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Prospect 602

79-1404

CSR'S MINERALS & CHEMICALS DIVISION

FRAZER GRID EXPLORATION 1977-1978

EXPLORATION LICENCE NO. 15/76

N.E. DUNDAS - WEST TASMANIA

EMR 82/79

MICROFILMED

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SYDNEY
November 1979

P.M. MACNAMARA

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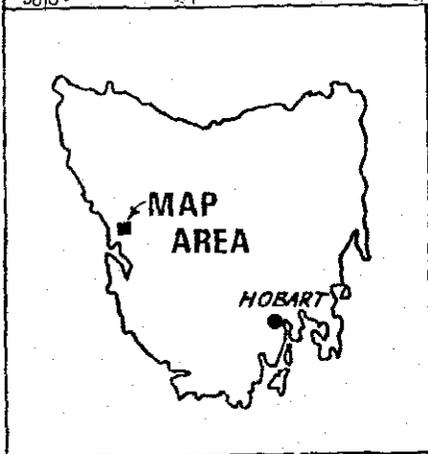
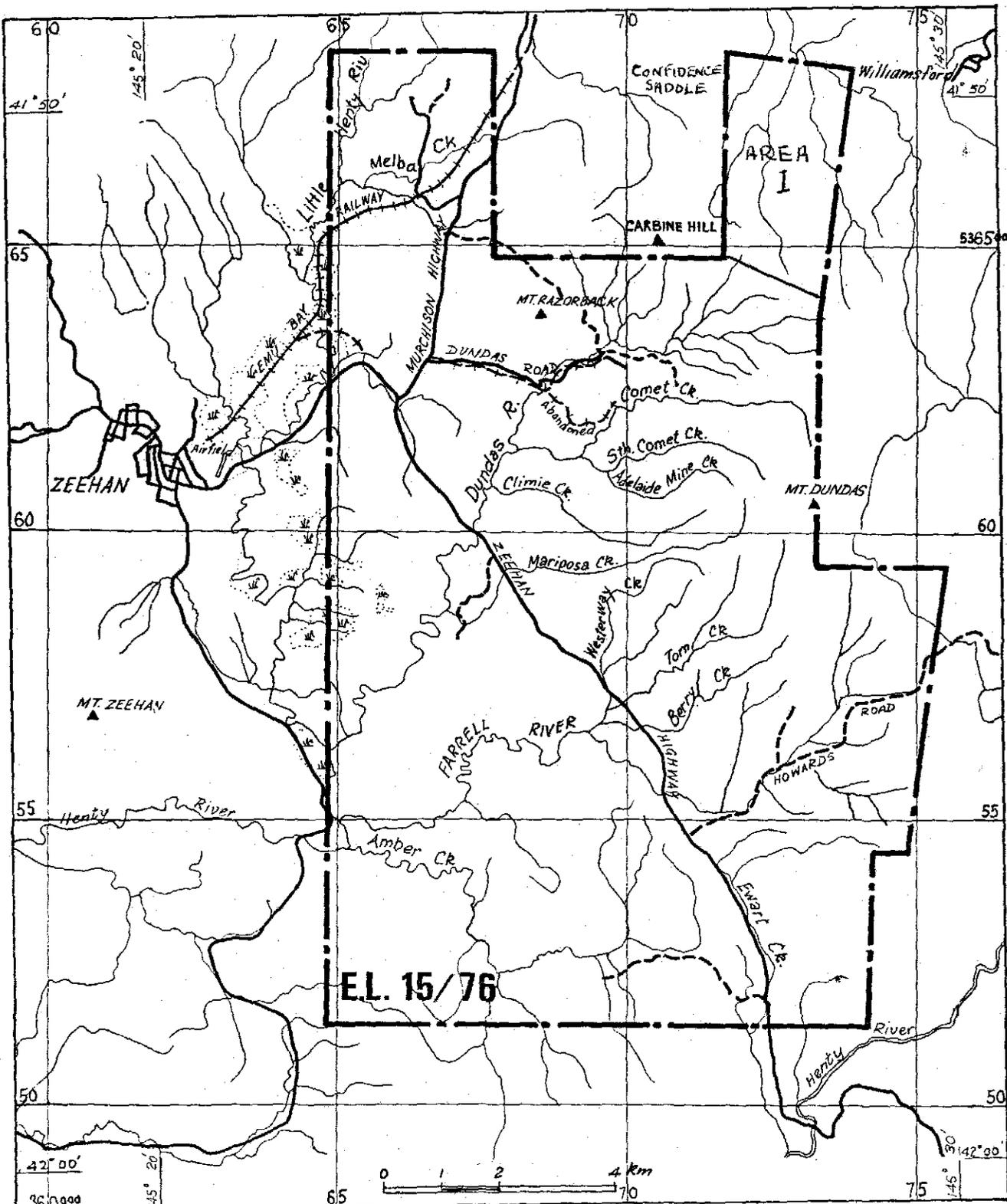
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KEYWORDS

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SAMPLING
SURVEY

1979
GEOLOGY
GEOCHEMISTRY
MAGNETIC
MINERALOGY
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LOCATION MAP

EL. 15/76 DUNDAS
TASMANIA

FIG. 1

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1. INTRODUCTION

1.1 The N.E. part of E.L. 15/76, Dundas, west Tasmania includes a number of tin, copper-lead-silver-bismuth and antimony prospects.

These have been worked in the past mainly for copper-lead-silver which occurs as small but rich complex sulphides, arsenides and sulpho-antimonides. Minor tin has also been won.

1.2 Drainage sampling by CSR Limited in 1977 indicated most of the northerly flowing streams in the area are highly anomalous with respect to the above metals (Sn, Cu-Pb-Ag-Bi) plus others also. Seven anomalous drainage areas were defined by CSR within the E.L. but Area 1 in the N.E. is probably the area with strongest geochemical response (see Figure 1).

1.3 Consolidated Gold Fields Australia Pty. Limited (C.G.F.A.) held the ground in the late 1960's. They established a grid over the area with 14 lines spaced 200 to 250 m apart and designated lines as 0, 1.....13 (see DWG No. K555-11). Soil augering on this grid established a +30 ppm geochemical anomaly extending approximately 3.5 km NNW from Line 13 to the northern border of CSR's E.L. 15/76 (DWG K555-13).

1.4 In 1978, CSR commenced reclearing, surveying, soil auger sampling and magnetic surveying on the southern lines of the grid (now referred to as the Frazer Grid after Frazer Creek). The objective was to follow up the 1977 drainage work, relocate the C.G.F.A. tin anomaly and outline any other anomalies in the area.

Access was by walking track from the vehicle stopping point at Confidence Saddle. Up to three hours walking time was involved each way from Confidence Saddle to the eastern extremity of the southern grid-lines and return. For these reasons, the programme was suspended

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after one line had been augered and a network of magnetic sub-base stations established.

It was decided to tackle Area 1 (Frazer Grid) by building a helipad on Godkin Range in the middle of the area and establishing a camp for a few months in the area. This work is programmed for the 1979/1980 field season.

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2. SUMMARY

2.1 Area 1 in the N.E. part of E.L. 13/76 is underlain by rocks mapped (tentatively) as Brewery Junction Formation, with Oonah Quartzite and Slate in the south. The Zeehan 1-Mile Geological Sheet also indicates Crimson Creek Formation could occur between the above-mentioned units (see DWG K555-11). Thus the dolomitic horizon which carries massive cassiterite-sulphide ore at Renison Bell could occur in the area. Carbonate shales associated with a tin anomaly in soil have, in fact, been recognised in the Minops Lease in the northern part of Area 1 (DWG K555-13) but these rocks have been placed in the Brewery Junction Formation. Black shales and dark carbonate carrying lensoidal banded pyritic grey sulphides (jamesonite - $Pb_4FeSb_6S_{14}$) occur to the south at the end of the track to the North Montezuma Grid (DWG K555-13). These are at the top of the Oonah Quartzite and Slate.

2.2 More than 12 prospects have been worked in Area 1 in the past for copper-lead-silver, arsenic-tin, antimony and bismuth. Sieved drainage mud samples and panned concentrate samples (Appendices I and III) confirm the area is strongly anomalous in these and other metals. Soil sampling by C.G.F.A. in the late 1960's indicated a 3.5 km long +30 ppm soil anomaly plus extensive Cu-Zn-Pb-Ag anomalies (Forsyth, 1968 and 1969).

This 3.5 km long +30 ppm Sn soil anomaly is shown on DWG K555-13 and is of particular but not the sole interest in the area. Values of 500 ppm tin were recorded on Line 8 in the south and of +1,000 ppm Sn around Line 1 in the north. A number of 10-30 ppm anomalies also occur but have not been marked on DWG K555-13.

2.3 The main tin anomaly deserves follow-up work aimed at locating the best sections which should then be tested at depth by drilling. Further line cutting at closer intervals (100 m), off a central baseline followed by pegging, soil

and rock chip sampling, ground magnetics, VLF-EM and possibly I.P./resistivity are recommended. The work should be carried out from a base established in the area for a few months. This will require a helipad to be built in the centre of the area on Godkin Ridge. After this work is completed a road for drill access can be considered or a rig can be lifted in by helicopter, depending on environment/road building problems.

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3. GEOLOGY

3.1 The 1962 Zeehan 1:63,630 Geological Map (see DWG K555-11) indicates the following Cambrian rock units occur within the Frazer Grid area :-

- Brewary Junction Formation : grey/green siltstones, grey-wackes with volcanics and chert breccia bands.
- Crimson Creek Formation : purple and green mudstone and greywacke.
- Oonah Quartzite and Slate : pale micaceous quartzite, siltstone and shale.

3.2 Subsequent mapping in the late 1960's by New Consolidated Gold Fields (Australasia) Pty. Limited indicated most of the area is comprised of Brewary Junction Formation with Oonah Quartzite and Slate in the south. No Crimson Creek Formation was recorded. This is important as the Renison Bell type massive sulphides occur in dolomitic horizons at the base of the Crimson Creek Formation just above the Oonah Quartzite and Slate.

3.3 However, Clare (1972) of Longreach Metals subsequently indicated the presence of blue-grey dolomitic shales with pyrrhotite rich bands in the northern part of the area between Line 0 and Line 1. They were mapped as a unit of the Brewary Junction Formation.

This data needs checking as Forsythe (1968, page 3) indicated both Blisset and C.G.F.A. thought a number of other formations could be present (including Crimson Creek Formation?) More attention needs to be paid to unit mapping within the grid, particularly of such horizons as this which could possibly host Renison Bell style mineralisation. Soil sampling does indicate the dolomitic shales in the vicinity of Line 1 - apparently coincide with the +30 ppm Sn soil anomaly indicated by C.G.F.A. and shown on DWG K555-13.

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Thus it may somewhere host massive cassiterite-sulphide mineralisation and is therefore worth tracing throughout the grid.

3.4 Rocks in the Fraser Grid have been at least weakly metamorphosed, presumably due to granite at depth. Evidence of possible granitic rocks at depth is also indicated by the quartz porphyry dyke which has been mapped on the Zeehan 1-Mile Sheet trending discontinuously south-westwards from Renison Bell through Pine Hill and has been recorded a little to the west of the western E.L. boundary. Projected into the E.L., the trend of the dyke would line up approximately with the Evendon and Hecla Mines (DWG K555-11).

3.5 A number of strong, extensive, north to NNE trending faults cut through the area and generally offset shorter N.W. trending faults. Most of the prospects in the area have been described as containing structurally controlled mineralisation. North to NNW trends appear to exert control over mineralisation judging by the distribution of prospects on the grid described as being on fissure veins (Blisset, 1962). However, these trends parallel bedding in many cases and a stratigraphic control concept of mineralisation should be always kept in mind and checked for.

4. MINERALISATION AND PAST EXPLORATION

4.1 Alluvial tin derived from veins on the west slope of Great Northern Creek (Frazer Mine?) were recorded by Nye (1931) above its junction with the Ring River within E.L. 15/76. No production was recorded but both gold and tin were probably recovered from alluvial flats near Ringville on Great Northern Creek. Ferguson (1970) shows the Dunn and Archer alluvial workings occurring on Line 1A on this creek below the Frazer Mine.

4.2 Blisset (1962, p.232) records andesitic and basaltic lavas and tuffs occur interbedded with Cambrian sediments on Godkin Ridge and near Montezuma Falls. Most ore deposits in the area are described as fissure veins striking NNE and NNW, in a similar direction to the trend of tight folds and intense faulting in the formations (Devonian Tabberabberan Orogeny).

4.3 Mineralisation can be loosely classified by mineralogy into, i) Ag-Cu-Pb ores with siderite gangue and complex Sb-As sulphides; ii) cassiterite-sulphide ores with quartz gangue (including arsenopyrite-pyrrhotite-chalcopyrite).

Ore minerals are mainly sulphides and are complex. The following main types occur but there is a tendency for types to overlap.

(a) Tetrahedrite-Chalcopyrite ("Fahlore" - grey sulpho-antimonides/sulpho-arsenides of copper). Characteristics are :-

.. sulphides : arsenopyrite, jamesonite, galena, sphalerite, bismuthinite with pyrite, tetrahedrite, chalcopyrite.

.. gangue : siderite, some quartz.

Examples are :- South West Curtin Davis, Curtin Davis, No. 1 Curtin Davis, Bonnie Dundee, Ramsdale.

The Curtin-Davis Group of mines (South West Curtin, Davis, South Curtin Davis, No. 1 Curtin Davis), Block 302, Bonnie Dundee and Ramsdale mines all produced silver-copper +lead from tetrahedrite ores. Ore sheets worked were rich but erratic and of small size, generally 0.1-0.5 m wide, 10-20 m long with grades of 3-12% Cu and 30-200 oz Ag/tonne and some lead. Production amounted to approximately 2,000 tonnes of ore total which yielded about 150,000 oz Ag, 150 tonne copper and 30 tonne lead from numerous adits.

Generally the gangue was sideritic, but siliceous gangue is reported from the Ramsdale which indicates it is worth checking further (although values are reported to be erratic).

The Curtin Davis group of mines are in the vicinity but do not coincide with the +30 ppm Sn anomaly shown on DWG K555-13.

(b) Galena-Sphalerite Type

- .. Sulphides : galena-sphalerite + jamesonite + tetrahedrite.
- .. Gangue : siderite, some dolomite and quartz.
- .. Examples : Great Northern Creek (Carbine) mine Evenden, Wallaces Prospect.

The Great Northern Creek Mine occurs to the west of E.L. 15/76 near Carbine Hill, SW of Ramsdale. Thin veins (0.3-1 m wide) of galena-sphalerite-pyrite-jamesonite occur in siltstone/greywacke rocks containing serpentinite sills (i.e. Dundas-type Pb-Ag veins). Production was low - approximately 20 tons galena ore.

The Evenden Prospect consists of a drive on a thin NNW trending galena-sphalerite-pyrite vein containing low silver. Any production would have been low.

Wallaces Prospect occurs as two jamesonite rich lenses in a NNW fault. At least 20 tonne of 42% Pb, 22% Sb, 1% Zn, 5% As, 2% Cu, 15 oz. Ag/ton plus contained stannite have been worked.

(c) Chalcopyrite-Bismuthinite-Pyrite Type

- .. Sulphides : chalcopyrite-bismuthinite-pyrite + pyrrhotite-arsenopyrite-galena.
- .. Gangue : siderite.
- .. Example : Hecla

The Hecla mineralisation occurs as an 0.3-1 m wide sideritic vein in slate and greywacke grit. The vein carries chalcopyrite - bismuthinite - pyrite - pyrrhotite plus minor arsenopyrite - jamesonite - bournonite. Some bismuthinite and arsenopyrite is disseminated in the slate and greywacke (Blissett, 1962, p.242). Production was low. The disseminated aspect of the mineralisation needs checking.

(d) Pyrrhotite-Arsenopyrite-Cassiterite Type

- .. Ore minerals : pyrrhotite-arsenopyrite-cassiterite + chalcopyrite - pyrite.
- .. Gangue : quartz.
- .. Examples : Fraser Mine, Greens Prospect.

The Frazer orebody strikes NNW over 150 m length by 0.6 m wide, with ore shoots up to 40 m long separated by poorly mineralised quartz gangue. The body has been stoped to yield 1,000 tonnes of ore containing 2.5% Cu, 17% As, plus fine-grained tin of unknown but apparently low average grade (Blissett 1962, p. 243).

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4.4 Forsythe (1969) notes the strong tin anomalies in the northern part of E.L. 15/76. He also notes the "unexpectedly strong" tin geochemical anomalies in the southern part of the Frazer Grid, particularly Anomaly "H" (DWG K555-13). Anomaly "H" parallels the Wallace Prospect - Curtin Davis Consols trend and includes values of up to 500 ppm Sn on Line 8. As stannite was observed in Wallace's Prospect, Forsythe suggests the anomaly may be due to a NNW striking stannite-bearing lode. Strong Pb-Zn-Ag is apparently associated judging by soil geochemical values.

4.5 A number of strong anomalies with values up to 4,000 ppm Sn in the northern part of E.L. 15/76 occur in the Minop's lease and Green and Williams lease over Green's Prospect to the south. However, some +30 ppm tin anomalies occur within E.L. 15/76 outside the leases, including apparently the Frazer Mine (or at least some tin anomalies and workings adjacent to it).

4.5 Anomaly H, the Frazer Mine environs and the various tin geochemical anomalies outside the above mentioned leases represent areas and zones worthy of concentrated follow-up work. Down dip extensions of mineralisation cropping out in the lease areas are also possibilities worth checking.

Ferguson (1970) suggests Sn values in the northern area of Frazer Grid around Line 1 may be of a disseminated type and not coincident with magnetic anomalies in the general vicinity. This and other evidence suggests a non-magnetic target with strong stratigraphic control is a concept worth keeping in mind.

4.6 Clare (1972) of Longreach Metals concentrated costeaning, mapping and sampling on C.G.F.A.s Anomaly A near Line 1. This occurs within the current Minop's lease. Anomaly A contains high Sn and As values and local high Cu values; Sn is apparently disseminated.

Mapping established a south plunging syncline in Brewery Junction Formation as the dominant structure in the area. High tin values were related at least in part to blue-grey dolomitic shales containing bedded sulphides.

Ten 3 m sampled sections in costeans contained +1,000 ppm Sn. The highest values recorded were 3 m of 0.33% Sn on Line 1 and appeared to be due to disseminations in a sediment.

Shear zones and faults were postulated to have probably controlled tin introduction, but Clare stated values appeared to be unrelated to structural features or to sulphides.

4.7 Between 1972 and 1974 Minops conducted geological, geochemical and I.P. surveys on the anomaly and drilled two holes in the vicinity of Anomaly "A". Layden (1974) indicated drilled mineralisation of greatest interest is contained in a NNW trending shear zone. The drilling was inconclusive, due partly to core recovery problems. Localised low values of tin appeared to be related to quartz veins and associated with shearing. Layden recommended further work to adequately test Anomaly "A" for Renison Bell-Grand Prize-Razorback type tin sulphide mineralisation.

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5. DRAINAGE GEOCHEMISTRY

Between November 1976 and March 1978, over 600 drainage mud, heavy mineral panned concentrates and rock chip samples were collected over E.L. 15/76. Within the N.E. sector of the E.L. around the Frazer Grid region, 121 samples were taken. These defined a large anomalous area which was named Area 1.

Results are listed in Appendices I, II and III. Samples have been notated by the letters M, P and R following the sample number to designate creek mud, panned concentrate and rock chip samples.

Sampling involved traversing creeks in which active stream silts were collected for subsequent drying, sieving and chemical analyses. Heavy mineral concentrates were collected by panning stream sediments on site. Final concentration was accomplished with bromoform (S.G. 2.87).

The -80 mesh fraction of the drainage samples was tested initially (Appendix 11 and DWG K555-12). Subsequently the -20 mesh fraction of many of this group were chemically analysed also, as work elsewhere indicated detrital minerals, such as cassiterite, tend to report more strongly in the coarser -20 mesh fraction of soils and sediments (see Appendix I).

The -80 mesh fractions of stream sediments were chemically analysed by atomic absorption spectrophotometry. The -20 mesh fraction and panned concentrate samples were scanned by emission spectrography. All analyses are shown in Appendix I, -80 mesh results alone in Appendix II and panned concentrate analyses alone in Appendix III. Sample locations are shown on DWG K555-11.

Chemical analyses of the drainage samples indicate the following elements report strongly and are highly anomalous in places:- Sn, W, Sb, Cu, Zn, Pb, Bi, Ag, Ni, Co, Cr, Ba, F. Element associations, geology and complex sulphide occurrences suggest an acid volcanic association of elements may be present.

Thus stratabound mineralisation should be kept in mind as well as the fracture-controlled situations which have been the main targets in the past.

An alternative interpretation of results is that complex sulpho-arseno-antimonides minerals represent the outer haloes around a mineralising granite source at depth.

For either interpretation, the strong values indicate the area is particularly prospective for Sn-W-Ag mineralisation as well as Cu-Zn-Pb, etc. (see Appendix I).

Strong tin values were obtained in some sieved drainage mud samples such as 602019N (4,000 ppm Sn) north of Frazers mine and 602091M (4,000 ppm Sn) in the Avon Creek headwaters to the south. Supporting strong Sn-Sb-W, etc. values were recorded in panned concentrate samples (Appendices I and III).

Chemical analyses of panned concentrates in general confirm any drainage mud anomalies, upgrade or confirm moderate anomalies and help eliminate drainages with low values (depending on results and area of basin drained). In general, panned concentrate metal values are several orders of magnitude higher than associated drainage mud values. Thus subtle anomalies can be confirmed by heavy mineral chemical analyses or alternatively weak anomalies eliminated.

High tin values occur in most panned concentrate samples from the N.E. part of the E.L. (i.e. 602004P to 602092P). Some of the highest values for tin occur in the vicinity of Lease 62M/75 (Minops) and 12M/42 (Green and Williams). These two leases occur within the perimeter of the E.L. but are excluded as they were taken up prior to the granting of E.L. 15/76.

Of particular interest is the zone to the south of the leases between (say) 5366.5N and 5364N. High Sn-W-Sb values were recorded in -80 mesh and panned concentrate samples in this 2.5 km belt. These results are shown below, and indicate the zone is worth checking further by grid soil sampling and mapping with the object of establishing drill targets.

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<u>SAMPLE NO.</u>	<u>NORTHING</u>	<u>Sn</u>	<u>Sb</u>	<u>W</u>	<u>Cu</u>	<u>Zn</u>	<u>Pb</u>	<u>Ag (ppm)</u>
602 075M)	5366.5 N	50	<30	<50	45	55	260	1
076P)	"	300	2000	2000	30	1000	100	< 0.1
602 060M)	5365.2 N	20	<30	<50	20	40	120	< 1
061P)	"	1000	1000	1000	30	1000	100	< 0.1
602 088M)	"	< 20	<30	<50	140	350	1400	7
089P)	"	2000	500	500	500	1000	1000	< 0.1
602 091M)	"	4000	<30	<50	5	10	40	< 1
092P)	"	>10000	>10000	-	500	2000	2000	-
602 171M)	5364 N	200	-	-	60	110	1700	13
172P)	"	1000	50	<50	30	20	100	0.5
602 508M)	5364 N	100	-	-	40	65	720	3
602 511R)	"	1000	2000	<50	2000	30	+1%	30
512R)	"	5000	3000	<50	5000	50	+1%	50
516R)	"	2000	3000	<50	5000	30	>1%	50

Sample 602171M (200 Sn) and 172P (1000 Sn) confirm the North Montezuma Grid in the vicinity of 5363N deserves further attention.

Samples 602165R, 511R, 512R and 516R contain high Pb-Sn-Sb-Ag values and are from a stratabound(?) lensoidal jamesonite ($Pb_4FeSb_6S_{14}$) occurrence in dark carbonate shales. The shales show no evidence of thermal metamorphism.

High Zn and Pb drainage values from this zone are shown on DWG K555-6 and in Appendix I (see samples 602165-180 and 602506-517, which drain this grid).

6. MINERALOGICAL/GEOCHEMICAL APPRAISAL OF PANNED CONCENTRATES

Panned concentrate samples from the N.E. sector of E.L. 15/76 were examined by binocular microscope by Curtis (1978) prior to scanning by emission spectrograph. Results are set out in tabular form on DWG K555-16A. Sample weights and emission spectrographic results are shown in Appendix III.

Samples were panned in the field mainly and heavy minerals separated using bromoform (S.G. 2.87). No magnetic separation was attempted, and abundant iron present in many samples as magnetite, ilmenite and limonite subsequently showed up as a multiplicity of intense iron lines on the emission spectrograph which interfered with important lines from Bi, Sb, W, Cr and Ti in some samples.

Area 1 in the NE part of the E.L. contains a preponderance of "economic" heavy minerals when compared with six other anomalous areas outlined within the E.L. by similar geochemical/heavy mineral studies.

The following text material has been abstracted from the report by Curtis (1978) on his heavy mineral study, referring to Area 1.

"Sample weights are variable (0.03 to 4.0 g). There is a great deal of rock material in the heavy mineral concentrates in this sector including amphibolite, mica and chlorite schist fragments. Some embedding by magnetite or other iron oxides has occurred to sink this non-heavy material which would otherwise have been mainly excluded from the heavy concentrates. The principal heavy minerals present in this sector are ilmenite, magnetite, limonitised magnetite and actinolite in places; in two cases augite is prominent and this may have washed in from an area outside the lease as no basic rocks are mapped here. The large amounts of cassiterite seen in some specimens are probably 'wash' from dumps. Tourmaline is common as a minor component in these concentrates. Other minerals present are traces to major spinel (chromite?)

a little topaz, steatite, appreciable garnet (pink variety), hypersthene, traces of dolomite and corundum, traces to minor pyrite, pyrrhotite, chalcopyrite, epidote, anthophyllite and actinolite. The presence of anthophyllite, steatite and chromite suggest a serpentinitiferous (metamorphosed) source. Hypersthene and augite - a dolerite source. Metamorphic minerals - garnet, anthophyllite, actinolite and epidote (show variable grades of metamorphism of sources) also appear as well as tourmaline and topaz ancillary to tin mineralisation. Traces of fresh sulphide present would not be far from a sulphide source and much of the cassiterite is fresh. A trace of gold was seen in sample 004".

In Area 1 the following main minerals occur :-

<u>Major</u>	<u>Minor</u>	<u>Trace</u>
Actinolite	Anthophyllite	Apatite
Augite	Chalcopyrite	Cerussite
Cassiterite	Chrysotile	Gold
Garnet	Epidote	
Hypersthene	Pyrite	
Ilmenite	Rutile	
(+ leucoxene)	Steatite	
Magnetite	Zircon	
Spinel	Sphalerite	
Tourmaline		

"In spite of the inadequacies of the spectrographic technique, the chemistry bears out very roughly the mineragraphic results (see Appendix III and DWG K555-16A). With high tin, boron occur some economic metalliferous sulphides, zircon and high chrome - though with no polished section available it was difficult to differentiate between chromite and magnetite present. Tungsten, present in large quantities does not apparently occur as tungsten minerals, wolframite or scheelite. Tungsten may be within the cassiterite lattice or more likely where heavily oxidised is adsorbed on limonite/goethite present. This also goes for arsenic as arsenopyrite which could hardly be missed, if it were present. To the south of the N.W. and N.E. sectors of the E.L., there is a dramatic drop in ore-forming elements and associated elements/minerals

as per Co, Ti, Y, Zr, B, Cr, V, W, As, Bi, Sn and Zn. To some extent but more sporadically this occurs with In, Ni, P, Cu and Pb. Mn, Ca and Ba show very little variation throughout the analytical results and are presumably associated with constantly occurring gangue material such as limonite:goethite. P may be present in unseen apatite. Copper and lead occur in sporadically occurring sulphides and carbonates, etc. and some copper, lead and nickel may also be adsorbed ions on iron/manganese oxides. Also indium is partly within the cassiterite lattice and partly adsorbed on limonite and it shows no relationship with Cu present."

"Zirconium is present in zircon where it occurs, yet where zircon reports at 5,000 ppm in samples 004, 017 and 3,000 ppm in sample 026, then no zircon was seen in the sample. The mineral was missed in other samples and was probably finely embedded in chlorite schist or other heavy rock fragments present. In one or two places where the mineral was present in major amounts, zirconium was reported in small amounts (300 ppm)."

Referring to results from the E.L. as a whole, Curtis continues - "To obtain a better perspective of geochemical relationships the results should be subjected to rigorous statistical analysis (Q, R mode cluster analysis) etc. Though in view of Dr. Beevers (the analyst) remarks, the the very large abundance of iron present could have obscured the Bi, Sb, Cr and Ti spectrum in which case statistical analysis of the spectrographic results would be inconclusive for several elements."

"The north-east sector is characterised by high W, Sn, Ba, As, Ti, Zn, P, B, In and Sb and some sporadically high Cr. This would indicate a high pneumatolytic/hydrothermal zone (Sn, B, W, As, Sb, In, P) and proximity of ultrabasic (Cr), base rocks (Ti) and granitic material (Zr). Only sporadic high Pb, Zn, Cu and Ba shows the lower but still high proximity of economic sulphides, but no sedimentary Pb, Zn, Cu sulphide deposits. Indium does not sympathise with

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B, Zn, and Pb or the presence of tourmaline and is possibly distributed among cassiterite and different Fe³⁺ rich mineral phases. High yttrium does not sympathise with insensitive (to chemical methods) La. It could be associated with Ca in apatite but apparently is not (cf. Y with P content). It is however, roughly coincident with Ti and Zr and may be in the lattice of ilmenite or zircon, substituting for Fe³⁺ of Fe⁴⁺. Boron and tin both decrease dramatically below 053 (numerical sequence) in the southerly part of the sector possibly indicating a modification of catchment source".

7. GRID SOIL SAMPLING

Fourteen ENE trending lines spaced 200 to 250 m apart were cut across the Montezuma-N.E. Dundas area by the Consolidated Gold Fields (Australia) syndicate in the late 1960's (Forsythe, 1969). The grid is shown on DWG K555-13. C.G.F.A. designated the lines as 0, 1,.....13.

Geochemical soil sampling was carried out by C.G.F.A., who outlined a number of Sn, Cu, Zn, Pb and Ag soil anomalies. (Forsythe, 1969). Their main +30 ppm Sn in soil anomaly has been plotted onto DWG K555-13. The main anomaly stretches NNW throughout the grid from Line 13 in the south to Line 01 in the north and onwards presumably north of the present E.L. border as it is open to the north of Line 01. Some possibly associated Pb-Zn-Ag anomalies occur adjacent to the main Sn anomaly. Others occur nearby and subparallel. Their distribution is not examined in detail in this present report.

To confirm the anomaly and check for possible Renison Bell type cassiterite-sulphide mineralisation adjacent to the Onah Quartzite/Crimson Creek Formation contact mapped in the area, CSR Limited commenced work on the southern part of the grid in early 1978 .

A point on the western baseline was designated as 1800mE/4500mN, and the baseline pegged to the walking track near CGFA Line 11. Line 13 intersected the baseline at 4493N and was re-numbered Line 4493N and pegged at 10 m intervals eastwards to 3150E. The grid is referred to as the Frazer Grid.

Soil augering was carried out at 10 m intervals along a short line to the north of Line 4493N (samples 602FG001 to 602FG006) and along Line 4493N from 1800E to 3150E (samples 602FG007 to 602FG149).

Drainage mud samples were collected wherever a creek crossed Line 4493N, but no panned concentrates were collected.

025

117026

Minus 20 mesh fractions of each sample were pulverised and checked by emission spectrograph. Minus 80 mesh fractions were analysed by A.A.S. Results are shown in Appendix IV.

Anomalous values were checked by A.A.S., XRF and emission spectrograph analyses on duplicate samples. Results are shown in Appendix V.

The check analyses of duplicate samples 602FG118 to 120 confirmed a weak Sn-Cu-Zn-Pb anomaly (see Appendix V). This coincides with C.G.F.A.'s Line 13 anomaly shown on DWG K555-13. Samples 602FG126 and 127 also appear to be anomalous.

026

8. MAGNETICS SURVEY

A number of magnetic sub-base stations were established along access tracks, the 1800E baseline and Line 4493N ("Line 13") using a Geometrics Total Force Magnetometer (Model G803).

Part of baseline 1800E and Line 4493N from 1800E to 3150E were read at 10 m intervals. Results are shown as profiles on DWG K555-14 and 15.

Insufficient lines have been read to establish whether the magnetic method may be useful in tracing the Sn geochemical anomaly or establishing a characteristic signature. The profile along the 1800E baseline (DWG K555-14) does however show some evidence that magnetic markers may occur.

Further lines will need to be read to check for any signature correlating with the Sn soil anomaly and to check the Oonah/Crimson Creek Formations for the presence of the two magnetic marker beds which occur at Renison Bell in the dolomitic horizons.

027

9. CONCLUSIONS

9.1 A central baseline subparallel to the +30 ppm Sn anomaly should be cut through the Godkin Ridge area from the southern border of the lease covering Greens Prospect (DWG K555-13). Old lines should be opened up, intermediate lines cut at 100 m intervals and the grid surveyed. Soil and rock chip sampling should be carried out guided by past results, initially to cover the main tin anomaly. Magnetics, geological mapping, and VLF E.M. surveys should be carried out to assist correlation of rock types, mineralisation and structure from line to line. The controls and guides/ indications of mineralisation should be checked to determine relationship of lithology and structures. The zones with strongest mineralisation should be drilled to check mineralisation at depth.

9.2 As road access is probably not feasible, a helipad needs to be cut near a suitable camp location on Godkin Ridge. The initial programme would involve several months work operating from this camp.

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029

117030

APPENDIX I

DRAINAGE SAMPLES

CHEMICAL ANALYSES OF ALL SAMPLE

TYPES AND FRACTIONS

PAÇMINEX PTY. D. — SAMPLE DATA SHEET

032

AREA EL 15/76
STATE TAS LOCATION Dundas

PROSPECT NUMBER 602
1:100,000 SHEET 7914

DATE SAMPLED _____
SAMPLER _____

LABORATORY REPORT NO. _____
ANALYTICAL METHOD _____

NOTATIONS: SAMPLE TYPE — M - Creek mud, S - Soil
SA - Soil Auger, RC - Drill Core.
RP - Percussion Chips
R - Rock
Please state element

ADDITIONAL
P = heavy mineral Panned Concentrate.

SAMPLE NUMBER	SAMPLE TYPE	ANALYSE NUMBER (SEE PAGE 1)	CHEMICAL ANALYSES (ppm)																	Weight (mg)	LOCATION		
			Sn	Cu	Zn	Pb	Bi	Ag	Au	Ni	Co	Cr	V	Ti	Zr	P	B	Mn	Ca		Ba	E/W	N/S
602031	P		>10000	30	<20	30	<1	<0.1	<3	50	20	>10000	500	>10000	2000	1000	1000	>10000	>10000	2000	2320		
032	R		4500	420	20	30	60	2															
033	M		-80	100	20	55	20	10	<1														
			-20																				
034	P		>10000	100	1000	300	300	<0.1	<3	30	<5	300	200	1000	1000	3000	>10000	100	<100	2000	1075		
035	P		3000	50	1000	100	300	<0.1	<3	50	20	3000	200	>10000	5000	3000	5000	>10000	2000	500	2955		
036	R																						
037	M		-80	<50	35	200	80	10	1														
			-20																				
038	P		1000	50	2000	100	100	<0.1	<3	50	10	3000	300	>10000	1000	3000	5000	500	3000	300	1457		
039	L		50	520	860	370	10	1															
602040	R		<20	250	40	20	<5	1															
041	P		5000	50	2000	2000	100	<0.1	<3	50	10	>10000	500	>10000	>10000	3000	5000	>10000	<100	1000	128		
042	M		-80	<50	20	185	165	10	1														
			-20																				
043	M		-80	<50	20	85	40	20	<1														
			-20																				
044	P		1000	50	1000	200	30	<0.1	<3	30	<5	300	30	>10000	5000	1000	3000	300	100	300	230		
045	R		<20	160	380	200	20	2															
046	M		-80	<50	10	50	40	15	<1														
			-20																				
047	P		1000	20	2000	100	50	<0.1	<3	30	30	300	30	>10000	5000	1000	3000	100	100	500	198		
048	R		680	30	260	90	10	2															
049	M		-80	<50	25	70	95	25	1														
			-20	<1	30	<20	20	30	<1	<3	3	<5	<20					50	50	200			
050	P		-80	<50	20	35	75	10	<1														
051	M		-80	100	25	70	110	15	1														
			-20																				
052	P		>10000	30	1000	1000	20	<0.1	<3	30	10	300	30	>10000	3000	5000	3000	100	100	500	156		
053	P		200	<0.5	<20	<1	<1	<0.1	<3	50	30	5000	500	>10000	1000	>1000	100	300	100	500	808		
054	L		2100	1700	1100	21000	720	540															
055	R		3700	80	85	60	35	3															
056	P		500	50	<20	50	<1	<0.1	<3	<3	<5	20	<10	5000	500	1000	300	300	100	500	118		
057	R		2700	21000	5600	10000	720	380															
058	R		80	210	2900	800	10	9															
059	R		50	10	2600	13000	20	14															
602060	M		-80	<20	20	40	120	10	<1														
			-20	20	30	30	50	50	<0.1	<3	3	<5	20					50	50	200			
061	P		1000	30	1000	100	<1	<0.1	<3	10	10	200	10	>10000	500	1000	200	300	100	500	356		
062	M		-80	<20	20	200	430	15	1														
			-20																				
063	P		1000	30	1000	30	100	<0.1	<3	100	10	300	50	5000	500	2000	300	>10000	<100	500	340		
064	M		-80	<20	20	150	1200	10	5														
			-20	30	100	100	200	50	1	<3	10	<5	20					500	100	300			
602065	P		300	1000	<20	>10000	<1	<0.1	<3	30	<5	20	50	300	<100	>10000	100	5000	<100	1000	2155		

117033

PACMINEX PTY. LTD. - SAMPLE DATA SHEET

AHFA EL 15/76

STATE TAS LOCATION Dundas

PROSPECT NUMBER 1100.000 SHEET

DATE SAMPLED SAMPLER

LABORATORY REPORT NO. ANALYTICAL METHOD

A.A.S. - 60 mesh Emission Spec. - 20 mesh, Panned Cons.

NOTATIONS: SAMPLE TYPE -

M - Creek mud, S - Soil SA - Soil Auger, RC - Drill Core, RP - Percussion Chips R - Rock Please state element

ADDITIONAL

P: bromoform separated Panned Concentrates.

SAMPLE NUMBER	SAMPLE TYPE	APPROXIMATE DEPTH (METERS/MICRONS)	CHEMICAL ANALYSES (ppm)													LOCATION	
			Sb	Mo	W	F	In	Cd	Nb	As	Hg	U3O8	La	Y	E/W	N/S	
602031	P		<30	<3	2000		<5	<3	<20	>10,000	<30		<100	100			
032	R																
033	M		-80														
			-20														
034	P		2000	<3	>10000		50	<3	<20	>10000	<30		<100	<10			
035	P		2000	<3	5000		50	<3	<20	5000	<30		<100	500			
036	R																
037	M		-80														
			-20														
038	P		1000	<3	3000		50	<3	<20	5000	<30		<100	<10			
039	L																
602040	R																
041	P		1000	<3	3000		50	<3	<20	>10000	<30		<100	100			
042	M		-80														
			-20														
043	M		-80														
			-20														
044	P		1000	<3	500		<5	<3	<20	3000	<30		<100	100			
045	R																
046	M		-80														
			-20														
047	P		2000	<3	1000		<5	<3	<20	3000	<30		<100	100			
048	R																
049	M		-80														
			-20	<30	<3	<50											
050	P																
051	M		-80														
			-20														
052	P		1000	<3	1000		50	<3	<20	>10000	<30		<100	500			
053	P		1000	<3	3000		<5	<3	<20	50	<30		<100	<10			
054	L																
055	R																
056	P		<30	<3	300		<5	<3	<20	1000	<30		<100	<10			
057	R																
058	R																
059	R																
602060	M		-80														
			-20	<30	<3	<50											
061	P		1000	<3	1000		10	<3	<20	1000	<30		<100	<10			
062	M		-80														
			-20														
063	P		2000	<3	3000		30	<3	<20	1000	<30		<100	<10			
064	M		-80														
			-20	<30	<3	<50											
602065	P		30	<3	2000		300	<3	<20	1000	<30		<100	<10			

117034

PACMINEX PTY. LTD. — SAMPLE DATA SHEET

035

AREA EL15/76
STATE TAS LOCATION Dundas

PROSPECT NUMBER 602
1:100,000 SHEET 7914

DATE SAMPLED 1977
SAMPLER N. Ortiz

LABORATORY REPORT NO. _____
ANALYTICAL METHOD _____

NOTATIONS: SAMPLE TYPE — M - Creek mud, S - Soil
SA - Soil Auger, RC - Drill Core,
RP - Percussion Chips
R - Rock
Please state element

ADDITIONAL N.D. - Not Determined

SAMPLE NUMBER	SAMPLE TYPE	APERTURE (MESH/INCHES/MICROSES)	CHEMICAL ANALYSES (ppm)																								LOCATION	
			Sb	Mo	W	F	In	Cd	Nb	As	Hg	U ₃ O ₈	La	Y													E/W	N/S
602066	L																											
067	M	-80																										
		-20																										
068	P		500	<3	2000		<5	<3	<20	500	<30		<100	<10														
669	R																											
602070	L																											
071	P		500	<3	3000		<5	<3	<20	500	<30		<100	<10														
072	M	-80																										
		-20																										
073	M	-80				<200																						
		-20																										
074	P																											
075	M	-80																										
		-20	<30	<3	<50																							
075	P		1000	<3	3000		10	<3	<20	1000	<30		<100	<10														
076	P		2000	<3	2000		30	<3	<20	1000	<30		<100	<10														
077	L																											
078	R																											
079	M	-80																										
		-20																										
080	P		1000	<3	1000		30	<3	<20	5000	<30		<100	<10														
081	M	-80				<200																						
		-20																										
082	P		1000	<3	1000		<5	<3	<20	3000	<30		<100	200														
083	L																											
084	L																											
085	R																											
086	L																											
087	R																											
088	M	-80																										
		-20	<30	<3	<50																							
089	P		500	<3	500		50	<3	<20	3000	<30		<100	<10														
602 090	L																											
091	M	-80																										
		-20	<30	<3	<50																							
092	P		>10000	ND	1.5		50	<3		>10000	<30		1.5	1.5														
093	R																											
094	M	-80																										
		-20																										
095	P		5000	<3	500		30	<3	<20	5000	<30		<100	<10														
096	L																											
097	M	-80																										
		-20																										
098	P		5000	<3	1000		50	<3	<20	1000	100		<100	<10														

117036

PACMINEX PTY. LTD. — SAMPLE DATA SHEET

AREA _____ PROSPECT NUMBER _____
 STATE _____ LOCATION _____ 1:100,000 SHEET _____

DATE SAMPLED _____
 SAMPLER _____

LABORATORY REPORT NO. _____
 ANALYTICAL METHOD _____

NOTATIONS: SAMPLE TYPE — M - Creek mud, S - Soil
 SA - Soil Auger, RC - Drill Core, RP - Percussion Chips
 R - Rock
 ANALYSES: Please state element
 ADDITIONAL _____

SAMPLE NUMBER	TYPE	APERTURE (INCHES/MICROSI)	CHEMICAL ANALYSES (ppm)																LOCATION	
			Sb	Mo	W	F	In	Cd	Nb	As	Hg	U ₃ O ₈	La	Y					E/W	N/S
602490	M	-80																		
		-20																		
491	M	-80																		
		-20																		
492	M	-80																		
		-20																		
493	M	-80																		
		-20																		
494	M	-80																		
		-20																		
495	M	-80																		
		-20																		
496	M	-80																		
		-20																		
497	M	-80																		
		-20																		
498	M	-80																		
		-20																		
499	R		<30	<3	<50				10											
602	500	M	-80																	
		-20																		
501	M	-80																		
		-20																		
502	M	-80																		
		-20																		
503	M	-80																		
		-20																		
504	M	-80																		
		-20																		
505	R		<30	<3	<50				10											
506	R		<30	<3	<50				10											
507	M	-80																		
		-20																		
508	M	-80																		
		-20																		
509	R		<30	<3	<50				10											
510	R		<30	<3	<50				5											
511	R		2000	<3	<50				5											
512	R		3000	<3	<50				10											
513	M	-80																		
		-20																		

112040

PACMINEX PTY. LTD. — SAMPLE DATA SHEET

11

AREA EL 15/76
STATE TAS LOCATION Dundas

PROSPECT NUMBER 602
1:100,000 SHEET 7914 Peman

DATE SAMPLED _____
SAMPLER _____

LABORATORY REPORT NO. _____
ANALYTICAL METHOD _____

NOTATIONS: SAMPLE TYPE — M - Creek mud, S - Soil
SA - Soil Auger, RC - Drill Core, RP - Percussion Chips
R - Rock
ANALYSES: Please state element
ADDITIONAL _____

SAMPLE NUMBER	SAMPLE TYPE	ANALYSE TYPE	CHEMICAL ANALYSES (ppm)																	LOCATION	
			Sb	Mo	W	F	In	Cd	Nb	As	Hg	U ₃₀₈	La	Y						E/W	N/S
602 514	F																				
515	R																				
516	R		3000	< 3	< 50					5											
517	R																				
518	M	-80																			
		-20	< 30	< 3	< 50																
519	M	-80																			
		-20	< 30	< 3	< 50																
520	M	-80																			
		-20	< 30	< 3	< 50																
521	R		50	< 3	< 50					5											
522	R		100	< 3	< 50					10											
523	R		< 30	< 3	< 50					5											
524	R		30	< 3	< 50					5											
525	R										280										
526	R		100	< 3	< 50					10											
527	M	-80																			
		-20																			
528	R		< 30	< 3	< 50					20											
529	R		< 30	< 3	< 50					10											
602 530	R		< 30	< 3	< 50					20											
531	R		< 30	< 3	< 50					10											
532	R		< 30	< 3	< 50					10											
533	R		100	< 3	< 50					30											
534	R		< 30	< 3	< 50					3											
535	M	-80																			
		-20																			
536	M	-80																			
		-20																			
537	R		< 30	< 3	< 50					5											

112042

042

117043

APPENDIX II

DRAINAGE SAMPLES

SAMPLE LOCATIONS AND -80 MESH

SAMPLE ANALYSES

Sample No./ Location	Sn	Cu	Zn	Pb	Bi	Ag	Sample Description
<u>Montezuma Falls Area</u>							
602 001R	20	250	80	45	20	2	Conglomeratic rock with sulphide veining (in Eb)
002R	30	280	160	70	15	5	blue green hornfels-chert-red gossany surface (in Eb)
003M	<50	10	150	20	10	<1	creek mud (in Ed)
004P							creek panned concentrate at 003 m (in Ed)
005R	20	125	700	200	15	1	limonite ooze in main (Montezuma Falls) creek (in Ed)
006M	<50	35	55	70	10	1	creek mud sample - (bank) - (in Eb)
007M	50	0.16%	150	125	20	3	tributary creek mud (in Eb)
008R	<20	680	95	80	20	2	scree float - gossan - not far from falls (in Eb)
009M	<50	20	90	70	10	1	mud - silt from Montezuma Creek (drains Eb, Ed)
010M	<50	120	105	480	10	3	creek mud (drains (Ed)
011R	60	75	110	30	10	1	sulphides along slicken sides of fractured (?siltstone) (in Eb)
012L	50	320	180	100	40	8	red brown limonitic ooze from rock (in Eb)
013M	<50	5	30	45	5	<1	black swamp mud (drains Eb)
014M	50	30	45	50	5	1	Fe rich red brown mud (drains Eb)
015M	50	80	70	160	10	1	coarse black creek mud : Frazer Creek (drains Eb)
016R	20	30	260	95	10	1	Qtz veins in slate - some limonite (in Eb)
017P							panned concentrate, site 015M (in Eb)
018M	<50	10	25	20	10	<1	yellow brown (gully) creek mud (drains Eb)
019M	50	20	40	20	15	1	yellow mud in dry gully (drains Eb)
020M	100	20	55	25	10	1	brown grey mud (drains Eb)
021L	120	230	860	0.58%	35	17	silvery sulphide bearing gossan over weathered gabbro (on Eg in Eb)
022R	600	360	220	600	250	13	limonitic rich veins in dolomitic siltstone (in Eb)
023M	600	35	40	30	15	1	stream sediment mud (drains Eb)
024P							panned concentrate - silty material, site 025M (in Eb)
025M	100	5	20	20	10	<1	pale grey creek mud (in Eb)
026P							pan concentrate at confluence of 2 streams, site 207L (in Eb)
027L	80	0.50%	20	70	20	4	pale blue grey sulphide "slurry" in vein some Fe stain (in Eb)

112044

Sample No./ Location	Sn	Cu	Zn	Pb	Bi	Ag	Sample Description
602 028P							pan concentrate sample from creek, site 029M
029M	200	55	100	30	30	1	yellow mud in stream (in Eb)
030M	750	60	30	20	10	<1	mud in tributary of Frazer Creek (drains Eb)
031P							silty pan concentrate sample, site 030M (in Eb)
032R	0.45%	420	20	30	60	2	Fe stained?; Qtz veined?; siltstone boxwork? (in Eb)
033M	100	20	55	20	10	<1	mud in creek (drains Eb)
034P							pan concentrate sample above 033M (in Eb)
035P							pan concentrate from fast flowing stream (drains Eb)
036R	80	50	50	20	5	<1	Mn rich black powder in conglomerate (in Era)
037M	<50	35	200	80	10	1	Creek mud (drains Era)
038P							pan concentrate sample, site 037M (drains Era)
039L	50	520	860	370	10	1	Fe rich cement of contemporary gravels (drains Era)
040R	<20	250	40	20	<5	1	blue altered porphyry with disseminated sulphides (in Eb)
041P							panned concentrate in creek, site 042M (drains Eb, Era)
042M	<50	20	185	165	10	1	mud in fast flowing creek (drains Eb, Era)
043M	<50	20	85	40	20	<1	creek mud above Fe stained siltstone and Qtz (drains Eb)
044P							panned concentrate in creek, site 043M (drains Eb)
045R	<20	160	330	200	20	2	sulphides replacing slates on bedding (in Eb)
046M	<50	10	50	40	15	<1	creek mud (drains Eb)
047P							panned concentrate, site 046M (drains Eb)
048R	680	30	260	90	10	2	Fe stained cement in contemporary conglomerate (on Eb)
049M	<50	25	70	95	25	1	Fe rich stream mud (drains Eb)
050P	<50	20	35	75	10	<1	panned concentrate, site 049M (drains Eb)
051M	100	25	70	110	15	1	mud in swift flowing tributary (drains Eb)
052P							panned concentrate, site 051M (drains Eb)
053P							panned concentrate, above other junction near 051M (drains Eb)
054L	0.21%	0.17%	0.11%	2.10%	720	540	rich limonite veins with silvery sulphide (in Eb)
055R	0.37%	80	85	60	35	3	pyrite with ? other sulphides - limonitic stains (in Eb)

Sample No./ Location	Sn	Cu	Zn	Pb	Bi	Ag	Sample Description
602 056P							panned concentrate above 007M (drains Eb)
057R	0.27%	2.10%	560	1.0%	720	380	sulphide rich ore from Godkin Ridge (in Eb)
058R	80	210	0.29%	800	10	9	PbS, ?ZnS, Py, ?Chalco rich ore in qtz-carbonate gangue (in Eb?)
059R	50	10	0.26%	1.30%	20	14	sulphide in calcite + ?talc rich gangue (in Eb or Ec?)
060M	<20	20	40	120	10	<1	mud at end of Wallace Tramway (drains Pv0)
061P							panned concentrate at locality 060M (drains Pv0)
062M	<20	20	200	430	15	1	mud in creek close to 060M (drains Eb, Ec)
063P							panned concentrate at 062M (drains Eb, Ec)
064M	<20	20	150	0.12%	10	5	mud in creek near tramway (drains Eb, Ec)
065P							panned concentrate at site 064M (drains Eb, Ec)
066L	30	60	0.10%	1.15%	15	2	limonite ooze in black slates (in Eb)
067M	<20	10	175	220	5	<1	mud in creek close to tramway (drains Eb, Ec)
068P							panned concentrate at site 067M (drains Eb, Ec)
069R	100	0.14%	1.75%	1.10%	10	37	float rich in PbS and other sulphides in creek (drains Eb, Ec)
070L	30	35	0.20%	0.12%	10	1	limonite ooze in creek (in Eb)
071P							panned concentrate at 072M (drains Eb, Ec)
072M	<20	20	260	200	15	<1	mud in creek (drains Eb, Ec)
073M	<20	20	85	240	10	<1	mud in fast flowing creek (drains Eb)
074P							composite panned concentrate, at site 073M (drains Eb)
075M	50	45	55	260	10	1	mud, no waterfalls (drains Eb, Ec)
076P							panned concentrate at site 075M (drains Eb, ec)
077L	90	80	280	320	20	2	limonite ooze on west bank of Frazer Creek (in Eb)
078R	700	3.7%	0.13%	0.16%	350	95	Py-?chalcopyrite-Arsenopyrite?-Bornite? rich sulphide ore (in Eb)
079M	50	560	55	70	10	1	blue grey mud in bank of Frazer Creek close to above location (drains Eb)
080P							panned concentrate 20 m upstream from 079M (drains Eb)
081M	<20	20	80	140	10	<1	mud in bank of fast flowing Great Northern Creek (drains Eb)
082P							panned concentrate at site 081M (drains Eb)
083L	20	130	55	80	10	1	limonite ooze on west side of creek (in Eb) Carbine tract (near Eb/Ec contact)

Sample No./Location	Sn	Cu	Zn	Pb	Bi	Ag	Sample Description
602 084L	<20	30	0.11%	80	20	2	limonite rich material on Carbine Tract (near Eb/Ec contact)
085R	60	20	700	70	20	2	carbonate rich rock outcrop on Carbine Tract
086L	<20	10	70	30	10	<1	limonite ooze on Carbine Tract (in Ec?)
087R	120	.18%	16%	37.6%	10	0.15%	PbS-?ZnS-chalcopryrite-siderite ore (working) (Pu0)
088M	<20	140	350	0.14%	10	7	mud in creek draining above deposit (drains Pu0)
089P							panned concentrate at site 088M (drains Pu0)
090L	20	50	0.66%	0.37%	30	14	limonite ooze along tract (near Pu0/Ec contact)
091M	0.40%	5	10	40	10	<1	buff brown mud (in Ec, drains Pu0/Ec contact)
092P							panned concentrate at site 091M (in Ec, draining Pu0/Ec contact)
093R	60	280	85	360	70	7	arsenopyrite-chalcopryrite ore (+?PbS) in siderite gangue (in Ec)
<u>Melba Flat Area</u>							
602 094M	30	5	300	95	10	1	brown mud draining Serpentine near railway, Melba Flat Area (drains Es, Ec)
095P							as 094M location (drains Es and Ec)
096L	20	10	145	125	20	3	gossan overlying serpentinite (on Es)
097M	<20	5	180	35	15	1	serpentinite O/c near railway upstream side (drains Es)
098P							at 097M location (drains Es)
099M	500	20	180	45	15	2	at confluence draining serpentinite (drains Es, Era and Eb)
100P							at 099M location (drains Es, Era, Eb)
101M	<20	20	160	50	15	1	in swamp near Melba Siding (drains Es, Ec and railway)
102P							in fast flowing creek near 101M (drains Es, Ec and railway)
103M	620	15	95	50	5	<1	mud near walking trace north Melba Flat (drains Ec, ? Es)
104P							at 103M location (drains Ec and (?) Es)
105M	<20	20	35	80	10	<1	mud in E-W flowing sluggish swamp drainage (drains Ec)
106P							at 105M location (drains Ec)
107M	<20	30	370	100	15	<1	on bank of Cuni Creek (drains Ec)
108P							16 107M location (drains Ec)
109M	<20	600	200	320	10	2	creek near mine working; contamination possible (drains Ec and Es)
110P							at 109M site

Sample No./ Location	Sn	Cu	Zn	Pb	Bi	Ag	Au	Ni	Co	Cr	Sample Description
<u>Montezuma North Grid</u>											
602 165R	150	0.44%	90	27.2%	10	5					Pyrite - ? stibnite - chalcocite - ? Bi ore (in Pu0)
166M	20	45	105	180	15	1					in creek near above working (lined up creek) (drains Pu0 Ec)
167P											at 166M site
168M	100	20	60	160	15	<1					yellow mud in small gully (drains Pu0)
169P											at 168M site (Fe cemented gravels) O/C siltstone with disseminated? chalcopyrite
170R	30	210	450	0.40%	15	8					? chalcopyrite as thin veins at above location (in Pu0)
171M	200	60	110	0.17%	20	13					near pyrite rich rock, plus old workings (drains Pu0; ?Ec)
172P											at 171M site
173R	20 *300	0.11% 100	0.14% 300	0.18% 300	20 50	3 2	<3	5	<5	<20	pyrite and gossan at above site (in Pu0)
174R	20	60	0.13%	0.75%	15	12					siderite and PbS and ?ZnS in brecciated fault zone on side of road (in Pu0)
175M	20	15	110	250	10	<1					mud in west flowing creek, fawn siltstone O/C (drains Pc, Pu0)
176P											at 175M site
177M	<20	20	60	140	15	<1					mud in black shale O/C creek (drains Pc, Pu0)
178P											at 177M site
179M	20	40	75	85	10	<1					mud in black slates O/C creek (drains Pc, Pu0)
180P											at 179M site
<u>Carbine North Grid</u>											
181M	20	30	260	600	15	2					in fast flowing Dundas Rivulet (drains Pc Pu0, Ec)
182P											at 181M site
183M	420	40	340	760	10	4					in creek with O/C of pyrite-bearing qtz veined fine cherty siltstones - drains Pu0, Ec (see 602 424M)
184P											at 183M site
185M	<20	35	115	250	10	<1					O/C = crenulated ?oonah Schists (drains Pc, Pu0)
186P											at 185M site

*Emission Spec. Results

117048

Sample No/ Location	Sn	Cu	Zn	Pb	Bi	Ag	Au	Ni	Co	Cr	Ca	Mn	Sb	Sample Description
602 497M	20	10	10	10	5	1		5	5	10				2 m wide deeply incised creek Colluvial bands, quartz schist scree. O/C = blue green schists striking 140° dip steep ?SW sample near track (drains Pc)
498M	20	10	10	15	10	1		5	5	5				mud sample in 1 m wide creek colluvial bands. Fe staining on outcropping blue-green schists trending 120° (drains Pc)
499R	10	300	2000	500	50	0.3	3	100	10	100	1%	500	30	O/C at above location, thin about 3 m wide ?dark blue aphanitic dyke trending 170° appears to be cross cutting schists.
500M	20	10	10	15	10	1		5	5	10				mud sample in series of 10 m wide steep braided channelways in part waterfalls O/C of bluish grey schists with contacted quartz veins, colluvial - outcrop banks (drains Pc)
501M	20	25	90	40	10	1		5	10	10				mud sample in 1 m wide creek colluvial banks O/C of yellowish schists (= ? Concert Schist) (drains Pc)
502M	20	20	70	30	10	1		10	35	10				mud sample in ½ m wide gutter. Colluvial banks, Limonite, Quartz and schist scree. O/C = yellowish crenulated siltstone strike 120°, dip 45° SW limonite seen on banks (drains Pc)
503M	20	2	2	25	5	1		5	5	5				mud sample from waterless gully, pale mud. Quartz grit abundant, colluvial banks (drains Pc)
504M	20	110	260	320	10	1		30	50	10				mud sample from 0.5 m wide creek 80 m south west of intersection of line 2.69N + 12E with walking track (?Anslie Grid) colluvial banks, dark grey shale outcrop striking 080° (Pc or Pu0?)
505R *	20	300	500	1000	50	5	3	20	5	20	300	500	30	heavy limonite scree at intersection of line 00 of Anslie Grid with South Montezuma Tract (on road). ?Manganiferous rich material (Pu0)
<u>Northern Part</u>														
<u>North</u>														
<u>Montezuma Grid</u>														
506R *	30	50	100	300	30	0.3	3	10	5	20	200	+1%	30	sample of "Gossan" + local soil (black, ?Mn rich rock) exposed in costean 5 m above North Montezuma Road 30° west of intersection of line 47.5N and 9.48W, Montezuma Grid at the road (Pc?)
507M	20	2	2	10		5	1		5	5	5			mud sample in 2 m wide creek braiding through thick horizontal scrub at 51.89N/900W) on Montezuma Grid. Colluvial banks. Quartz rich scree plus pebbles of foliated grey quartzite and occasional black shales. Strike 130°, dip 40° NW (drains Pc, Pu0)
508M	100	40	65	720	5	3		10	15	15				mud sample in 2½ m wide creek, colluvial wash O/C close by. is carbonate rock (in adit) creek gravels are limonite cemented and Fe staining in pervasive - site = location of previous sample 602 171M (drains pu0)

117049

Sample No./ Location	Sn	Cu	Zn	Pb	Bi	Ag	Au	Ni	Co	Cr	Ca	Mn	Sb	Sample Description
602 509R *	30	50	300	500	30	5	<3	30	5	<20	300	+1%	<30	sample of gossan (heavy limonitic, dark brownish red material) plus pyritic siliceous associated rock (?leached of carbonate) in portal of adit. Adit is on left bank of creek sample at above location (602 508M). Adit strikes 180° and is 5 m from North Montezuma Road (in Pu0)
510R *	10	100	300	200	30	0.5	<3	5	5	20	+1%	300	<30	O/C in above adit of Dolomitic-pyritic bluish grey conglomerate: yielded CO ₂ with Hce. Strike 160°/dip 45° W (in Pu0)
511R *	1000	2000	30	+1%	30	30	<3	10	<5	<20	300	300	2000	Rock sample of host rock at Sb prospect (at end of North Montezuma Road). Rock is thinly bedded black shale (1? graphite) and fine sand sized quartzite-like rock with ? dolomite component. Possibly syngenetic pyrite present (rock shows carbonate reaction when treated with Hce) Pu0/Ec contact
512R *	5000	5000	50	+1%	300	50	<3	10	<5	20	300	300	3000	chip channel sample of sulphide (?Sb-pyrite) 20 m above end of road on hill; O/C = 0.6 m wide NS strike length of "pyritic-stibnite" "ore" is + 40 m long and 0.6 m wide (Pu0/Ec contact)
513M	<20	5	10	30	10	<1		<5	5	5				mud sample from 0.5 m wide creek curving north Montezuma Track and trending south. Colluvial banks with some reddish brown limonitic seep schist scree, O/C of interlaminated and crenulated grey blue shales and white siltstone trending 010° dip 55° W (drains Pc)
514R	<20	20	70	50	20	1		20	15	20				site of 602 372M, dolomite float in Comet Creek below Anslie Mine. Similar O/C present at locality 602 230M, upstream
515R	<20	10	10	20	10	<1		10	5	130				site of 602 407M. Dark blue-grey? hornfelsic pyritic quartzite with thin quartz-carbonate veins (?Oonah) but appears darker and harder than typical Oonah (Pu0 or Pc?)
516R *	2000	5000	30	>1%	200	50	<3	5	<5	<20	300	300	3000	at site of 602 511R. Sulphide material comprising Sb-Pb-Cu minerals, brecciated massive ore North Montezuma Grid near 602 SN
517R														O/C at site of 602 513M west of North Montezuma Grid. crenulated and interbedded blue grey shale and white siltstone (Pc)
<u>Cuni Area</u>														
518M	<50	50	35	320	20	1		10	5	30				mud sample in swampy braided drainage along 1 m wide ? old timber track alluvial flat O/C = greenish grey chloritic siltstone strike 010°, dip 65° W; apparently draining ridge to east. Location Cuni Grid BV 1750 (drains Ec; tramway?)
519M	50	15	125	25	20	<1		15	10	35				mud sample (chocolate brown) in bog, 20m south along baseline from BV 1200 (Cuni Grid). Sample is apparently locally derived and drainage trends west (drains Ec?)

049

117050

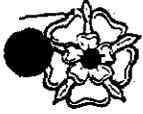
APPENDIX III

PANNED CONCENTRATE ANALYSES FROM DRAINAGES

051

117052

A.C.S. Laboratories Pty. Ltd.
 50 MARY STREET
 UNLEY, S.A. 5081
 P.O. BOX 3
 UNLEY, S.A. 5081
 PHONE: 272 5733



ANALYTICAL RESULTS

Samples from: Pacminex Pty. Ltd.
 Area: Sydney

Samples of: Heavy Mineral Concentrates
 Preparation: Weighed and Pulverised

Sheet No.: 1

Batch No.: A 2218

Date: 7th February, 1978

SAMPLES WILL BE DISPOSED OF AFTER TWO MONTHS UNLESS WE ARE OTHERWISE ADVISED

Sample Description	Weight mgs	ES-1 Co ppm	Cr ppm	Mn ppm	Ni ppm	Sb ppm	Ni ppm	ES-2							
								Cu ppm	Fe ppm	Pb ppm	Sb ppm	Sn ppm	Zn ppm	Ba ppm	
602004	146	30	>10,000	500	<<<	<20	50	1,000	50	100	3,000	3,000	1,000	300	
17	1019	5	300	300	<<<	<20	30	2,000	50	300	3,000	>10,000	1,000	1,000	
24	995	20	3,000	300	<<<	<20	100	200	100	300	100	>10,000	100	200	
26	610	<<<	200	300	<<<	<20	20	200	100	3,000	200	>10,000	100	300	
28	2980	<<<	100	200	<<<	<20	30	300	50	200	300	>10,000	1,000	>10,000	
31	2320	20	>10,000	>10,000	<<<	<20	50	30	<<<	30	<30	>10,000	<20	2,000	
34	1075	<<<	300	100	<<<	<20	30	100	50	300	2,000	>10,000	1,000	2,000	
35	2955	20	3,000	>10,000	<<<	<20	50	50	50	100	2,000	3,000	1,000	500	
38	1457	10	3,000	500	<<<	<20	50	50	50	100	1,000	5,000	2,000	300	
41	128	10	>10,000	>10,000	<<<	<20	50	50	50	2,000	1,000	5,000	2,000	1,000	
44	230	<<<	300	300	<<<	<20	30	50	50	200	1,000	1,000	1,000	300	
47	198	30	300	100	<<<	<20	30	50	20	100	2,000	1,000	1,000	500	
52	156	10	300	100	<<<	<20	30	50	50	1,000	1,000	>10,000	1,000	500	
53	808	30	5,000	300	<<<	<20	50	<0.5	<<<	<<<	1,000	200	<20	500	
56	118	<<<	20	300	<<<	<20	<<<	50	<<<	50	<30	500	<20	500	
61	356	10	200	300	<<<	<20	10	30	10	100	1,000	1,000	1,000	500	
63	340	10	300	>10,000	<<<	<20	100	30	30	30	2,000	1,000	1,000	500	
65	2155	<<<	20	5,000	<<<	<20	30	1,000	300	>10,000	30	300	<20	1,000	
68	757	<<<	100	300	<<<	<20	30	30	100	100	1,000	200	50	500	
71	1213	<<<	50	500	<<<	<20	50	30	<<<	<<<	500	200	<20	1,000	
75	946	<<<	1,000	300	<<<	<20	50	30	10	100	1,000	200	500	100	
76	179	<<<	1,000	300	<<<	<20	50	30	30	100	2,000	300	1,000	30	
80	357	<<<	100	300	<<<	<20	30	30	30	200	1,000	5,000	200	30	
82	748	<<<	100	>10,000	<<<	<20	10	30	<<<	200	1,000	2,000	1,000	100	
89	291	<<<	200	300	<<<	<20	20	500	50	1,000	500	2,000	1,000	200	
92	32	Not enough Sample						<<<	500	50	2,000	>10,000	>10,000	2,000	not sample
167	1537	<<<	20	20	<<<	<20	30	10	<<<	<<<	<30	<<<	<20	1,000	
169	590	<<<	100	30	<<<	<20	5	10	<<<	<<<	<30	<<<	<20	300	
172	5383	<<<	100	300	<<<	<20	70	30	<<<	100	50	1,000	<20	500	
176	409	<<<	50	100	<<<	<20	10	10	<<<	10	<<<	<<<	<20	500	
178	333	<<<	<20	100	<<<	<20	<<<	30	<<<	20	<<<	<<<	<20	300	
180	680	<<<	<20	300	<<<	<20	10	30	<<<	20	<<<	<<<	<20	1,300	

Sample Description	ES-1		ES-2	As ppm	Au ppm	Ni ppm	Cu ppm	ES-3								
	V ppm	W						ES-3	La ppm	Ti ppm	Y ppm	Zr ppm	Hg ppm	P ppm	B ppm	
602004	300	500	<0.1	5,000	<<<	300	<<<	1,000	<20	>10,000	500	5,000	<30	3,000	3,000	
17	50	500	<0.1	>10,000	<<<	200	<<<	1,000	<20	>10,000	300	5,000	<30	3,000	1,000	
24	50	1000	<0.1	>10,000	<<<	<<<	<<<	500	<20	>10,000	100	3,000	<30	5,000	3,000	
26	50	1000	<0.1	>10,000	<<<	<<<	<<<	500	<20	>10,000	300	3,000	<30	3,000	2,000	
28	<10	1000	<0.1	>10,000	<<<	200	<<<	100	<20	>10,000	100	1,000	<30	1,000	5,000	
31	500	2000	<0.1	>10,000	<<<	<<<	<<<	>10,000	<20	>10,000	100	2,000	<30	1,000	1,000	
34	200	>10000	<0.1	>10,000	<<<	300	<<<	<100	<20	1,000	<10	1,000	<30	3,000	>10,000	
35	300	5000	<0.1	5,000	<<<	300	<<<	2,000	<20	>10,000	500	3,000	<30	3,000	3,000	
38	300	3000	<0.1	5,000	<<<	100	<<<	3,000	<20	>10,000	<10	1,000	<30	3,000	3,000	
41	500	3000	<0.1	>10,000	<<<	100	<<<	<100	<20	>10,000	100	>10,000	<30	3,000	3,000	
44	30	500	<0.1	3,000	<<<	30	<<<	100	<20	>10,000	100	3,000	<30	1,000	3,000	
47	30	1000	<0.1	3,000	<<<	50	<<<	100	<20	>10,000	100	3,000	<30	1,000	3,000	
52	30	1000	<0.1	>10,000	<<<	20	<<<	100	<20	>10,000	500	3,000	<30	5,000	3,000	
53	500	3000	<0.1	50	<<<	<<<	<<<	100	<20	>10,000	<10	1,000	<30	>100	100	
56	<10	300	<0.1	1,000	<<<	<<<	<<<	100	<20	5,000	<10	500	<30	1,000	300	
61	10	1000	<0.1	1,000	<<<	<<<	<<<	100	<20	>10,000	<10	500	<30	1,000	200	
63	50	3000	<0.1	1,000	<<<	100	<<<	<100	<20	5,000	<10	500	<30	2,000	300	
65	50	2000	<0.1	1,000	<<<	<<<	<<<	<100	<20	300	<10	<100	<30	>10,000	100	
68	50	2000	<0.1	500	<<<	<<<	<<<	<100	<20	300	<10	<100	<30	2,000	50	
71	30	3000	<0.1	500	<<<	<<<	<<<	<100	<20	300	<10	<100	<30	2,000	50	
75	50	3000	<0.1	1,000	<<<	100	<<<	<100	<20	3,000	<10	300	<30	1,000	100	
76	50	2000	<0.1	1,000	<<<	300	<<<	<100	<20	5,000	<10	500	<30	1,000	100	
80	50	1000	<0.1	5,000	<<<	<<<	<<<	<100	<20	3,000	<10	500	<30	1,000	300	
82	50	1000	<0.1	3,000	<<<	<<<	<<<	300	<20	>10,000	200	5,000	<30	1,000	200	
89	50	500	<0.1	3,000	<<<	<<<	<<<	<100	<20	3,000	<10	500	<30	2,000	200	
92	Not enough Sample			>10,000	<<<	>10,000	<<<	not enough sample								
167	50	<50	<0.1	50	<<<	<<<	<<<	50	<20	<20	3,000	<10	300	<30	500	30
169	50	<50	<0.1	50	<<<	<<<	<<<	300	<20	<20	3,000	<10	<100	<30	<100	100
172	50	<50	0.5	1,000	<<<	<<<	<<<	500	<20	<20	3,000	30	200	<30	500	300
176	30	<50	<0.1	50	<<<	<<<	<<<	50	<20	1,000	<10	300	<30	100	300	
178	20	<50	<0.1	50	<<<	<<<	<<<	50	<20	300	<10	100	<30	100	200	
180	30	<50	<0.1	50	<<<	<<<	<<<	50	<20	500	<10	<100	<30	100	200	

APPENDIX IV

SOIL SAMPLING - LINE 4600N ("LINE 13"),

FRAZER GRID

PACMINEX PTY. LTD. — SAMPLE DATA SHEET

053

AREA EL 15/76, DUNDAS
 STATE VICTORIA LOCATION FRANZ OFIO
LINE 4493N (= Line 13")

PROSPECT NUMBER 602
 SHEET PIEMAN 7914

DATE FEBRUARY - APRIL, 1978
 SAMPLER _____

LABORATORY REPORT NO. _____
 ANALYTICAL METHOD -20/Emission Spec.
-80 A.A.S

NOTATIONS: SAMPLE TYPE — M - Creek mud, S - Soil
 SA - Soil Auger, RC - Drill Core,
 RP - Percussion Chips
 R - Rock
 Please state element

ADDITIONAL _____

SAMPLE NUMBER	SAMPLE TYPE	DEPTH (m)	CHEMICAL ANALYSES (ppm)										SUMMARY DESCRIPTION	LOCATION	
			Sn	Cu	Zn	Pb	Bi	Ag	Au	Ni	E/W	N/S			
602FG0001	SA	-20	<1	30	<20	100	<1	<1	<3	<3			0.3m brown clayey soil (acid volcanic?)	0018.50E	0044.600N
		-80		40	55	90									
602FG0002	SA	-20	<1	10	<20	1	<1	<1	<3	<3			0.5m light brown soil (light grey quartz felsite?)	0018.46E	0044.600N
		-80		35	45	50									
602FG0003	SA	-20	<1	30	30	30	<1	<1	<3	3			Grey to brown silty soil with fragments of fine-grained, finely banded dark blue grey siltstone.	0018.30E	0044.600N
		-80		45	95	55									
602FG0004	SA	-20	<1	100	<20	1	<1	1	<3	3			As for 602FG0003	0018.20E	0044.600N
		-80		30	45	30									
602FG0005	SA	-20	<1	10	<20	<1	<1	<1	<3	<3			Grey-brown silty soil (residual soil over dark blue-grey siltstone.)	0018.10E	0044.600N
		-80		30	50	35									
602FG0006	SA	-20	<1	30	<20	10	<1	1	<3	3			As for 602FG0005	0018.00E	0044.600N
		-80		40	95	60									
602FG0007	SA	-20	<1	30	<20	3	<1	1	<3	3			0.8m depth - khaki soil with some limonitic rock fragments	0018.60E	0044.493N
		-80		35	70	35									
602FG0008	SA	-20	<1	3	<20	<1	<1	<1	<3	<3			0.8m depth - medium brown silty clay with brown limonitic fragments	0018.10E	0044.493N
		-80		5	2	10									
602FG0009	A	-20	<1	10	<20	1	<1	<1	<3	3			0.4m depth - medium brown silty clay; stone fragments	0018.20E	0044.493N
		-80		75	85	55									
602FG0010	SA	-20	<1	10	<20	1	<1	<1	<3	<3			0.5m depth - dark yellow-brown clay with bedrock? fragments of dark grey to black siltstone.	0018.30E	0044.493N
		-80		25	40	40									
602FG0011	SA	-20	<1	10	<20	10	<1	1	<3	<3			0.5m depth - medium brown clayey to silty soil.	0018.10E	0044.493N
		-80		15	35	60									
602FG0012	SA	-20	<1	30	<20	30	<1	<1	<3	3			light cream brown clayey silt with rock fragments	0018.50E	0044.493N
		-80		35	70	50									
602FG0013	SA	-20	<1	30	<20	300	<1	1	<3	3			Light brown clayey silt	0018.60E	0044.493N
		-80		30	170	105									
602FG0014	A	-20	<1	30	300	300	<1	<1	<3	10			Brown silt with dark blue-grey siltstone (bedrock?) fragments.	0018.70E	0044.493N
		-80		70	690	190									
602FG0015	SA	-20	<1	30	300	300	<1	<1	<3	10			Medium brown clayey silt containing rock fragments; limonitic in places	0018.80E	0044.493N
		-80		35	520	195									
602FG0016	SA	-20	<1	30	30	1000	<1	<1	<3	3			Light brown clayey silt with rock fragments of deep blue grey siltstone.	0018.90E	0044.493N
		-80		30	180	560									
602FG0017	SA	-20											As for 602FG0016	0019.00E	0044.493N
		-80													
602FG0018	SA	-20	<1	30	30	1000	<1	<1	<3	10			As for 602FG0016	0019.10E	0044.493N
		-80		75	170	270									
602FG0019	SA	-20	<1	30	<20	300	<1	<1	<3	<3			Medium brown clayey silt. Siltstone? bedrock on dip slope	0019.20E	0044.493N
		-80		20	75	250									
602FG0020	SA	-20	<1	10	<20	10	<1	<1	<3	<3			0.3m depth - medium brown clayey and silty soil with rock fragments	0019.30E	0044.493N
		-80		40	65	135									
602FG0021	SA	-20	<1	30	<20	30	<1	<1	<3	<3			Medium brown clayey silt and soil. Dark blue-grey siltstone bedrock?	0019.40E	0044.493N
		-80		50	100	130									
602FG0022	SA	-20	<1	10	<20	10	<1	<1	<3	<3			As for 602FG0021	0019.50E	0044.493N
		-80		30	70	130									

17054

PACMINEX PTY. — SAMPLE DATA SHEET

054

AREA EL15/76 Dundas PROSPECT NUMBER 602
 STATE TAS LOCATION FRAZER GULF SHEET 7914 Pieman
LINES 4600N (C.E 70'N) and 4493N (Line 13)

DATE SAMPLED 1978
 SAMPLER M.V. / P.M.M.

LABORATORY REPORT NO. _____
 ANALYTICAL METHOD - Zomesh: Emission Spec.

NOTATIONS: SAMPLE TYPE — M - Creekmud, S - Soil
 SA - Soil Auger, RC - Drill Core,
 RP - Percussion Chips
 R - Rock
 Please state element

ADDITIONAL _____

SAMPLE NUMBER	STATE	ANALYSE NUMBER	CHEMICAL ANALYSES (ppm)								SUMMARY DESCRIPTION	LOCATION	
			Co	Cr	Sb	Mo	W	As	U	E/W		N/S	
602FG 001	SA	-2p	<5	<20	<30							1850E	4600N
		-8p											
002	SA	-2p	<5	<20	<30								
		-8p											
003	SA	-2p	<5	<20	<30								
		-8p											
004	SA	-2p	<5	<20	<30								
		-8p											
005	SA	-2p	<5	<20	<30								
		-8p											
006	SA	-2p	<5	<20	<30							1800E	4600N
		-8p											
007	SA	-2p	<5	30	<30							1800E	4493N
		-8p											
008	SA	-2p	<5	<20	<30								
		-8p											
009	SA	-2p	<5	30	<30								
		-8p											
602FG 010	SA	-2p	<5	<20	<30								
		-8p											
011	SA	-2p	<5	30	<30								
		-8p											
012	SA	-2p	<5	100	<30								
		-8p											
013	SA	-2p	<5	100	<30								
		-8p											
014	SA	-2p	<5	100	<30								
		-8p											
015	SA	-2p	<5	100	<30								
		-8p											
016	SA	-2p	<5	100	<30								
		-8p											
017	SA	-2p											
		-8p											
018	SA	-2p	<5	100	<30								
		-8p											
019	SA	-2p	<5	30	<30								
		-8p											
602FG 020	SA	-2p	<5	<20	<30								
		-8p											
021	SA	-2p	<5	<20	<30								
		-8p											
022	SA	-2p	<5	20	<30							1950E	4493N
		-8p											

117055

PACMINEX PTY. LTD. - SAMPLE DATA SHEET

055

AREA EL 15/16, DUNDAS
 STATE TAMMINDIA LOCATION FROZER GRID
 LINE 4493N (= LINE 13)

PROSPECT NUMBER 602
 SHEET PIEMIN 7114

DATE FEBRUARY - APRIL, 1978
 SAMPLER P.M.M./M.V.

LABORATORY REPORT NO. ANALYTICAL METHOD
-20mcsl/Emission Spec
-80: AAS

NOTATIONS: SAMPLE TYPE - M - Creek mud, S - Soil
 SA - Soil Auger, RC - Drill Core,
 RP - Percussion Chips
 R - Rock
 ANALYSES: Please state element

ADDITIONAL _____

SAMPLE NUMBER	SAMPLE TYPE	DEPTH (m)	CHEMICAL ANALYSES (ppm)									SUMMARY DESCRIPTION	LOCATION	
			Sn	Cu	Zn	Pb	Bi	Ag	Au	Ni	E/W		N/S	
602FG0023	SA	-20	<1	30	100	30	<1	<1	<3		3	1.5m depth - dark brown silty clay with rock fragments	001960E	001993N
		-80		55	330	220								
6021G0024	RM	-20	<1	10	30	100	<1	<1	<3		<3	Creek 2m wide. Bedrock - hard dark grey quartzitic siltstone	001965E	001993N
		-80	<5	30	115	220					<0.2			
602FG0025	SA	-20	<1	10	<20	300	<1	<1	<3		3	Medium brown soil with rock fragments (pyrite or mica?)	001970E	001993N
		-80		25	60	220								
602FG0026	SA	-20	<1	30	<20	3000	<1	<1	<3		3	Medium brown clayey silt.	001980E	001993N
		-80		50	70	640								
602FG0027	SA	-20	<1	30	<20	3000	<1	<1	<3		30	Brown clay & silty soil with rock fragments.	001970E	001993N
		-80		50	194	640								
602FG0028	RM	-20	<1	10	30	10	<1	<1	<3		10	Creek 3m wide	001998E	001993N
		-80	<5	25	155	440					<0.2			
602FG0029	SA	-20	<1	30	<20	300	<1	<1	<3		<3	Light brown clayey silt and soil - slope wash colluvium?	002000E	001993N
		-80		50	65	1500								
602FG0030	SA	-20	<1	30	<20	100	<1	<1	<3		30	Pale grey-brown clayey silty soil.	002010E	001993N
		-80		20	60	230								
602FG0031	SA	-20	<1	30	30	300			<3		30	0.7m depth - grey black shale base below medium brown soil.	002020E	001993N
		-80		20	30	500								
602FG0032	SA	-20	<1	100	<20	300			<3		30	Screen? Dark grey fine-grained quartzite & quartz veining	002030E	001993N
		-80		70	195	380								
602FG0033	SA	-20	<1	10	30	10	<1	<1	<3		10	0.4m depth - angular screen - brown clay with silty soil containing black quartzitic siltstone (hornfels quartzite?)	002040E	001993N
		-80		20	45	120								
602FG0034	SA	-20	<1	30	<20	10	<1	? <4	<3		3	0.3m depth - hard yellow-brown clay with blue-grey siltstone fragments.	002050E	001993N
		-80		45	60	65								
602FG0035	SA	-20	<1	3	30	1	<1		<3		3		002060E	001993N
		-80		20	30	80								
602FG0036	SA	-20	<1	30	<20	1	<1	<1	<3		3	Medium brown limonitic clayey and silty soil with greenish-blue-grey shale (siltstone?) fragments.	002070E	001993N
		-80		55	75	65								
6021G0037	SA	-20	<1	30	<20	1	<1		<3		3	0.4m depth - brown clayey silty soil.	002080E	001993N
		-80		30	45	45								
6021G0038	SA	-20	<1	30	<20	1	<1	<1	<3		3	Medium brown clayey silty soil - shale?	002090E	001993N
		-80		40	55	55								
602FG0039	SA	-20	<1	30	<20	1	<1	<1	<3		3	As for 602FG0038	002100E	001993N
		-80		30	45	50								
602FG0040	SH	-20	<1	30	<20	30			<3		3	As for 602FG0038 with fragments of blue-grey shaly siltstone	002110E	001993N
		-80		40	65	70								
602FG0041	SA	-20	<1	100	<20	100	<1	<1	<3		<3	Medium to dark brown silty and shaly clay and soil	002120E	001993N
		-80		65	110	210								
602FG0042	SA	-20	<1	30	30	3	<1	<1	<3		<3	Dark brown silty clay and soil.	002130E	001993N
		-80		130	150	185								
602FG0043	SA	-20	<1	100	<30	10	<1	<1	<3		<3	As for 602FG0042 with fragments of fine-grained grey sandstone	002140E	001993N
		-80		80	120	310								
602FG0044	SA	-20	<1	30	<20	1	<1	<1	<3		<3	Dark yellow-brown clay and soil.	002150E	001993N
		-80		90	95	65								

117056

PACMINEX PTY. LTD. — SAMPLE DATA SHEET

AREA EL 15/76 Dundas PROSPECT NUMBER 602
 STATE TAS LOCATION Fraser Grid 7414 Pieman
 SHEET 1:100,000
 LINE 4493N ("LINE 13")

DATE SAMPLED 1978
 SAMPLER PMM/M.V.

LABORATORY REPORT NO. _____
 ANALYTICAL METHOD -20/Emission Spec.

NOTATIONS: SAMPLE TYPE — M - Creek mud, S - Soil
 SA - Soil Auger, RC - Drill Core,
 RP - Percussion Chips
 R - Rock
 ANALYSES: Please state element

ADDITIONAL _____

SAMPLE NUMBER	SAMPLE TYPE	DEPTH (cm)	CHEMICAL ANALYSES (ppm)										SUMMARY DESCRIPTION	LOCATION			
			Co	Cr	Sb	Mo	W	As	U ₃ O ₈					EN#	LINE		
602FG 013	SA	-20	< 5	20	< 30											1960E	4493N
		-50															
024	M	-20	< 5	< 20	< 30												
		-50															
025	SA	-20	< 5	30	< 30												
		-50															
026	SA	-20	< 5	20	< 30												
		-50															
027	SA	-20	< 5	30	< 30												
		-50															
028	M	-20	< 5	30	< 30												
		-50															
029	SA	-20	< 5	< 20	< 30												
		-50															
602FG 030	SA	-20	< 5	< 20	< 30												
		-50															
031	SA	-20	< 5	< 20	< 30												
		-50															
032	SA	-20	< 5	< 20	< 30												
		-50															
033	SA	-20	< 5	20	< 30												
		-50															
034	SA	-20	< 5	< 20	< 30												
		-50															
035	SA	-20	< 5	< 20	< 30												
		-50															
036	SA	-20	< 5	< 20	< 30												
		-50															
037	SA	-20	< 5	< 20	< 30												
		-50															
038	SA	-20	< 5	< 20	< 30												
		-50															
039	SA	-20	< 5	< 20	< 30												
		-50															
602FG 040	SA	-20	< 5	< 20	< 30												
		-50															
041	SA	-20	< 5	< 20	< 30												
		-50															
042	SA	-20	< 5	< 20	< 30												
		-50															
043	SA	-20	< 5	< 10	< 30												
		-50															
602FG 044	SA	-20	< 5	< 10	< 30												
		-50															

117057

PACMINEX PTY. LTD. — SAMPLE DATA SHEET

057

AREA E L 15/16, DUNDAS

PROSPECT NUMBER 602

DATE FEBRUARY - APRIL
SAMPLED 1978

LABORATORY REPORT NO. ANALYTICAL METHOD

- 20 mesh / Emission Spec
- 80 : A.A.S.

NOTATIONS: SAMPLE TYPE —

M - Creek mud, S - Soil
SA - Soil Auger, RC - Drill Core,
RP - Percussion Chips
R - Rock
Please state element

ADDITIONAL

STATE INDONESIA LOCATION FRATER GRID

SHEET PIEMIN 7914

SAMPLER

LINE 449 3 m N (= "Line 13")

SAMPLE NUMBER	SAMPLE TYPE	ANALYSE DEPTH (cm)	CHEMICAL ANALYSES (ppm)								SUMMARY DESCRIPTION	LOCATION	
			Sn	Cu	Zn	Pb	Bi	Ag	Au	Ni		E/W	N/S
602FG0045	SA	-20	< 1	100	30	10	< 1	< 1	< 3	3	As for 602FG0044	602160E	604193N
		-80	< 1	85	105	125							
602FG0046	SA	-20	< 1	100	30	100	< 1	< 1	< 3	< 3	As for 602FG0044 with fine-grained sandstone	602170E	604193N
		-80	< 1	75	120	165							
602FG0047	SA	-20	< 1	30	220	30	< 1	< 1	< 3	3	0.5m depth - as for 602FG0044	602180E	604193N
		-80	< 1	85	95	330							
602FG0048	SA	-20	< 1	100	30	100	< 1	< 1	< 3	3	0.3m depth - as for 602FG0044	602190E	604193N
		-80	< 1	65	110	250							
602FG0049	SA	-20	< 1	100	100	300	< 1	< 1	< 3	3	1.3m depth - as for 602FG0044	602200E	604193N
		-80	< 1	90	155	260							
602FG0050	SA	-20	< 1	30	30	30	< 1		< 3	3	0.3m depth - deep brown clayey and silty soil with rock fragments	602210E	604193N
		-80	< 1	50	120	195							
602FG0051	SA	-20	< 1	30	220	100	< 1		< 3	3	0.5m depth - light grey-brown sandy clayey soil with rock fragments	602220E	604193N
		-80	< 1	35	95	160							
602FG0052	SA	-20	< 1	10	220	30	< 1	< 1	< 3	3	0.2m depth - brownish grey clayey and silty soil - hard base	602230E	604193N
		-80	< 1	20	50	165							
602FG0053	SA	-20	< 1	30	220	10	< 1	< 1	< 3	< 3	0-0.4m medium brown-grey silty clay (siltstone?)	602240E	604193N
		-80	< 1	30	70	135							
602FG0054	SA	-20	< 1	100	30	10	< 1	< 1	< 3	30	0-0.6m grey to brown shale with limonite patches	602250E	604193N
		-80	< 1	75	165	125							
602FG0055	SA	-20	< 1	100	100	100	< 1		< 3	3	0-0.5m pale grey-khaki clayey silt with black chert fragments	602260E	604193N
		-80	< 1	95	230	385							
602FG0056	SA	-20	< 1	30	220	30	< 1	< 1	< 3	10	0.6m depth - as for 602FG0055 with cherty and grey cherty shale fragments	602270E	604193N
		-80	< 1	30	50	105							
602FG0057	SA	-20	< 1	1	220	< 1	< 1	< 1	< 3	3	Grey-khaki clayey silt as for 602FG0055	602280E	604193N
		-80	< 1	15	65	165							
602FG0058	SA	-20	< 1	3	220	10	< 1	< 1	< 3	3	0-0.5m medium to dark grey (greywacke?) siltstone with clay and limonite fragments	602290E	604193N
		-80	< 1	10	40	95							
602FG0059	SA	-20	< 1	30	220	30	< 1	< 1	< 3	30	0-0.3m dark blue-grey clayey siltstone (greywacke?)	602300E	604193N
		-80	< 1	15	65	210							
602FG0060	SA	-20	< 1	10	220	10	< 1		< 3	3	0-0.3m grey limonitic clayey and shaly siltstone (greywacke?)	602310E	604193N
		-80	< 1	10	85	140							
602FG0061	SA	-20	< 1	10	220	3	< 1		< 3	10	0.4m depth - grey silty shale to 0.4m	602320E	604193N
		-80	< 1	10	10	15							
602FG0062	SA	-20	< 1	3	220	3	< 1		< 3	3	0.3m black-grey pyritic shale	602330E	604193N
		-80	< 1	5	10	20							
602FG0063	SA	-20	< 1	10	220	10	< 1		< 3	3	0.3m depth - black to dark blue-grey shale	602340E	604193N
		-80	< 1	5	10	60							
602FG0064	SA	-20	< 1	10	220	100	< 1	< 1	< 3	< 3	0.5m depth - grey clayey quartzite with black shale	602350E	604193N
		-80	< 1	10	20	70							
602FG0065	SA	-20	< 1	3	220	< 1	< 1	< 1	< 3	3	Pale brown grey mud and silt fragments. Grey shaly sand nearby (N.S.I.)	602360E	604193N
		-80	< 1	5	10	15							
602FG0066	SA	-20	< 1	30	220	3	< 1		< 3	3	Grey shale (N.S.I.)	602370E	604193N
		-80	< 1	5	10	20							

112058

PACMINEX PTY. LTD. — SAMPLE DATA SHEET

U59

AREA E.L. 15/26, DUNDAS
 STATE (NSW) LOCATION FRASER GND

PROSPECT NUMBER 602
 SHEET Pfmin 7914

DATE FEBRUARY - APRIL, 1978
 SAMPLER _____

LABORATORY REPORT NO. _____
 ANALYTICAL METHOD _____

-Zamesh Emission Spec.
-80 : A.A.S

NOTATIONS: SAMPLE TYPE — M - Creek mud, S - Soil
 SA - Soil Auger, RC - Drill Core,
 RP - Percussion Chips
 R - Rock
 Please state element

ADDITIONAL _____

LINE 4493 N "Line 13"

SAMPLE NUMBER	SAMPLE TYPE	DEPTH (M)	CHEMICAL ANALYSES (ppm)									SUMMARY DESCRIPTION	LOCATION	
			Sn	Cu	Zn	Pb	Bi	Ag	Au	Ni	E/W		LINE	
602FG0067	SA	-20	<1	10	<20	<1	<1	<1	<3	3	0-0.8m finely bedded grey shale (Nsh?)	442380E	441931N	
		-80		5	10	20								
602FG0068	SA	-20	<1	10	<20	<1	<1	1	<3	3	0.4m depth - blue-grey finely bedded shale	442390E	441931N	
		-80		10	10	10								
602FG0069	SA	-20	<1	3	<20	<1	<1	<1	<3	3	0.4m depth - grey shale (silicified?)	442400E	441931N	
		-80		5	10	20								
602FG0070	SA	-20	<1	10	<20	3	<1	<1	<3	<3	0.4m depth - black shale	442410E	441931N	
		-80		15	10	40								
602FG0071	SA	-20	<1	30	30	10	<1	<1	<3	<3	0-1.3m dark grey shaly shale	442420E	441931N	
		-80		25	210	115								
602FG0072	SA	-20	<1	10	<20	3	<1	1	<3	3	0.5m depth - black (graphitic?) shale	442430E	441931N	
		-80		10	10	30								
602FG0073	SA	-20	<1	3	<20	<1	<1	<1	<3	10	0.6m depth - black shale bedrock	442440E	441931N	
		-80		5	5	10								
602FG0074	SA	-20	<1	10	<20	<1	<1	<1	<3	<3	0-0.5m grey silty shale (siltstone bedrock - Ns or Nsh?)	442450E	441931N	
		-80		5	10	20								
602FG0075	SA	-20	<1	10	<20	<1	<1	<1	<3	30	0.3m depth - grey siltstone - quartzitic (Ns?)	442460E	441931N	
		-80		2	2	15								
602FG0076	SA	-20	<1	3	<20	100	<1	<1	<3	100	0.6m depth - grey silty shale (Nsh?)	442470E	441931N	
		-80		2	10	100								
602FG0077	SA	-20	<1	10	<20	3	<1	<1	<3	30	0.4m depth - black shale	442480E	441931N	
		-80		10	5	40								
602FG0078	SA	-20	<1	10	<20	3	<1	<1	<3	3	Grey and black shale; limonite in places	442490E	441931N	
		-80		10	5	25								
602FG0079	SA	-20	<1	10	<20	<1	<1	1	<3	10	Pale brown-grey siltstone (Ns) with hard dark grey quartzitic (Ns?) silt	442500E	441931N	
		-80		2	2	20								
602FG0080	SA	-20	<1	100	<20	<1	<1	<1	<3	10	0.5m depth dark grey shale (Nsh?)	442510E	441931N	
		-80		45	15	20								
602FG0081	SA	-20	<1	10	<20	1	<1	1	<3	3	As for 602FG0080	442520E	441931N	
		-80		2	2	15								
602FG0082	SA	-20	<1	30	<20	30	<1	<1	<3	<3	As for 602FG0080	442530E	441931N	
		-80		10	10	90								
602FG0083	SA	-20	<1	30	<20	100	100	<1	<3	3	0-0.2m pale brown-grey siltstone (Ns?)	442540E	441931N	
		-80		10	2	140								
602FG0084	SA	-20	<1	10	<20	<1	<1	1	<3	3	0.6m depth - pale blue-grey to grey shale (Nsh?)	442550E	441931N	
		-80		5	2	5								
602FG0085	SA	-20	<1	3	<20	<1	<1	<1	<3	<3	0.4m depth - dark grey shale (Nsh?)	442560E	441931N	
		-80		2	2	10								
602FG0086	SA	-20	<1	10	<20	<1	<1	<1	<3	<3	As for 602FG0084	442570E	441931N	
		-80		10	5	10								
602FG0087	SA	-20	<1	10	<20	<1	<1	1	<3	3	0.8m depth - very deep blue-grey (black?) shale	442580E	441931N	
		-80		10	5	10								
602FG0088	SA	-20	<1	10	<20	<1	<1	<1	<3	<3	0.5m depth - medium blue-grey shale (Nsh?)	442590E	441931N	
		-80		5	10	15								

17060

PACMINEX PTY. LTD. - SAMPLE DATA SHEET

060

AREA ELIS/76 Dundas PROSPECT NUMBER _____
 STATE TAS LOCATION FRASER GCD SHEET _____
 LINE 4493N - LINE 13

DATE SAMPLED _____
 SAMPLER _____

LABORATORY REPORT NO. _____
 ANALYTICAL METHOD -20: Emission Spec

NOTATIONS: SAMPLE TYPE - M - Creekmud, S - Soil
 SA - Soil Auger, RC - Drill Core,
 RP - Percussion Chips
 R - Rock
 ANALYSES: Please state element

ADDITIONAL _____

SAMPLE NUMBER	SAMPLE TYPE	DEPTH (meters)	CHEMICAL ANALYSES (ppm)								SUMMARY DESCRIPTION	LOCATION		
			Co	Cr	Sb	Mo	W	As	U	E/W		N/E LINE		
602 FG 067	SA	-20	< 5	20	< 30									4493N
		-80												
068	SA	-20	< 5	30	< 30									
		-80												
069	SA	-20	< 5	20	< 30									
		-80												
602 FG 070	SA	-20	< 5	20	< 30									
		-80												
071	SA	-20	< 5	< 20	< 30									
		-80												
072	SA	-20	< 5	20	< 30									
		-80												
073	SA	-20	< 5	30	< 30									
		-80												
074	SA	-20	< 5	< 20	< 30									
		-80												
075	SA	-20	< 5	< 20	< 30									
		-80												
076	SA	-20	< 5	< 20	< 30									
		-80												
077	SA	-20	< 5	30	< 30									
		-80												
078	SA	-20	< 5	< 20	< 30									
		-80												
079	SA	-20	< 5	< 20	< 30									
		-80												
602 FG 080	SA	-20	< 5	< 20	< 30									
		-80												
081	SA	-20	< 5	< 20	< 30									
		-80												
082	SA	-20	< 5	10	< 30									
		-80												
083	SA	-20	< 5	< 20	< 30									
		-80												
084	SA	-20	< 5	30	< 30									
		-80												
085	SA	-20	< 5	< 20	< 30									
		-80												
086	SA	-20	< 5	< 20	< 30									
		-80												
087	SA	-20	< 5	< 20	< 30									
		-80												
602 FG 088	SA	-20	< 5	< 20	< 30									
		-80												

117061

PACMINEX PTY. LTD. — SAMPLE DATA SHEET

061

AREA E.L. 15/16, DUNDAS PROSPECT NUMBER 602
 STATE INDONESIA LOCATION TAJER GUD SHEET PIEMIN 7914
 LINE 4493 N = "line 13"

DATE February - April, 1978
 SAMPLER _____

LABORATORY REPORT NO. _____
 ANALYTICAL METHOD 30 mesh; Emission Spec.
50: A.A.S.; XRF(Sn).

NOTATIONS: SAMPLE TYPE — M - Creek mud, S - Soil
 SA - Soil Auger, RC - Drill Core,
 RP - Percussion Chips
 R - Rock
 ANALYSES: Please state element

ADDITIONAL _____

SAMPLE NUMBER	SAMPLE TYPE	DEPTH (m)	CHEMICAL ANALYSES (ppm)								SUMMARY DESCRIPTION	LOCATION	
			Sn	Cu	Zn	Pb	Bi	Ag	Au	Ni		E/W	N/S
602FG0084	SA	-2.0	<1	1.00	<20	<1	<1	<1	<3	<3	0.8m depth - deep blue-grey shale (Nsh?)	602684E	604493N
		-8.0		40	60	40							
602FG0089	SA	-2.0	<1	10	<20	<1	<1	<1	<3	10	0.5m depth - (As for 602FG0087)	602610E	604493N
		-8.0		5	5	10							
602FG0091	SA	-2.0	<1	10	<20	<1	<1	<1	<3	3	0.6m depth - black shale	602620E	604493N
		-8.0		2	5	15							
602FG0092	SA	-2.0	<1	10	<20	<1	<1	<1	<3	3	0.5m depth - blue-grey to dark grey shale (Nsh?)	602630E	604493N
		-8.0		5	5	10							
602FG0093	SA	-2.0	<1	30	<20	<1	<1	<1	<3	<3	As for 602FG0092	602640E	604493N
		-8.0		15	10	10							
602FG0094	SA	-2.0	<1	10	<20	<1	<1	<1	<3	3	0.5m depth - as for 602FG0092	602650E	604493N
		-8.0		2	10	10							
602FG0095	SA	-2.0	<1	10	<20	<1	<1	<1	<3	3	As for 602FG0092	602660E	604493N
		-8.0		10	10	10							
602FG0096	SA	-2.0	<1	10	<20	<1	<1	<1	<3	<3	Medium brown silty clay with dark grey shale fragments	602670E	604493N
		-8.0		5	10	20							
602FG0097	SA	-2.0	<1	10	<20	<1	<1	<1	<3	3			
		-8.0	<5	5	10	20			<0.2				
602FG0098	SA	-2.0	<1	1	<20	<1	<1	<1	<3	<3	0.5m depth - dark grey shale	602680E	604493N
		-8.0		5	10	15							
602FG0099	SA	-2.0	<1	30	<20	<1	<1	<1	<3	<3	0.8m depth - as for 602FG0098	602690E	604493N
		-8.0		10	10	10							
602FG0100	SA	-2.0	<1	10	<20	<1	<1	<1	<3	3	0.6m depth - pale brown-grey soil containing grey shale fragments	602700E	604493N
		-8.0		10	10	10							
602FG0101	SA	-2.0	<1	10	<20	<1	<1	<1	<3	3	As for 602FG0100	602710E	604493N
		-8.0		5	5	10							
602FG0102	SA	-2.0	<1	3	<20	<1	<1	<1	<3	<3	As for 602FG0100	602720E	604493N
		-8.0		2	2	15							
602FG0103	SA	-2.0	<1	100	<20	<1	<1	<1	<3	<3	0.8m depth - yellow-brown limonitic clay	602730E	604493N
		-8.0		80	120	30							
602FG0104	SA	-2.0	<1	100	<20	<1	<1	<1	<3	3	0.7m depth - bedrock - grey shale fragments in light brown grey clayey soil	602740E	604493N
		-8.0		30	10	15							
602FG0105	SA	-2.0	<1	300	30	<1	<1	<1	<3	<3	0-0.8m dark yellow-orange-brown clay with siliceous limonitic fragments, 0.8m at bedrock	602750E	604493N
		-8.0		350	175	20							
602FG0106	SA	-2.0	<1	30	<20	1	<1	<1	<3	<3	Deep yellow-brown silty clay with limonitic siltstone? fragments	602760E	604493N
		-8.0		25	10	25							
602FG0107	SA	-2.0	<1	30	<20	<1	<1	<1	<3	<3	0.8m depth - pale brown grey clay (siltstone? or acid volcanic?)	602770E	604493N
		-8.0		20	15	15							
602FG0108	SA	-2.0	<1	10	<30	<1	<1	<1	<3	<3	Colluvial - pale grey limonitic clay with quartz fragments	602780E	604493N
		-8.0		15	10	25							
602FG0109	SA	-2.0	<1	3	<20	10	<1	<1	<3	3	Creek (5m channel)	602790E	604493N
		-8.0	<5	10	40	75			<0.2				
602FG0110	SA	-2.0	<1	3	<20	<1	<1	<1	<3	10	Alluvial?	602790E	604493N
		-8.0		5	10	20							

117062

PACMINEX PTY. — SAMPLE DATA SHEET

062

AREA EL15/76 Dundas PROSPECT NUMBER 602
 STATE TAS LOCATION FRAZER GID SHEET 7914
 LINE 4493N (= Line 13)

DATE SAMPLED 1978
 SAMPLER _____

LABORATORY REPORT NO. _____
 ANALYTICAL METHOD -20: Emission Spec.

NOTATIONS: SAMPLE TYPE — M - Creek mud, S - Soil
 SA - Soil Auger, RC - Drill Core,
 RP - Percussion Chips
 R - Rock
 ANALYSES: Please state element

ADDITIONAL _____

SAMPLE NUMBER	SAMPLE TYPE	DEPTH (METERS)	CHEMICAL ANALYSES (ppm)										SUMMARY DESCRIPTION	LOCATION		
			Co	Cr	Sb	Mo	W	As	U ₃ O ₈	E/W	N/S LINE					
602FG089	SA	-20	<5	<20	<30										2600E	4493N
		-80														
602FG090	SA	-20	<5	<20	<30											
		-80														
091	SA	-20	<5	<20	<30											
		-80														
092	SA	-20	<5	<20	<30											
		-80														
093	SA	-20	<5	<20	<30											
		-80														
094	SA	-20	<5	<20	<30											
		-80														
095	SA	-20	<5	<20	<30											
		-80														
096	SA	-20	<5	<20	<30											
		-80														
097	SA	-20	<5	<20	<30											
		-80														
098	SA	-20	<5	<20	<30											
		-80														
099	SA	-20	<5	<20	<30											
		-80														
602FG100	SA	-20	<5	<20	<30											
		-80														
101	SA	-20	<5	<20	<30											
		-80														
102	SA	-20	<5	<20	<30											
		-80														
103	SA	-20	<5	<20	<30											
		-80														
104	SA	-20	<5	<20	<30											
		-80														
105	SA	-20	<5	<20	<30											
		-80														
106	SA	-20	<5	<20	<30											
		-80														
107	SA	-20	<5	<20	<30											
		-80														
108	SA	-20	<5	<20	<30											
		-80														
109	M	-20	<5	<20	<30											
		-80														
602FG110	SA	-20	<5	<20	<30										2790E	4493N
		-80														

117063

PACMINEX PTY. LTD. — SAMPLE DATA SHEET

063

AREA E 1 IS/X, DUNDAS

PROSPECT NUMBER 602

DATE FEBRUARY - APRIL
SAMPLED 1978

LABORATORY REPORT NO. _____
ANALYTICAL METHOD _____

NOTATIONS: SAMPLE TYPE — M - Creek mud, S - Soil
SA - Soil Auger, RC - Drill Core,
RP - Percussion Chips
R - Rock
Please state element

ADDITIONAL _____

STATE NSW LOCATION FRANZ GARD PPM 7914
LINE 4493N = ("Line 13")

SAMPLER _____

-20 mesh = Emission Spec.

ANALYSES:

SAMPLE NUMBER	SAMPLE TYPE	DEPTH (m)	CHEMICAL ANALYSES (ppm)									SUMMARY DESCRIPTION	LOCATION	
			Sn	Cu	Zn	Pb	Bi	Ag	Au	Ni	E/W		N/S	
602FG0111	SA	-2.0	<1	3	<20	<1	<1	<1	<3	3	Colluvial - pale white silty soil - base of slope	442888E	441193N	
		-8.0		2	5	10								
602FG0112	SA	-2.0	<1	1	<20	<1	<1	<1	<3	<3	0.1m depth - white siltstone - quartzite (Ns, Ns?)	442881E	441193N	
		-8.0		2	5	5								
602FG0113	SA	-2.0	<1	1	<20	<1	<1	<1	<3	<3	0.5m depth - grey-white quartzitic siltstone/siltstone (Ns)	442882E	441193N	
		-8.0		2	2	5								
602FG0114	SA	-2.0	<1	10	<20	30	<1	<1	<3	3	1.0m depth - pale brown-orange sandy clay with quartzite fragments	442883E	441193N	
		-8.0		10	20	55								
602FG0115	SA	-2.0	<1	3	<20	<1	<1	<1	<3	<3	0.5m depth - as for 602FG 0113	442884E	441193N	
		-8.0		2	2	10								
602FG0116	SA	-2.0	<1	10	<20	<1	<1	<1	<3	<3	0.5m depth - as for 602FG 0113	442885E	441193N	
		-8.0		5	5	10								
602FG0117	SA	-2.0	<1	3	<20	<1	<1	<1	<3	3	0.3m depth - as for 602FG 0013	442886E	441193N	
		-8.0		2	5	10								
602FG0118	SA	-2.0	1	100	100	190	1	<1	<3	10	0.7m depth - pale khaki-brown silty clay with grey-white quartzite fragments	442887E	441193N	
		-8.0		90	200	150								
602FG0119	SA	-2.0	<1	100	100	1	<1	<1	<3	<3	0.3m depth - slope wash (Ns). Soil with dark yellow-brown limonitic shale fragments	442888E	441193N	
		-8.0		125	260	480								
602FG0120	SA	-2.0	3	10	<20	100	<1	<1	<3	<3	Creek inside. Outcrop? - limonitic-quartzitic siltstone. Shrunken at bottom?	442889E	441193N	
		-8.0	35	10	45	105			<0.2					
602FG0121	SA	-2.0	1	3	<20	300	<1	<1	<3	<3	0-0.2m pale brown topsoil. 0.2-0.7m light-dark grey shaly clay with dark grey-black shaly fragments - some patches of limonite	442890E	441193N	
		-8.0		2	10	65								
602FG0122	SA	-2.0	3	3	<20	30	<1	<1	<3	3	0.4m depth - dark grey silty shale fragments (Ns?)	442891E	441193N	
		-8.0		2	2	40								
602FG0123	SA	-2.0	<1	1	<20	10	<1	<1	<3	<3	0.8m depth - light grey quartzitic siltstone fragments with subordinate light to dark grey shaly fragments	442892E	441193N	
		-8.0		2	2	45								
602FG0124	SA	-2.0	<1	1	<20	10	<1	<1	<3	<3	0.3m depth - dark grey silty shale and micaceous siltstone fragments	442893E	441193N	
		-8.0		2	5	40								
602FG0125	SA	-2.0	<1	1	<20	1	<1	<1	<3	3	0-0.6m light khaki clay with minor dark grey shale fragments. At 0.6m depth dark grey to black shale fragments	442894E	441193N	
		-8.0		2	2	35								
602FG0126	SA	-2.0	1	3	<20	3	<1	<1	<3	<3	0.2m depth - grey soil, hard base (Ns?)	442895E	441193N	
		-8.0		2	5	20								
602FG0127	SA	-2.0	3	3	<20	3000	<1	<1	<3	3	0.6m depth - black shale fragments	442896E	441193N	
		-8.0		10	10	250								
602FG0128	SA	-2.0	<1	10	<20	300	<1	1	<3	3	Clayey-silt stream sediment	442897E	441193N	
		-8.0		10	35	110			<0.2					
602FG0129	SA	-2.0	<1	10	<20	10	<1	1	<3	<3	0-0.2m pale khaki shaly clay with minor dark grey shaly fragments; some limonite patches. 0.2-0.6m dark grey-black shale with light grey shaly clay	442898E	441193N	
		-8.0		20	35	40								
602FG0130	SA	-2.0	<1	30	<20	3000	<1	<1	<3	3	0-0.6m medium grey shale, light-medium grey shaly clay. Reddish at 0.6m?	442899E	441193N	
		-8.0		40	50	280								
602FG0131	SA	-2.0	<1	30	<20	10	<1	<1	<3	3	0.3m depth - medium grey shale fragments (Ns?)	442900E	441193N	
		-8.0		55	110	45								
602FG0132	SA	-2.0	<1	30	<20	30	<1	1	<3	3	0.5m depth - pale grey shaly clay with medium grey shaly fragments	442901E	441193N	
		-8.0		30	120	70								

117064

PACMINEX PTY. LTD. — SAMPLE DATA SHEET

064

AREA EL15/76 Dundas PROSPECT NUMBER 602
 STATE TAS LOCATION FRAZER GRID SHEET 7914 Piegan
 LINE 4493N (= LINE 13)

DATE SAMPLED 1978
 SAMPLER PMM/M.V.

LABORATORY REPORT NO. _____
 ANALYTICAL METHOD -20mcsl = Emission Spec.

NOTATIONS: SAMPLE TYPE — M - Creek mud, S - Soil
 SA - Soil Auger, RC - Drill Core,
 RP - Percussion Chips
 R - Rock
 Please state element

ADDITIONAL _____

SAMPLE NUMBER	STATE	LOCATION	DEPTH (cm)	CHEMICAL ANALYSES (ppm)							SUMMARY DESCRIPTION	LOCATION	
				Co	Cr	Sb	Mo	W	As	U ₃ O ₈		EM	LINE
602 FG 111	SA		-20	<5	<20	<30						2800E	4493N
			-80										
	SA		-20	<5	<20	<30							
			-80										
113	SA		-20	<5	<20	<30							
			-80										
114	SA		-20	<5	<20	<30							
			-80										
115	SA		-20	<5	<20	<30							
			-80										
116	SA		-20	<5	<20	<30							
			-80										
117	SA		-20	<5	<20	<30							
			-80										
118	SA		-20	<5	<20	<30							
			-80										
119	SA		-20	<5	<20	<30						2850E	
			-80										
602 FG 120	M		-20	<5	<20	<30		<5		3		2881E	4493N
			-80										
121	SA		-20	<5	<20	<30						2890E	
			-80										
122	SA		-20	<5	<20	<30							
			-80										
123	SA		-20	<5	<20	<30							
			-80										
124	SA		-20	<5	<20	<30							
			-80										
125	SA		-20	<5	100	<30							
			-80										
126	SA		-20	<5	<20	<30							
			-80										
127	SA		-20	<5	30	<30						2950E	
			-80										
128	M		-20	<5	20	<30		<5		3		2954E	
			-80										
129	SA		-20	<5	20	<30						2960E	
			-80										
602 FG 130	SA		-20	<5	30	<30							
			-80										
131	SA		-20	<5	30	<30							
			-80										
132	SA		-20	<5	20	<30						2990E	4493N
			-80										

117065

PACMINEX PTY. LTD. — SAMPLE DATA SHEET

065

AREA EL 10/16, DUNDAS

PROSPECT NUMBER 602

DATE FEBRUARY-APRIL

NOTATIONS: SAMPLE TYPE -

M - Creek mud, S - Soil
SA - Split Auger, RC - Drill Core,
RP - Percussion Chips
R - Rock
Please state element

ADDITIONAL

STATE INDONESIA LOCATION 1701K 0410

SHEET MINING 7914

SAMPLER

LABORATORY REPORT NO.

ANALYTICAL METHOD -20 mesh: Emission Spec.

ANALYSES:

Line 4493N (= "Line 13")

SAMPLE NUMBER	SAMPLE TYPE	APPROXIMATE DEPTH, METERS	CHEMICAL ANALYSES (ppm)								SUMMARY DESCRIPTION	LOCATION	
			Sn	Cu	Zn	Pb	Bc	Ag	Au	Ni		ENW	N/S
602FG0133	SA	-2.0	<1	30	<20	3	<1	<1	<3	3	0.1m depth - dark grey and black shale fragments	603000E	604493N
		-8.0		30	65	35							
602FG0134	SA	-2.0	<1	100	30	10	<1	1	<3	<3	0-0.5m khaki clayey soil with siltstone? str. 0.5m black shale	603010E	604493N
		-8.0		145	280	85							
602FG0135	SA	-2.0	<1	30	<20	10	<1	<1	<3	3	0-0.1m khaki shale with black shaley fragments. 0.1-0.3m black shale, fissile	603020E	604493N
		-8.0		50	160	70							
602FG0136	SA	-2.0	<1	30	30	1	<1	<1	<3	3	0.4m depth - dark bluish-grey shale	603030E	604493N
		-8.0		70	260	70							
602FG0137	SA	-2.0	<1	100	<20	1000	<1	<1	<3	10	0.6m depth - light to medium grey shale fragments in clayey shale	603040E	604493N
		-8.0		145	70	90							
602FG0138	SA	-2.0	<1	30	30	30	<1	3	<3	<3	0.3m depth - dark grey - black shale	603050E	604493N
		-8.0		60	145	105							
602FG0139	SA	-2.0	<1	30	<20	30	<1	3	<3	<3	0-0.3m pale khaki shaley clay with grey shale fragments. 0.3-0.6m light to medium grey shale fragments	603060E	604493N
		-8.0		50	70	55							
602FG0140	SA	-2.0	<1	10	30	30	<1	<1	<3	<3	0.2m depth - dark brown - khaki soil. Dark brown limonitic shale bedrock?	603070E	604493N
		-8.0		45	175	135							
602FG0141	SA	-2.0	<1	30	<20	<1	<1	3	<3	<3	0-0.7m pale grey to light brown clayey shale. 0.7m depth grey-brown limonitic shale fragments	603080E	604493N
		-8.0		35	40	35							
602FG0142	SA	-2.0	<1	30	<20	10	<1	1	<3	<3	0-0.3m blue-black shale. 0.3m depth black shale	603090E	604493N
		-8.0		55	125	110							
602FG0143	SA	-2.0	<1	100	30	<1	<1	1	<3	10	0-0.5m light grey - khaki shaley clay	603100E	604493N
		-8.0		105	120	40							
602FG0144	SA	-2.0	<1	30	<20	<1	<1	<1	<3	3	Grey to orange-brown limonitic clay	603110E	604493N
		-8.0		70	95	40							
602FG0145	SA	-2.0	<1	1	<20	<1	<1	<1	<3	<3	0.8m depth - dark grey-brown clay	603120E	604493N
		-8.0		40	105	35							
602FG0146	SA	-2.0	<1	10	<20	<1	<1	<1	<3	<3	0.8m depth - as for 602FG0145	603130E	604493N
		-8.0		15	40	45							
602FG0147	SA	-2.0	<1	10	<20	<1	<1	<1	<3	<3	0-0.7m medium grey to khaki brown clay	603140E	604493N
		-8.0		20	40	35							
602FG0148	SA	-2.0	<1	10	<20	<1	<1	<1	<3	<3		603143E	604493N
		-8.0		55	20	50							
602FG0149	SA	-2.0	<1	10	<20	<1	<1	<1	<3	<3	0.5m depth - dark grey-brown clay; some limonitic patches at base of hole	603150E	604493N
		-8.0		35	50	25							
150	M	-2.0											
	*	-8.0	<1	30	<20	30	<1	<1	<3	3	-80 mesh duplicate of 602FG 0024 M		
		-8.0											
151	M	-2.0											
	*	-8.0	<1	30	<20	100	<1	<1	<3	<3	✓ ✓ ✓ ✓ 602FG 0028 M		
		-8.0											
152	M	-2.0											
	*	-8.0	<1	3	<20	<1	<1	<1	<3	<3	✓ ✓ ✓ ✓ 602FG 0097 M		
		-8.0											

117066

PACMINEX PTY. — SAMPLE DATA SHEET

066

AREA EL15/76 Dundas
 STATE TAS LOCATION FRAZER Gnd

PROSPECT NUMBER 1:100,000
 SHEET LINE 4493N (=

DATE SAMPLED _____
 SAMPLER _____

LABORATORY REPORT NO. _____
 ANALYTICAL METHOD -20, -80* = Emission Spec.

NOTATIONS: SAMPLE TYPE - M - Creek mud, S - Soil
 SA - Soil Auger, RC - Drill Core,
 RP - Percussion Chips
 R - Rock
 ANALYSES: Please state element

ADDITIONAL _____

SAMPLE NUMBER	SAMPLE TYPE	DEPTH (meters)	CHEMICAL ANALYSES (ppm)										SUMMARY DESCRIPTION	LOCATION			
			Co	Cr	Sb	Mo	W	As	U ₃ O ₈	EM	N/E LINE						
602 FG 133	SA	-20	<5	30	<30											300P. E	4493N
		-80															
134	SA	-20	<5	<20	<30												
		-80															
135	SA	-20	<5	30	<30												
		-80															
136	SA	-20	<5	30	<30												
		-80															
137	SA	-20	<5	100	<30												
		-80															
138	SA	-20	<5	<20	<30												
		-80															
139	SA	-20	<5	20	<30												
		-80															
602 FG 140	SA	-20	<5	<20	<30												
		-80															
141	SA	-20	<5	<20	<30												
		-80															
142	SA	-20	<5	<20	<30												
		-80															
143	SA	-20	<5	30	<30												
		-80															
144	SA	-20	<5	30	<30												
		-80															
145	SA	-20	<5	<20	<30												
		-80															
146	SA	-20	<5	<20	<30												
		-80															
147	SA	-20	<5	<20	<30												
		-80															
149	M	-20	<5	30	<30												
		-80															
149	SA	-20	<5	<20	<30												
		-80															
602 FG 150	M	* -80	<5	100	<30												
151	M	* -80	<5	<20	<30												
152	M	* -80	<5	<20	<30												

-80 mesh duplicate of 602 FG 0024 M

✓ ✓ ✓ 602 FG 0028 M

✓ ✓ ✓ 602 FG 0097 M

117067

PACMINEX PTY. — SAMPLE DATA SHEET

067

AREA EL15/76 Dundas PROSPECT NUMBER 602
 STATE TAS LOCATION FRAZER Gid SHEET 7914 Pieman
LINE 4493N

DATE SAMPLED _____
 SAMPLER _____

LABORATORY REPORT NO. _____
 ANALYTICAL METHOD 4, -20/Emission Spec.

NOTATIONS: SAMPLE TYPE — M - Creek mud, S - Soil
 SA - Soil Auger, RC - Drill Core,
 RP - Percussion Chips
 R - Rock
 ANALYSES: Please state element

ADDITIONAL _____

SAMPLE NUMBER	APERTURE (MICROM.)	CHEMICAL ANALYSES (ppm)										SUMMARY DESCRIPTION	LOCATION	
		Sn	Cu	Zn	Pb	Bi	Ag	Au	Ni	EDW	NBY LINE			
602 FG 153	M	<1	10	<20	10	<1	<1	<3	<3			-80 mesh duplicate of 602 FG 109M		4493N
154	M	<1	30	<20	30	<1	<1	<3	<3	✓	✓	✓	✓	120M
155	M	<1	10	<20	30	<1	<1	<3	<3	✓	✓	✓	✓	128M
156	M	<1	10	<20	<1	<1	<1	<3	<3	✓	✓	✓	✓	148M

112068

069

117070

APPENDIX V

CHECK ANALYSES OF ANOMALOUS SAMPLES

(APPENDIX IV), LINE 4493N ("LINE 13")

FRAZER GRID

CSR LIMITED - SIMPLE DATA SHEET



CHECKSAMPLING

070

AREA EL 15176 PROSPECT NUMBER 602
 STATE TAS LOCATION Dundas SHEET 7914
FRAZER GRID

DATE SAMPLED _____ LABORATORY REPORT NO. _____
 SAMPLER _____ ANALYTICAL METHOD _____

NOTATIONS: SAMPLE TYPE - M - Creek mud, S - Soil
 SA - Soil Auger, RC - Drill Core, RP - Percussion Chips
 R - Rock
 ANALYSES: Please state element
 ADDITIONAL _____

SAMPLE NUMBER	SAMPLER TYPE	ANALYSES (ppm)	CHEMICAL ANALYSES (ppm)														LOCATION	
			Sn	Cu	Zn	Pb	Bc	Ag	Au	Ni	Co	Cr	Sb	Mo	W	As	Mn	EW
602FG 083	VE	-20																
		-80	<2	10	80		<2		<5	10	15							
602FG 116	A/E	-20	<5	<2	10	10		<1	5	<5	155			<10				
		-80	<1	<2	10	<20	<20	5	<3	10	<5	10	<30	<3	<50	<50	10	
117	A/E	-20	5	10	5	10		<1	<5	<5	190			<10				
		-80	<1	5	10	<20	<20	5	<3	10	5	10	<30	<3	<50	<50	10	
118	A/E	-20	20	110	320	195		1	15	10	45			20				
		-80	1	80	220	130	<20	5	<3	10	10	20	<30	<3	<50	<50	30	
119	A/E	-20	10	175	360	700		5	55	105	85			20				
		-80	<1	110	270	380	<20	10	<3	30	60	15	<30	<3	<50	<50	1000	
120	A/E	-20	65	10	40	160		<1	<0.2	10	10	40		10				
		-80	1	10	60	100	<20	10	<3	10	15	20	<30	<3	<50	<50	300	
121	A/E	-20	10	5	5	65		<1	5	<5	10			<10				
		-80	<1	5	15	50	<20	5	<3	10	<5	10	<30	<3	<50	<50	30	
122	A/E	-20	5	2	2	40		<1	5	<5	30			<10				
		-80	<1	<2	10	20	<20	5	<3	5	<5	<30	<3	<50	<50	30		
123		-20	<5	2	<2	40		1	5	<5	10			40				
		-80	<1	<2	15	20	<20	5	<3	<5	<5	10	<30	<3	<50	<50	30	
124		-20	5	2	<2	35		<1	<5	<5	55			10				
		-80	1	<2	10	20	<20	5	<3	<5	<5	5	<30	<3	<50	<50	30	
125		-20	5	2	2	30		<1	5	<5	<5			10				
		-80	3	<2	15	20	<20	5	<3	<5	<5	5	<30	<3	<50	<50	30	

A/E = AAS used on Cu, Zn, Pb, Bc, Ag, Ni, Co, Cr ; Emission on Sn, W, Mo (Cr), Mn, As, A.
 AX = AAS + YRF (on Sn, W)

117071

C&R LIMITED - SAMPLE DATA SHEET



071

AREA EL 15/76
STATE TAS LOCATION DUNDAS

PROSPECT NUMBER 602
1:100,000 SHEET 7914 PLEMAN

DATE SAMPLED _____
SAMPLER _____

LABORATORY REPORT NO. _____
ANALYTICAL METHOD _____

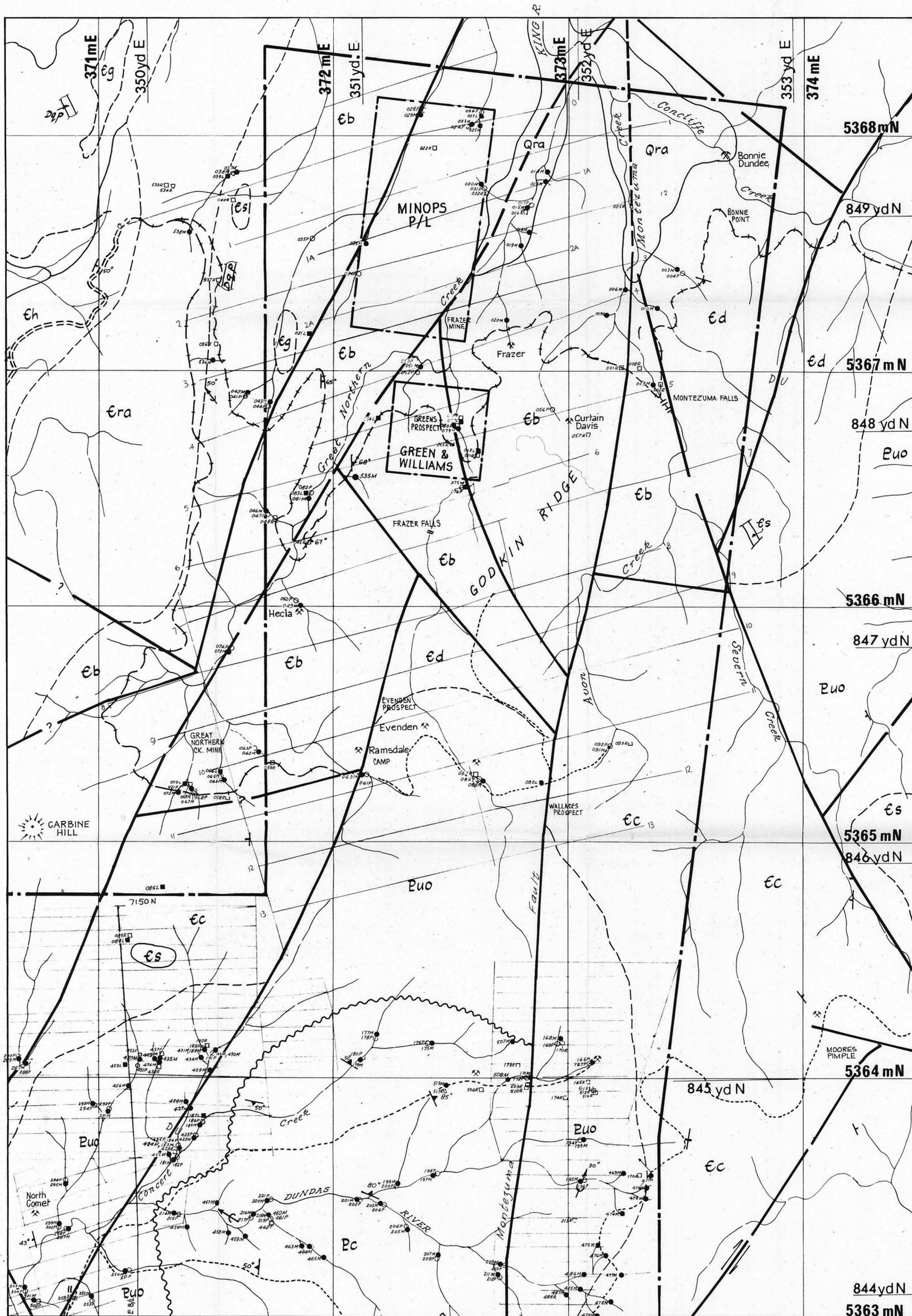
NOTATIONS: SAMPLE TYPE - M - Creek mud, S - Soil
SA - Soil Auger, RC - Drill Core,
RP - Percussion Chips
R - Rock
Please state element

ADDITIONAL _____

SAMPLE NUMBER	DEPTH (cm)	CHEMICAL ANALYSES (ppm)																LOCATION	
		Sn	Cu	Zn	Pb	Bc	Ag	Au	Ni	Co	Cr	Sb	Mo	W	As	Mn	E/W	N/S	
AX 1/E 602 FG 126	-20 -80	15 10	2 5	<2 10	25 20	1.0 <20	<1 <2	<3 <5	5 5	<5 <5	60 5	<30 <3	<3 <50	10 <50	<50 30				
AX 1/E 127	-20 -80	15 10	5 <2	5 15	210 220	15 <20	1 5	<3 <5	5 <5	<5 5	<5 <30	<3 <3	<50 <50	10 <50	30 30				
AX 1/E 602 FG 128	-20 -80	5 <1	10 5	30 50	135 100	1.0 <20	<1 <2	<0.2 <3	10 10	10 15	25 <30	<3 <3	<50 <50	<10 <50	300 300				
AX 1/E 602 FG 129	-20 -80	<5 <1	10 15	25 40	35 20	1.0 <20	<1 5	<3 <5	10 15	<5 10	15 <30	<3 <3	<50 <50	10 <50	100 100				

ALL ANALYSES FOR Cu, Zn, Pb, Bc, Ag, Ni, Co, Cr ; Emission - Sn, W, Mo, As, Au, Mn, Sb

117072



REFERENCE

Qra	Alluvium
Org	Gravels
Qt	Conglomerate talus
Qs	Dolerite talus
Qrs	Older alluvium marsh deposits, downwash etc.
Qpf	Fluvioglacial & lacustrine deposits
Qpm	Moraine

P	Pt	Zeehan Glacial Formation
---	----	--------------------------

D	Db	Bell Shale
	Df	Florence Quartzite

S	Sac	Austral Creek Siltstone
	Sk	Keel Quartzite
	Sa	Amber Slate
	Sc	Crotty Quartzite
	S	Unassigned

O	Og	Gordon Limestone
	Om	Moira Sandstone
	Oz	Mt. Zeehan Conglomerate

E	Em	Misery Conglomerate
	Ecl	Climie Formation
	Ecf	Fernflow Formation
	Eco	Comet Formation
	Efe	Fernfields Formation
	Efb	Brewery Junction Formation
	Era	Razorback Conglomerate
	Eha	Hodge Slate
	Er	Red Lead Conglomerate
	Ed	Dundas Group unassigned
	Ec	Crimson Creek Formation
	E	Cambrian unassigned

P	Puo	Oonah Quartzite & Slate
	Pc	Concert Schist
	Pw	Whyte Schist

Jdl	JURASSIC Dolerite
-----	-------------------

D	Dqp	Quartz porphyry
---	-----	-----------------

E	Eg	Gabbro, norite and dolerite
	Es	Serpentinite and pyroxenite

- Stream sediment (M)
- Panned concentrate (P)
- Rock chip, float (R, F)
- Limonite (L)

CSR LIMITED-MCD

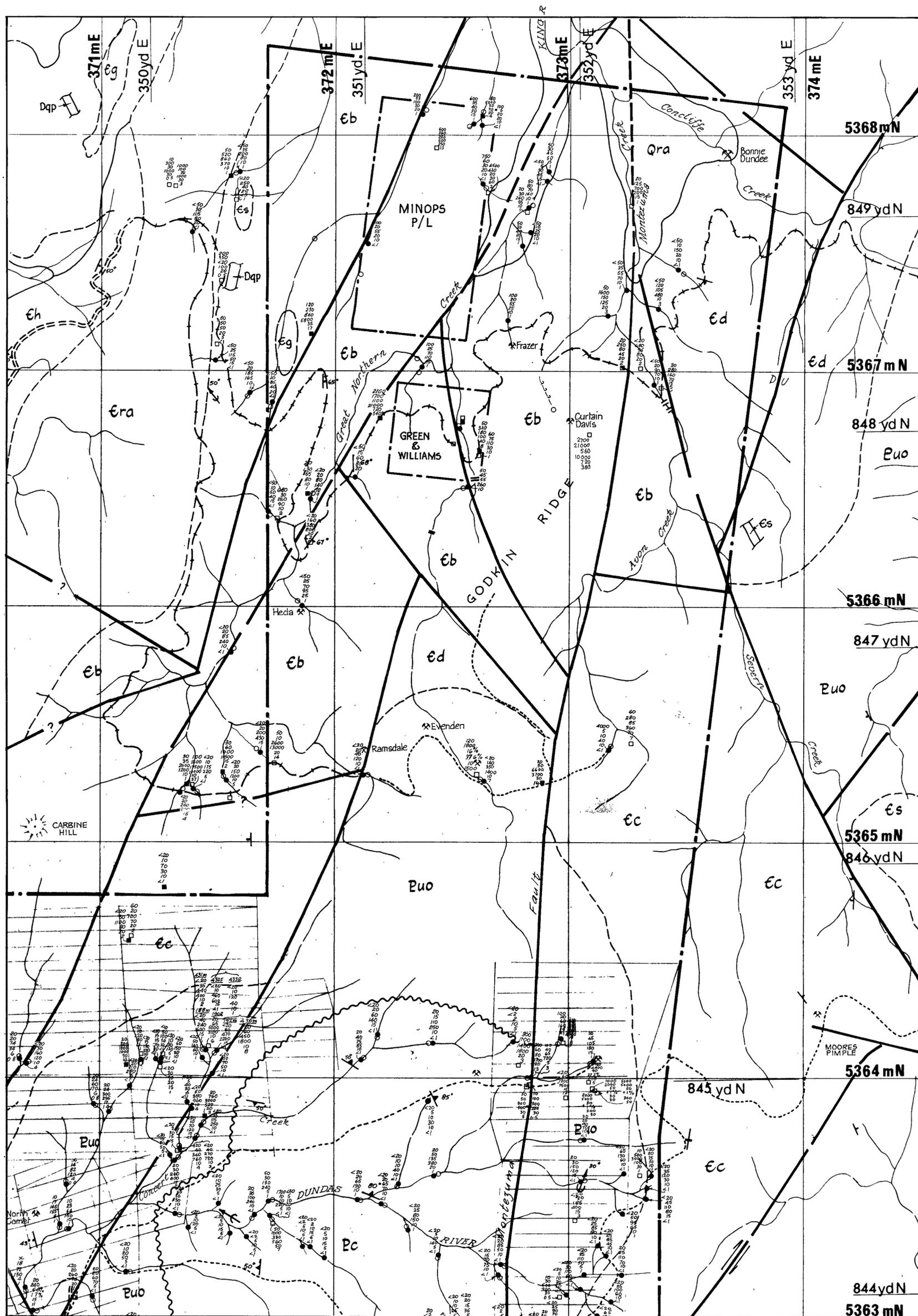
DRAINAGE SAMPLE NUMBERS

**FRAZER GRID, E.L.15/76
N.E. DUNDAS TASMANIA**

117073 80-14.04

SCALE: 1:10,000	DWG. No.
DRAWN: P.M.M./K.C.	K555-11
DATE: JAN '79 NOV '79	
REVISED:	





REFERENCE

Q	Qra	Alluvium
	Qrg	Gravels
	Qt	Conglomerate talus
	Qt	Dolerite talus
	Qrs	Older alluvium marsh deposits, downwash etc
	Qpf	Fluvioglacial & lacustrine deposits
	Qpm	Moraine
P	Pt	Zeehan Glacial Formation
D	Db	Bell Shale
	Df	Florence Quartzite
S	Sac	Austral Creek Siltstone
	Sk	Keel Quartzite
	Sa	Amber Slate
	Sc	Crotty Quartzite
	S	Unassigned
O	Og	Gordon Limestone
	Om	Moina Sandstone
	Oz	Mt Zeehan Conglomerate
E	Em	Misery Conglomerate
	Ecl	Climie Formation
	Ef	Fernflow Formation
	Eco	Comet Formation
	Efe	Fernfields Formation
	Er	Brewery Junction Formation
	Ed	Razorback Conglomerate
	Ec	Hodge Slate
	E	Red Lead Conglomerate
	E	Dundas Group unassigned
E	Crimson Creek Formation	
E	Cambrian unassigned	
P	Bu	Oonah Quartzite & Slate
	Bc	Concert Schist
	Bw	Whyte Schist
IGNEOUS ROCKS		
Jdl	JURASSIC Dolerite	
D	Dqp	Quartz porphyry
E	Eg	Gabbro, norite and dolerite
	Es	Serpentinite and pyroxenite

- Sequence of values (p.p.m.)
- Stream Sediment (M) (-80 mesh) Sn
 - Panned concentrate (P) Cu
 - Rock chip, float (R, F) Zn
 - Limonite (L) Pb
 - Bi
 - Ag

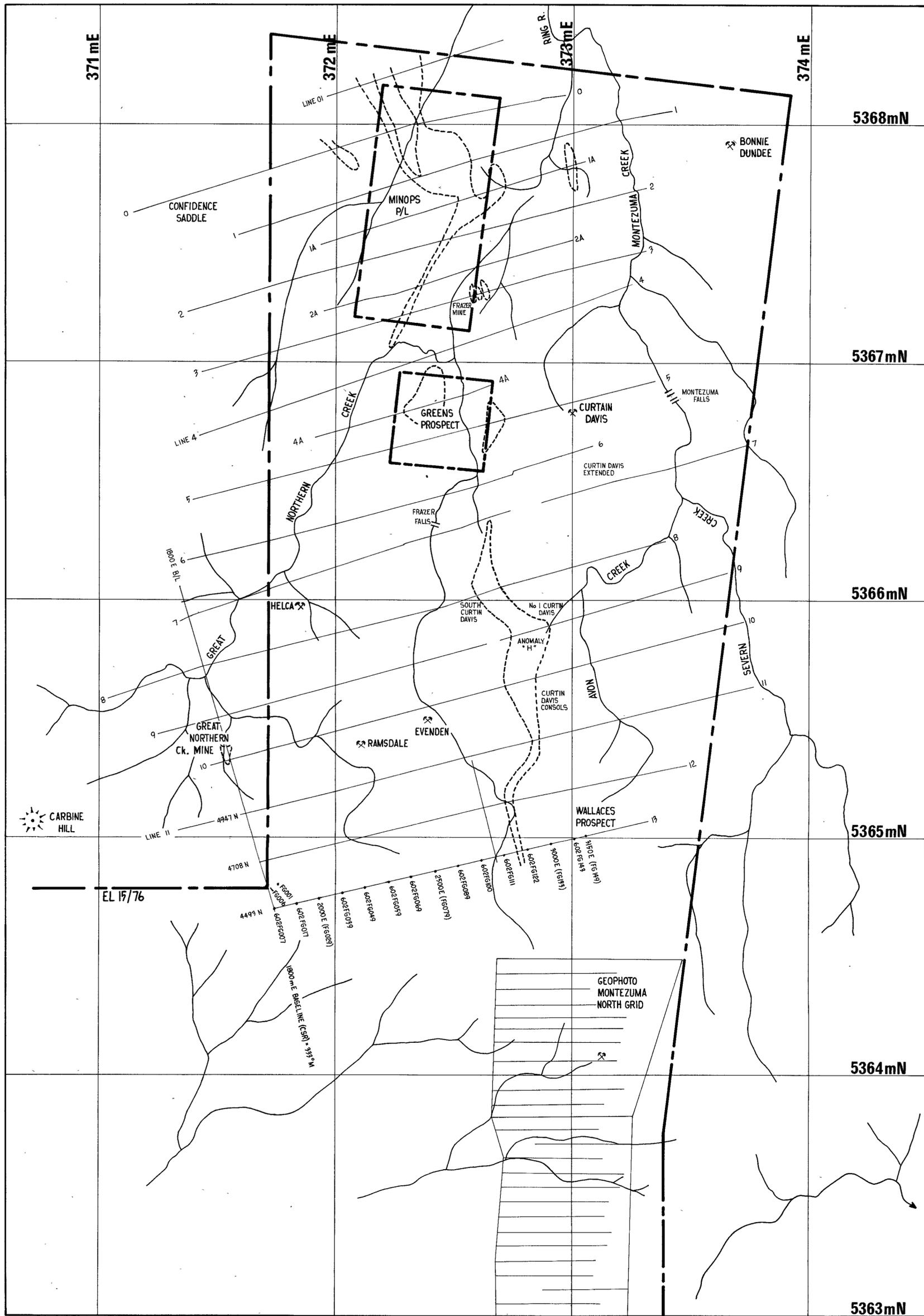
CSR LIMITED-MCD

117074
 DRAINAGE GEOCHEMISTRY
 (Sn, Cu, Zn, Pb, Bi, Ag)
 (-80 mesh and rock samples)
 FRAZER GRID, E.L. 15/76
 N.E. DUNDAS, TASMANIA

20-11404

SCALE 1:10,000	DWG No
DRAWN P.M.M./K.C.	K555-12
DATE JAN '79 NOV '79	
REVISED	

5 cm



REFERENCE

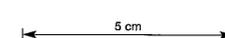
- LINES 01 to 13 old Consolidated Goldfield Grid
- C.G.F.A.'s + 30 ppm Sn Soil Anomaly
- 602 FG-143 } CSR Soil Samples
FG 001 }
- 1800 mE designated Easting of Base Line, Frazer Grid
- LINE 4493N C.G.F.A. LINE 13

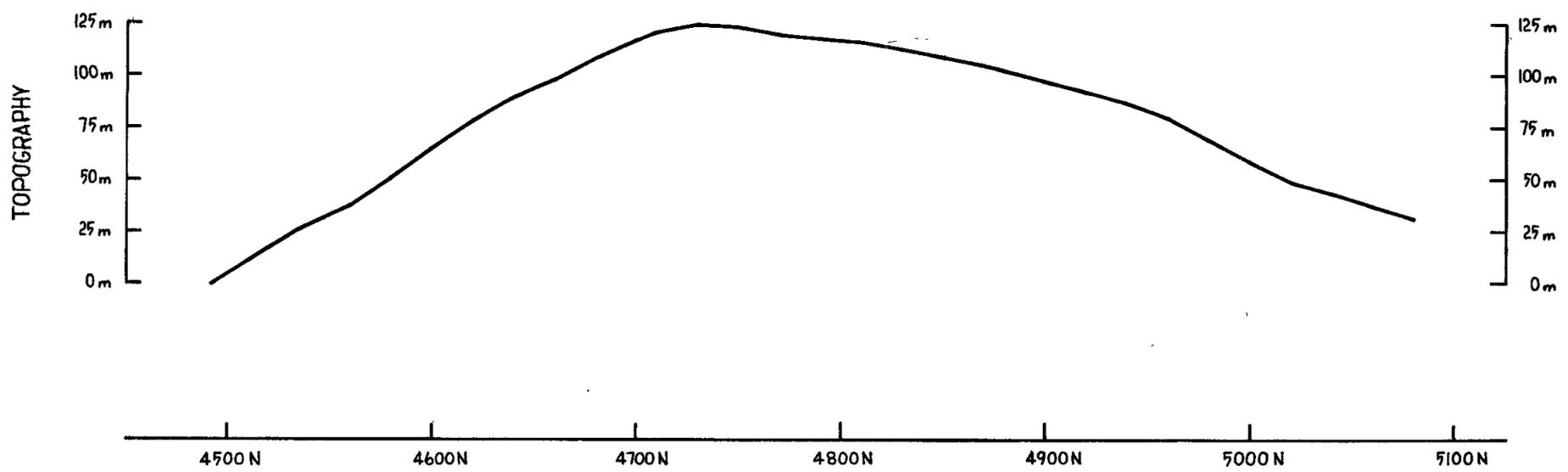
CSR LIMITED-MCD

117075
TIN GEOCHEMICAL ANOMALY
FRAZER GRID (old C.G.F.A. GRID)
E.L. 15/76 N.E. DUNDAS
TASMANIA

30-14 04

SCALE 1:10,000	DWG. No
DRAWN P.M.M./K.C.	K555-13
DATE NOVEMBER '79	
REVISED	

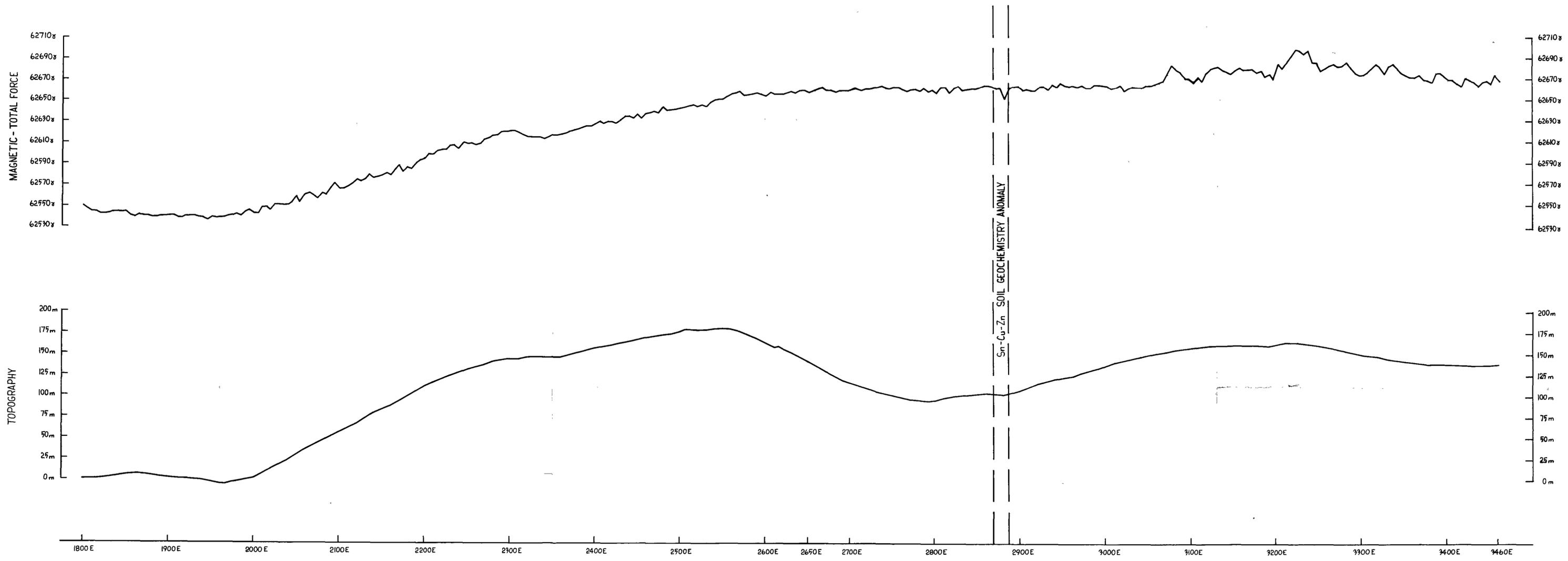




CSR LIMITED-MCD	
117076	
E.L.15/76 DUNDAS TASMANIA	
FRAZER GRID-LINE 1800 E BASELINE	
TOPOGRAPHY/MAGNETICS	
80-1404	
SCALE: V 1cm = 25m / 1cm = 20 G H 1:2500	DWG No
DRAWN P.M.M./K.C.	K555-14
DATE MARCH '78 NOVEMBER '79	
REVISED	

5 cm

004



CSR LIMITED-MCD	
E.L. 15/76 DUNDAS TASMANIA	
FRAZER GRID-LINE 4493 N LINE 13	
TOPOGRAPHY/MAGNETICS	
117077	80-1400
SCALE V 1cm = 25m / 1cm = 20γ H 1:2500	DWG No
DRAWN P.M.M / K.C	K555-15
DATE MARCH '78 NOVEMBER '79	
REVISED	

5 cm

