown sandstone, strong surficial discolorization minor vacant qtz (orange pile)	
20	22			Grey/Brown Sdst (50%) with orange/brown ferrug clay in Fractures, minor limo staining, 50% vacant country qtz.	<0·1 (0·01)
22	24			Grey Sandstone, orange/brown clay along Fractures minor surficial limo staining	
24	26			Grey Sandstone, minor surficial limo staining v-minor vacant qtz.	
26	28			Grey Sandstone, surficial limonitic staining v-minor vacant qtz	<0·1
28	30			Grey Sandstone, with surficial limonitic staining	
30	32			Grey/Green Sandstone with surficial discolorization (orange/red) (orange/brown sample)	
32	34			AA	<0·1
34	36			Grey Sandstone, surficial limonitic staining v-minor vacant qtz. (orange sample)	
36	38			Grey Sandstone, minor surficial limonitic staining minor vacant qtz (15%)	
38	40			Grey Sandstone, surficial limonitic staining v-minor vacant qtz.	<0·1
40	42			Grey Sandstone, minor surficial limonitic staining minor vacant qtz (15%)	
42	44			Grey Sandstone, red surficial staining, v-minor vacant qtz (fine cuttings, sandy) (Red/brown Sample)	
44	46	FAULT?		Red Sandstone, Highly stained (red) v-minor vacant qtz (Red/brown/purple sample)	<0·1 (0·01)

595155

SURVEY DATA			
Depth			
Dip			
Azimuth			

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. OHH-24
Sheet No. 2 OF 2 PLAN No:
Date Drilled
Driller W.B.
Geologist D.S.

Total Depth 72m
Elevation
Datum
Grid Ref.
Hole Size & Type
Sampling Method
Samples sent to Date
Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
46	48			Red/brown/Green Sandstone, varying degrees of staining 40% Cavity(vac)qtz. (Fine red/brown/orange sample)	
48	50			Brown/red Sand/Sandstone v-minor vacant qtz (red/brown sample)	
50	52			Fine (weathered) grey sandstone, v-minor brown sast v-v-minor (vacant) qtz (v-soft-ground)	<0·1
52	54			Extremely fine grey sandstone/sand.	
54	56	EXTREMELY SOFT GROUND		Grey Sandstone (Highly weathered [Sandy Powder]) chips up to <5mm	
56	58			AA	<0·1
58	60			AA	
60	62			Grey Sandstone (Highly weathered (silty powder)) minor vacant qtz.	
62	64			Highly weathered grey sandstone (grey clay powder) v-minor vacant qtz, minor surficial limo staining	<0·1
64	66			Greeny Grey Sandstone (moderately weathered) (chips <10mm) (Grey sandy powder) v-minor (vacant) qtz	
66	68			Green/Grey Sandstone (moderately weathered) (Sandy powder) v-minor qtz, v-minor limo staining, cutting rounded <10mm	
68	70			Green/Grey Sandstone, moderately weathered <10mm v-minor qtz (Sandy powder)	<0·1
70	72			Grey/Green/Black Sandstone, v-minor vacant qtz minor silt/clay, minor sulphides (pyritic clusters)	

HOLE STOPPED DUE TO PATHETIC SAMPLE RETURN. MATERIAL EXTREMELY SOFT i.e. 4 HAMMER BEAT TO THE METRE

595156

SURVEY DATA	AMG		
Depth	0		
Dip	60°		
Azimuth	310°		

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. OHH-25
Sheet No. 1 OF 3 PLAN No :
Date Drilled 25/11/88 – 28/11/88
Driller W.B
Geologist D.S.

Total Depth 104
Elevation 79·8
Datum 484 012·1 mE 38839·1 mN
Grid Ref.
Hole Size & Type
Sampling Method
Samples sent to Date DEC 1988
Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
0	3		MODERATE GROUND	Coarse light greyey brown sandstone (soft), minor slightly Ferroug sast, minor qtz with blue/black decolorization (sandy porous)	<0·1
3	6			Light grey sandstone (moderately weathered) silt/sand cuttings <12mm	
6	8			Light grey (weathered) sandstone, (silty clay powder) cutting upto 20mm, v-minor vacant qtz.	
8	10			Grey Sandstone (moderately weathered), v-minor Fe staining, good cutting <15mm	<0·1
10	12			Grey Sandstone + Brown (Fe stained) Sandstone v-minor vacant qtz.	
12	14		HARD GROUND	Grey Sandstone + Brown sandstone (Fe stained) minor vacant qtz	
14	16			Grey Sandstone, minor brown ferruginous Sast (Hard ground)	<0·1 (0·02)
16	18			Grey Sandstone, minor brown surficial clay, limo staining Country qtz (45%) vacant.	
18	20			Grey Sandstone, v-minor surficial Fe staining v-minor buck qtz	
20	22			Grey Sandstone, minor brown sast (Fe stained Grey Sast)	<0·1
22	24			Grey Sandstone, minor brown sast minor vacant qtz.	
24	26		SOFT GROUND	Orange Powder: Grey Sast with surficial red/orange staining. (Highly weathered)	
26	28			Light brown/orange/deep red powder: Grey, red and orange sandstone, v-minor vacant qtz.	<0·1
28	30			Orange/purple/red powder: red/orange/purple/brown minor grey sandstone	
30	32			AA + minor vacant qtz	
32	34			AA + vacant country qtz.	<0·1
34	36			Red/Purple powder: Deep red/purple sandstone minor light brown sast, v-minor vacant qtz	
36	38			Deep red/purple powder: Deep red/purple stained Sandstone, v-minor vacant qtz.	
38	40			Deep red/purple sandstone, light brown/grey sast 60% v-v-minor vacant qtz (silty powder)	<0·1
40	42			Light brown/red/grey sandstone (small rounded cuttings) v-minor vacant qtz (silty powder)	
42	44			Grey/Red Sandstone (strong red staining) round cuttings (silty powder)	
44	46			Grey/Green Sandstone, with strong red staining (Fe) round cutting (Powdery)	<0·1

595157

SURVEY DATA			
Depth			
Dip			
Azimuth			

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. OHH-25
Sheet No 2 OF 3 PLAN No:
Date Drilled 25/11/88
Driller W.B.
Geologist D.S

Total Depth
Elevation
Datum
Grid Ref.
Hole Size & Type

Sampling Method
Samples sent to Date
Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
46	48			Red/orange shaley Sandstone, Strong red staining	
48	50			Grey/Green sandstone with strong red/orange discoloration rounded cutting, however sample is predominantly powdery.	
50	52	POWDER	SOFT GROUND	Grey/Green Sandstone, strong red/orange discolorization v-minor vacant qtz (rounded cuttings)	<0·1
52	54			Green/Grey + light brown Sandstone, v-minor qtz (vacant) rounded cutting, (v-powdery)	
54	56			Light brown sandstone, v-minor vacant qtz & grey (shaley) siltstone (rounded cluttings)	
56	58			Light brown sandstone, v-minor vacant qtz, grey shaley siltstone, v-fine rounded cuttings Silty powder	<0·1
58	60			Fine grey/green (rounded) sandstone, v-minor vacant qtz Highly weathered (powdery)	
60	62	SANDY POWDER	MODERATE	Grey/Green Sandstone, minor vacant qtz more abundant cutting (silty/sandy powder)	
62	64			Grey/Green Sandstone, v-minor vacant qtz cutting size up <10mm	<0·1
64	66			Grey/Green sandstone, Highly weathered (sand size cuttings (V-Fine powder)	
66	68	POWDER	SOFT	AA	
68	70			AA	<0·1
70	72			Light Grey/green sandstone, surficial limonitic staining to 50% of sample, v-minor vacant qtz silty/sandy powder	
72	74			Light grey/green sandstone, v-minor surficial limo staining (rounded cuttings) weathered v-minor vacant qtz	
74	76			Light ~~grey~~ green sandstone, reasonable chips <10mm v-minor vacant qtz, v-v-minor surficial Fe staining	<0·1
76	78	SILTY/SANDY POWDER	MODERATE	Light ~~grey~~ green sandstone, chips <7mm v-minor vacant qtz, v-v-minor surficial Fe staining	
78	80			Light grey/green sandstone, rounded cuttings Sandy powder chips <8mm (poorly consolidated)	
80	82			Light grey (green tinge) sandstone. (silty powder) rounded cuttings (<8mm)	<0·1
82	84			Light grey (green tinge) sandstone rounded cuttings (<7mm)	
84	86			v- light Grey/green sandstone (silty/sandy powder) rounded cuttings (<6mm), weathered sust poorly consolid	
86	88			Grey Sandstone, v-minor surficial limonitic staining chips <10mm	<0·1
88	90			Grey Sandstone, rounded cuttings, moderately weathered.	

SURVEY DATA			
Depth			
Dip			
Azimuth			

DRILL LOG

PROSPECT BEACONSFIELD

LICENCE No.

Hole No. OHH - 25

Sheet No. 3 OF 3 PLAN No :

Date Drilled

Driller W.B

Geologist D.S.

Total Depth 104 m

Elevation

Datum

Grid Ref.

Hole Size & Type

Sampling Method

Samples sent to Date

Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
90	92		MODERATELY HARD	Grey Sandstone, v-minor vacant qtz rounded cuttings moderately weathered.	
92	94			Grey Sandstone, minor Black Sandstone, v-minor qtz.	<0·1
94	96			Black Sandstone (70%), minor fine sulphide (pyr) (Congl) minor grey sdst (10%), minor vacant qtz (20%), reasonable cuttings	
96	98			Black Sandstone, minor sulphides (pyrite) (55%) 45% Grey Sandstone, v-minor vacant qtz	
98	100			Grey (55%) + Black (45%) Sandstone minor sulphides (pyrite) predominantly surficial.	0·2
100	102		HARD	Black Sandstone, minor predominantly surficial sulphides (pyr), v-minor vacant qtz	
102	104			Black Sandstone, minor predominantly surficial sulphides (pyr)	

595159

SURVEY DATA (AMG)			
Depth	0		
Dip	60°		
Azimuth	310°		

DRILL LOG

Total Depth 38 m
Elevation 85·3
PROSPECT BEACONSFIELD
Datum
LICENCE No.
Grid Ref. 483 970·7 m E 38 865·7 m N
Hole No. OHH-26
Hole Size & Type
Sheet No. 1 of 1 PLAN No:
Date Drilled 28/11/88
Sampling Method
Driller W.B
Samples sent to Date DEC 1988
Geologist D.S
Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
0	3		SOFT	Light brown/Grey sandy Sandstone, easily breakable (weathered), v-minor vacant qtz.	<0·1
3	6			Light brown/grey sandstone (Sandy) 30% → Dark brown (slightly Ferrug) sast 65% (P.C), minor vacant qtz (5%)	
6	8			Grey Sandstone + minor Dark brown stained sast (10%) minor qtz with dark brown Fe oxides. (minor water inflow)	
8	10		HARD	Moderate - dark brown sandstone (ferruginous), minor grey sandstone with limo staining	<0·1
10	12			Light greyey brown sandstone, minor limonitic staining	
12	14			Moderate brown Sandstone, (cuttings <5mm) v-minor qtz, with minor dark brown Fe oxides (hydr)	
14	16			(Powder) Grey Sandstone 80%, Dark brown (Ankerite?) stained sandstone 10%, 10% qtz with minor brown stain	<0·1
16	18		SOFT	(Powder) Grey Sandstone (weathered) rounded cuttings (sandy), minor surficial limo staining.	
18	20			(Powder) Grey Sandstone, rounded sand size cuttings minor surficial limo staining, v-minor vacant qtz	
20	22		HARD	Country (vacant) qtz (90% after seiving) grey	<0·1
22	24			Country qtz 5% (Only thing remaining after seiving) Highly weathered grey sandstone, v-fine clay.	
24	26		SOFT	(Fine powder) Highly weathered grey sandstone v-minor (vac) qtz, v-fine clay.	
26	28			(Powder) Grey Sandstone highly weathered minor surficial Fe staining, v-v-minor (vac) qtz	<0·1
28	30			(Extremely fine red/orange powder) Fine Highly weathered grey Sast, strong red/orange + lightbrown discolorization.	
30	32		EXTREMELY SOFT	Red/orange extremely fine powder, Highly weathered + stained grey sandstone, minor vacant qtz	
32	34			Red/orange siltstone/sandstone/claystone Highly weathered v-minor qtz (qtz only thing left after seiving)	<0·1
34	36			Red (extremely Fine, Highly weathered, sist/sast, clst) Silty powder	
36	38			Red (extremely Fine, Highly weathered, sist/sast, clst) Silty powder + minor vacant qtz	
				HOLE TERMINATED DUE TO EXTREMELY SOFT GROUND	
				- NO SAMPLE RETURN	
				- ONLY 4 HAMMER BEATS TO THE METRE	
				OLD WORKING?	

595160

SURVEY DATA (AMG)			
Depth	0		
Dip	60°		
Azimuth	310°		

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. OHH - 27
Sheet No. 1 OF 1 PLAN No :
Date Drilled 28/11/88 - 29/11/88
Driller W.B.
Geologist D.S.

Total Depth 38 m
Elevation 86·4
Datum
Grid Ref. 483 957·6 m E 38 878·2 m N
Hole Size & Type
Sampling Method
Samples sent to Date DEC 1988
Spl. Des. Advice Sheet No.

Drilling from	to	run	rec.	Description	Au g/t
0	3		SOFT	Light grey sandstone, minor dark brown sandstone v-v-minor qtz.	<0·1
3	6			Light grey sandstone, minor dark brown sandstone (sandy, weathered) v-v-minor vacant qtz.	
6	8		HARD	Grey Sandstone, minor Brown sandstone, v-minor surficial Fe staining (water seepage), minor vacant qtz, chips ≤ 20mm	
8	10			Light Grey Sandstone, v-minor ferrug dark brown sst (reasonable chips)	<0·1
10	12			Light grey Sandstone, minor surficial limonitic staining v-minor qtz (vacant)	
12	14			Light grey sandstone, minor light grey/brown sst reasonable chips (≤ 15mm) v-minor qtz	
14	16		SOFT	Light grey (green tinge) Sandstone 65%, Country (vacant) qtz 35% minor limonitic staining	<0·1 (0·01)
16	18			Light grey/brown - brown Sandstone (slight green tinge) minor vacant qtz.	
18	20		HARD	Brown Sandstone (Silty/Sandy powder) Country (vacant) qtz 50%, v-minor dark brown staining	
20	22		SOFT	Grey Sandstone (slight green tinge) v-minor vacant qtz, v-minor ferrug sst	<0·1 (0·03)
22	24			Grey/Green rounded sandstone, v-v-minor (vac) qtz v-soft material (Powder) Highly weathered	
24	26			Grey/Green rounded sandstone, v-soft ground (Powder) Highly weathered	
26	28		V-SOFT GROUND	Grey/Green Sandstone, light brown (slightly ferrug) Sandstone, v-minor (vacant) qtz, fine silty powder	<0·1
28	30			AA	
30	32			Extremely fine silty powder: Highly weathered Grey + light brown sst/sltst/clst	<0·1
32	34			Extremely fine grey / light brown siltstone (Fine silt/clay powder)	
34	36			Grey / Light brown Sandstone / Siltstone surficial limonitic staining, v-v-minor qtz	<0·1
36	38			Grey / light brown + Dark brown ferruginous sst Extremely powdery clay / fine silt, light brown/orange powder	

HOLE TERMINATED DUE TO
- SAMPLE RETURN LOSS
- 4 HAMMER BEAT TO 2 m
- OLD WORKINGS?

595161

129

SURVEY DATA	AMG		
Depth	0		
Dip	60°		
Azimuth	310°		

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. OHH-28
Sheet No. 1 OF 3 PLAN No:
Date Drilled 29/11/88 - 30/11/88
Driller W.B
Geologist D.S

Total Depth 100m
Elevation 87.8
Datum
Grid Ref. 483945.6mE 38890.9mN
Hole Size & Type
Sampling Method
Samples sent to Date DEC 1988
Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
0	3		H	Country qtz (vacant) 60%, Light brown (slightly Ferrug) + grey brown sandstone, minor surficial limo staining	<0.1
3	6		MH	Country qtz (vacant) 70%, Light grey/brown, grey & light brown sast, v-minor surficial limo staining	
6	8		MH	Country Sandstone/Siltstone, v-minor dark brown/red Ferrug sast, 40% Country qtz with v-minor (surficial) limo	(0.48)
8	10	SLOW DRILLING (CHIPPING)	MH	Light greyey brown Sandstone (50%) Country (vacant) qtz 50% v-v-minor surficial limo	0.4 (0.13)
10	12		MH	Light Grey Sandstone, v-minor Ferrug dark brown Sast, minor vacant country qtz, v-minor surficial Fe staining	(0.08)
12	14		MH	Light grey sandstone, v-minor vacant qtz (black tinge)	
14	16		H	Hard Grey Sandstone, v-v-minor qtz v-v-minor surficial limonitic staining	<0.1
16	18		MH	Good grey sandstone, v-minor surficial limo staining, 40% vacant country qtz	
18	20		MH	Grey Sandstone, minor surficial Fe staining v-minor (vacant) qtz.	
20	22		M	Grey Sandstone, minor surficial limonitic staining v-minor dark brown Ferrug sandstone.	<0.1
22	24		MS	Grey Sandstone, v-minor surficial limonitic staining v-minor dark brown (Ferrug) sandstone, v-minor (vac) qtz	
24	26		M	Grey Sandstone, minor surficial Fe staining v-minor vacant qtz	
26	28		MS	Grey Sandstone, minor surficial Fe staining minor vacant qtz.	<0.1
28	30		S	Grey Sast/Sist, v-minor Fe (surficial) staining fine silt/clay powder.	
30	32		S	Grey Sist/Sast, minor Fe (surficial) staining v-fine silt/clay powder	
32	34		S	Light Grey/Brown sandstone/siltstone, surficial limo staining v-minor vacant qtz (light brown powder (silt/clay))	<0.1
34	36	V-EASY DRILLING	S	Grey/Green sast/sist/clst, minor surficial Fe v-v-minor vacant qtz, soft grey/green powder (fine silt/clay)	
36	38		S	Grey/Green sast/sist minor surficial Fe staining. v-minor vacant qtz. (fine powder)	
38	40		S	Grey/Green fine powder, v-minor Fe staining v-v-minor vacant qtz sist/sast/clst	<0.1
40	42		S	Grey/Green fine powder sast/sist/clst (Highly weathered)	
42	44		S	AA	
44	46		MS	Grey/Green Sandstone, moderately sized cuttings Dark green (shaley) siltstone, minor vacant qtz	<0.1

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SURVEY DATA			
Depth			
Dip			
Azimuth			

DRILL LOG

PROSPECT BEACONSFIELD

LICENCE No.

Hole No. OHH-28

Sheet No. 2 OF 3 PLAN No:

Date Drilled 29/11/88 – 30/11/88

Driller W.B.

Geologist D.S.

Total Depth 100m

Elevation

Datum

Grid Ref.

Hole Size & Type

Sampling Method

Samples sent to Date

Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
46	48		MS	Grey (minor green tinge) Sandstone (Silty powder) minor surficial grey clay along fractures	
48	50		S	AA	
50	52		S	Grey (minor green tinge) Sandstone, v-minor surficial limonitic staining, (Fine Powder)	<0·1
52	54	V. SOFT GROUND	S	Grey Sandstone, Fine sand/silt/clay Highly weathered (Fine powder)	
54	56		S	(Silty Powder) Light (browny) grey (sandy) sist/sast	
56	58		S	AA	<0·1
58	60		MS	Light Grey (Brown) sandstone, reasonable cuttings. v-minor vacant qtz.	
60	62		S	(Silty Powder) Light grey sast (rounded chips) ~~sandy~~ (weathered)	
62	64		S	(Silty Powder) Light grey (sandy) sandstone (weathered)	<0·1
64	66		M	(Silty/Sandy Powder) Grey Sandstone (sandy)	
66	68		M	Grey Sandstone, Dark brown sist, minor black sast minor surficial sulphides (pyrite) good chips	
68	70		MH	Grey Sandstone, v-minor dark brown + black Sandstone minor vacant country qtz, angular cuttings.	<0·1
70	72		MH	V-Light browny grey + light-dark grey sandstone/siltstone v-v-minor (vacant) qtz, v-minor sulphides (pyr)	
72	74		MH	Grey Sandstone → Black sast, Round Qtz cuttings (congl) with a black tinge, v-minor pyrite	
74	76		H	Black Sandstone, minor light grey sandstone v-minor vacant qtz, v-minor surficial sulphides (pyr)	<0·1
76	78	Core	H	AA	
78	80	HARD GROUND	H	Black Sandstone, v-minor light grey sandstone (cong) v-minor (rounded) qtz, v-minor sulphides pyr	
80	82		MH	Black Sandstone, minor light grey sandstone v-minor (rounded) qtz, v-minor sulphides (pyr)	<0·1
82	84		MH	Black Sandstone, v-minor rounded qtz v-minor sulphides (pyr) (conglomerate)	
84	86		H	Black Sandstone, v-minor sulphides pyrite v-minor qtz, with dark brown oxide + pyrite.	
86	88		H	Black sandstone, v-minor sulphides pyrite v-minor vacant qtz, v-minor pyrite clusters.	<0·1
88	90		H	Black Sandstone, minor-moderate sulphides (pyr) (primarily surficial) v-minor vacant qtz	

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DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. OHH-28
Sheet No. 3 of 3 PLAN No :
Date Drilled 29/11/88 - 30/11/88
Driller W. B.
Geologist D. S.

Total Depth 100 m
Elevation
Datum
Grid Ref.
Hole Size & Type
Sampling Method
Samples sent to Date
Spl. Des. Advice Sheet No.

SURVEY DATA			
Depth			
Dip			
Azimuth			

Drilling				Description	Angle
from	to	run	rec.		
90	92	HHR (down)	"	Black Sandstone, minor sulphides (pyr) minor vacant qtz (slight black tinge)	
92	94		"	Black Sandstone, minor sulphides (pyr) - " - minor vacant qtz (black tinge)	<0·1
94	96		"	Black Sandstone, minor sulphides (pyrite) minor qtz (vacant) black tinge	
96	98		"	Black Sandstone, minor sulphides (pyr) + rounded qtz 40% (conglomerate)	<0·1
98	100		"	AA	

595164

SURVEY DATA (AMG)			
Depth	0		
Dip	60°		
Azimuth	310°		

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. OHH-29
Sheet No. 1 of 3 PLAN No:
Date Drilled 30/11/88
Driller W.B
Geologist D.S

Total Depth 96m
Elevation 91·1m
Datum /
Grid Ref. 483 911·8 m E 38920·3 mN
Hole Size & Type
Sampling Method
Samples sent to Date DEC 1988
Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
0	3		S	(0-0·5m) Brown (Ferrug) Sandstone. Silty/Sandy Powder (0·5-3·0m) Light grey sandstone, Easily breakable	<0·1
3	6			Light grey sandstone. v-minor surficial Fe staining (Light grey silty sandy powder)	
6	8			Light grey sandstone, minor slightly Ferrug brown sast v-minor qtz with surficial limo staining (light grey powder)	
8	10		S	Light grey sandstone, ferruginous sast fine minor qtz (dark brown inclusion Fe oxides?) limo staining	<0·1 (0·01)
10	12		S	Grey sandstone, surficial limonitic staining ferruginous clay, v-minor vacant qtz (fine powder)	
12	14	EXTREMELY SOFT ONLY QTZ LEFT IN SEIVE	VS	Extremely fine grey sist/sast/clst Extremely fine powder, virtually nothing left in seive	
14	16		VS	AA	<0·1
16	18		VS	(Extremely fine powder) Grey sast/sast/clst v-minor vacant qtz only thing left in seive.	
18	20		VS	(Extremely) Fine powder Grey Sast/sist/clst v-Highly weathered.	
20	22		S	Extremely fine powder Grey sast/sist/clst only vv-minor qtz (vacant) left in seive	<0·1
22	24		S	AA	
24	26	SOFT V-MINOR QTZ LEFT	S	Grey/Green sandstone/siltstone Highly weathered (Fine grey/green powder)	
26	28		S	Grey Green sast/sist/clst Extremely fine powder	<0·1
28	30		S	Grey Green sandstone/siltstone/claystone Extremely fine powder, v-minor vacant qtz.	
30	32		S	Greeny Brown sast/sast/clst Extremely fine powder, v-minor vacant qtz	
32	34	MINOR - MOD [illegible] LEFT IN SEIVE	MS	Green Sandstone, minor dark brown sast v-minor (vac) qtz, cuttings < 20mm	<0·1
34	36		MS	Green Sandstone, moderate dark brown sast v-minor (vac) qtz, cuttings < 20mm	
36	38		S	Light brown, green, grey Sandstone, (Sandy Powder) v-minor brown (Ferrug) sast	
38	40		MS	Light browny grey sandstone, (Sandy powder) (mod cuttings)	<0·1
40	42		MS	Light grey (greentinge) Sandstone (pebbly, sandy powder) (mod sast return)	
42	44		MS	Grey Sandstone (Rounded cuttings) Sandy powder min-mod sast return	
44	46		MS	Grey + minor Brown Sandstone, (Sandy powder) (rounded cuttings) minor sast return	<0·1

595165

SURVEY DATA			
Depth			
Dip			
Azimuth			

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. OHH-29
Sheet No. 2 OF 3 PLAN No :
Date Drilled 30/11/88
Driller W.B.
Geologist D.S

Total Depth 96m
Elevation
Datum
Grid Ref.
Hole Size & Type

Sampling Method
Samples sent to Date
Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
46	48	MODERATELY EASY	M	Dark - light Brown siltstone/sandstone (Brown sand, silt, clay powder sample) v-minor (vac) qtz, surficial limo	
48	50		M	Dark - light Brown siltstone/sandstone v-v-minor vacant qtz (Brown sandy powder sample)	
50	52		MS	Grey Sandstone, v-minor dark brown + black Sandstone v-v-minor vacant qtz (sandy light brown/grey powder)	<0·1
52	54		MS	Grey Sandstone, minor brown silt, v-v-minor vacant qtz (moderate cuttings) (brown silt, sand, powder)	
54	56		M	Grey + minor light brown Sandstone, v-minor (vac) qtz (good cuttings)	
56	58		M	Grey + Greeny Grey Sandstone, v-minor Black Sust (slightly conglomeratic)	<0·1
58	60		MH	Light Grey Dark grey sandstone, v-minor (pebbly) qtz slight black tinge (conglomeratic)	
60	62		MH	Grey + minor light brown + dark brown Sandstone v-minor qtz (rounded) with black tinge	
62	64		MH	Browny grey Sandstone 60% → Black Sandstone 40% v-minor sulphides (pyr)	<0·1
64	66		H	Black Sandstone, v-v-minor sulphides (pyr) v-minor qtz (vacant) (black tinge) rounded.	
66	68		H	Black Sandstone, v-minor qtz vv-minor sulphides (pyr)	
68	70		H	Black Sandstone (60%) Grey Sandstone (40%)	<0·1
70	72		H	Black Sandstone, minor dark brown sandstone v-v-minor (vac) qtz (black tinge), v-v-minor sulphides (pyr)	
72	74		H	Black Sandstone, minor dark brown sandstone vv-minor (vac) qtz (black tinge) v-minor sulphides (fine pyrite)	
74	76	HARD GROUND GOOD RETURN	H	Black Sandstone, v-minor sulphides (pyr)	<0·1
76	78		H	Black Sandstone, v-minor qtz (black tinge) minor sulphides (pyr)	
78	80		H	Black Sandstone, v-minor sulphides (pyrite)	
80	82		H	Black Sandstone, v-v-minor sulphides (pyr)	<0·1
82	84		H	Black Sandstone, v-minor sulphides (pyr) (Sandy powder return, due to worn out bit)	
84	86		H	Black Sandstone, v-minor sulphides (pyrite)	
86	88		H	Black Sandstone, v-minor qtz (vacant)	<0·1
88	90			AA	

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SURVEY DATA			
Depth			
Dip			
Azimuth			

DRILL LOG

PROSPECT BEACONSFIELD

LICENCE No.

Hole No. OHH-29

Sheet No. 3 OF 3 PLAN No:

Date Drilled 30/11/88

Driller W.B

Geologist D.S

Total Depth 96m

Elevation

Datum

Grid Ref.

Hole Size & Type

Sampling Method

Samples sent to Date

Spl. Des. Advice Sheet No.

Drilling				Description	
from	to	run	rec.		
90	92	HARD	GOOD RETURN	Black Sandstone, minor qtz (dark brown surficial staining) v-minor sulphides (pyrite) (Slow going, worn out bit)	<0·1
92	94			AA	
94	96			Black Sandstone, v-minor qtz ([illegible]) blacklings v-v-minor sulphides (pyrite)	

TERMINATED HOLE AT 96m, DUE TO WORN BIT IE EXTERIOR BUTTONS NON-EXISTANT

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595167

SURVEY DATA			(AMG)
Depth	0	70	
Dip	60°	65°	
Azimuth	330°		

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. OHH-30
Sheet No. 1 OF 3 PLAN No:
Date Drilled 1/12/88
Driller W.B
Geologist D.S

Total Depth 100 m
Elevation 91.8 m
Datum
Grid Ref. 483 883.4 mE 38 953.6 mN
Hole Size & Type

Sampling Method
Samples sent to Date DEC 1988
Spl. Des. Advice Sheet No.

Drilling				Description	
from	to	run	rec.		
0	3		S	Ferruginous clay, v-minor slightly ferruginous sdst/sist minor (vacant) qtz (Fine Powder)	<0.1
3	6		V-S	Light grey/white Sandstone/Siltstone (Extremely fine powder) (No Sample left after seiving)	
6	8	Extremely Easy Drilling Highly Weathered Sist/Sdst [illegible]	V-S	Lt Grey/Green extremely fine powder (Nothing left after seiving)	
8	10		V-S	Light Grey/Green extremely fine powder, v-minor light brown/orange ferrug powder, v-v-minor qtz (only thing left after seiving)	<0.1
10	12		V-S	Grey/Green extremely fine powder, v-v-minor vacant qtz left after seiving	
12	14		U-S	Light Grey/Green + minor light brown/orange extremely fine powder, v-v-minor vacant qtz (only thing left in seive)	
14	16		U-S	Light brown/orange extremely fine powder v-v-minor (vacant) qtz (only thing left after seiving)	<0.1
16	18		U-S	Light brown/orange → green/grey extremely fine powder (nothing left in seive)	
18	20		U-S	Light browny Grey/Green extremely fine powder v-minor vacant qtz (only thing left after seiving)	
20	22		U-S	Light Greeny/Grey extremely fine powder v-minor vacant qtz (only thing left after seiving)	<0.1
22	24		U-S	Light Green/Grey extremely fine powder minor vacant qtz (only thing left)	
24	26		U-S	Light Green/Grey extremely fine powder (nothing left after seiving).	
26	28		U-S	AA	0.4
28	30		U-S	Light brown/green/grey extremely fine powder (nothing left in seive)	
30	32		U-S	Light Greeny Grey extremely fine powder (nothing left after seiving)	
32	34		U-S	AA	0.1
34	36		U-S	Light Greeny Grey extremely fine powder v-v-minor (vacant) qtz (only thing left after seiving)	
36	38		U-S	Light Greeny Grey extremely fine powder (nothing left after seiving	
38	40		U-S	Light Grey extremely fine powder (nothing left after seiving)	<0.1
40	42		U-S	AA	
42	44		U-S	Extremely fine light grey powder (nothing left after seiving)	
44	46		U-S	AA	<0.1

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DRILL LOG

SURVEY DATA			
Depth	70m		
Dip	65°		
Azimuth			

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. OHH-30
Sheet No. 2 of 3 PLAN No:
Date Drilled 1/12/88
Driller W.B.
Geologist D.S.

Total Depth 100m
Elevation
Datum
Grid Ref.
Hole Size & Type

Sampling Method
Samples sent to Date
Spl. Des. Advice Sheet No.

Drilling				Description	
from	to	run	rec.		
46	48		V-S	Light Grey extremely fine powder (nothing left in seive)	
48	50		V-S	v-light brown/grey extremely Fine powder (nothing left after seiving)	
50	52		S	Light Grey extremely fine powder v-minor light grey sast, v-minor qtz left in seive	0·2
52	54	Minor Coarse Sample	S	Light grey extremely fine silty powder v-v-minor light grey sast/sist after seiving.	
54	56		S	AA	
56	58		S	Light grey extremely fine silty powder (nothing left in seive)	<0·1
58	60		S	Light grey extremely Fine silty powder v-minor (rounded) grey sandstone, v-v-minor vac qtz left in seive	
60	62		S	Light grey extremely fine silty powder v-minor (rounded) grey sandstone (left in seive)	
62	64	Soft Ground	S	Light grey silty powder minor grey sandstone (rounded) left in seive	<0·1
64	66		MS	Light grey silty powder. Grey (rounded) Sandstone left in seive	
66	68		MS	AA	
68	70		M	Light grey silty/sandy powder minor - mod (rounded) sast/sist (Grey.)	<0·1
70	72		M	Light grey silty/sandy/powder (Congl) v-minor grey sist/sast, minor vacant (rounded) qtz pebbles	
72	74		M	Grey (rounded) Sandstone, with round qtz (pebbles). (slight black fringe) + silty sandy light grey powder	
74	76		M	Silty/Sandy grey powder rounded grey sast/sist v-v-minor qtz.	<0·1
76	78	Cong/Sast	M	Grey Sist/Sast, v-minor brown sast/sist + silty/sandy powder (minor) brown/grey color	
78	80		M	Light grey + v-minor brown sandstone + minor Black sandstone	
80	82		M	Light grey + minor black sandstone v-minor brown sast.	<0·1
82	84	Moderate	MH	Light + dark grey sandstone, minor brown + black sandstone (rounded qtz pebbles) (congl)	
84	86		MH	Brown siltstone/sandstone, minor black siltstone v-minor qtz with dark brown staining	
86	88		MH	Grey + Light Brown Sandstone → Black Sast minor sulphides pyrite, chalco?	<0·1
88	90		H	Black Sandstone, Minor dark brown sast v-minor qtz (rounded black fringe), minor sulphides (py)	

595169

SURVEY DATA			
Depth	70		
Dip	65°		
Azimuth			

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. OHH-30
Sheet No. 3 OF 3 PLAN No :
Date Drilled 1/12/88
Driller W.B
Geologist D.S.

Total Depth 100m
Elevation
Datum
Grid Ref.
Hole Size & Type
Sampling Method
Samples sent to Date
Spl. Des. Advice Sheet No.

Drilling				Description	
from	to	run	rec.		
90	92		[illegible]	Black Sandstone, minor qtz (black fringe) minor sulphides (pyr)	
92	94			Black Sandstone, v-minor qtz (black fringe) minor sulphides (pyr)	0·1
94	96			Black + Dark brown/black Sandstone, v-minor qtz (black fringe), minor sulphides (pyr)	
96	98			Black + Dark brown/black Sandstone v-minor qtz (black fringe), minor sulphides (pyr), dark brown staining	0·1
98	100			Black Sandstone, minor (predominantly surficial) sulphides (pyr) v-minor qtz with dark brown staining	

SURVEY DATA	AMG		
Depth	0		
Dip	60°		
Azimuth	325°		

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. BC-1
Sheet No. 1 OF 2 PLAN No :
Date Drilled 19/12/88
Driller W.B.
Geologist O.S.

Total Depth 50m
Elevation 46.4m
Datum
Grid Ref. 483 466.3 mE 39 753.0 mN
Hole Size & Type

Sampling Method
Samples sent to Date DEC 1988
Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
0	3			Dark brown topsoil (minor), Yellow/Brown clay, Clear + Milky qtz, v-minor Fe staining (Pebbles) Alluvials, v-minor weathered sast	0.01
3	6			Brown, Brown/Green, minor dark Brown qtz sericite Sast v-minor grey sandstone	0.01
6	8			Light brown sandstone (Fe staining), minor mod-dark brown sandstone	0.02
8	10			Grey/Brown sandstone, with surficial light-dark brown limonitic staining, minor grey sast with staining, v-minor qtz	0.02
10	12			Minor light brown sandstone, grey (dark) sast, slight brown tinge surficial limo staining, v-minor qtz with Fe staining	0.01
12	14			Grey (brown tinge) sandstone, surficial limonitic staining v-minor grey sandstone (non-stained), v-minor qtz with limo staining	0.03
14	16			Grey Sandstone, minor surficial limonitic staining (v-minor pyr cubes) Slightly platey (phyll), minor qtz limo staining, v-fine (minor) black sulphide	0.11
16	18			Grey Sandstone, minor surficial limonitic staining, with minor Fine sulphides (pyr) in Fissures (slightly platey)	<0.01
18	20			Light Grey/Grey Sandstone, minor surficial grey clay (rounded cuttings) v-v-minor (vac) qtz, v-minor limo stained sast	<0.01
20	22			Grey Sandstone, v-minor surficial grey clay, cutting more angular, v-v-minor vac qtz	<0.01
22	24			Grey Sandstone, v-minor surficial clay along fissures, v-minor light brown Fe stained sast, v-minor sulphides (pyr) white, v-minor vac qtz	<0.01
24	26			Grey Sandstone, v-minor sulphide pyr clusters (surficial) slightly smaller chips (<1cm), v-minor surficial clay along fractures.	<0.01
26	28			Grey Sandstone, v-v-minor surficial limo staining v-v-minor vacant qtz	<0.01
28	30			Grey Sandstone, extremely minor vacant qtz.	<0.01
30	32			Grey Sandstone with v-minor sulphides pyrite (surficial nodules)	<0.01
32	34			Grey Sandstone 35% + grey clay balls? → Black/Dark grey sast minor sulphides pyrite (minor)	<0.01
34	36			Grey Sandstone, v-minor black sandstone, v-minor sulphides (pyr), v-v-minor vacant qtz	<0.01
36	38			Grey Sandstone, v-minor black sandstone, v-minor sulphides (pyrite), v-minor vacant qtz	<0.01
38	40			Light Grey Sandstone, + moderately dark grey sast v-minor sulphides pyr. v-minor qtz (slightly broken up)	<0.01
40	42			Moderately dark grey sandstone, minor black sulphides! minor light grey sandstone with v-minor sulphides (pyr)	<0.01
42	44			Light grey sandstone + minor dark grey sast with black banding (sulphides?), minor pyrite, v-minor qtz with black (sulphs) inclusions	<0.01
44	46			Light grey sandstone, minor dark grey sast (Sandstone is broken up!)	<0.01

H_2O at 42m

595171

SURVEY DATA			
Depth			
Dip			
Azimuth			

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. BC-1
Sheet No. 2 OF 2 PLAN No:
Date Drilled 19/12/88
Driller W.B.
Geologist D.S.

Total Depth 50m
Elevation
Datum
Grid Ref.
Hole Size & Type
Sampling Method
Samples sent to Date
Spl. Des. Advice Sheet No.

Drilling				Description	
from	to	run	rec.		
46	48			Light grey Sandstone, v-minor sulphides (pyr) no water	<0·01
48	50			Light grey Sandstone, v-minor sulphides (pyr) v-minor vacant qtz.	<0·01
				WATER WAS INTERSECTED BETWEEN 42–46m (PERCHED WATER).	

595172

SURVEY DATA	AMG		
Depth	0		
Dip	60°		
Azimuth	325°		

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. BC-2
Sheet No. 1 of 2 PLAN No :
Date Drilled 20/12/88
Driller W.B.
Geologist D.S.

Total Depth 50m
Elevation 47.4 m
Datum
Grid Ref. 483 481.9 mE 39 736.2 mN
Hole Size & Type
Sampling Method
Samples sent to Date DEC 1988
Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
0	3			Dark Brown topsoil/clay, Grey Clay, minor grey weathered Siltstone/Sandstone, v-minor qtz with minor limo staining	<0·01
3	6			Silty clay powder (brown(light)/Grey) Highly weathered sist/sast, Light brown (Fe stained) weathered sast/sist, minor grey sb	<0·01
6	8			50% silty grey clay, minor light brown Fe stained sast Grey sist/sast (primary) minor limo staining (surf), v-m black sast with pyr	0·07
8	10			Grey (slight brown tinge) Sandstone with surficial limonitic staining, pyrite. Silty powder	<0·01
10	12			Grey (slight brown tinge) Sandstone with surficial limonitic staining, pyrite, silty powder, v-minor qtz with limo staining	<0·01
12	14			Grey Sandstone with surficial limonitic staining v-minor black inclusions (sulphides)	<0·01
14	16			Grey Sandstone, with surficial limonitic staining, v-minor qtz with Fe oxides, v-minor (limonite) Fe oxide clusters	<0·01
16	18			Grey/Brown (light) Sandstone, with surficial limonitic staining v-minor qtz with surficial limonitic staining	<0·01
18	20			Grey Sandstone, with surficial limonitic staining (Angular chips)	<0·01
20	22			Grey Sandstone, minor surficial limonitic staining angular chips	<0·01
22	24			Light Grey (Brown tinge) sandstone, minor dark grey sast both with surficial limo staining, chips slightly rounded (g) return	<0·01
24	26			Grey Sandstone with surficial limonitic staining minor round chips (indicating weathering still prom) minor surficial clay	<0·01
26	28			Grey Sandstone, with v-minor pyrite cube inclusions v-minor surficial clay? rounded/angular chips	<0·01
28	30			Grey Sandstone chips upto <2cm, good angular cuttings	<0·01
30	32			Light grey sandstone, v-minor pyrite 55% → Dark grey sast with minor pyr (fine - small cubes) good angular chips	0·02
32	34			Dark grey sandstone minor pyrite 80% → Black sast with fine pyrite 15% + 5% qtz with minor dark black sulphides	0·01
34	36			Black Sandstone (tr) with sulphides pyrite, odd pyr cluster light - mod grey sandstone with v-minor pyr, v-m qtz, minor pyr	0·02
36	38			5% Black Sast, with minor sulphides (pyr) mod grey sandstone with v-minor pyr, v-v-minor calcite?	0·03
38	40			Moderate Grey Sandstone, v-minor sulphides (pyr) v-minor black sast (contam)	0·02
40	42			Moderate Grey Sandstone, with v-v-minor pyr, v-minor qtz with minor pyr (contam), v-minor black sast (contam)	0·04
42	44			Mod Grey sandstone, v-v-minor pyrite v-minor qtz (generally v.v.v) odd one containing pyr or black inclds	0·03
44	46			Grey Sandstone 95%, 3% Black sast with pyrite (cont) v-minor qtz 2%, minor black discolorization + pyr cubes	<0·01

DRILL LOG

SURVEY DATA			
Depth			
Dip			
Azimuth			

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. BC-2
Sheet No. 2 OF 2 PLAN No :
Date Drilled 20/12/88
Driller W.B.
Geologist D.S.

Total Depth 50m
Elevation
Datum
Grid Ref.
Hole Size & Type
Sampling Method
Samples sent to Date
Spl. Des. Advice Sheet No.

Drilling				Description	
from	to	run	rec.		
46	48			Grey Sandstone with v-v-minor pyrite v-minor qtz (2%) with fine minor black discol (Galah?)	<0·01
48	50			Grey Sandstone, v.v. minor vacant qtz.	0·01

SURVEY DATA	(AMG)		
Depth	0		
Dip	60°		
Azimuth	325°		

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No
Hole No BC - 3
Sheet No. 1 OF 1 PLAN No :
Date Drilled 20/12/88
Driller W.B.
Geologist D.S.

Total Depth 42m
Elevation 48.9
Datum
Grid Ref. 483 496.9 mE 39720.6 mN
Hole Size & Type
Sampling Method
Samples sent to Date DEC 1988
Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
0	3			Brown/Dark Brown topsoil/clay, Grey Clay v-minor qtz with limo staining, v-minor light brown sast.	<0·01
3	6			Light grey clay (weathered sast) Light grey sandstone with moderate limonitic staining.	<0·01
6	8			Light grey + dark grey sast with surficial limonitic staining giving nice, slight brown tinge 20%, 80% Powder light brown silt clay	0·01
8	10			Light grey Sandstone with minor surficial limonitic staining	0·01
10	12			AA	0·02
12	14			Grey Sandstone with moderate surficial limonitic staining (60%) Light brown sast 40%, v-v-minor qtz + Fe staining, minor black bands.	0·02
14	16			Grey Sandstone with surficial limonitic staining. v-minor Ferruginous sandstone (light to dark red/brown)	0·03
16	18			Grey Sandstone with moderate surficial limonitic staining	0·04
18	20			Grey Sast 50% + light Brown 50%, with surficial limonitic staining	0·03
20	22			Grey Sandstone with moderate to strong surficial limonitic staining.	0·02
22	24			Grey Sandstone + Grey/Brown sast, mod surficial limonitic staining, v-minor qtz with limonitic staining	0·02
24	26			Grey Sandstone, minor light brown sast, with minor surficial limonitic staining.	0·02
26	28			Grey Sandstone, v-v-minor sast with dark sulphides!	0·01
28	30			Grey Sandstone	0·03
30	32			Grey (slightly darker) Sandstone	<0·01
32	34			AA	<0·01
34	36			Grey Sandstone 10% → Black Sandstone 90% with sulphides (pyr) v-v-minor qtz with a black tinge (minor)	<0·01
36	38			Black Sandstone with minor sulphides (pyr)	<0·01
38	40			Black Sandstone with minor sulphides (pyr) v-minor light grey/brown sast (contam?)	<0·01
40	42			Black sandstone minor pyrite 50% → Grey Sandstone with minor surficial pyrite.	<0·01

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SURVEY DATA	(AMG)		
Depth	0		
Dip	60°		
Azimuth	325°		

DRILL LOG

PROSPECT: BEACONSFIELD
LICENCE No.:
Hole No.: BC-4
Sheet No.: 1 OF 2 PLAN No.:
Date Drilled: 21/12/88
Driller: W.B.
Geologist: D.S.

Total Depth: 50 m
Elevation: 44.9 m
Datum:
Grid Ref.: 483 374.6 mE 39676.0 mN
Hole Size & Type:
Sampling Method:
Samples sent to: Date:
Spl. Des. Advice Sheet No.:

Drilling				Description	Au g/t
from	to	run	rec.		
0	3			Dark brown topsoil, Grey weathered sast/clay minor sandstone, ferruginous sast, grey black sast, limo staining	<0.01
3	6			Grey Sandstone, brown (limonitic stained) brown sast minor qtz with surficial limo staining (strong).	<0.01
6	8			Grey Sandstone (weathered) small rounded chips. minor qtz gossanous strong limo staining.	<0.01
8	10			Grey (50%) Sandstone, Light Brown 40% Fe stained sandstone minor black sast 10%	0.01
10	12			Grey Sandstone (50%), light brown slightly ferruginous sast 30%, 20% Black sandstone with v-minor pyrite	0.02
12	14			Grey sandstone, with light brown surficial clay, v-minor limo staining. Black sandstone with v-fine pyrite (v-minor)	<0.01
14	16			Black Sandstone, v-minor fine sulphides (pyr) 85%. Grey/lightbrown Sandstone Fe stained 15% (contam).	<0.01
16	18			Black sandstone with sulphides (pyr) minor surficial limo staining.	<0.01
18	20			Black sandstone, with fine sulphides (pyr) abundant Fine pasty black powder, v-fine sulphides pyr along fissures	0.01
20	22			AA	<0.01
22	24			Black sandstone, with fine sulphides pyrite (abundant) sandy black powder (v-fine sulphide pyr) along fissures.	<0.01
24	26			Black sandstone with abundant fine pyrite (sandy powder)	0.01
26	28			Black Sandstone with abundant fine pyrite sandy powder more abundant rounded chips, minor pyr clusters.	<0.01
28	30			Black Sandstone with abundant fine (pyr), minor solid pyr clusters, chips slightly rounded, black sulphidic surficial paste	0.01
30	32			Black sandstone with fine sulphides (pyr), minor large pyrite clusters, v-minor qtz with dark inclusions (sulp)	0.01
32	34			Black Sandstone with minor fine sulphides rounded cuttings extremely minor qtz + solid pyr clusters (v-m)	<0.01
34	36			Black Sandstone with fine sulphides (pyr) v-minor qtz with black sulphidic bands, pyrite cubes, graphitic?	0.02
36	38			Black sandstone. with fine sulphides (pyr) (good hard ground, angular cuttings, good return)	0.01
38	40			Black sandstone, fine sulphides (pyr) pasty sulphides graphite? chips slightly rounded.	<0.01
40	42			Black Sandstone minor fine sulphides (pyr), chips slightly rounded, minor pasty sulphide extension along cracks, fissures	<0.01
42	44			AA	<0.01
44	46			AA	<0.01

AIR
MOD-POOR GROUND
POOR GROUND
MOD-POOR GROUND

595176

SURVEY DATA	(AMG)		
Depth	0		
Dip	60°		
Azimuth	325		

DRILL LOG

PROSPECT Beaconsfield
LICENCE No.
Hole No. BC-5
Sheet No. PLAN No:
Date Drilled 22/12/88
Driller W.B.
Geologist D.S.

Total Depth 36m
Elevation 46.7m
Datum
Grid Ref. 483 405.4 mE 39 670.1 mN
Hole Size & Type
Sampling Method
Samples sent to Date DEC 1988
Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t	
from	to	run	rec.			
0	3			Light Brown sandstone (Fe oxide staining) 70% + v-minor dark red staining 30% light grey sandstone, v-minor qtz Fe oxide staining	<0.01	MOD GROUND/[illegible]
3	6			Dark grey (blue) sandstone, minor v-light brown discolorization minor v-fine pyrite (esp along crack, fissures,)	<0.01	
6	8			AA	<0.01	
8	10			Dark Grey Sandstone, with black banding. minor surficial Fe staining, v-Fine sulphides	<0.01	
10	12			Dark Grey (30%) → Black Sandstone 70% with minor surficial Fe v-fine sulphides (pyr)	<0.01	
12	14			Black Sandstone, minor v-fine sulphides along surface fracturing angular chips.	<0.01	
14	16			AA	<0.01	MODERATELY GOOD GROUND
16	18			Black Sandstone, v-fine sulphides 4% qtz with minor black discolorization + pyrite	<0.01	
18	20			Black sast with v-fine sulphides pyrite	<0.01	
20	22			Black Sast with abundant fine sulphides pyr v-v-minor qtz with black inclusions (minor)	<0.01	
22	24			Black brown sast slight Fe staining minor fine sulphides	<0.01	
24	26			AA	<0.01	
26	28			Black Sandstone, V-minor brown staining containing fine sulphides	<0.01	GOOD GROUND
28	30			Black Sandstone with extremely minor qtz, v-fine sulphides (pyr), odd pyrite clusters	<0.01	
30	32			Black Sandstone, with fine sulphides (pyr) surficial pyrite along fissures (Highly abundant)	<0.01	
32	34			Black Sandstone, with fine sulphides (pyr) esp along fissures	<0.01	
34	36			Black Sandstone, with fine sulphides (pyr) v-minor brown staining.	<0.01	

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SURVEY DATA			
Depth			
Dip			
Azimuth			

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. BC-4
Sheet No. 2 of 2 PLAN No.:
Date Drilled 21/12/88
Driller W.B.
Geologist D.S.

Total Depth 50m
Elevation
Datum
Grid Ref.
Hole Size & Type
Sampling Method
Samples sent to Date
Spl. Des. Advice Sheet No.

Drilling				Description	
from	to	run	rec.		
46	48			Black Sandstone with Fine sulphides (pyr), minor pyr clusters (slightly rounded angular fragments)	0·02
48	50			AA	<0·01
				20 - 22m Blockage problems inject H_2O.	
				30 - 32m Inject H_2O No Return	
				Inject Foam Slight Return	
				Inject Foam Return.	

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DRILL LOG

SURVEY DATA (AMG)			
Depth	0		
Dip	60°		
Azimuth	325°		

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. BC-6
Sheet No. 1 of 1 PLAN No:
Date Drilled 22/12/88
Driller W.B
Geologist D.S.

Total Depth 36m
Elevation 49.2m
Datum
Grid Ref. 483416.4 mE 39658.2 mN
Hole Size & Type
Sampling Method
Samples sent to Date DEC 1988
Spl. Des. Advice Sheet No.

Drilling				Description	Au g/t
from	to	run	rec.		
0	3			Brown topsoil, Light brown/grey sandstone, Fe staining 50% Light grey sast, with surficial clay, extremely minor vnqtz	<0.01
3	6			30% Light brown stained grey sandstone, 50% Grey Sast (light brown discolorization) minor pyr + 20% Dark Grey/Black sast with minor pyrite	<0.01
6	8			Dark grey sast 80%, minor surficial limonitic staining 10% Light brown (Fe stained) sast + 10% Black sast with sulphides (pyr)	<0.01
8	10			Dark grey sandstone, minor strong surficial Fe staining (60%) 40% Ferrug sast, v-minor qtz with dark sulphides, (black bands in grey sast.	✓ <0.01
10	12			40% Ferrug sast (light brown) → Black Sast 60% with fine sulphides (pyr) mod surficial limonitic staining.	✓ 0.01
12	14			Black Sandstone, v-minor surficial limonitic staining fine sulphides (esp in surficial fracture parts)	<0.01
14	16			Black 40% + Dark grey sast 60%, with fine pyrite v-minor fine sulphides (pyr) v-minor qtz with black speckles.	0.01
16	18			Black sast with minor fine sulphides, v-minor brown staining	0.01
18	20			Black Sandstone with minor fine sulphides (pyr)	<0.01
20	22			Black/(Dark grey Sandstone with fine sulphides (pyr)	<0.01
22	24			Black Sandstone with fine sulphides (pyr)	0.04
24	26			AA	<0.01
26	28			AA	<0.01
28	30			Black Sandstone with moderate fine sulphides (pyr)	0.03
30	32			AA	<0.01
32	34			AA	<0.01
34	36			Black Sandstone with moderately abundant fine sulphides (pyr)	<0.01

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	SURVEY DATA	(AMG)	
Depth	0		
Dip	60°		
Azimuth	325°		

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No.
Hole No. BC-7
Sheet No. 1 OF 2 PLAN No :
Date Drilled 23/12/88
Driller W.B.
Geologist D.S.

Total Depth 50m
Elevation 48.8m
Datum
Grid Ref. 483 447.5 m E 39 684.6 m N
Hole Size & Type
Sampling Method
Samples sent to Date DEC 1988
Spl. Des. Advice Sheet No.

Drilling				Description	Angle
from	to	run	rec.		
0	3			Dark brown topsoil/clay (20%) Light grey silty clay (leached) highly weathered grey sst	0·01
3	6			(45%) light grey sst, v-minor surficial Fe staining, (10%) grey & brown clay. (45%) light brown sandstone with dark red/brown limonitic staining	0·03
6	8			Light grey sst, v-minor grey & brown clay. Light brown (slightly ferrug) sst with dark red/brown limo staining	0·01
8	10			Light brown - light grey brown sandstone, with limo staining. 30% of sample with dark red/pink staining, 40% light brown clay	0·03
10	12			Light brown sandstone with v-minor surficial limo staining v-minor qtz with dark black spots (minor) & minor grey/brown clay	<0·01
12	14			v-light grey/brown sandstone, with moderate surficial limo staining	<0·01
14	16			Dark grey sandstone, with surficial limonitic staining	<0·01
16	18			60% v. light brown stained dark grey sst (minor clay lightbrown) 40% dark grey sst, minor surficial limonitic staining	<0·01
18	20			50% light brown sandstone, surficial limo staining dark red/brown 50% Dark grey/blue sst minor - v-fine sulphides (pyr)	<0·01
20	22			Mod-dark grey sandstone (slight blue tinge), minor surficial Fe staining (along fractures)	<0·01
22	24			Mod grey sandstone, minor surficial limonitic staining	<0·01
24	26			Dark grey/blue sandstone, minor fine sulphides (pyr)	<0·01
26	28			v-Dark grey/blue, black bands & patches. v-minor v-fine sulphides pyrite.	<0·01
28	30			Dark grey/blue + Black sandstone minor v-fine sulphides pyrite.	<0·01
30	32			Black sandstone, with v-fine sulphides (pyrite)	<0·01
32	34			AA	<0·01
34	36			Black Sandstone, with v-fine sulphides (pyr) (thin surficial pyrite clusters along fractures)	<0·01
36	38			Black Sandstone, with v-fine sulphides pyr v-minor qtz with pyrite.	<0·01
38	40			Black Sandstone, with v-fine sulphides (pyr) predominantly along fracture planes	<0·01
40	42			Black Sandstone, v-fine sulphides pyrite, 7% qtz with sulphides (pyrite)	0·40 ✓
42	44			Black Sandstone, v-fine sulphides pyrite 4% qtz with sulphides (pyrite)	0·25 ✓
44	46			Black sandstone, v-fine sulphides (pyr), minor pyrite clusters, v-minor qtz veins, with pyrite	0·12

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SURVEY DATA			
Depth			
Dip			
Azimuth			

DRILL LOG

PROSPECT BEACONSFIELD
LICENCE No
Hole No. BC-7
Sheet No. 2 of 2 PLAN No :
Date Drilled 23/12/88
Driller W.B.
Geologist D.S

Total Depth 50m
Elevation
Datum
Grid Ref.
Hole Size & Type

Sampling Method
Samples sent to Date
Spl. Des. Advice Sheet No.

Drilling				Description	
from	to	run	rec.		
46	48			Black Sandstone, with v-fine sulphides (pyr) minor pyrite veinlets through fractures.	0·01
48	50			Black Sandstone, with v-fine sulphides pyrite	<0·01
				44-46m INJECTING WATER DOWN HOLE TO CLEAR BLOCKAGE.	

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APPENDIX 4

LOGISTICS REPORT

AIRBORNE GEOPHYSICAL SURVEY
BEACONSFIELD AREA, TASMANIA

FOR

BEACONSFIELD OPERATIONS PTY. LIMITED

BY

AUSTIREX INTERNATIONAL LIMITED

CONTENTS

1. SURVEY DETAILS

1.1 Area - Beaconsfield

Location	Approximately 345 square kilometres located between the Dazzler Range and the Tamar River and within the 1:100,000 scale sheet 8215.

Flight line direction	090 - 270 degrees
Flight line spacing	150 metres
Tie line direction	000 - 180 degrees
Tie line spacing	1500 metres
Mean terrain clearance	100 metres AGL
Line distance	2913.9 kilometres
Nominal flying speed	240 kilometres/hour

1.2 Photography and Navigation

Navigation was visual from pre-planned flight lines on enlargements of aerial photography. Photographic horizontal control was established from 1:25,000 scale series topographic mapping.

1.3 Flight Path Recovery

Flight path recovery was carried out using visual image recognition from tracking films on a duplicate set of photographs provided for navigation.

The average distance between recovered points was one kilometre along traverse lines and tie lines where sufficient photographic detail was present.

2. LOGISTICS AND OPERATIONAL STATISTICS

2.1 Operating Base

The operating base was Launceston, Tasmania.

2.2 Survey Field Crew

Pilots	G. Kalotay, N. Bouvey
Navigator	L. Coremans
Engineers	K. Harrington, I. Armitage
Technician	S. Durko

2.3 Aircraft

Survey aircraft	Aerocommander 500S
Registration	VH-EXH

2.4 Daily Log

Mobilization	25th February
Magnetometer compensation, calibrations	26-27th February
Flight 1	27th February
Flight 2	28th February
Flight 3	29th February
Flight 4	1st March
Flight 5	2nd March
Demobilization	3rd March

2.5 Logistic Summary

Production flights number	5 flights
Production flights hours	33 hours
Survey duration, days	7 days
Production days	5 days

2.6 Low Level Flying Dispensation

Special permission for survey flying over the townships of Beaconsfield and Ilfraville was approved by the Shire Council and the Department of Aviation.

2.7 Climatic Conditions

Fine weather was recorded during the period 26th February-2nd March, 1988.

2.8 Geo-magnetic Conditions

The diurnal field was stable during this period.

3. INSTRUMENT SPECIFICATIONS

3.1 Airborne Magnetometer

Type	Scintrex, V2321 alkali vapour
Resolution	0.01 nanoTeslas
Operating range	17,000 - 95,000 nanoTeslas
Mounting	Tail stinger
Sampling rate	0.2 seconds

3.2 Ground Magnetometer

Type	Geometrics G-856A
Resolution	0.1 nanoTeslas
Recording interval	20 seconds
Recording unit	HP 85B
Location	Sited at the airfield

3.3 Spectrometer

Channels	256
Type	Exploranium, GR-800D
Sampling rate	1.0 seconds
Crystal volume	33.56 litres (2048 cubic inches)

Spectral windows:

	Channel		Energy (MeV)	
	from	to	from	to
Total count	2	254	0.321	2.995
Potassium	101	120	1.368	1.579
Uranium	128	147	1.653	1.853
Thorium	198	236	2.393	2.805
Cosmic	255	255	2.995	6.000

3.4 Altimeter

Type	Radar Sperry AA100
Resolution	0.1 metres
Range	0 - 610 metres

3.5 Tracking Camera

Type	Scientific, Vinten MkII
Lens	5.9mm

3.6 Data Acquisition System

System type	Hewlett Packard
Digital output	DC300 magnetic tape
Sampling rate	0.1 seconds
Analogue output	Watanabe, six channel recorder of magnetic, radiometric and altimeter data.

4. SYSTEM CALIBRATIONS AND CHECKS

4.1 System Calibration

a. Magnetometer heading/manoeuvre compensation.

Differences	North	-.6 nT
	South	+.1 nT
	East	-.4 nT
	West	-.4 nT

b. System parallax calibration.

Magnetometer	3.5 fiducials

c. Spectrometer hand sample checks using Cs, U and Th sources were completed before and after each day's production flight recorded and noted on the flight logs. Refer to appendix 1.

d. Resolution of the gamma ray spectrometer were carried out using a Cs137 source. The average resolutions were 10.8%.

e. Test lines were flown prior to and after each day's production to ensure system repeatability and compliance with specifications.

4.2 Data Acquisition Checks

The checks performed on the data acquisition system involved a read after write check on the tape.

On receipt of data from the field, statistics of each variable are computed, as well as each production line is profiled and the results checked for data integrity.

4.3 Radiometric Correction Coefficients

4.3.1 Analogue Coefficients

The following stripping coefficients are applied to the data prior to presentation on the analogue:

Thorium/Uranium	0.3
Thorium/Potassium	0.5
Uranium/Potassium	0.7

4.3.2 Digital Coefficients

The following coefficients are to be used for stripping the digital data:

Thorium/Uranium	alpha	0.251
Thorium/Potassium	beta	0.335
Uranium/Potassium	gamma	0.817
Uranium/Thorium	a	0.022

4.3.3 Aircraft Background and Cosmic Correction

These coefficients were determined from high altitude flights. The aircraft background is to be removed before stripping.

	Aircraft Background	Cosmic Correction
Total Count	230.6	2.107
Potassium	15.4	0.108
Uranium	7.3	0.090
Thorium	3.3	0.111

4.3.4 Altitude Attenuation

Total Count	0.007073
Potassium	0.007144
Uranium	0.005079
Thorium	0.006983

5. GEOPHYSICAL DATA

5.1 PROCESSING

The field tapes are decoded and corrected for errors. All lines voided in the field are removed. The data is then automatically edited to remove any major spikes. Any errors not detected in the automatic edit are manually corrected.

On receipt of flight path recovery the photos with control are digitized and transformed to grid coordinates. The flight path is then plotted and checked for any errors which are then corrected.

Diurnal values are read off cassettes and edited to remove high frequency noise. Profiles of diurnal are plotted and any errors remaining are corrected. The diurnal is the interpolated to produce a diurnal value for every fiducial and removed from the magnetic data along with the IGRF value. The data is corrected for system parallex and a new set of coordinates are computed. Tie line levelling is then applied, if necessary, to remove any linear variations between traverse lines. The data is then gridded and contoured.

5.2 LINE NUMBERING SERIES

Pre calibration	5010 - 5040
Post calibration	6010 - 6040
Pre low level test line	5080
Pre high level test line	5090
Post low level test line	6080
Post high level test line	6090
Traverse lines	1010 - 1940
Tie lines	7010 - 7310
Heading checks	8200 - 8290
Equipment tests	9000 - 9999

5.3 PROCESSED DATA

5.3.1 Flight Path Maps

1:25,000 scale

5.3.2 Contour Maps

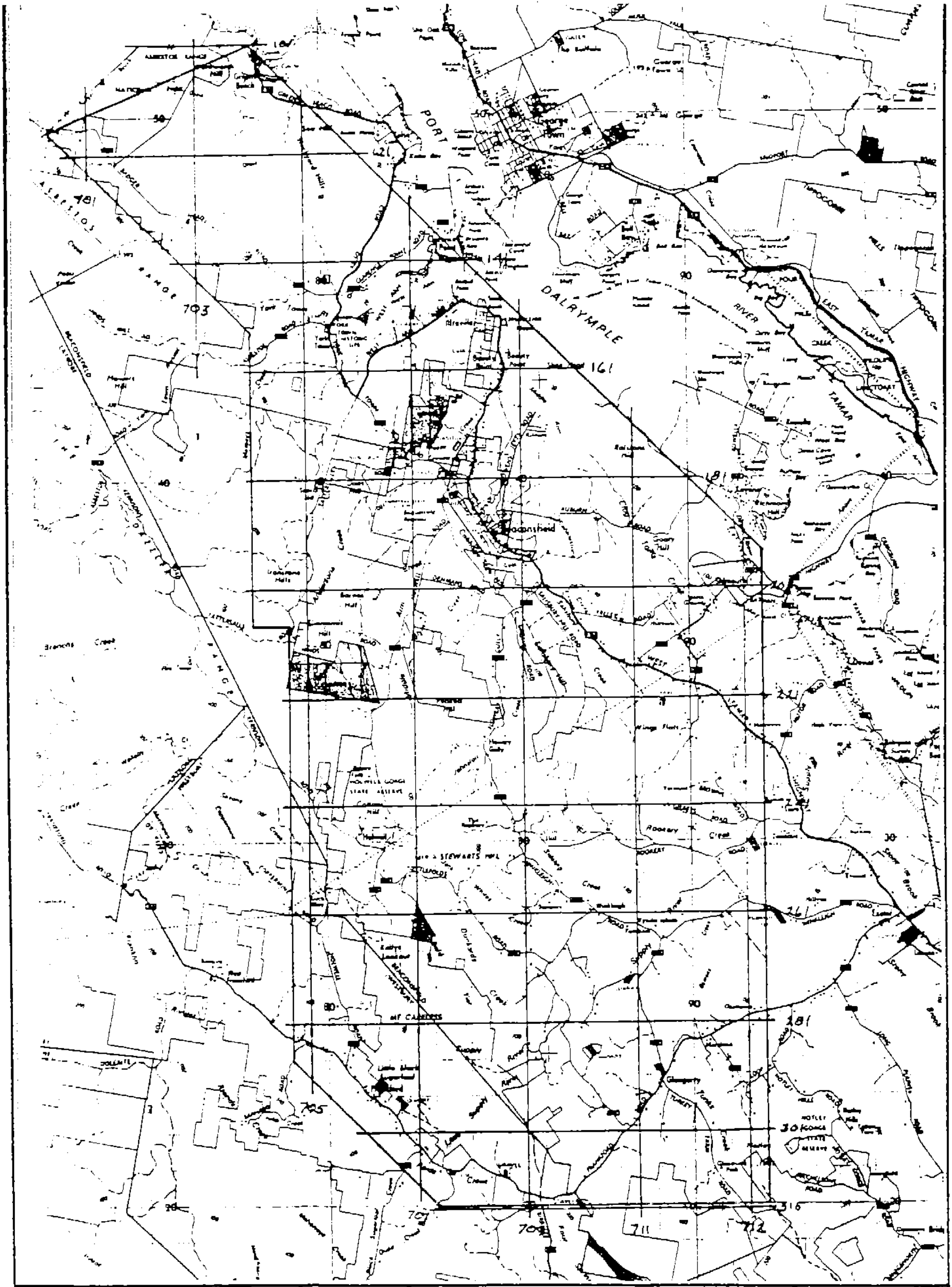
1:25,000 scale Total magnetic intensity and 1:50,000 colour magnetic intensity.
~~Total count~~
~~Potassium~~
~~Thorium~~
~~Uranium~~

5.3.3 Data Tapes

Located in ASCII format
Gridded in binary format

5.3.4 Image Processing

Processing of total magnetic intensity and radiometric data and copy to 35 mm slides.



AUSTIREX INTERNATIONAL LTD.	LOCALITY	DAZZLER RANGE, TAS	
	AREA	BEACONSFIELD	
JOB No. 2066	PLAN SHOWS	SURVEY AREA	DATE 2-3/88