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GRAND PRIZE AREA

E.L. 42/71

ANNUAL REPORT 1982-83

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October, 1983

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SUMMARY

During 1982-83 three drill holes totalling 1210m were completed.

Drill hole GP3A was designed to test the Red Lead Conglomerate contact with the Grand Prize Fault. Although it failed to intersect mineralization in the latter, a minor structure containing high grade tin mineralization was intersected 8m (projected distance) from the fault. The Red Lead Conglomerate which was intersected 35m (projected distance) from the Grand Prize Fault contained only low grade mineralization.

GP4 and GP5 were designed to test the Grand Reward Fault (a structure parallel to the Grand Prize Fault) at its contact with the Red Lead Conglomerate at a shallow R.L. Unfortunately GP4 intersected the Grand Reward Fault above the Red Lead Conglomerate and GP5 was drilled underneath the fault. Tin mineralization within the Red Lead Conglomerate is not significant in these holes.

A 53km grid was established over virtually the entire outcrop area of Dundas Group sediments within E.L. 42/71 to enable a regional assessment. Preliminary mapping has indicated areas of extensive faulting east of the Grand Prize structure some of which may be associated with tin mineralization.

Compilation of existing geophysical and geochemical data has shown large gaps in ground survey coverage of this highly prospective area. Previous geochemical sampling in the south-western part of the area on the Razorback grid revealed significant tin anomalies which have not been followed up subsequently. Similar results may be expected elsewhere in the Grand Prize section of E.L. 42/71.

In 1983-84, the major exploration effort should remain focussed on the Grand Prize Mine area to ensure that sufficient data is available to make a decision on the Option held over the Minops

mining leases in November, 1984. Three diamond drill holes, totalling 1650m, are proposed to test the Grand Prize and Grand Reward structure at depth. Elsewhere in the area, a program of geochemical sampling and ground magnetics is recommended with the aim of generating targets for drilling in 1984/85. These proposals are expected to cost \$212,025.

1. INTRODUCTION

E.L. 42/71 covers an area west and south of the Renison Mining Lease. This report deals with the area to the south of the Renison Mining Lease, which is considered to have potential for the development of stanniferous hydrothermal carbonate replacement and fracture controlled deposits.

Work during 1982-83 continued the testing of the Grand Prize Mine area with a three hole program totalling 1210m. A more regional approach to exploration was also commenced with the cutting of a 53km grid south and east of the North East Dundas Tram, some geological mapping over the grid area and the compilation of geochemical and geophysical data.

2. EXPENDITURE

Expenditure on the Grand Prize portion of E.L. 42/71 during 1982-83 amounted to \$177,044.

Expenditure details are listed in Appendix 1.

Budgetted expenditure for 1983/84 totals \$212,025. Details are listed in Appendix 1.

3. LAND TENURE

E.L. 42/71 is held solely by Renison Ltd. Early in 1979-80, Renison entered into an option agreement with Minops Pty. Ltd. covering three mining leases (29M/51, 23M/52 and 102M/66) known collectively as the Grand Prize Mine area, including the Grand Prize Workings, and covering a strike length of approximately 1100m along the Grand Prize Fault in which tin mineralization occurs. The three leases are completely enclosed by E.L. 42/71 (Figure 1).

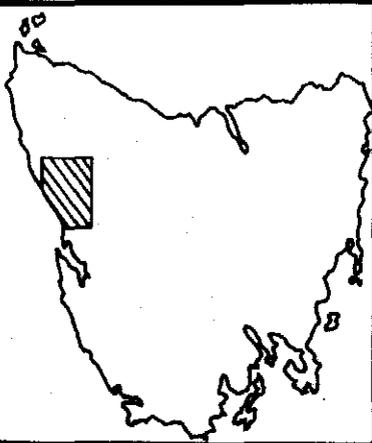
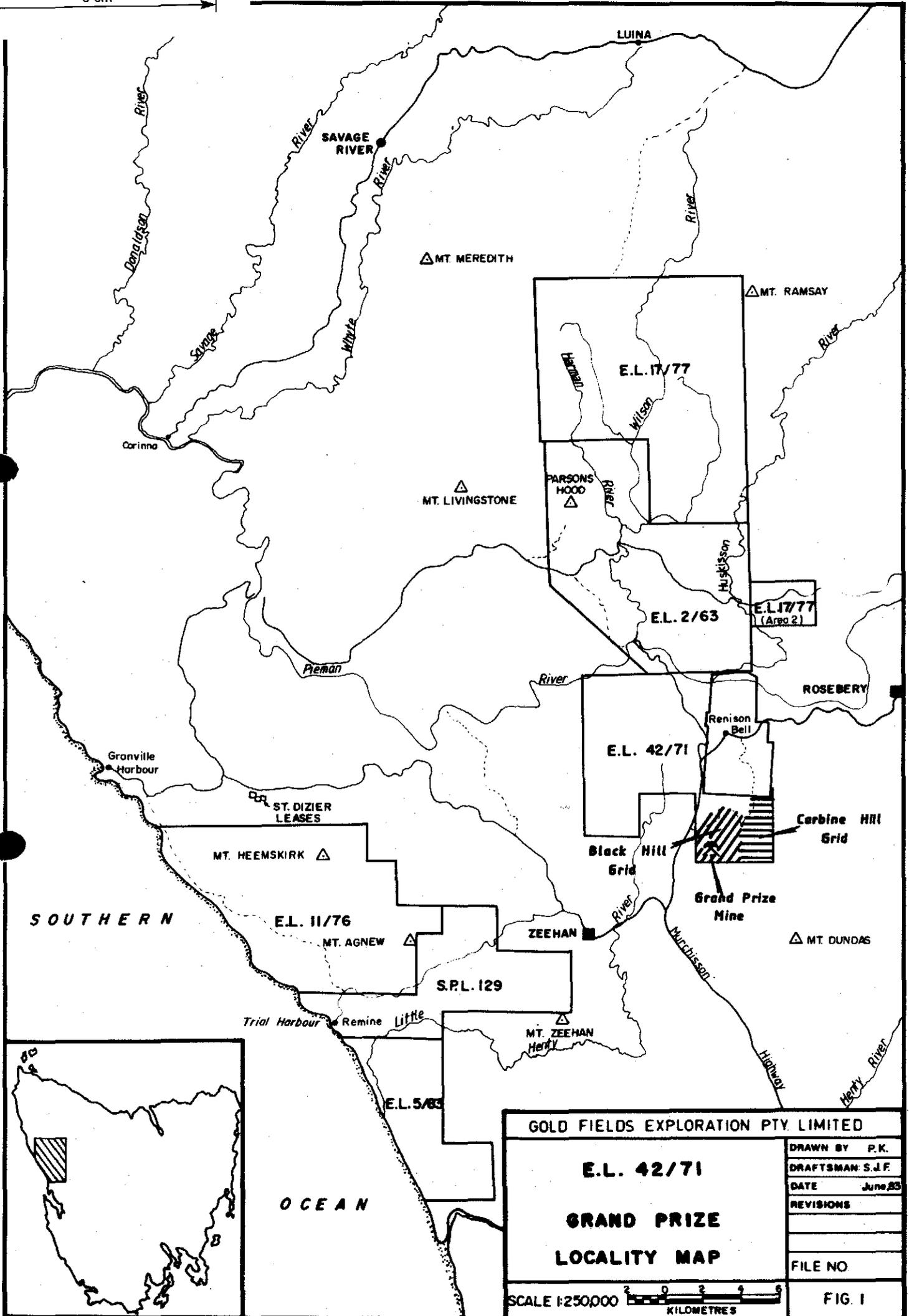
4. PREVIOUS WORK

Prior to 1954, work in the Grand Prize area was limited to individual prospects. These prospects include the Grand Prize Mine (cassiterite), Melba Mine (galena, sphalerite, jamesonite), Kapi Mine (galena, sphalerite), Great Northern Creek or Carbine Mine (galena, spalerite, tetrahedrite, bismuthinite), alluvial tin workings on material derived from Pine Hill and minor alluvial gold and tin workings in the Melba Flats area.

1954 Geological Mapping by J. Elliston.

1958 Two diamond drill holes, K1 and K2, were drilled by the Mines Department beneath the Kapi Mine but no significant sulphide mineralization was intersected. Another diamond drill hole drilled west beneath the Melba Mine intersected minor galena, pyrite and magnetite, (but was not assayed for tin). Exact collar locations for these three drill holes are unavailable.

5 cm



GOLD FIELDS EXPLORATION PTY. LIMITED	
E.L. 42/71	
GRAND PRIZE	
LOCALITY MAP	
SCALE 1:250,000  KILOMETRES	
DRAWN BY P.K.	DATE June 83
DRAFTSMAN S.J.F.	REVISIONS
FILE NO	FIG. 1

- 1958-1960 Grand Prize, Intermediate and Dundas Grids were cut between the Razorback Mine and Grand Prize Mines by the B.M.R. (see Figure 4). These grids were then covered by Turam, self potential and magnetic surveys. Within E.L. 42/71 a linear 5000 gamma magnetic anomaly "associated in part with a distinct Turam indicator" extended south of the Grand Prize Mine and, at the western end of the Intermediate Grid, a Turam anomaly was indicated within Dundas Group sediments. Blissett and Gulline (1961) mapped the grid and surrounding areas.
- 1962 Mines Department drilled two holes (MD1 & MD2) on the magnetic anomaly south of the Grand Prize Mine and intersected serpentine in the target area (see McLeod and Jack, 1962). A third drill hole (MD3) was drilled into the Grand Prize Fault but only traces of tin were obtained (see Figure 36).
- 1964-1966 Placer Prospecting Pty. Ltd. drilled two diamond drill holes (G1 and G2) on the Grand Prize Fault structure. Recovery was only 10% and only a trace of tin was recorded in the Grand Prize Fault by G1. No information is available on G2 (see Figures 33 & 35). Craze's and No. 4 adits were extended. An overall grade of 0.32% Sn was reported from bulk sampling of cross cuts in No. 4 adit.

Chip samples and soil samples taken on the Grand Prize Grid, south of the Grand Prize Mine gave assays of up to 1% Sn. However contamination of these and adit samples as well as the use of dubious analytical techniques at the Placer Laboratory in Zeehan is suspected.

1967

Rubenach completed an Honours Thesis on The Serpentine Hill complex and later published a paper summarizing his work.

1967-1970

Renison established the North Dundas Grid (see Figure 3) and carried out soil geochemistry, magnetic and mapping surveys. Areas anomalous in tin were delineated to the east of E.L. 42/71 (see Figures 12 & 18).

1968-1969

Renison Ltd. cut the Commonwealth Hill Grid and the Razorback Grid (see Figures 2-5). Regional soil geochemistry, magnetic and mapping surveys were carried out. On the Razorback Grid, two zones anomalous in tin (within E.L. 42/71), were located. These anomalies which have not been subsequently tested, occur south of the Grand Prize Mine and immediately south of the Black Hill summit. On the Commonwealth Hill Grid, located tin anomalies which are not associated with the Pine Hill Granite are probably due to alluvial tin.

- 1969-1970 I.P. surveys were carried out over the serpentinites of the Razorback and Commonwealth Hill Grids to test nickel anomalies.
- 1969-1970 Renison Ltd. cut the Kapi Fault Grid. However, no results from any subsequent work are available.
- 1971 Gippsland Minerals N.L. carried out detailed mapping and chip sampling of the Grand Prize Workings. Two diamond drill holes, GP1 and 2, were drilled on the Grand Prize Fault with collars located in the vicinity of the MD3 collar. Low tin values and poor recoveries were recorded in GP1 (6m at 0.07 tin). Only traces of tin were recorded in GP2 (see Figures 33 & 35).
- 1972 P. Brophy (Renison) reported on the asbestos potential of the Razorback and Serpentine Hill Complexes.
- 1976-1977 Renison Ltd. established the Kapi Grid over the proposed N-S trending Kapi Fault. Mapping, soil geochemistry, magnetic and E.I.P. and M.I.P. surveys were carried out.
- 1977-1978 Diamond drill hole S453 was drilled (by Renison) west on line 1900N of the Kapi grid, beneath the Kapi Mine. No significant mineralization was intersected.
- 1978-1979 Diamond drill hole S554 was drilled (by Renison) west on line 2300N of the Kapi grid. No significant mineralization was intersected.

- 1979-1980 Renison drilled 4 diamond drill holes (S652, S653, S658, S677) on the Grand Prize Fault structure. Assays are shown on Figures 34 and 35.
- 1980-1981 Renison drilled 2 diamond drill holes (S764, S862) on the Grand Prize Fault. Assays are shown on Figures 35 and 36. A mapping program in the Grand Prize Area delineated hornfelsing near the summit of Black Hill.
- 1981-1982 Renison drilled 2 diamond drill holes (S947, S969) on the Grand Prize Fault.

All available soil and rock geochemistry data obtained prior to July 1983 is presented in Figures 6-29. Geophysics data is at present being compiled by J.R. Bishop.

All available drill hole assay data and adit sampling in the Grand Prize area is presented on longitudinal projections (Figures 34-37).

5. WORK COMPLETED AND RESULTS 1982-83

5.1 Access

- a) Two grids, with a 200m line spacing, totalling 53.3 line km, were established over Dundas Group sediments south and west of the North East Dundas Tram. The Black Hill Grid was cut from a base line bearing 190° (magnetic) from a datum on the North East Dundas Tram while the Carbine Hill grid was cut from a base line bearing 169° (magnetic) from a datum on the North East Dundas Tram. The Black Hill grid lines and the Carbine Hill baseline were controlled by a baseline cut at 079° (magnetic) from a datum on the access track from Grand Prize to the Razor-back Mine.

- b) A 500m access track, from the North East Dundas Tram to the GP4/GP5 drill site, was established.

5.2 Geological Mapping

Mapping was carried out in the area along creeks and newly cut grid lines. Geological maps compiled from past and present work are presented on Figures 2-5. During mapping, mineralized samples and other rock chip samples were collected and assayed for Sn, As, WO_3 , Cu, Pb and Zn. Assays are shown on Figures 6-29, and also in Appendix 1. A small number of stream sediments also collected were assayed for Sn, As, Cu, Pb, Zn and are shown on Figures 6-29 and in Appendix 2.

Within the Grand Prize Area the Dundas Group Stratigraphy is as follows:

Fernflow Formation - siltstones and conglomerates.

Comet Formation - fine grained sediments including interbeds of impure carbonates.

Fernfields Formation - poorly sorted conglomerates and siltstones.

Brewery Junction Formation - fine greywackes and siltstones.

Razorback Conglomerate - sandstones and siliceous grit pebble conglomerate.

Hodge Slate - black-grey siltstone.

Red Lead Conglomerate - cobble conglomerates.

Melba Spilite - spilitic lava, and tuffaceous basic sediment particularly near the Kapi Mine.

Ultramafic Rock - generally serpentinitised, and with carbonate near the top of the sequence (e.g. Razorback Mine).

Of exploration significance is the presence of carbonate within the upper part of the ultramafic sequence, carbonate within the Red Lead Conglomerate as cobbles and within the matrix and also carbonate within the Comet Formation. These zones could be hosts for a replacement style deposit.

Bond (1983) suggested that the serpentinite cuts out the Red Lead Conglomerate at depth, citing the lack of spilite within S947. This view is not accepted as the stratigraphy of serpentinite overlain by carbonate, overlain by basic volcanics, overlain by Red Lead Conglomerate is consistent from the Grand Prize area to the Razorback Mine, with a decrease in basic volcanics and increase in carbonate to the south (see Figure 35).

Although mapping has not been completed, a large number of faults are postulated with dominantly N.W. trending faults in the Grand Prize Mine Area and N.E. trending faults on Black Hill and east of Kapi Creek. Tin mineralization is associated with some of these faults in the Grand Prize Mine area. Hornfelsing in the vicinity of the summit of Black Hill may possibly be related to fluid access along these faults from a (?granitic) heat source. Faults, parallel to strike, also occur (e.g. Nevada Creek) but they are generally difficult to recognize.

Folding in the area is limited to a large scale S.E. plunging anticline whose axis passes through the Kapi Area. Faulting within this anticlinal axis has been extensive.

5.3 Diamond Drilling

5.3.1 Introduction

During 1982-83, four diamond drill holes were drilled totalling 1209.7m.

Diamond drill holes GP3 and GP3A were designed to test the interpreted thickest part of the Red Lead Conglomerate in contact with the Grand Prize Fault. The results of GP3A, together with reinterpretation of existing data, enabled the prediction of two other mineralized fault structures. (The Grand Reward and Grand Lottery Faults). Both faults show a pattern of relatively high tin values at depth and enhanced zinc values at shallower levels (see Figures 34 and 36).

Diamond drill holes GP4 and GP5 were designed to intersect the Grand Reward Fault (a structure parallel to the Grand Prize Fault) at that fault's intersection with the Red Lead Conglomerate. GP5 was drilled because GP4 had failed to meet this objective as the latter intersected the fault well above the Conglomerate.

Drill hole details are presented in Appendix 3.

5.3.2 Diamond Drill Hole GP3

Collar Co-ordinates	: 5,365,492.700mN; 368,007.585mE
Azimuth	: 019.5° (AMG)
Dip	: -48°
Depth	: 45.0m
Commenced	: 14/10/82
Completed	: 16/10/82

GP3 Summary Log:

0	- 15.8m	: Fernfields Formation
15.8	- 45.0m	: Brewery Junction Formation

Hole not assayed.

Comments: Hole abandoned as incorrectly collared.

5.3.3 Diamond Drill Hole GP3A

Collar coordinates : 5,365,492.881mN ; 368,007.645mE
 Azimuth : 019.5° (AMG)
 Dip : -52°
 Depth : 624.3m
 Commenced : 18/10/82
 Completed : 14/12/82

GP3A Summary Log

0 - 17.6m : Fernfields Formation
 17.6 - 97.4m : Brewery Junction Formation
 97.4 - 103.4m : Grand Lottery Fault
 103.4 - 258.9m : Brewery Junction Formation
 258.9 - 449.2m : Razorback Conglomerate
 449.2 - 481.7m : Grand Prize Fault
 481.7 - 506.8m : Hodge Slate
 506.8 - 510.7m : Mineralized Fault
 510.7 - 531.8m : Hodge Slate
 531.8 - 578.1m : Red Lead Conglomerate
 578.1 - 592.1m : Basic Volcanics (Melba Spilite)
 592.1 - 600.9m : Carbonate
 600.9 - 624.3m : Ultrabasic

GP3A Assay Summary

460.0 - 482.0m : <0.01%Sn, <0.01%As, 0.01%Pb, 0.20%Zn.
 507.0 - 510.0m : 0.94%Sn, 0.21%Sn(sol), 0.27%As, 0.87%Cu,
 <0.01%Pb, 0.19%Zn, 8 ppm Ag.
 532.0 - 578.0m : 0.08%Sn, <0.01%As, <0.01%Cu, <0.01%Pb,
 0.02%Zn.
 incl. 571.0 - 576.0m : 0.30%Sn, <0.01%As, <0.01%Cu, <0.01%Pb,
 0.03%Zn.

Comments: Although the drill hole failed to intersect tin mineralization in the Grand Prize Fault, a minor structure of high grade tin mineralization was intersected nearby. The Red Lead Conglomerate which was intersected 35m (projected distance) from the Grand Prize Fault contained only low grade mineralization. The anticipated thickness of Red Lead Conglomerate was not intersected. This intersection enabled the interpretation of the Grand Reward Fault. (A mineralized fault parallel in strike to the Grand Prize Fault but more steeply dipping) (see Figures 33

5.3.4 Diamond Drill Hole GP4

Collar coordinates : 5,366,083.158N : 368,310.730E (AMG)
Azimuth : 268°AMG
Dip : -57°
Depth : 320.2m
Hole Commenced : 23/1/83
Hole Completed : 21/2/83

GP4 Summary Log

0 - 191.8m : Hodge Slate
191.8 - 196.0m : Grand Reward Fault
196.0 - 218.3m : Hodge Slate
218.3 - 309.5m : Red Lead Conglomerate
309.5 - 320.3m : Basic Volcanics (Melba Spilite)

GP4 Assay Summary

191.8 - 196.0m : <0.01%Sn, <0.01%As, <0.01%WO₃,
<0.01%Cu, 0.10%Pb, 0.30%Zn.
218.0 - 309.5m : <0.01%Sn, <0.01%As, 0.04%Cu, 0.01%Pb,
0.09%Zn,

5.3.5 Diamond Drill Hole GP5

Collar coordinates : 5,366,083.695mN ; 368,310.577mE (AMG)
Azimuth : 305°AMG
Dip : -53°
Depth : 220.2m
Hole Commenced : 24/2/83
Hole Completed : 16/3/83

GP5 Summary Log

0 - 183.1m : Hodge Slate
183.1 - 185.7m : Fault
185.7 - 197.3m : Red Lead Conglomerate
197.3 - 220.2m : Melba Spilite

GP5 Assay Summary

185.7 - 197.3m : <0.01%Sn, <0.01%As, <0.01%WO₃, 0.01%Cu,
0.02%Pb, 0.10%Zn.

Comments : Drill holes GP4 and GP5 intersected altered but relatively unmineralized Red Lead Conglomerate indicating that replacement style mineralization in the Red Lead Conglomerate unit is probably not significant above 2100m R.L. in the area. The holes also confirmed tin mineralization in the Grand Reward Fault is not significant above its intersection with the Red Lead Conglomerate.

6. DISCUSSION6.1 Grand Prize Mine Area

Reinterpretation of previous drilling and this year's work has enabled the clear delineation of two mineralized

fault structures within the vicinity of the Grand Prize Fault i.e.:

- a) The GRAND REWARD FAULT : 50m east of, and approximately paralleling in strike but steeper than the Grand Prize Fault. This fault is a possible feeder structure carrying mineralizing fluids (see Figures 33, and 36).
- b) The GRAND LOTTERY FAULT : This fault, outcropping to the west of the Grand Prize Fault, dips east and intersects the Grand Prize Fault at increasing depth to the south (see Figures 33, 34).

The interpretation of the Grand Reward Fault has enabled the subdivision of the Red Lead Conglomerate into 3 fault blocks termed A,B,C. (See Figure 38).

The Red Lead Conglomerate of fault block B (see Figure 35) which has an apparently regular stratigraphic thickness of 40-55m , is in contrast to the minimum 130m stratigraphic thickness of the Red Lead Conglomerate (indicated by drillhole S764) in block C (see Figure 36). This intersection indicates an eastward thickening of the unit or an apparent thickening by faulting. There is, however, insufficient information to indicate which is the more probable explanation. The surface geology indicates that the third possibility of a change in strike of the unit is unlikely.

Sulphide (dominantly pyrrhotite and minor chalcopyrite) replacement mineralization of the carbonate cobble Red Lead Conglomerate is associated with axinite, tourmaline, actinolite ± chlorite and phlogopite alteration. This alteration increases with depth. The tin grades within the Red Lead Conglomerate are generally greater at depth (see Figure 37), but may also be related to the proximity

FAULT BLOCK DIAGRAM

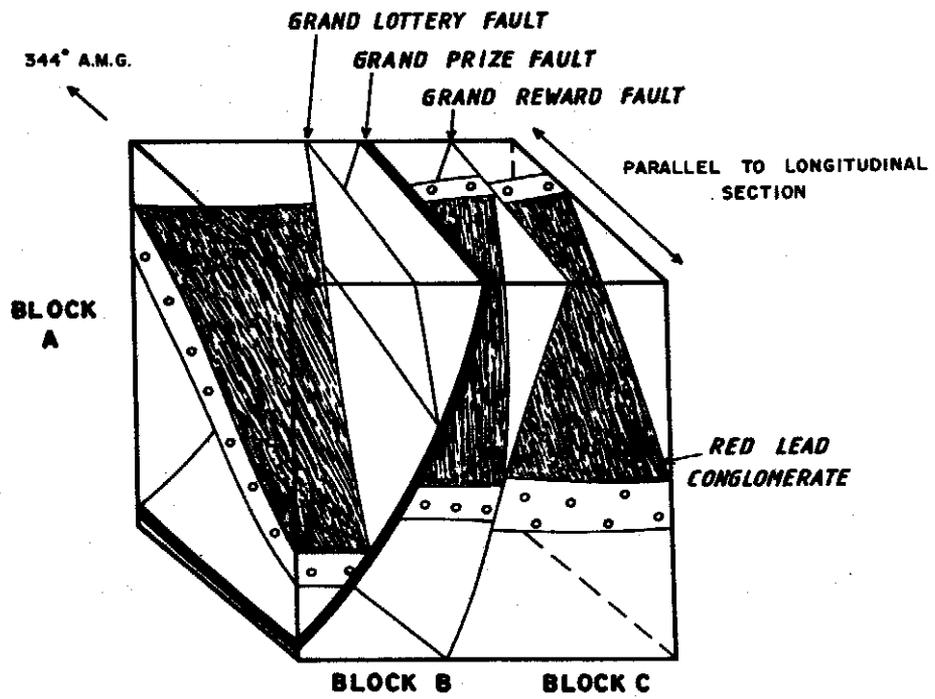


FIG. 38

of feeder structures such as the Grand Prize Fault. A halo or zone of anomalous zinc within the Red Lead Conglomerate occurs above R.L. 2100m (above anomalous tin grades). Lead mineralization in the Red Lead Conglomerate is not significant.

The metal zonation seen in the Red Lead Conglomerate also occurs in the Grand Reward and Grand Lottery Faults. Tin grades within the Grand Reward Fault are insignificant above its intersection with the Red Lead Conglomerate (see Figure 36) but zinc grades although variable are generally higher on the fault above this intersection.

Tin grades within the Grand Lottery Fault are highest (8m at 0.24% Sn within S656) closest to its intersection with the Grand Prize Fault, but decrease with higher elevation (see Figure 34).

The intersection zone of these two mineralized structures (The Grand Prize and Grand Lottery Faults) may be more brecciated resulting in relatively large thicknesses and high grades of tin mineralization.

At shallow levels above 2100m R.L., mineralization within the Grand Prize Fault consists of pyrite, quartz, chlorite, clay breccia and cassiterite; it is low grade (0.1-0.2%Sn) with erratic distribution of high grade zones. Grade enhancement in this area may be associated with smaller feeder structures. However, three intersections of the Grand Prize Fault, below 2100m R.L. (nearest the Red Lead Conglomerate of Block B, see Figure 35) show increasing grade with depth.

Mineralization within the North Grand Prize adits is probably on minor fractures and faults which are sub-parallel to the Grand Prize structure.

6.2 Regional Work

Data compilation and some field mapping has indicated that the area south of the North East Dundas Tram is much more extensively faulted than previously indicated. Anomalous tin values located in earlier geochemistry surveys indicate that some of these structures may be mineralized e.g. south of Black Hill and south of Grand Prize Mine access road. Insufficient mapping and geochemistry has been carried out to isolate any areas of particular exploration interest, however.

7. CONCLUSIONS AND RECOMMENDATIONS (P.A. Roberts, P. Komysan)7.1 Grand Prize Mine Area

Exploration on this prospect has defined three mineralized structures. Two of these, the Grand Prize and Grand Reward Faults, contain potentially economic tin grades. The latter are both in contact with the Red Lead Conglomerate (Figure 38), a carbonate cobble-bearing unit which is known to have been altered and partially tin mineralized near its contact with the faults.

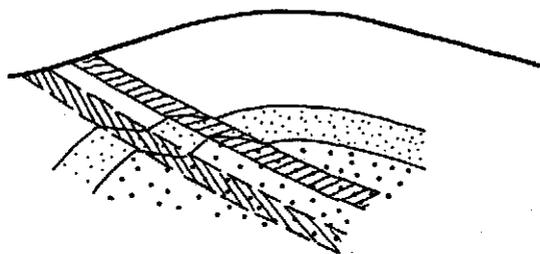
The current genetic model is as follows:

- (1) A Devonian tin-granite was intruded at depth beneath the area.
- (2) Hydrothermal stanniferous fluids expelled from the granite ascended up both the Grand Prize and Grand Reward Fault zones, forming stanniferous sulphide mineralization as they went.
- (3) On reaching the Red Lead Conglomerate, the fluids mineralized it with decreasing intensity away from the faults. The Conglomerate acted as a large "sponge" absorbing the hydrothermal fluids and letting little tin "escape" upwards. The greater thickness of Conglomerate in contact with the Grand Reward Fault probably explains the very low levels of tin in that structure above its contact with the Conglomerate.

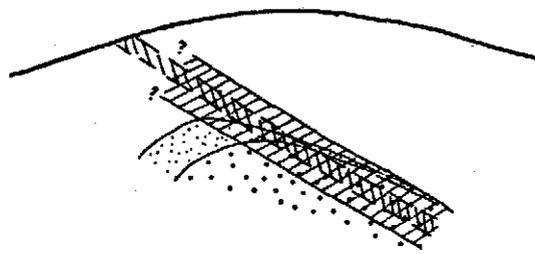
The grade pattern predicted by this model is illustrated overleaf:

Schematic Longitudinal Projections

Grand Prize Fault



Grand Reward Fault



LEGEND



Red Lead Conglomerate, adjacent to fault footwall.



Red Lead Conglomerate, adjacent to fault hangingwall.



Zone 1 High tin grades ($\geq 1\%Sn$), fault structure mineralized across its entire width.



Zone 2 Moderate tin grades, fault structure mineralized across part of its width only.



Zone 3 Weakly mineralized or barren, poor tin grades (0-0.4%Sn).

Superimposed on the above grade distribution pattern is probably some additional structure control imposed by other faults or fractures (e.g. Grand Lottery Fault) intersecting the two mineralized structures.

The drilling results obtained to date are consistent with the model. The only apparent anomaly, the Grand Prize Mine itself, is probably a zone where low cassiterite levels have been enhanced during weathering and gossan formation.

Only three of the drill hole intersections on the Grand Prize Fault were obtained in Zone 2 (the rest were obtained in Zone 1). These, which were all above the Fault-Conglomerate contact, had an average grade and horizontal width of 0.7%Sn and 3.0m respectively. Such grades and thicknesses are unlikely to support an economic mining operation. In contrast, the only intersection obtained within one of the two faults directly in contact with the Red Lead Conglomerate (S969, Grand Reward Fault) was much more encouraging at 3m (horizontal width) of 5.2%Sn.

Clearly the best drilling targets in this area are:

- (1) The Grand Prize and Grand Reward Faults in contact with or below their contact with the Red Lead Conglomerate.
- (2) The Grand Prize Fault at depth beneath the mine workings,

A three hole drilling program totalling about 1650m is proposed to test these targets. Hole details are as follows (see Figures 40,41,42):

GP6

Collar coordinates (AMG) : 5,365,390N;368,105E
Bearing (AMG) : 055°
Inclination : 84°
Anticipated Length : 500m
Justification : This hole is designed to test the Grand Prize Fault at depth beneath the mine workings (1950m RL) where it intersects the Grand Lottery Fault. The area where the two faults meet was probably more brecciated (and therefore more permeable to mineralizing fluids) than other parts of the Grand Prize Fault during the mineralization process.

GP7

Collar coordinates (AMG) : 5,365,820N;367,950E
Bearing (AMG) : 080°
Inclination : -63°
Anticipated Length : 600-650m
Justification : This hole is designed to test the Grand Reward Fault near the base of its intersection with the Red Lead Conglomerate at 1970mRL. The hole should also test the Grand Prize Fault at 2070mRL.

GP8

Collar coordinates (AMG) : 5,365,945N;367,915E
Bearing (AMG) : 037°
Inclination : -69°
Anticipated Length : 500m
Justification : This hole is designed to test the Grand Prize Fault at 2000mRL near the base of its intersection with the Red Lead Conglomerate (Fault Block A).

7.2 Black Hill and Carbine Hill Grids

Compilation of existing geological, geochemical and geophysical data has shown large gaps in ground survey coverage over the Grand Prize area. Initial mapping has shown that the geology is more complex than had previously been recognized and that other mineralized feeder structures may occur within the licence area. Such structures may well have no surface (tin mineralized) expression (e.g. Grand Reward Fault), however they may be identified by an outcropping base metal-enriched halo around a deeper tin zone.

It is recommended that:

- (1) Detailed geological mapping of creeks and grid lines should be completed.
- (2) The whole of the Black Hill and Carbine Hill Grids should be systematically covered by ground magnetics and VLF.
- (3) The whole of the two grids should be systematically soil sampled, with the exception of the Kapi Grid (where the existing data is thought to be reliable). The sampling program should be preceded by an orientation survey to identify the optimum soil horizon to be sampled. Samples should be taken every 25m along grid lines (i.e. approximately 2000 samples should be taken).

This program, which is expected to cost \$212,025, should be commenced in early November 1983. The ground surveys are expected to be completed by December and the drilling by March-April, 1984.

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APPENDIX 1

GRAND PRIZE AREA
1982/83 EXPENDITURE, 1983/84 BUDGET

GRAND PRIZE AREA - 1983/84 BUDGET

<u>GEOLOGY</u>	\$
- Salaries	22,450
On Costs	4,175
Miscellaneous	100
Outside Contractors (petrology, drafting etc.)	5,000
Travel and Accomodation	2,500
Stores	1,000
	<u>35,225</u>
 <u>GEOPHYSICS</u>	
- Outside Contractors (ground magnetics survey, consultant)	4,400
	<u>4,400</u>
 <u>GEOCHEMISTRY</u>	
- Outside Contractors (soil sample collection, assaying etc.)	19,300
Stores	200
	<u>19,500</u>
 <u>DRILLING</u>	
- Outside Contractors	96,000
Analysis	6,000
Stores	6,700
	<u>108,700</u>
 <u>LAND AQUISITION</u>	
- Miscellaneous	30,700
	<u>30,700</u>
 <u>SITE PREPARATION</u>	
- Outside Contractors	6,300
	<u>6,300</u>
 <u>SURVEYING</u>	
- Outside Contractors	4,200
	<u>4,200</u>
 <u>INDIRECT MOTOR VEHICLE EXPENSES</u>	3,000
	<u>3,000</u>
	<u>212,025</u>

GRAND PRIZE AREA - 1982/83 EXPENDITURE

	\$
<u>GEOLOGY</u>	
- Salaries	21,448
Salary on-costs	1,294
Transport	887
Miscellaneous	475
Outside Contractors	26,820
Travel	548
Stores	109
	<u>51,581</u>
<u>GEOPHYSICS</u>	
- Outside Contractors	<u>3,647</u>
<u>GEOCHEMISTRY</u>	
- Assays	4,536
Outside Contractors	895
	<u>5,431</u>
<u>DRILLING</u>	
- Outside Contractors	98,994
Stores	5,286
	<u>104,280</u>
<u>LAND ACQUISITION</u>	
- Miscellaneous	<u>663</u>
<u>SITE PREPARATION</u>	
- Outside Contractors	6,442
Stores	589
	<u>7,031</u>
<u>SURVEYING</u>	
- Miscellaneous	21
Outside Contractors	1,147
	<u>1,168</u>
<u>INDIRECT MOTOR VEHICLE EXPENSES</u>	
	3,243
	<u>177,044</u>

APPENDIX 2

Stream Sediment Sampling Results

GOLD FIELDS EXPLORATION PTY. LTD.

SAMPLE RECORD AND ANALYTICAL DATA SHEET

COLLECTED BY: *P. KOMYSHAN*
P. ROBERTS
 DATE DISPATCHED: *10/11/82*
 DATE RECEIVED:

PROJECT: *GRAND PRIZE EM/PROSPECT*

SAMPLE STORAGE REQ'D:

LABORATORY: *REYNOL*

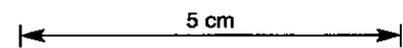
1:250,000 SHEET:

TYPE OF SAMPLE: *STREAM*
SEDIMENT

SAMPLE PREP. REQ'D:

ANALYSIS REQ'D:

SAMPLE NUMBER	LOCATION	DESCRIPTION	ANALYSES							
			Sn	Pb	NO ₃	Cu	Pb	Zn	Cr	weight(gms)
0152	20m up Trib of Nevada Creek		20	40	10	40	50	120		
0153	" " " " " "	<i>panned concentrate</i>	30	10	20	30	40	110	8040	74.88
0154	40m " " " " " "	" " (50m) above G.P. Fault.	10	10	10	40	40	120	0480	73.15
0155	308m " " " " " "		20	40	110	40	50	140		
0156	308m " " " " " "		10	410	110	40	50	130		
0157	649m " " " " " "		10	410	110	40	120	150		
0158	" " " " " "	<i>panned concentrate</i>	20	110	110	30	40	100	6680	58.14
0159	790m " " " " " "		15	10	10	40	50	140		
0160										
0161										
0162										
0163										



491037
 29

APPENDIX 3

**Diamond Drill Hole Logs and Petrological Data,
Holes GP3, GP3A, GP4, GP5.**

491050

GOLD FIELDS EXPLORATION PTY. LIMITED
DRILL CORE LOG AND ASSAY DATA

PROJECT: Grand Prize

HOLE NUMBER: GP3A

Page: 6.

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA (ppm)													
From	To	m	%		Sample No.	From	To	Rec. %	Sn	Sn(sol)	As	Cu	Pb	Zn	Ag	Bi	Au	S%
				<u>MINERALIZATION AND ALTERATION:</u>														
				402.6-402.8: quartz and actinolite, oxinite pyrrhotite vein.														
				404.1-404.2: quartz, actinolite vein.														
				409.3-409.7: minor actinolite veinlet.	2805	417.0	418.0	87	30	-	20	50	110	11200	2	35	<0.1	0.6
					2806	418.0	419.0	87	10	-	10	40	40	1320	1	10	<0.1	<0.1
				<u>FAULTS:</u> 415.5-423.4 broken zone including 417.5-417.7 brown puggy zone with black to honey coloured sphalerite.	2807	419.0	419.6	100	20	-	<10	30	40	3080	2	30	<0.1	<0.1
				418.9-419.0 clay puggy brecciated zone.	2808	419.6	420.9	100	30	-	20	40	40	470	1	15	<0.1	<0.1
				419.4-419.6 altered carbonate rich conglomerate - breccia.	2809	420.9	421.2	100	20	-	40	50	50	1770	2	25	<0.1	0.2
				420.9-421.1 green actinolite rich pug.	2343	437.8	439.1	95	20	-	<100	15	<5	1300	<0.5	<10	-	-
				437.8-439.1 broken zone.														
				B.C.A. : 60° at 413.0m.														
149.2	460.2	10.5	95	<u>SANDSTONE AND INTERBEDDED SILTSTONE: NODGE SLATE?</u>	2344	449.0	450.0	100	10	-	100	65	<5	5800	<0.5	<10		
				Grey to purple sandstone with siltstone and minor fine grained conglomerate interbeds.	2345	450.0	451.0	100	15	-	<100	50	25	3300	<0.5	<10		
					2346	451.0	452.0	100	30	-	<100	5	<5	1700	<0.5	<10		
					2347	452.0	453.0	100	30	-	<100	5	<5	775	<0.5	<10		
					2348	453.0	454.0	92	30	-	<100	20	<5	670	<0.5	<10		
				<u>MINERALIZATION:</u> Minor veinlets of siderite occur throughout.	2349	454.0	455.0	100	15	-	<100	30	<5	700	<0.5	<10		
				Silicification and minor pyrite mineralization occurs at 450.3-450.9m	2350	455.0	456.0	100	25	-	<100	135	<5	1650	<0.5	<10		
					2351	456.0	457.0	100	25	-	<100	10	<5	680	<0.5	<10		
				At 455.8-455.9m coarse grained sandstone is indurated with sphalerite.	1354	457.0	458.0	100	20	-	<100	15	20	1200	<0.5	<10		
					1353	458.0	459.0	100	30	-	<100	20	20	1700	<0.5	<10		
					1352	459.0	460.0	79	15	-	100	40	25	1500	<0.5	<10		
				<u>FAULTS:</u> Minor fault at 449.2-451.2m. The core is increasingly broken downhole towards the Grand Prize Fault.														
				B.C.A. at 453.8m 60°.														
460.2	481.7	17.2	80	<u>FAULT: GRAND PRIZE FAULT.</u>	1351	460.0	461.0	100	15		<100	30	15	1700	<0.5	<10		
				Broad broken zone with numerous clay puggy zones. In detail from 460.2-475.0m the broken rocks consist of grey to purple sandstone, similar to above unit with clay puggy zones developed at: 460.5-462.0m (actinolite altered).	1350	461.0	462.0	100	15		<100	30	25	1400	<0.5	<10		
					1349	462.0	463.0	67	20		<100	45	<5	1850	<0.5	<10		
					1348	463.0	464.0	67	40		<100	60	10	1400	<0.5	10		
					1347	464.0	465.0	100	80		200	600	40	3100	<0.5	30		

GOLD FIELDS EXPLORATION PTY. LIMITED
DRILL CORE LOG AND ASSAY DATA

PROJECT: Grand Prize

HOLE NUMBER: GP3A

Page: 8.

LV. PRESS

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA											
From	To	m	%		Sample No.	From	To	Rec. %	Sn	As	Cu	Pb	Zn	Ag	Bi	Sn
				(b) FABRIC: Poorly-sorted "psammitic", flow-structured fragmental (lithic-vitric-crystal tuff).												
				(c) ACCESSORIES: Minor xenolithic clasts of shale, silty shale. Minor sideritic carbonate stainings. Minor trace pyrite.												
				(d) COMMENTS: Thoroughly argillised acid tuff. Sub aerial characteristics, apparently a flow or autobrecciated ignimbrite. Could represent a useful marker horizon.												
				PETROLOGY: (C.M.S.) 481.5m												
				(a) CLASSIFICATION - COMPOSITION: Chloritised Conglomerate. Framework of phlogopitised/retrogressively chloritised basalt, microgabbro, minor labile psammopelite clasts. Matrix of quartz, variably chloritised phlogopite. Disseminated pyrite, pyritised pyrrhotite.												
				(b) FABRIC: Relict, poorly-sorted, conglomeratic.												
				(c) ACCESSORIES: Detrital "volcanic" quartz grains, rare detrital chromite. Minor sideritic carbonate.												
				(d) COMMENTS: Altered basic-volcanomict conglomerate, similar to the "basalt" conglomerates in S 764, 947A, 969. Retrograde assemblage similar to 464.8m. No detectable cassiterite.												
481.7	506.8	24.1	96	LAMINATED SHALE: Hodge Slate.	1329	482.0	483.0	100	25	<100	55	20	1900	<0.5	<10	
				Purple-grey to grey fine grained laminated silicified shale	1328	483.0	484.0	100	20	100	70	10	1000	<0.5	<10	
				with minor sandstone interbeds. Minor conglomerate beds with	1327	484.0	485.0	100	35	<100	70	20	450	<0.5	10	
				fragments <3mm in diameter occur between 482.0-487.0m.	1326	485.0	486.0	100	30	100	160	15	880	<0.5	<10	
					1325	486.0	487.0	100	20	<100	120	5	120	<0.5	<10	
				MINERALIZATION AND ALTERATION: Fine grained pyrite occurs parallel to bedding (syngenetic?) disseminated through the shale and	1324	487.0	488.0	100	35	<100	95	15	105	<0.5	10	
				as framboids (1-3mm in diameter) giving a spotty texture to	1323	488.0	489.0	100	35	<100	80	25	105	<0.5	10	
					1322	489.0	490.0	100	35	100	220	25	200	<0.5	10	

GOLD FIELDS EXPLORATION PTY. LIMITED
DRILL CORE LOG AND ASSAY DATA

PROJECT: Grand Prize

HOLE NUMBER: GP3A

Page: 11.

ULV. PRESS

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA ppm - ANALABS										RENISON		
From	To	m	%		Sample No.	From	To	Rec. %	Sn	As	Cu	Pb	Zn	Ag	Bi	Sn	Sn(sol)
				"intraclastic" vein. No detectable cassiterite.													
31.8	578.1	45.3	98	ALTERED CONGLOMERATE: Red Lead Conglomerate.	1279	532.0	533.0	100	830	<100	420	20	65	<0.5	<10	-	-
				Highly altered conglomerate consisting of large (10-30mm), sub	1278	533.0	534.0	100	1750	<100	710	5	125	<0.5	<10	1310	200
				rounded to rounded, variably chloritized, actinolised, tourmalin-	1277	534.0	535.0	100	560	100	45	35	165	<0.5	<10	-	-
				ised clasts of basalt, siltstone, carbonate and minor chert.	1276	535.0	536.0	100	680	<100	790	10	155	1	<10	-	-
				These occur in a matrix of smaller (1-10mm) sub angular to sub	1275	536.0	537.0	100	650	100	330	20	135	0.5	20	-	-
				rounded clasts of purple, siltstone, grey cherts and basalt.	1355	537.0	538.0	30	330	<100	800	<10	225	<0.5	<10		
					1356	538.0	539.0	97	490	<100	1300	10	180	0.5	<10		
				ALTERATION AND MINERALIZATION: Alteration is variable from	1357	539.0	540.0	97	310	100	50	10	95	<0.5	<10		
				minor actinolite, tourmaline alteration of the matrix to whole	1358	540.0	541.0	97	420	<100	5	30	80	<0.5	<10		
				rock alteration. Tourmalinisation appears to increase downhole.	1359	541.0	542.0	100	230	<100	5	15	80	<0.5	<10		
				Pyrite pyrrhotite mineralization only occurs in minor quantities	1360	542.0	543.0	100	150	<100	<5	30	75	<0.5	<10		
				(<2%), possibly related to jointing in particular at:	1361	543.0	544.0	100	160	<100	<5	15	60	<0.5	<10		
				535.5-531.7m	1362	544.0	545.0	100	200	<100	<5	35	80	<0.5	<10		
				564 -568.7m	1363	545.0	546.0	100	180	<100	<5	25	75	<0.5	<10		
				Some clasts show replacement by axinite associated with pyrite-	1364	546.0	547.0	100	170	<100	<5	5	80	<0.5	<10		
				chalcopryite mineralization e.g. at 554.4-558.8 where there occurs	1365	547.0	548.0	100	260	100	<5	15	85	<0.5	<10		
				a zone of clasts replaced by pink axinite with up to 5% pyrite	1366	548.0	549.0	100	310	<100	<5	15	115	<0.5	<10		
				and very minor chalcopryite.	1367	549.0	550.0	100	230	<100	<5	5	90	<0.5	<10		
					1368	550.0	551.0	100	290	<100	5	10	95	<0.5	<10		
				PETROLOGY: (C.M.S) 536.9m	1369	551.0	552.0	100	340	<100	<5	10	75	<0.5	<10		
					1370	552.0	553.0	100	420	<100	415	15	185	<0.5	<10		
			(a)	CLASSIFICATION - COMPOSITION: Altered Breccia. Clasts of various-	1371	553.0	554.0	97	240	100	10	5	75	0.5	10		
				ly chloritised, tourmalinised or actinolitised, sphene-stained	1372	554.0	555.0	97	620	<100	90	85	155	<0.5	10		
				labile psammopelite in a matrix of actinolite with zones of	1373	555.0	556.0	97	540	<100	15	55	240	<0.5	<10		
				massive schorl; patchy pyritised pyrrhotite.	1374	556.0	557.0	100	610	<100	235	325	420	<0.5	<10		
					1375	557.0	558.0	100	500	100	10	50	210	<0.5	10		
			(b)	FABRIC: Ill-defined angular breccia with a medium-grained corros-	1376	558.0	559.0	100	340	<100	5	55	170	<0.5	10		
				ive replacive matrix.	1377	559.0	560.0	100	540	<100	30	20	160	<0.5	10		
					1378	560.0	561.0	100	540	<100	20	110	345	<0.5	<10		
			(c)	ACCESSORIES: Minor vugs quartz in matrix. Disseminated relict	1370	561.0	562.0	100	310	<100	5	40	135	0.5	20		
				detrital chromite.	1380	562.0	563.0	100	290	<100	5	45	90	<0.5	10		
					1381	563.0	564.0	100	420	<100	5	25	140	<0.5	<10		
			(d)	COMMENTS: Close affinities with 517.6m, but with relatively	1382	564.0	565.0	100	440	5800	220	80	205	<0.5	10		

GOLD FIELDS EXPLORATION PTY. LIMITED
DRILL CORE LOG AND ASSAY DATA

PROJECT: Grand Prize

HOLE NUMBER: GP3A

Page: 12.

LV. PRESS

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA ppm - ANALABS										RENISON		
From	To	m	%		Sample No.	From	To	Rec. %	Sn	As	Cu	Pb	Zn	Ag	Bi	Sn	Sn(sol)
				abundant metasomatic schorl. Brecciated conglomerate-type characteristics. No detectable cassiterite.	1383	565.0	566.0	100	1100	<100	285	45	160	<0.5	<10	980	150
					1384	566.0	567.0	100	620	<100	40	80	220	<0.5	<10		
					1385	567.0	568.0	100	650	<100	15	30	210	<0.5	<10		
				PETROLOGY: (C.M.S.) 545.1m	1386	568.0	569.0	100	660	100	10	25	185	<0.5	<10		
					1387	569.0	570.0	100	750	<100	5	50	155	0.5	<10		
				(a) CLASSIFICATION - COMPOSITION: Altered Conglomerate.	1388	570.0	571.0	100	370	<100	5	5	170	<0.5	<10		
				Framework of tremolite-stained labile pelite, psammopelite;	1389	571.0	572.0	95	4500	<100	10	25	160	<0.5	<10	3840	200
				relatively tremolitised basalt-microgabbro clasts, minor "volcanic"	1390	572.0	573.0	92	3800	<100	25	55	180	<0.5	10	3770	200
				quartz grains. Variably tremolitised labile pelitic matrix.	1391	573.0	574.0	92	4400	<100	30	85	250	<0.5	20	2340	200
					1392	574.0	575.0	100	700	<100	10	35	170	<0.5	<10	600	200
				(b) FABRIC: Poorly-sorted, conglomeratic. Moderately sheared.	1393	575.0	576.0	100	1350	<100	25	155	520	<0.5	10	1110	300
					1394	576.0	577.0	100	900	<100	15	35	210	<0.5	<10		
				(c) ACCESSORIES: "Megacrasts" of thoroughly tremolitised ?limestone.	1395	577.0	578.0	100	360	<100	5	25	195	<0.5	<10		
				Detrital chromite, opaques. Secondary sphene.													
				(d) COMMENTS: Moderately sheared, extensively tremolitised polymict conglomerate. No detectable cassiterite.													
578.1	579.5	1.3	93	BRECCIATED ZONE:	1396	578.0	579.0	95	300	<100	45	250	550	<0.5	<10		
				Brecciated zone (probably fault) consisting of dark green clay	1397	579.0	580.0	84	260	<100	5	5	140	<0.5	<10		
				angular, altered, basaltic clasts. A minor zone of brecciated													
				rock is rewelded with dolomite(?). No significant sulphides													
				occur within this zone.													
579.5	580.9	1.3	93	INTERBEDDED PYROCLASTIC AND CONGLOMERATE:	1398	580.0	581.0	93	80	<100	5	5	110	<0.5	<10		
				This unit is extensively altered by actinolite and primary textures													
				are difficult to recognise. The pyroclastic (lithic vitric													
				crystal tuff) contains numerous lithic clasts (tourmalinised)													
				in a fine grained devitrified? matrix with "flow" or compaction													
				textures of ignimbrites. The conglomerate is similar to													
				the previously described Red Lead Conglomerate.													
580.9	586.2	4.1	78	ALTERED PYROCLASTIC	1399	581.0	582.0	67	90	100	5	5	135	<0.5	<10		
				Actinolised and tourmalinised pyroclastic probably a lithic	1400	582.0	583.0	83	30	<100	5	<5	120	<0.5	<10		
				vitric crystal tuff. Lithic clasts occur with a fine grained	2301	583.0	584.0	64	30	<100	5	<5	145	<0.5	<10		

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GOLD FIELDS EXPLORATION PTY. LIMITED

DRILL CORE LOG AND ASSAY DATA

PROJECT: Grand Prize

HOLE NUMBER: GP3A

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ULY. PRESS

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA ppm										ANALABS		RENISON	
From	To	m	%		Sample No.	From	To	Rec. %	Sn	As	Cu	Pb	Zn	Ag	Bi	Sn	Sn(sol)	
				devitrified matrix with fine to coarse grained feldspar crystals and a "flow" or compaction texture akin to ignimbrites. This unit has textural similarity to the less altered pyroclastic found at the base of the Red Lead Conglomerate unit in GP4.	2302	584.0	585.0	78	60	<100	5	<5	160	<0.5	<10			
					2303	585.0	586.0	93	110	<100	20	15	180	<0.5	10			
586.2	590.5	4.3	100	ALTERED BASALT: Melba Spilite. Dark green uniformly fine grained basic lava with zones of coarser grained pyroclastics (crystal lithic tuffs), the rock is extensively actinolised with disseminated pyrite. Veins of actinolite with minor chalcopyrite/pyrite occur. No carbonate is present.	2304	586.0	587.0	100	75	<100	60	10	95	<0.5	<10			
					2305	587.0	588.0	100	50	<100	10	<5	110	<0.5	<10			
					2306	588.0	589.0	100	40	100	410	<5	140	<0.5	<10			
					2307	589.0	589.9	100	35	<100	25	<5	125	<0.5	<10			
					2308	589.9	590.5	100	10	<100	170	<5	135	<0.5	<10			
					2309	590.5	591.5	100	140	<100	30	10	100	<0.5	<10			
590.5	592.1	1.6	100	GRADATIONAL BOUNDARY Mixed zone of fine grained altered basic volcanics occurs with coarse grained recrystallised carbonate. Actinolite alteration is extensive with minor tourmaline and disseminated pyrrhotite.	2310	591.5	592.1	100	5	100	30	25	155	<0.5	<10			
592.1	600.9	8.4	96	ALTERED CARBONATE ROCK: Altered pale blue grey fine to medium grained carbonate (probably calcite) with disseminated actinolite and spotty occurrences of black tourmaline? It is generally a massive unit but relict textures of lithic fragments occur (e.g. 594.5m) where a chaotic mixture of sub rounded to angular actinolite/tourmaline rich clasts occur in a predominant carbonate matrix. Serpentinisation of the unit occurs at 598.7-600.9m.	2311	592.1	593.4	100	6	<100	30	<5	115	<0.5	10			
					2312	593.4	594.5	100	15	<100	90	<5	120	<0.5	<10			
					2313	594.5	595.5	100	10	<100	605	<5	155	<0.5	<10			
					2314	595.5	596.2	100	<3	<100	155	<5	170	<0.5	<10			
					2315	596.2	596.8	100	<10	<100	145	<5	175	<0.5	<10			
					2316	596.8	597.8	100	<3	<100	80	10	130	<0.5	<10			
					2317	597.8	598.8	93	<3	<100	75	55	140	<0.5	10			
					2318	598.8	599.8	93	<3	<100	55	40	185	<0.5	<10			
					2319	599.8	600.9	93	<3	<100	15	170	185	<0.5	<10			
				MINERALIZATION: Disseminated pyrrhotite (1-2%) and minor stringers of pyrrhotite at 595.2m and 595.6m with some sphalerite.														
600.4	624.3	22.7	97	SERPENTINISED ULTRABASIC ROCK: Serpentine Hill Complex. Black to dark green medium grained serpentised ultrabasic. Veins of magnetite and dolomite throughout. E.O.H. at 624.3m	2320	600.9	601.9	100	<3	<100	<5	45	75	<0.5	<10			
					2321	601.9	602.9	100	<3	<100	<5	25	50	<0.5	<10			
					2322	602.9	603.9	100	<3	<100	<5	<5	75	<0.5	<10			
					2323	603.9	604.9	100	<3	<100	<5	<5	60	<0.5	<10			
					2324	604.9	605.9	100	<3	<100	<5	<5	60	0.5	<10			

GOLD FIELDS EXPLORATION PTY. LIMITED

PROJECT: Grand Prize E.L. 42/71

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: GP 4

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INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA (all in ppm)												
From	To	m	%		Sample No.	From	To	Rec. %	Sn	Sn(Sol)	As	WO ₃	Cu	Pb	Zn	Ag	Bi
				Minor calcite veinlets occur in parts of the core where the matrix is carbonate rich e.g. 141.8-145.2m, 149.5-151.9m, 155.7-157.0m, 168.0-169.0m.													
				Faults: 41.4-41.8m: weathered broken zone possibly minor fault.	3935	42.6	43.8	47	10	-	<10	<10	45	50	80	1	10
				82.4-82.7m: brecciated zone with pyrite mineralisation.	3936	50.7	52.1	67	10	-	<10	10	30	100	80	1	10
				113.4-113.5m: broken zone.	3937	52.1	52.4	98	<10	-	<10	10	30	170	105	1	10
				133.3-134m : broken zone.	3938	82.4	82.7	100	<10	-	20	20	40	90	465	1	20
				191.8-194.2m: broken zone with minor weathered white clay.	3985	133.3	134.0	57	10	<100	30	20	35	480	870	1	10
				Recovery 38%. Fault.	3939	173.6	173.65	100	30	-	40	20	90	310	1410	2	30
				194.7-196.0m: Broken zone. Recovery 54%.	3940	191.8	193.0	38	20	-	30	40	40	1030	3070	1	10
				B.C.A.'S: 6.7m 45° 122.7m 55°	3941	193.0	194.2	38	10	-	10	50	20	1370	6300	1	10
				44.3m-55.8m 40° 129.5m 60°	3942	194.2	194.7	100	<10	-	20	40	50	950	3020	1	20
				58.6m 45° 131.1m 70°	3943	194.7	196.0	54	<10	-	20	20	60	620	2150	1	20
				61.4m-77.3m 50° 133.0m 60°													
				76.2m 55° 135.4m 70°													
				77.3m 70° 142.0m-151.4m 70°													
				78.2m 65° 155.0m-170.5m 65°													
				79.9m-82.2m 50° 172.4m 70°													
				82.8m 40° 175.4m-177.2m 65°													
				84.1m-92.1m 50° 182.0m-184.6m 70°													
				95.9m 60° 188.3m 65°													
				98.0m 55° 190.2m 50°													
				103.1m 50° 191.6m-200.0m 60°													
				106.0m 60° 205.4m 65°													
				109.0m-110.6m 55° 210.0m-218.5m 60°													
				113.7m-120.0m 60°	3786	217.0	218.0	100	10	<100	<10	20	75	170	800	1	20
218.3	309.5	83.8	92	CONGLOMERATE: Red Lead Conglomerate.	3787	218.0	219.0	100	20	<100	10	20	40	170	860	1	20
				Grey green poorly sorted conglomerate with large (10-100mm)	3788	219.0	220.0	100	10	<100	10	10	95	220	90	2	30
				subrounded clast of carbonate, basalt and minor chert with	3789	220.0	221.0	100	10	<100	<10	<10	100	70	80	3	50
				smaller clasts (<10mm) of sub angular to subrounded basalt,	3790	221.0	222.0	100	10	<100	<10	20	65	40	80	2	40
				siltstone, grit, sandstone and minor carbonate in a carbonate	3791	222.0	223.0	100	<10	<100	<10	10	60	40	100	2	40
				rich silt matrix. Some stypolite development occurs around	3792	223.0	224.0	100	10	<100	<10	20	85	40	175	2	30
				carbonate fragments.	3793	224.0	225.0	100	10	<100	<10	20	95	40	90	2	30

GOLD FIELDS EXPLORATION PTY. LIMITED

PROJECT: Grand Prize

E.L. 42/71

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: GP 4

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V. PRESS

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA (all in ppm)												
From	To	m	%		Sample No	From	To	Rec. %	Sn	Sn(so ₂)	As	WO ₃	Cu	Pb	Zn	Ag	Bi
				From 303.3-309.5m. There is a significant decrease in carbonate cobbles and carbonate in the matrix. The matrix becomes increasingly tuffaceous and a number of thin (<40m) tuff beds occur.	3794	225.0	226.0	100	10	<100	<10	20	70	330	110	2	30
				e.g. 306.1: green grey fine to medium grained felsic crystal tuff. The crystals are angular to sub angular indicating the possibility of some reworking.	3795	226.0	227.0	100	10	<100	<10	10	60	40	105	2	30
					3796	227.0	228.0	100	20	<100	10	20	50	30	85	3	40
					3797	228.0	229.0	100	20	<100	10	20	55	90	90	2	30
					3798	229.0	230.0	100	10	<100	<10	10	75	890	90	2	20
					3799	230.0	231.0	95	20	<100	10	10	95	90	120	3	50
				307.1, 308.6, 308.8: Beds of lithic crystal tuff with angular elongate clasts of actinolite altered fine grained tuff? in a matrix of fine grained feldspar crystals and flattened vitric? fragments.	3800	231.0	232.0	95	20	<100	10	20	55	80	240	3	40
					3801	232.0	233.0	90	30	<100	10	20	40	40	1070	2	40
					3802	233.0	234.0	90	10	<100	10	10	30	40	150	3	40
					3803	234.0	235.0	90	20	<100	<10	30	60	40	670	2	30
				<u>Alteration and Mineralisation:</u>	3804	235.0	236.0	90	20	<100	<10	20	25	40	1710	2	40
				Alteration in the upper part of the unit is confined to calcite recrystallisation within the matrix and carbonate cobbles, minor jasperoidal replacement, very minor axinite replacement	3805	236.0	237.0	90	10	<100	<10	30	70	60	1470	2	30
					3806	237.0	238.0	90	10	<100	10	20	50	40	1720	3	40
					3807	238.0	239.0	100	10	<100	10	20	50	70	1040	3	40
				associated with traces of pyrite in carbonate cobbles. At 233.4-254.3m. The rocks become weathered with leached sand rich carbonate cobbles.	3808	239.0	240.0	89	20	<100	10	30	40	100	1570	2	40
					3809	240.0	241.0	80	10	<100	<10	30	140	360	2520	2	40
					3810	241.0	242.0	85	20	<100	10	20	80	80	2190	2	30
				From 254.5m. The carbonate cobbles are partially altered to dolomite with an increasing downhole of a green acicular mineral epidote(?) and bladed pink-white axinite with only minor pyrite.	3811	242.0	243.0	90	10	<100	<10	40	70	90	5100	2	40
					3812	243.0	244.0	90	20	<100	<10	40	45	60	3680	2	40
					3813	244.0	245.0	85	10	<100	<10	10	620	40	1890	2	40
				From 262.0m. Actinolite and minor tourmaline alteration gradually increases downhole from cobble rim replacement to total replacement of carbonate within cobbles and matrix.	3814	245.0	246.0	85	<10	<100	<10	10	20	70	3270	2	40
					3815	246.0	247.0	85	<10	<100	<10	20	15	70	2510	2	40
					3816	247.0	248.0	77	<10	<100	<10	20	140	40	1890	3	40
				From 264.7m. Pyrrhotite mineralisation occurs as rims around carbonate cobbles and disseminated in the matrix, associated with minor chalcopyrite and sphalerite mineralisation.	3817	248.0	249.0	77	<10	<100	<10	20	70	40	930	2	30
					3818	249.0	250.0	77	<10	<100	<10	20	55	130	1080	2	30
					3819	250.0	251.0	54	<10	<100	<10	30	10	40	1140	2	40
				Pyrrhotite-chalcopyrite mineralisation of 2-10% occurs at a maximum in the vicinity of a pyrrhotite, calcite, chalcopyrite vein at 278.1m but decreases downhole to 297.3m from where within the conglomerate there is only an occasional grain of sulphide.	3820	251.0	252.0	69	<10	<100	<10	20	20	30	1030	2	30
					3821	252.0	253.0	52	<10	<100	<10	20	40	80	1490	2	30
					3822	253.0	254.0	43	<10	<100	<10	20	15	120	1600	2	30
					3823	254.0	255.0	77	10	<100	<10	30	45	40	1650	2	30
					3824	255.0	256.0	77	<10	<100	<10	20	80	40	2530	2	30
				<u>Fault: 244.5-254.5m. Weathered zone with poor recovery (58%) may be an unmineralised fault zone.</u>	3825	256.0	257.0	77	10	<100	10	30	30	90	2000	2	30
					3826	257.0	258.0	94	<10	<100	<10	40	65	40	1850	2	40
					3827	258.0	259.0	95	<10	<100	<10	<10	30	30	2300	2	40
				B.C.A. 306.0m 60°	3828	259.0	260.0	97	<10	<100	<10	20	30	40	900	2	40

GOLD FIELDS EXPLORATION PTY. LIMITED
DRILL CORE LOG AND ASSAY DATA

PROJECT: Grand Prize

HOLE NUMBER: GP 4

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LV. PRESS

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA												
From	To	m	%		Sample No.	From	To	Rec. %	Sn	Sn(Sol)	As	WO ₃	Cu	Pb	Zn	As	Bi
						3829	260.0	261.0	97	<10	<100	10	20	70	30	1330	2
					3830	261.0	262.0	96	10	<100	<10	<10	50	110	2300	2	40
					3831	262.0	263.0	93	<10	<100	10	20	25	310	2010	3	40
					3832	263.0	264.0	98	10	<100	10	20	35	40	2610	2	30
					3833	264.0	265.0	100	100	<100	70	40	85	1840	4920	9	30
					3834	265.0	266.0	95	10	<100	10	20	75	50	1010	2	30
					3835	266.0	267.0	95	10	<100	<10	20	60	90	315	2	30
					3836	267.0	268.0	93	<10	<100	10	10	90	150	365	2	30
					3837	268.0	269.0	93	<10	<100	<10	<10	100	260	90	2	40
					3838	269.0	270.0	93	<10	<100	<10	10	50	70	70	2	40
					3839	270.0	271.0	100	20	100	<10	30	60	90	70	2	40
					3840	271.0	272.0	100	20	100	10	20	50	180	100	2	40
					3841	272.0	273.0	100	10	100	<10	10	65	90	80	1	30
					3842	273.0	274.0	100	20	100	<10	<10	45	280	70	2	50
					3843	274.0	275.0	100	10	100	<10	<10	65	120	80	2	30
					3844	275.0	276.0	100	<10	100	<10	<10	170	100	75	2	50
					3845	276.0	277.0	100	10	100	<10	10	50	420	95	2	40
					3846	277.0	278.0	100	10	100	<10	10	80	410	125	2	30
					3847	278.0	279.0	100	10	100	10	10	170	310	100	2	30
					3848	279.0	280.0	100	<30	100	10	10	70	30	213	1	20
					3849	280.0	281.0	100	20	100	10	<10	260	410	100	2	40
					3850	281.0	282.0	100	20	100	<10	10	40	140	95	2	30
					3851	282.0	283.0	100	20	100	<10	10	100	80	105	2	30
					3852	283.0	284.0	100	50	100	<10	10	35	80	1000	2	20
					3853	284.0	285.0	100	20	100	<10	10	45	40	410	2	20
					3854	285.0	286.0	100	20	100	<10	20	235	60	960	2	30
					3855	286.0	287.0	100	10	<100	<10	10	95	260	105	2	30
					3856	287.0	288.0	100	10	<100	<10	20	130	140	110	2	30
					3857	288.0	289.0	100	30	<100	10	20	2260	80	200	4	30
					3858	289.0	290.0	100	10	<100	<10	20	820	100	820	2	30
					3859	290.0	291.0	87	10	<100	<10	30	3470	40	1940	5	20
					3860	291.0	292.0	87	20	<100	20	60	18500	50	281	1	30
					3861	292.0	293.0	91	10	<100	<10	10	990	30	230	2	20
					3862	293.0	294.0	95	20	<100	10	10	85	50	130	2	20
					3863	294.0	295.0	100	30	<100	10	10	75	100	100	2	30

GOLD FIELDS EXPLORATION PTY. LIMITED

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DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: GP 4

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LV. PRESS

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA (all in ppm)												
From	To	m	%		Sample No.	From	To	Rec. %	Sn	Sn(Sol)	As	WO ₃	Cu	Pb	Zn	Ag	Bi
					3864	295.0	296.0	100	30	<100	<10	10	75	80	85	1	20
					3865	296.0	297.0	98	20	<100	<10	20	60	80	120	1	20
					3866	297.0	298.0	95	10	<100	10	10	580	50	90	1	20
					3867	298.0	299.0	95	20	<100	<10	10	40	50	100	1	30
					3868	299.0	300.0	100	20	<100	<10	10	20	50	435	2	30
					3869	300.0	301.0	100	20	<100	<10	30	20	50	310	2	30
					3870	301.0	302.0	100	30	<100	<10	10	60	70	250	2	30
					3871	302.0	303.0	100	30	<100	<10	10	220	50	275	2	30
					3872	303.0	304.0	100	10	<100	10	20	10	50	120	2	30
					3873	304.0	305.0	100	20	<100	<10	20	30	30	110	2	30
					3874	305.0	306.0	100	10	<100	<10	10	25	40	120	2	30
					3875	306.0	307.0	100	10	<100	<10	10	10	50	100	2	30
					3876	307.0	308.0	100	10	<100	10	<10	20	50	205	2	30
					3877	308.0	309.5	100	<10	<100	10	20	10	70	130	2	40
309.5	310.5	1.0	100	<p>PYROCLASTIC:</p> <p>The Pale green andesitic to basic vitric crystal lithic tuff? consists predominantly of a layered devitrified vitric tuff? with fine to coarse grained feldspar crystals and rounded to subrounded lithic fragments of fine grained tuff?, carbonate rich tuff? and minor chert. Rounded chert fragments indicate the unit may be partially reworked. Some carbonate rich cherts have been totally replaced by axinite with minor pyrrhotite mineralisation.</p>	3878	309.5	310.5	100	20	<100	20	20	25	40	1090	2	30
310.5	320.2	9.7	100	<p>SPILITE: Melba Spilite.</p> <p>Dark green, to fine grained basalt with minor irregular zones of fine to coarse tuffaceous and siliceous sediment. On surface outcrop these sediments occur between pillows of the basalt. The pillow structure of the basalt is not obvious within the drill hole. Veinlets of calcite occur throughout. The basalt has been partially altered to actinolite and minor axinite.</p>	3879	310.5	311.5	100	10	<100	10	10	15	150	150	1	30

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GOLD FIELDS EXPLORATION PTY. LIMITED

PROJECT: Grand Prize EL 42/71

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: GP 5

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v. PRESS

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA														
From	To	m	%		Sample No.	From	To	Rec. %	Sn	Sn Sol.	As	WO ₃	Cu	Pb	Zn	Ag	Bi		
0	3.1			Weathered Bedrock and drill site debris.															
3.1	183.1	1.5	99	LAMINATED SILTSTONE: Hodge Slate Laminated to well bedded grey/black siltstone/shale interbedded with minor sandstone, grit and occasional conglomerate beds. The conglomerate and grits consist of grey sandstone/siltstone, basalt and minor carbonate. Minor scour structures occur at the base of the conglomerate beds. Conglomerate horizons occur at 3.9m, 11.6-12.0m, 13.5m, 18.6m, 20.1-20.2m, 22.6m, 23.7m, 29.3m, 31.4m, 32.1-32.2m, 32.8m, 39.1m, 65.5m, 89.4m, 91.9m, 104.9m, 115.0-115.2m, 123.4m, 124.8m, 125m, 126.9m, 142.4m, 143.2m, 150.5m, 155.7m, 181.0m <u>Mineralisation:</u> Minor disseminated pyrite occurs throughout. Pyrite also occurs on joints and within coarse grit and conglomerate horizons with apparent replacement of carbonated by up to 5-10% pyrite, e.g. 39.1m. 156.7-157.0m: pyrite healed breccia. Faults: 12.0 - 12.2m: weathered clay zone. 30.8m: brecciated zone with minor quartz; minor fault? core well jointed. B.C.A.'S: 3.0-10.0m 70° 10.0-55.0m average 60° 55.0-183.1m average 70°-80° <u>Petrology for 39.1m</u> <u>Classification-Composition</u> Pyritic Breccia Framework of chlorite-sericite-altered carbonaceous pelite, subordinate similarly altered basalt clasts. Chlorite-sericite matrix. More or less pervasive fine-grained pyrite.	4043	156.7	157.0	100	10	100	880	30	55	640	4080	2	40		

Central Mineralogical Services



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Mr. L.A. Newnham
Assistant Exploration Manager
Gold Fields Exploration Pty. Ltd.
P.O. Box 835
BURNIE / TAS. 7320

29th March, 1983

REPORT CMS 83/3/13

YOUR REFERENCE: Letter dated 8.3.1983
PK/9003/5

DATE RECEIVED: 11th March, 1983

SAMPLE NOS.: 24 Samples

SUBMITTED BY: L.A. Newnham

WORK REQUESTED: Petrology

H.W. Fander, M. Sc.

REPORT CMS 83/3/13Grand Prize Drill Cores

Lithologies are analogous to those previously described from this area, notably variously altered Dundas Group labile sediments ranging from conglomeratic to psammopelitic. Minor associated lithologies include an acid tuff and an ill-defined metasomatised ?dolomite.

The sequence reflects generally marked contact-metasomatic effects with semi-ubiquitous development of tremolite-actinolite and patchy development of schorl. At least two phases of deformation are evident, with the contact effects temporally intermediate between phases of brecciation.

Axinitic alteration assemblages, previously noted at Grand Prize, are absent in the present suite. However, cassiterite appears similarly limited in its occurrence in association with relatively boron-metasomatised (tourmalinised) sediments. Traces of stannite appear in association with late "retrograde" pyrite-siderite assemblages. Problematically, many of these rocks are stained with fine-grained cloudy sphene. Individual samples may warrant mineragraphic examination on the basis of assay data.

D. Cowan, B. Sc.

Sample No.	Classification - Composition	Fabric	Accessories	Comments
969 48.65 48.70	Altered Microgabbro. Phlogopite-sericite-stained albite pseudomorphs of plagioclase laths, subordinate phlogopitised pyroxene. Sporadic aggregates, veinlets of actinolite. Minor poikilitic green schorl.	Relict even-grained "doleritic" (sub-ophitic). Semi-brecciated and mildly refractured.	Fine cloudy sphene (after primary Ti-opaques).	Brecciated, thoroughly altered medium-grained basic. Conceivably a flow-brecciated extrusive, but dependant on field relationships. Unmineralised.
50.2 50.3	Tremolite Schist. Tremolite-actinolite variably replaced by fine to ultrafine talc. Sporadic veinlets, replacements of chlorite. Thinly disseminated green schorl (sim. 448.65).	Vaguely banded. Sheared, with medium-grained ragged tremolite extensively retrogressed to fine, semi-orientated talc.	Very thinly disseminated fine pyrite euhedra, rare very fine magnetite.	Virtually massive tremolite rock with variable shear-induced steatitisation. Apparently an altered "dolomite" in absence of "ultramafic" features, but poorly diagnostic.
3A 31.8	Labile Pelite. Chloritic-sericitic inter-lamination of argillaceous siltstone, silty shale, with sericitised feldspar, quartz, muscovite, chloritised biotite as major clastic components. Minor lithic sandstone partings.	Finely laminated, locally graded with slumped, scoured sandstone partings.	Conspicuous clastic opaques, leucoxenic semi-opaques. Detrital chromite, magnetite. Traces "syngenetic" pyrite.	Dundas Group labile sediment with characteristic detrital chromite in weakly basic-volcanomict sandstone partings. No tangible "granitic" alteration effects.
15.5	Labile Pelite. Sericitic-chloritic, slightly silty shale with minor partings of argillaceous siltstone/fine sandstone, chlorite-matrixed and weakly stained with sideritic carbonate, pale sphalerite.	Massive to weakly microlaminated with an incipient concordant slaty cleavage.	Conspicuous clastic opaques, leucoxenic semi-opaques. Rare ultrafine pyrrhotite.	Close affinities with 231.88 m; identical clastic components in pelite fraction. Siderite is probably a marginal hydrothermal replacement of calcite or dolomite.
5.8	Metasomatised ?Sandstone. Semi- to near-massive K-feldspar (?sanidine) pervasively stained with ultrafine included schorl. Patchy talc (after ?tremolite). Semi-pervasive late impregnations of siderite.	Medium-grained, banded, with localised faint transcurrent relict ?bedding.	Disseminated cloudy sphene, traces magnetite. Sporadic patches of late kaolin (after feldspar).	Relict features consistent with a metasomatically K-feldspathised/tourmalinised psammitic sediment, subsequently siderite-talc-clay-altered. No detectable cassiterite.
17.4 17.5	Metasomatised Greywacke. Framework of marginally actinolitised basic-intermediate lava clasts, chert fragments, quartz grains; intraclasts of chloritic labile siltstone. Variably actinolitised microcrystalline feldspathic matrix.	Gritty, turbidite-like sandstone in scoured contact with (phlogopitised) labile silty shale.	Minor actinolite (-phlogopite) veinlets, films. Thinly disseminated pyrrhotite. Traces detrital chromite.	Moderately actinolitised labile greywacke with minor, partly actinolite veinlet-related pyrrhotite disseminations. No detectable cassiterite.

491075

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Mr. P.A. Roberts
Senior Geologist
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P.O. Box 835
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10th May, 1983

REPORT CMS 83/4/24

YOUR REFERENCE: Letter dated 20.4.1983
PK/9003/5

DATE RECEIVED: 26th April, 1983

SAMPLE NOS.: 8 Samples

SUBMITTED BY: P.A. Roberts

WORK REQUESTED: Petrology

DATE	12 MAY 1983
FILE No.	
LN.	
G.P.	
P.R.	<i>h</i>
J.R.	
S.F.	
P.D.	
FILE	

H.W. Fander
H.W. Fander, M. Sc.

REPORT CMS 83/4/24

Eight samples of diamond drill core from the Grand Prize area were received for petrological examination, and results are compiled in the attached tables. Descriptions incorporate data from stereobinocular and petrological microscopic examination of representative thin-sections and offcuts, supplemented, where warranted, by carbonate stain tests, and include interpretative comments. Polished sections were prepared from the two samples of pyritic breccia to confirm the opaque assemblage.

Summary

The four samples from GP 3A are representative of altered ultramafics, partly recognisable as a (serpentinised) dunite (614.6 m), but more typically tremolitised with a variably developed late retrogressive phase of chloritisation and then relatively featureless in terms of relict textural features.

This zone can be correlated with the basal drilled section in S 969. Problematically, the altered ultramafic character of the tremolite rocks is only apparent where relict primary chromite (or chromiferous magnetite) is relatively conspicuous and/or evenly disseminated in contrast to the accessory detrital chromite in the locally similarly altered Dundas Group sediments. In retrospect, the S 947A/628.6 m sample would now be considered as an altered ultramafic; similarly, the poorly diagnostic S 969/460.2 - 460.3 m sample.

The GP 4/310.1 - 310.2 m sample represents a thoroughly altered polymict conglomerate with basic volcanic, and "limestone"-derived components. Alteration denies specific identification of the clastic limestone component, but one clast includes grains of chromite and it thus appears to be derived from a carbonated ultramafic. The source rock may thus represent a locus for contact metasomatic tin as developed for example at Razorback.

The GP 5 examples of pyritic mineralisation reflect fracture-("breccia"-)controlled sulphides. Pyritised pyrrhotite is evident in both samples, along with traces of sphalerite and supergene Cu-sulphides (after chalcopyrite) which appear to be derived from a proximal zone of pyrrhotite-rich sulphide mineralisation. These rocks overlie an altered microgabbro similar to that at 448.65 m in S 969, and representing a minor intrusive, alternately the core zone of a relatively thick flow (?Melba Spilite).

D. Cowan, B. Sc.

APPENDIX 4

GRAND PRIZE AREA

Rock Chip Samples - Petrological Descriptions

GOLD FIELDS EXPLORATION PTY. LTD.

SAMPLE RECORD AND ANALYTICAL DATA SHEET

COLLECTED BY: P. KOMYSHAN

PROJECT: EL 42/71

PROSPECT: GRAND PRIZE

SAMPLE STORAGE REQ'D:

LABORATORY: REMSON

DATE DISPATCHED: FEB. APRIL '83

1:250,000 SHEET:

TYPE OF SAMPLE: ROCK

SAMPLE PREP. REQ'D:

ANALYSIS REQ'D:

DATE RECEIVED:

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES					
				Si	Al	WO ₃	Ca	Pb	Zn
3019	13255 N	16190 E	o/c blue grey ss. ± minor veinlet sphalerite	110	30	30	40	100	1650
3020	13250 N	16130 E	o/c mud pellet conglomerate. ± silty matrix	10	10	20	110	600	120
3021	14470 N	15950 E	o/c cong. ± rdd chert frag. in ss matrix minor ch?	10	110	30	50	1100	130
3022	14485 N	15980 E	o/c elongate 90° rdd frag slt, chert minor ch	110	10	20	10	30	180
3023	14445 N	15870 E	o/c siliceous lithic tuff ± weathered out km of chert frag	110	110	10	40	30	290
3024	14400 N	15640 E	o/c quartz pyrite vein	110	40	20	70	60	510
3025	14480 N	15685 E	o/c brecciated fg. silt'd rock ± chert py	110	10	20	130	60	330
3026	14220 N	15510 E	o/c siliceous ss ± py vein + py.	10	10	10	40	20	60
3027		S. near sample 2.	dump. from addit in fault - gn. / sp. / pt. vein.	10	3160	2500	820	5.7%	13.9%
3028	2800 W	2015 S	1/6 gossanous basalt.	50	5180	40	1230	3200	1180
3044	2200 W	1930 S	o/c Ragback conglomerate ± gossanous veinlet	180	790	40	570	860	650
3045	2000 W	0655 S	flint crystal lithic tuff (baric) ± gossanous joints	70	10	20	400	300	300
3046	13605 N	13440 E	o/c gossanous zone 10-20 cm wide	110	110	10	850	70	240
3047	13575 N	13370 E	o/c gossan in fault zone	110	110	10	15	160	390
3048	600 W	2630 S	o/c weathered brown chert + silstone + grit	10	20		30	470	70
3049	600 W	2730 S	flint hematitic altered rock.	10	35		30	10	110
3050	13653 N	13220 E	o/c 2m fault breccia - gossan, Mn oxide ± py vein.	110	110		70	650	480

5 cm

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71

GOLD FIELDS EXPLORATION PTY. LTD.

SAMPLE RECORD AND ANALYTICAL DATA SHEET

COLLECTED BY: *P. KOMPAN*

PROJECT *GRAND PRIZE*
1:250,000 SHEET: *42/71*

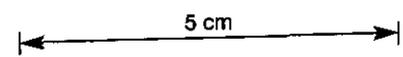
PROSPECT:
TYPE OF SAMPLE: *Rock*

SAMPLE STORAGE REQ'D:
SAMPLE PREP. REQ'D:

LABORATORY: *REXISON*
ANALYSIS REQ'D:

DATE DISPATCHED: *FEB '88*
DATE RECEIVED:

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES					
				Si	Al	WO ₂	Cu	Pb	Zn
2245	14395N	15900E	% conglomerate - o. siliceous frag. + matrix	<10	10	10	100	240	340
2246	14300N	15915E	o/c " " " "	10	<10	10	10	120	500
2247	14300N	15915E	o/c " " " "						
2248	14680N	15615E	% basalt ± r.bond. vesicles of cb.?	<10	<10	20	30	110	1260
2249	14705N	15830E	thin gossanous, jasperoid rock ± py.	<10	10	<10	330	70	60
2250	14955N	15536E	% quartz sph. in dol'd? fg. basalt? or volcanoclastic	<10	290	170	110	1450	3.09%
2002	14595N	15300E	% basalt-thrust breccia ± gossanous veins	30	50	40	140	4800	7500
3003	14340N	15635E	% jasper, replacement cong.?	10	10	10	60	20	50
3004	14865N	16600E	% sil. red sand cong. ± cb. pebbles	20	<10	20	30	50	140
3005	14865N	16630E	o/c " " " ? " " "	<10	50	10	100	110	200
3006	14865N	16650E	o/c " " " ? " " "	10	<10	10	20	30	110
3007	14935N	16730E	o/c " " " ? " " "	<10	<10	10	140	40	150
3008	12900N	15385E	o/c ch'd? siltstone (qtz limst. Mast. dispy)	<10	<10	10	70	50	170
3010	13725N	15405E	o/c conglomerate ± elongate glassy frag. ^{sep'd}	<10	<10	10	40	20	70
3011	13785N	15400E	o/c sil. ch'd? fine grained conglomerate? ^{sep'd}	<10	<10	10	50	20	40
3012	13690N	15385E	o/c ch'd, ch'd shale? ± fg. cong. ^{dispy 2-5%}	<10	30	30	50	210	250
3013	13480N	15335E	o/c weathered conglomerate? Min. st. lim. st.	<10	<10	40	50	70	320
3014	13775N	15710E	o/c weathered original bititic buff? ± basaltic frag.	<10	<10	20	30	20	110
2016	14950N	16185E	o/c ch'd cong ± prod. siltstone frag. minor ch'd	<10	10	10	130	30	150
3017	14240N	16155E	o/c cobble cong ± rdd. pple silt, mic. ss. ^{minor cb. ch'd}	<10	10	20	10	20	180
3018	14150N	16170E	o/c very weathered cong. ± silt, mic. ss. frags	<10	<10	20	80	40	250



491080 72

GOLD FIELDS EXPLORATION PTY. LTD.

SAMPLE RECORD AND ANALYTICAL DATA SHEET

COLLECTED BY: P. KOMYSHAN

PROJECT: GRAND EL 42/71 PROSPECT: GRAND PRIZE

SAMPLE STORAGE REQ'D:

LABORATORY: RENISON

DATE DISPATCHED: FEB 83

1:250,000 SHEET:

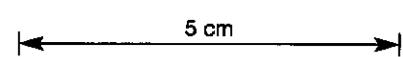
TYPE OF SAMPLE: ROCK

SAMPLE PREP. REQ'D:

ANALYSIS REQ'D:

DATE RECEIVED:

SAMPLE NUMBER	LOCATION AMG		DESCRIPTION	ANALYSES							
				Si	Al ₂ O ₃	W O ₂	Ca	Pb	Zn		
0181	14580 N	12995 E	altered basalt a) silicified ep + b) brecciated \bar{c} lit	20	<10	20	70	20	120		
0182	14330 N	13050 E	massive py gossan within Resorbent Cong.	<10	910	20	470	2350	1800		
0187	GP3A		drillers mud after redrilling through GPF	130	800	-	275	185	2750		
0195	Madame Melba Dam		brecciated pale green u/m? \bar{c} di-py + Ba?	70	720	20	180	150	490		
0196	NE. 200m from Road Dump		brecciated u/m \bar{c} sph, minor py sp Mn	110	490	310	230	1.6%	35%		
0197	N.E. 0.2km from		of Mn rich brecciated zone in basalt.	40	2790	180	150	7800	1.01%		
0198	Great North Creek Dam for G24 WATER		dump sample \bar{c} py, gn, sp from vein fault	10	3.238%	3590	150	8.7%	2.2%		
0199	13945 N		grey mud.	<10	<10	20	30	160	170		
2232	13945 N	15520 E	% blk shale brecciated \bar{c} ob py gn veins.	10	1550	30	50	280	2290		
2233	13915 N	15495 E	% slate & conglomerate grit \bar{c} minor qtz gn vein	<10	<10	<10	30	20	100		
2234	13935 N	15330 E	% blk/gry slt \bar{c} vein \bar{c} py (minor)	40	<10	<10	100	150	90		
2235	13980 N	15285 E	% manganeseiferous zone adjacent to py zone in siltstone	410	50	410	80	50	480		
2236	13980 N	15270 E	% blk/gry shale \bar{c} vms qtz \bar{c} disgn?	410	410	410	30	120	130		
2237	13960 N	15200 E	% blk shale breccia \bar{c} di-py. (conglomerate?)	410	<10	410	20	70	90		
2238	14800 N	15,920 E	% vitric lithic buff or conglomerate grit \bar{c} base	410	<10	410	60	60	30		
2239	14760 N	15,900 E	% conglomerate \bar{c} di-py basalt frag (weathered)	410	410	410	20	30	30		
2240	14740 N	15910 E	% " weathered, altered.	410	410	410	20	10	20		
2241	14730 N	15905 E	% " altered Mn stained. qtz veins	410	410	410	10	50	50		
2242	14690 N	15916 E	% " "	410	410	410	20	20	30		
2243	14670 N	15920 E	% " Mn st & ^{altered} manganese	410	410	410	10	30	30		
2244	14580 N	15880 E	% " Mn st & uolcan on joint	10	60	30	8	310	700		



491081
73

GOLD FIELDS EXPLORATION PTY. LTD.

SAMPLE RECORD AND ANALYTICAL DATA SHEET

COLLECTED BY: P. KOMYSHAN

PROJECT: EL 42/71

PROSPECT: GRAND PRIZE

SAMPLE STORAGE REQ'D:

LABORATORY: RENISON

DATE DISPATCHED: 12/11/92

1:250,000 SHEET:

TYPE OF SAMPLE: ROCK

SAMPLE PREP. REQ'D:

ANALYSIS REQ'D:

DATE RECEIVED:

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES					
				Sn	As	WO ₂	Cu	Pb	Zn
0160	RMG.	13470 N; 14364 E	o/c (Kemet Formation) brown weathered siltstone & carbonate?	30	410	10	20	40	270
0161	RMG	13475 N; 14420 E	o/c " " " " " "	240	410	10	30	50	240
0162	"	13380 N; 13650 E	o/c siliceous limonite rock	20	10	10	10	20	200
0163	"	13400 N; 13420 E	Cossington float over ultrabasic rock	410	210	210	210	60	150
0164	"	14720 N; 13530 E	Sub o/c (Red lead conglomerate) weathered & Mn stained gossan	410	410	<10	740	220	500
0165	"	14720 N; 13510 E	o/c (R.L.C) weathered & Mn & gossan alteration of part. clay	10	210	20	220	30	340
0166	RMG	14690 N; 13690 E	o/c (R.L.C) silicified, limonite stained & weathered carbonate	410	20	<10	130	50	650
0167	"	14660 N; 13710 E	o/c (R.L.C) altered fragments to limonite & Mn	410	20	10	190	120	340
0168	"	14560 N; 13820 E	o/c (R.L.C) minor limonite & Mn staining	210	20	10	240	110	370
0169	"	14545 N; 13895 E	o/c (R.L.C) boxwork gossan texture in matrix	410	20	20	290	100	340
0170	"	14550 N; 13960 E	o/c (R.L.C) minor Mn staining & minor good limonite	10	20	20	300	150	380
0171	"	14495 N; 13960 E	o/c conglomerate within Hodge shale & limonite minor gossan	10	10	10	70	90	130
0172	"	14620 N; 13265 E	o/c (R.L.C) minor Mn staining - weathered	10	20	50	70	80	130
0173	"	14630 N; 13210 E	o/c (R.L.C) - weathered	210	10	210	70	80	150
0174	"	14550 N; 14760 E	o/c (R.L.C) - & ch rich pebbles.	210	410	10	30	50	160
0175	"	14535 N; 14860 E	o/c (R.L.C) - & Mn & lim staining trace of pot grey	10	410	20	30	30	170
0176	"	14530 N; 14905 E	o/c R.L.C siliceous chloritized & Mn & grey met	10	210	10	40	30	180
0177	"	14530 N; 14945 E	o/c R.L.C - siliceous chloritized, & pebbles of heavy Mn	30	10	20	180	2470	950
0178	"	14485 N; 15170 E	o/c R.L.C "baritic breccia" Mn stained	20	20	20	170	2350	920
0179	"	14320	o/c R.L.C	10	20	20	180	850	510
0180	"	14775 N; 13090 E	o/c R.L.C	60	10	20	40	30	330

5 cm

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74

GOLD FIELDS EXPLORATION PTY. LTD.

SAMPLE RECORD AND ANALYTICAL DATA SHEET

COLLECTED BY:

PROJECT:

PROSPECT GRAND PRIZE

SAMPLE STORAGE REQ'D:

LABORATORY:

DATE DISPATCHED:

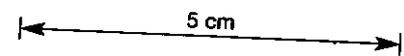
1:250,000 SHEET:

TYPE OF SAMPLE BEDROCK ANGRON SAMPLE PREP. REQ'D:

ANALYSIS REQ'D:

DATE RECEIVED:

SAMPLE NUMBER	LOCATION		DESCRIPTION	ANALYSES								
				Sn	As	Cu	Pb	Zn				
2106	Rd junction	vic S2239	Pale red clayey BR	2.1m	5	100	135	30	375			
2107			" " "	0.8m	7	<5	215	55	390			
2108			Pink/red BR	1.3m	5	<5	115	50	375			
2109			Chmp sample BR or floc		<3	<5	235	165	400			
2110			Pink/red BR	1.0m	<3	<5	175	130	335			
2111			" brn WBR	1.5m	3	100	150	35	330			
2112			" " "	1.2m	<3	<5	635	115	385			
2113			" " "	0.9m	7	100	115	35	180			
2114			Pale orange brn WBR	1.5m	<3	<5	155	90	245			
2115			" " "	2.1m	<3	<5	215	90	295			
2116			" " "	1.5m	<3	<5	215	110	150			
2117			" cream/brn "	1.2m	<3	100	20	90	70			
2118			" " "	1.0m	35	100	95	935	190			
2119			Cream/orange brn "	2.2m	<3	<5	70	355	130			
2120			Orange brn clay "	1.3m	<3	<5	125	160	240			
2121			" " - cream clayey BR	1.4m	6	300	85	645	575			
2122			" " "	1.5m	6	300	45	390	105			
2123			Cream brn clayey - silty frags?	1.4m	6	200	45	205	100			
2124			Brn clay - WBR pink silty	1.4m	8	200	85	480	245			
2125			" " - crumb WBR	1.5m	4	100	90	615	155			
2126			Cream/brn clay BR	1.5m	<3	<5	55	105	165			



491083 75

GOLD FIELDS EXPLORATION PTY. LTD.

SAMPLE RECORD AND ANALYTICAL DATA SHEET

COLLECTED BY:

PROJECT: ~~SEE #1~~

PROSPECT: GRAND PRIZE

SAMPLE STORAGE REQ'D:

LABORATORY:

DATE DISPATCHED:

1:250,000 SHEET:

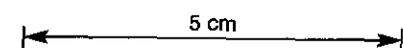
TYPE OF SAMPLE: Bedrock surface

SAMPLE PREP. REQ'D:

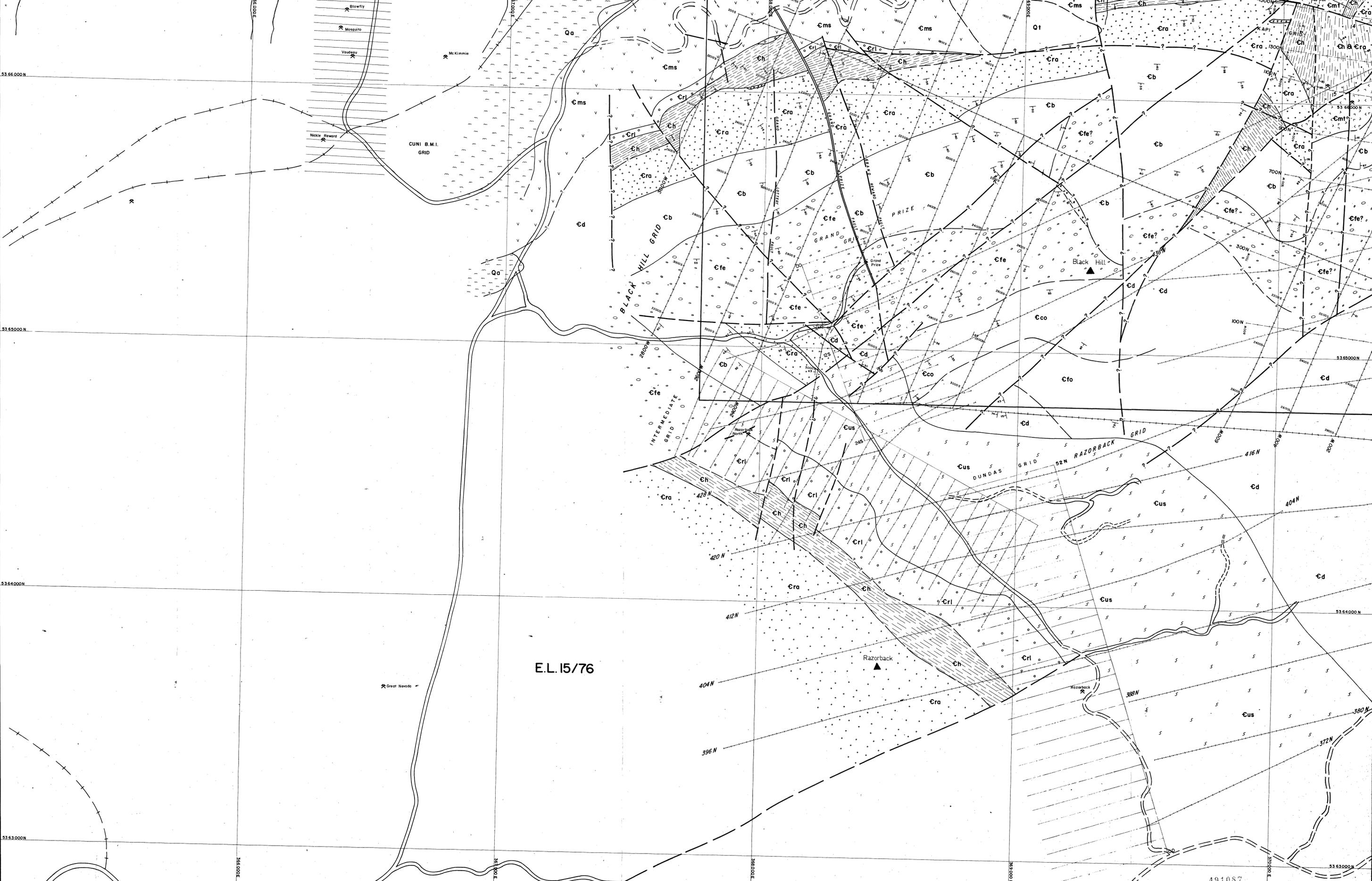
ANALYSIS REQ'D:

DATE RECEIVED:

SAMPLE NUMBER	LOCATION	DESCRIPTION	ANALYSES				
			Sn	As	Cu	Pb	Zn
# 2127		Pink-marone E salt frags 1.0m	<3	300	85	295	235
# 2128		- brn WBR 1.1m	8	100	55	105	165
# 2129		Brn clay soil " 1 1.5m	15	100	50	115	160
# 2130		Soce brn clay soil 0.4m	25	200	60	180	180
# 2131	40m at design pt	Green brn WBR 1.1m	4	300	50	195	80
# 2132		" - pale brn clay WBR? 1.4m	4	100	85	65	195
# 2133		Orange brn crumb " 1.4m	5	200	80	85	75
# 2134		Pale pink/brn WBR 1.0m	7	300	60	75	85
# 2135		Road pink/marone rock chip	<3	100	220	565	380
2136		Orange brn clay WBR 1.2m	5	<5	150	85	365
2137		Siltst accret on clayey matrix 1.5m	7	<5	45	135	130
2138		" " " " 1.5m	<3	<5	40	90	140
2139		Chip sample bank a grey brn clay 1.0m	<3	<5	140	110	490
2140		Soil crumb maybe weather soil	8	<5	70	100	425
2141		Crumb pale cream/brn WBR 1.2m	8	<5	45	100	250
2142		Kalaki brn clay soil " 1.3m	3	100	20	80	115
2143		Clay yel brn 1.4m	5	<5	70	155	180
2144		Orange brn 0.8m	<3	<5	350	100	1250
2145		Pink brn WBR 1.2m	<3	<5	100	60	500



491084
76



E.L.15/76

SEDIMENTARY ROCKS

Quaternary	
Q1	Talus
Qa	Alluvium

Cambrian	
Cd	Dundas Group (undifferentiated)
Cfo	Ferriflow Formation
Cco	Comet Formation
Cch	Ferrifields Formation
Cb	Brewery Junction Formation
Cra	Razorback Conglomerate
Cca	Quarry Pebbles Crystals Tuff

Cs	Hodge Slate
Crl	Red Lead Conglomerate
Cm	Mafic Pyroclastics or reworked Mafic Lavas
Cms	Mafic Sillites
Cum	Ultra-mafic rock (undifferentiated)
Cus	Serpentine
Cut	Tremolite rock

Lower Cambrian	
Cc	Crimson Creek Formation
Cm	Wapogo unit

Pre-Cambrian	
Pao	Osoosh Formation

IGNEOUS ROCKS	
Jd	Jurassic Diorite
Dg	Devonian Granite
Cg	Cambrian Gabbro

SYMBOLS	
(Dashed line)	Interpreted Geological Boundary
(Dotted line)	Fault, approximate position
(Vertical lines)	Vertical Bedding
(Diagonal lines)	Dip & Strike of bedding
(Horizontal lines)	Dip & Strike of foliation
(Crossed lines)	Anticline, Synclinal Axis

(Triangle)	Dip & Strike of Jointing
(Dotted pattern)	Compositional layering in Ultra-mafic
(Star)	Limit of Horstfelling
(Square)	Mine workings, Adit
(Circle)	Shaft
(Square with X)	Dump
(Star with X)	Alluvial workings

5 cm

ZEEHAN B2/3	ZEEHAN B2/4
ZEEHAN B4/1	ZEEHAN B4/2
ZEEHAN B4/3	ZEEHAN B4/4

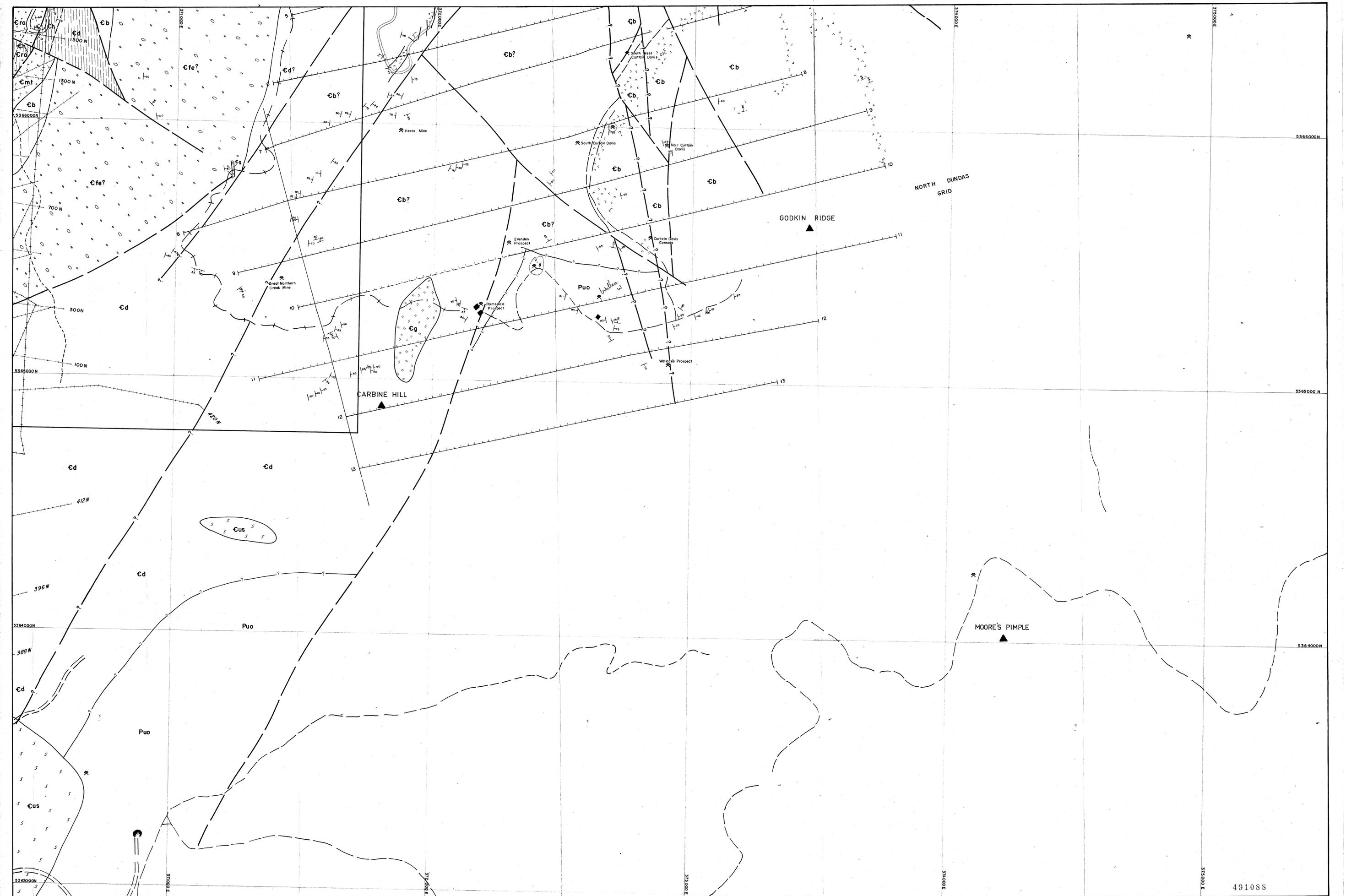
RENISON LIMITED 83-2063

INTERPRETATIVE GEOLOGY
ZEEHAN B4/3

SCALE: 1:5000 METRES

100 200 300

DRAWN	P.K.
TRACED	S.F.
DATE	Oct. 83
SCALE	1:5000
DRAWING No.	



SEDIMENTARY ROCKS

Quaternary	
Q1	Talus
Q2	Alluvium

Cambrian

Cd	Dundas Group (undifferentiated)
Cfo	Ferriflow Formation
Ceo	Comet Formation
Cfv	Ferriflow Formation
Cum	Brewery Junction Formation
Cg	Razorback Conglomerate
Cg2	Quartz Pebbler Congl. Tuff

IGNEOUS ROCKS

Jd	Jurassic Diorite
Dg	Devonian Granite
Cg	Cambrian Gabbro

Pre-Cambrian

Puo	Onash Formation
-----	-----------------

Lower Cambrian

Cc	Crimson Creek Formation
Cc2	Magnetic Unit

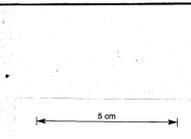
IGNEOUS ROCKS

Jd	Jurassic Diorite
Dg	Devonian Granite
Cg	Cambrian Gabbro

SYMBOLS

(Dashed line)	Interpreted Geological Boundary
(Dotted line)	Fault, approximate position
(Vertical line)	Vertical Bedding
(Line with dots)	Dip & Strike of Bedding
(Line with triangles)	Dip & Strike of Pelation
(Line with crosses)	Anticlinel. Synclinal Axis

(Line with dots)	Dip & Strike of Jointing
(Line with triangles)	Compositional layering in Ultra-mafic
(Line with crosses)	Limit of Hornfelsing
(Square)	Mine workings, Adit
(Circle)	Shaft
(Star)	Dump
(Star with dots)	Alluvial workings



ZEEHAN B2/3	ZEEHAN B2/4
ZEEHAN B4/1	ZEEHAN B4/2
ZEEHAN B4/3	ZEEHAN B4/4

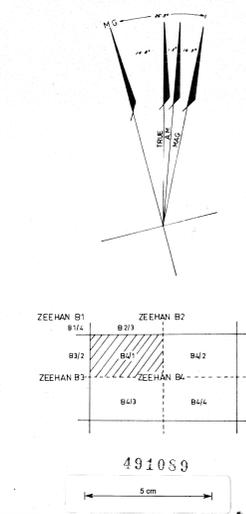
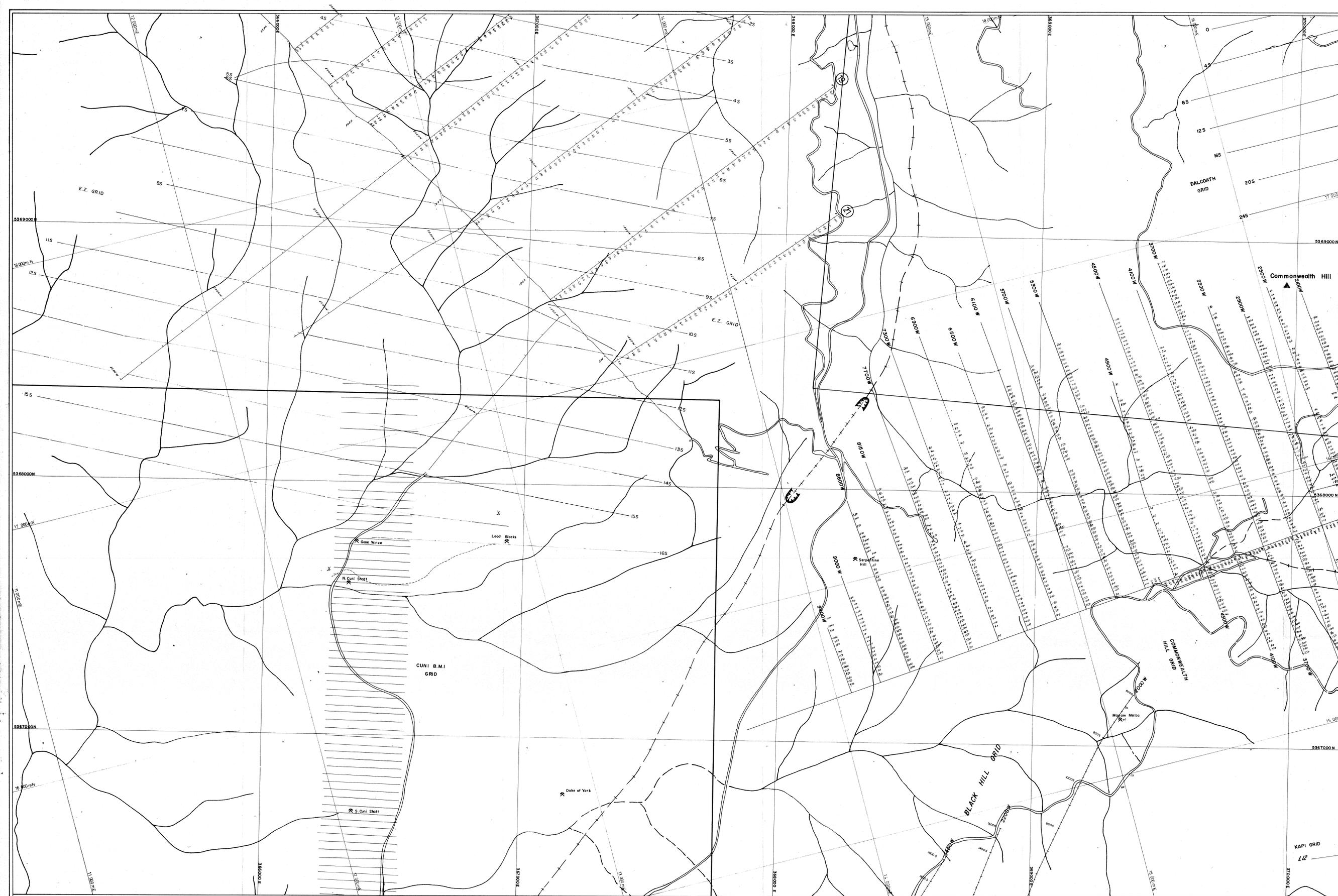
RENISON LIMITED 2063

INTERPRETATIVE GEOLOGY
ZEEHAN B4/4

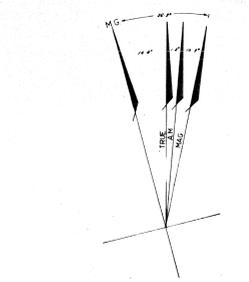
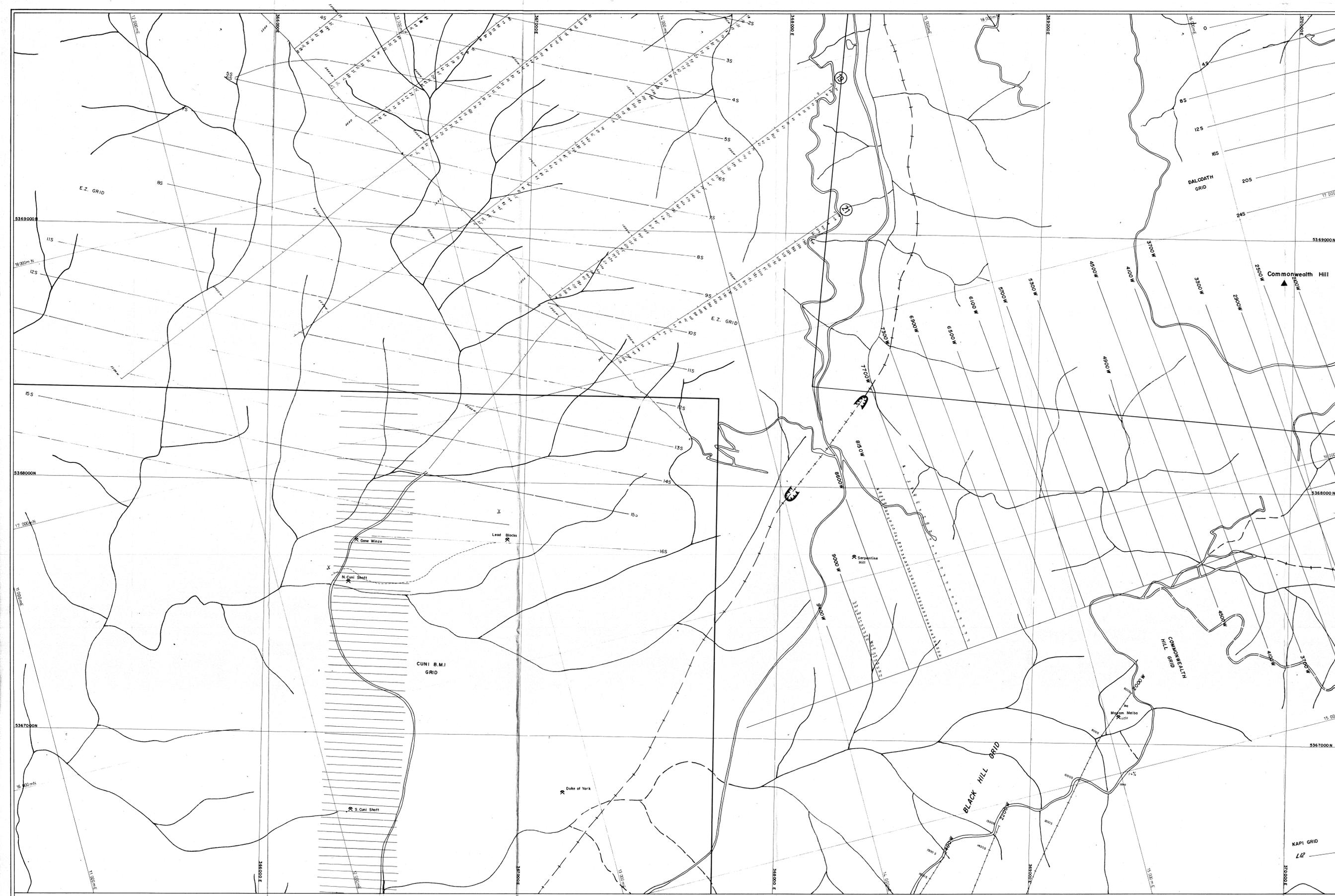
SCALE: 1:5000 METRES

100 200 300

DRAWN	P.R.
TRACED	S.R.
DATE	Oct. 83
SCALE	1:5000
DRAWING No.	
FIG. 5	



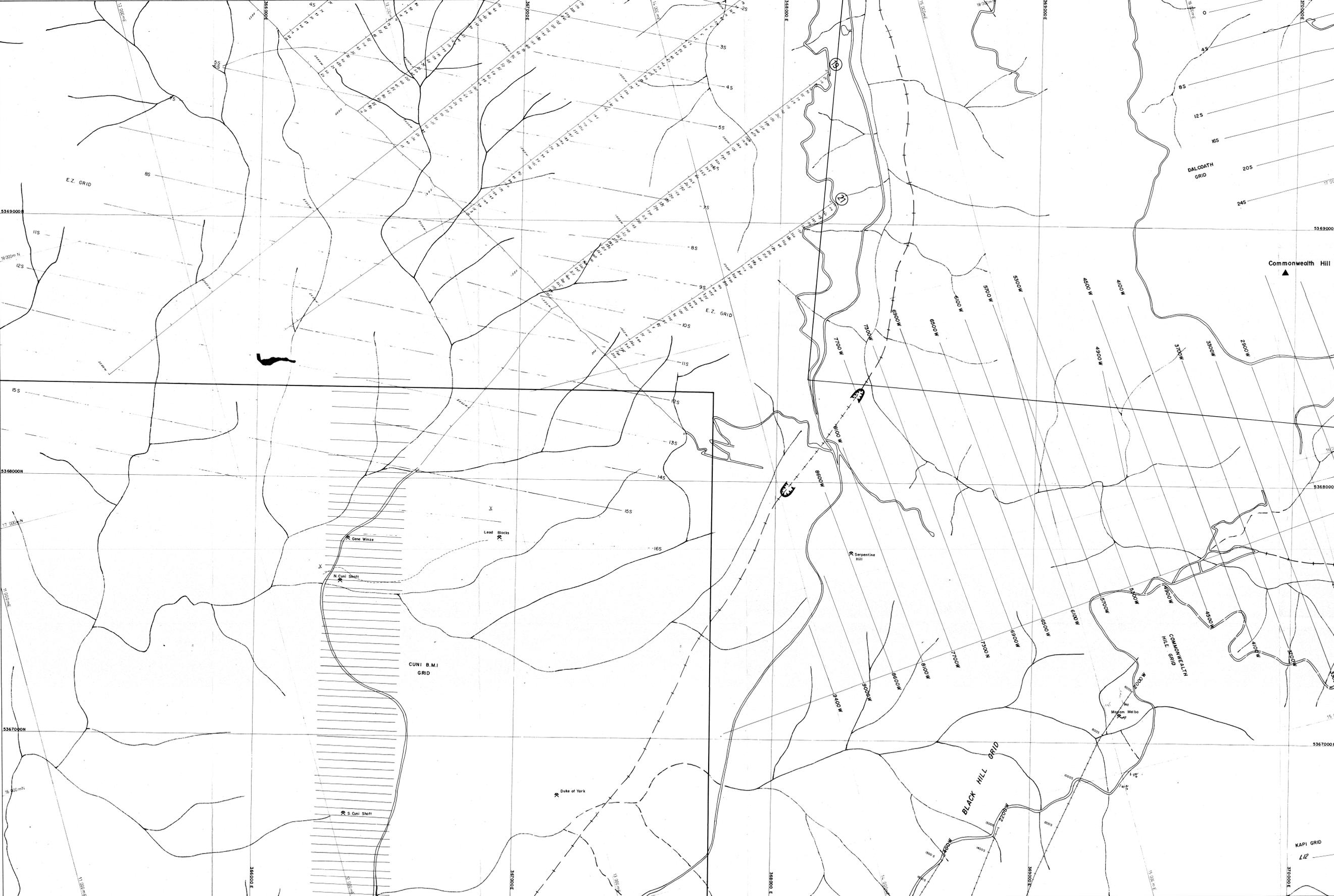
83-2063		RENISON LIMITED	
ZEEHAN B4/1			
TIN GEOCHEMISTRY			
IN P.P.M.			
GEOLOGIST	P. K.	SCALE 1:5000 METRES	
DRAUGHTSMAN	P. K.	0 100 200	
DATE	Aug. 85	REVISIONS	
			DRAWING No.
			6



491092



83-2063		REINSON LIMITED	
		ZEEHAN B4/1	
		LEAD GEOCHEMISTRY	
		IN P.P.M.	
GEOLOGIST	P.K.	SCALE 1:5000METRES	
DRAUGHTSMAN	P.K.	0 100 200	
DATE	Aug. 83	DRAWING No.	
REVISIONS		9	

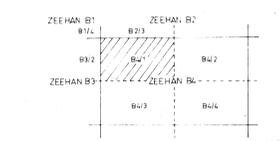
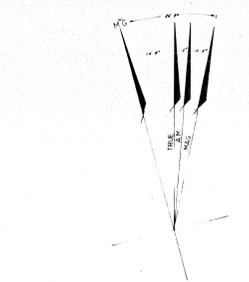


Commonwealth Hill ▲

CUNI B.M.I GRID

BLACK HILL GRID

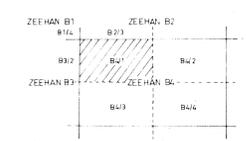
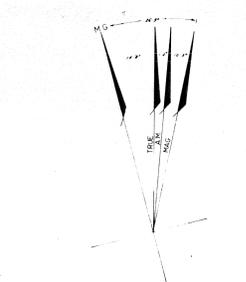
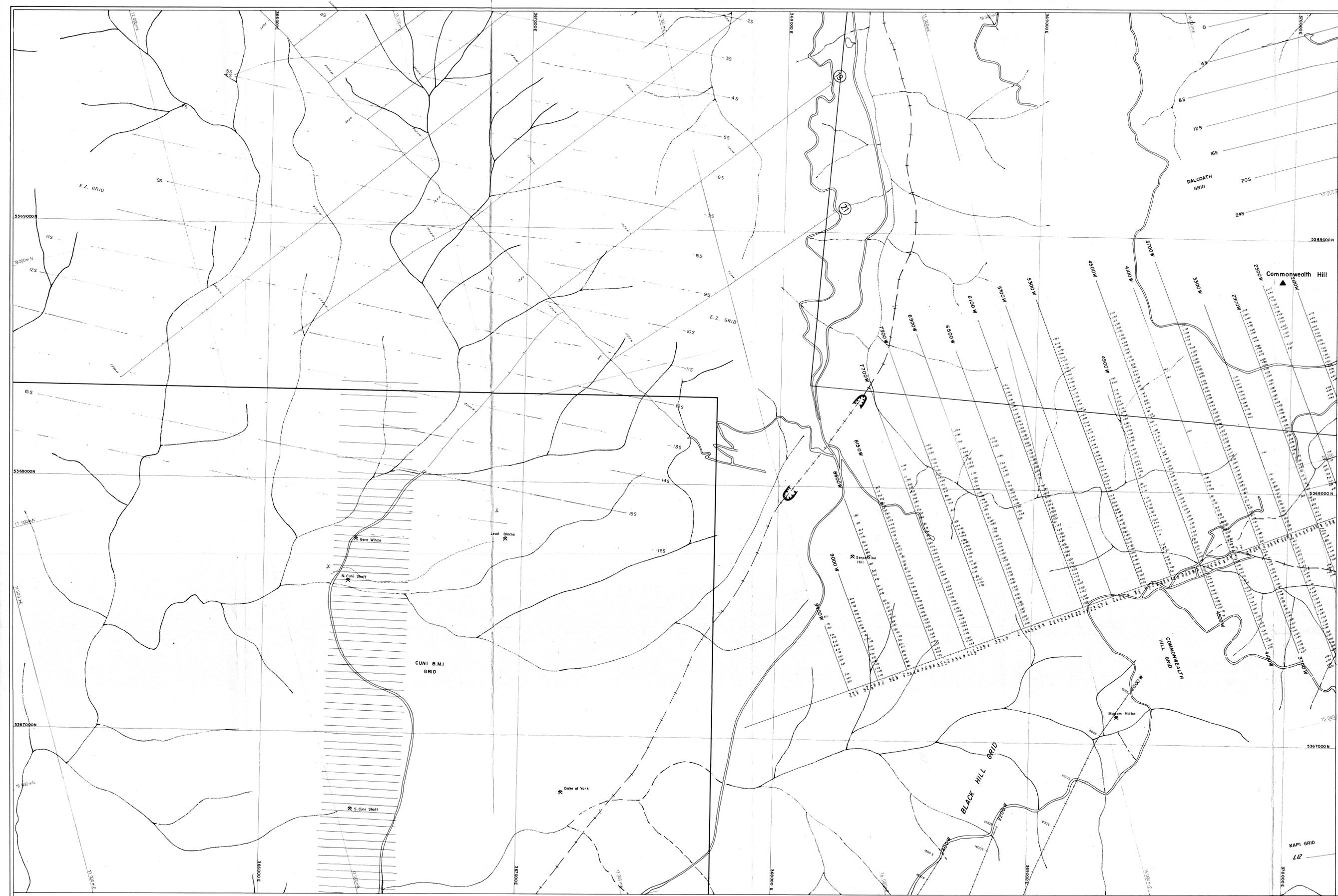
KAPI GRID
L12



5 cm

REVISIONS		DRAWING No	
		10	
DATE		Aug, 83	
DRAUGHTSMAN		P.K.	
GEOLOGIST		P.K.	
SCALE		1:5000 METRES	
DRAWING No		10	

320102



491094
5 cm

REVISIONS		DRAWING No.	
		11	
DATE		Aug. 83	
DRAUGHTSMAN		P.K.	
GEOLOGIST		P.K.	
ZEEHAN B4/1		SCALE 1:5000 METRES	
NICKEL GEOCHEMISTRY		0 100 200	
IN P.P.M.		100 0 100 200	
REVISIONS			
DRAWING No.			
11			

REVISIONS LIMITED

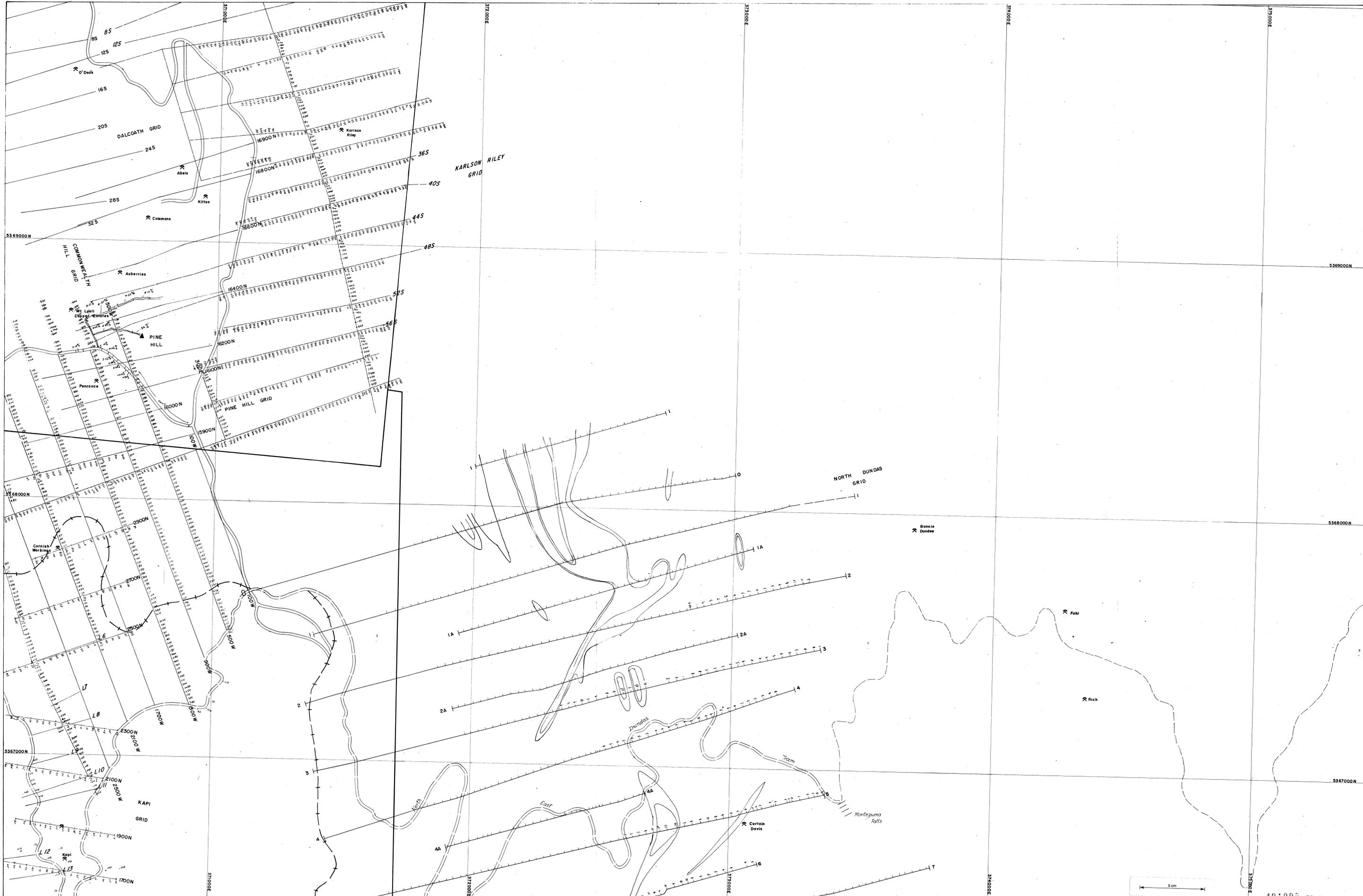
ZEEHAN B4/1

NICKEL GEOCHEMISTRY
IN P.P.M.

GEOLOGIST P.K. SCALE 1:5000 METRES

DRAUGHTSMAN P.K. 100 0 100 200

DATE Aug. 83 100 0 100 200



NORTH DUNDAS GRID - Contours 10 & 30 p.p.m.

ZEEHAN B4/1	ZEEHAN B4/2
ZEEHAN B4/3	ZEEHAN B4/4

RENISON LIMITED

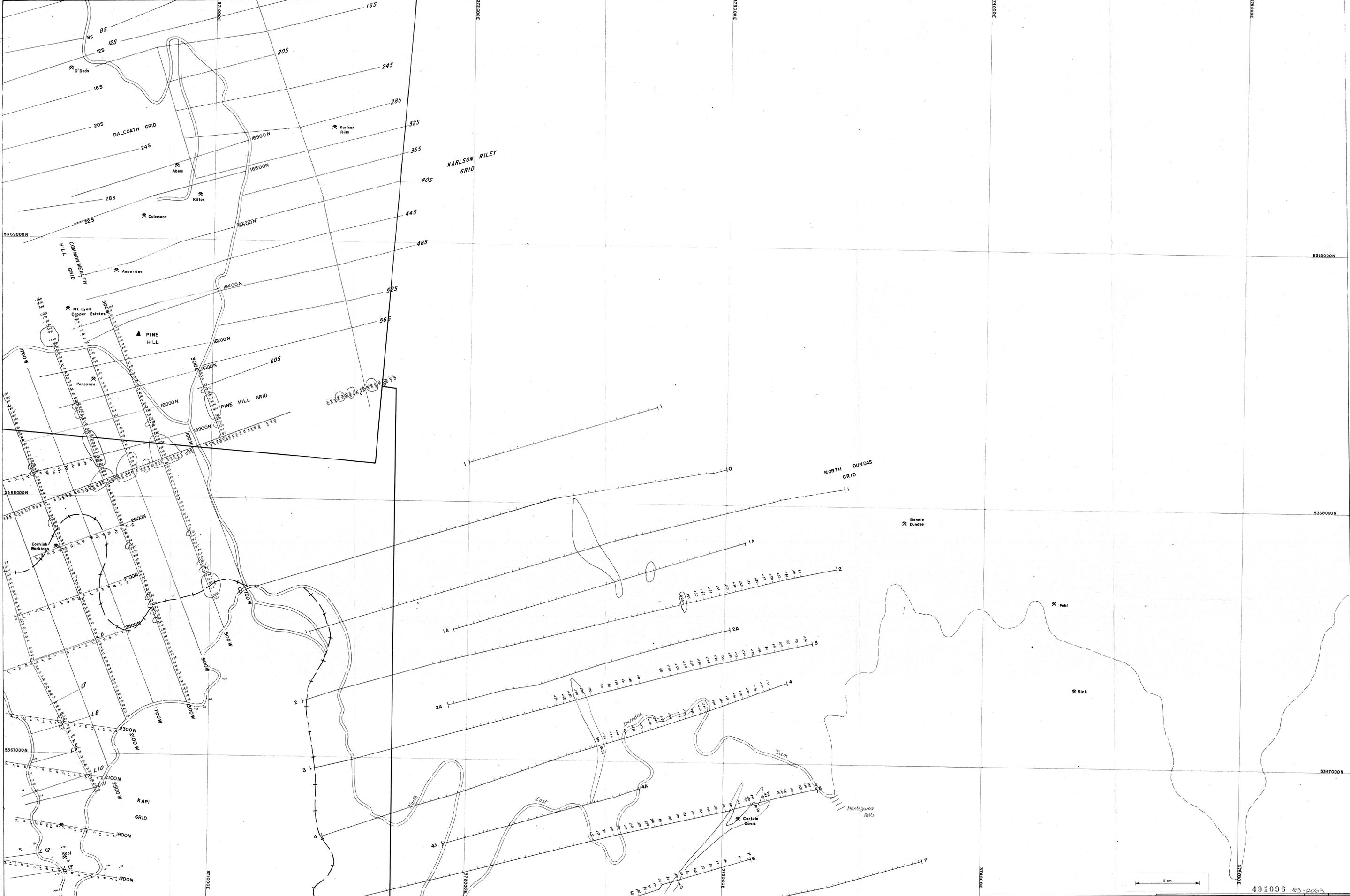
ZEEHAN B4/2

TIN GEOCHEMISTRY IN P.P.M.

SCALE: 1:5000 METRES

DRAWN	P. K.
TRACED	P. K.
DATE	Aug. 83
SCALE	1:5000
DRAWING No.	12

491035 83 2069

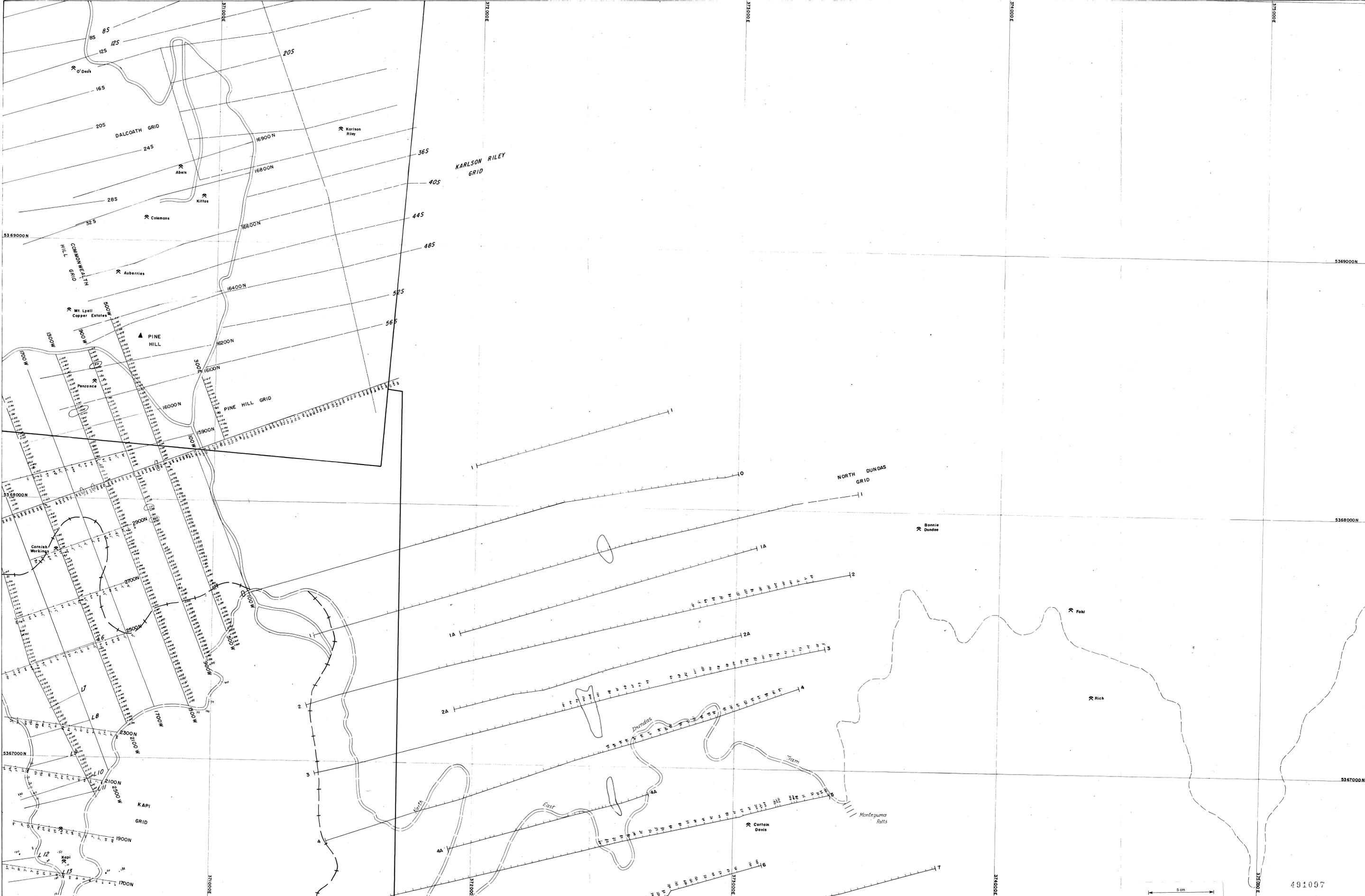


CONTOUR 300p.m.



RENISON LIMITED		DRAWN	P.K.
ZEEHAN B4/2		TRACED	P.K.
ARSENIC GEOCHEMISTRY		DATE	Aug. 83
IN P.P.M.		SCALE	1:5000
SCALE 1:5000 METRES		DRAWING No.	13

491096 83-2062



CONTOURS 300 p.p.m.



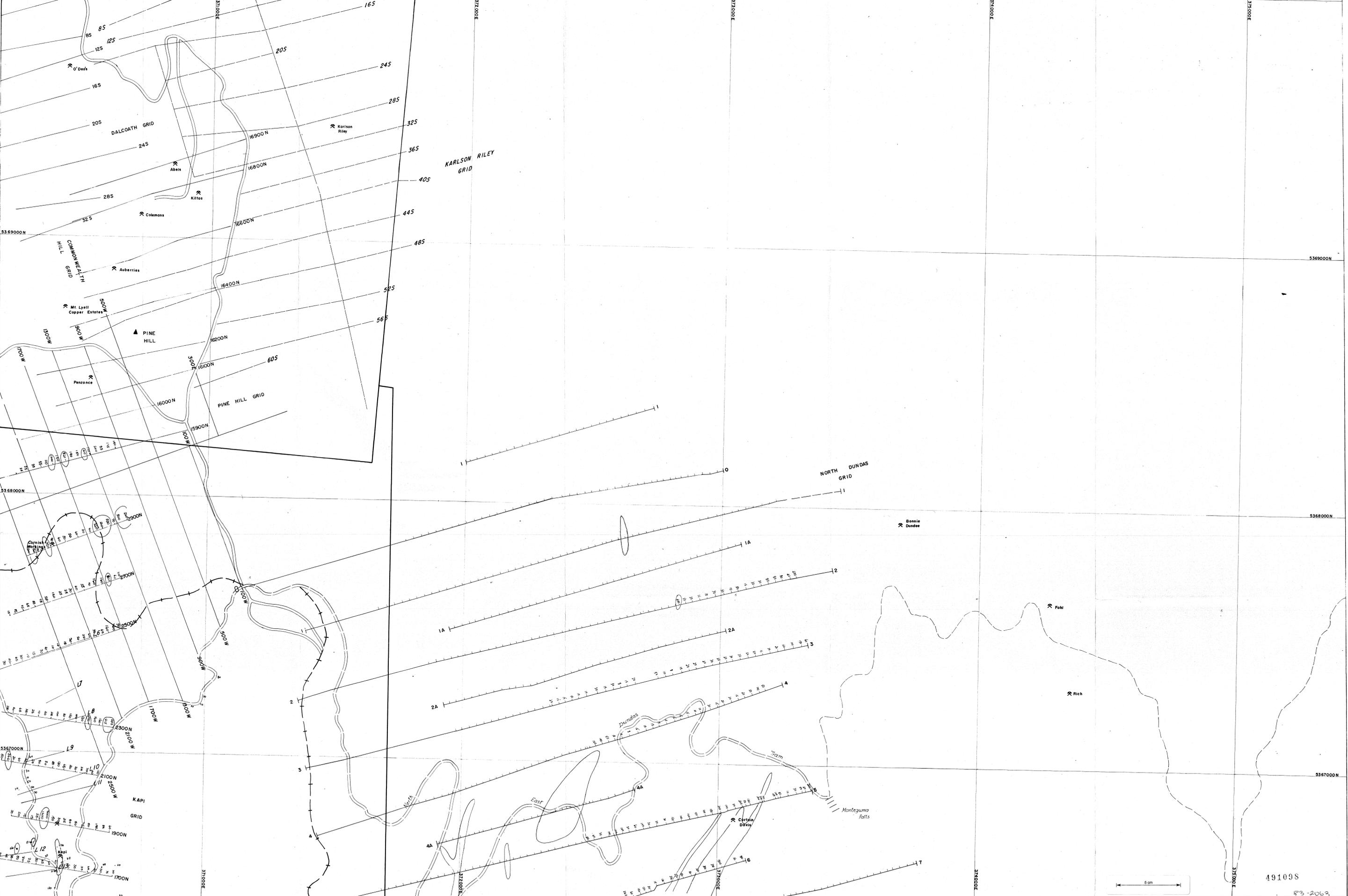
RENISON LIMITED	
DRAWN	P.K.
TRACED	P.K.
DATE	Aug. 83
SCALE	1:5000
DRAWING No.	
14	

ZEEHAN B4/2
COPPER GEOCHEMISTRY
IN P.P.M.

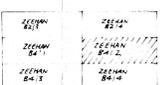
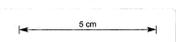
SCALE 1:5000 METRES

491097

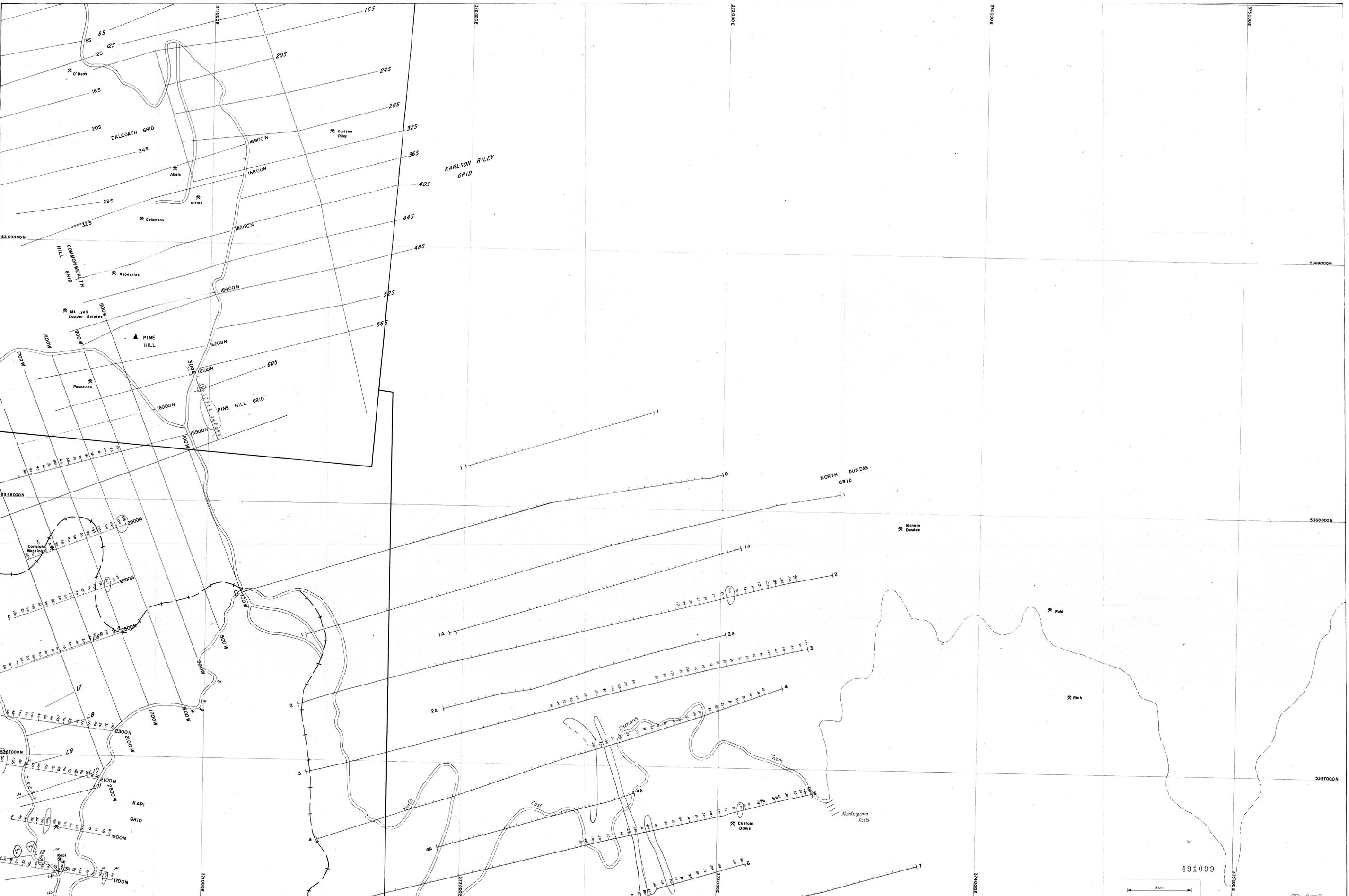
83-2062



CONTOUR 200 p.p.m.



RENISON LIMITED		DRAWN
ZEEHAN B4/2		TRACED
LEAD GEOCHEMISTRY IN P.P.M.		DATE
SCALE 1:5000 METRES		SCALE 1:5000
SCALE 1:5000 METRES		DRAWING No.
15		15



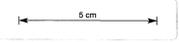
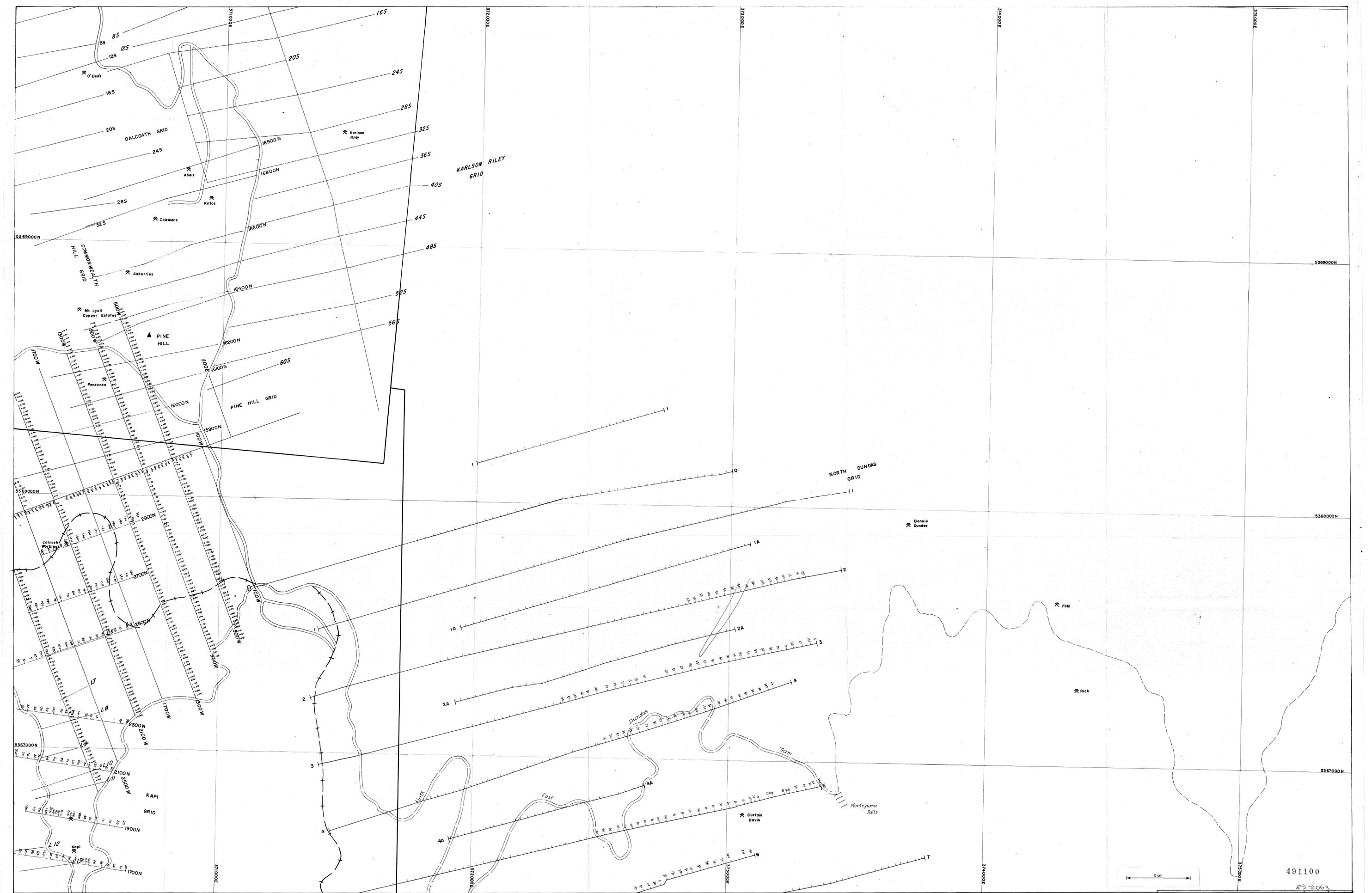
CONTOUR 200 p.p.m



RENISON LIMITED		DRAWN P.K.
ZEEHAN B4/2		TRACED P.K.
ZINC GEOCHEMISTRY IN P.P.M.		DATE Aug. 83
SCALE 1:5000 METRES		SCALE 1:5000
DRAWING No.		16

SCALE 1:5000 METRES

5 cm



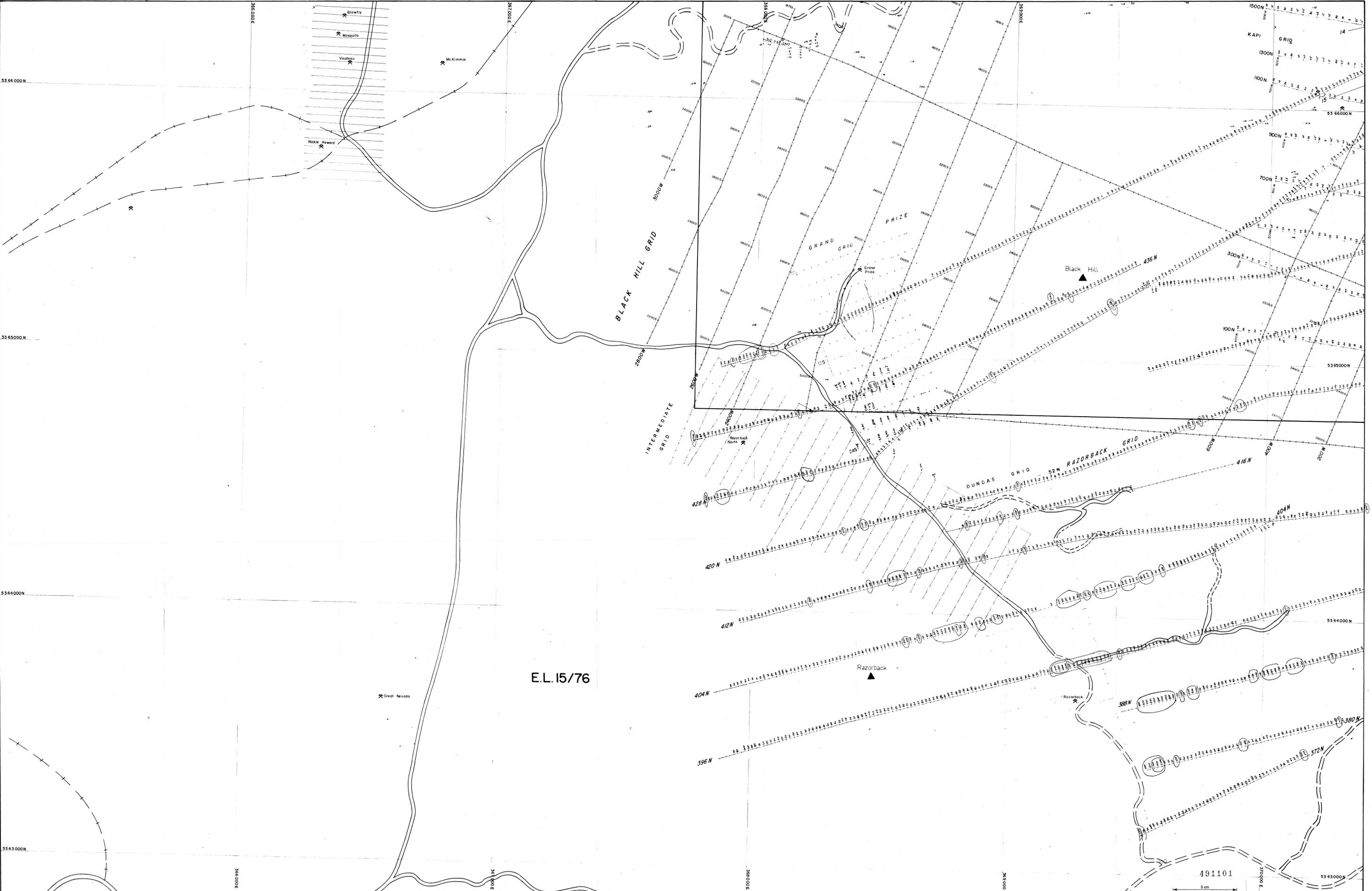
491100

NORTH DUNDAS GRID - CONTOUR 300 p.p.m.



RENISON LIMITED		DRAWN	P.K.
ZEEHAN B4/2		TRACED	P.K.
NICKEL GEOCHEMISTRY		DATE	Aug. 83
IN P.P.M.		SCALE	1:5000
SCALE 1:5000 METRES		DRAWING No.	
		17	

83-2063



E.L. 15/76

CONTOURS 200 & 1000 p.p.m.
GRAND PRIZE GRID - Not Contoured

ZEEHAN B2/3	ZEEHAN B2/4
ZEEHAN B4/1	ZEEHAN B4/2
ZEEHAN B4/3	ZEEHAN B4/2

RENISON LIMITED

ZEEHAN B4/3

TIN GEOCHEMISTRY IN P.P.M.

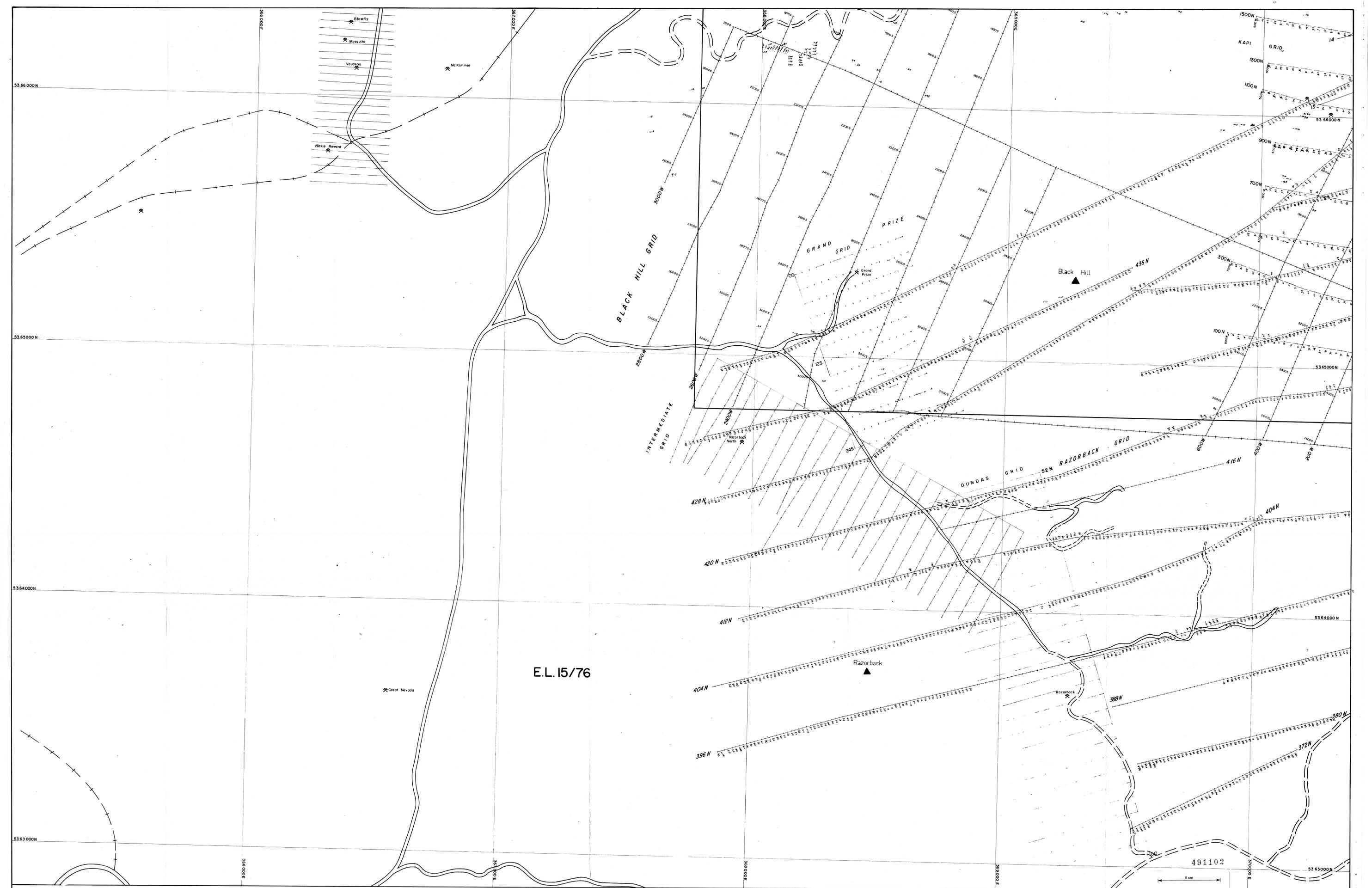
491101

5 cm

SCALE 1:5000 METRES

100 200 300

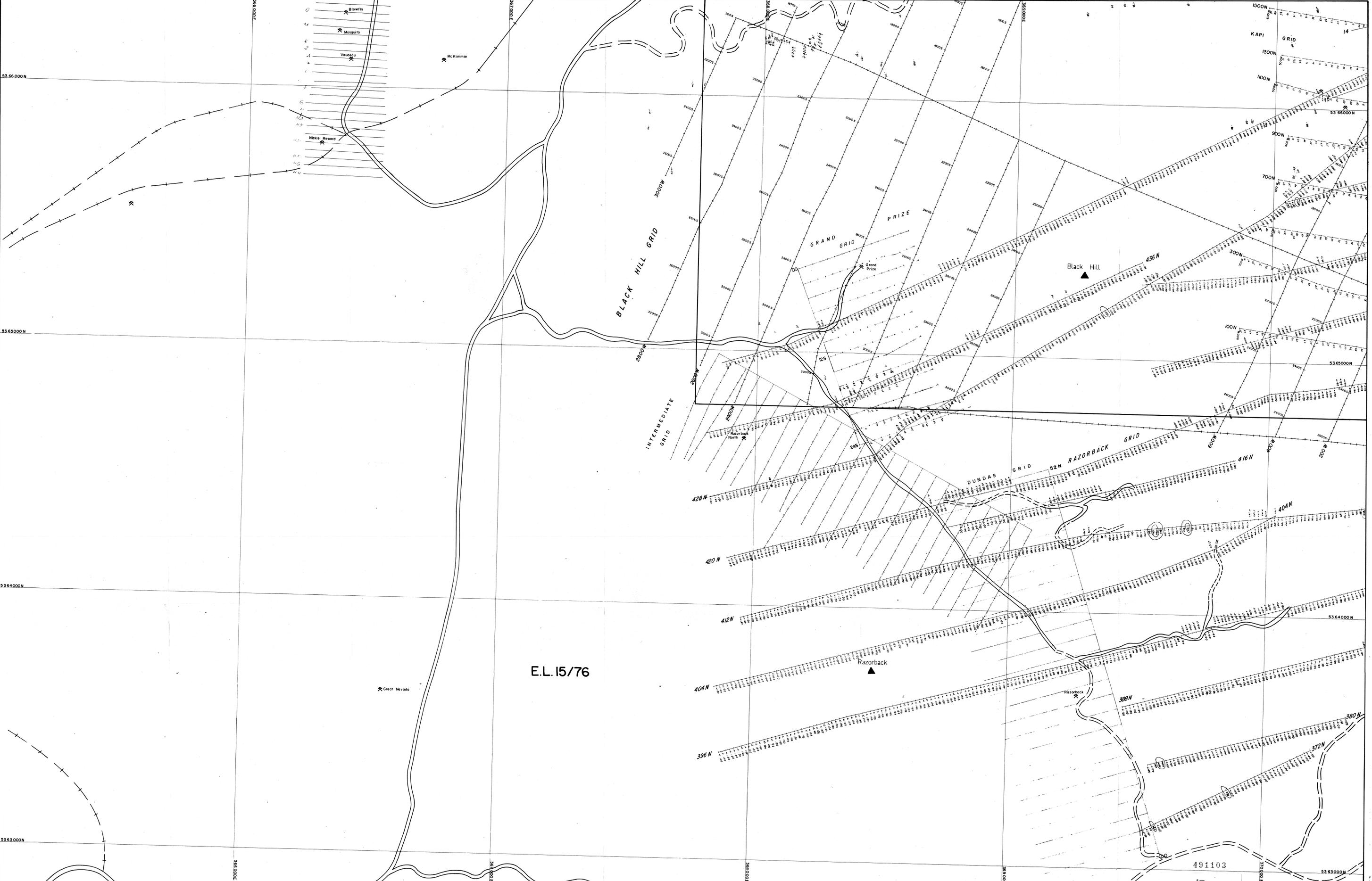
DRAWN	P.K.
TRACED	P.K.
DATE	Aug. 83
SCALE	1:5000
DRAWING No.	18



E.L. 15/76

491102

ZEEHAN B2/3	ZEEHAN B2/4	RENISON LIMITED 53 2063		DRAWN P.K.
ZEEHAN B4/1	ZEEHAN B4/2	ZEEHAN B4/3		TRACED P.K.
ZEEHAN B4/3	ZEEHAN B4/4	ARSENIC GEOCHEMISTRY IN P.P.M.		DATE Aug. 83
		SCALE 1:5000		DRAWING No.
		SCALE 1:5000 METRES		19



E.L. 15/76

CONTOURS 100 & 1000 p.p.m.

ZEEHAN B2/2	ZEEHAN B2/4
ZEEHAN B4/1	ZEEHAN B4/2
ZEEHAN B4/3	ZEEHAN B4/4

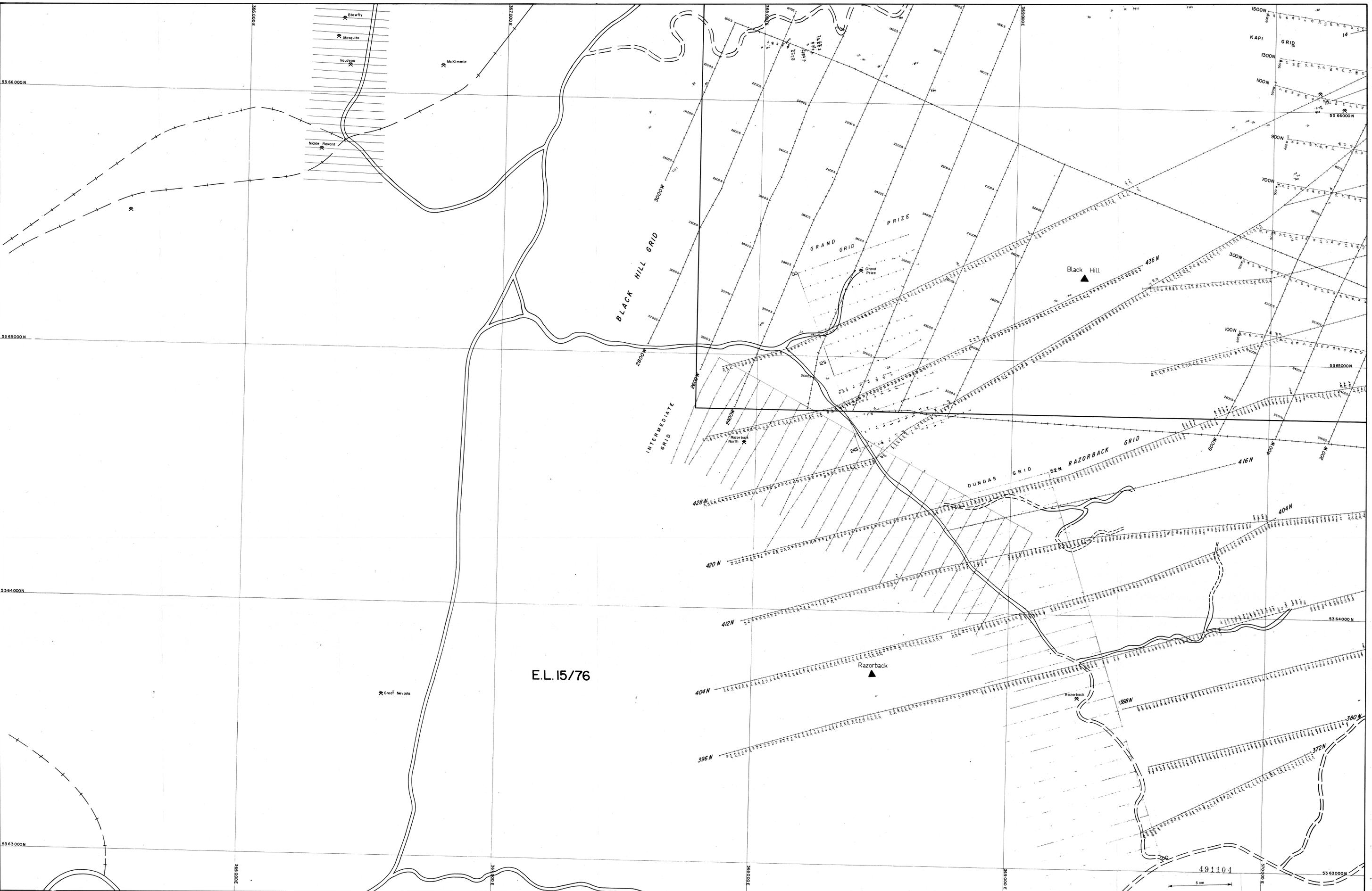
RENISON LIMITED

ZEEHAN B4/3

COPPER GEOCHEMISTRY IN P.P.M.

SCALE: 1:5000 METRES

DRAWN	P.K.
TRACED	P.K.
DATE	Aug. 83
SCALE	1:5000
DRAWING No.	20



E.L. 15/76

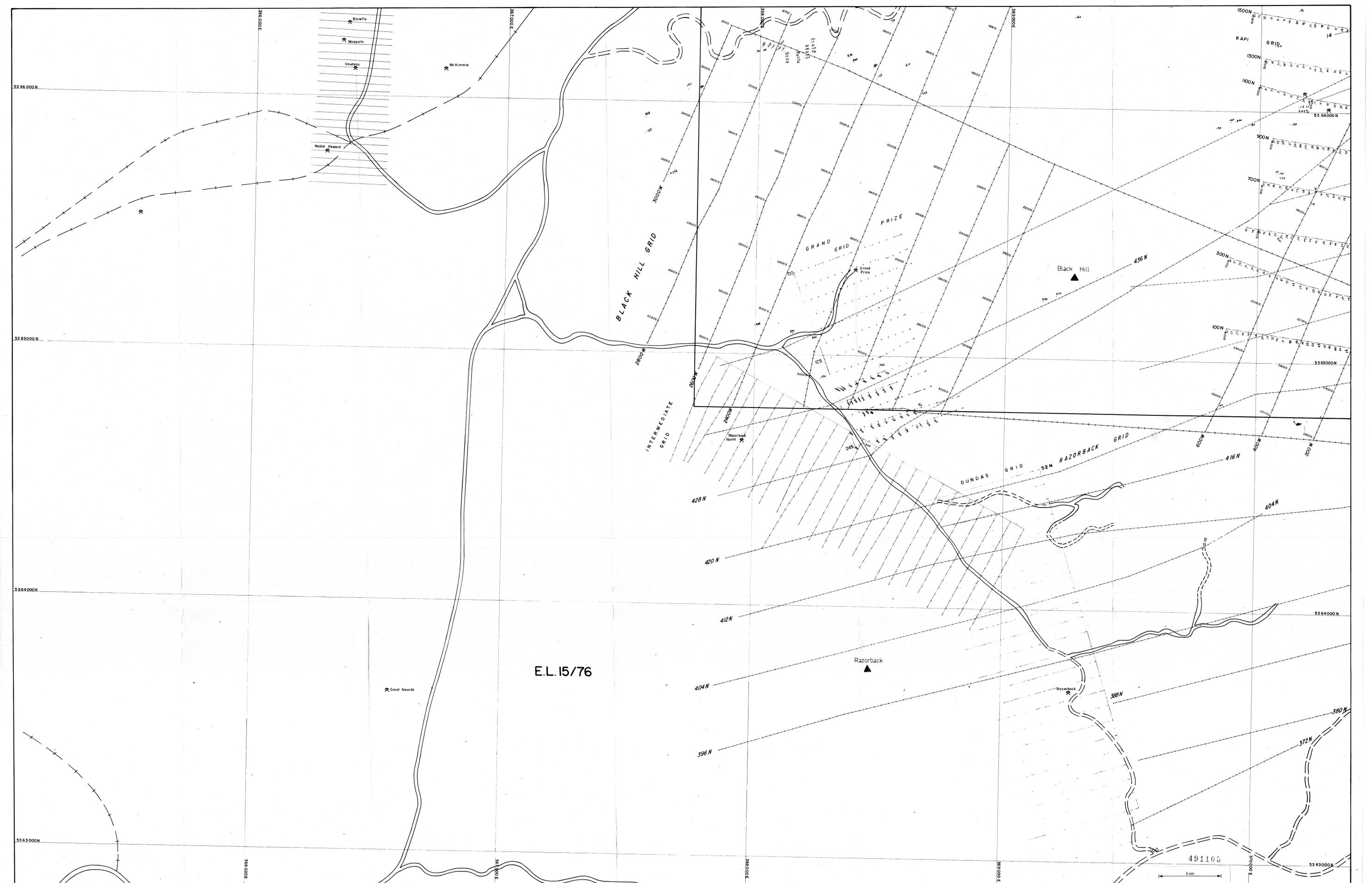
ZEEHAN B2/3	ZEEHAN B2/4
ZEEHAN B4/1	ZEEHAN B4/2
ZEEHAN B4/3	ZEEHAN B4/4

RENISON LIMITED 82-2063
ZEEHAN B4/3
LEAD GEOCHEMISTRY
IN P.P.M.

DRAWN	P.K.
TRACED	P.K.
DATE	Aug. 83
SCALE	1:5000
DRAWING No.	



21

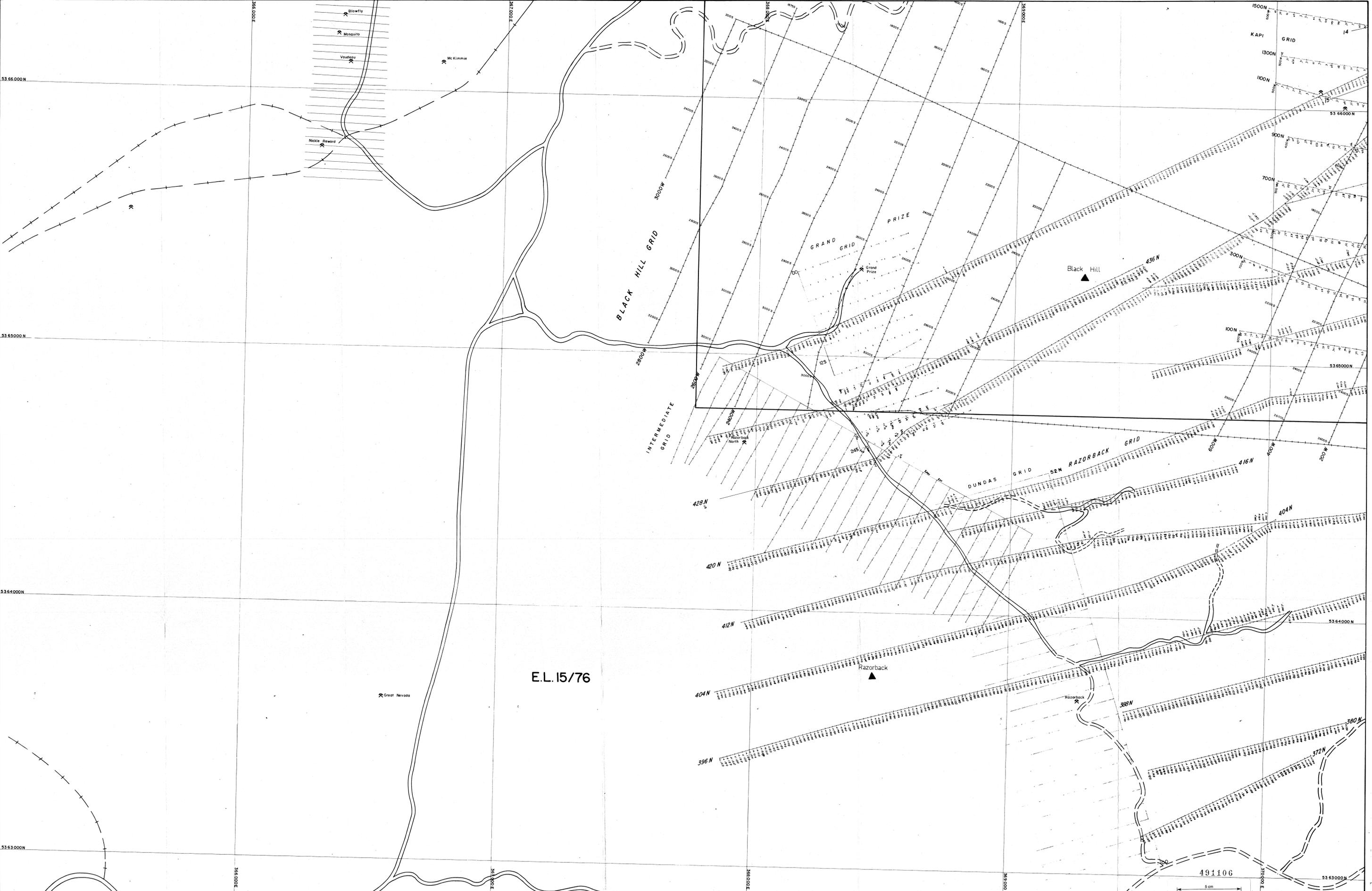


E.L. 15/76

RAZORBACK GRID - No Zn Assays

ZEEHAN B2/3	ZEEHAN B2/4
ZEEHAN B4/1	ZEEHAN B4/2
ZEEHAN B4/3	ZEEHAN B4/4

RENISON LIMITED 83-2069		DRAWN	P.K.
ZEEHAN B4/3		TRACED	P.K.
ZINC GEOCHEMISTRY		DATE	Aug. 83
IN P.P.M.		SCALE	1:5000
SCALE 1:5000 METRES		DRAWING No.	
100 200 300			22



E.L.15/76

ZEEHAN B2/3	ZEEHAN B2/4
ZEEHAN B4/1	ZEEHAN B4/2
ZEEHAN B4/3	ZEEHAN B4/4

RENISON LIMITED 83-269

ZEEHAN B4/3

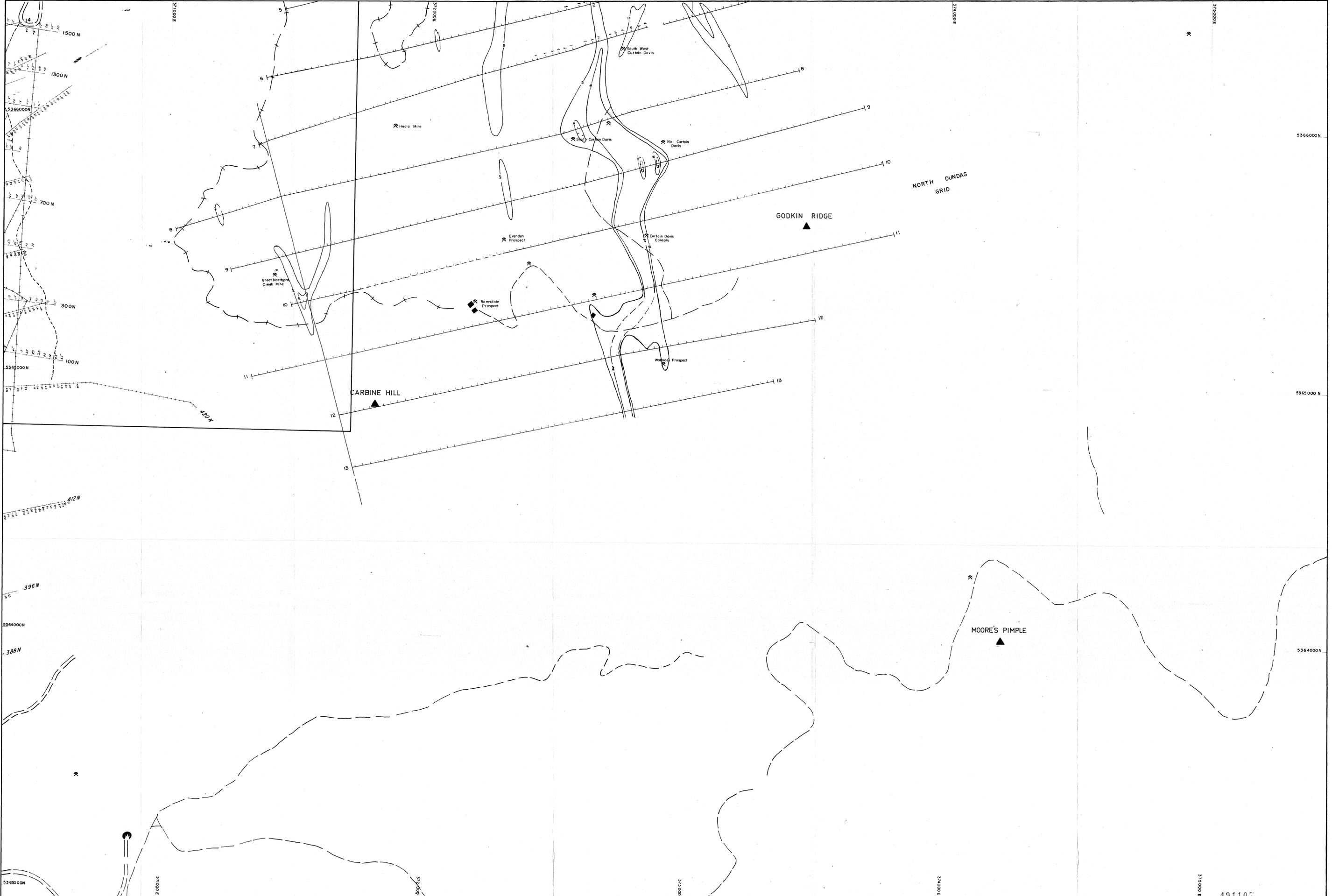
NICKEL GEOCHEMISTRY

IN P.P.M.

SCALE: 1:5000 METRES

100 200 300

DRAWN	P. K.
TRACED	P. K.
DATE	Aug. 83
SCALE	1:5000
DRAWING No.	23



NORTH DUNDAS GRID - Contours 10 & 30 p.p.m.
Most Assay Values Unknown

ZEEHAN B2/3	ZEEHAN B2/4
ZEEHAN B4/1	ZEEHAN B4/2
ZEEHAN B4/3	ZEEHAN B4/4

RENISON LIMITED

ZEEHAN B4/4

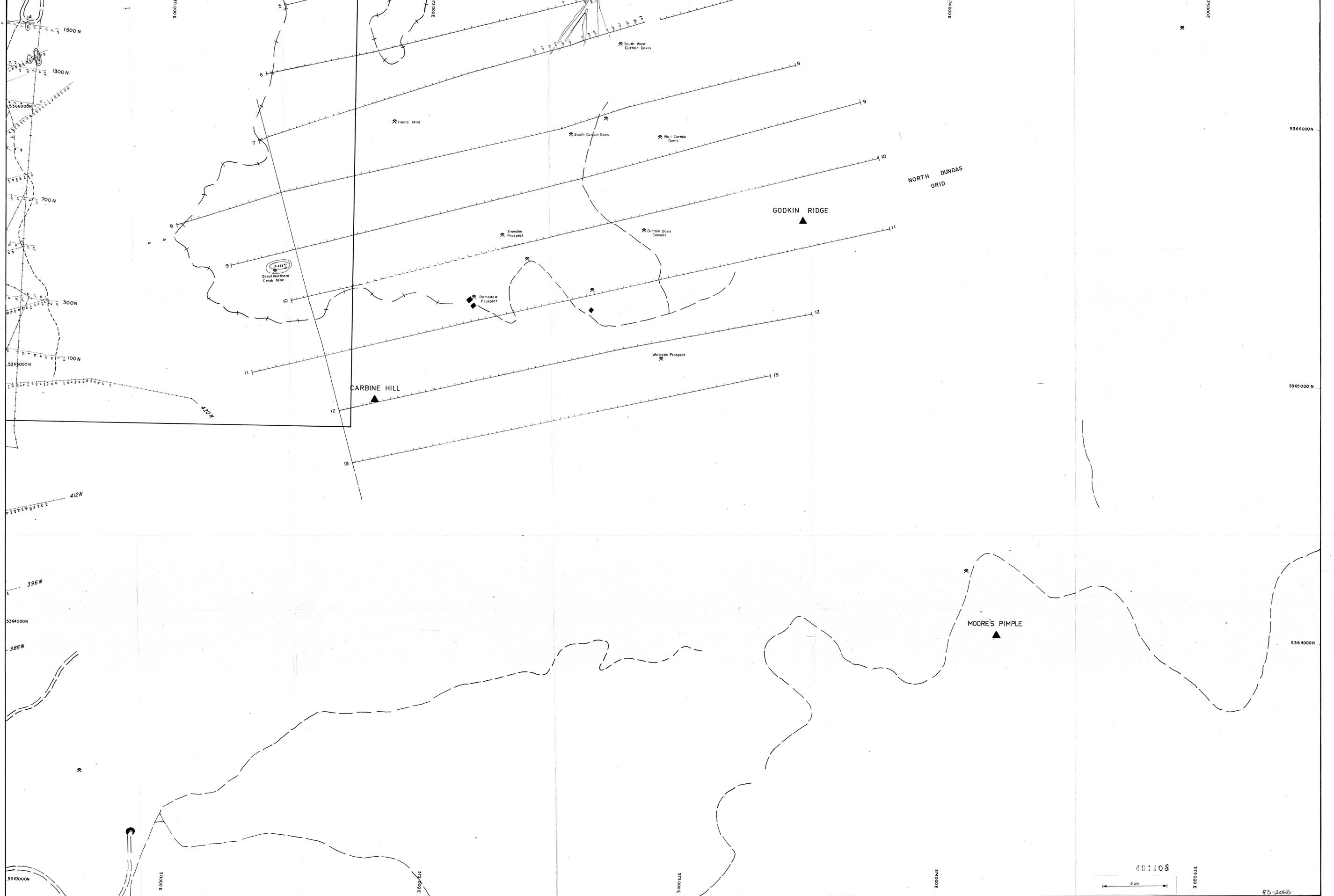
TIN GEOCHEMISTRY
IN P.P.M.

SCALE: 1:5000 METRES

DRAWN	P. K.
TRACED	P. K.
DATE	Aug. 83
SCALE	1:5000
DRAWING No.	24



491107 83-2063



CONTOURS 100 & 300 p.p.m.

ZEEHAN B2/3	ZEEHAN B2/4
ZEEHAN B4/1	ZEEHAN B4/2
ZEEHAN B4/3	ZEEHAN B4/4

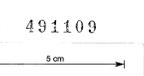
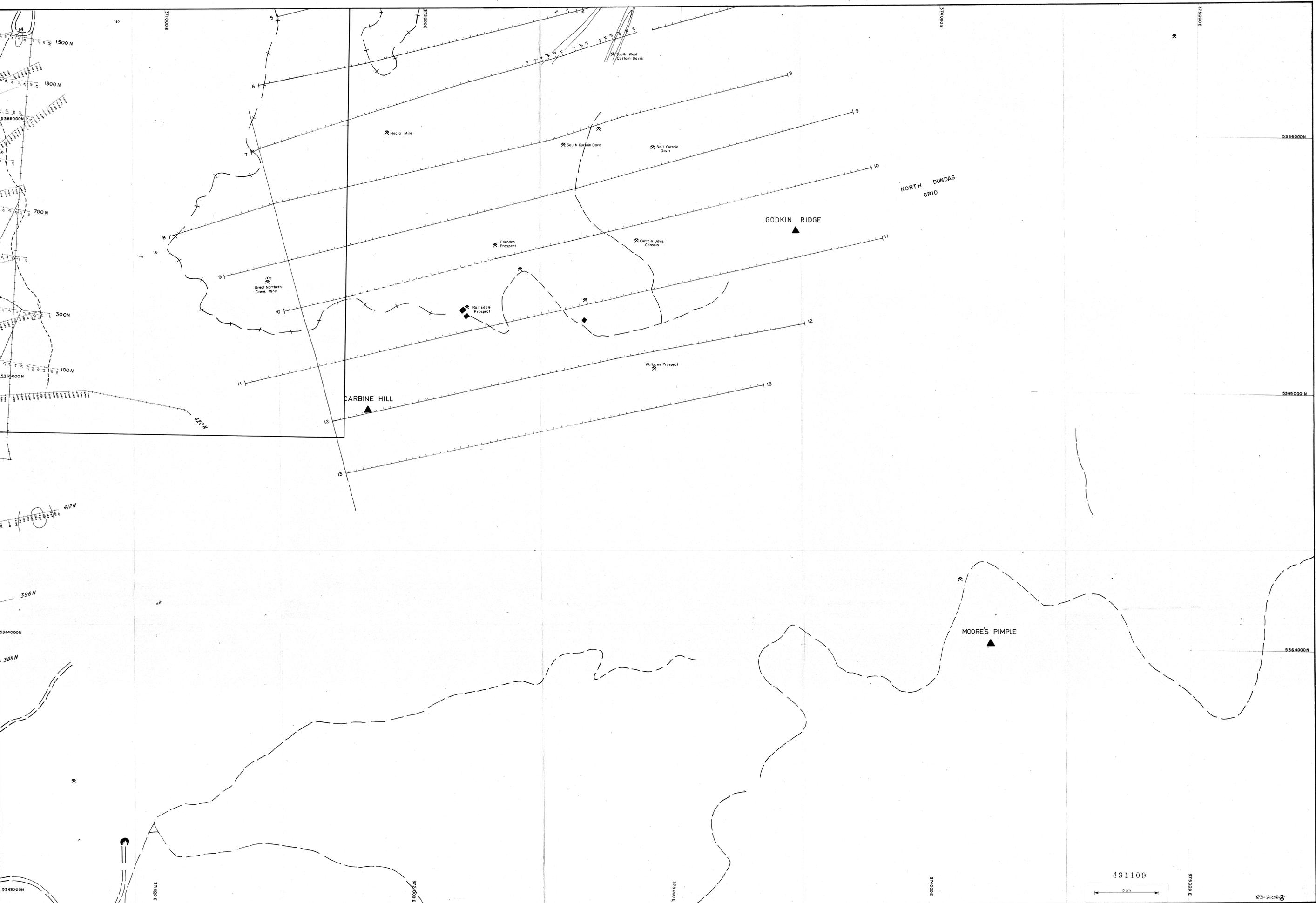
RENISON LIMITED

ZEEHAN B4/4

ARSENIC GEOCHEMISTRY IN P.P.M.

SCALE 1:5000 METRES

DRAWN	P.K.
TRACED	P.K.
DATE	Aug. 83
SCALE	1:5000
DRAWING No.	25



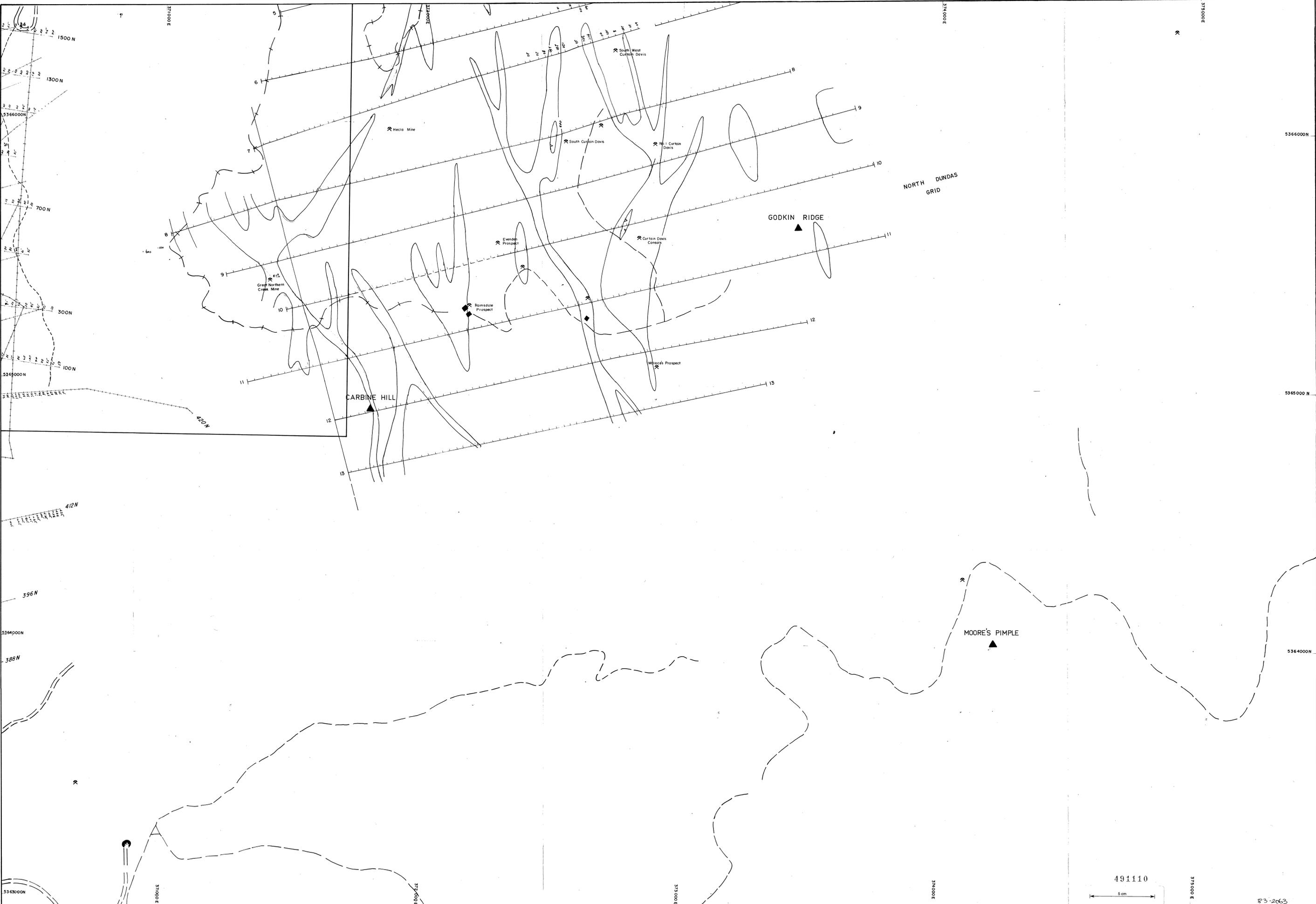
CONTOURS 120 & 240 p.m.

ZEEHAN B2/3	ZEEHAN B2/4
ZEEHAN B4/1	ZEEHAN B4/2
ZEEHAN B4/3	ZEEHAN B4/4

RENISON LIMITED
ZEEHAN B4/4
COPPER GEOCHEMISTRY
IN P.P.M.

DRAWN	P. K.
TRACED	P. K.
DATE	Aug. 85
SCALE	1:5000
DRAWING No.	26

83-2063



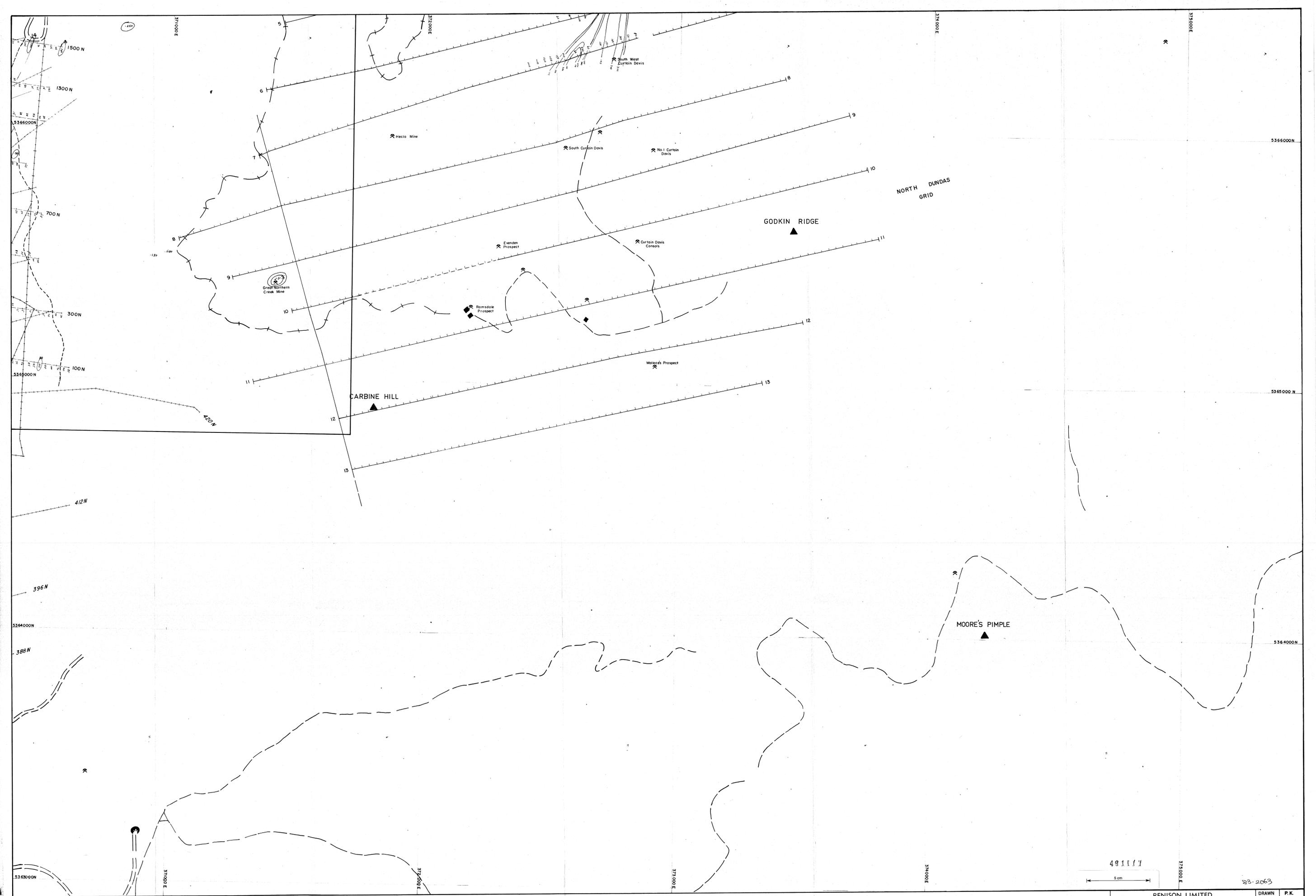
NORTH DUNDAS GRID - Contours 200p.m
Assay Nos. not available for all lines

ZEEHAN B2/3	ZEEHAN B2/4
ZEEHAN B4/1	ZEEHAN B4/2
ZEEHAN B4/3	ZEEHAN B4/4

RENISON LIMITED		DRAWN	P. K.
ZEEHAN B4/4		TRACED	P. K.
LEAD GEOCHEMISTRY		DATE	Aug. 83
IN P.P.M.		SCALE	1:5000
SCALE 1:5000 METRES		DRAWING No.	27



83-2663



CONTOURS 100 & 300 p.p.m.

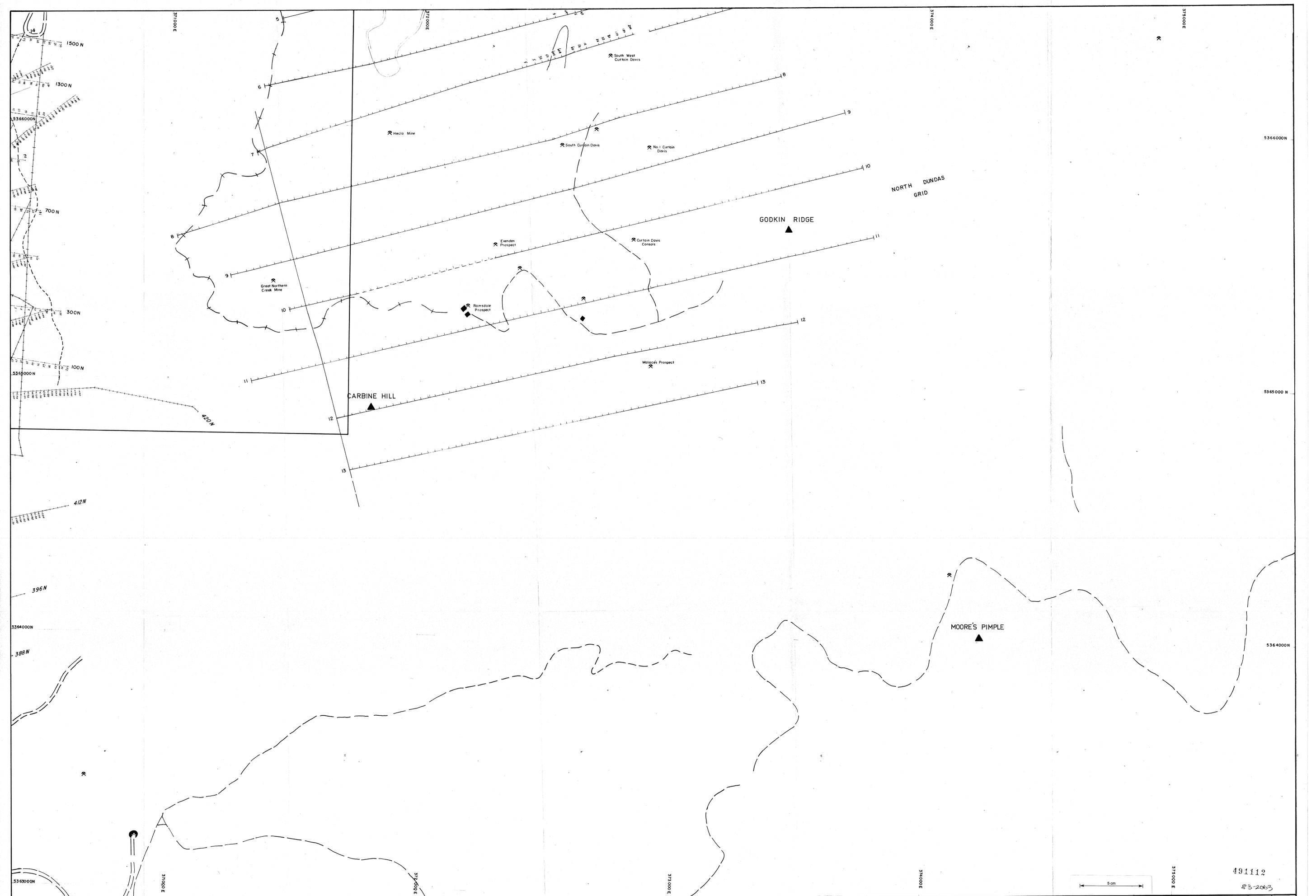
ZEEHAN B2/3	ZEEHAN B2/4
ZEEHAN B4/1	ZEEHAN B4/2
ZEEHAN B4/3	ZEEHAN B4/4

RENISON LIMITED
ZEEHAN B4/4
ZINC GEOCHEMISTRY
IN P.P.M.
 SCALE: 1:5,000 METRES



DRAWN	P.K.
TRACED	P.K.
DATE	Aug. 83
SCALE	1:5,000
DRAWING No.	

28



CONTOUR 500 p.p.m.

ZEEHAN B2/3	ZEEHAN B2/4
ZEEHAN B4/1	ZEEHAN B4/2
ZEEHAN B4/3	ZEEHAN B4/4

RENISON LIMITED

ZEEHAN B4/4

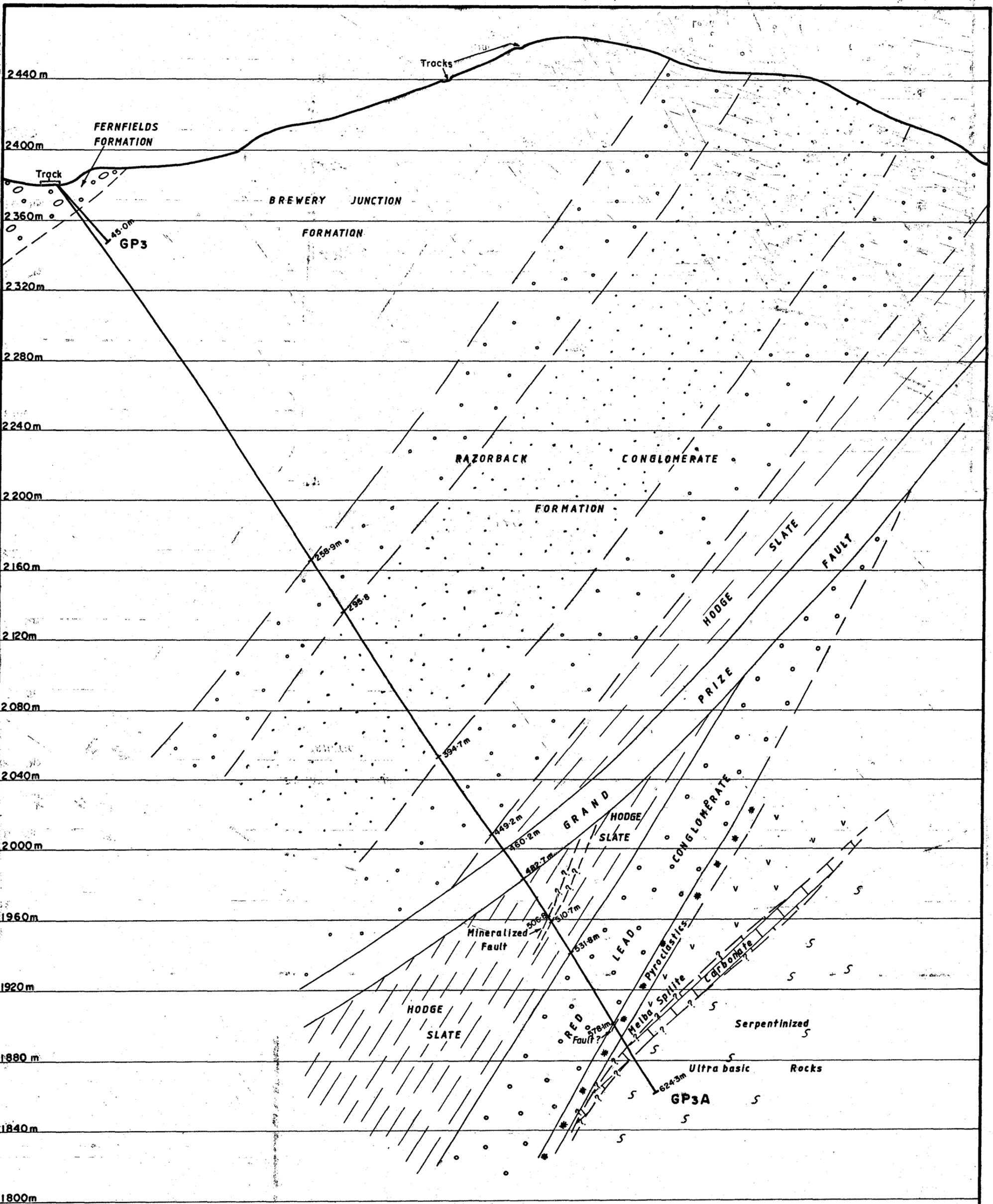
NICKEL GEOCHEMISTRY IN P.P.M.

SCALE: 1:5000 METRES

100 200 300

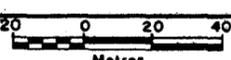
DRAWN	P. K.
TRACED	P. K.
DATE	Aug. 83
SCALE	1:5000
DRAWING No.	29

491112
83-2063

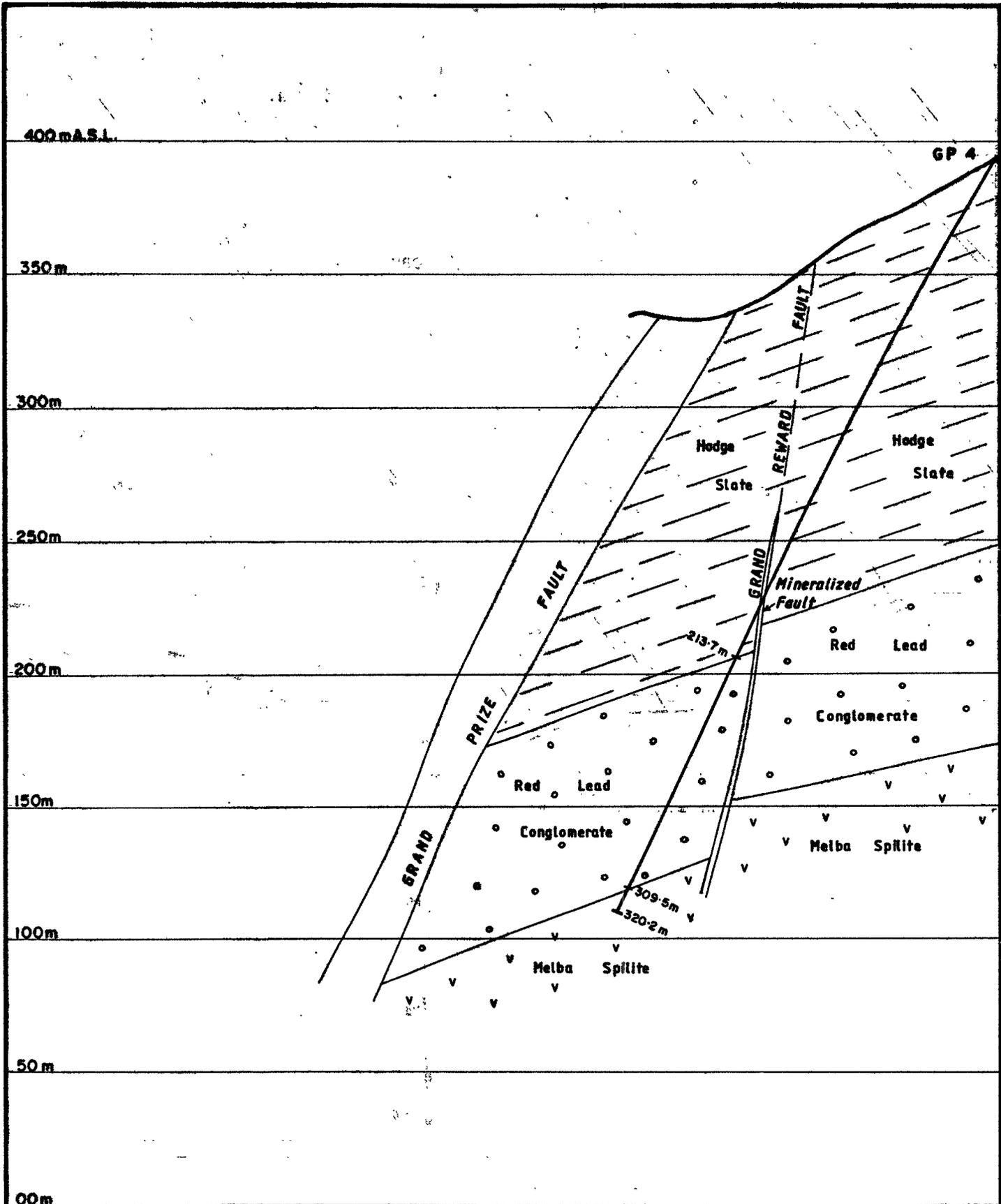


491113

83-2063

GOLD FIELDS EXPLORATION PTY. LIMITED	
GRAND PRIZE DOWN DIP PROFILE GP3 & GP3A	DRAWN BY: P.K. DRAFTSMAN: S.F. DATE: Aug. 83 REVISIONS:
SCALE 1: 2000 	FILE NO. FIG 30

5 cm



491114 882063

GOLD FIELDS EXPLORATION PTY. LIMITED

**GRAND PRIZE
DOWN DIP PROJECTION
D.D.H. GP 4**

DRAWN BY : P.K.
DRAFTSMAN: S.F.
DATE : Aug. 83
REVISIONS

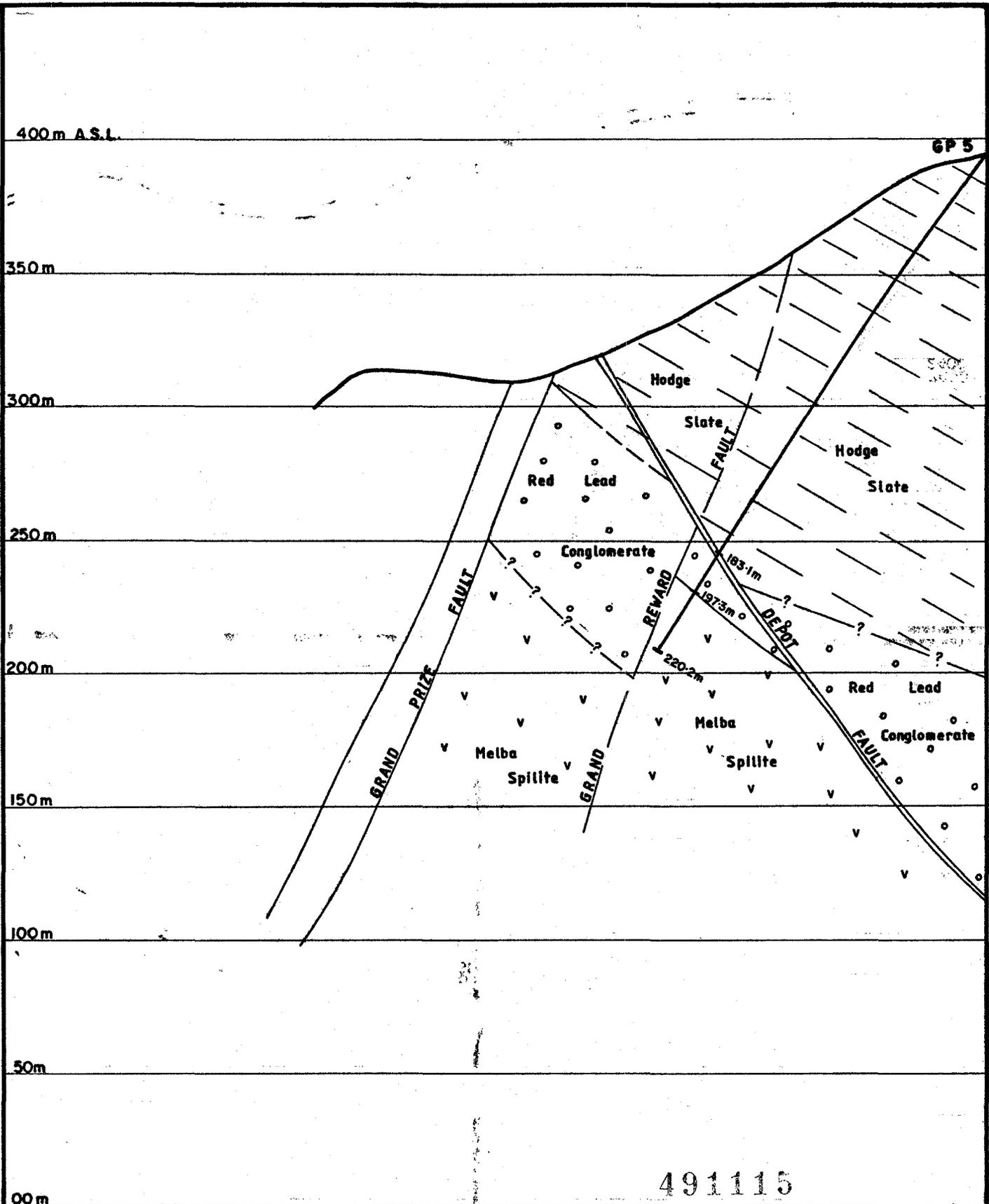
FILE NO.

FIG. 31

5 cm

SCALE 1:2000





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83-2063

GOLD FIELDS EXPLORATION PTY. LIMITED

**GRAND PRIZE
DOWN DIP PROJECTION
D.D.H. GP5**

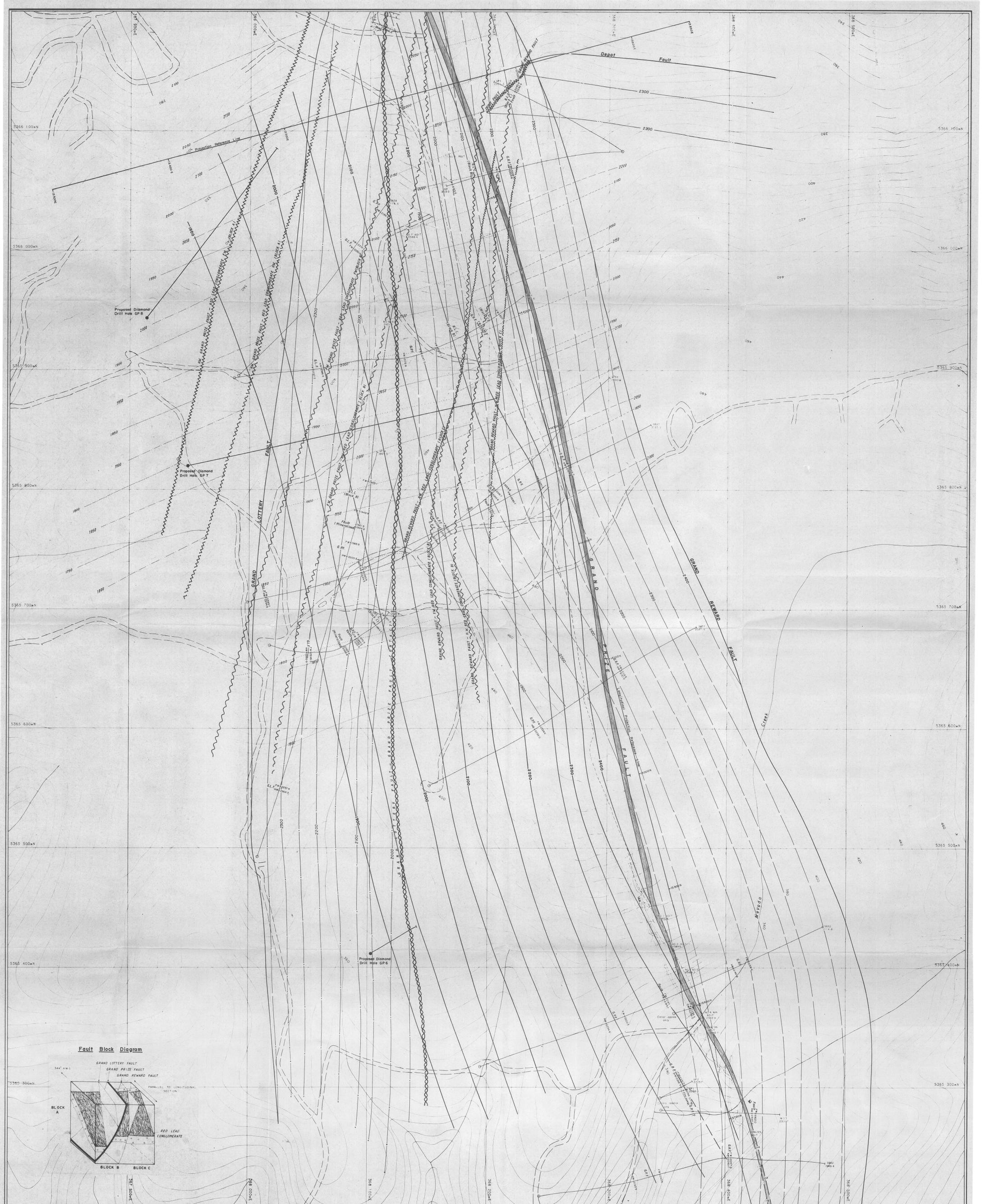
DRAWN BY: P.K.
DRAFTSMAN: S.F.
DATE: Aug, 83
REVISIONS:

FILE NO.

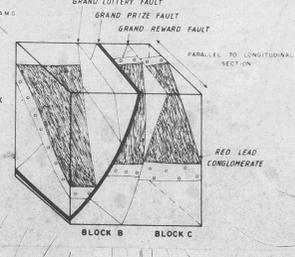
FIG. 32

5 cm

SCALE 1:2000
20 0 40
Metres

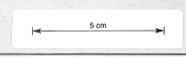


Fault Block Diagram



LEGEND	
GRAND PRIZE FAULT F.W. (H.W. 5' + 15 m F.W.)	2400
GRAND REWARD FAULT	2200
GRAND LOTTERY FAULT	2200
DEPOT FAULT	2300
RED LEAD CONGLOMERATE H.W. (BLOCK A)	2000
RED LEAD CONGLOMERATE F.W. (BLOCK A)	1800
RED LEAD CONGLOMERATE H.W. (BLOCK B)	2000
RED LEAD CONGLOMERATE F.W. (BLOCK B)	1800
RED LEAD CONGLOMERATE H.W. (BLOCK C)	2100
RED LEAD CONGLOMERATE F.W. (BLOCK C)	1900

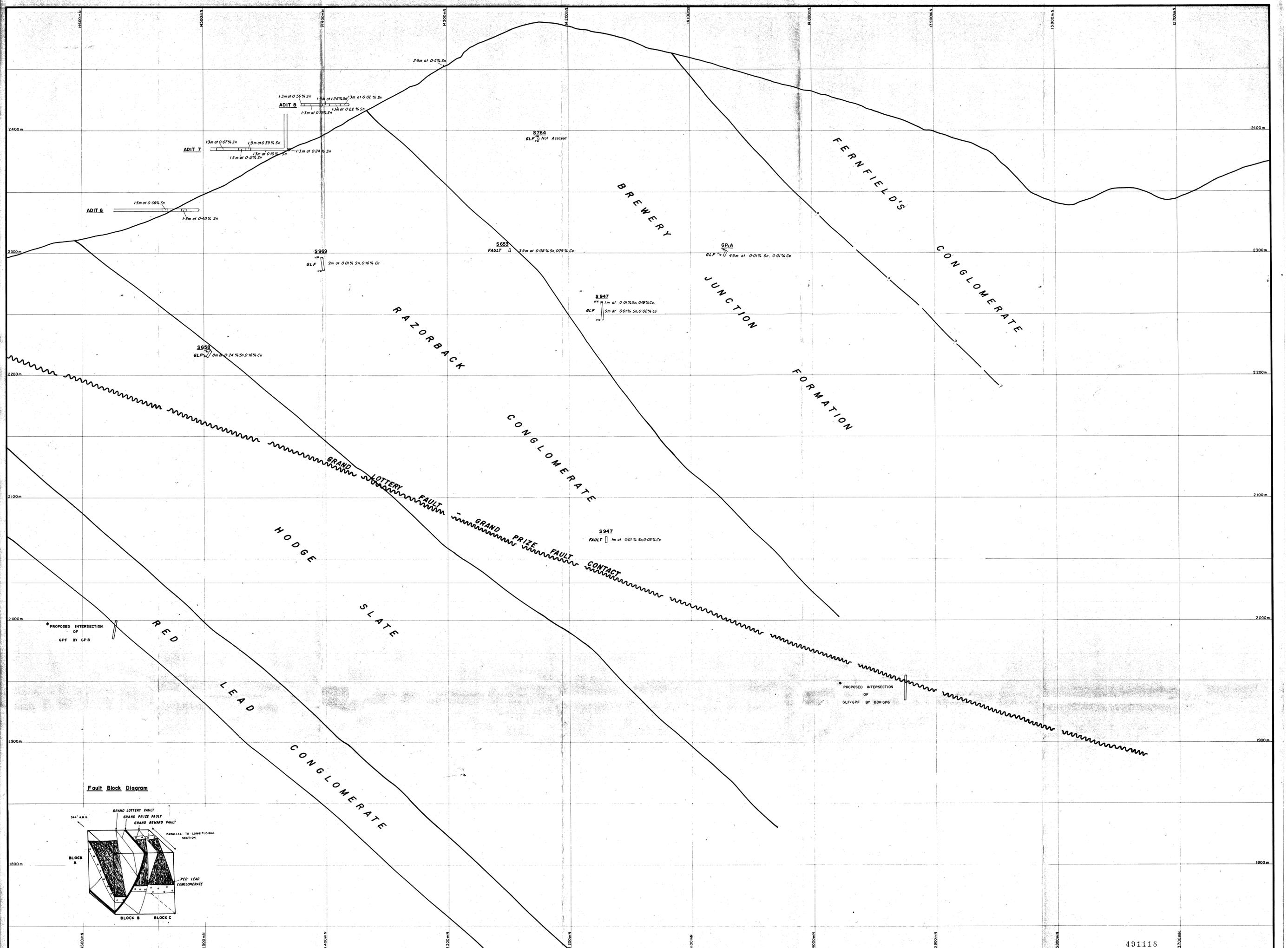
KEY TO ABBREVIATIONS	
G.P.F.	GRAND PRIZE FAULT
G.R.F.	GRAND REWARD FAULT
G.L.F.	GRAND LOTTERY FAULT
G.L.C.	RED LEAD CONGLOMERATE



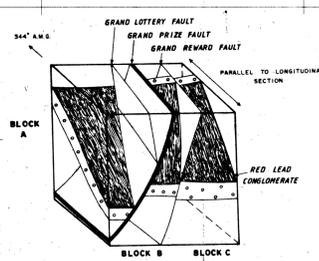
GOLD FIELDS EXPLORATION PTY. LTD.
 491110
STRUCTURAL CONTOUR PLAN
GRAND PRIZE AREA
 S3-2063
 SCALE 1:1000

DRAWN	P.K.
TRACED	S.K.
DATE	SEPT. 83
SCALE	1:1000

FIG. 33



Fault Block Diagram



NB - Projected Horizontal Thicknesses Shown

GLF - Grand Lottery Fault
GPF - Grand Prize Fault



491118

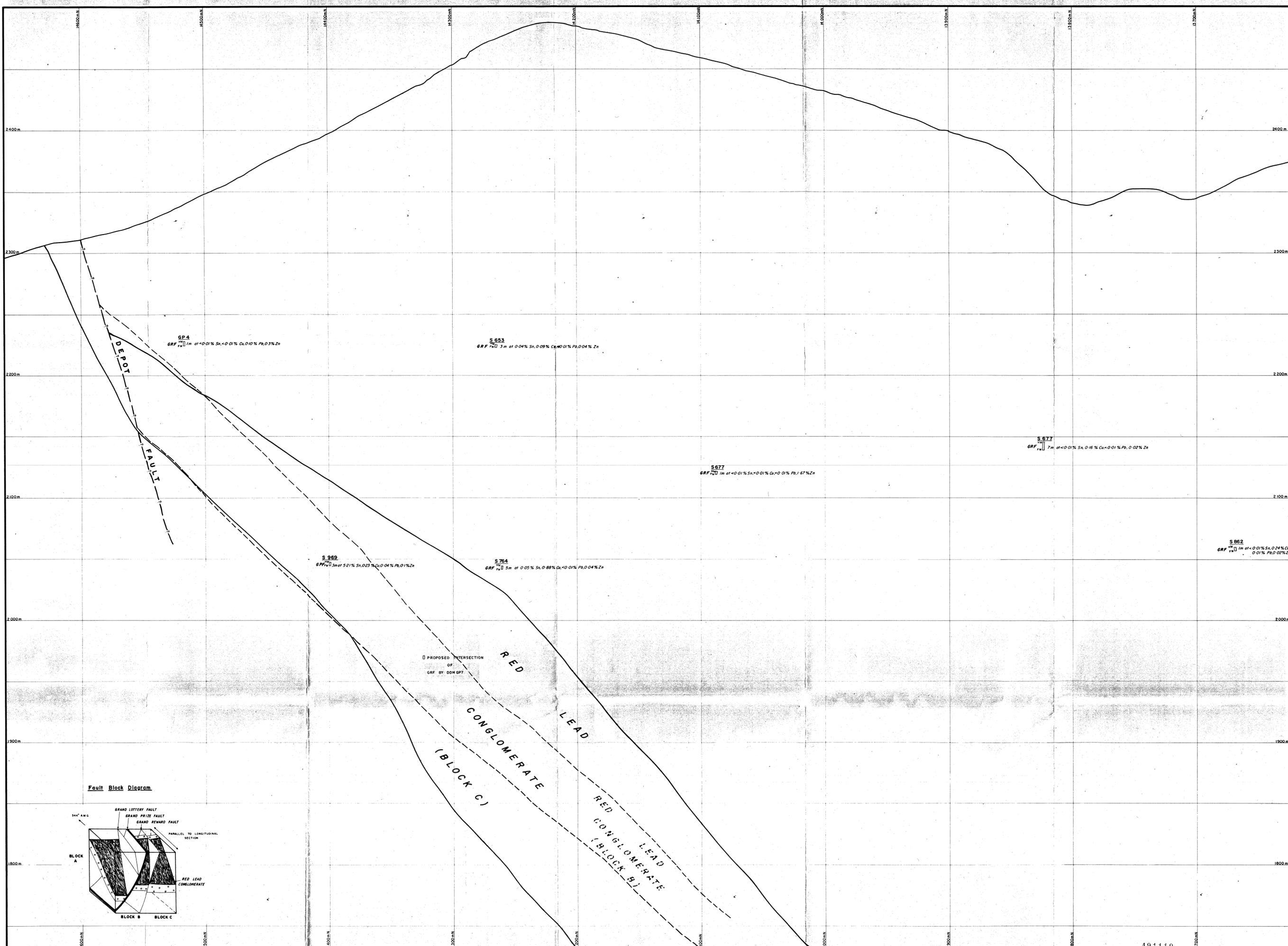
GOLD FIELDS EXPLORATION PTY LIMITED

85-2065
**LONGITUDINAL
GRAND PRIZE FAULT
& GRAND LOTTERY FAULT**
SHOWING

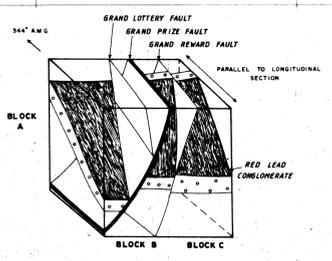
Block A (Hangingwall) Geology
ORIGIN: S368 200N, 368 157 E (AMG)
BEARING: 164° (AMG)

SCALE 1:1000

DRAWN BY	P.K.
DRAFTSMAN	S.F.
DATE	Oct. 83
REVISIONS	
FILE NO.	
FIG 35	



Fault Block Diagram



491119

NB - Projected Horizontal Thicknesses Shown

GRF - Grand Reward Fault

GOLD FIELDS EXPLORATION PTY LIMITED

83-2663

LONGITUDINAL GRAND REWARD FAULT

SHOWING

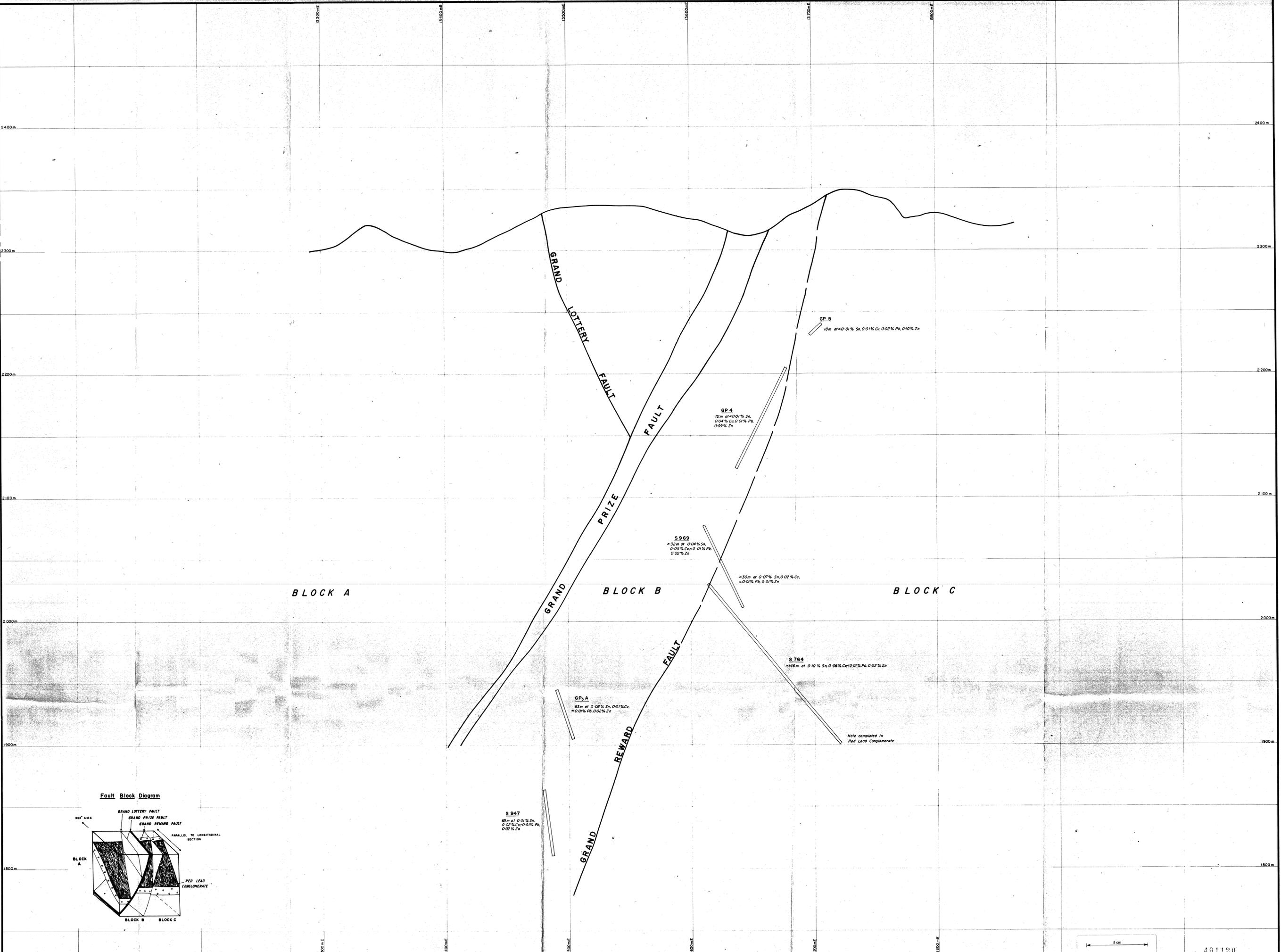
Block C (Footwall) Geology
ORIGIN: 5366 200N, 368 157E (AMG)
BEARING: 164° (AMG)

SCALE 1:1000



DRAWN BY	P.K.
DRAFTSMAN	S.F.
DATE	OCT. 83
REVISIONS	
FILE NO.	

FIG. 36



BLOCK A

BLOCK B

BLOCK C

GRAND
LOTTERY
FAULT

FAULT

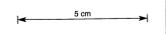
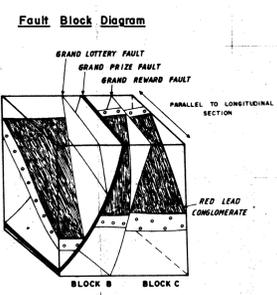
PRIZE

GRAND

FAULT

REWARD

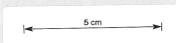
GRAND



491120

NB - Projected Horizontal Thicknesses Shown

GOLD FIELDS EXPLORATION PTY. LIMITED	
83-2063	
LONGITUDINAL	
RED LEAD CONGLOMERATE	
ORIGIN : 5 366 051 N, 566 855 E (AMG)	DRAWN BY P.K.
BEARING : 74° (AMG)	DRAFTSMAN S.F.
SCALE 1:1000	DATE 04.18.83
	REVISIONS
	FILE NO.
	FIG 37

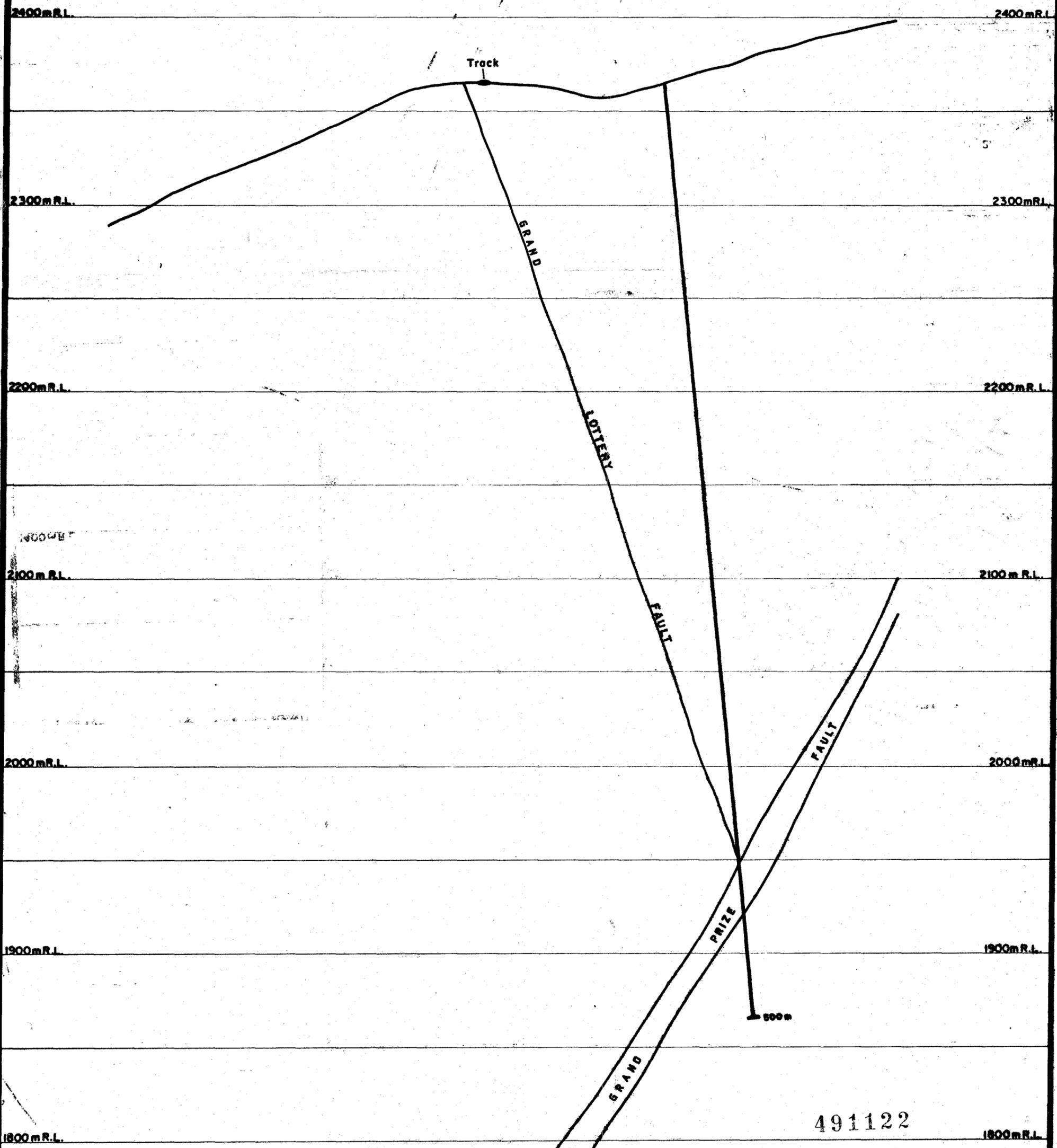


- Key**
- 29, 44 1988 Stream Sediment Samples - Assayed for Cu, Ni (-80#)
 - 10, 21, 39, 40, 28 1982 Stream Sediment Samples - Assayed for Sn, As, Cu, Pb, Zn (-80#)

ZEEHAN B/1	ZEEHAN B/2
ZEEHAN B/3	ZEEHAN B/4

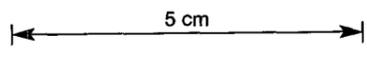
491121 RENISON LIMITED
 83-2069 ZEEHAN B/4
**GRAND PRIZE AREA
 STEAM SEDIMENT GEOCHEMISTRY**
 SCALE: 1:10,000 METRES.

DRAWN	P.K.
TRACED	S.F.
DATE	Nov. 83
SCALE	1:10,000
DRAWING No.	

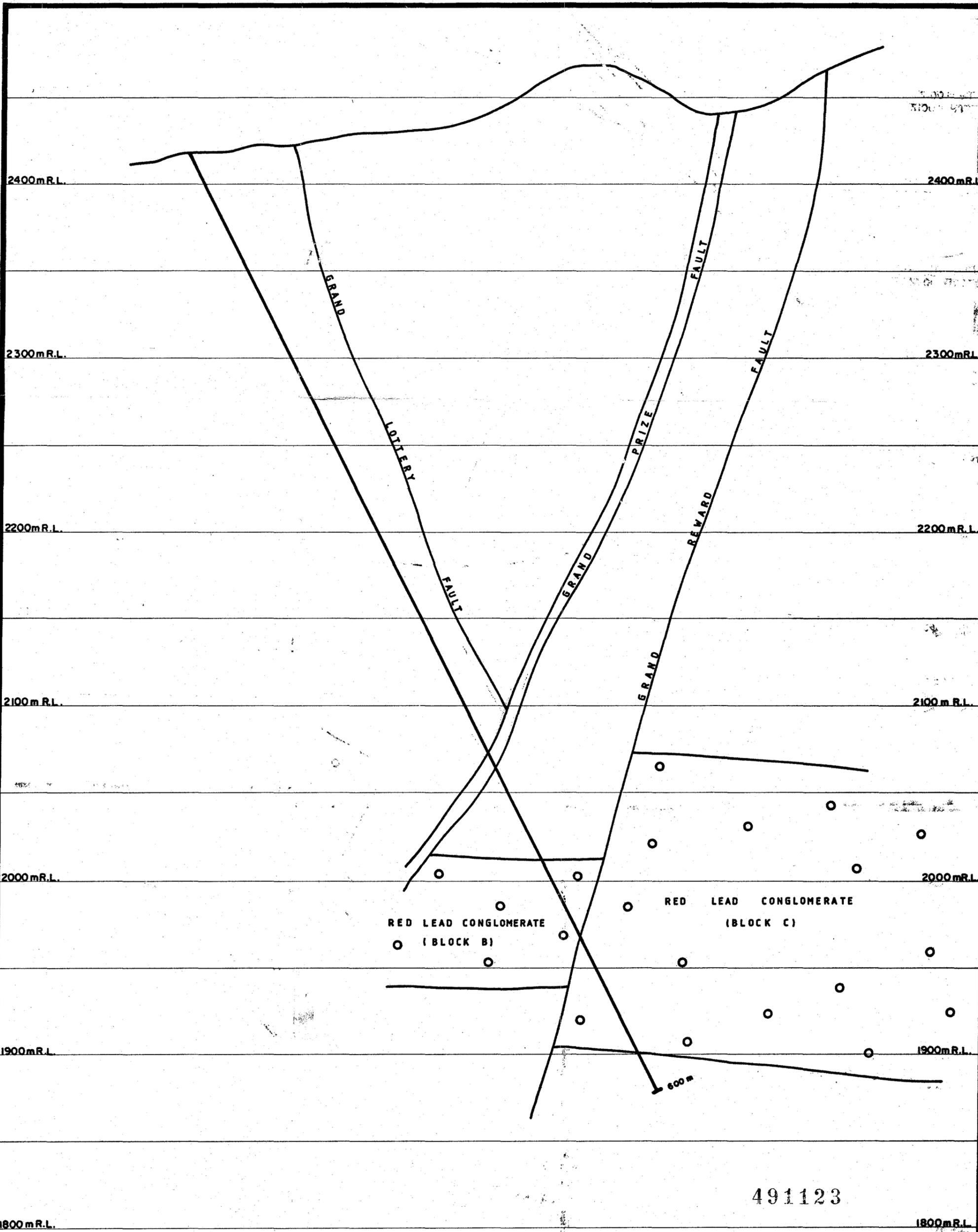


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83-2063



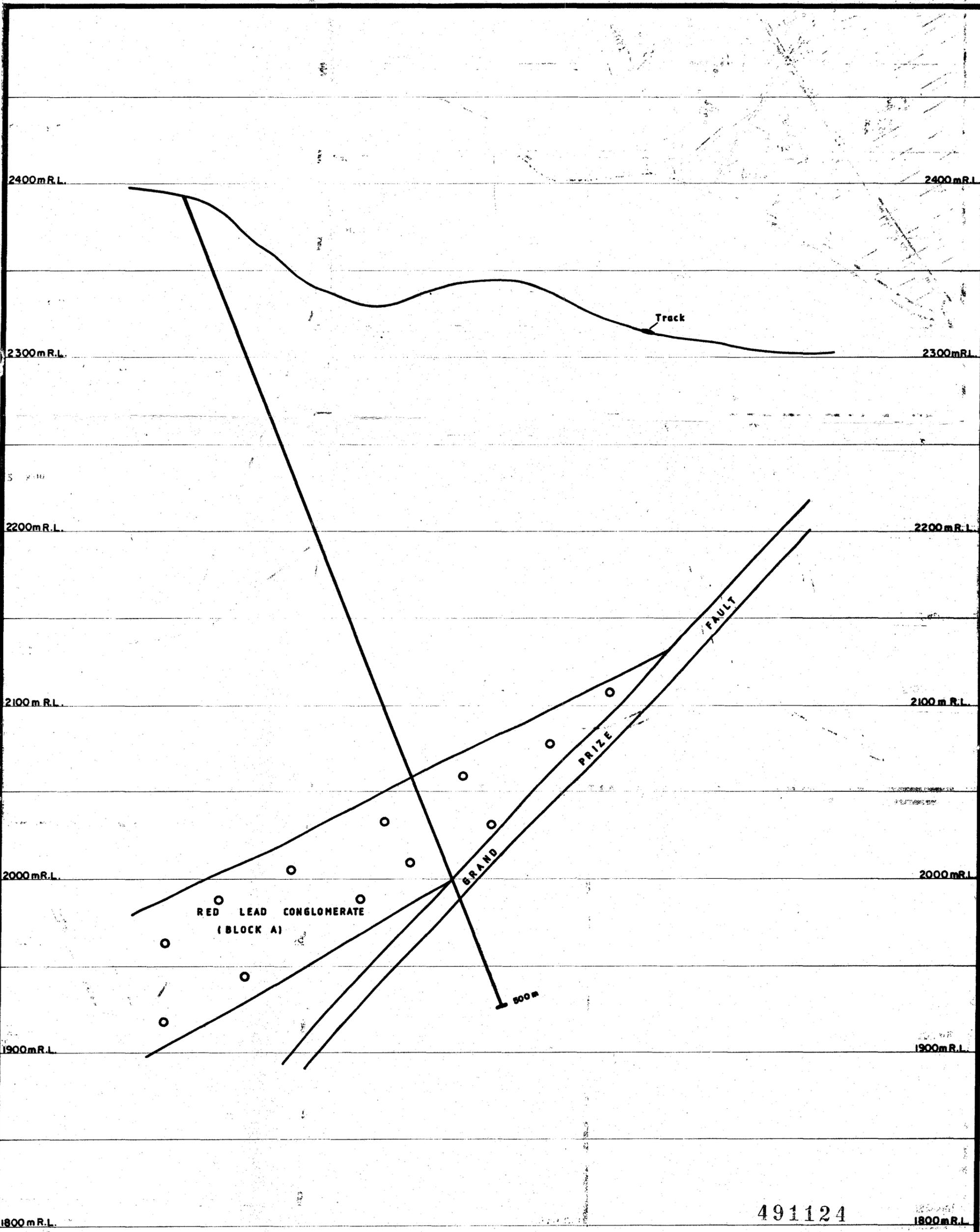
GOLD FIELDS EXPLORATION PTY. LIMITED	
SECTION OF PROPOSED DIAMOND DRILL HOLE GP 6	DRAWN BY P.K. DRAFTSMAN S.F. DATE Nov. 83 REVISIONS FILE NO. FIG 40
SCALE 1:2000	



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83-2063

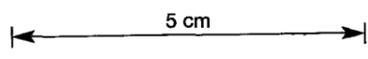
GOLD FIELDS EXPLORATION PTY. LIMITED	
SECTION OF PROPOSED DIAMOND DRILL HOLE GP 7	DRAWN BY: P.K.
	DRAFTSMAN: S.F.
	DATE: Nov, 83
	REVISIONS:
SCALE 1:2000	FILE NO.
20 0 40 Metres	FIG. 41



491124

83-2063

082



GOLD FIELDS EXPLORATION PTY. LIMITED	
SECTION OF PROPOSED DIAMOND DRILL HOLE GP 8	DRAWN BY: P.K.
	DRAFTSMAN: S.F.
	DATE: Nov. 83
	REVISIONS:
	FILE NO:
SCALE 1:2000	
	FIG. 42