

SURRENDER REPORT  
MARCH 1990

EXPLORATION LICENCE 5538

ROBERT JOHNSTON

with occasional reference to previously reported  
EXPLORATION LICENCES 5310, 5312, 5314, 5315 & 5316

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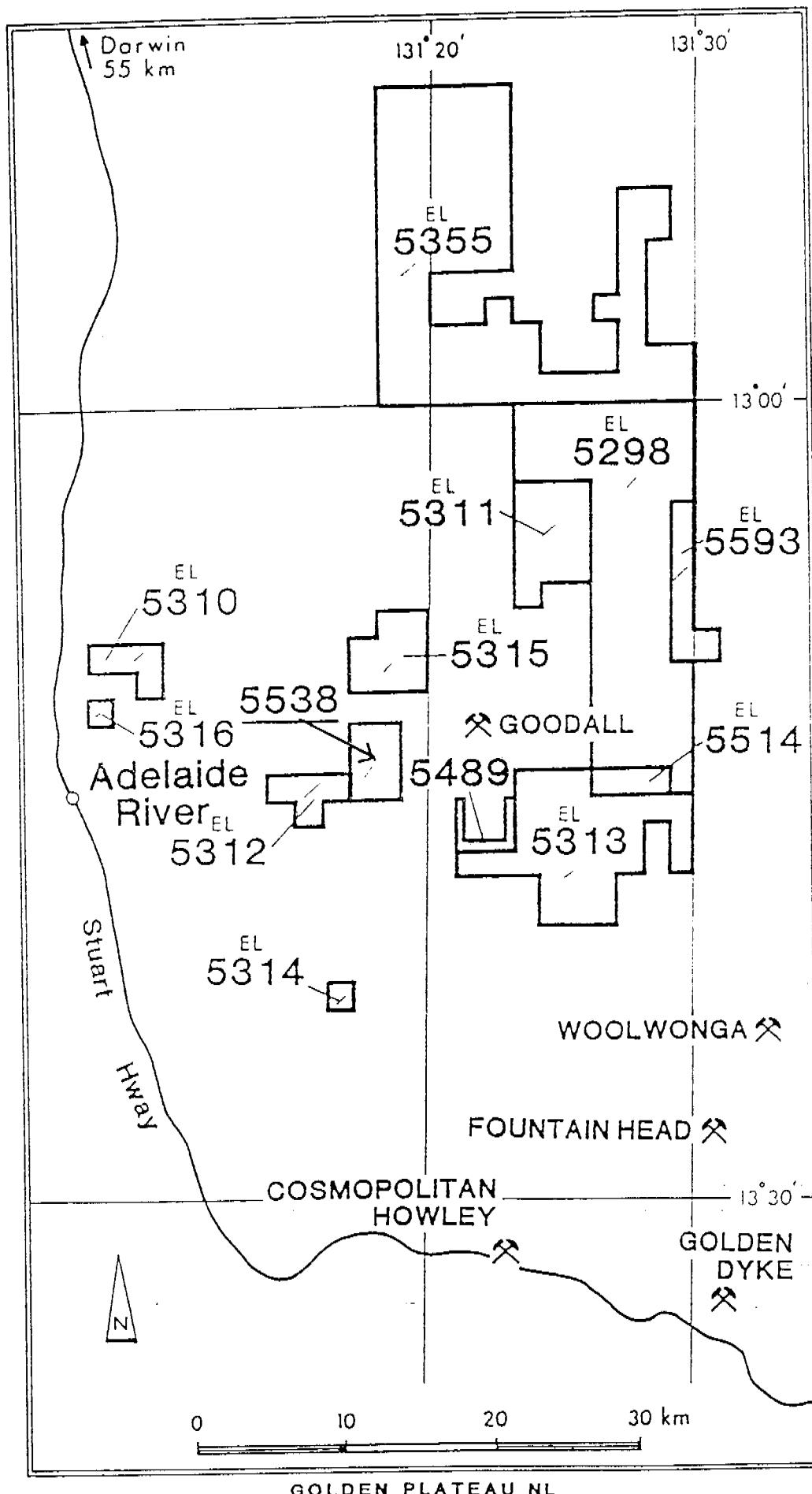
## 1.0 INTRODUCTION

EL 5538 was beneficially held by Robert Johnston.

Under the terms of the farm in and joint venture agreements GPN Pty has the right to earn a 51% interest in the tenements. The results of exploration during year one are the subject of separate reports to DME and have been submitted for all tenements except EL 5538.

The Mount Bunday Project area is 160 km southeast of Darwin (Figure 1). The tenement is West of the Goodall Gold Mining Project currently being developed by Western Mining Corporation and W.R. Grace Australia Ltd.

The area is located on the Batchelor and Noonamah 1:100,000 topographic maps which are further subdivided into map sheet areas as shown in figure 2. Access to the area is gained via pastoral station tracks which cross the tenements. The area is inaccessible when heavy rains make these tracks impassable, usually during the period between November and April.



EL Locality Map  
Mount Bunday Joint Venture, Northern Territory

BACHELOR 5171 1:100 000

BACHELOR 1:50 000

IV-SE 1:25 000

IV tenement

NOONAMAH 5172

II-NW II-NE  
MARRAKAI  
II-SW II-SE

I-NW

I-NE

BACHELOR

MARGARET RIVER MT RINGWOOD

IV-SW

IV-SE

I-SW

I-SE

IV-SW

BACHELOR 5171

MCINLAY RIVER 5271

III-NE

II-NW

II-NE

BURRELL CREEK

BURNSIDE

II-SW

II-SE

GOLDEN PLATEAU NL

# Map Sheet Index Mt Bunday Joint Venture

## 2.0 CONCLUSIONS

Despite extensive regional geochemical sampling (both stream sediment and rock chip), relatively few gold targets have been defined, and most of those have been substantially downgraded by follow-up work.

### 3.0 PREVIOUS INVESTIGATIONS

Historical prospecting activity for gold in the vicinity of the Mt. Bunday Project area located a number of occurrences which were exploited on a small scale. The more significant workings are located at Great Northern and Star of the North, both outside Joint Venture tenements, with less significant workings at John's Hill and Great western (map 7).

Exploration activity in the area during the past decade was stimulated by Joe Fisher. W.J. and E.E. Fisher conducted a helicopter supported rock chip sampling YES in the eastern part of the area on behalf of W.R. Grace Australia Ltd. This resulted in the discovery of the Goodall gold deposit. Subsequent exploration and development was undertaken by Western Mining Corporation Ltd under a joint venture agreement. Exploration in the northern part of the area was also stimulated by Fisher via Euralba Mining Ltd and Burmine Ltd. This work located the William and Joseph Prospects (maps 3 + 4).

Results of recent exploration activity are available as Open File reports from the Northern Territory Department of Mines and Energy.

## 4.0 CURRENT EXPLORATION

### 4.1 Geology

#### 4.1.1. Regional overview

The tenement block occupies part of the Central region of the Early Proterozoic Pine Creek Geosyncline (Needham and Stuart-Smith, 1984). Dating indicates that deposition took place about 1900 Ma ago on an Archaean (c 2500 Ma) basement (Needham et al, 1988). The Pine Creek Geosyncline contains an almost entirely sedimentary depositional pile, estimated at about 10km thick (Needham et al., 1985). Sediments pass from fluvial at the base, to shallow and probably deeper water marine (turbidite) environments at the top. Ongoing mafic and felsic magmatism, mainly evident from plutonic rocks, punctuated the orogenic development of the Pine Creek Geosyncline. The orogenic stage spanned the interval from 1870 to 1780 Ma (Needham et al., 1988). These features are widely interpreted to imply initiation of the Pine Creek Geosyncline as an intracratonic rift system which subsequently widened and deepened before undergoing a convergent stage, which caused orogenesis (Stuart-Smith et al., 1980; Etheridge et al., 1985; Needham et al, 1988).

The Pine Creek Geosyncline is a major gold and U province which also contains many minor Sn, Pb-Zn and Cu mineral occurrences. Most of these metalliferous deposits were probably formed by late-stage magmatic fluids associated with post-orogenic granitoids (Palfreyman, 1984; see also Needham and Roarty, 1980).

The geological environs of the tenement block are dominated by a folded mudrock/sandstone sequence with lesser tuff and banded iron formation (bif). This sequence is intruded near its stratigraphic base by dolerite sills and, in the south, a granite pluton forms the core of a structural dome. A suite of late, mainly northeast-southwest trending mafic dykes is inferred from magnetics. The tenement block lies to the



north of, and outside, the main belt of known Au occurrences of the Hayes Creek - Pine Creek district.

#### 4.1.2. Stratigraphy

The main stratigraphic units represented in the tenement area belong to the South Alligator and Finiss River Groups. Results of mapping on the tenements provide general agreement with the Bureau of Mineral Resources (BMR) stratigraphy. A stratigraphic summary is presented in Figure 3, below:

QUATERNARY		Alluvium	
		Laterite	
TERTIARY		Burnside Granite	Biotite + white mica adamellite
E A R L Y	Fijiss River Gr.	Zamu Dolerite	Amphibole + epidote metadolerite
		Burrell Creek Fm	Shale/siltstone /conglomerate & low grade metamorphosed analogues
	South Alligator Gp		
		Mt. Bonnie Fm	Shale/siltstone /minor sandstone, intercalated
		Gerowie Tuff	bif/chert & metamorphosed analogues
P R O T E R O Z O I C		Koolpin Fm	
	Basement?	?	Amphibole gneiss & white mica schist

Figure 3 Summary stratigraphy for the Mt. Bunday tenement block (based on Needham et al., 1980 BMR; 1985).

## South Alligator Group

### Koolpin Formation

Rocks of the Koolpin Formation are exposed only on the flanks of the Burnside granite structural dome (BMR, 1985; map 11). The main rock types are graphitic and white mica schist and phyllite, spongy ironstone (gossan) and 'clean' metaquartzite. The inferred depositional environment is a sediment and oxygen starved basin (Needham et al., 1988) or possibly a shelf, onto which small volumes of probably mature detritus were sporadically introduced.

### Gerowie Tuff

This unit conformably overlies the Koolpin Formation (Needham et al., 1980), cropping out around the Burnside Dome and in anticlinal cores extending northward (BMR, 1985). It comprises a tuffaceous grey-black chert, lesser tuffaceous (?) white shale and minor lapilli tuff. Regionally the Gerowie Tuff is widely distributed and is interpreted as a sequence of water-lain felsic tuffs (see Crick et al, 1978, Stuart-Smith et al., 1980).

### Mount Bonnie Formation

The Mount Bonnie Formation appears to be conformable with, and gradational into, the underlying Gerowie Tuff. Mudrock dominates this formation but it is characterised by the presence of bif and (volcanogenic?) chert. The terrigenous rocks consist of shale, siltstone (locally with cherty nodules), minor sandstone and their metamorphosed equivalents. The lowermost turbidite sequence identified is in the Mt. Bonnie Formation. Alternating mudrock and arkosic sandstone layers can locally be recognised over stratigraphic intervals of tens of metres and are laterally continuous at outcrop scale. Centimetre-scale grading is developed between some of these layers, and sole structures may be found beneath sandy units. The top of the Mount Bonnie Formation is arbitrarily taken as the top of the uppermost bif/chert layer. The Mount Bonnie Formation is viewed as a transitional unit between the underlying volcanogenic sequences and the overlying sandstone/mudrock association of the Finnis River Group. The commencement of deposition of voluminous immature clastic sediments implies the emergence of a high relief source region.

## *Finniss River Group*

### *Burrell Creek Formation*

This widespread formation consists of mudrock, sandstone and conglomerate. The Mt. Bonnie - Burrell Creek formational boundary is gradational and is marked only by the disappearance of discrete bif/chert layers. Seven distinct associations were noted during mapping, all of which are intergradational. For mapping purposes however, these were generally simplified to four by combining the conglomerate associations. The seven groupings are as follows:-

1. A parallel laminated to parallel bedded mudrock association with occasional solitary sandstone beds and stacked sandstone packets. Sandstone beds are either massive or contain A and AB Bouma cycles with basal flute casts.
2. A medium to fine grained, stacked, parallel-bedded sandstone association with little interbedded mudrock. Sandstones are medium to thickly bedded, occasionally with normally graded (AB) Bouma sequences, with generally unscoured bases. This association may be several tens of metres thick.
3. A similar association to (2) above, but with abundant mudstone partings. Sandstone beds exhibit AB, ABC Bouma sequences, occasional basal scours and common flute and groove casts.
4. Stacked, thick to very thickly bedded coarse/very coarse sandstone to granular conglomerate. Beds are either massive or normally graded.
5. A similar association to (4) above, but with significant mudstone partings.

6. Medium to thickly bedded, clast-supported granule to boulder conglomerates dominated by well rounded vein quartz clasts. Bedding is either parallel, massive or crudely graded.
7. Rare matrix-supported, poorly sorted, massive granite to cobble conglomerate. These are dominated by lithic (mudrock to sandstone) clasts. Sandstones are both lithic and felspathic and, together with conglomerate clast data, indicate a mixed granitic. sedimentary rock and felsic volcanic provenance.

The Burrell Creek Formation is interpreted as a complex turbidite succession. On a regional scale it appears to have coarsened westward, while in the main tenement block it coarsens upward and possibly northward. Few palaeocurrent data (flute and groove casts), though structurally unrestored, imply transport directions from both the north and east.

Remaining rock units exposed in the tenement block are of igneous derivation and will be described in the following section. Remnants of a pisolitic laterite horizon are preserved on valley floors in hilly country north of the Burnside Granite. This laterite layer is assigned a Tertiary age (Needham et al., 1988) and is assumed to underlie much of the extensive Quaternary alluvial deposits of the flood plain system in the north.

#### 4.1.3. Magmatism and Metamorphism

##### Magmatism

Whilst the felsic Gerowie Tuff provides the earliest evidence of magmatism in the area the sill-like mafic intrusions of the Zamu Dolerite are the oldest (meta-) igneous rocks recognised. In the area, they are generally metadolerite with an amphibole-plagioclase assemblage in which a subophitic texture is well preserved. Layering at up to 1m scale, conformable with that of the enclosing stratigraphy, is evident over a 10m interval near

the southeastern boundary of the EL block. This is defined by intervals of different grainsize and mafic/felsic mineral content. A distinctive mafic lithotype crops out next to the Burnside Granite. It is massive, green, fine grained mafic rock, apparently rich in epidote, amphibole and pyrrhotite. This lithotype probably reflects hydrous retrogression/metasomatism related to the Burnside Granite.

The Burnside Granite pluton covers an area of about 100 sq km. Its northern limit lies approximately 2km to the south of the southern boundary of the EL block. It is a biotite - white mica adamellite, locally with a weak subhorizontal flow foliation defined by K-feldspar phenocrysts. Aplite, quartz and granite pegmatite veins are common within the granite pluton.

A late mafic dyke suite is inferred from regional magnetic trends; the main set of dykes is oriented northwest-southeast and the subordinate set trends northeast-southwest.

#### Metamorphism

The metamorphic grade over most of the area is very low (probably lower greenschist facies), however a southward grade increment is notable toward the Burnside Granite dome. Pelitic rocks are represented by slightly recrystallised siltstones in the north (probably chloritic at depth), passing into white mica + graphite + andalusite? phyllite and schist in the south. The mafic rocks of the Zamu Dolerite are only exposed in the south where amphibole - plagioclase assemblages are found. The grade in this area is probably lower amphibolite facies. The change in grade described above is clearly a regional feature unrelated to the contact thermal influence of the Burnside Granite. Distinctive thermal metamorphic effects are evident within 100m of the granite pluton where randomly oriented andalusite prisms overprint tectonite fabrics. Further north the metamorphic assemblages define tectonite fabrics, and the pelitic schists with white mica and equant andalusite prophyroblasts from just outside the 100m wide aureole clearly contain an older pre- to syntectonic assemblage. Given the presence of a domal structure centred on the Burnside

Granite, the regional north to south grade increase, obvious in the pelites, may simply reflect increasing burial depth.

#### 4.1.4. Structure

##### Folding

Three episodes of folding are distinguished from overprinting relationships in two key areas;

- \* the Ringwood Range

- \* an area of refolded folds about 10 km to the south.

No evidence of early layer-parallel fabrics or recumbent folds was recognised, nor was stratigraphic inversion indicated, except where demonstrably associated with essentially upright folds. Johnston (1984), according to Needham et al. (1988) documents layer-parallel fabrics from near the lower contact of the South Alligator Group. Such fabrics were not evident in the mapping area although near the Burnside Granite the schistosity of Koolpin Formation rocks converges toward parallelism with sedimentary layering. This is apparently due to relatively late simple-shear extension associated with rotation of the granite domal core.

The earliest folds recognised are in the interference fold structure south of the Ringwood Range. Here a macroscopic upright  $F_1$  anticline, oriented NNW-SSE, is refolded by two generations of younger structures. The fold is tightly appressed and is associated with an axial planar cleavage. This is apparently the prominent regional foliation and, in the Ringwood Range area, predates the earliest large scale folds recognised. It is variably represented as a slaty cleavage in low metamorphic grade pelitic rocks, a spaced cleavage in psammitic rocks and a schistosity in medium grade pelites. Other probable  $F_1$  folds, as evident from cleavage relationships, are found in the area between about 5 and 10 km south of the old Great Northern mine and also in the vicinity of the Goodall mine.

A second generation of macroscopic folds with hinges oriented approximately north-south and which refolds the regional cleavage is widely recognized across the area. Folds are upright and

moderately appressed, although they are associated with overturning in the  $F_1 - F_2$  interference structure described above. This generation of folds does not appear to have a related penetrative fabric.

The youngest generation of folds is manifested in the macroscopic buckling, about east-west hinges, of the broadly north-south regional structure (see the regional magnetics plan, map 65). It also appears to have been associated with clockwise rotation of the Burnside Granite which has behaved as a rigid block in a ductile matrix (see map 47 and the Batchelor - Hayes Creek geology sheet, EMR, 1985). The Koolpin Formation schist, close to the northern margin of the Burnside Granite, provides confirmatory evidence of such rotation. Both subhorizontal east-west extension lineations and related (high-angle) sheath folds with highly arcuate hinges indicate interlayer simple shear (with a sinistral movement sense). The sheath folds commonly comprise a set of crenulations with a secondary (crenulation) cleavage.

On a large scale, both doming and rotation are probably responsible for smoothing the fold patterns in the area immediately north of the Burnside Granite.

### Faulting

Among the many discordant airphoto lineaments shown as faults on the geological maps, two dominant orientations emerge; northwest-southeast and northeast-southwest. These tend to show dextral and sinistral displacements of up to 2km respectively, suggesting a conjugate relationship as a fault set formed in an east-west compressional field. In this case  $\sigma_3$ , the stress minimum direction, would be approximately vertical. Such a stress field is consistent with that inferred for either of the two earlier fold episodes.

Faults shown on the maps commonly have limited geological expression, occurring in areas of poor exposure. They are inferred from airphotos as linear discordancies, with or without obvious displacement. In outcrop, many faults contain quartz

veins, either in the fault plane or in tensile fissures oblique to the margins of the enclosing shear zone. This distinction and indeed the dip of veins, is seldom clear on the ground unless exposure is enhanced by mining, as this type of vein shows little internal structure.

In addition to the apparently conjugate faults with inferred predominantly lateral displacement, normal faults were recognised. The southern Copper Pits workings in the Gercowie Tuff in the southwest are on quartz veins in the fault planes of west-dipping normal faults.

#### Quartz veining

Quartz veins are described separately here, both because of their importance as hosts to Au mineralisation and the wide range of tensile structures which they occupy.

Concordant veins. This group of veins is typically layered, with sheared margins and some internal layer-parallel shear zones. These structures are commonly superimposed upon an accretionary vein wall layering in which cavities lined with euhedral crystals may be preserved. Concordant veins are developed between layers, generally near the hinges of folds whose formation is inferred to have caused layer separation. Saddle reefs represent a special type of such vein, commonly developed in stacks along anticlinal hinges. Internal deformation structures in these veins (narrow shear zones and fold mullions) imply continuing fold tightening after emplacement. One type of concordant vein is associated with stockwork of fibrous quartz veins. This is probably related to high level hydrostatic fracturing and crystal growth (see below).

Discordant veins. Three types of discordant veins are distinguished;

- i. Those associated with faults and fissures comprising relatively massive milky quartz veins (lower level veins formed under lithostatic pressure?)
- ii. Those associated with faults and fissures consisting of fibrous/cockscorb quartz. Such veins show intensely



developed floating breccias and randomly oriented stockwork. These features suggest hydrostatic loading, with intense fracturing probably due to adiabatic boiling at near surface crustal levels. A fossil hot spring vent containing encrusting siliceous sinter and concretions (geyser eggs) was identified by Tim Blake at the Old Boiler locality.

- iii. Those related to folding which infill radial (or other) fold-associated tensile fractures. Such veins host much of the Au in the hinge of the Goodall anticline.

#### Regional structural synthesis

The three deformations apparent from overprinting relationships can be reconciled with two main tectonic events. An initial, essentially east-west, convergence in which the maximum stress direction ( $\sigma_1$ ) shifted slightly, can account for the first two deformations. Arcuate gross trends on the eastern side of the basin defined by the South Alligator Group (see Needham and Stuart-Smith, 1984, 1:500,000 map) suggest that this convergence involved an eastern foreland with an angular westward protruding margin. Faults associated with this east-west convergence probably provided channelways for hydrothermal solutions from the granites.

The late, north-south compression inferred to postdate granite emplacement is of uncertain tectonic derivation. Ongoing, evidently post-tectonic, hydrothermal activity is indicated by the presence of virtually uneroded hot-spring system at Old Boiler.

#### 4.1.5 Mineralisation

Known metalliferous mineral occurrences from within the tenement block are few, and do not include any old gold workings. Shallow pits have been sunk on narrow (<1m) cupriferous quartz veins in four locations and two other copper mineral occurrences are known. All of these are either close to (within 2 km) or within outcropping Zamu Dolerite, which appears to be the likely copper

source. These minor copper deposits (with little associated gold) are envisaged as products of local fluid circulation systems.

Free gold has only been reported during this exploration programme from two localities and in neither case were further samples found to contain visible gold. At Firebomb, gold was contained in sulphide boxwork in a scree sample of milky vein quartz. Whilst other scree samples gave confirmatory geochemical anomalies, the apparent host, a layered and weakly discordant milky quartz vein, did not. This suggests that the auriferous rock samples represent either vein selvages or a separate vein. The other occurrence of visible gold was in a discordant milky quartz vein in the southwest (labelled Au/Cu on map 11). A single crystal of gold (0.5mm diameter) was attached to a quartz crystal lining a cavity in the vein. No anomalous Au values were obtained from intensive chip sampling of the vein.

Brief descriptions of old Au workings from near the tenement block are presented here as a guide to the style of mineralisation encountered in the district.

- |                    |   |
|--------------------|---|
| Goodall;           | Au occurs in quartz veins filling tensile fissures and stockwork in hydrothermally altered sandstone. The above structures occupy the hinge of an anticline which appears to be cogenetic with the regional cleavage (F <sub>1</sub> ). |
| Great Western;     | Au is in a conformable quartz vein between siltstone and overlying sandstone. The vein is on the western limb of an (F <sub>1</sub> ?) anticline, near the hinge. Arsenopyrite is abundant.   |
| Great Northern;    | Au occurs in a quartz vein occupying the core of a west-dipping shear zone.   |
| Star of the North; | Au is from en echelon quartz veins in a shear zone within siltstone.  |
| Johns Hill;        | The Au occurs in a quartz saddle reef on an F <sub>1</sub> (?) anticlinal hinge.  |

## 4.2 Geophysics

### 4.2.1 General

An airborne magnetic/radiometric survey was flown by Aerodata between November, 1987 and January, 1988. A line spacing of 200 metres was used. Data were processed into contour plans as well as a variety of black-and-white and colour-enhanced images with which to supplement available geology (maps 45 to 65).

### 4.2.2. Magnetism

The enhanced aeromagnetics image (map 65) depicts stratigraphy-defining positive anomalies arising from two main sources. Bif in the Mt. Bonnie Formation and some shale intervals in the Burrell Creek Formation are both associated with such anomalies, which appear to be due to magnetite. Strong positive anomalies highlight mafic rock distribution, both as Zamu Dolerite sills (just north of the Burnside Granite pluton) and mostly northwest-southeast trending late dykes. The Burnside Granite is associated with a flat negative anomaly. The above features collectively provide a geophysical framework which highlights linear discordances. This allows faults to be identified, providing a useful adjunct to geology in targeting possible shear zone/quartz vein hosts to Au mineralisation. One additional magnetically distinctive zone is recognisable as a fault-bounded featureless belt which cuts across the stratigraphy. This zone is about 2km wide and 13km long and extends to the north-northeast from a location 20km north of the northern margin of the Burnside Granite pluton. There is no obvious stratigraphic change into this zone, and the possibility must therefore be considered that it represents an alteration zone. Magnetite sulphidisation (to pyrite) or oxidation (to haematite) could account for the changed magnetic susceptibility. Weathered, commonly ferruginous metasediments provide little evidence to either substantiate or refute this speculation.

#### 4.2.3 Radiometrics

The processed image for potassium (map 67) revealed positive anomalies associated with K-rich felsic igneous rocks or their derivatives. The Gerowie Tuff and Burnside Granite are associated with major positive anomalies. Apart from the presence of negative anomalies over alluvially covered areas, little other useful information is evident from the radiometrics map. It is notable that there is no evidence of zones of K-metasomatism in the magnetically flat zone described in the preceding section, or in the vicinity of the Goodall mine (which is associated with an alteration zone



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11th August 1988

Our Ref : 8DN0046

REPORT NUMBER 8DN0046

36601-36634 } SOILS  
1201-1400 }  
36526-36599 } ROCK CHIPS

CLIENT :

Golden Plateau N.L.

CLIENT REFERENCE :

Order Number A 0127

REPORT COMPREISING :

Cover Page  
Pages 01 - 08  
Pages 1 - 3

DATE RECEIVED :

11th July 1988

Alan Ciplys  
Manager  
AMDEL Limited (N.T.)

This report relates specifically to the sample(s) tested  
in so far as that the sample(s) is truly representative  
of the sample source as supplied.



Analysis code AAS9

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Order No. A 0127

Results in ppm

Sample	Au
1201	0.001
1202	<0.001
1203	<0.001
1204	<0.001
1205	<0.001
1206	<0.001
1207	0.002
1208	<0.001
1209	<0.001
1210	<0.001
1211	<0.001
1212	<0.001
1213	<0.001
1214	<0.001
1215	<0.001
1216	<0.001
1217	<0.001
1218	<0.001
1219	<0.001
1220	<0.001
1221	<0.001
1222	<0.001
1223	<0.001
1224	<0.001
1225	<0.001
1226	<0.001
1227	<0.001
1228	<0.001
1229	<0.001
1230	<0.001
1231	<0.001
1232	<0.001
1233	<0.001
1234	<0.001
1235	<0.001
1236	<0.001
1237	<0.001
1238	<0.001
1239	<0.001
1240	<0.001
Detn limit	(0.001)

Analysis code AAS9

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Order No. A 0127

Results in ppm

Sample	Au
1241	<0.001
1242	<0.001
1243	<0.001
1244	<0.001
1245	<0.001
1246	<0.001
1247	<0.001
1248	<0.001
1249	<0.001
1250	<0.001
1251	<0.001
1252	<0.001
1253	<0.001
1254	<0.001
1255	<0.001
1256	<0.001
1257	<0.001
1258	<0.001
1259	<0.001
1260	0.002
1261	<0.001
1262	<0.001
1263	<0.001
1264	<0.001
1265	<0.001
1266	<0.001
1267	<0.001
1268	<0.001
1269	<0.001
1270	<0.001
1271	<0.001
1272	<0.001
1273	<0.001
1274	<0.001
1275	<0.001
1276	<0.001
1277	<0.001
1278	<0.001
1279	<0.001
1280	<0.001
Detn limit	(0.001)



Analysis code AAS9

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Order No. A 0127

Results in ppm

Sample	Au
1281	<0.001
1282	<0.001
1283	<0.001
1284	<0.001
1285	<0.001
1286	<0.001
1287	<0.001
1288	<0.001
1289	<0.001
1290	<0.001
1291	0.012
1292	0.002
1293	<0.001
1294	<0.001
1295	<0.001
1296	0.002
1297	<0.001
1298	<0.001
1299	0.003
1300	<0.001
1301	<0.001
1302	<0.001
1303	<0.001
1304	0.001
1305	<0.001
1306	<0.001
1307	0.51,0.29
1308	0.002
1309	0.001
1310	0.003,0.43
1311	0.002
1312	0.002
1313	0.001
1314	0.001
1315	<0.001
1316	<0.001
1317	0.023
1318	0.001
1319	0.001
1320	0.001
Detn limit	(0.001)





Analysis code AAS9

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Order No. A 0127

Results in ppm

Sample	Au
1321	<0.001
1322	<0.001
1323	<0.001
1324	<0.001
1325	<0.001
1326	0.004
1327	<0.001
1328	<0.001
1329	<0.001
1330	0.001
1331	<0.001
1332	<0.001
1333	<0.001
1334	<0.001
1335	0.003
1336	0.011
1337	0.050
1338 -	0.004
1339	0.002
1340	0.001
1341	0.001
1342	<0.001
1343	0.002
1344	0.002
1345	<0.001
1346	<0.001
1347	<0.001
1348	<0.001
1349	<0.001
1350	<0.001
1351	<0.001
1352	<0.001
1353	<0.001
1354	<0.001
1355	<0.001
1356	<0.001
1357	<0.001
1358 -	<0.001
1359	<0.001
1360	<0.001
Detn limit	(0.001)



Analysis code AAS9

Report 8DN0046

Page G5

Order No. A 0127

Results in ppm

Sample	Au
1361	<0.001
1362	<0.001
1363	<0.001
1364	<0.001
1365	<0.001
1366	<0.001
1367	<0.001
1368	0.016
1369	<0.001
1370	<0.001
1371	<0.001
1372	<0.001
1373	0.018
1374	<0.001
1375	<0.001
1376	<0.001
1377	<0.001
1378	<0.001
1379	<0.001
1380	<0.001
1381	<0.001
1382	<0.001
1383	<0.001
1384	<0.001
1385	<0.001
1386	<0.001
1387	<0.001
1388	<0.001
1389	<0.001
1390	<0.001
1391	<0.001
1392	<0.001
1393	<0.001
1394	<0.001
1395	<0.001
1396	<0.001
1397	<0.001
1398	<0.001
1399	<0.001
1400	<0.001

Detn limit	(0.001)
------------	---------



Analysis code AAS9

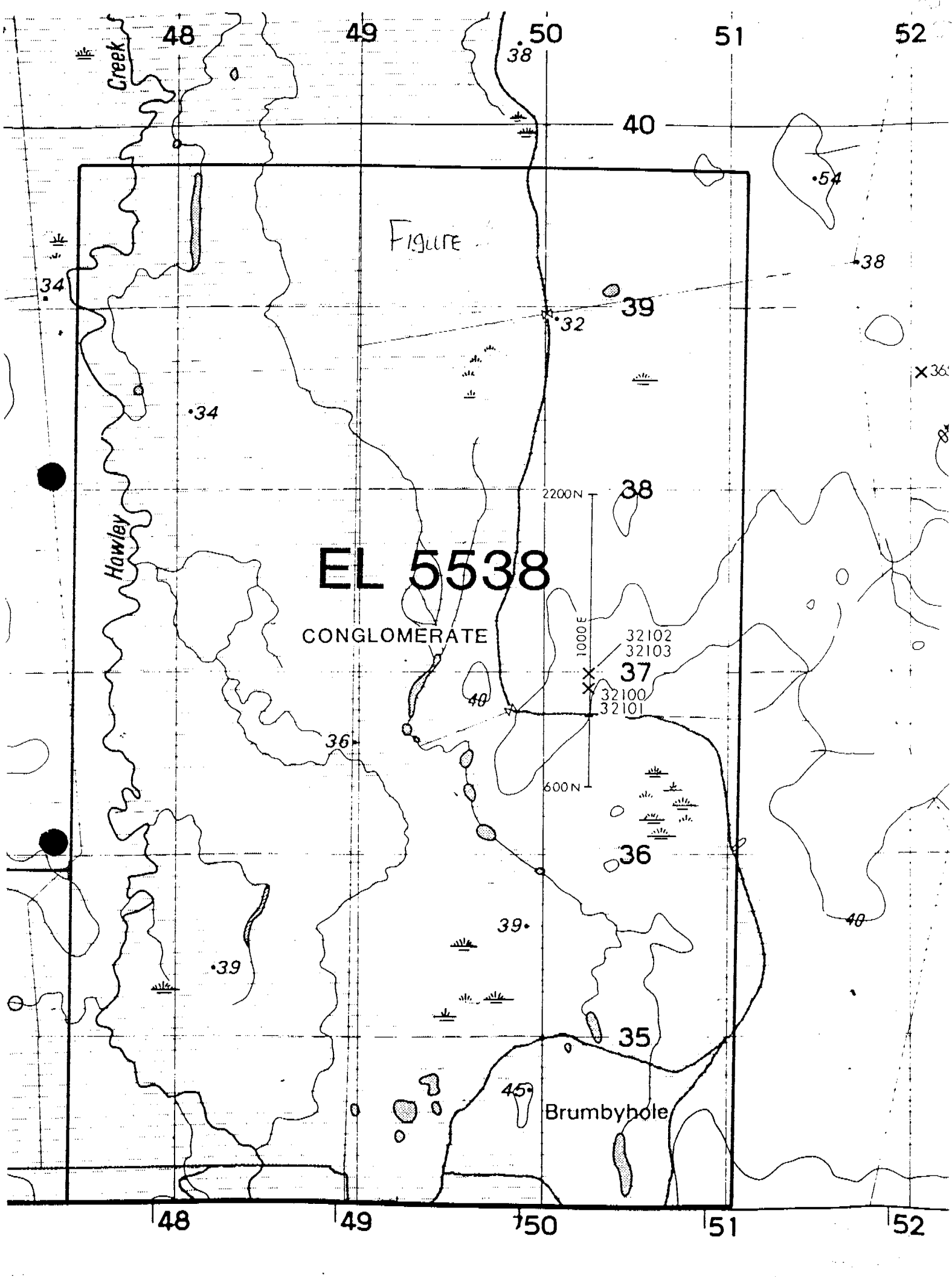
Report 8DN0046

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Results in ppm

	Sample	Au
	36601	<0.001
	36602	<0.001
	36603	<0.001
	36604	<0.001
	36605	0.023
	36606	<0.001
	36607	<0.001
	36608	<0.001
	36609	<0.001
	36610	<0.001
	36611	<0.001
	36612	<0.001
	36613	<0.001
	36614	0.003
	36615	<0.001
	36616	0.003
	36617	0.033
	36618	<0.001
	36619	<0.001
	36620	<0.001
	36621	0.030
	36622	<0.001
	36623	<0.001
	36624	<0.001
	36625	<0.001
	36626	<0.001
	36627	<0.001
	36628	<0.001
	36629	<0.001
	36630	<0.001
	36631	<0.001
	36632	<0.001
	36633	<0.001
↑ SOILS	36634	0.091
↓ ROCKS	36526	<0.001
	36527	0.14
	36528	1.95
	36529	1.25
	36530	0.011
	36531	0.004
	Detn limit	(0.001)



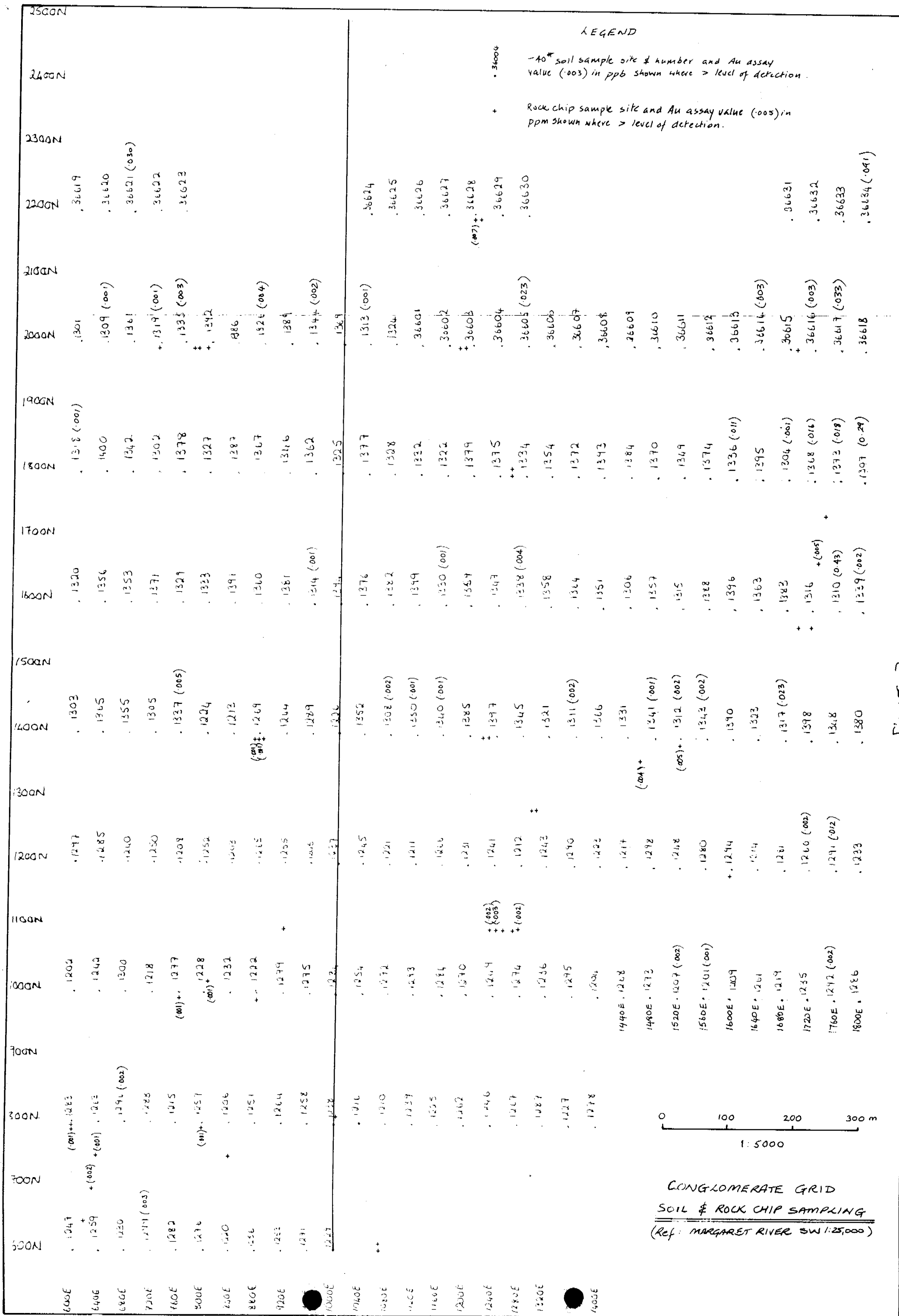


Figure 3