

Tasmanian Mineral Exploration Company Report

Title: Tube number 19: Henty, Black Bluff, Mariner, Mt Stormont (EL 9/66, EL 10/74)

Company: PlacerDome

Plans from archive store in Zeehan

Compiled by David Green 4 June 2003.

03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
(EL 9/1966, EL10/1974)

Placer Dome Asia Pacific*

Green, D.

EL10/1974; EL9/1966

Tube 19

SHEET		EL NO	SCALE	REMARKS	DATE
Murphyson	Dundas & Selina	9/66	1:500	Hanty Project - Cross Section <u>64075N</u>	July/88
↓	↓	↓	1:500	" - Factual Geol "	
↓	↓	↓	1:500	" - Gold Assays "	
↓	↓	↓	1:500	" - R&D Histograms "	
			1:500	" - R&D Histograms <u>64050N</u>	July/88
			1:500	" - Cross Section "	
			1:500	" - Factual Geol "	
			1:500	" - Gold Assays "	
			1:500	" - R&D Histograms <u>64025N</u>	July/88
			1:500	" - Cross Section "	
			1:500	" - Factual Geol "	
			1:500	" - Gold Assays "	
			1:500	" - R&D Histograms <u>64000N</u>	July/88
			1:500	" - Cross Section "	
			1:500	" - Factual Geol "	
			1:500	" - R&D Histograms <u>63975N</u>	July/88
			1:500	" - Cross Section "	
			1:500	" - Factual Geol "	
			1:500	" - Gold Assays "	
			1:500	" - Base Sheet C <u>63975N</u>	July/89
			1:500	" - Factual Geol "	
			1:500	" - Base Sheet C <u>63950N</u>	July/89
			1:500	" - Factual Geol Sheet C "	
			1:500	" - R&D Histograms sheet B <u>63950N</u>	July/89
			1:500	" - Base Sheet B "	
			1:500	" - Factual Geol Sheet B "	
			1:500	" - Gold Assays Sheet B "	
			1:500	" - R&D Histograms 63950N	
			1:500	" - Cross Section <u>63950N</u>	July/88
			1:500	" - Factual Geol "	
			1:500	" - Gold Assays "	
			1:500	" - R&D Histograms <u>63925N</u>	July/88
			1:500	" - Cross Section "	
			1:500	" - Factual Geol "	
			1:500	" - Gold Assays "	

1:50000 SHEET	EL NO.	SCALE	REMARKS	DATE
		1:1000,000 + 1:31,680	Plans showing locality and access, Mt. Stomont Area & plates	
	10/74	1:15,840	Black Bluff Areas A & B location map showing pos ⁿ of lines	
		1:250	Black Bluff Area A Soil sample results Cu, Pb, Zn interval 25m	
		1:15,840	Black Bluff Area Summary of Results for 1975 and proposed areas for detailed study in 1976 includes Geol, geochem (stream sed) (soil) & geophysics - IP, EM	July 75 July 75
		1:250	Black Bluff Area B Soil sample results Cu, Pb, Zn interval 25m	
		1:15,840	Black Bluff Soil sample results Cu, Pb, Zn show gridline and topography	June 75
		1:15,840	Black Bluff Stream sediment sample results Cu, Pb, Zn sample local + topography	June 75
		1:15,840	Black Bluff Humic Sample results Cu, Pb, Zn sample local + topo.	June 75
		1:15,840	Black Bluff Anomalous areas + topo. includes soil geochem & rock chip geochem + IP anomalies	Aug 75

1:50000 SHEET	EL NO.	SCALE	REMARKS	DATE
	10/74 ↓	1:15,840	Black Bluff. Rock Chip Sample Results, Hand Specimen location and I.P. Anomalies. Shows topo. and Gridline. Geochem and IPanomalies	June '75
		1:15,840	Geology of the Bond Range (Black Bluff)	June '75

1:50000 SHEET	EL NR.	SCALE	REMARKS	DATE
	10/74	1:10,000	Black Bluff - TS 10/74-3 (J14) Mariner 3 - Drainage Geochem Results: Sn, W: 80 mesh fract	Nov/80
		1:50	Black Bluff - Mariner 1 PITS 1, 2, 3 and 4. KT 10/74-M-19	April/79
		1:10,000	Black Bluff TS 10/74-3 Mariner 1-3, soil Geochemical Zonation and Geology	Nov/80
		1:1000	Black Bluff TS 10/74-3 Mariner 3 - Drainage Geochemical Results: Cu, Pb, Zn - 80 mesh fract	Nov/80
		1:5000	Black Bluff - Mariner 3 Line 11500E, Pseudo sections of Dipole-dipole IP/Resistivity	June/78
		1:5000	Black Bluff - Mariner 3, Profiles of gradient array apparent resistivity Lines 9900, 10000, 10100, 10200E	Dec/77
		1:5000	Black Bluff - Mariner 3 Self potential profiles sheet 1 of 3: Shows line 10900 → 11600E (100m spacing)	May/78
		1:5000	Black Bluff - Mariner 3 Self potential profiles sheet 2 of 3 Lines 10,000 → 10,800E (100m spacing)	May/78
		1:5000	Black Bluff - Mariner 1 Self potential profiles sheet 3 of 3 Lines 9200 → 9900E (200m spacing)	May/78
		1:5000	Black Bluff - Mariner 1 & 3 Self potential profiles	May/78
		1:5000	Black Bluff - Mariner 1 Self potential profiles	July/77
		1:5000	Black Bluff - Mariner 3 Line 10700E Pseudo sections of Dipole-dipole IP/Resistivity	June/78

1:50000 SHEET	EL NR.	SCALE	REMARKS	DATE
		1:50000 incl. = 3000ft	LAKE LEA AREA Grid Base Geological Map of the Mt. Stormont District	24/1/61
		1:15,840	Geological Sketch Map of the Lea Lea River District	1934
		1:15,840	as above but fully coloured	1934
		Various	location and geology of Stormont Bismuth mine, Davenport Mine and Black's Mine	1934
		1:15,840	Mona Mineral District with Mine Working Insets	Oct / 43
	10/74	1:10000	Black Bluff - topo contours (sheet) sheet KT10/74-2	Dec/76
			Black Bluff - topo contours sheet KT10/74-1	Dec/76
			Black Bluff - geological map KT10/74-2A	April/78
			Black Bluff - geological map KT10/73-3A	April/78
			Black Bluff - topo. contours Northern sector covering Black Bluff itself.	
			Black Bluff Report Drawings Mariner 1 and Mariners 2 Sections: Pb, Cu, Fe%, Zn, and Mn concentrations + Geo. interp key	1977 Oct/77 → Mar/78
			Black Bluff T510/74-3 Mariner 3, Panned concentrate Results, Sn, W, Au	Nov/80

1:50000 SHEET	EL NO.	SCALE	REMARKS	DATE
	10/74	1:5000	Black Bluff. Mariner 1, 2 and 3 Geological Interpretation Map with rock sample location	Aug '78
		1:5000	Black Bluff. Mariner 1. Geomagnetic, total force contours	Dec '77
		1:5000	Black Bluff. Mariner 1 and 2 KT10/74-M-2. Survey Grid	Dec '76
		1:5000	Black Bluff. Mariner 1, 2 and 3 Surface Geological Map	Mar '78
		1:5000	Black Bluff. KT 10/74-M-3B Mariner 1 and 2 Geological Float Map KT10/74-M-3C	Mar '78
		horiz. 1:250 vert. 1:100	Black Bluff. Mariner 1 Costean 1. KT 10/74-M-15 includes Bedrock Grab Geochem. multi element Geo. floor plan and Geo. profile	Feb '79
			as above Mariner 1 Costean 2 KT10/74-M-16	March '79
			as above mariner 3 Costean 4 KT10/74-M-18	April '79
			as above Mariner 3 Costean 3 KT10/74-M-17	March '79
		1:2500	Black Bluff Mariner 5 - "Window". Soil Geochem Results Bi, Sn, W	Nov '80
		1:5000	Black Bluff Mariner 1 Filtered 1-phase Horizontal Gradient contours.	March '77
		1:5000	Black Bluff Mariner 1 Geomagnetic total force contours	Jan '77
		1:5000	Black Bluff Mariner 1 IP contours of chargeability M	
		1:3168	Geological Map of the Stormont Bismuth Mine + inset of mine	Jan '61

1:50000
SHEET

EL NR.

SCALE

REMARKS

DATE

~~10/74~~ ?

~~1:3168~~

Geological sections of Mt. Stormont District

Jan/'61

1" = 100'
1:1,200

Mt Stormont Prospect. Geosection based on ~~plate~~ plane table mapping - cross sections

March/62

231° + 303°
across Stormont + Fletcher Adit

1" = 100'
1:1,200

Mt. Stormont Prospect, sample location plan

?

1" = 100'
1:1,200

Mt. Stormont ~~Prospect~~ ^{Bismuth} Prospect Drill hole planning.

11/62

1:1,200

Mt. Stormont Prospect Geological Plan

March/62

~~1:1,200~~



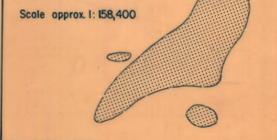
GEOLOGY OF THE BOND RANGE TASMANIA

Mapping by E. Corbett with acknowledgement to Mines Dept 1:1 mi Mackintosh sheet
Mapped Jan-Mar 75 Plan No 444 Drafted PMS Mar 75
Amended June 75

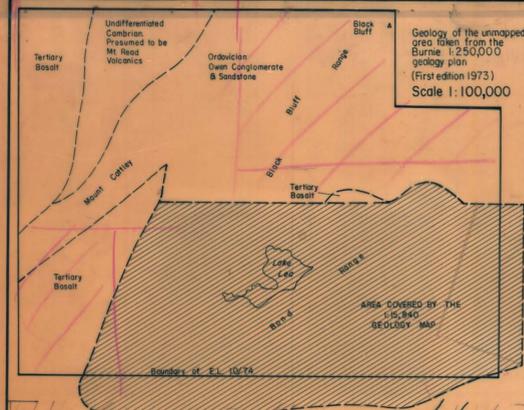


R.F. 1:15,840
(E.L.10/74)

The geology to the north west of Bond Range has been taken from the Mackintosh 1:63,360 geological plan (first edition 1965). Slight modifications were made where the geology is known to differ from that printed on the Mackintosh sheet.
J.L. McGregor-Dawson.



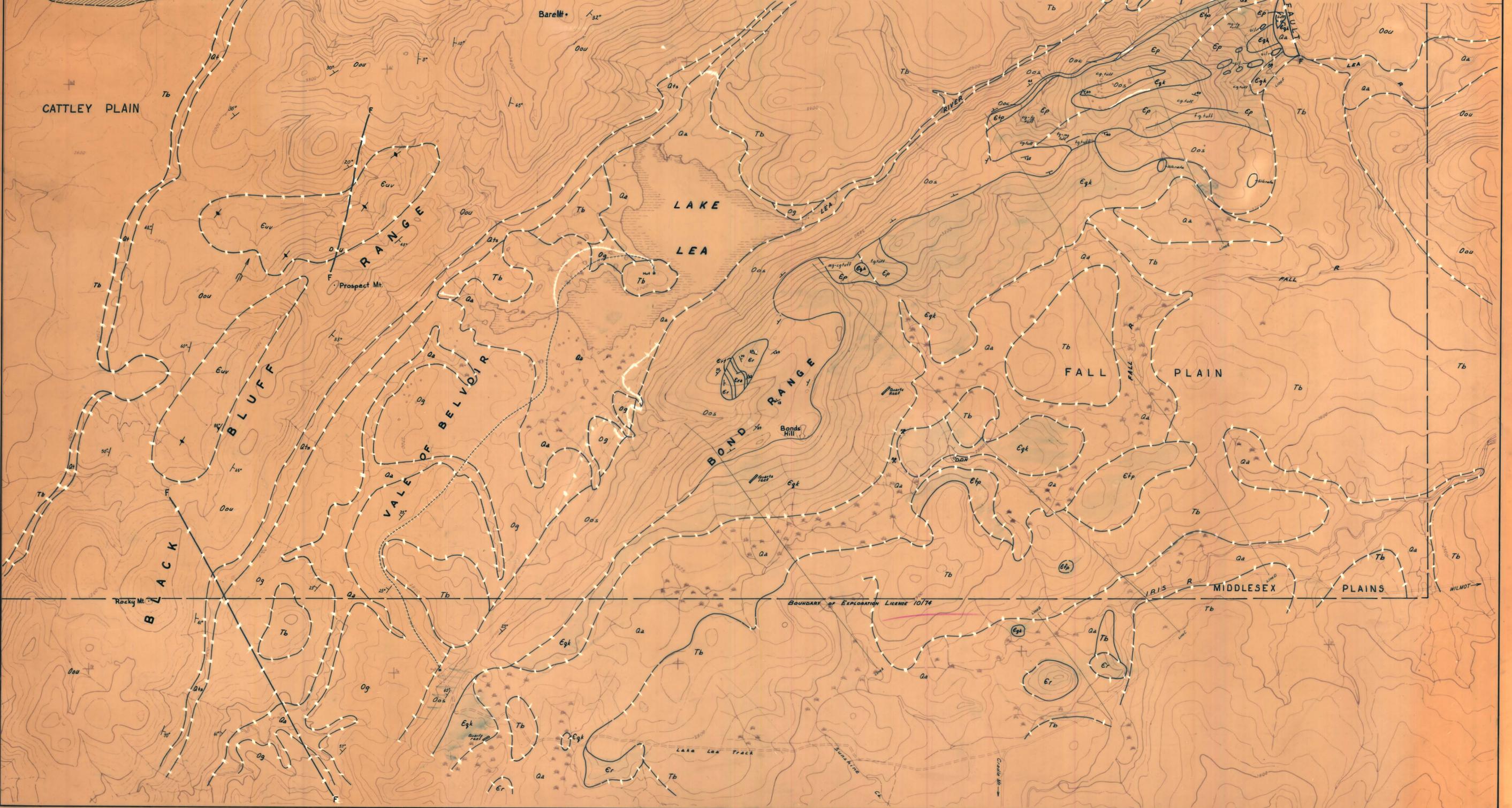
Scale approx 1:158,400
RELIABILITY DIAGRAM
Area covered by field traverses
Remaining geology taken from Mackintosh 1:63,360 Geological plan

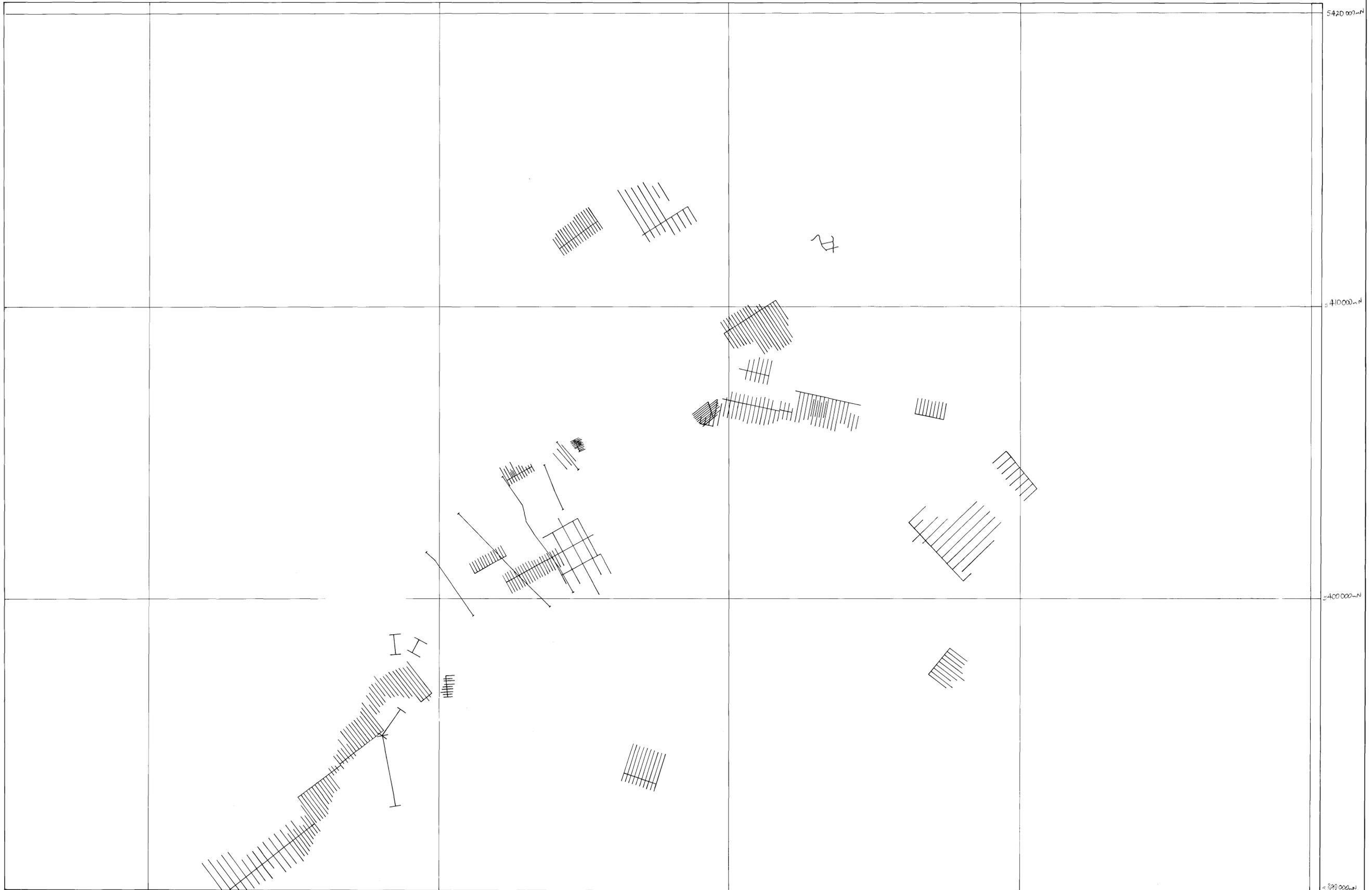


Geology of the unmapped area taken from the Burne 1:250,000 geological plan (First edition 1973)
Scale 1:100,000

LEGEND

- | | | | | | | |
|------------|----|-----|--|----|-----|---|
| Quaternary | 2 | Qa | Alluvium, glacial debris, swamp soils | 47 | ep | Ash fall tuffs (vary from fine to coarse gran) |
| | 7 | Qt | Talus deposits of sandstone & conglomerate | 51 | sil | Silicious alteration |
| Tertiary | 10 | Tb | Basalt | 60 | Epq | Pink quartz porphyry (alt. keratophyre) |
| | 15 | Og | Gordon limestone | 63 | Epw | White feldspar porphyry (known from birds only) |
| Ordovician | 21 | Oou | Undifferentiated Owen group | | | |
| | 20 | Ooc | Basal Owen conglomerate | | | |
| | 41 | Euv | Undifferentiated Mt Read volcanics | | | |
| | 43 | Etp | Tuffaceous phyllite | | | |
| | 52 | Er | Rhyolites | | | |
| | 61 | Ero | Rhyolite agglomerate | | | |
| | 54 | Ert | Rhyolite & glassy tuffs | | | |
| Cambrian | | | | | | |
- Geological boundary
 - - - Geological boundary, position uncertain
 * Foliation
 -45° Bedding
 -> Direction of fold plunges
 F Fault





400 000 m E

410 000 m E

420 000 m E

430 000 m E

440 000 m E

5420 000 m N

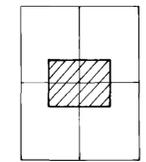
5410 000 m N

5400 000 m N

5390 000 m N

03_4902

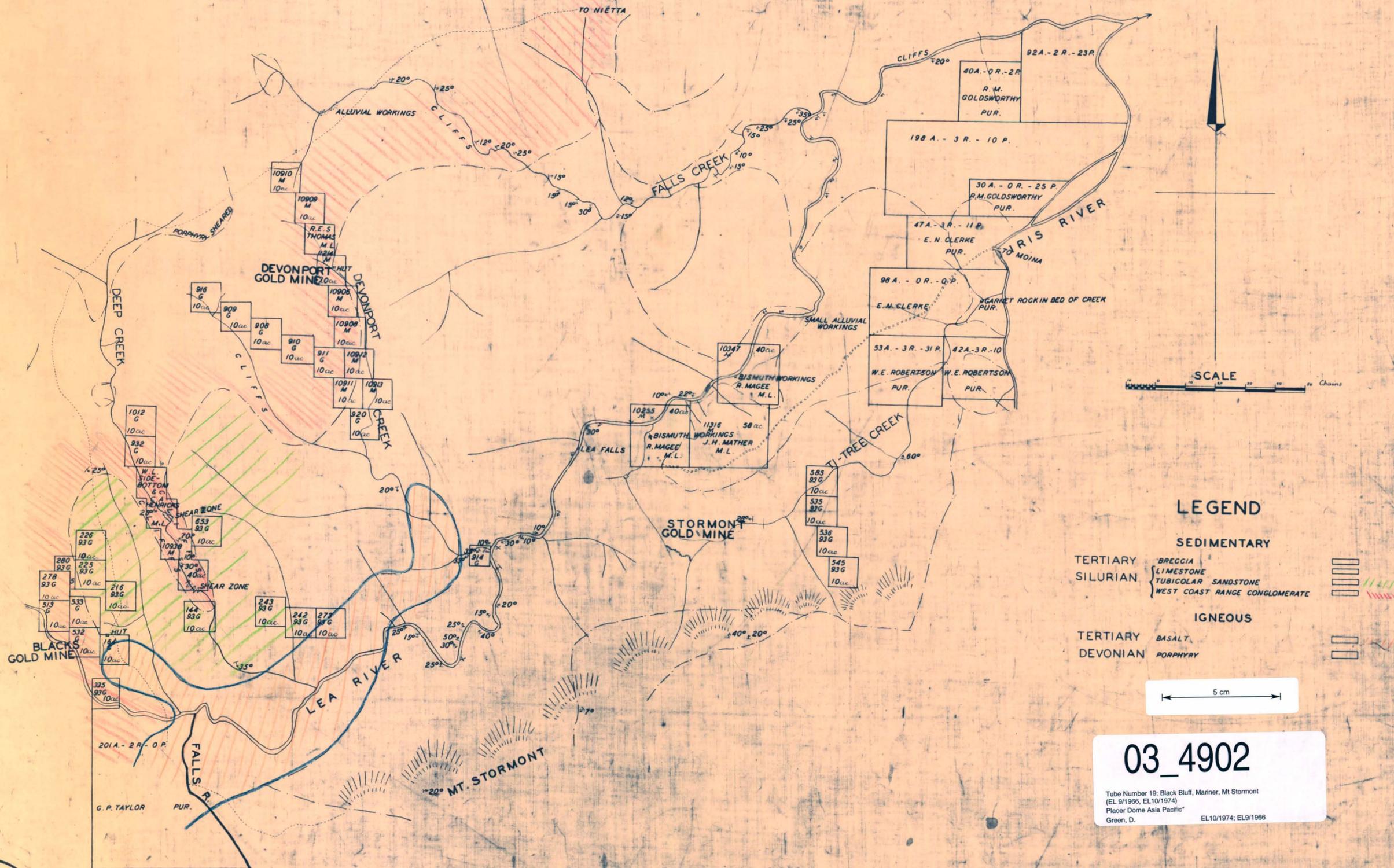
Tube Number 19, Black Bluff, Mariner, Mt Stormont
 (EL 91966, EL101974)
 "Pillar Dome Asia Pacific"
 Green, D. EL101974; EL91966



GOLD FIELDS EXPLORATION PTY. LIMITED	
DRAWN BY	
DRAFTSMAN	
DATE	
REVISIONS	
FILE NO.	
SCALE 1:	FIG.

LAKE LEA AREA
 1:50,000
 Grid Base.

GEOLOGICAL SKETCH MAP OF LEA RIVER DISTRICT



LEGEND

- | | |
|--------------------|-------------------------------|
| SEDIMENTARY | |
| TERTIARY | BRECCIA |
| SILURIAN | LIMESTONE |
| | TUBICULAR SANDSTONE |
| | WEST COAST RANGE CONGLOMERATE |
| IGNEOUS | |
| TERTIARY | BASALT |
| DEVONIAN | PORPHYRY |

5 cm

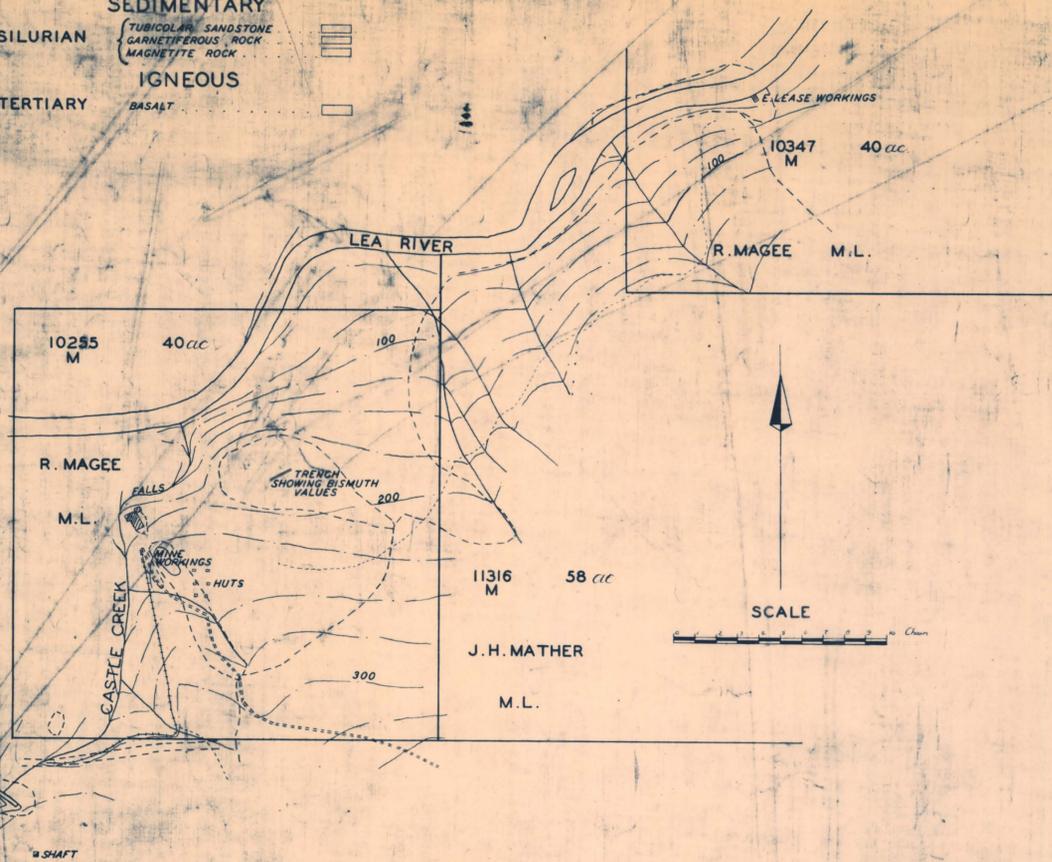
03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
(EL 9/1966, EL10/1974)
Placer Dome Asia Pacific
Green, D. EL10/1974; EL9/1966

LEGEND

- SEDIMENTARY
 SILURIAN (TUBICULAR SANDSTONE, GARNETIFEROUS ROCK, MAGNETITE ROCK)
 TERTIARY (BASALT)

STORMONT BISMUTH MINE



SCALE



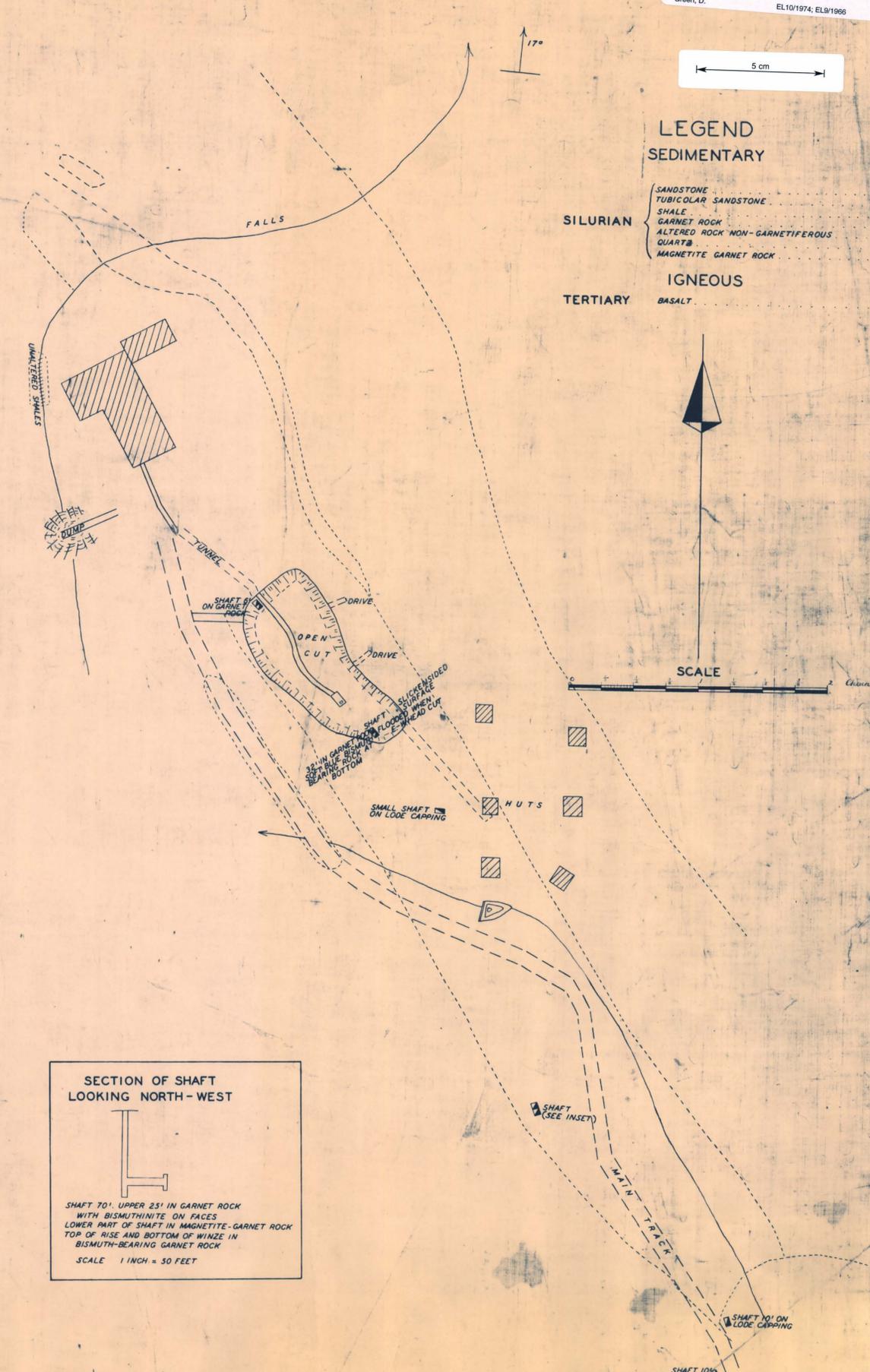
03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont (EL 9/1966, EL 10/1974) Placer Dome Asia Pacific Green, D. EL 10/1974; EL 9/1966



LEGEND
 SEDIMENTARY

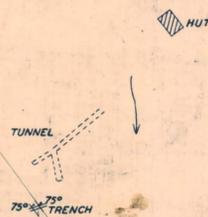
- SILURIAN (SANDSTONE, TUBICULAR SANDSTONE, SHALE, GARNET ROCK, ALTERED ROCK NON-GARNETIFEROUS, QUARTZ, MAGNETITE GARNET ROCK)
 TERTIARY (BASALT)



SCALE



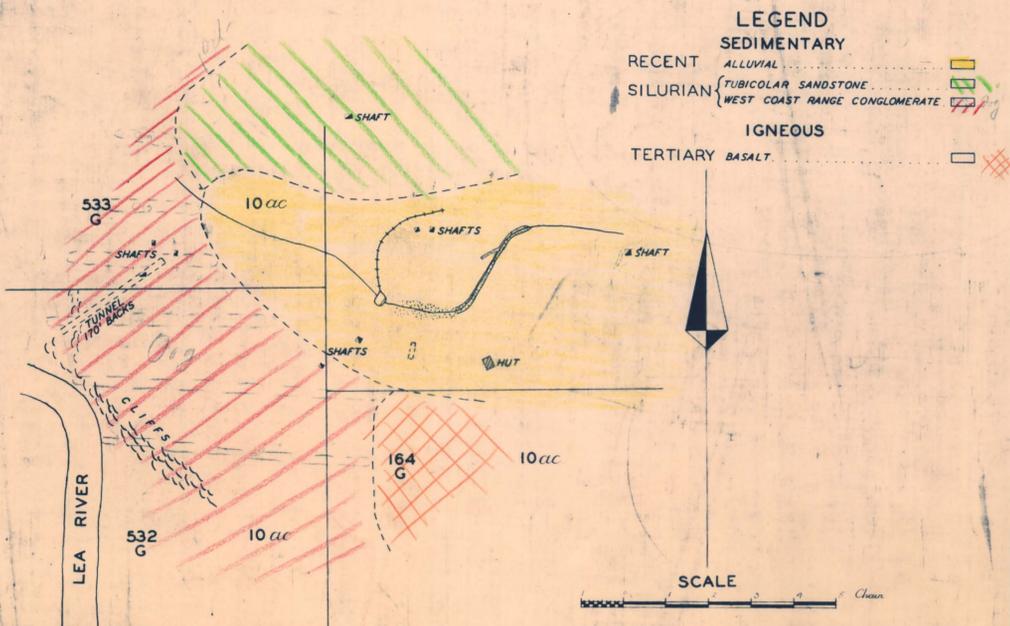
DEVONPORT MINE



SCALE



BLACK'S MINE



SCALE



SECTION OF SHAFT
 LOOKING NORTH - WEST



SHAFT 70'. UPPER 25' IN GARNET ROCK WITH BISMUTHINITE ON FACES. LOWER PART OF SHAFT IN MAGNETITE-GARNET ROCK. TOP OF RISE AND BOTTOM OF WINZE IN BISMUTH-BEARING GARNET ROCK. SCALE 1 INCH = 30 FEET

460

MOINA MINERAL DISTRICT

SHOWING MINE WORKINGS IN INSETS
SCALE: 20 CHAINS TO 1 INCH

LEGEND

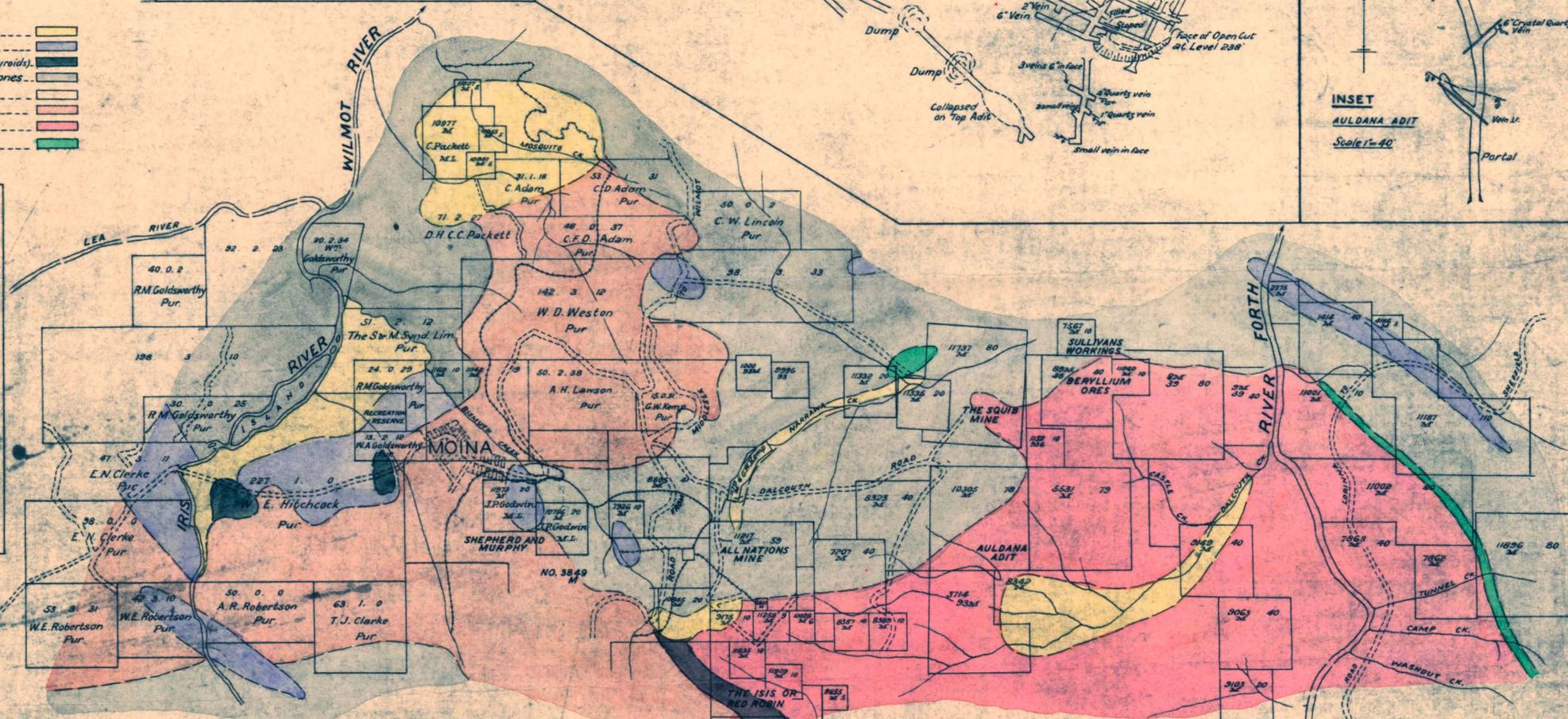
- Tertiary and Quaternary Alluvial Limestone
- Silurian (Slates, Conglomerates & Grits (Porphyroids), Conglomerates & Tubular Sandstones)
- Pre-Silurian West Coast Conglomerates
- Tertiary Igneous Lava & Tuffs
- Devonian Tin & Tungsten bearing Granite
- Granite Porphyry & Greisen

INSET
SULLIVANS (POVEY AND JONES) ADIT
Scale: 1"=40'

INSET
SQUIB WORKINGS
Scale: 1"=80'

INSET
AULDANA ADIT
Scale: 1"=40'

INSET
SHOWING LOWER WORKINGS OF SQUIB MINE (ORIGINALLY WORKED FOR GOLD)
Scale: 1"=80'



INSET
STORMONT BISMUTH MINE
Scale: 1"=80'

INSET
FLETCHERS ADIT
Scale: 1"=80'

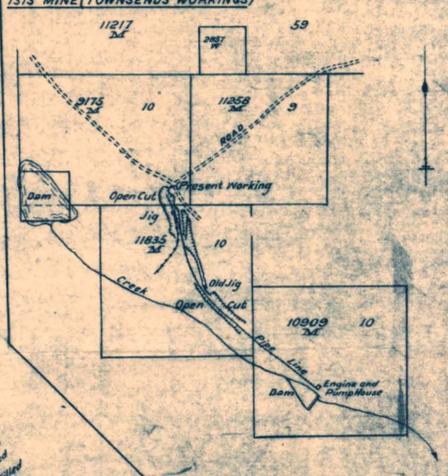
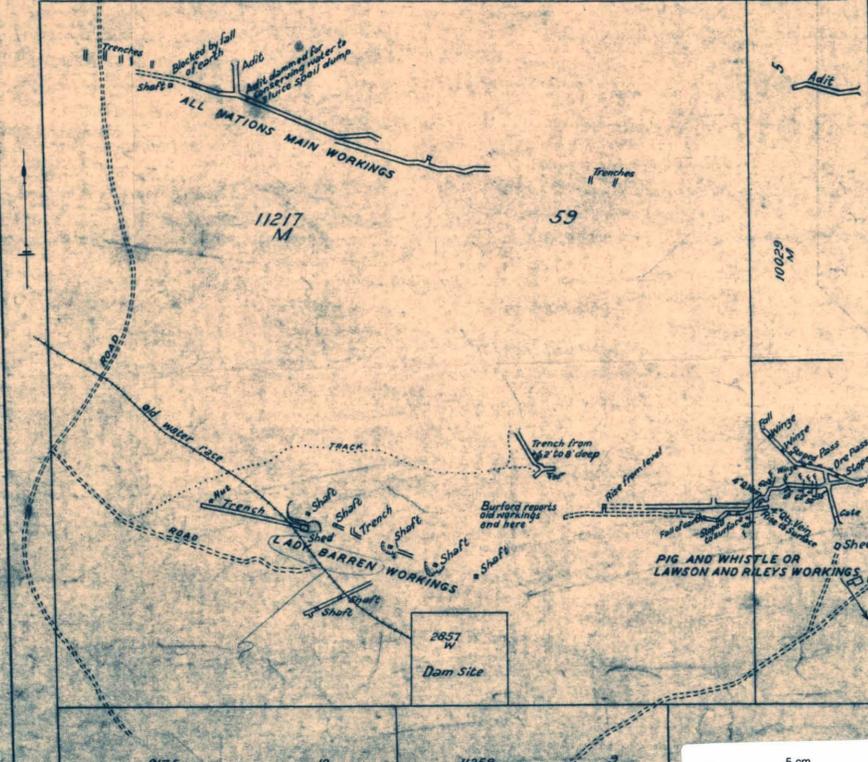
INSET
SHEPHERD AND MURPHY MINE
GODWIN'S WORKINGS
Scale: 1"=400'

INSET
ALL NATIONS MINE
Scale: 1"=200'

INSET
ISIS MINE (TOWNSEND'S WORKINGS)
Scale: 1"=200'

INSET
STORMONT BISMUTH WORKINGS
Scale: 1"=100'

INSET
GODWIN'S NEW WORKINGS
Scale: 1"=40'



03_4902

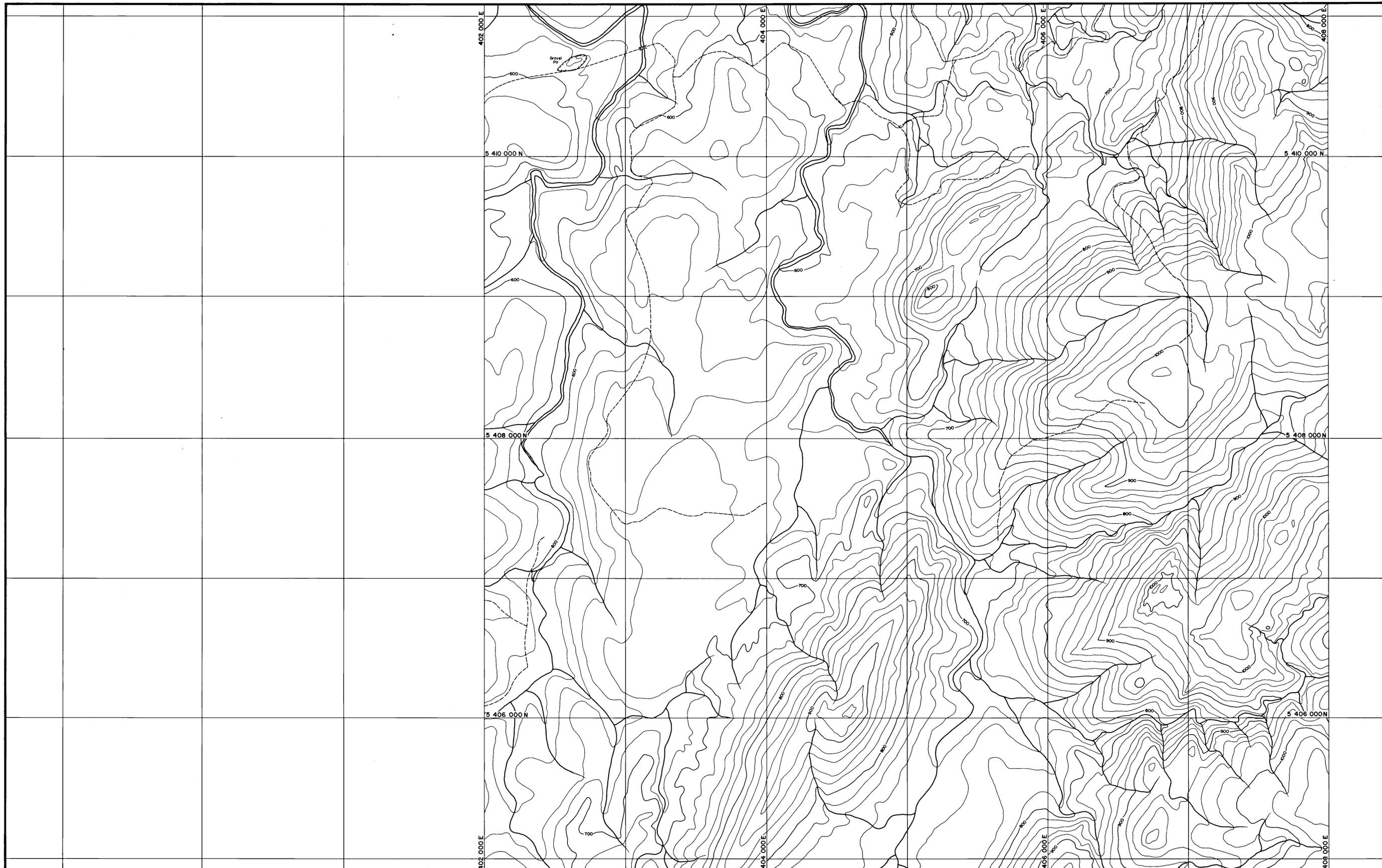
Tube Number 19: Black Bluff, Mariner, Mt Stormont (EL 9/1966, EL10/1974) Placer Dome Asia Pacific Green, D. EL10/1974; EL9/1966

DEPARTMENT OF MINES, TASMANIA.	
FIELD WORK	W. K. M. S.
PLAN BY	M. B. C.
APPROVED	[Signature]
DATE	18-10-43
SEOLOGIST	
DRAUGHTSMAN	
DIRECTOR OF MINES	
PLAN NO.	9-899

5 cm

NEW CONSOLIDATED GOLD FIELDS (AUSTRALASIA) P.V. LTD.

DRAWING NO. 2457

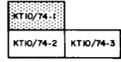


03_4902

Tube Number 19, Black Bluff, Marine, Mt Stormont
 (E.L. 91/96; E.L. 10/74)
 Placer Dome Asia Pacific
 Green, D. EL10/1974; EL9/1966


 DATE: December 1976
 GEOLOGIST:
 DRAWN: L.G.
 CHECKED: M.C.R.

GEOPEKO LIMITED
 KING ISLAND GROUP
 SCALE: 1:10,000
 E.L. 10/74
 BLACK BLUFF, TASMANIA
 5 cm

No. KT10/74-1

 KT10/74-1
 KT10/74-2
 KT10/74-3



OPERATION OF LEGEND:

- Capital letter - indicates primary classification e.g. S - sedimentary rock, A - acid rock, M - basic rock
- Lower case letters - indicate the following:
 - (i) Colour - e.g. p/g/a, rock fragments in an acid igneous rock with a green matrix.
 - (ii) Textural or structural features - e.g. at A - crystal tuff of acid composition, e.g. SA - porphyric acid rock, e.g. SA - oxidized acid rock
 - (iii) Suffixes in progressive order, e.g. SA - intermediate rock of andesitic composition.
 - (iv) Mineralogy - e.g. p/rt - perthite (hyaline) with feldspar phenocrysts, e.g. ht f/a - lithic crystal tuff with feldspar (phenocryst appearance) and biotite (prominent matrix composition), e.g. ht f/a - lithic crystal tuff with (major) feldspar crystals and (minor) quartz crystals, e.g. ht f/a - lithic banded vitric tuff - lava of intermediate acidic composition with a basaltic rich groundmass.

NOTE:
This map has been compiled from enlargements of the Tasmanian Lands Department 1:25,000 scale topographic machine print.

SYMBOLS:

SEDIMENTARY:
Sedimentary
Sedimentary
Sedimentary

STRUCTURAL:
Fault
Fault
Fault

COLOURS:
Green
Green
Green

STRUCTURAL AND TEXTURAL:
St
St
St

GRAIN SIZE:
fg
fg
fg

SILICATE MINERALOGY:
q
q
q

GEOLOGICAL INTERPRETATION:
19-03
19-03
19-03

SILICATE MINERALOGY:
q
q
q

PHENOCRYST MINERALOGY:
f
f
f

MISCELLANEOUS:
19-03
19-03
19-03

GEOPEKO LIMITED
KING ISLAND GROUP

03_4902

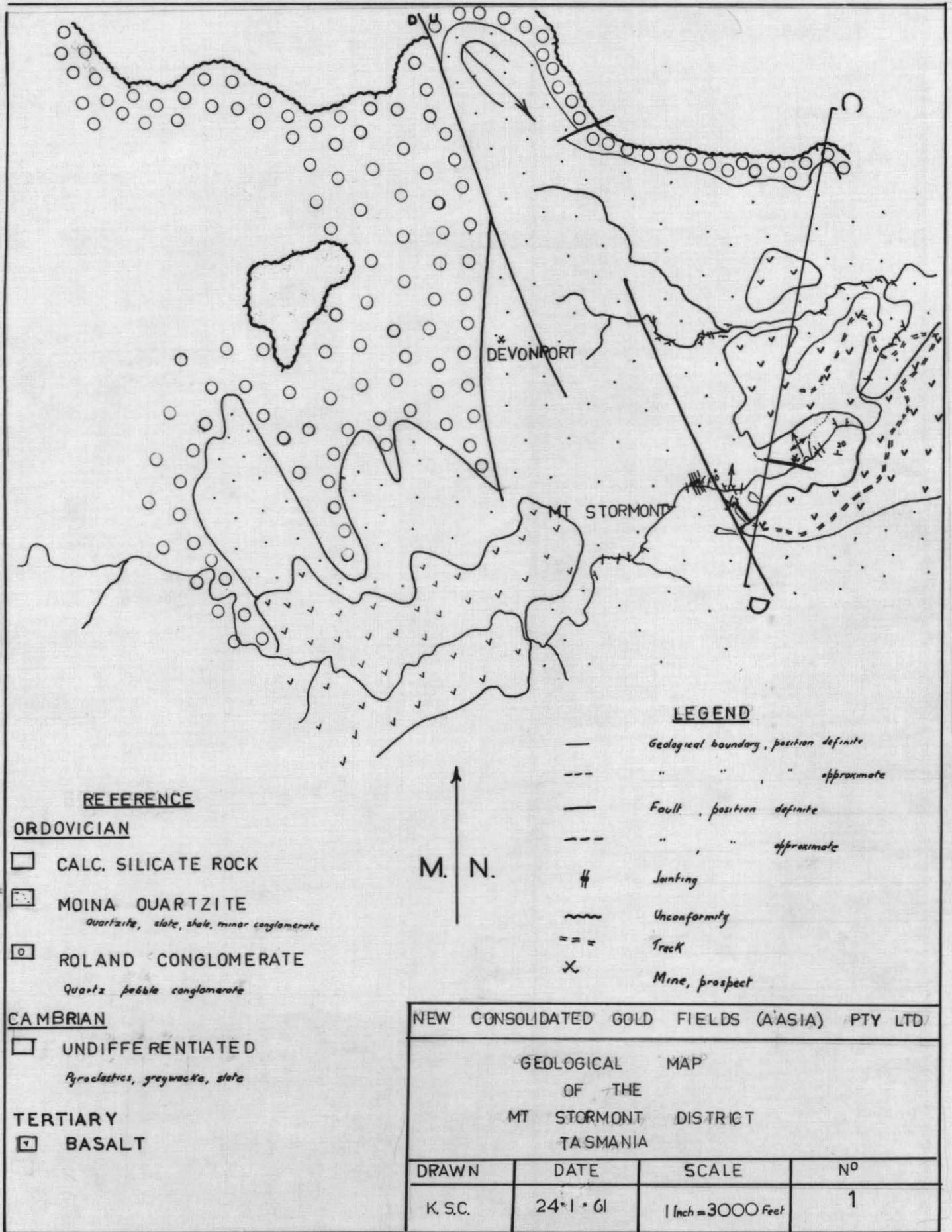
E.L. 10/74
BLACK BLUFF, TASMANIA
GEOLOGICAL MAP

No. KT10/74-2A

DATE: APRIL '78
GEOLOGIST: R.B.
DRAWN: L.G. & J.M.
CHECKED: M.C.R.

KT10/74-1
KT10/74-2
KT10/74-3

460



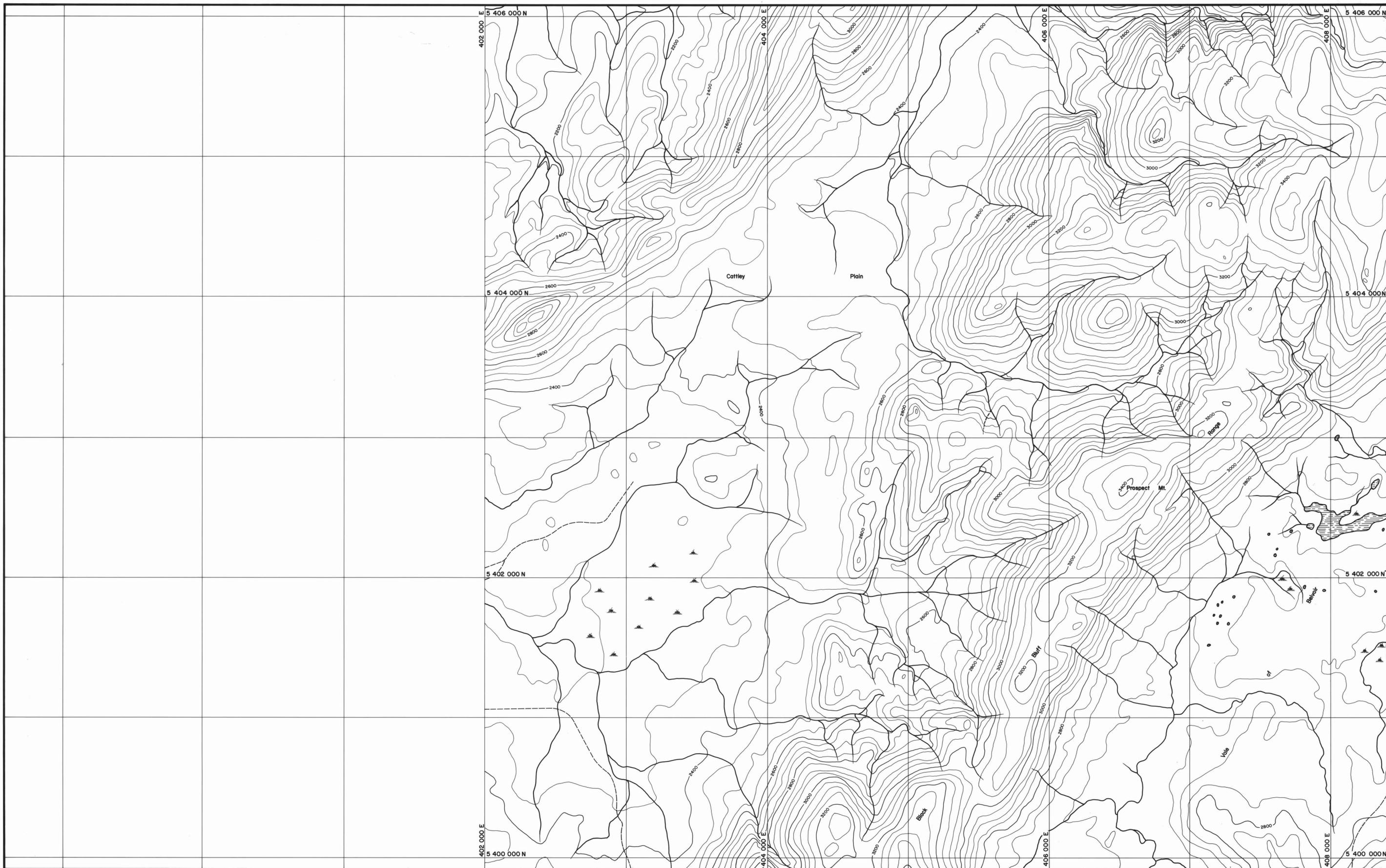
03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
(EL 9/1966, EL10/1974)
Placer Dome Asia Pacific*
Green, D. EL10/1974; EL9/1966

NEW CONSOLIDATED GOLD FIELDS
(AUSTRALASIA) PTY. LTD.
2171

DRAWING NO.

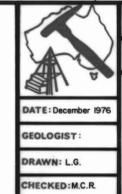
KT 10/74-2
BLACK BLUFF
AREA
1:10,000



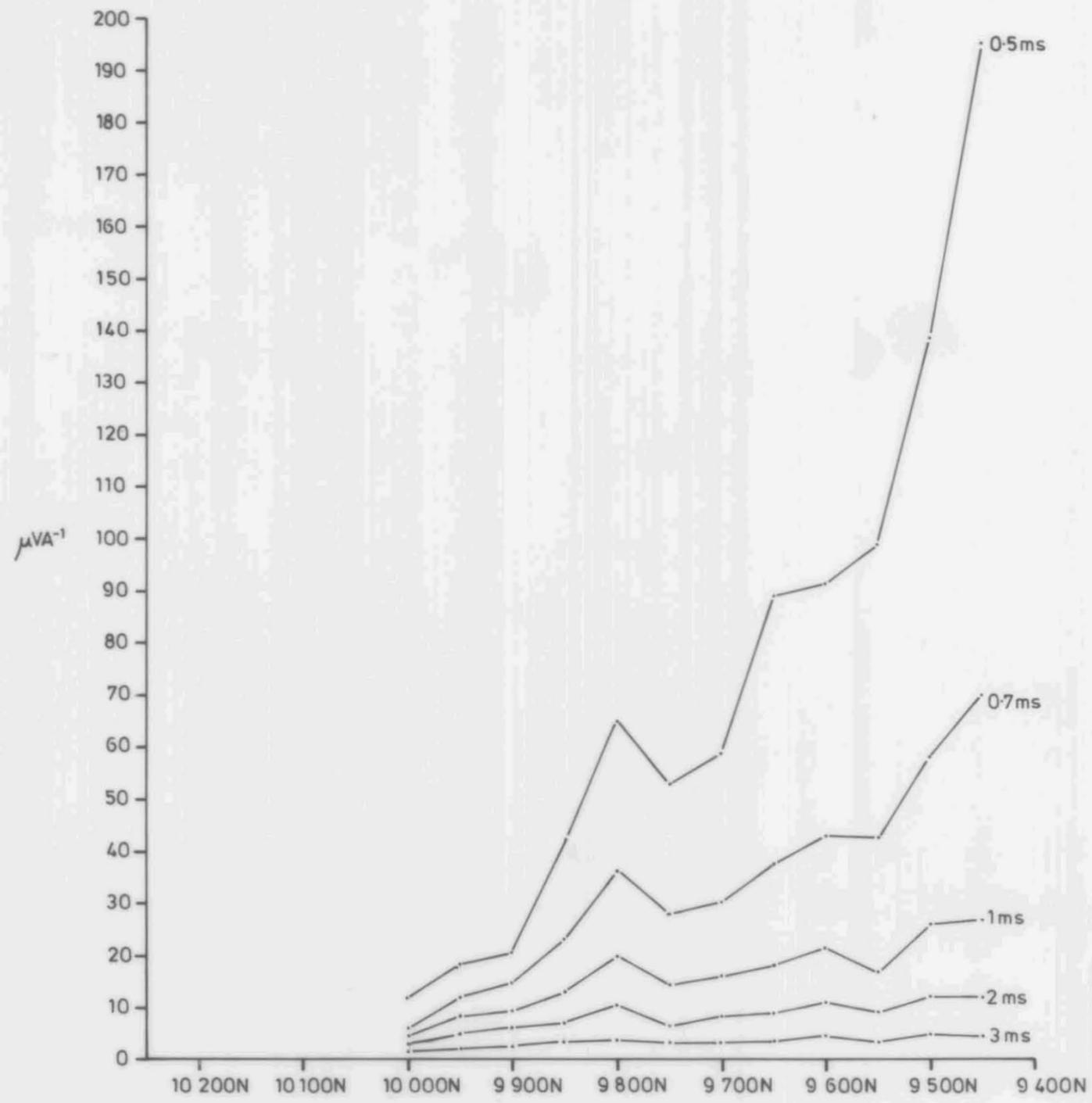
5 cm

03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
(EL 91966, EL101974)
Pitaei Dome Asia Pacific
Green, D. EL101974; EL91966



GEOPEKO LIMITED KING ISLAND GROUP		No. KT10/74-2
SCALE: 1:10,000		
E.L. 10/74 BLACK BLUFF, TASMANIA		KT10/74-1 KT10/74-2 KT10/74-3
GEOLOGIST: L.G. DRAWN: L.G. CHECKED: M.C.R.		

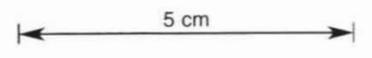


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Green, D. EL10/1974; EL9/1966

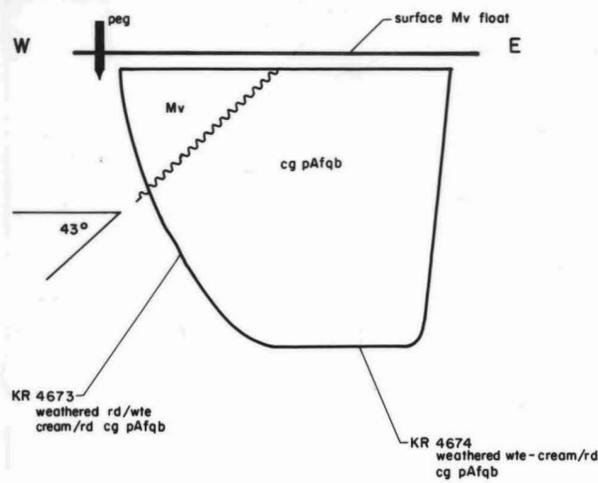
Note:- Single 100m Square Loops

GEOPEKO LTD. Geophysical Surveys Plan No. 3853 S/A	Instrument	LAR MK1	Datum		Hor. Scale	1:5 000	AREA	Black Bluff-Tasmania
	Observer	S. Mudge	Base Peg		Vert. Scale	1cm=10μVA⁻¹	PROSPECT	MARINER 1 - LINE 9 750E
	Scale Fact		Date	June 1978	Cont. Int.		PLAN SHOWS	TEM Profiles



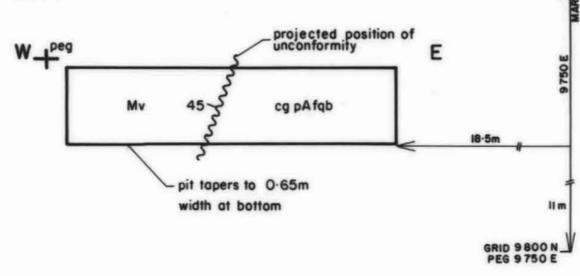
KT 10/74-M-19
MARINER-1
#15 1234

SECTION - looking N



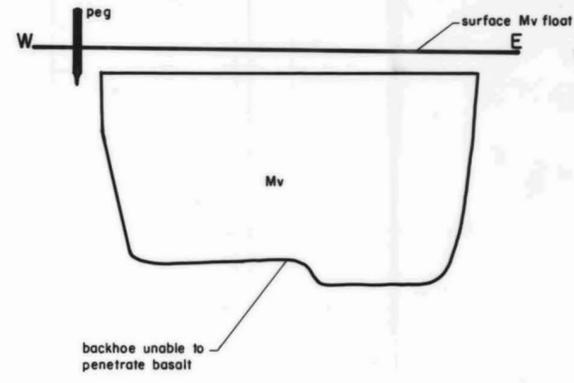
Cu	95 ppm
Pb	8000
Zn	60
Ag	2
Mn	6000
Ca	<5
Si	<20
As	80
Sa	1
Ba	1000
Fe	1-10%

PLAN

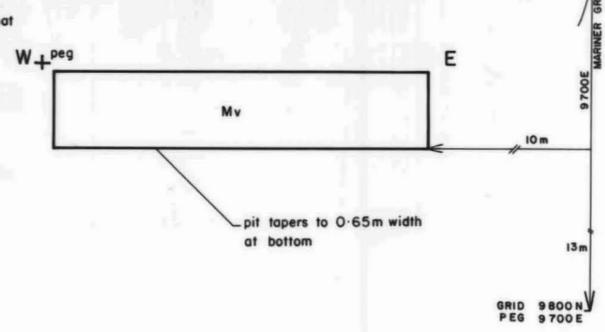


PIT 1

SECTION - looking N

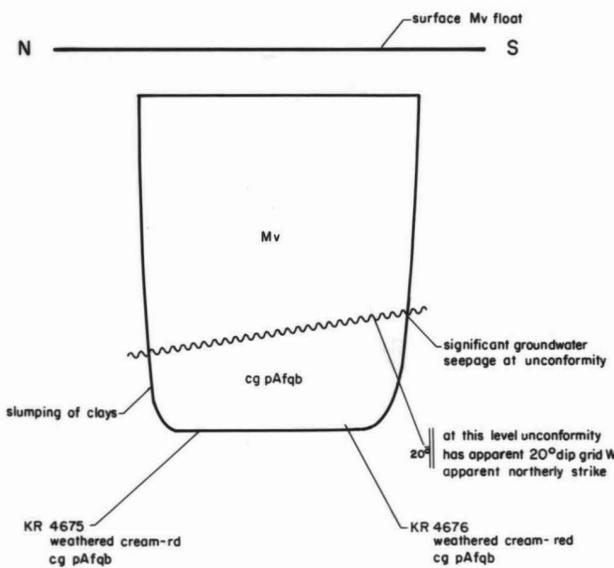


PLAN

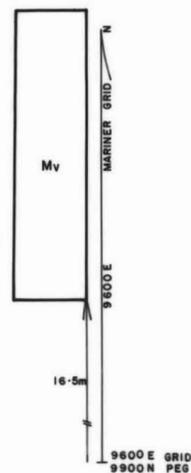


PIT 2

SECTION - looking E

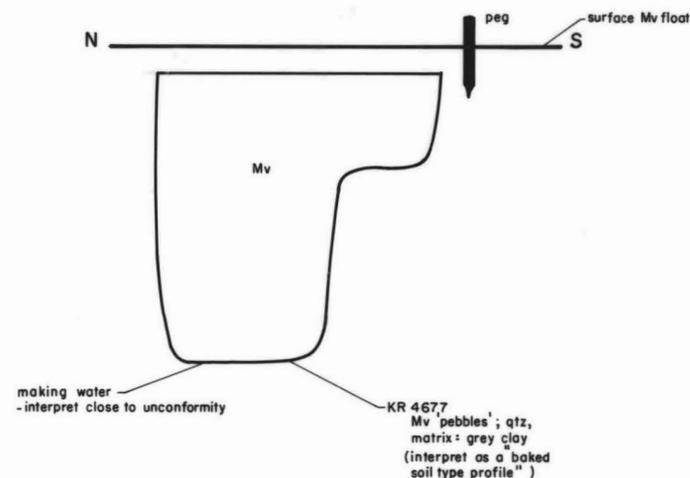


PLAN

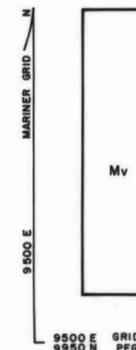


PIT 3

SECTION - looking E



PLAN



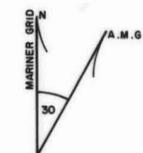
PIT 4

03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
(EL 9/1966, EL10/1974)
Placer Dome Asia Pacific
Green, D. EL10/1974; EL9/1966

LEGEND:

For 1:5000 scale plan location of each pit refer to map no. KT 10/74-M-3A
For details of geological abbreviations refer to map no. KT 10/74-3A



DATE: APRIL '79
GEOLOGIST: G.L.B.
DRAWN: J.P.M.
CHECKED: 416

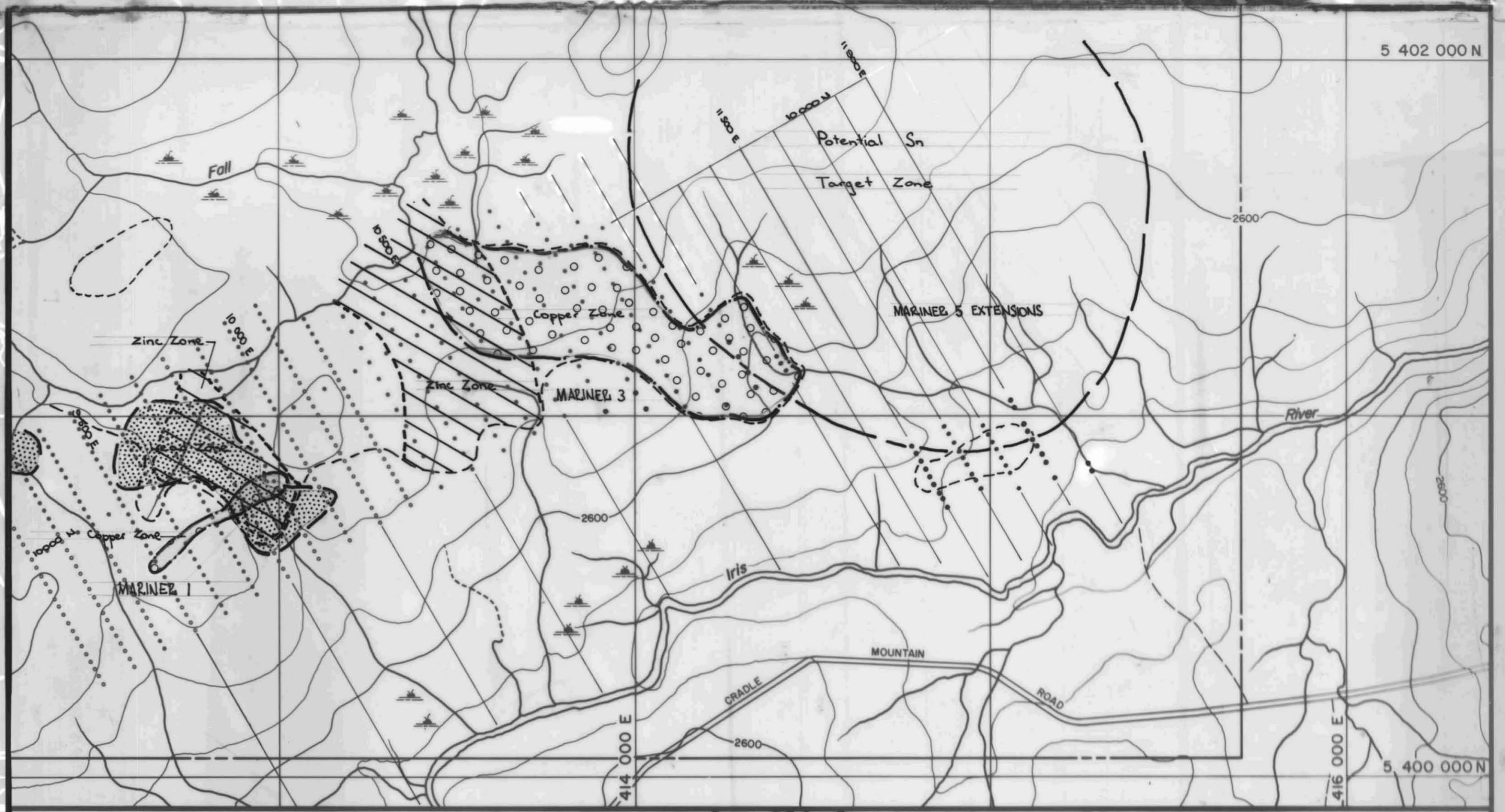
GEOPEKO
A DIVISION OF PEKO-WALLSEND OPERATIONS LTD
No. KT 10/74-M-19
SCALE: 1:50
E.L.10/74 BLACK BLUFF
TASMANIA
MARINER 1
PITS 1, 2, 3 and 4

03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL10/1974)
 Placer Dome Asia Pacific
 Green, D. EL10/1974; EL9/1966

TS 10/74-3
 (Fig 2)
 MARINER 1-3
 SOIL GEOCHEMICAL
 ZONATION &
 GEOLOGY
 1:10,000

5 cm



SOIL GEOCHEMICAL ZONES

- Cu
- Pb
- Zn

GEOLOGICAL LEGEND

- 19-20 Qtz-feldspar-biotite porphyry with local clay-ser-chl alteration.
- 19-48 Tertiary Basalt Cover



DATE: NOV. 1980
 GEOLOGIST: P.R.L.
 DRAWN: D. GREEN
 CHECKED:

GEOPEKO LIMITED

SCALE: 1:10,000

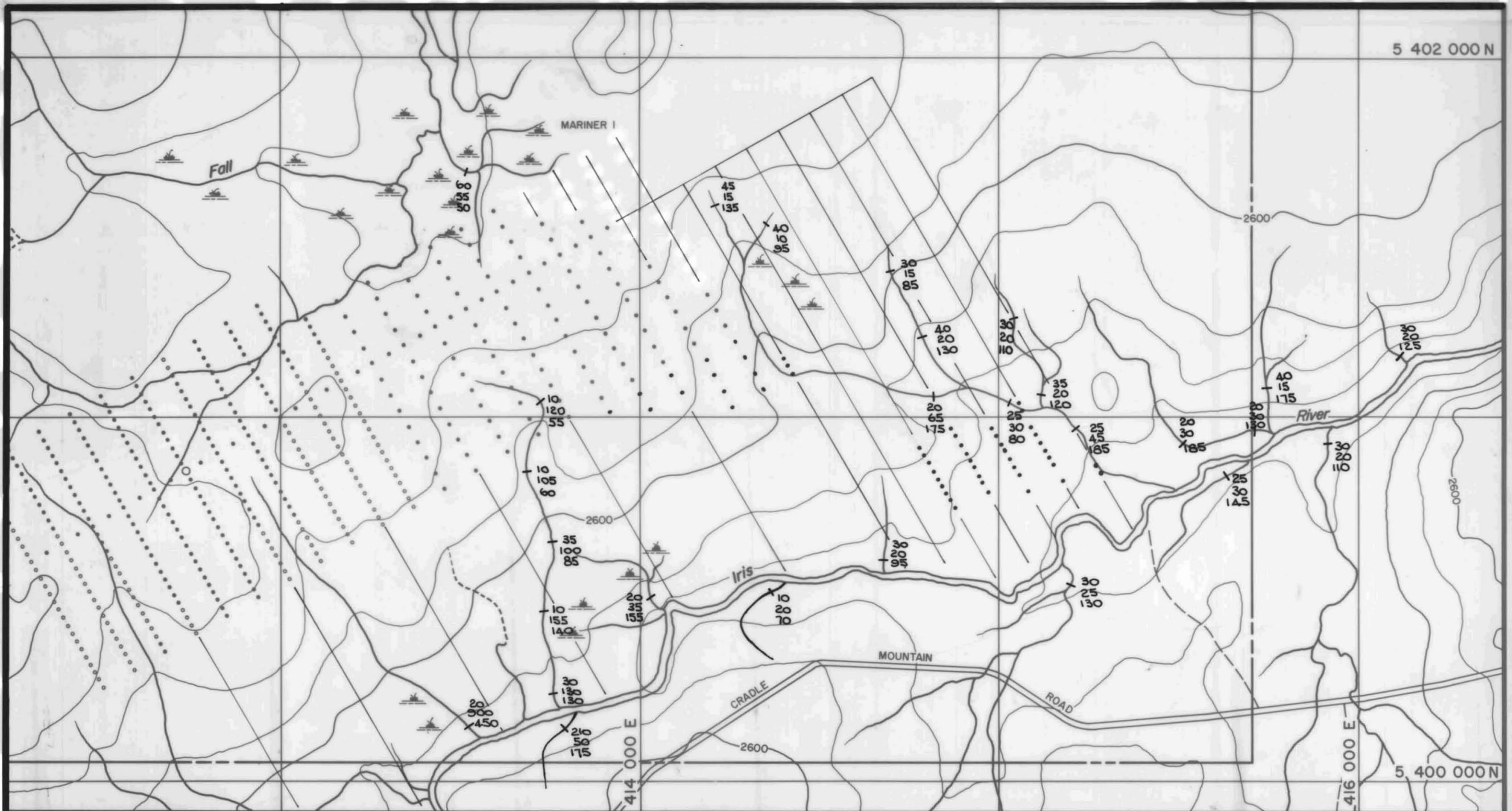
E.L. 10/74
 BLACK BLUFF, TASMANIA
 MARINER 1-3, Soil Geochemical
 Zonation and Geology.

No. TS 10/74-3

FIG. 2

KT10/74-1	
KT10/74-2	KT10/74-3

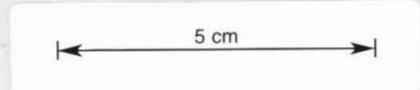
TS 10/74-3(L)
 (FIG 5)
 MARINER 3 DRAINAGE
 GEOCHEM. RESULTS
 Cu, Pb, Zn
 80 MESH FRACTION
 1:10 000



LEGEND:

/ Cu - ppm
 \ Pb - ppm
 - Zn - ppm

 Worms: Cu > 25
 Pb > 120
 Zn > 250



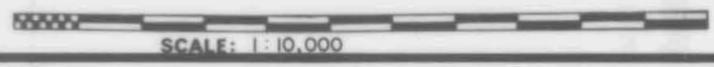
03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL10/1974)
 Placer Dome Asia Pacific
 Green, D. EL10/1974; EL9/1966



DATE: NOV. 1980
 GEOLOGIST: R.R.L.
 DRAWN: D. GREEN.
 CHECKED:

GEOPEKO LIMITED
 Devonport Base, Tasmania



E.L. 10/74
 BLACK BLUFF, TASMANIA
 MARINER 3 - Drainage Geochemical
 Results
 Cu, Pb, Zn : -80mesh fraction

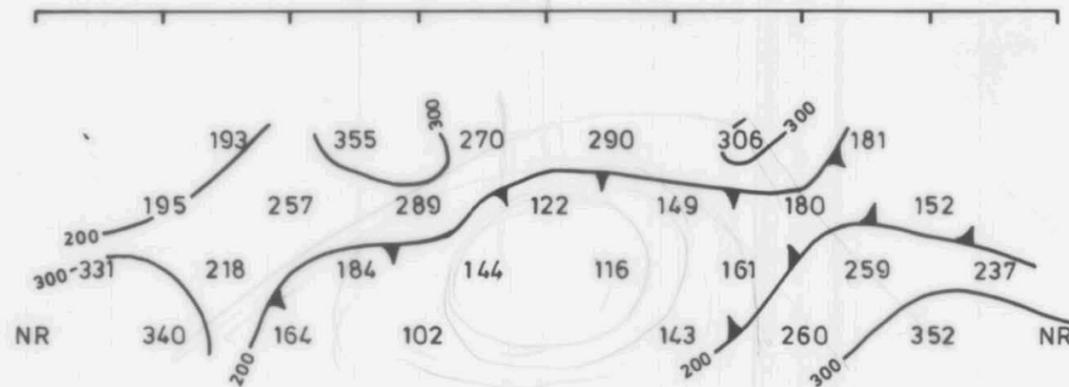
No. TS 10/74-3

FIG. 5

KT10/74-1	
KT10/74-2	KT10/74-3

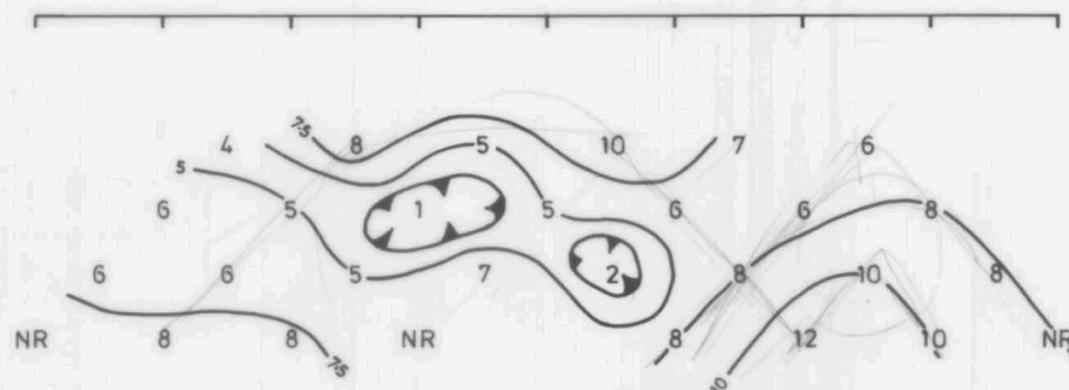
I.P.
PSEUDOSECTIONS
11,500 E.

3857



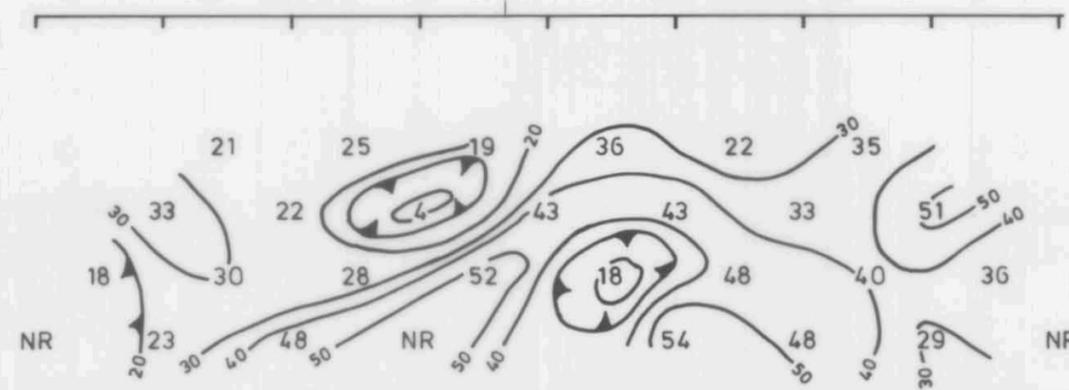
n=1
n=2
n=3
n=4

APPARENT RESISTIVITY (ρ_a)
 Ωm
CONTOUR INTERVAL = 100 Ωm



n=1
n=2
n=3
n=4

APPARENT CHARGEABILITY (M_{232})
 $mV V^{-1}$
CONTOUR INTERVAL = 2.5 $mV V^{-1}$



n=1
n=2
n=3
n=4

APPARENT METAL FACTOR (M_{232})
 $\Omega^{-1} m$
CONTOUR INTERVAL = 10 $\Omega^{-1} m$

10 200N 10 100N 10 000N 9 900N 9 800N 9 700N 9 600N 9 500N 9 400N

Note:- Dipole Length = 100m
NR = No Reading

5 cm

03_4902

Tube Number 15: Black Bluff, Mariner, Mt Stormont
(EL 9/1966, EL10/1974)
Placer Dome Asia Pacific*
Green, D. EL10/1974; EL9/1966

GEOPEKO LTD.
Geophysical Surveys

Instrument IPR-8
Observer S. Mudge
P. Muir

Datum
Base Peg
Date June 1978

Hor Scale 1:5 000
Vert Scale
Cont Int

AREA
PROSPECT
PLAN SHOWS

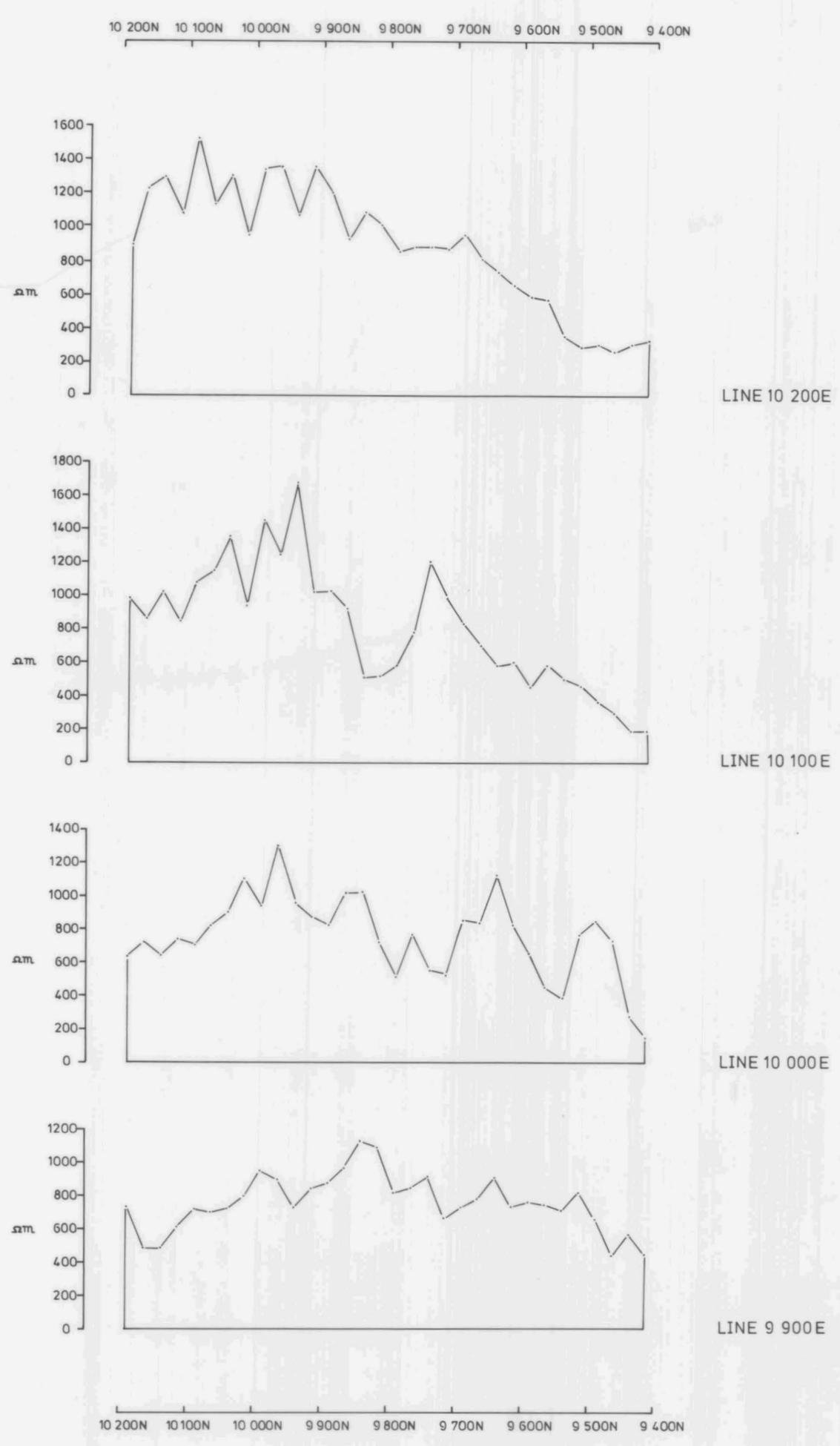
Black Bluff-Tasmania

MARINER 3 LINE 11 500E

Plan No. 3857 S/A

Pseudosections of Dipole-Dipole IP/Resistivity





Note: Current Electrodes at 10 400E/10 800N and 10 400E/8 800N.
Receiver Dipole = 25m

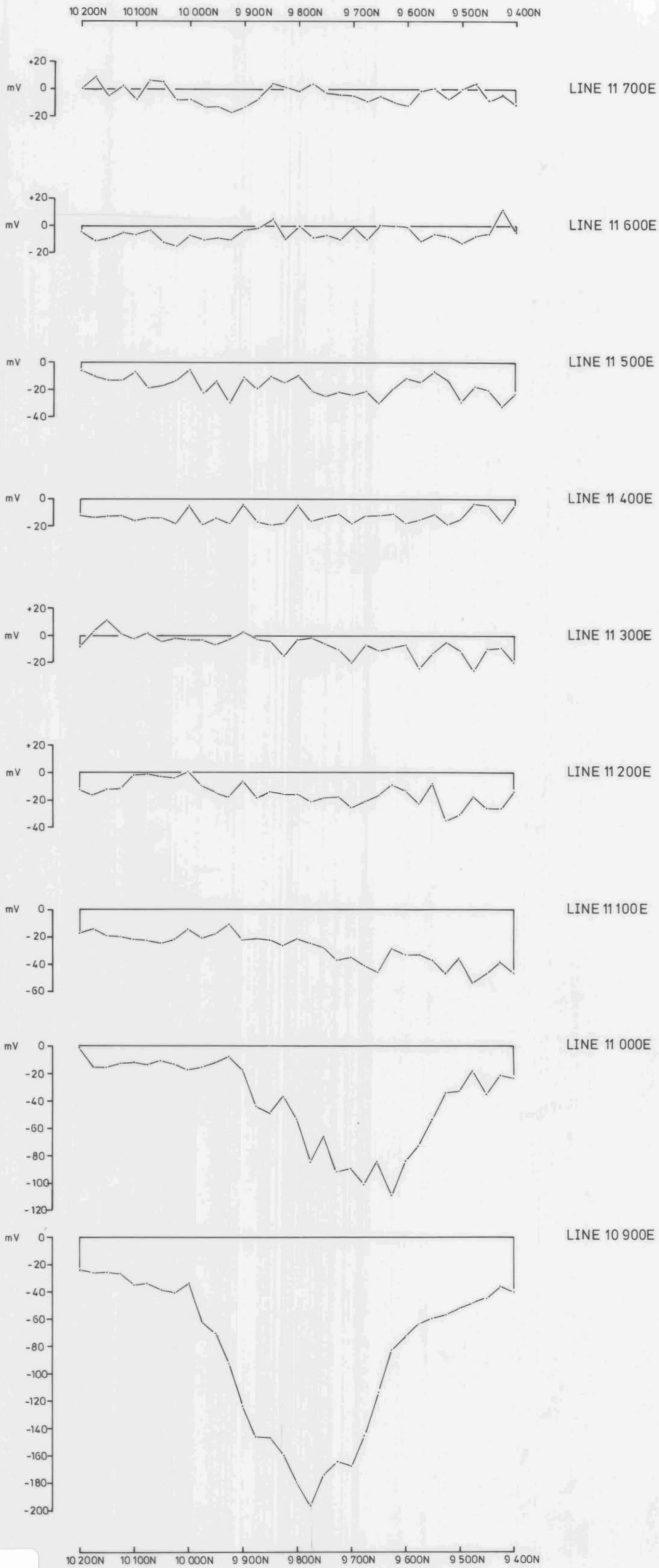


03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
(EL 9/1966, EL10/1974)
Placer Dome Asia Pacific*
Green, D. EL10/1974; EL9/1966

GEOPEKO LTD. Geophysical Surveys Plan No. 3860 S/A	Instrument	IPR-8	Datum	Cam.	Hor Scale	1:5 000	AREA	Black Bluff-Tasmania
	Observer	I.Ogilvie	Base Peg		Vert Scale	1cm = 200Ωm	FROSPLECT	MARINER 3
	Scale Fact		Date	Dec. 1977	Cont Int		PLAN SHOWS	Profiles of Gradient Array Apparent Resistivity





03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
(EL 9/1966, EL10/1974)
Placer Dome Asia Pacific
Green, D. EL10/1974; EL9/1966

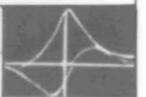


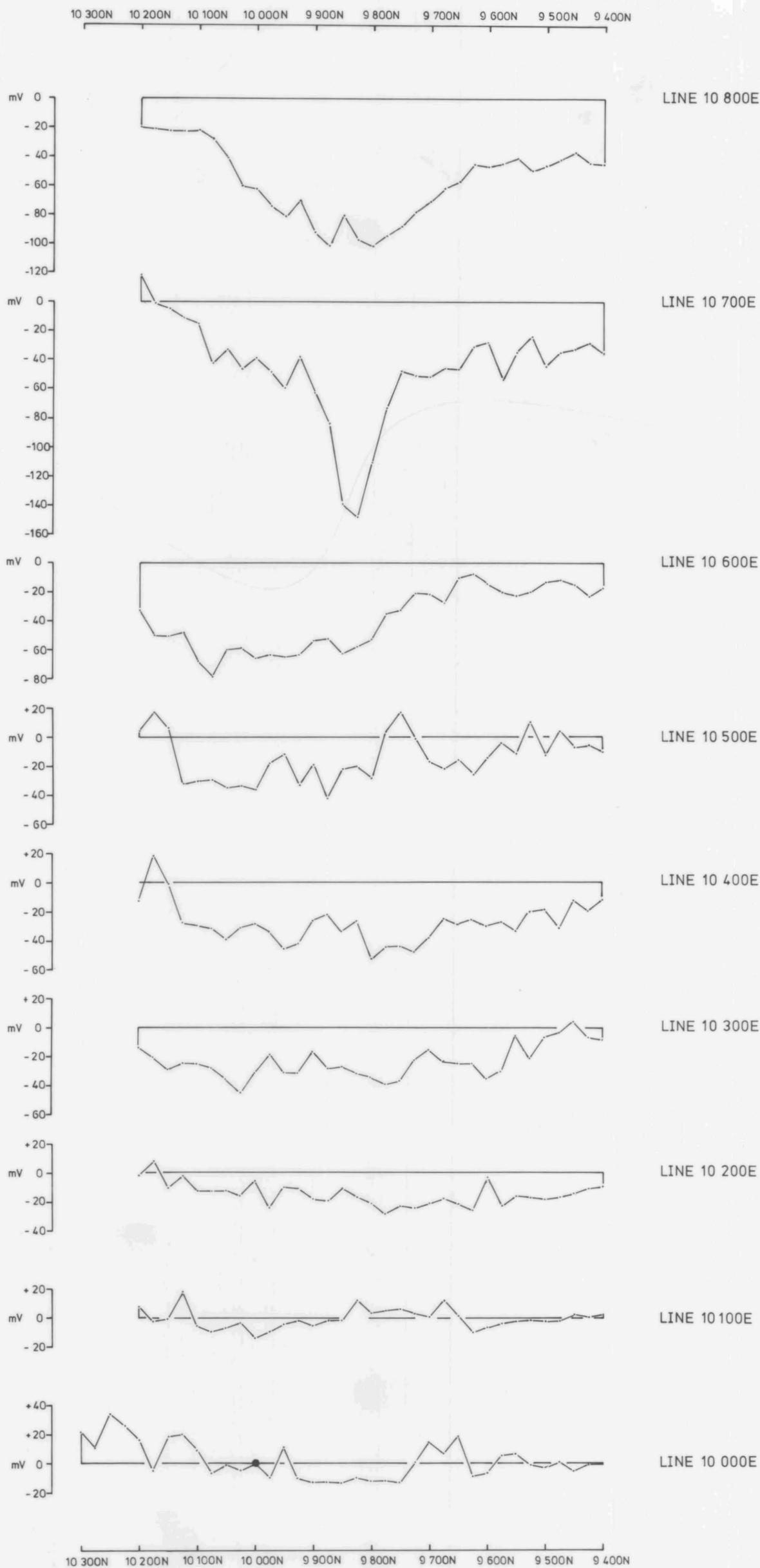
Sheet 1
Sheet 2
Sheet 3

GEOPEKO LTD.
Geophysical Surveys

Plan No. 3846 S/A

Instrument	Fluke 8020A	Datum	0mV	Hor Scale	1:5 000	AREA	Black Bluff-Tasmania
Observer	P.Muir	Base Peg	10 000E/ 10 000N (0mV)	Vert Scale	1cm=20mV	PROSPECT	MARINER 3
Scale Fact		Date	May 1978	Cont Int.		PLAN SHOWS	Self Potential Profiles - Sheet 1 of 3





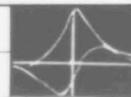
Sheet 1
Sheet 2
Sheet 3

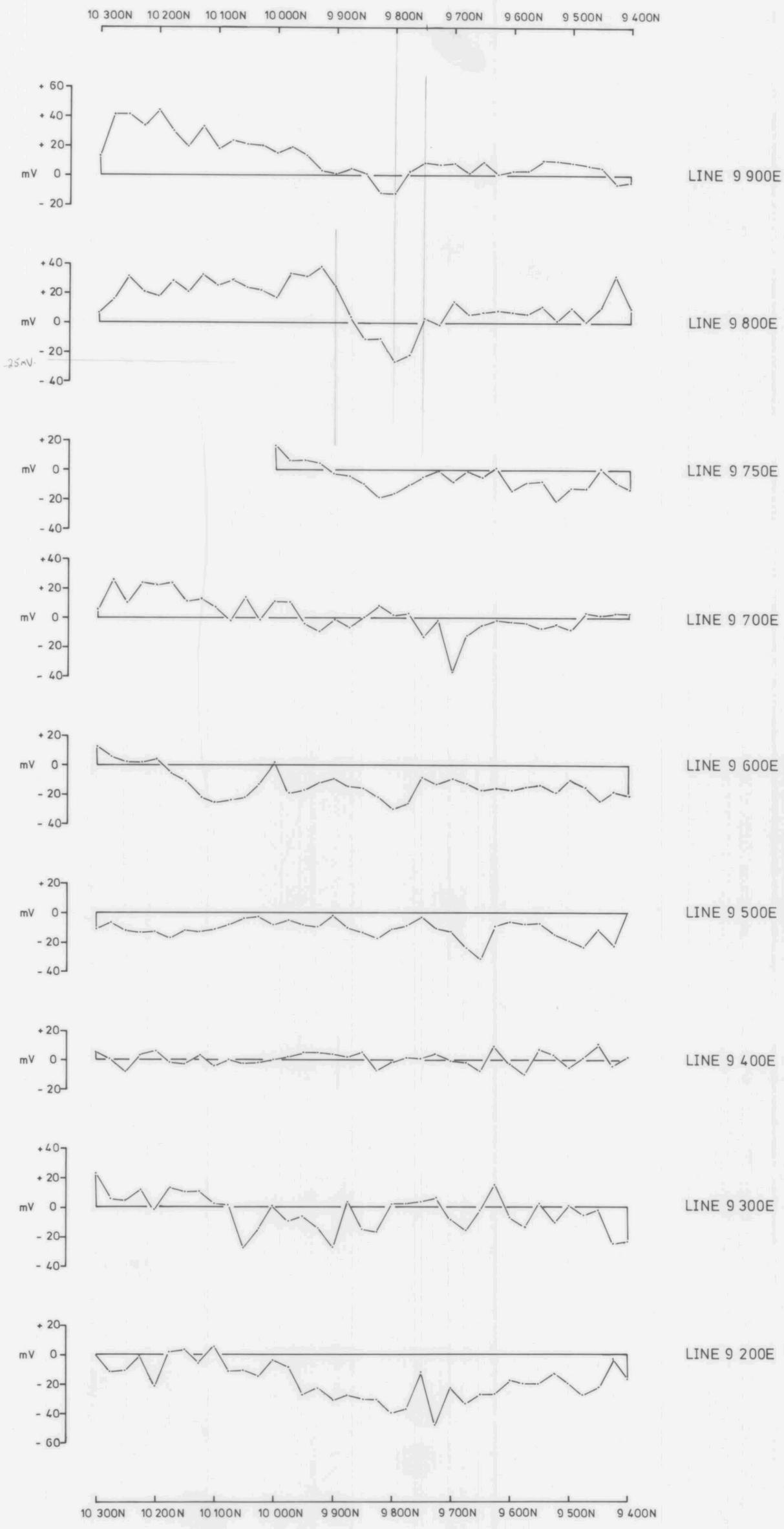
03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
(EL 9/1966, EL 10/1974)
Placer Dome Asia Pacific
Green, D. EL10/1974; EL9/1966

GEOPEKO LTD.
Geophysical Surveys
Plan No. 3847 S/A

Instrument	Fluke 8020A	Datum	0mV	Hor Scale	1:5 000	AREA	Black Bluff-Tasmania
Observer	P.Muir	Base Peg	10 000E/ 10 000N (0mV)	Vert Scale	1cm=20mV	PROSPECT	MARINER 3
Scale Fact		Date	May 1978	Cont Int		PLAN SHOWS	Self Potential Profiles- Sheet 2 of 3



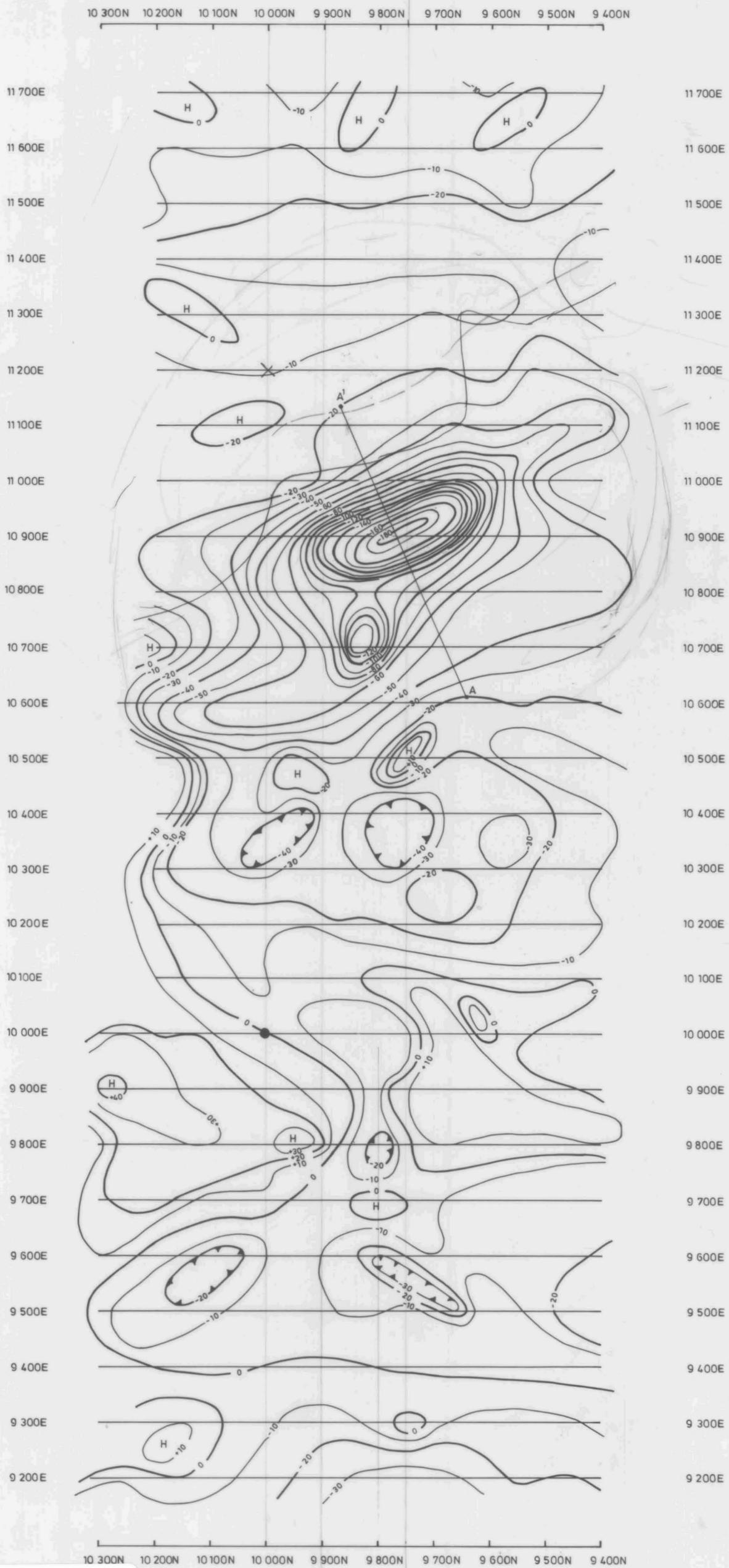


Sheet 1
Sheet 2
Sheet 3



03_4902
 Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL10/1974)
 Placer Dome Asia Pacific*
 Green, D. EL10/1974; EL9/1966

GEOPEKO LTD. Geophysical Surveys Plan No. 3848 S/A	Instrument	Fluke 8020A	Datum	0 mV	Hor Scale	1:5 000	AREA	Black Bluff-Tasmania
	Observer	P.Muir	Base Peg	10 000E/ 10 000N (0mV)	Vert Scale	1cm = 20mV	PROSPECT	MARINER 1
	Scale Fact		Date	May 1978	Cont Int.		PLAN SHOWS	Self Potential Profiles - Sheet 3 of 3



03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
(EL 9/1966, EL10/1974)
Placer Dome Asia Pacific
Green, D. EL10/1974; EL9/1966

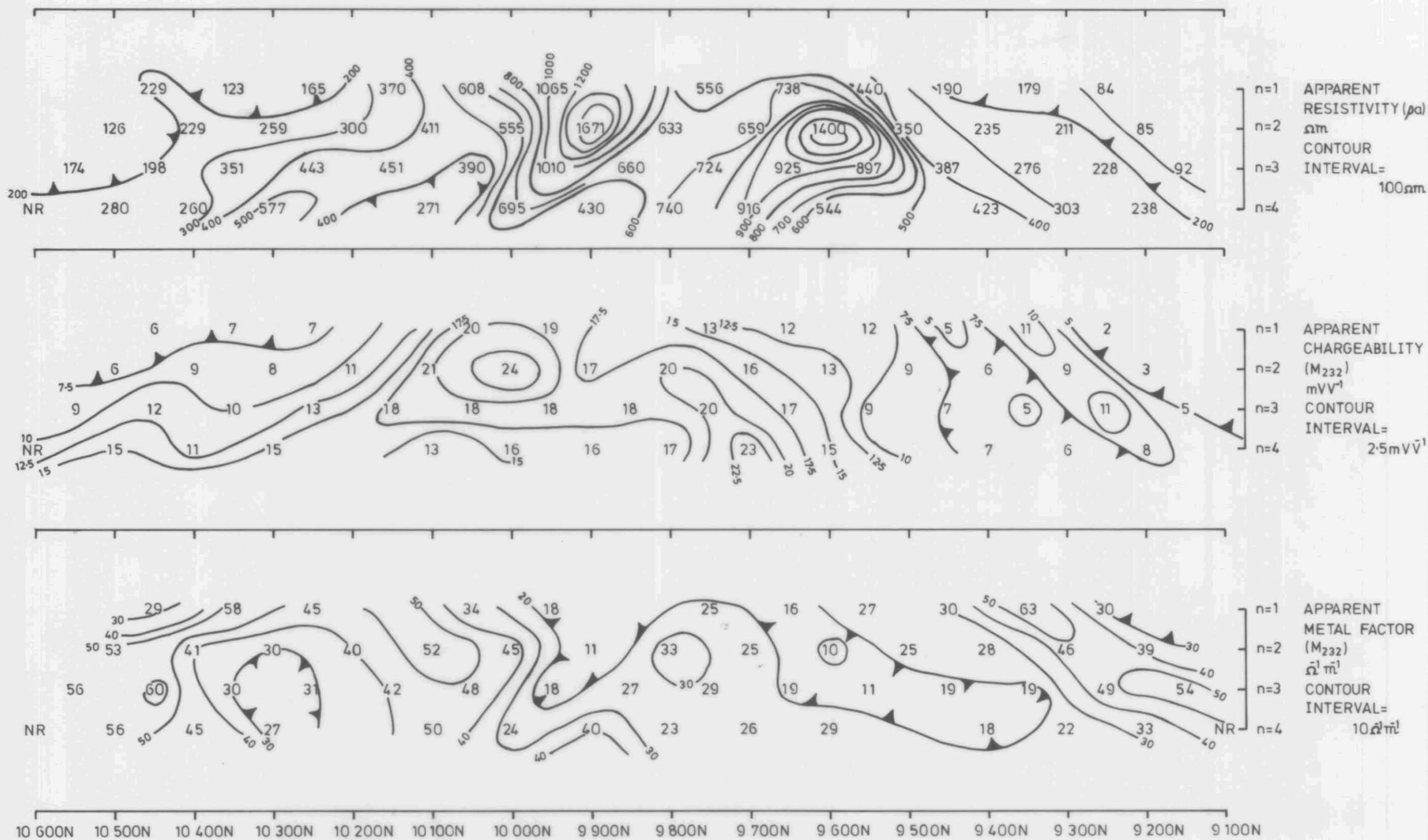
5 cm

GEOPEKO LTD. Geophysical Surveys	Instrument Fluke 8020A	Datum	Hor Scale 1:5 000	AREA Black Bluff-Tasmania
Plan No. 3849 S/A	Observer P. Muir	Base Peg 10 000E 10 000N (0mV)	Vert Scale	PROSPECT MARINER 1&3
	Scale Fact	Date May 1978	Cont Int. 10mV	PLAN SHOWS Self Potential Contours

I.P.
PSEUDOSECTIONS

10,700 E.

3855



Note:- Dipole Length=100m
NR=No Reading

5 cm

03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
(EL 9/1966, EL10/1974)
Placer Dome Asia Pacific*
Green, D. EL10/1974; EL9/1966

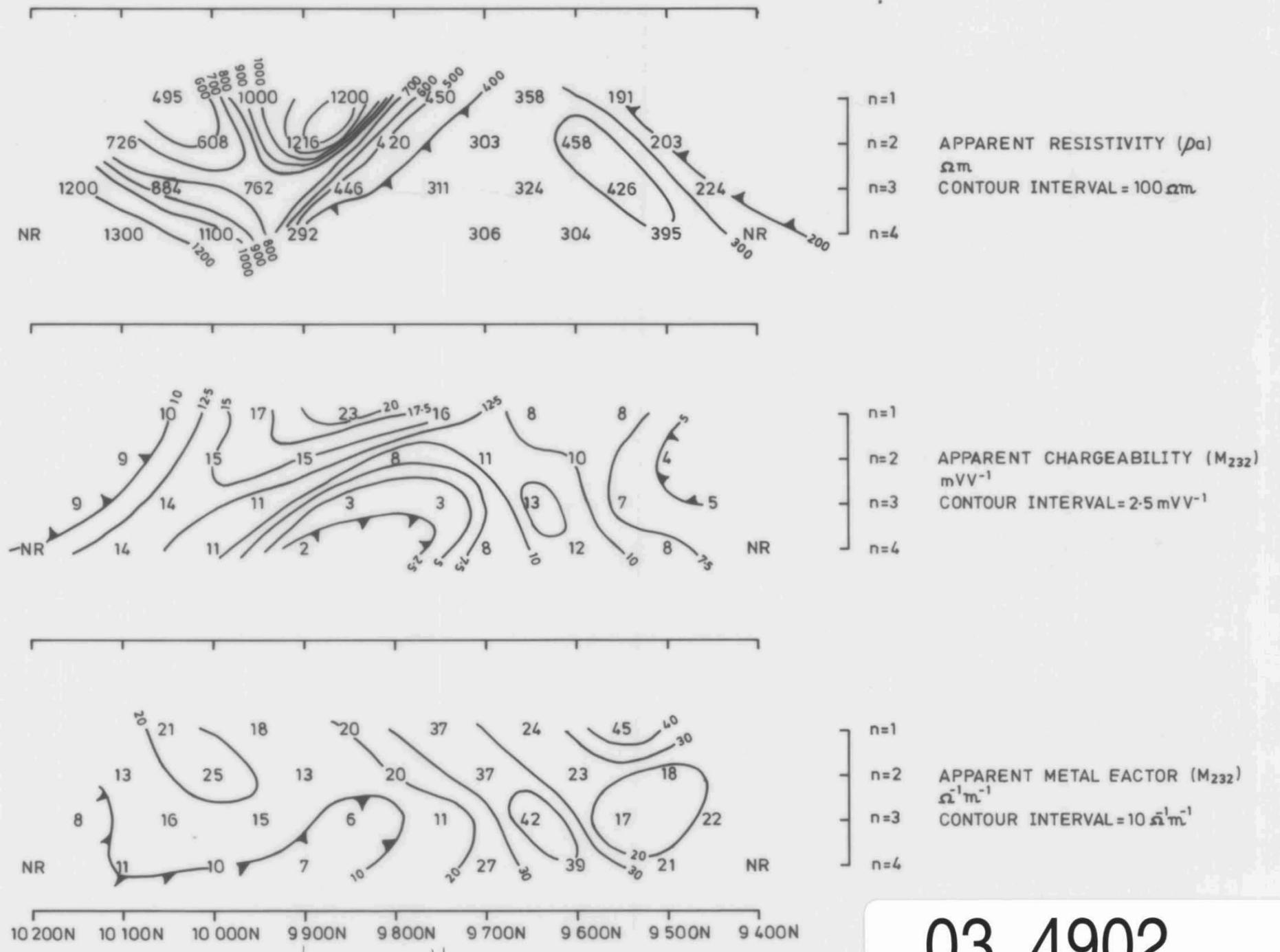
GEOPEKO LTD.
Geophysical Surveys.

Plan No. 3855 S/A

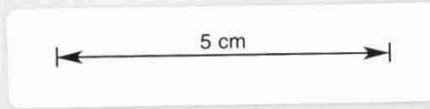
Instrument	IPR-8	Datum		Hor Scale	1:5 000	AREA	Black Bluff-Tasmania
Observer	S.Mudge P.Muir	Base Peg		Vert. Scale		PROSPECT	MARINER 3 LINE 10 700E
Scale Fact		Date	June 1978	Cont Int.		PLAN SHOWS	Pseudosections of Dipole-Dipole IP/Resistivity

I.P. Pseudosections
9800E.

3856



Note:- NR=No Reading
Dipole Length=100m

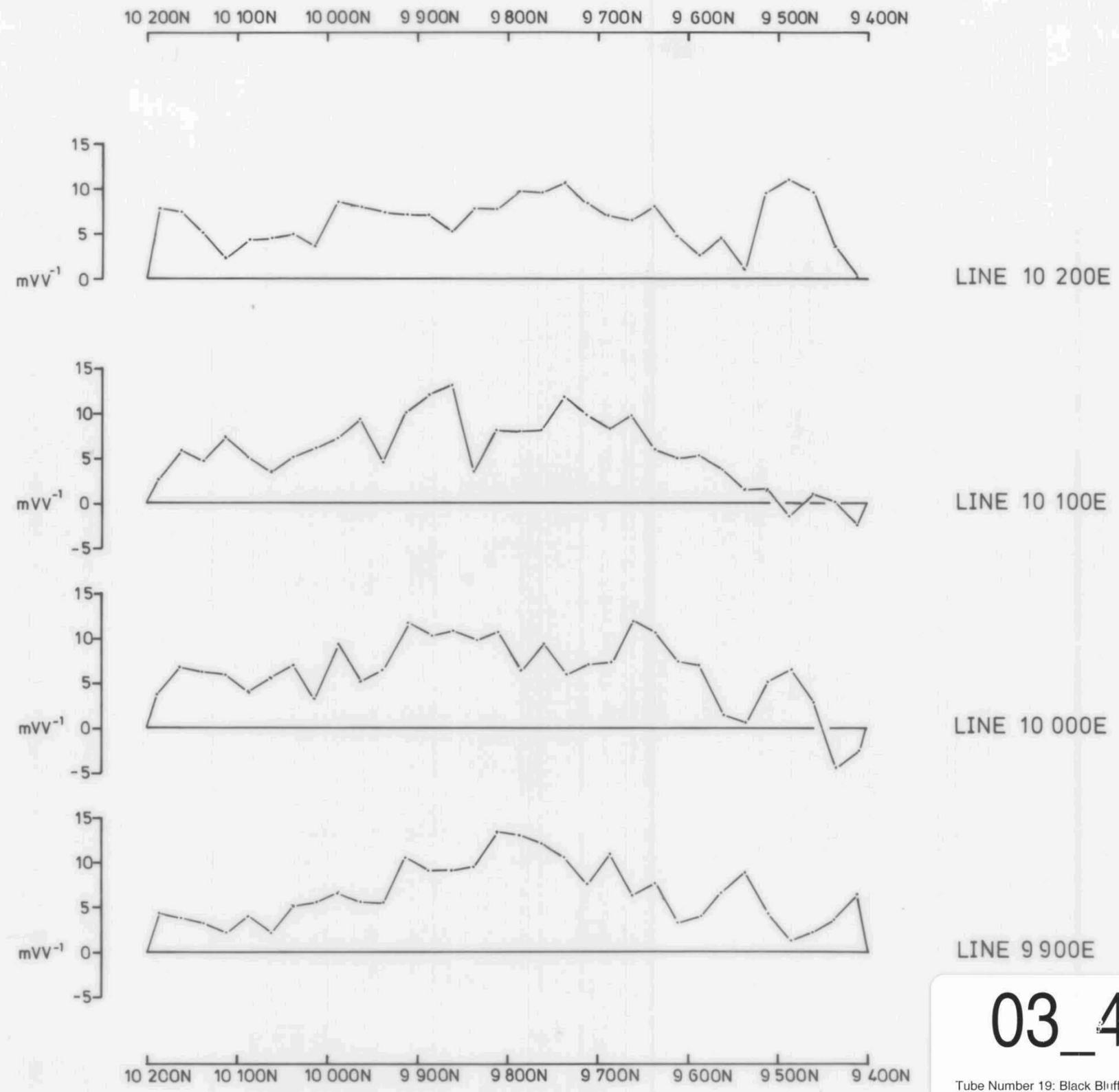


03_4902
 Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL10/1974)
 Placer Dome Asia Pacific*
 Green, D. EL10/1974; EL9/1966

GEOPEKO LTD. Geophysical Surveys. Plan No. 3856 S/A	Instrument	IPR-8	Datum		Hor Scale	1:5 000	AREA	Black Bluff-Tasmania
	Observer	P.Muir S.Mudge	Base Peg		Vert. Scale		PROSPECT	MARINER 1 LINE 9 800E
	Scale Fact		Date	June 1978	Cont. Int.		PLAN SHOWS	Pseudosections of Dipole- Dipole IP/Resistivity

GRAD. ARR.
I.P.
PROFILES
9900E - 19200E.

3859



5 cm

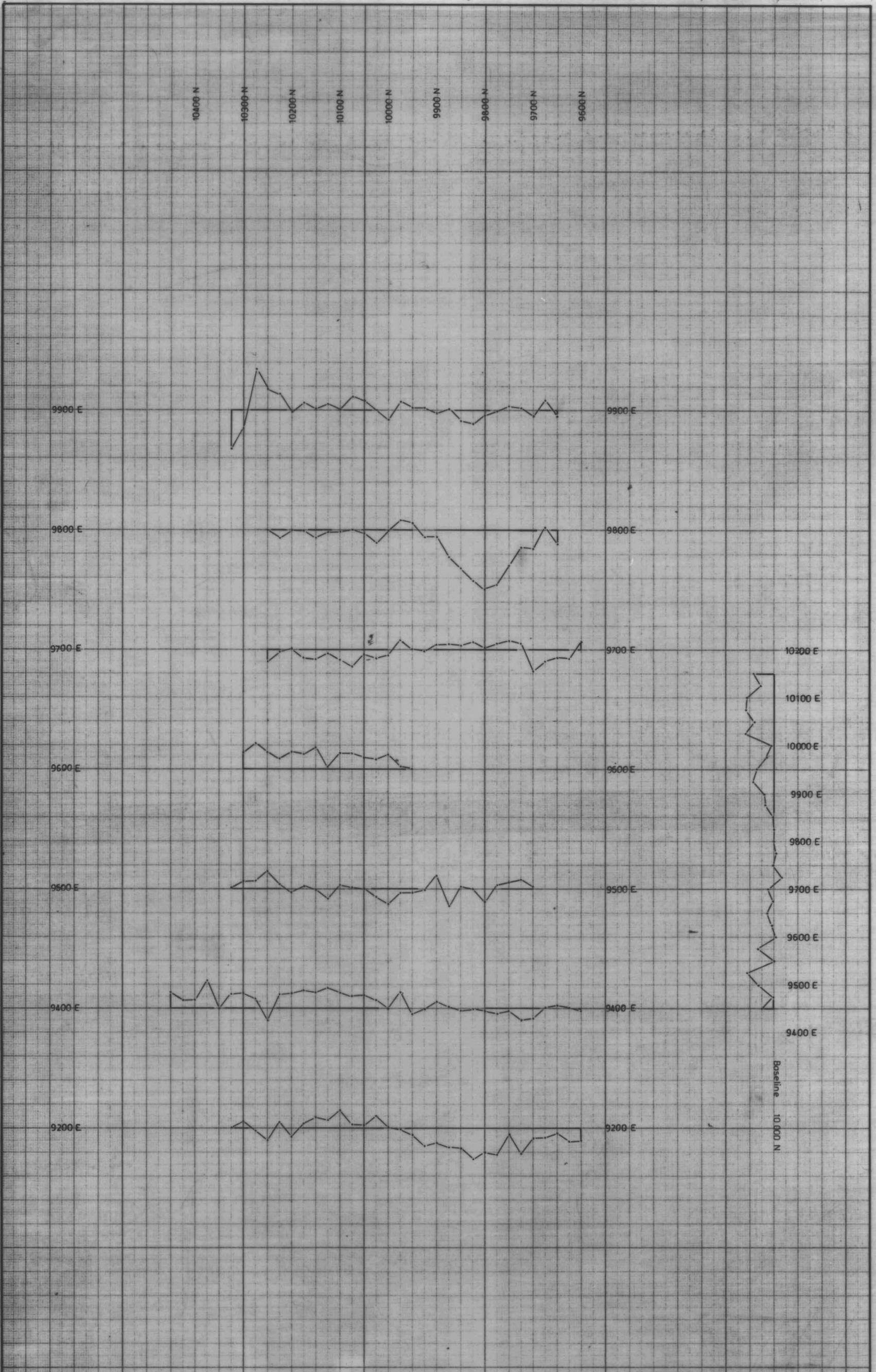
Note:- Receiver Dipole=25m
Current Electrodes at
10 400E/10 800N and
10 400E/8 800N

03_4902

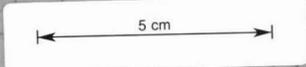
Tube Number 19: Black Bluff, Mariner, Mt Stormont
(EL 9/1966, EL10/1974)
Placer Dome Asia Pacific*
Green, D. EL10/1974; EL9/1966

GEOPEKO LTD. Geophysical Surveys Plan No. 3859 S/A	Instrument	IPR-8	Datum	0mV ⁻¹	Hor Scale	1:5 000	AREA	Black Bluff-Tasmania
	Observer	I. Ogilvie	Base Peg		Vert Scale	1cm = 5mV ⁻¹	PROSPECT	MARINER 3
	Scale Fact		Date	Dec. 1977	Cont Int		PLAN SHOWS	Profiles of Gradient Array IP-Apparent Chargeability (M ₂₃₂)





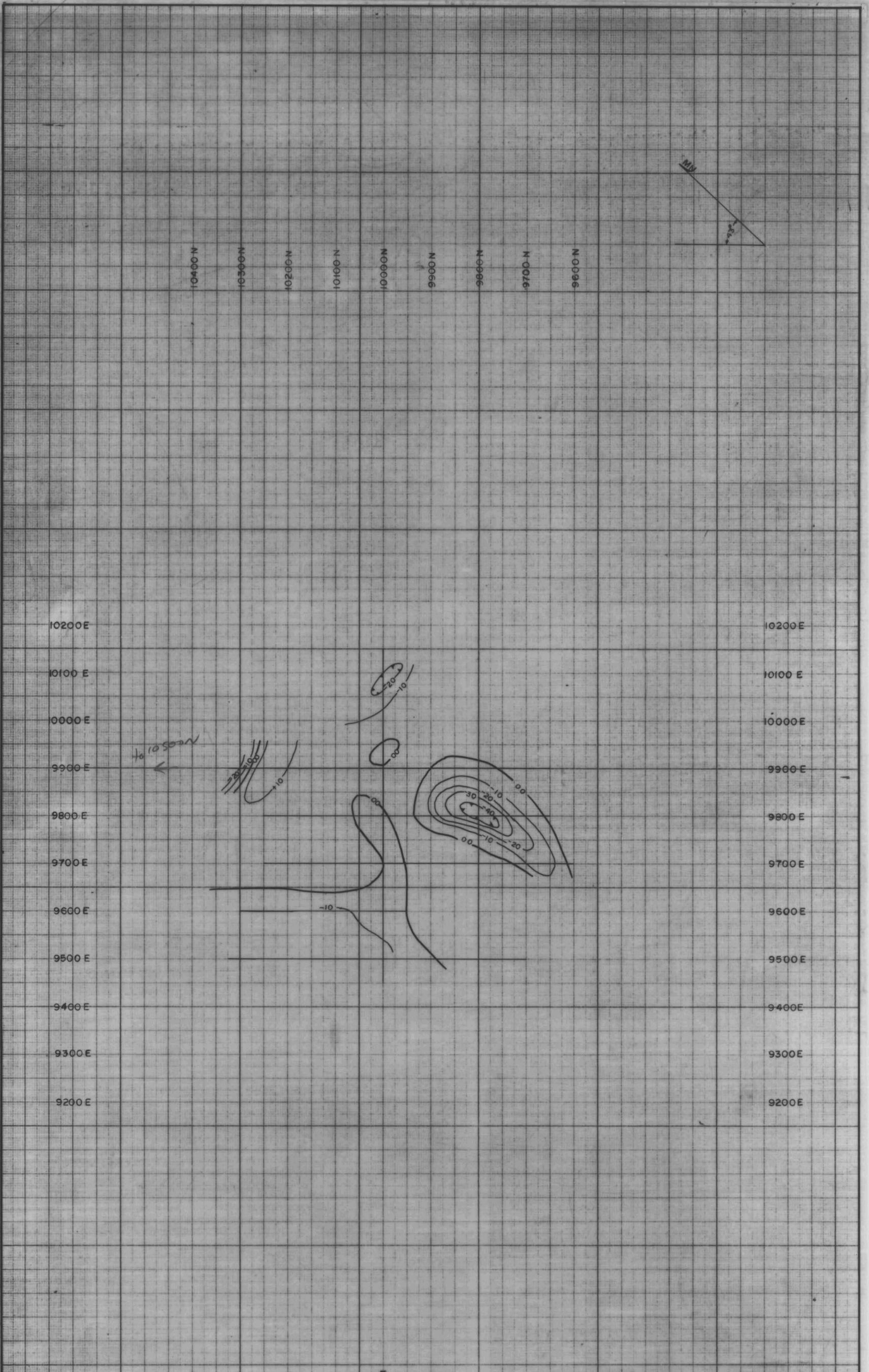
NOTE:- Except lines 9200 E & 9400 E, all lines are reduced to datum point 9800 E / 10000 N



03_4902
 Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL10/1974)
 Placer Dome Asia Pacific*
 Green, D. EL10/1974; EL9/1966

GEOPEKO LTD.
 Geophysical Surveys.
 Plan No 3311

Instrument	Palmer	Datum	0 mV	Hor. Scale	1 cm = 50 m	AREA.	Black Bluffs EL10/74
Observer	S Mudge	Base Peg	9800 E / 10000 N	Vert. Scale	1 cm = 20 mV	PROSPECT.	MARINER 1.
Scale Fact.	—	Date	Jan. 1977	Cont. Int.	—	PLAN SHOWS	Self Potential Profiles.



03_4902
 Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL10/1974)
 Placer Dome Asia Pacific*
 Green, D. EL10/1974; EL9/1966

GEOPEKO LTD.
Geophysical Surveys.
 Plan No 3312

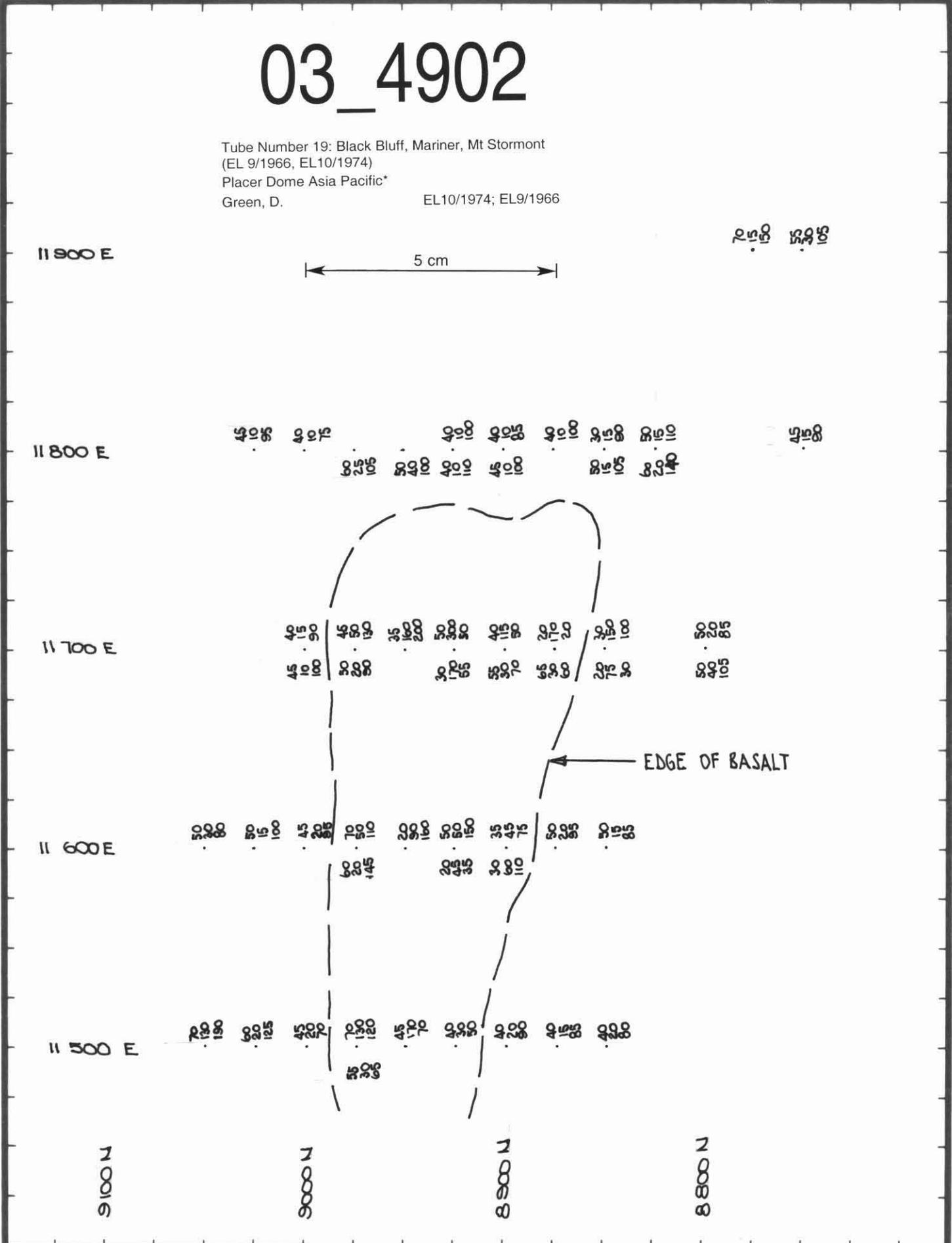
Instrument	Palmer	Datum	00 mV	Hor. Scale	1 cm = 50 metres	AREA.
Observer	S. Mudge	Base Peg	9800E 10000N	Vert. Scale	—	PROSPECT.
Scale Fact.	—	Date	Jan. 1977	Cont. Int.	10 mV.	PLAN SHOWS

Black Bluffs EL10/74
MARINER I.
 Self Potential Contours. (X)

TS 10/74-3
 Fig 7
 MARINER 5 WINDOW
 Cu, Pb, Zn Soil
 GEOCHEM RESULTS
 1:2500

03_4902

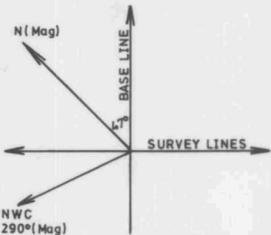
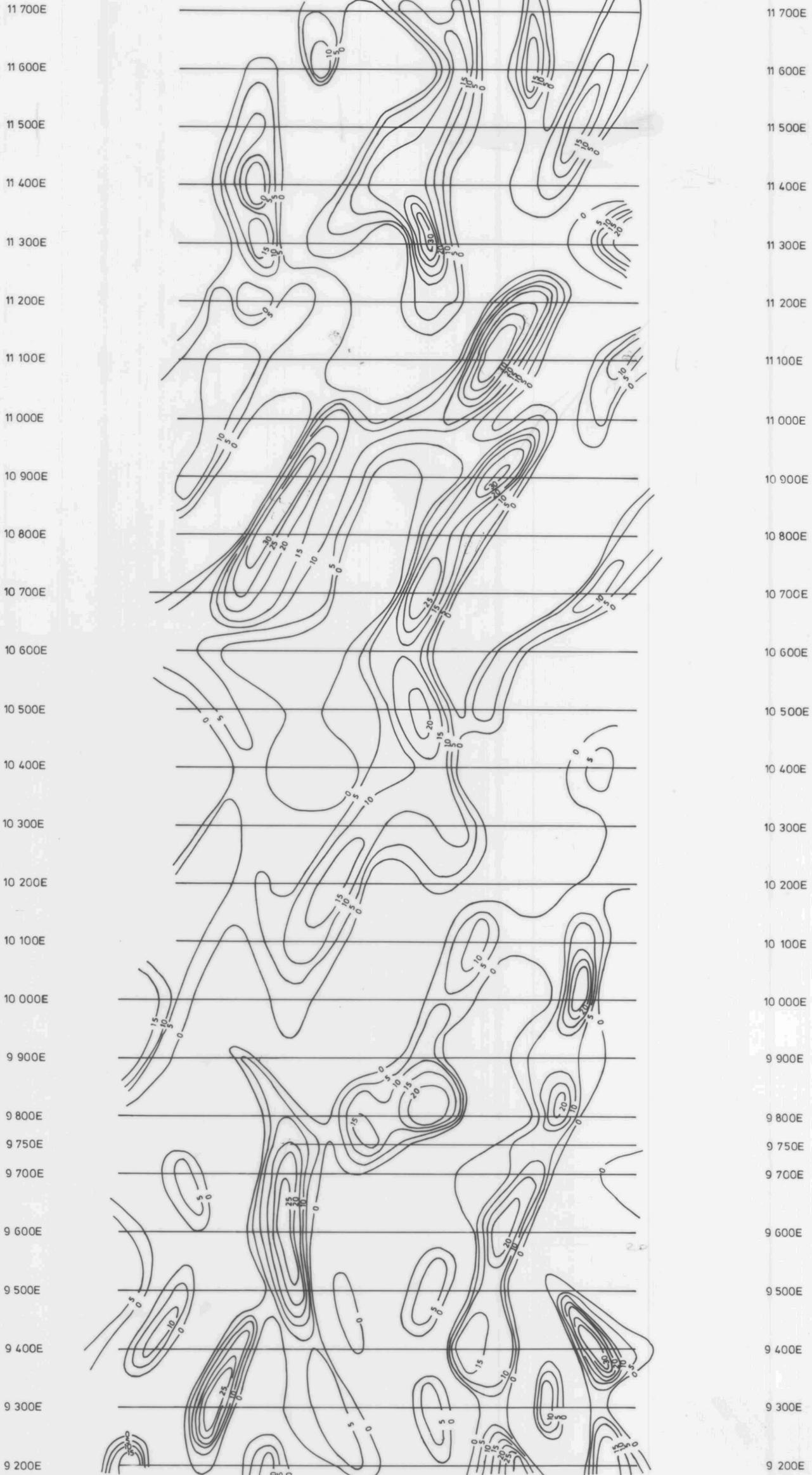
Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL10/1974)
 Placer Dome Asia Pacific*
 Green, D. EL10/1974; EL9/1966



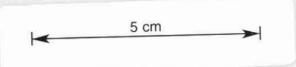
LEGEND: <input type="checkbox"/> B-HORIZON SOIL <input type="checkbox"/> C-HORIZON SOIL <input type="checkbox"/> Sample Location	50 — Cu 10 — Pb 70 — Zn } ppm	GEOPEKO LIMITED DEVONPORT, TASMANIA Scale: 1:2500 No. FIG. 7 MARINER 5 — "WINDOW" Cu, Pb, Zn, SOIL GEOCHEMICAL RESULTS.
	DATE: NOV '80	
	GEOL: W.H. DWN: D.B.	
	CHKD:	

VLF
CONTOURS
MARINER
1+3
3861

10 300N 10 200N 10 100N 10 000N 9 900N 9 800N 9 700N 9 600N 9 500N 9 400N



10 300N 10 200N 10 100N 10 000N 9 900N 9 800N 9 700N 9 600N 9 500N 9 400N



Note:-Transmitter: North West Cape (NWC)

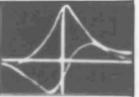
03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
(EL 9/1966, EL10/1974)
Placer Dome Asia Pacific*
Green, D. EL10/1974; EL9/1966

GEOPEKO LTD.
Geophysical Surveys
Plan No. 3861 S/A

Instrument	EM 16	Datum		Hor Scale	1:5 000
Observer	S. Mudge	Base Peg		Vert Scale	
Scale Fact		Date	May 1978	Cont Int	5%

AREA	Black Bluff-Tasmania
PROSPECT	MARINER 1&3
PLAN SHOWS	Contours of Filtered In-phase VLF-EM



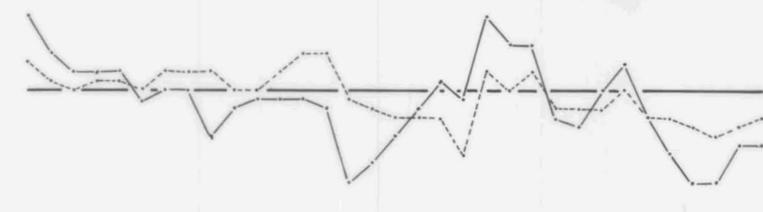
03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL10/1974)
 Placer Dome Asia Pacific
 Green, D. EL10/1974; EL9/1966

5 cm

10 200N 10 100N 10 000N 9 900N 9 800N 9 700N 9 600N 9 500N 9 400N

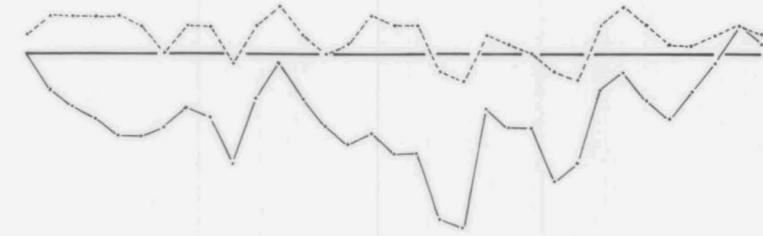
+10
+5
% 0
-5
-10
-15



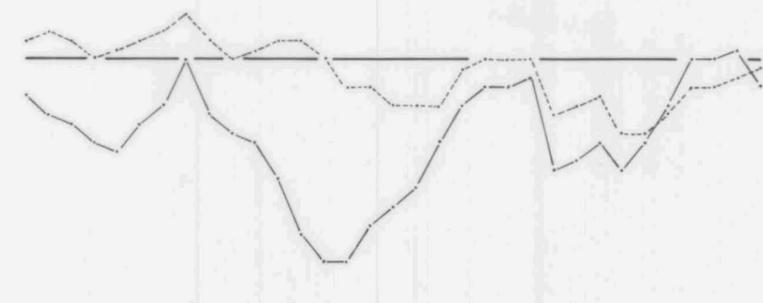
LINE 11 700E

LINE 11 600E

+10
+5
% 0
-5
-10
-15
-20



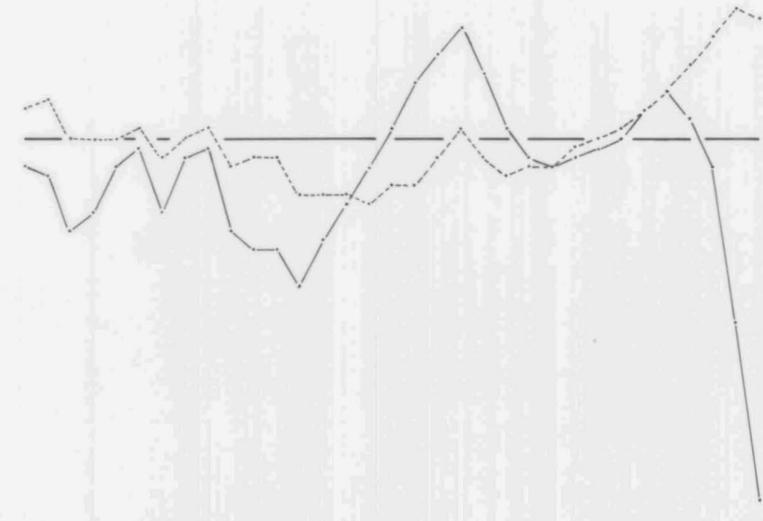
+5
% 0
-5
-10
-15
-20
-25



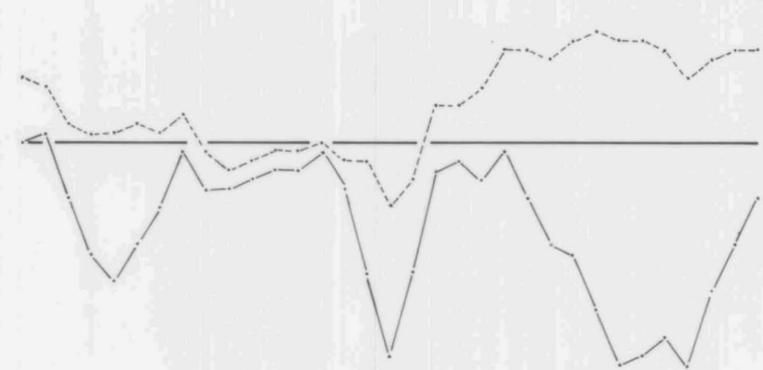
LINE 11 500E

LINE 11 400E

+15
+10
+5
% 0
-5
-10
-15
-20
-25
-30
-35
-40



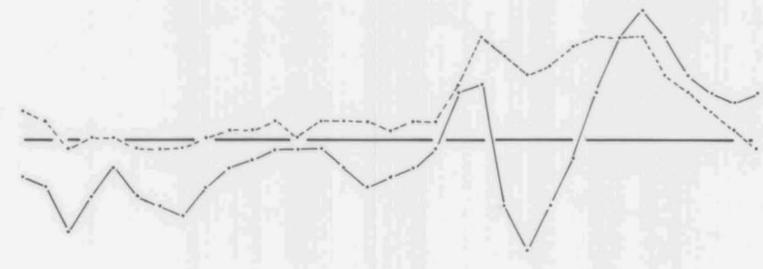
+15
+10
+5
% 0
-5
-10
-15
-20
-25



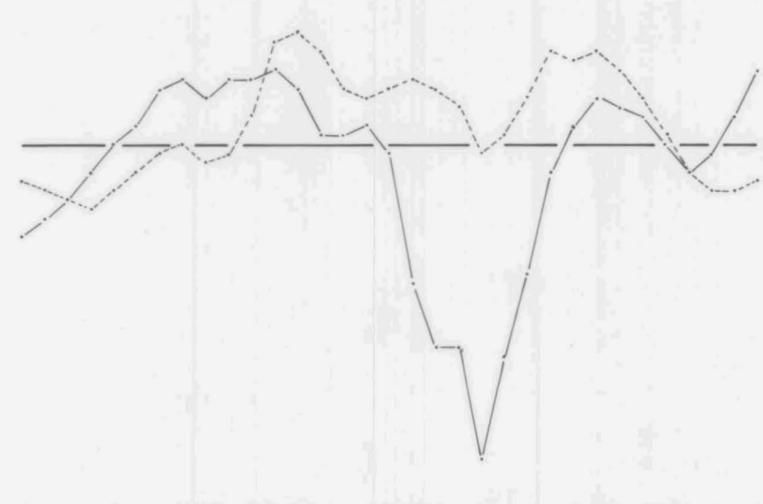
LINE 11 300E

LINE 11 200E

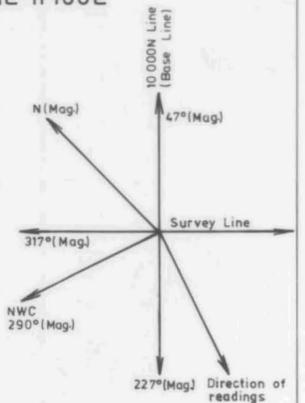
+15
+10
+5
% 0
-5
-10
-15



+15
+10
+5
% 0
-5
-10
-15
-20
-25
-30
-35



LINE 11 100E



— IN-PHASE
 - - - QUADRATURE

Sheet 1
 Sheet 2
 Sheet 3

Note - Transmitter - North West Cape (NWC)

GEOPEKO LTD Geophysical Surveys Plan No. 3850 S/A	Instrument EM16 Observer S.Mudge Scale Fact	Datum 0% Base Peg Date May 178 MAY '78	Hor Scale 1:5 000 Vert Scale 1cm=5% Cont Int	AREA Black Bluff-Tasmania PROSPECT MARINER 3 PLAN SHOWS Profiles of VLF-EM-Sheet 1 of 3
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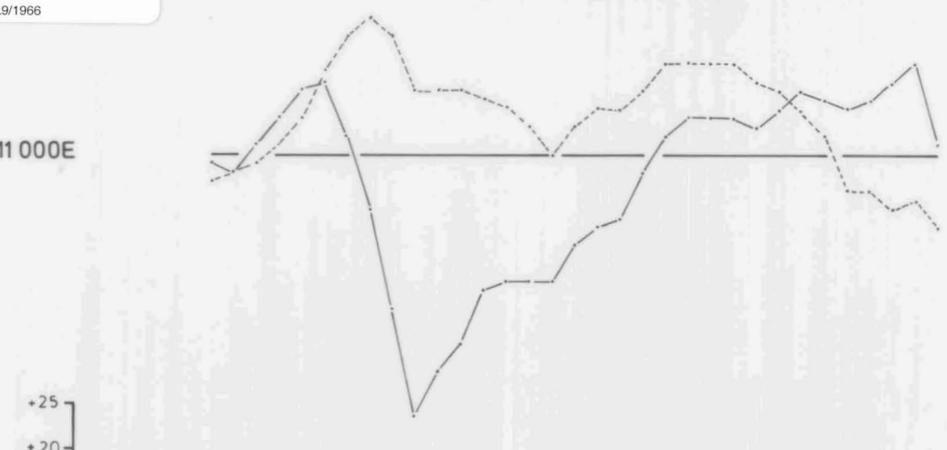
03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL10/1974)
 Placer Dome Asia Pacific
 Green, D. EL10/1974; EL9/1966

10 200N 10 100N 10 000N 9 900N 9 800N 9 700N 9 600N 9 500N 9 400N

5 cm

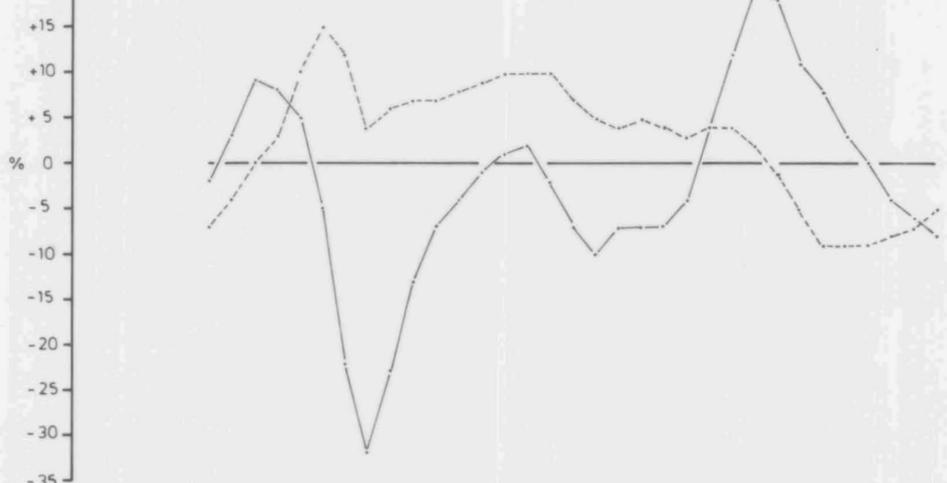
LINE 11 000E



+15
+10
+5
0 %
-5
-10
-15
-20
-25
-30

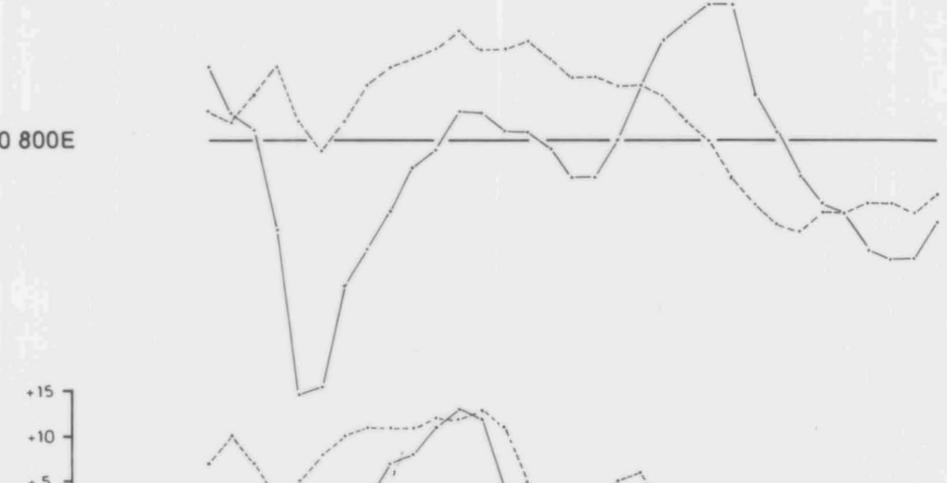
+25
+20
+15
+10
+5
0 %
-5
-10
-15
-20
-25
-30
-35

LINE 10 900E

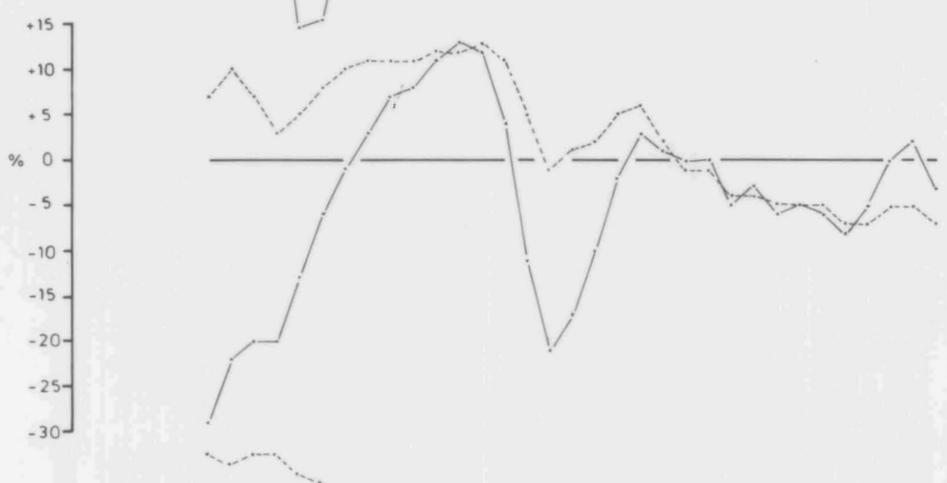


+20
+15
+10
+5
0 %
-5
-10
-15
-20
-25
-30

LINE 10 800E

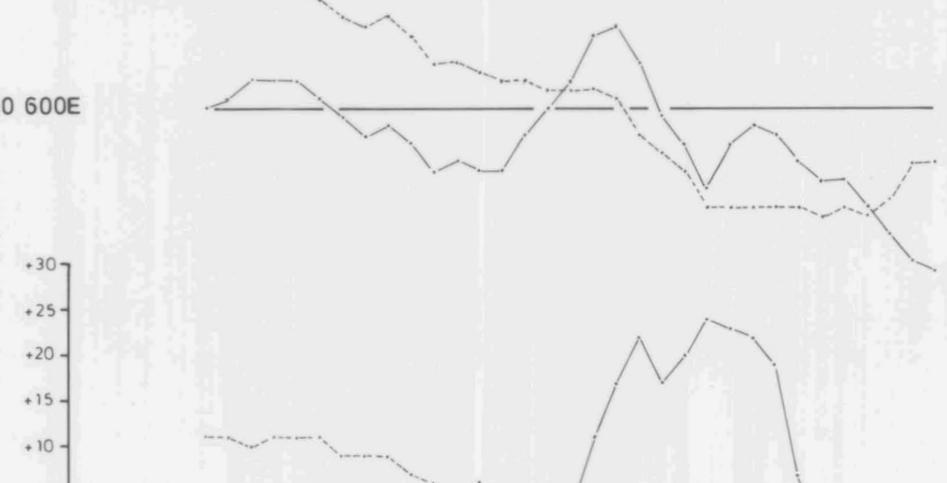


LINE 10 700E

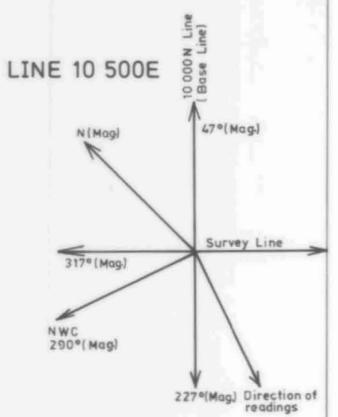
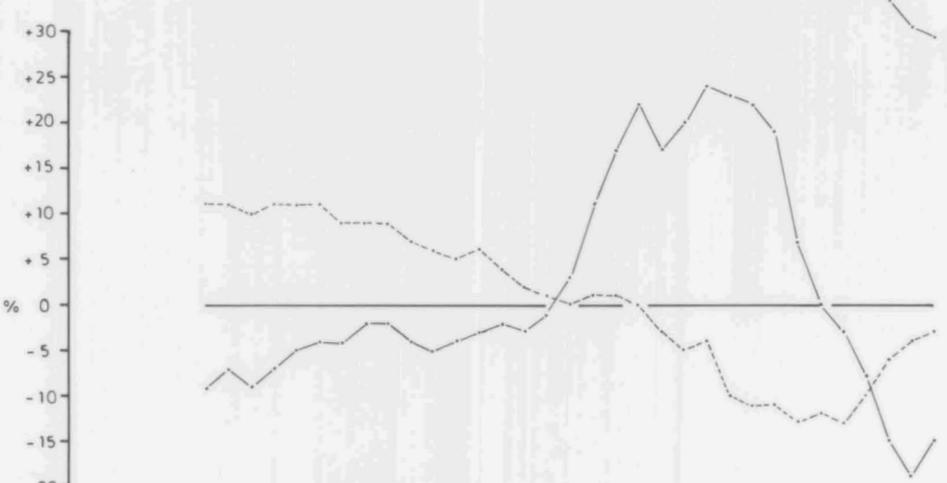


+20
+15
+10
+5
0 %
-5
-10
-15
-20

LINE 10 600E



LINE 10 500E

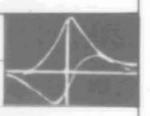


— IN-PHASE
 - - - QUADRATURE

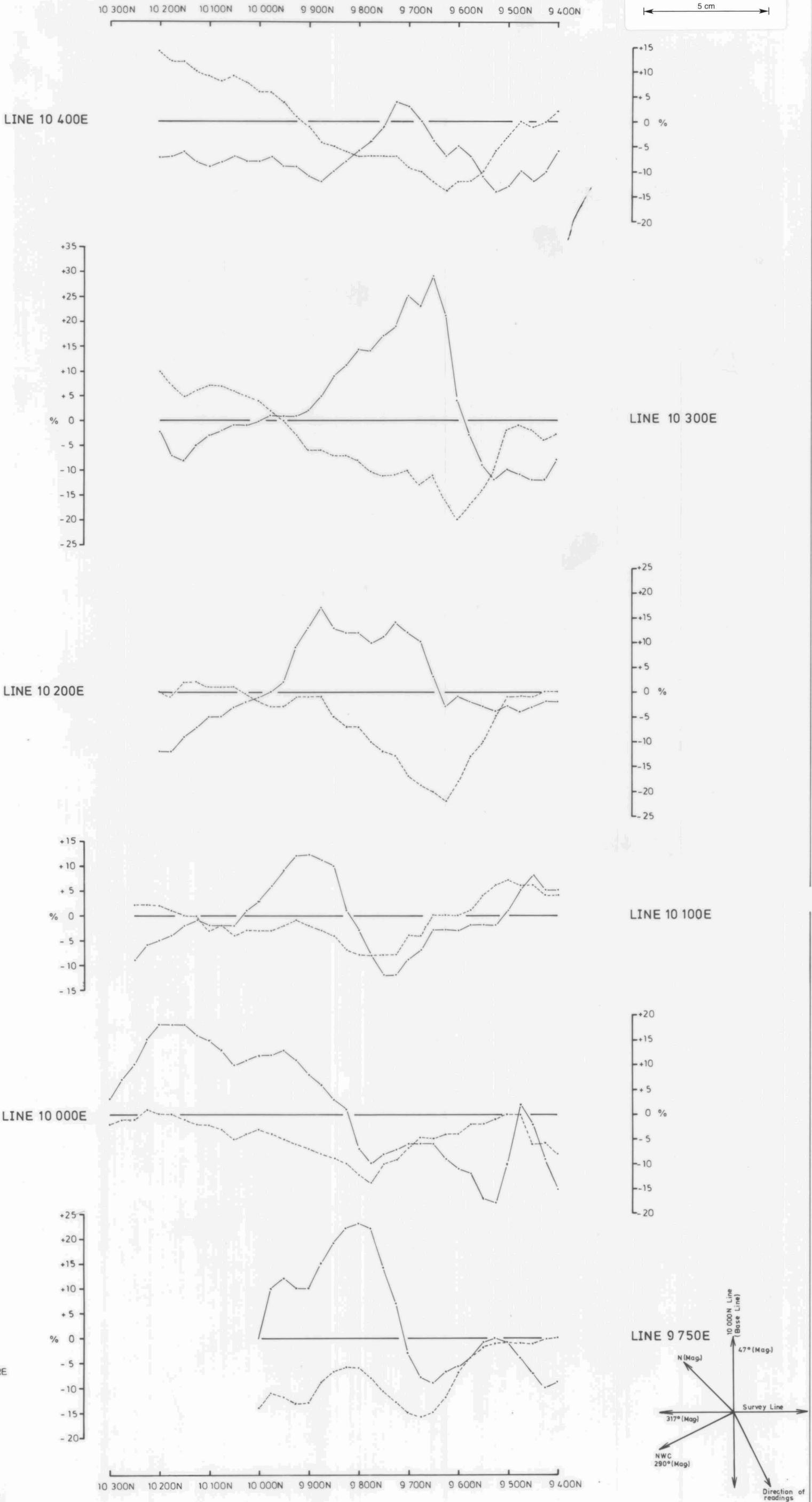
Sheet 1
 Sheet 2
 Sheet 3

Note:- Transmitter - North West Cape (NWC)

GEOPEKO LTD. Geophysical Surveys Plan No. 3851 S/A	Instrument	EM16	Datum	0%	Hor Scale	1:5 000	AREA	Black Bluff-Tasmania
	Observer	S.Mudge	Base Peg		Vert Scale	1cm=5%	PROSPECT	MARINER 3
	Scale Fact		Date	May '78	Cont Int		PLAN SHOWS	Profiles of VLF-EM-Sheet 2 of 3



Tube Number 19: Black Bluff, Mariner, Mt Stormon:
(EL 9/1966, EL10/1974)
Placer Dome Asia Pacific
Green, D. EL10/1974; EL9/1966



— IN-PHASE
- - - QUADRATURE

Sheet 1
Sheet 2
Sheet 3

Note:- Transmitter-North West Cape (NWC)

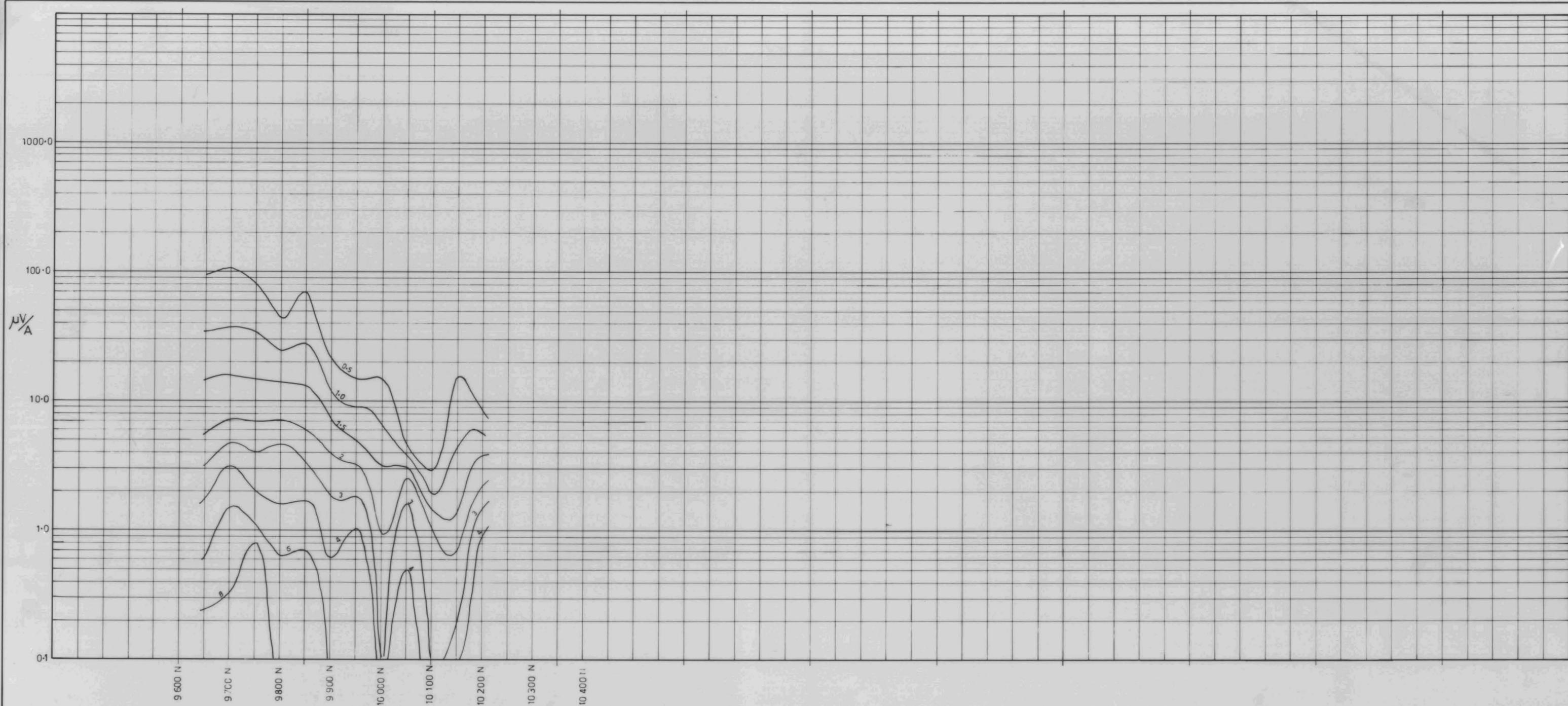
GEOPEKO LTD. Geophysical Surveys. Plan No. 3852 S/A	Instrument	EM16	Datum	0%	Hor Scale	1:5 000	AREA	Black Bluff-Tasmania
	Observer	S.Mudge	Base Peg		Vert Scale	1cm=5%	PROSPECT	MARINER 1&3
	Scale Fact		Date	May '78	Cont Int		PLAN SHOWS	Profiles of VLF-EM - Sheet 3 of 3

3337

5 cm

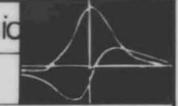
03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
(EL 9/1966; EL10/1974)
Placer Dome Asia Pacific
Green, D. EL10/1974; EL9/1966

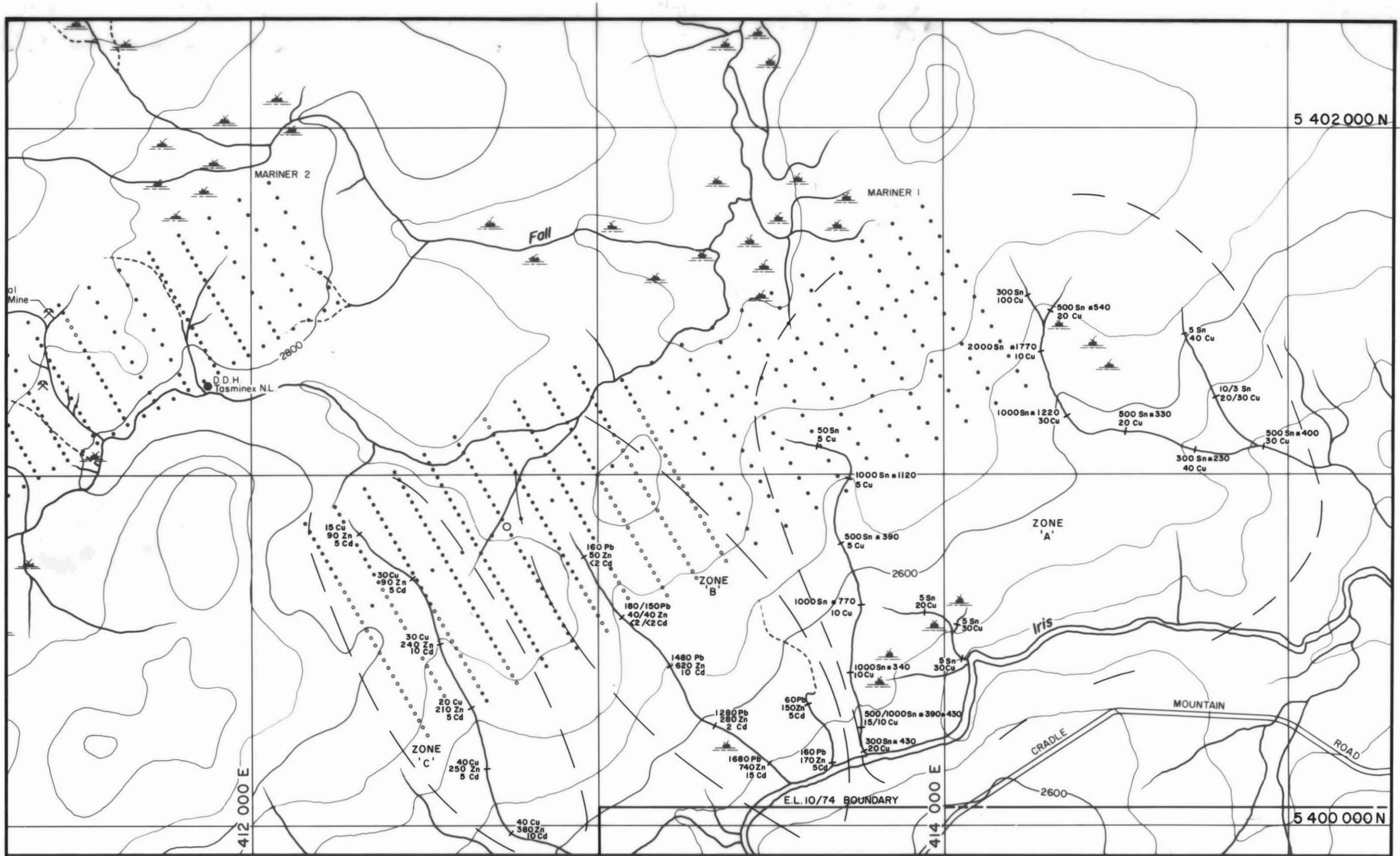


GEOPEKO LTD.
Geophysical Surveys.
Plan No. 3337

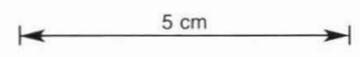
Instrument	Palmer	Datum	—	Hor. Scale	1cm to 50 metres	AREA	Black Bluffs EL10/74 Tasmania
Observer	R. Deakin S. Mudge	Base Peg	—	Vert. Scale	Logarithmic as shown.	PROSPECT	MARINER 1.
Scale Fact	—	Date	Jan. 1977	Loop Size	100 m.	PLAN SHOWS	T.E.M. Profile Line 9 650 E.



EL10/74-3
 Fig 3
 MARINER I
 ZONES A, B & C
 1:10000



LEGEND:
ANALYTICAL METHODS:— Stream sediment samples
 Cu, Pb, Zn, Cd by AAS following HCl leach
 and HCl/HNO₃ leach in latter stages of
 0.25g sample.
 Sn determined by — Emission Spectrography
 — * X.R.F.
 Results in ppm



03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL10/1974)
 Placer Dome Asia Pacific
 Green, D. EL10/1974; EL9/1966

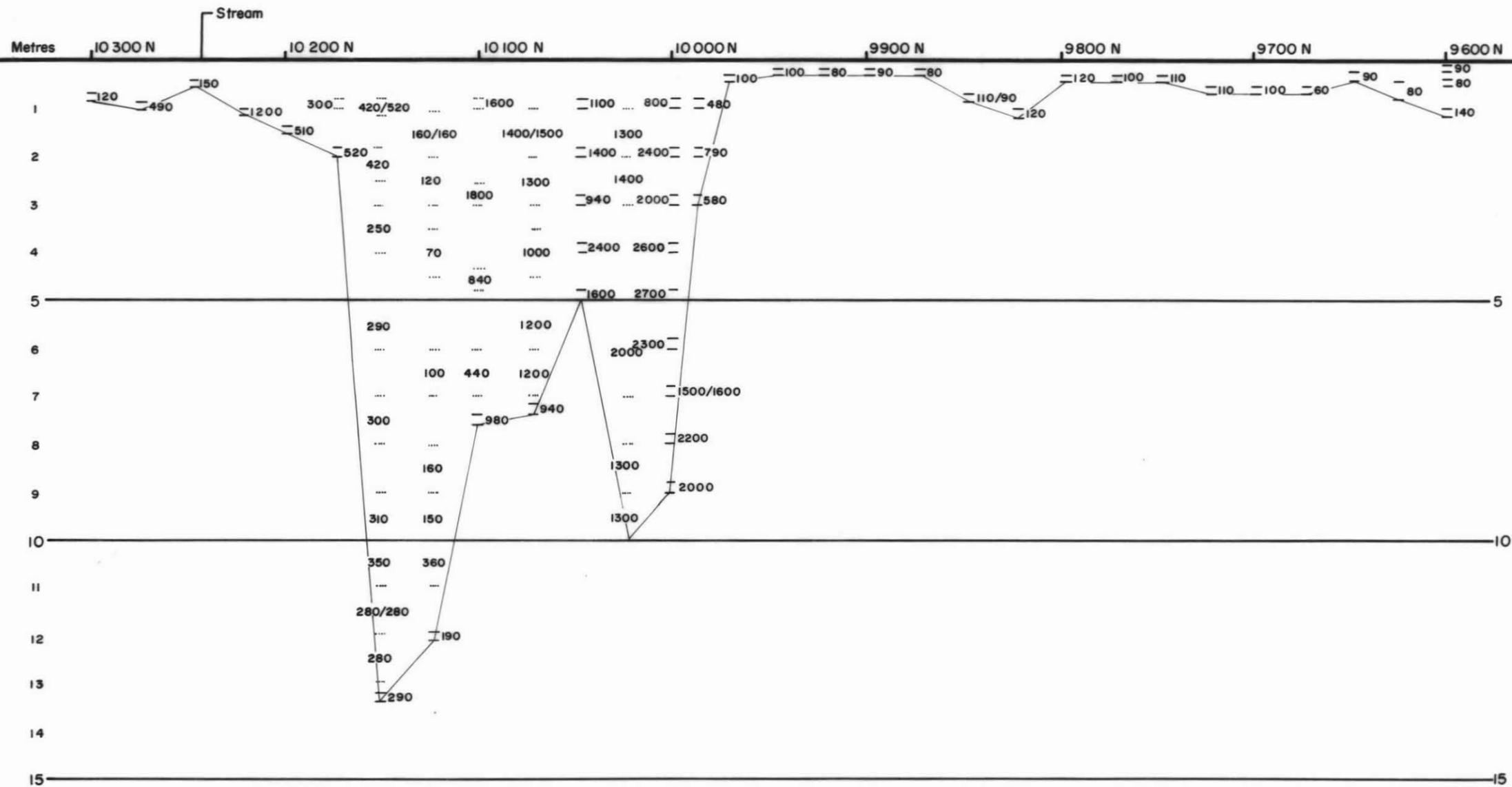
DATE: APRIL '78
 GEOLOGIST: G.L.B.
 DRAWN: J. P. M.
 CHECKED: M.C.R.

GEOPEKO LIMITED
 KING ISLAND GROUP

SCALE: 1 : 10 000

FIG. 3

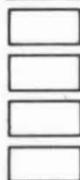
E.L.10/74 BLACK BLUFF, TASMANIA
MARINER I ZONES A, B and C



03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL10/1974)
 Placer Dome Asia Pacific*
 Green, D. EL10/1974; EL9/1966

LEGEND:



— Depth Accurate
 ... Depth Approximate

Horizontal Scale 1:2500
 Vertical Scale 1:100

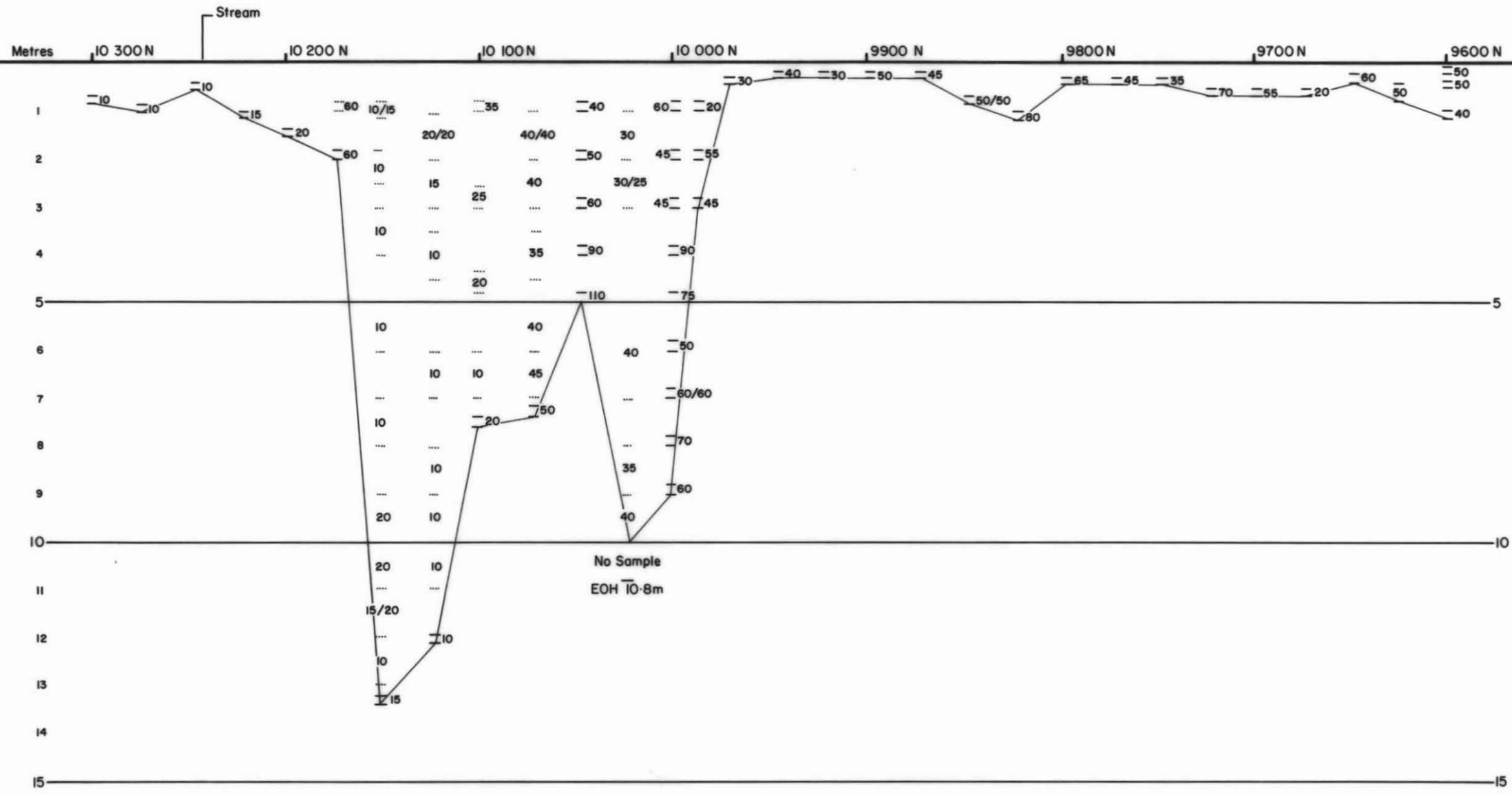


GEOPEKO LIMITED
 KING ISLAND

Scale: No K

DATE: Mar 78
 GEOL: R. B.
 DWN: J. P. M.
 CHKD: M. C. R.

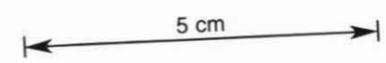
MARINER I
 C HORIZON ORIENTATION 9700 E
 Pb CONCENTRATION



03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
(EL 9/1966, EL10/1974)
Placer Dome Asia Pacific*
Green, D. EL10/1974; EL9/1966

LEGEND:



— Depth Accurate
... Depth Approximate
Horizontal Scale 1:2500
Vertical Scale 1:100

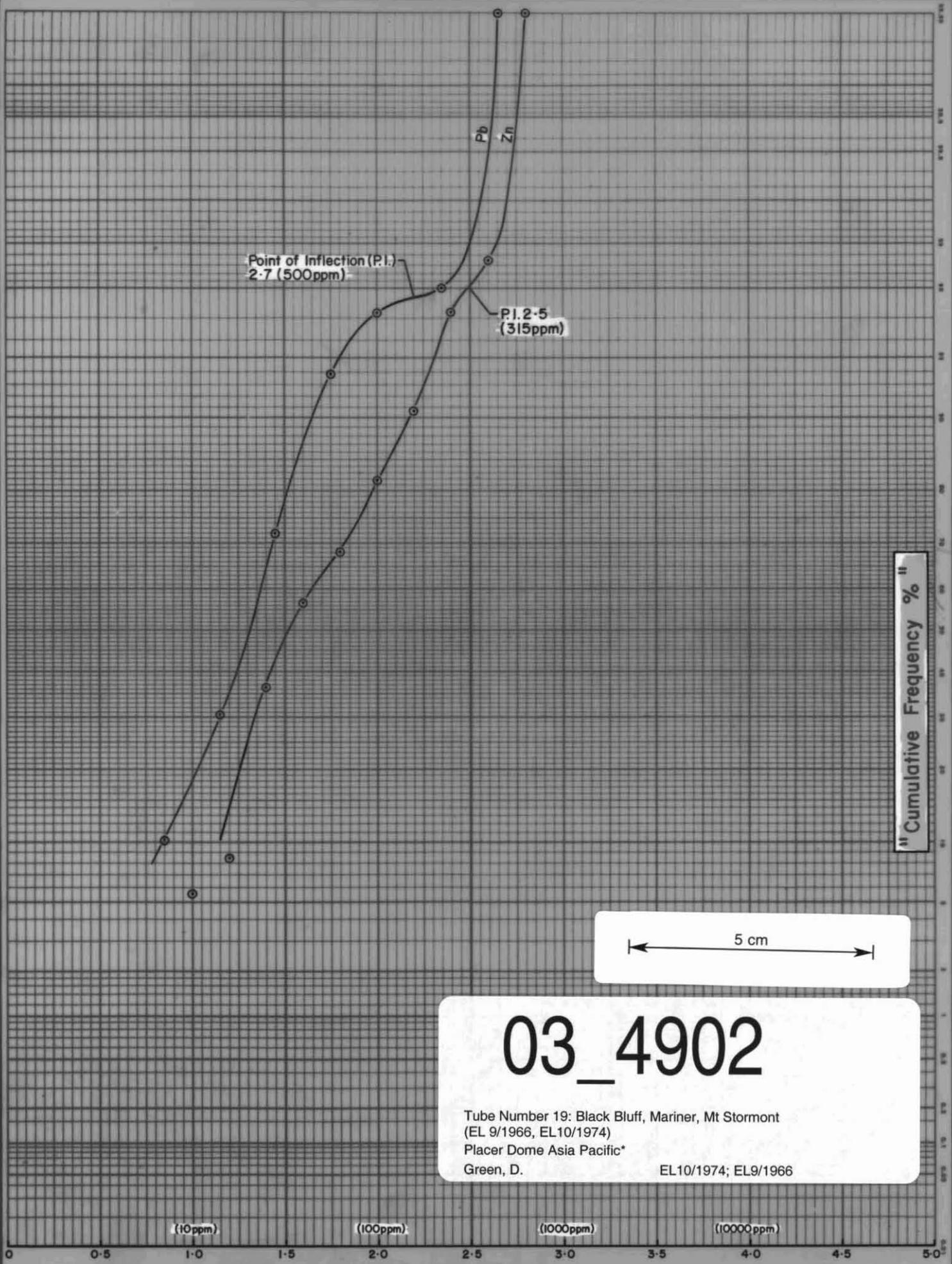


GEOPEKO LIMITED
KING ISLAND
Scale: No K

DATE: Oct 77
GEOL: R.B.
DWN: L.G.
CHKD: M.C.R.

MARINER I
C HORIZON ORIENTATION 9700 E
Cu CONCENTRATION

Cumulative Frequency Plots - Stream Sediment Geochemistry - Pb and Zn
Lower-Middle Cambrian Area, Bond Range

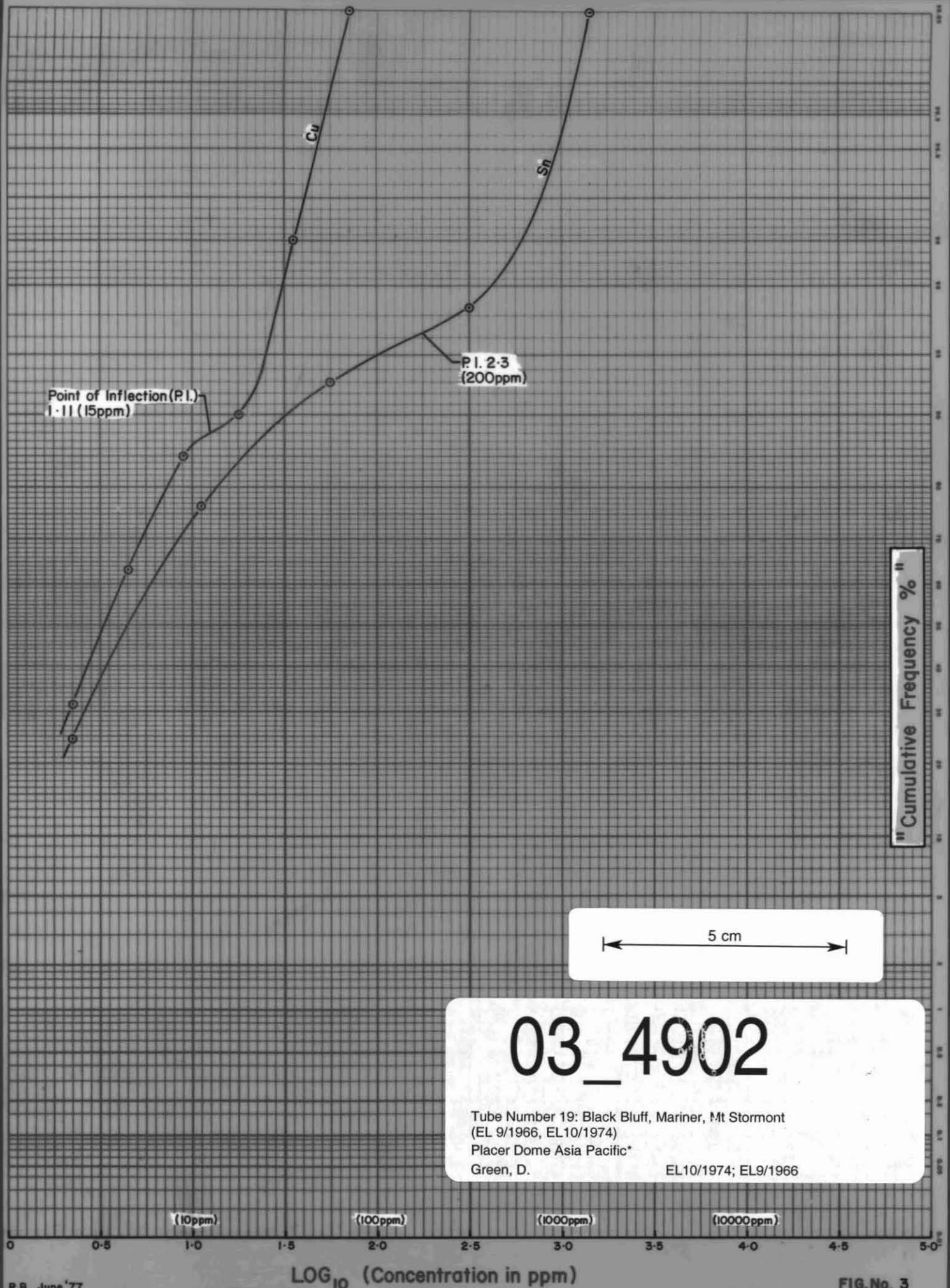


03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
(EL 9/1966, EL10/1974)
Placer Dome Asia Pacific*
Green, D. EL10/1974; EL9/1966

(10ppm) (100ppm) (1000ppm) (10000ppm)

Cumulative Frequency Plots - Stream Sediment Geochemistry - Cu and Sn
 Lower-Middle Cambrian Area, Bond Range



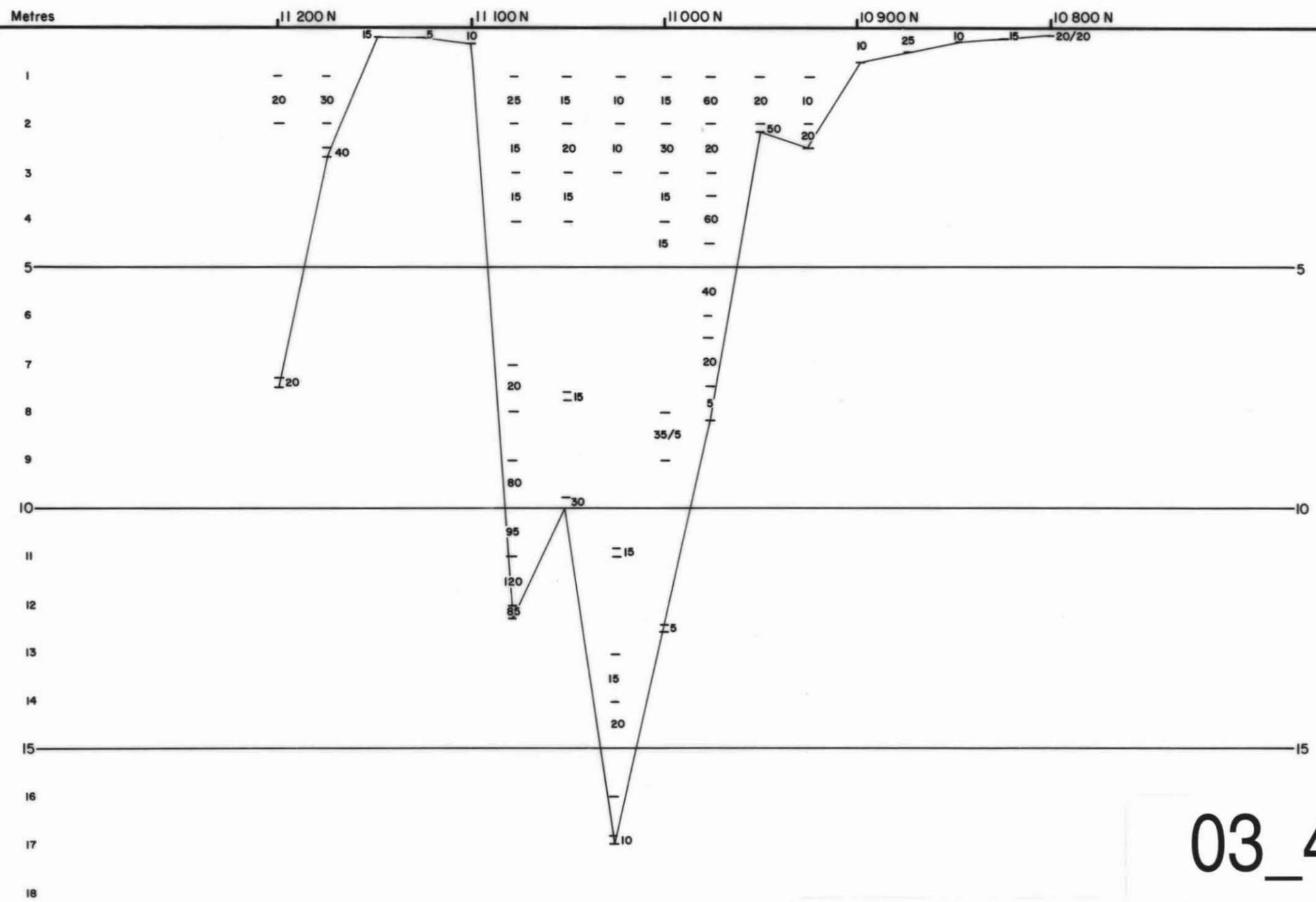
03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL10/1974)

Placer Dome Asia Pacific*

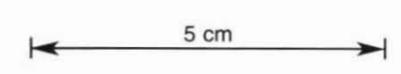
Green, D.

EL10/1974; EL9/1966



03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL10/1974)
 Placer Dome Asia Pacific*
 Green, D. EL10/1974; EL9/1966



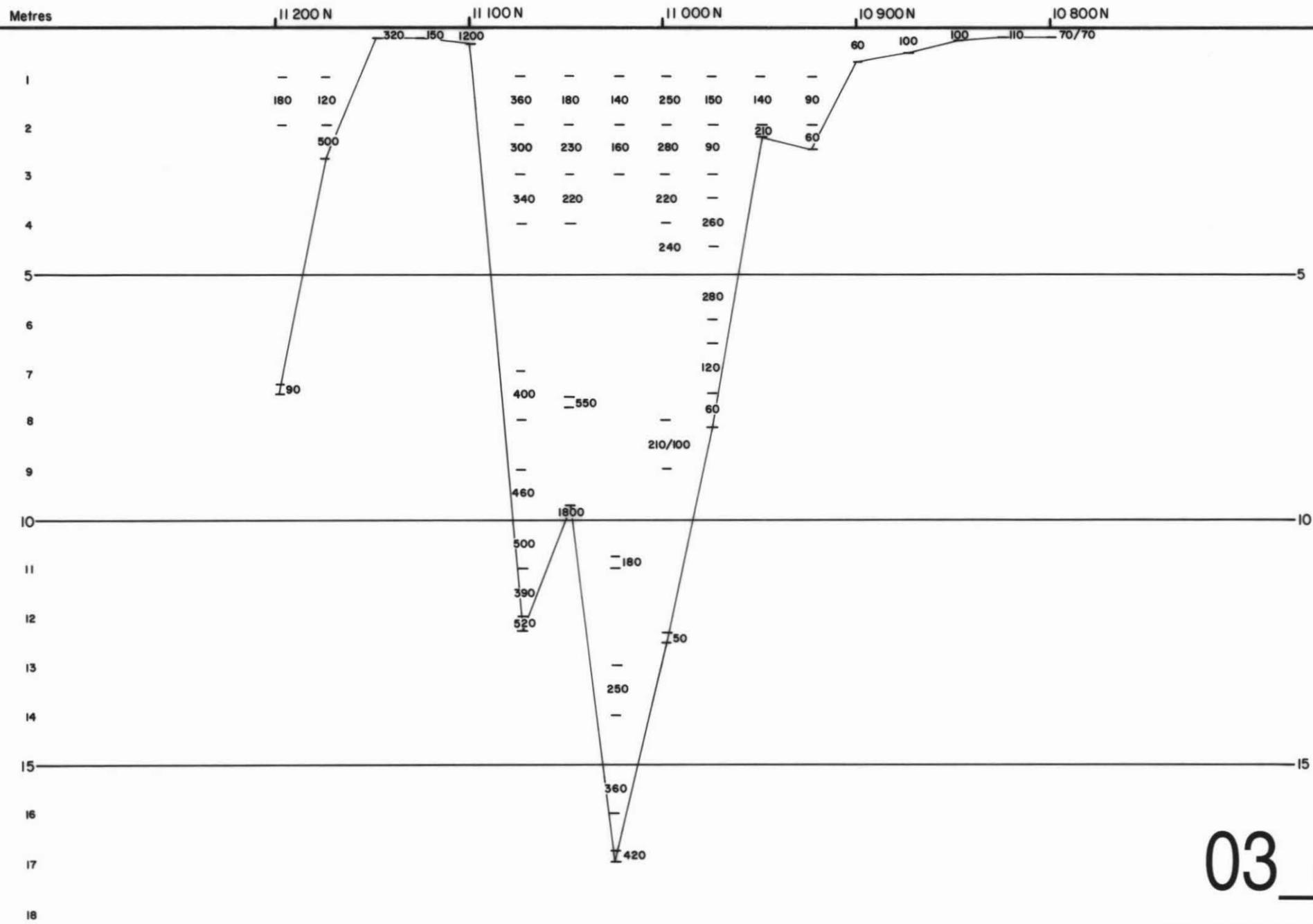
LEGEND:

-
-
-
-



GEOPEKO LIMITED KING ISLAND	
Scale: _____	No K
MARINER 2 C HORIZON ORIENTATION 8900 E Cu CONCENTRATION	

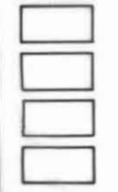
DATE: Oct 77
 GEOL: R.B.
 DWN: L.G.
 CHKD: M.C.R.



03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL10/1974)
 Placer Dome Asia Pacific*
 Green, D. EL10/1974; EL9/1966

LEGEND:

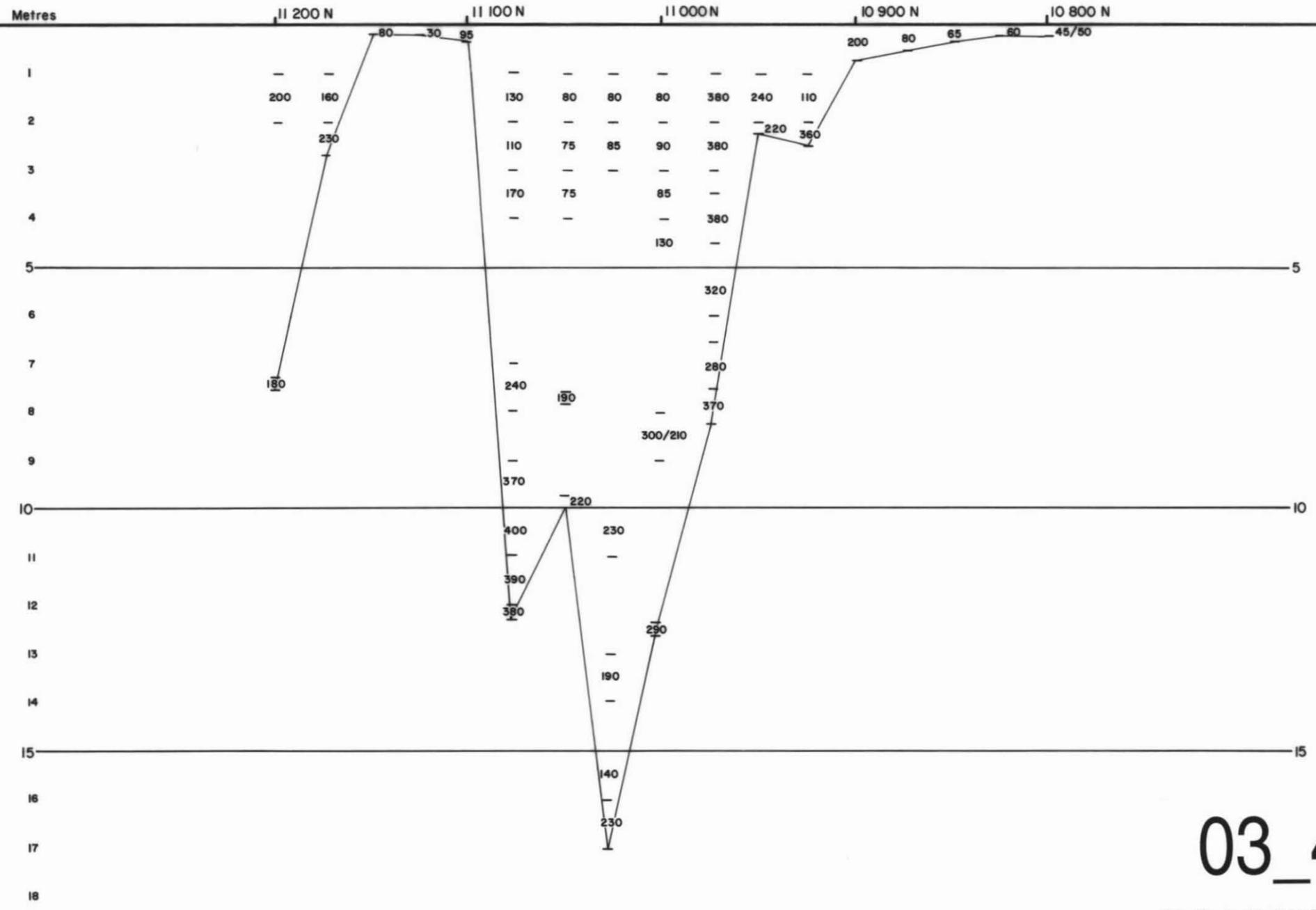


5 cm



DATE: Oct 77
 GEOL: R.B.
 DWN: L.G.
 CHKD: M.C.R.

GEOPEKO LIMITED KING ISLAND	
Scale:	Nº K
MARINER 2 C HORIZON ORIENTATION 8900 E Pb CONCENTRATION	



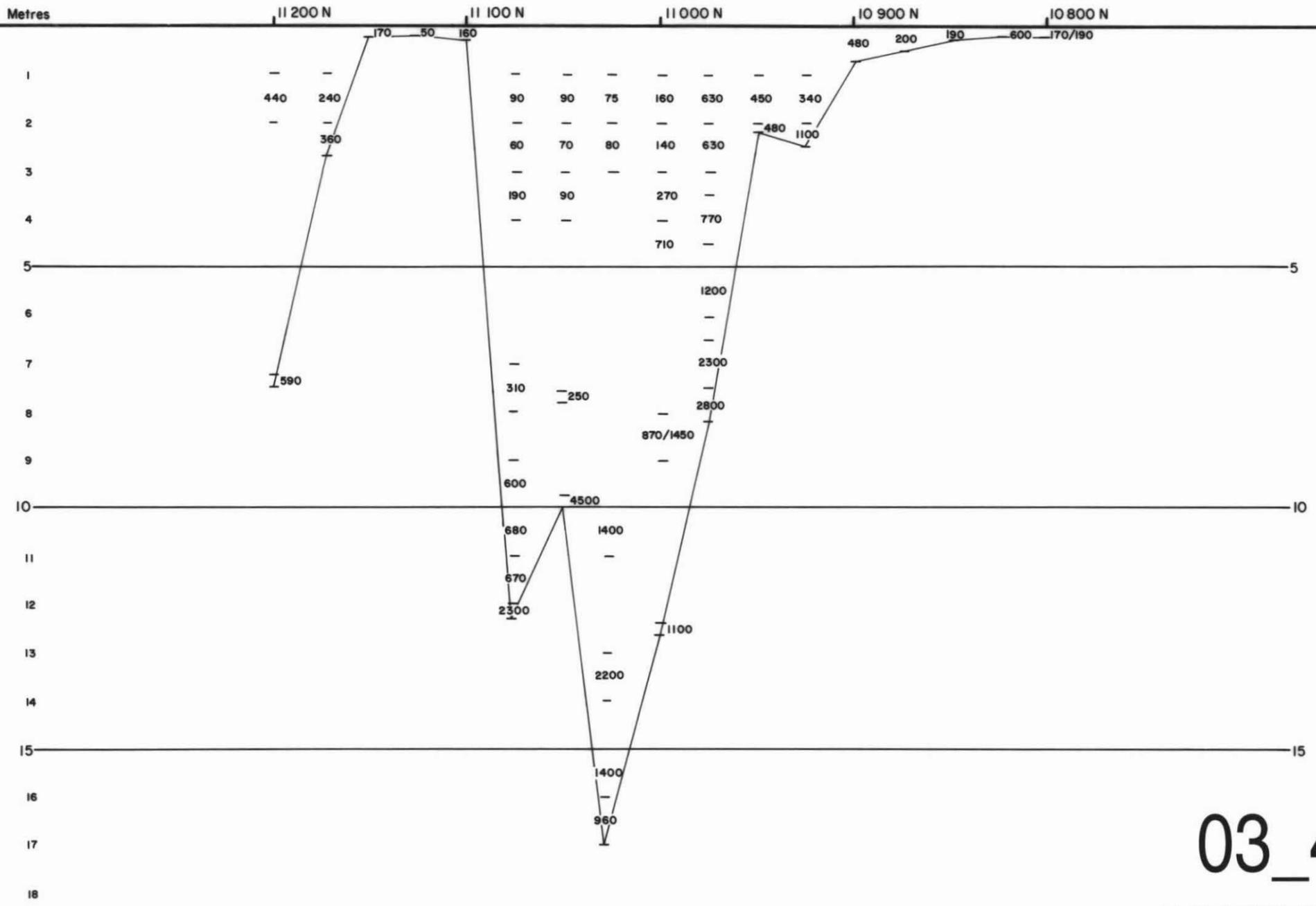
03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL10/1974)
 Placer Dome Asia Pacific*
 Green, D. EL10/1974; EL9/1966

LEGEND:

5 cm

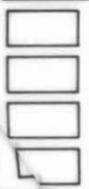
	GEOPEKO LIMITED	
	KING ISLAND	
DATE: Oct 77	Scale:	No. K
GEOLOGIST: R.B.	MARINER 2	
DRAWN: L.G.	C HORIZON ORIENTATION 8900E	
CHECKED: M.C.R.	Zn CONCENTRATION	



03_4902

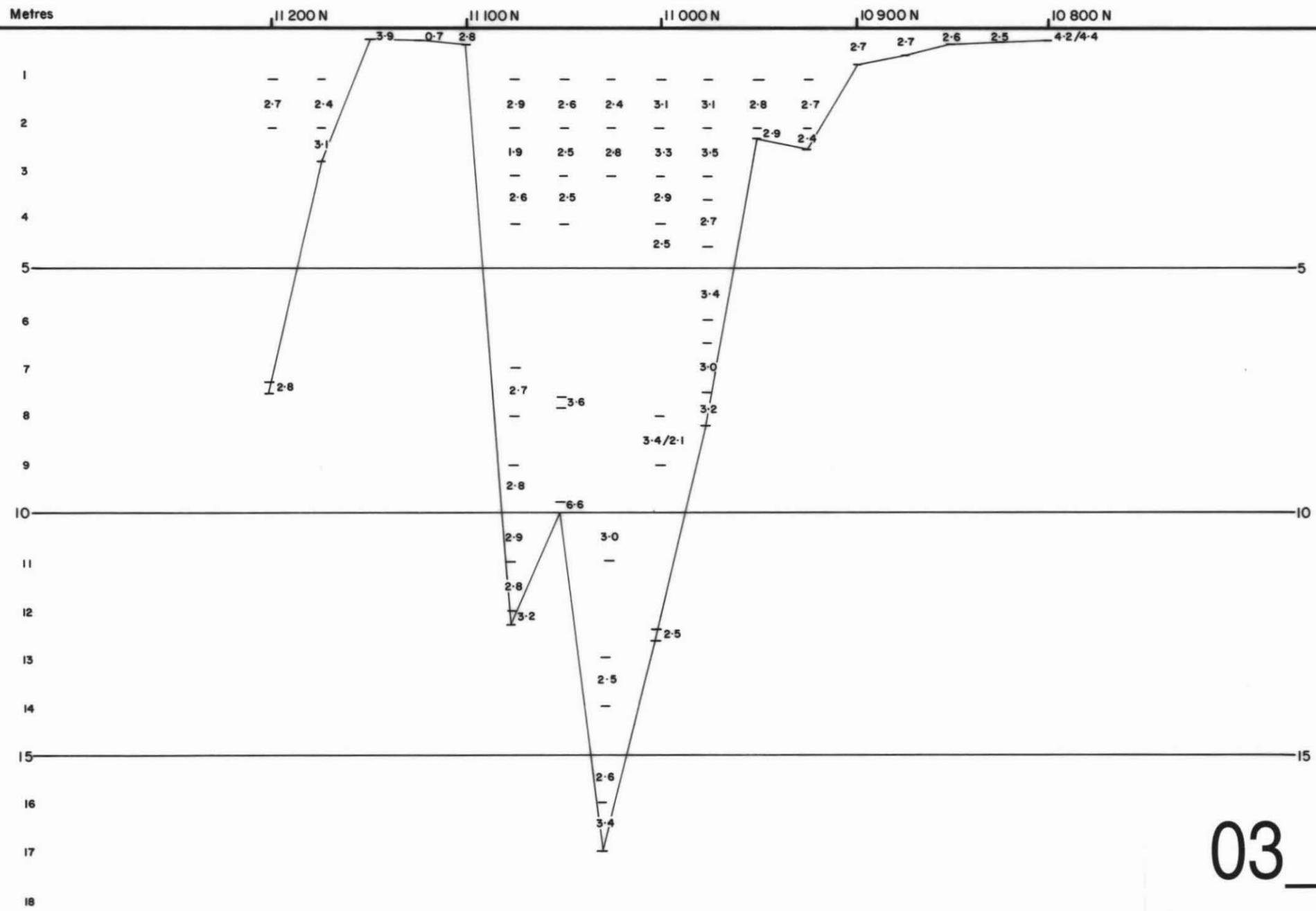
Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL10/1974)
 Placer Dome Asia Pacific*
 Green, D. EL10/1974; EL9/1966

LEGEND:



5 cm

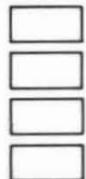
	GEOPEKO LIMITED KING ISLAND	
	Scale: _____	Nº K
DATE: Oct 77 GEOL: R.B. DWN: L.G. CHKD: M.C.R.	MARINER 2 C HORIZON ORIENTATION 8900E Mn CONCENTRATION	



03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL10/1974)
 Placer Dome Asia Pacific*
 Green, D. EL10/1974; EL9/1966

LEGEND:



DATE: Oct 77
 GEOL: R.B.
 DWN: L.G.
 CHKD: M.C.R.

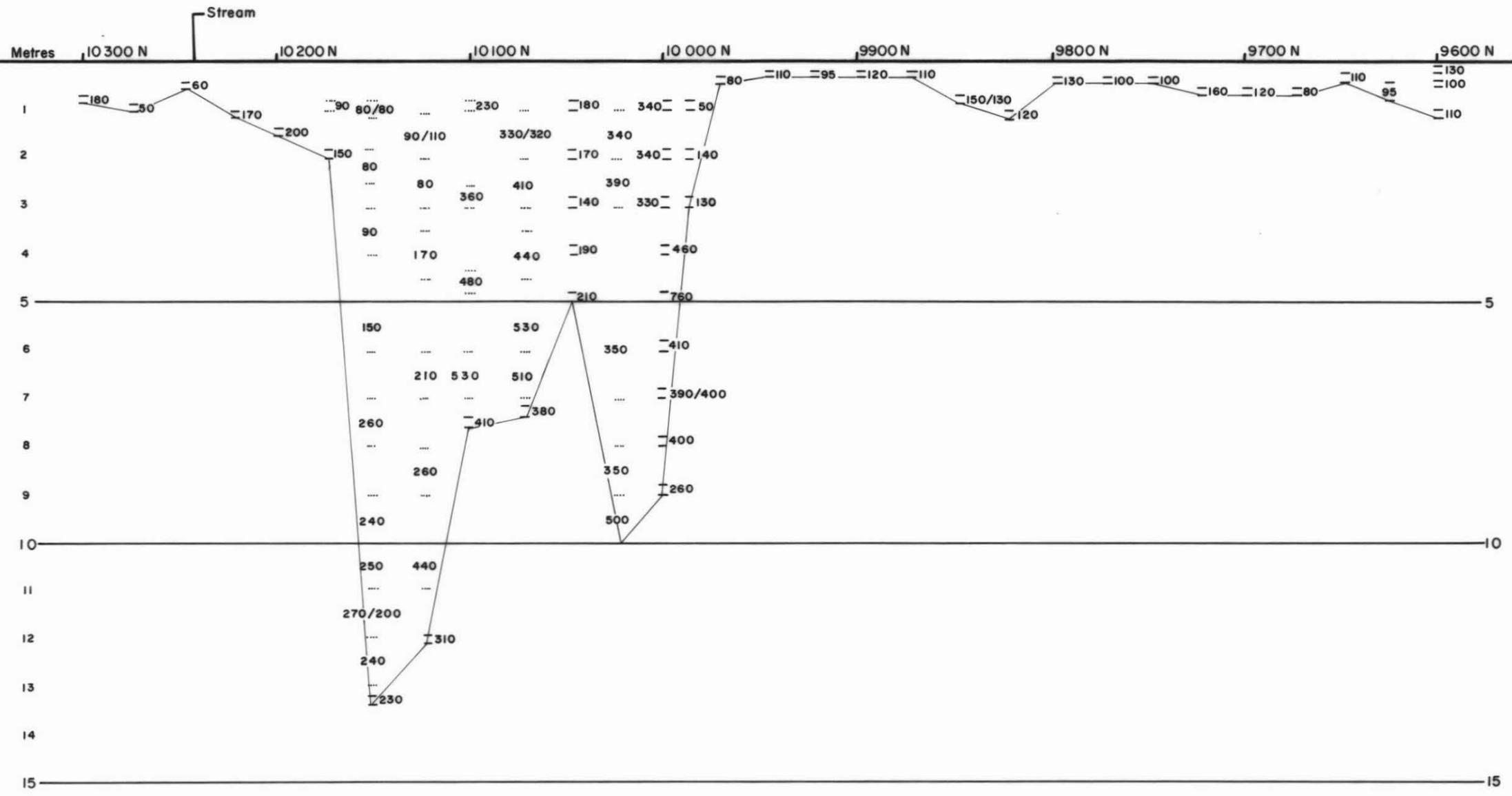
GEOPEKO LIMITED
 KING ISLAND

Scale: _____ NO K

MARINER 2

C HORIZON ORIENTATION 8900E
 Fe % CONCENTRATION

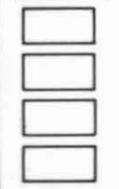




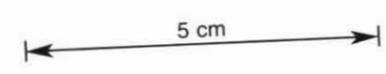
03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL10/1974)
 Placer Dome Asia Pacific
 Green, D. EL10/1974; EL9/1966

LEGEND:



— DEPTH ACCURATE
 DEPTH APPROXIMATE
 Horizontal scale 1:2500
 Vertical scale 1:100



GEOPEKO LIMITED
 KING ISLAND
 Scale: No K

DATE: Mar 78
 GEOL: R. B.
 DWN: J. P. M.
 CHKD: M. C. R.

MARINER I
 C HORIZON ORIENTATION 9700 E
 Zn CONCENTRATION

Geopeko Limited

Geological Legend - E.L. 10/74

OPERATION OF LEGEND:

1. Capital letter - indicates primary classification e.g. S - sedimentary rock, A - acid rock, M - basic rock
2. Lower case letters - indicate the following:
 - (i) Colours - e.g. pk/grn A = pink fragments in an acid igneous rock with a green matrix.
 - (ii) Textural or structural features - e.g. xtA = crystal tuff of acid composition, e.g. pA = porphyritic acid rock, e.g. oxA = oxidised acid rock
- b. As suffixes in progressive order,
 - (i) Categorised - e.g. pAr = rhyolite, e.g. Ia = intermediate rock of andesitic composition.
 - (ii) Mineralogy - e.g. pArf = porphyritic (rhyolite) with feldspar phenocrysts, e.g. lxt f/b = lithic crystal tuff with feldspar (phenocryst component) and biotite (prominent matrix component), e.g. lxt fq = lithic crystal tuff with (major) feldspar crystals and (minor) quartz crystals, e.g. fb lvt - lava ldb = flow banded lithic vitric tuff - lava of intermediate dacitic composition with a biotite rich groundmass.

SYMBOLS:

IGNEOUS:		STRUCTURAL and TEXTURAL:		GRAIN SIZE:	
A	acid igneous unclassified	l	tuff unclassified.	fg	fine grained (< 1mm)
Ar	rhyolite	lt	lithic tuff	mg	medium grained (5mm - 1mm)
Ard	rhyodacite	xt	crystal tuff	cg	coarse grained (5mm - 5cm)
I	intermediate igneous unclassified	vt	vitric tuff		
Ia	andesite	fb	flow banding		
Id	dacite	p	porphyritic		
M	basic igneous unclassified	vns	veins		
Mv	basalt	ox	oxidised		
Md	dolerite	sid	silicified		
		argd	argillitised		

SEDIMENTARY:		STRUCTURAL:		COLOURS:	
Ssst	Sandstone	○	outcrop limit	pk	pink
Scong	conglomerate	⊘	rubble boundary	grn	green
S	volcaniclastic sediment	—	approximate contact	brn	brown
Sqtz	quartzite	—	bedding	pie	pale
		—	joint	dk	dark

SILICATE MINERALOGY:		SULPHIDE MINERALOGY:		MISCELLANEOUS:	
q	quartz	s"	sulphides	TS	2502 Thin Section and rock No.
f	K feldspar	py	pyrite		
p	plagioclase	hm	hematite		
b	biotite				
c	chlorite				
s	sericite				
maf	mafics				
e	epidote				
hb	hornblende				

GEOLOGICAL INTERPRETATION:

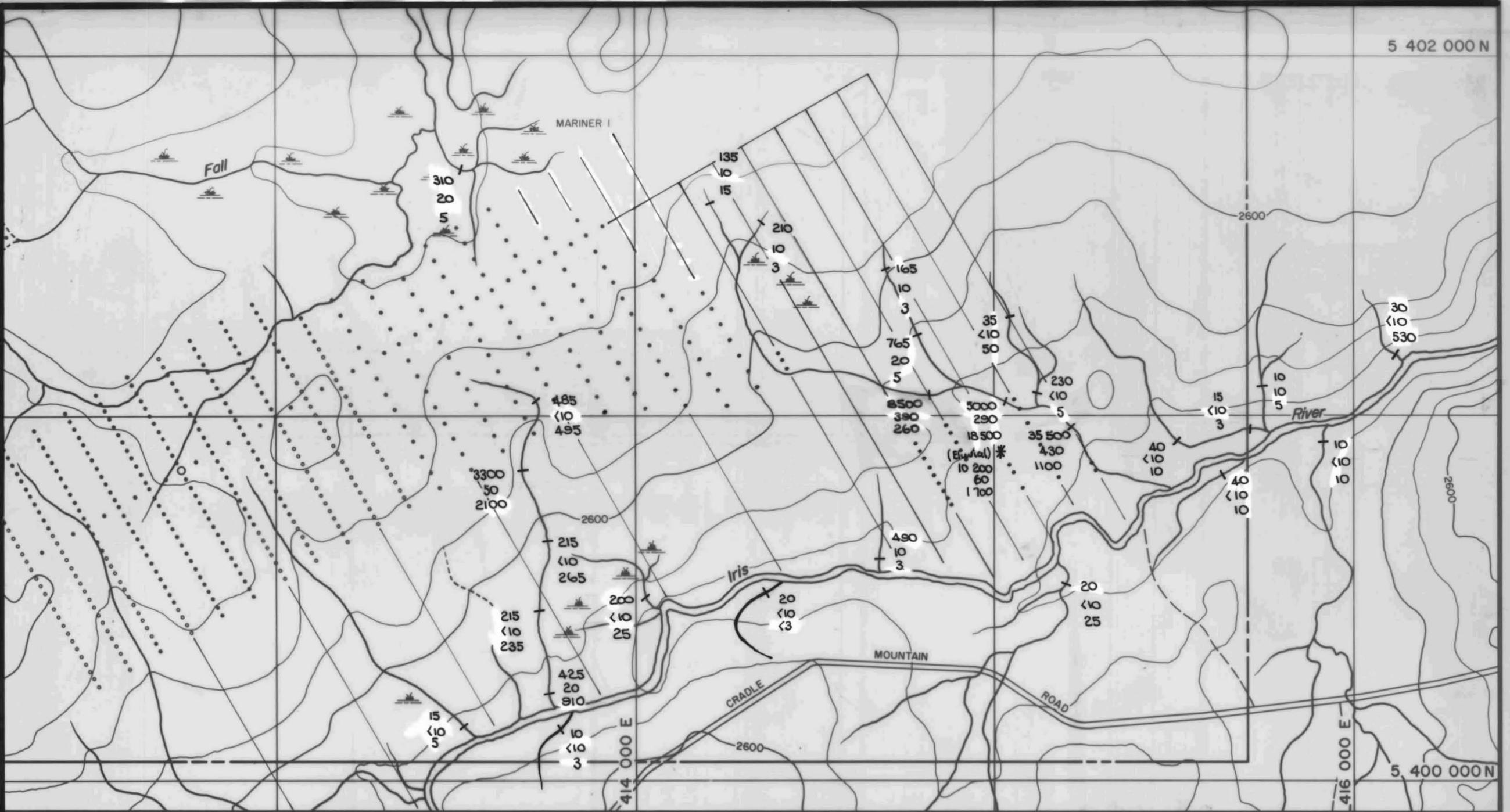
Pencil No.		
19-43	<input type="checkbox"/>	HOLOCENE Alluvium, glacial debris (Md), swamp soils
19-47	<input type="checkbox"/>	TERT. Olivine basalt (flows, Mv)
19-38	<input type="checkbox"/>	L.ORDO. Limestone (Gordon type)
19-71	<input type="checkbox"/>	U C ? Talus - sandstone, conglomerate
19-70	<input type="checkbox"/>	U C ? Sandstone, conglomerate (Owen type, Ssst, Scong.)
19-22	<input type="checkbox"/>	C Undifferentiated cambrian
19-63	<input type="checkbox"/>	C Crystal lithic tuff (xt Ar qf; gradational to tuff-lava)
19-28	<input type="checkbox"/>	C Lithic vitric tuff-lava (fb lvt-lava ldb; intercalated with pArdpq)
19-21	<input type="checkbox"/>	C Porphyritic plagioclase - quartz rhyolite (fb pAr qp)
19-3	<input type="checkbox"/>	C Fine grained quartzose volcaniclastic sediment (fg S volcaniclastic sed. q.s")
19-57	<input type="checkbox"/>	C Lithic quartz crystal vitric tuff (lxt Arqf)
19-55	<input type="checkbox"/>	C Lithic quartz crystal tuff (lxt Ia qf maf s")
19-23	<input type="checkbox"/>	C Quartz crystal vitric tuff - lava (xvt-lava Arq)
19-19	<input type="checkbox"/>	C Biotite feldspar quartz porphyritic lava (pArd bfq, pAr bfq)

Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL 10/1974)
 Placer Dome Asia Pacific*
 Green, D.
 EL 10/1974; EL 9/1966



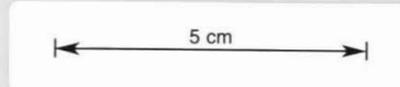
03_4902

TS 10/74-3
 (Fig 4)
 MARINER 3
 PANNED CONCENTRATE
 RESULTS Sn W
 Au
 1:10 000



LEGEND:

Sn - ppm
 W - ppm
 Au - ppb

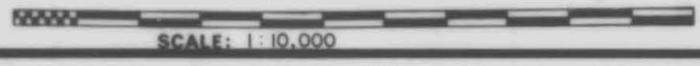


03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL10/1974)
 Placer Dome Asia Pacific*
 Green, D. EL10/1974; EL9/1966

DATE: NOV. 1980
 GEOLOGIST: P.R.L.
 DRAWN: D. GREEN.
 CHECKED:

GEOPEKO LIMITED
 Devonport Base, Tasmania

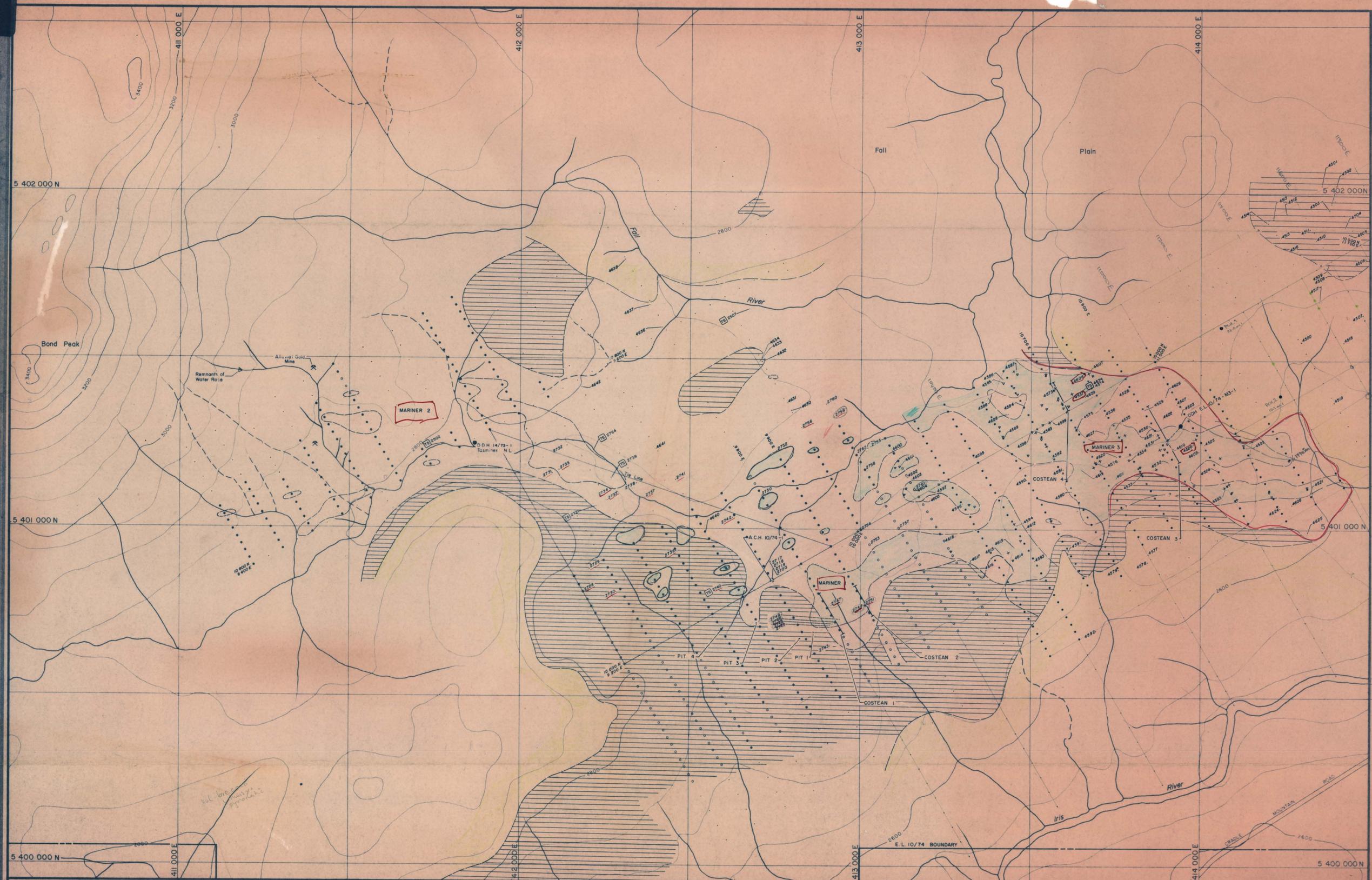


E.L. 10/74
 BLACK BLUFF, TASMANIA
 MARINER 3 Panned Concentrate
 Results
 Sn, W, Au

No. TS 10/74-3

FIG. 4

KT10/74-1	
KT10/74-2	KT10/74-3



NOTE
 This interpretation is based upon —
 surface (KT 10/74-M-3B),
 float (KT 10/74-M-3C), and
 auger hole rock chip (KT 10/74-M-3D)
 geological data.

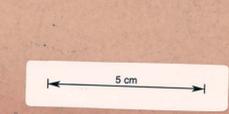
SYMBOLS
 This section and rock number
 Rock sample for geochemical analysis,
 Interpreted contact
 Power auger hole
 Hand auger hole
 Auger core hole
 Grid position

GEOLOGICAL INTERPRETATION
 Pattern
 TERT. Olivine basalt (thin)
 TERT. Olivine basalt (thick)
 Biotite feldspar quartz porphyry
 Argillite - chlorite (biotite feldspar) quartz porphyry
 Argillite - chlorite (biotite feldspar) quartz porphyry
 intruded by quartz veins with associated pyrite (arsenic mineralization) and massive (S) quartz veins (Mineralogy of Mariner 3)

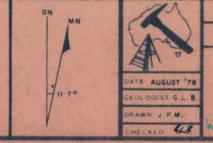
AUGER CORE HOLE ROCK GEOCHEMISTRY: (ppm)

KR	Depth Interval (m)	Cu	Pb	Zn	Ag	Cd	Mn	Sn	Ba	Fa%
2716	8-9.4 - 9.04	120	1760	520	10	5	520	100	500	4.0
2718	11.28 - 11.38	160	7800	290	55	5	7600	100	1000	2.9
2718*	11.28 - 11.38	170	7900	300	60	5	7650	—	—	3.0
2719	18.64 - 18.74	110	310	1000	2	2	1680	50	500	3.6
2720	17.87 - 17.97	5	110	360	2	5	650	60	1000	1.8

* Denotes repeat and check analysis



03_4902
 Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 91966, EL101974)
 Placer Dome Asia Pacific
 Green, D. EL101974; EL91966



GEOPEKO
 A DIVISION OF PEKO-WALLSEND OPERATIONS LTD
 No KT10/74-M-3A
 SCALE 1:5000
 DATE: AUGUST 78
 DRAWN BY: J. M. W.
 CHECKED BY: J. M. W.
 EL10/74 BLACK BLUFF, TASMANIA
 MARINER 1, 2 and 3
 INTERPRETATION GEOLOGICAL MAP
 with rock sample locations

MARINER

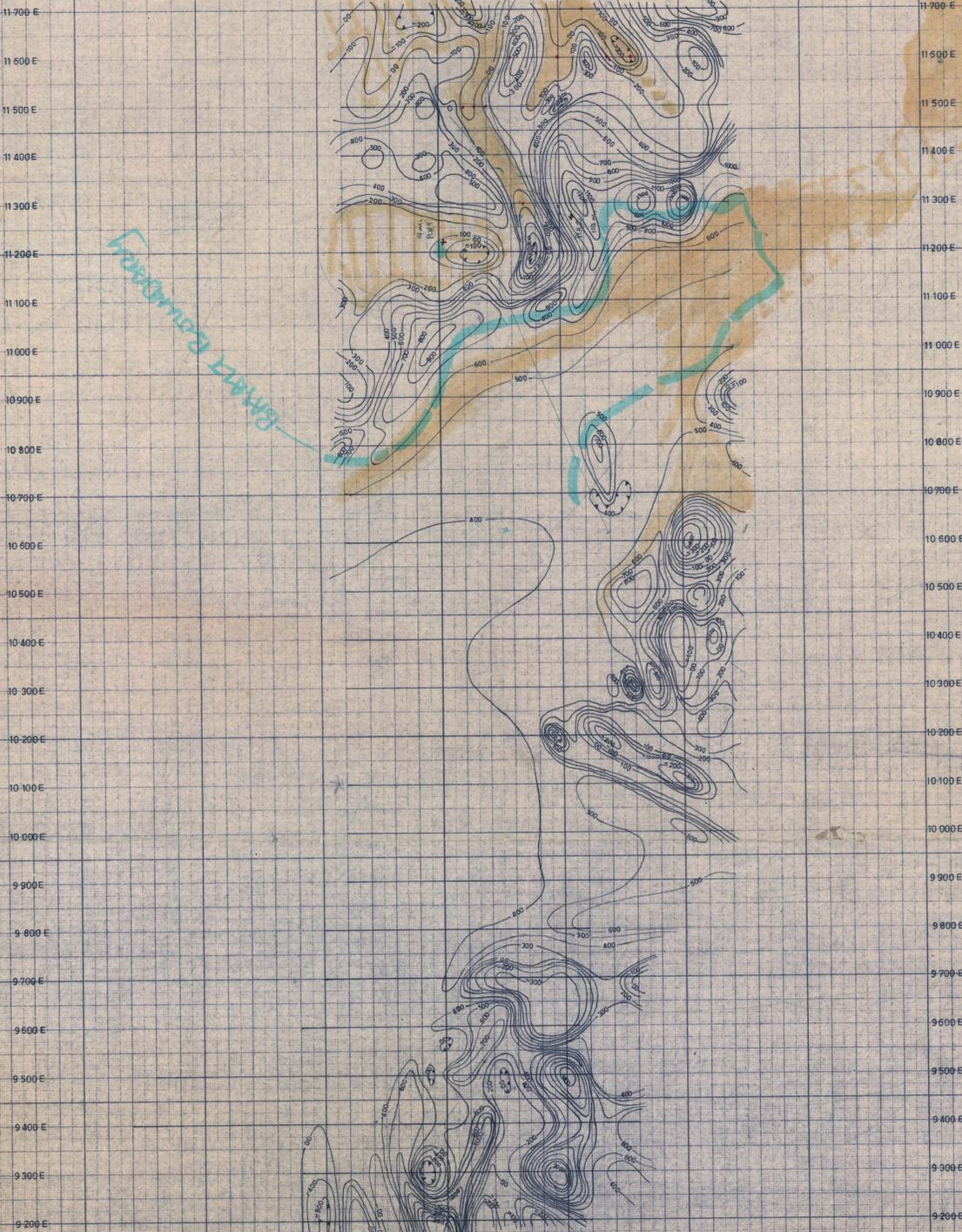
03_4902

Tube Number 19: Black Bluff, Mariner, Ml Stomont
(EL 91966, EL101974)
Polar Dome Asia Pacific
Green, D. EL101974; EL91966

5 cm



16
17
18
19
20



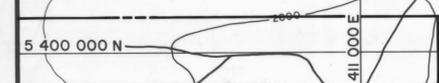
RE-1 WINDOW
(or this base?)

PROBABLE WINDOW or
this base

UNSURE

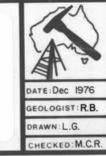
Instrument	Geometrics 816	Datum	62 000 nT	Hor. Scale	1 cm = 50 metres	AREA	Black Bluff EL10/74
Observer	S. Mudge & I. Ogilvie	Base Ref	9 800 E / 10 000 N	Vert. Scale		PROSPECT.	MARINER 1.
Scale Fact.		Date	December 1977	Cont. Int.	100 nT & 400 nT	PLAN SHOWS.	Geomagnetic Total Force Contours.

KT10/74-M-2
MARINER
MARINER 2
SURVEY GRID
1:5000



03_4902

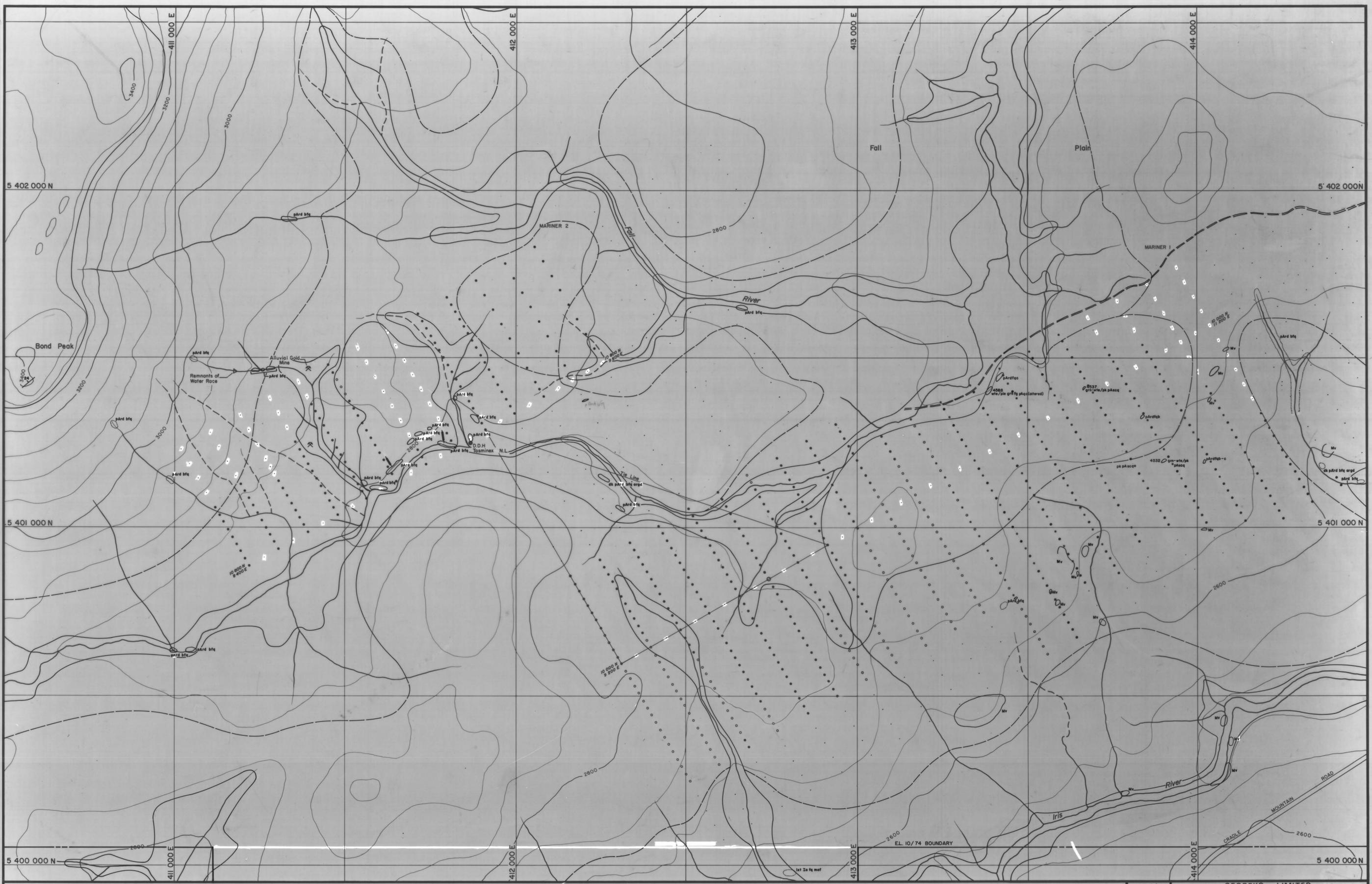
Tube Number 19, Black Bluff, Mariner, Mt Stormont
(EL 91966, EL101974)
Placer Dome Asia Pacific
Green, D. EL10/1974; EL9/1966



DATE: Dec 1976
GEOLOGIST: R.B.
DRAWN: L.G.
CHECKED: M.C.R.

GEOPEKO LIMITED
KING ISLAND GROUP
No. KT10/74-M-2
E.L. 10/74
BLACK BLUFF, TASMANIA
MARINER 1 and MARINER 2

KT10/74-M-3B
SURFACE
GEOLOGICAL
MAP
1:5000



LEGEND:
For details of abbreviations used for the geological interpretation refer to map number KT 10/74-3A

GEOLOGICAL INTERPRETATION	
Panel No. 19-43	HOLOCENE Alluvium
19-91	HOLOCENE Colluvium - Mv, Ist, pAr d bfg, qhb, glacial debris (M4, S4z), swamp deposits.
19-47	TERT. Olivine basalt (flows, Mv)
19-70	U & ? Sandstone, Conglomerate (Owen type)
19-19	G Biotite feldspar quartz porphyritic lava (pAr d bfg)



03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
(EL 91966, EL101974)
"Pincer Dome Asia Pacific"
Green, D. EL101974; EL91966

GEOPEKO LIMITED
KING ISLAND GROUP

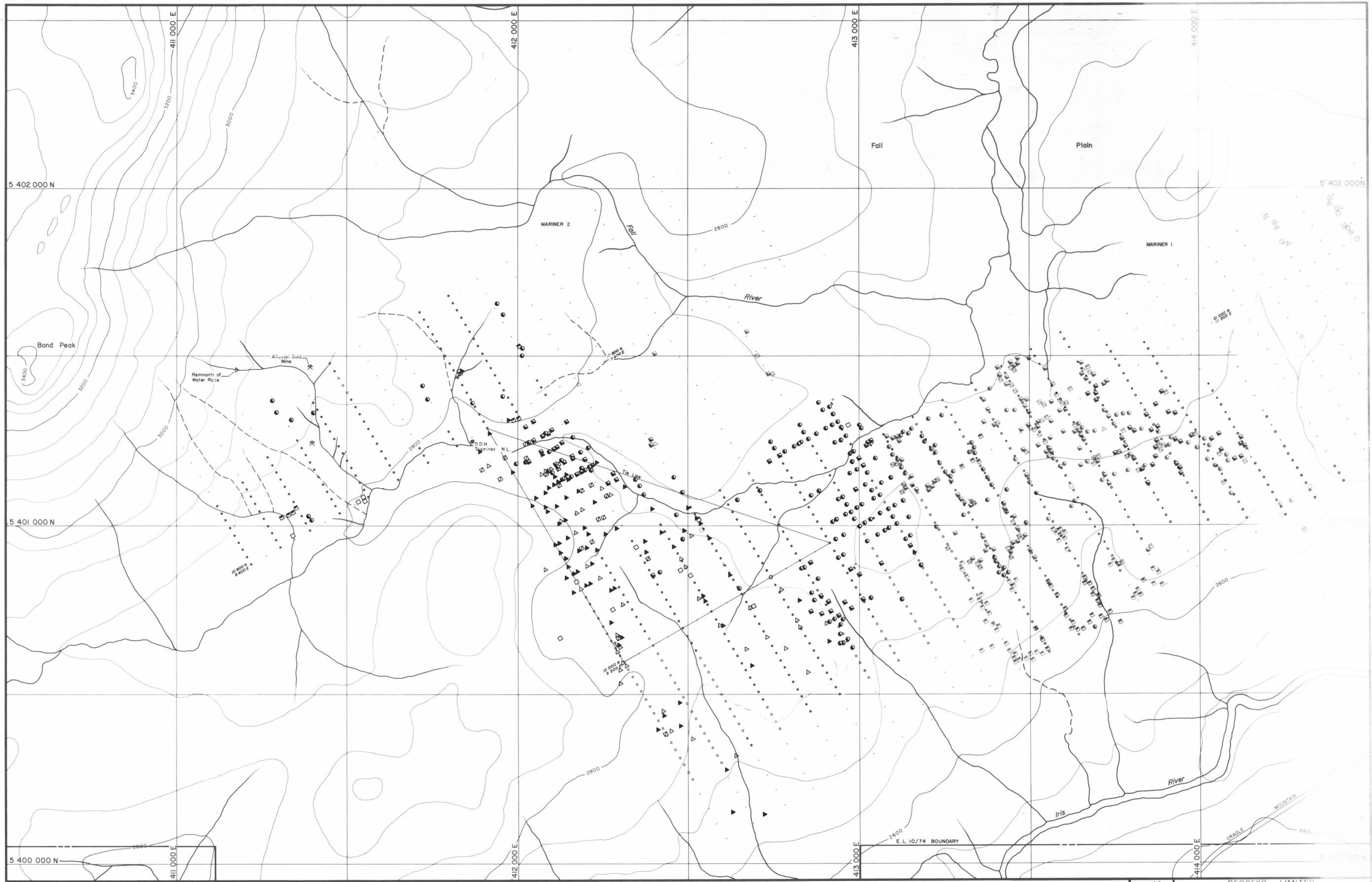
SCALE 1:5000

DATE MAR '78
GEOLOGIST R.B.
DRAWN L.G.B.J.M.
CHECKED M.C.R.

No. KT10/74-M-3B

**E.L.10/74 BLACK BLUFF, TASMANIA
MARINER 1, 2 and 3
SURFACE GEOLOGICAL MAP**

KT 10/74-M-3C
MARINER 1
MARINER 2
GEO. FLOAT MAP



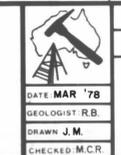
LEGEND:
For details of abbreviations used for the geological interpretation refer to map number KT 10/74-3A.

- GEOLOGICAL INTERPRETATION**
- △ lxt Ia fq maf, minor lxt Ia fq maf
 - ▲ lxt Ia fq maf s, minor lxt Ia fq maf s
 - ◻ fb pArd fq maf s
 - pArd bfq, minor pArd bfqe
 - ◼ pArd bfq argd, minor pArd bfqe argd.
 - Md f maf s
 - Mv

03_4902

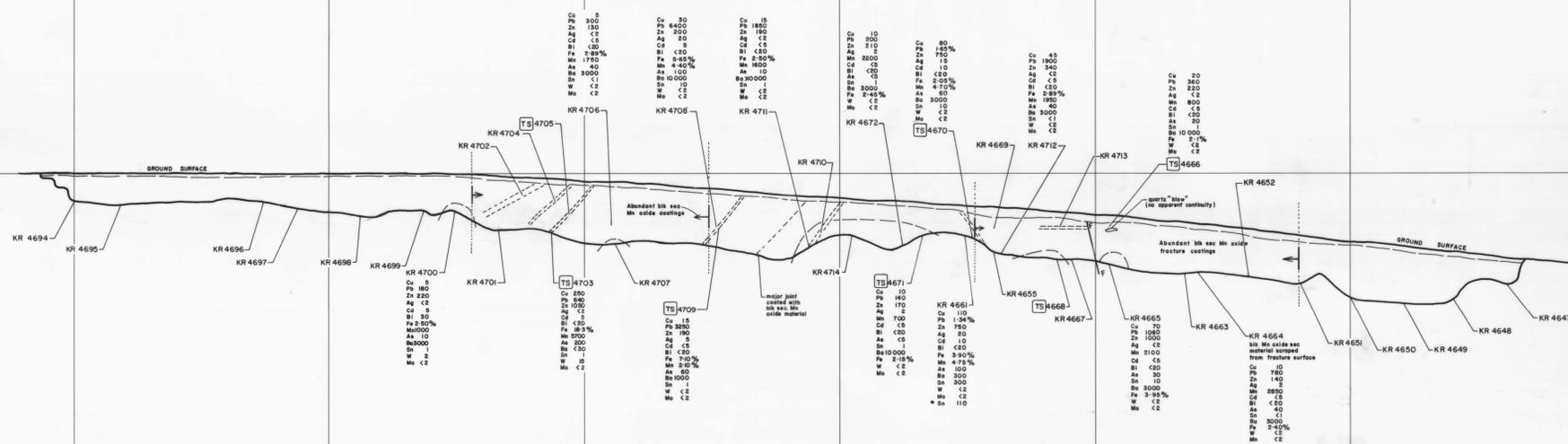


Tube Number 19: Black Bluff, Mariner, Mt Stormont
(E.L. 9/1966, EL10/1974)
Placer Dome Asia Pacific
Green, D. EL10/1974; EL9/1966

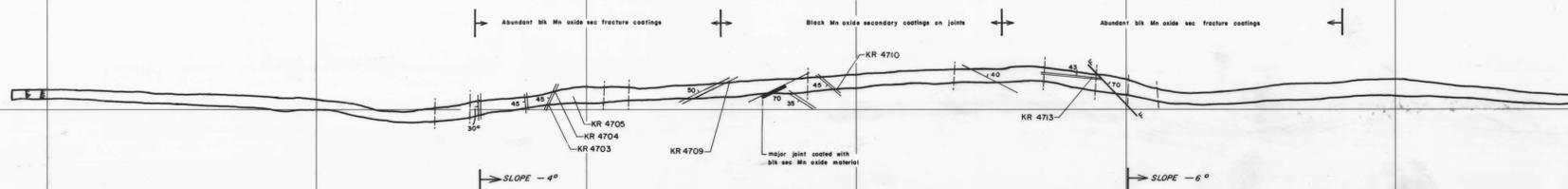


GEOPEKO LIMITED
KING ISLAND GROUP
No. KT 10/74-M-3C
E.L. 10/74 BLACK BLUFF, TASMANIA
MARINER 1 and MARINER 2
GEOLOGICAL FLOAT MAP

GEOLOGICAL PROFILE



GEOLOGICAL FLOOR PLAN



BEDROCK GRAB SAMPLE GEOCHEMISTRY

Sample No.	Cu	Pb	Zn	Ag	Mo	Cd	Fe	Mn	W	Sn
KR 4678	18	18	18	18	18	18	18	18	18	18
4679	18	18	18	18	18	18	18	18	18	18
4680	18	18	18	18	18	18	18	18	18	18
4681	18	18	18	18	18	18	18	18	18	18
4682	18	18	18	18	18	18	18	18	18	18
4683	18	18	18	18	18	18	18	18	18	18
4684	18	18	18	18	18	18	18	18	18	18
4685	18	18	18	18	18	18	18	18	18	18
4686	18	18	18	18	18	18	18	18	18	18
4687	18	18	18	18	18	18	18	18	18	18
4688	18	18	18	18	18	18	18	18	18	18
4689	18	18	18	18	18	18	18	18	18	18
4690	18	18	18	18	18	18	18	18	18	18
4691	18	18	18	18	18	18	18	18	18	18
4692	18	18	18	18	18	18	18	18	18	18
4693	18	18	18	18	18	18	18	18	18	18
4662	18	18	18	18	18	18	18	18	18	18
4660	18	18	18	18	18	18	18	18	18	18
4659	18	18	18	18	18	18	18	18	18	18
4658	18	18	18	18	18	18	18	18	18	18
4657	18	18	18	18	18	18	18	18	18	18
4656	18	18	18	18	18	18	18	18	18	18
4654	18	18	18	18	18	18	18	18	18	18
4653	18	18	18	18	18	18	18	18	18	18
4646	18	18	18	18	18	18	18	18	18	18
4645	18	18	18	18	18	18	18	18	18	18
4644	18	18	18	18	18	18	18	18	18	18
4643	18	18	18	18	18	18	18	18	18	18

03_4902

Tube Number 19 - Black Bluff, Mariner, Mt Stormont
(EL 91966, EL101974)
"Pacer Dome Asia Pacific"
Green, D. EL101974; ELS1966



LEGEND:

ANALYTICAL METHODS:
Cu, Pb, Zn, Bi, Ag, Mo, Cd and Fe by A.A.S. following hot conc. HCL leach and HCL/HNO3 leach in latter stages of 0.25g sample.
Sn and Ba by Emission Spectrography Schemes E.S. 2 and 3.
As by modified Gutzeit method following Potassium Pyrosulphate fusion of 0.25g sample.
W and Mo by Colorimetry.
*Sn by XRF
Analytical results in ppm, except Fe %.

SYMBOLS:
A acid igneous unclassified
M basic igneous unclassified

Textural:
p porphyritic
fb flow banding
vn vein
i intrusive
shd sheared

Silicate Mineralogy:
q quartz
f K feldspar
b biotite
ch chlorite
c sericite

Grain Size:
fg fine grained (<1mm)
mg medium grained (5mm - 1mm)
cg coarse grained (5mm - 1cm)

Colours:
pk pink
grn green
blk black
brn brown
rd red
pblt pale
dk dark

Structural:
joint
primary foliation
minor fault
approximate contact
approximate position of transitional contact

Miscellaneous:
KR 4694 rock sample number
TS 4709 thin section and rock number
comments: Width of coston tapers to 0.65m at base. Bedrock grab samples for geochemistry were taken at 0.5m intervals across the 5m sampling width.
scales: Vertical - 1:100
Horizontal - 1:250

GEOLOGICAL INTERPRETATION:
Parent No.
19-53 HOLOCENE All soil horizon - blk peat, residual quartz phenocrysts.
19-41 G Strongly foliated porphyry - wte/dk grn cg pAsac
19-41 G Altered porphyry - wte/dk grn cg pAsac
19-12 G Moderately weathered porphyry - wte - pk - grn/pk cg pAfac
19-19 G Unweathered porphyry - wte - grn - crm/dk - pk cg pAfab
19-7 G Porphyry dyke - ple grn fg pAs
19-68 G Basic dyke - dk grn fg IMc

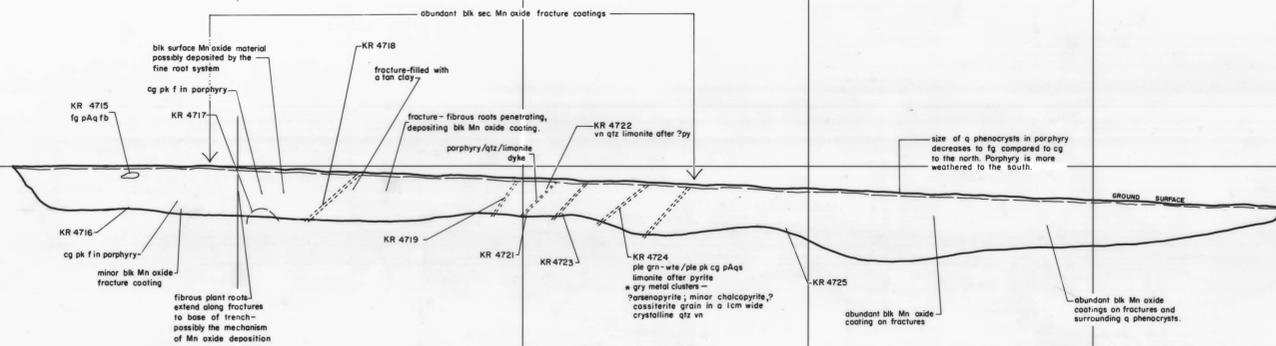
MAP NORTH
MAG NORTH
MARKER GRID NORTH

SCALE: 1:250 (HORIZ) 1:100 (VERT)
No. KT 10/74-M-15

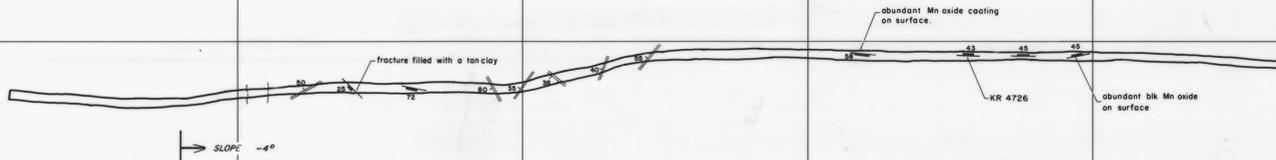
E.L. 10/74 BLACK BLUFF, TASMANIA
MARINER I
COSTEAN I

GEOPEKO
A DIVISION OF PENK-WALLSEND OPERATIONS LTD, DEVONPORT BASE
DATE: FEB. 1979
GEOLOGIST: G.L.B.
DRAWN: J.P.M.
CHECKED: J.B.

GEOLOGICAL PROFILE



GEOLOGICAL FLOOR PLAN



BEDROCK GRAB SAMPLE GEOCHEMISTRY

Sample No.	Cu	Pb	Zn	Ag	Mn	Co	Bi	As	Sr	Ba	Fe	W	Mg
KR 4742	25	340	110	110	110	110	110	110	110	110	110	110	110
4741	20	300	130	130	130	130	130	130	130	130	130	130	130
4740	40	400	190	190	190	190	190	190	190	190	190	190	190
4739	90	1360	490	490	490	490	490	490	490	490	490	490	490
4738	200	3200	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
4737	180	2400	850	850	850	850	850	850	850	850	850	850	850
4736	40	400	170	170	170	170	170	170	170	170	170	170	170
4735	10	140	50	50	50	50	50	50	50	50	50	50	50
4734	10	1140	170	170	170	170	170	170	170	170	170	170	170
4733	20	1900	170	170	170	170	170	170	170	170	170	170	170
4732	18	1600	2	2	2	2	2	2	2	2	2	2	2
4731	10	1000	2	2	2	2	2	2	2	2	2	2	2
4730	10	140	2	2	2	2	2	2	2	2	2	2	2
4729	15	480	2	2	2	2	2	2	2	2	2	2	2
4728	20	460	2	2	2	2	2	2	2	2	2	2	2
4727	35	300	2	2	2	2	2	2	2	2	2	2	2

03_4902

Tube Number 19, Black Bluff, Mariner, Mt Stomont
 (EL 91196; EL 101974)
 Placer Dome Asia Pacific
 Green, D. EL 101974; EL 91196

5 cm

LEGEND
ANALYTICAL METHODS:
 Cu, Pb, Zn, Bi, Ag, Mn, Co and Fe by A.A.S. following hot conc. HCL leach and HCL/HNO3 leach in latter stages of 0.25g sample
 Sn and Ba by Emission Spectrography Schemes E.S. 2 and 3
 As by modified Gutzeit method following Potassium Pyrosulphate fusion of 0.25g sample
 W and Mg by Colorimetry
 *Sn by XRF
 Analytical results in ppm, except Fe %

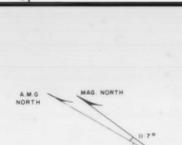
SYMBOLS
 igneous:
 A acid igneous unclassified
 M basic igneous unclassified
 Textural:
 p porphyritic
 fb flow banding
 vn vein
 i intrusive
 shd sheared

Silicate Mineralogy:
 q quartz
 f K-feldspar
 b biotite
 c chlorite
 s sericite
Grain Size:
 fg fine grained (< 1mm)
 mg medium grained (5mm - 1mm)
 cg coarse grained (5mm - 1cm)

Colours:
 pk pink
 grn green
 blk black
 crm cream
 rd red
 plv pale
 dk dark
Structural:
 joint
 primary foliation
 minor fault
 approximate contact
 approximate position of transitional contact

Miscellaneous:
 KR 4694 rock sample number
 [TS] 4709 thin section and rock number
 comments: Width of cation layers to 0.65m at base. Bedrock grab samples for geochemistry were taken at 0.5m intervals across the 5m sampling width.
 scales: Vertical - 1:100
 Horizontal - 1:250

GEOLOGICAL INTERPRETATION
 Pencil No.
 19-53 [] HOLOCENE All soil horizon - blk peat, residual quartz phenocrysts.
 19-41 [] G Strongly foliated porphyry - wte/dk grn cg pAqac 7fb
 19-41 [] G Altered porphyry - wte/dk grn cg pAqac
 19-12 [] G Moderately weathered porphyry - wte - grn - crm/rd - pk - grn/pk cg pAqac
 19-19 [] G Unweathered porphyry - wte - grn - crm/rd - pk - grn/pk cg pAqac
 19-7 [] G Porphyry dyke - ple grn fg pAqac
 19-68 [] G Basic dyke - dk grn fg lMc

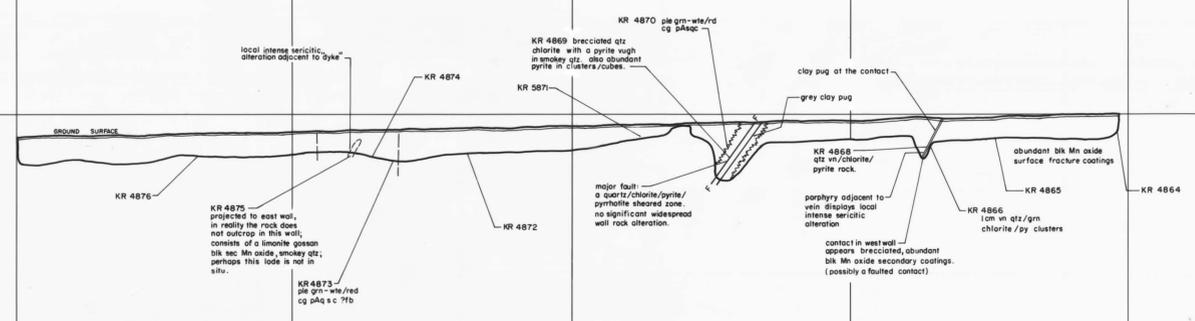


DATE: MARCH '79
GEOLOGIST: G.L.B.
DRAWN: J.P.M.
CHECKED: J.B.

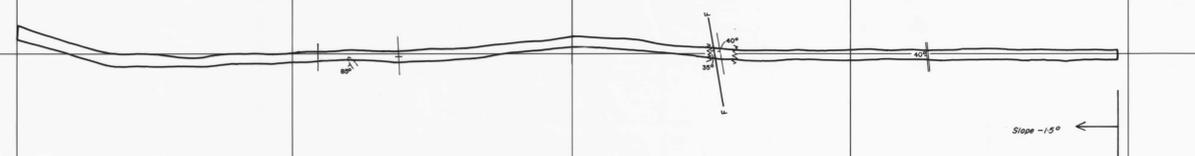
GEOPEKO
 A DIVISION OF PEKO-WALLSEND OPERATIONS LTD, DEVONPORT BASE
 SCALE: 1:250 (Horizontal) 1:100 (Vertical)
 No. KT10/74-M-16
E.L. 10/74 BLACK BLUFF, TASMANIA
MARINER 1
COSTEAN 2

MAP 10/76
M-18
COSTEAN 4

GEOLOGICAL PROFILE



GEOLOGICAL FLOOR PLAN



BEDROCK GRAB SAMPLE GEOCHEMISTRY

Sample No.	Cu	Pb	Zn	Mn	Si	Al	Fe	S	Mg
KR 4814	40	40	160	700	40	45	1	1000	2.35%
4813	80	80	240	700	45	45	1	3000	2.25%
4812	40	40	180	450	40	45	1	3000	2.05%
4811	40	40	240	750	40	45	1	3000	2.40%
4810	40	40	240	700	40	45	1	1000	2.45%
4809	100	120	210	700	40	45	1	1000	2.60%
4808	240	120	210	700	40	45	1	1000	1.85%
4807	40	40	180	200	40	45	1	1000	1.45%
4806	40	40	180	200	40	45	1	1000	2.10%
4805	40	40	180	200	40	45	1	3000	2.05%
4804	40	40	180	200	40	45	1	3000	2.05%
4803	40	40	180	200	40	45	1	1000	1.75%
4802	40	40	180	200	40	45	1	1000	2.05%
4801	40	40	140	210	40	45	1	1000	1.75%
4800	40	40	210	240	40	45	1	1000	2.05%
4799	40	40	210	240	40	45	1	3000	2.10%
4798	40	40	240	200	40	45	1	3000	2.40%
4797	40	40	200	190	40	45	1	3000	2.00%
4796	40	40	190	190	40	45	1	3000	2.00%
4795	40	40	190	190	40	45	1	3000	2.00%

03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stomont
(EL 911966, EL 101974)
Pacer Dome Asia Pacific
Green, D. EL101974: EL1966



LEGEND
ANALYTICAL METHODS:
Cu, Pb, Zn, Bi, Ag, Mn, Cd and Fe by A.A.S. following hot conc. HCL leach and HCL/HNO3 leach in latter stages of 0.25g sample
Si and Mn by Emission Spectrography Schemes E.S. 2 and 3.
As by modified Gutzet method following Potassium Pyrosulphate fusion of 0.25g sample
W and Mo by Colorimetry
Sb by A.S.F.
Analytical results in ppm, except Fe %

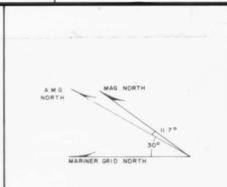
SYMBOLS
igneous:
A acid igneous unclassified
M basic igneous unclassified
Textural:
P porphyritic
fb flow banding
vn vein
i intrusive
shd sheared

Silicate Mineralogy
q quartz
K feldspar
b biotite
c chlorite
s sericite
Grain Size:
fg fine grained (< 1mm)
mg medium grained (1mm - 1mm)
cg coarse grained (5mm - 1cm)

Colours
pk pink
gm green
bk black
cm cream
rd red
pl pale
dk dark
Structural:
joint
primary foliation
minor fault
approximate contact
approximate position of transitional contact

Miscellaneous
rock sample number
thin section and rock number
comments: Width of caston tapers to 0.65m at base. Bedrock grab samples for geochemistry were taken at 0.5m intervals across the 5m sampling width.
scales: Vertical - 1:100
Horizontal - 1:250

GEOLOGICAL INTERPRETATION
Pleistocene:
19-53 [Symbol] HOLOCENE All soil horizon - blk peat, residual quartz phenocrysts
19-41 [Symbol] Strongly foliated porphyry - wh/dk gm cg pAg sc 7fb
19-41 [Symbol] Altered porphyry - wh/dk gm cg pAg sc
19-12 [Symbol] Moderately weathered porphyry - wh - pk - gm/pk cg pAg sc
19-19 [Symbol] Unweathered porphyry - wh - gm - crm/dk - pk cg pAg sc
19-7 [Symbol] Porphyry dyke - dk gm fg pAg sc
19-48 [Symbol] Basic dyke - dk gm fg pAg sc

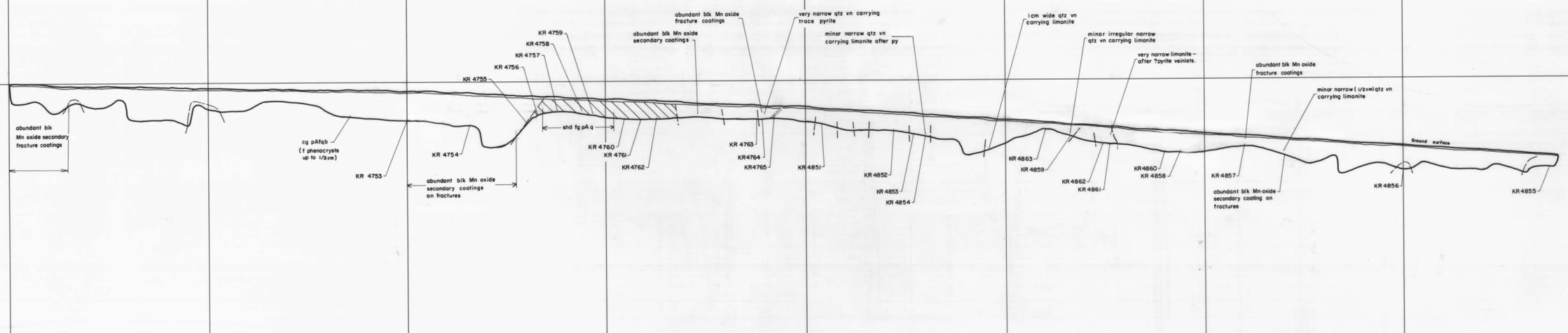


DATE: APRIL '79
GEOLOGIST: G.L.B.
DRAWN: J.P.M.
CHECKED: J.P.M.

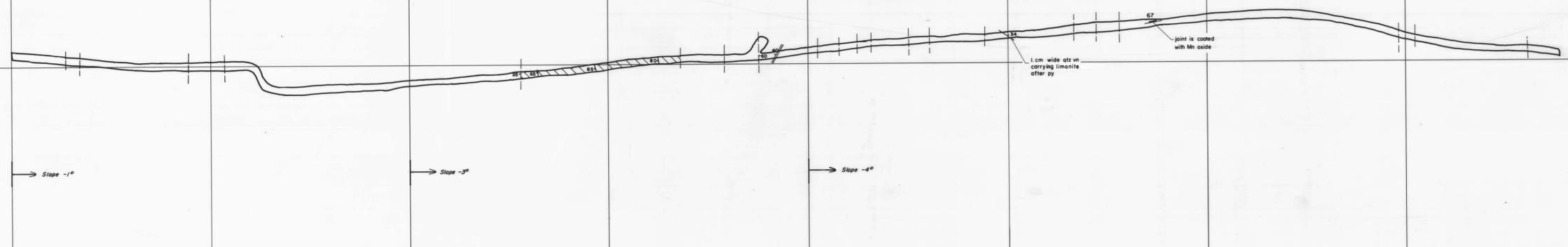
GEOPEKO
A DIVISION OF PEKO-WALLSEND OPERATIONS LTD, DEVONPORT BASE
SCALE: 1:250 (Horizontal) 1:100 (Vertical)
No. KT 10/74-M-18
E.L. 10/76 BLACK BLUFF, TASMANIA
MARINER 3
COSTEAN 4

Black Bluff
Mariner
3
M17

GEOLOGICAL PROFILE



GEOLOGICAL FLOOR PLAN



BEDROCK GRAB SAMPLE GEOCHEMISTRY

Sample No.	Cu	Pb	Zn	Ag	Mn	Fe	Al	Si	Ca	Mg	Na	K	As	Sb	Mo	Co	Ni	Se	Te	Bi	Sn	W	Th	U	Other
KR 4794	70	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
4793	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4792	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4791	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4790	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4789	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4788	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4787	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4786	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4785	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4743	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4744	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4745	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4746	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4747	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4748	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4749	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4750	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4751	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4752	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4756	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4767	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4768	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4769	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4770	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4771	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4772	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4773	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4774	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4775	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4776	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4777	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4778	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4779	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4780	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4781	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4782	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4783	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
4784	130	40	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80

03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stomont
(EL 91966, EL101974)
"Pacer Dome Asia Pacific"
Green, D. EL101974; EL91966

LEGEND

ANALYTICAL METHODS
Cu, Pb, Zn, Bi, Ag, Mn, Co and Fe by A.A.S. following hot conc. HCl wash and HCl/HNO₃ leach in later stages of 0.25g sample
As and Ba by Emission Spectrography Schemes E 5 Z and 3
Au by modified Gutzert method following Potassium Pyrosulphate fusion of 0.25g sample
W and Mo by Colorimetry
Sn by XRF
Analytical results in ppm, except Fe %

SYMBOLS

Igneous
A acid igneous unclassified
M basic igneous unclassified
Textural
p porphyritic
fb flow banding
vn vein
i intrusive
shd sheared

Silicate Mineralogy

q quartz
f K feldspar
b biotite
c chlorite
s sericite
Grain Size
fg fine grained (<1mm)
mg medium grained (1-5mm)
cg coarse grained (5mm-1cm)

Colours

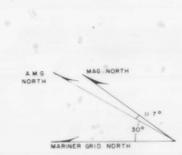
pk pink
gm green
bk black
cm cream
rd red
pl pale
dk dark

Macellineous

KR 4694 rock sample number
TS 4709 thin section and rock number
comments Width of cation layers to 0.65m at base. Bedrock grab samples for geochemistry were taken at 0.5m intervals across the 5m sampling width
scales: Vertical - 1:100
Horizontal - 1:250

GEOLOGICAL INTERPRETATION

19-53 HOLOCENE
19-41 C
19-41 G
19-12 G
19-19 G
19-7 G
19-88 G
Al soil horizon - blk peat, residual quartz phenocrysts
Strongly foliated porphyry - wte/dk gm cg pAsq *fb
Altered porphyry - wte/dk gm cg pAsq
Moderately weathered porphyry - wte - pk - gm/pk cg pAfc
Unweathered porphyry - wte - gm - crm/dk - pk cg pAfb
Porphyry dyke - dk gm fg pAs
Basic dyke - dk gm fg lMc

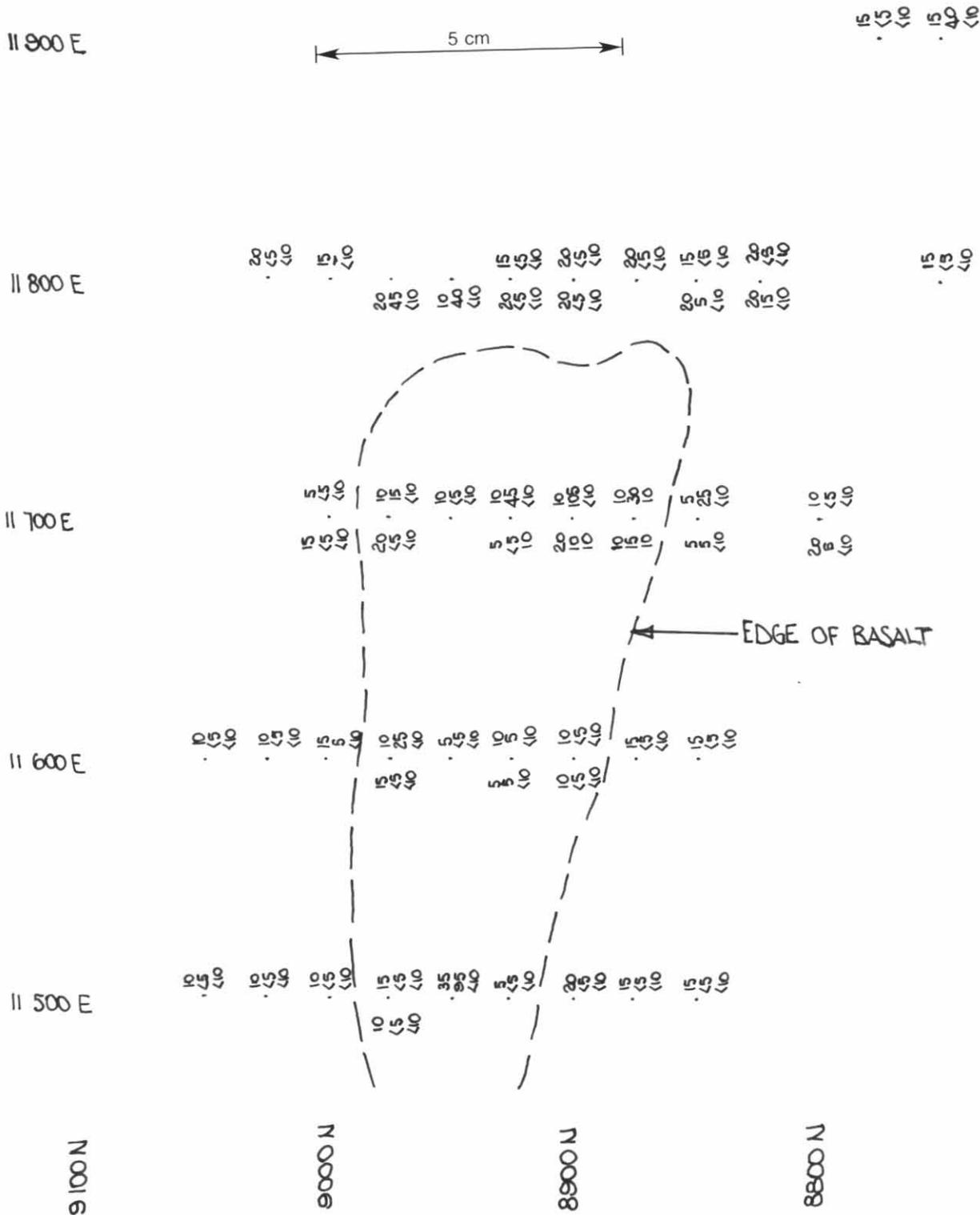


GEOPEKO
A DIVISION OF PEKO-WALLESEND OPERATIONS LTD, DEVONPORT BASE
No. KT 10/74 - M-17
SCALE: 1:250 (HORIZ) 1:100 (VERT)
E.L. 10/74 BLACK BLUFF, TASMANIA
MARINER 3
COSTEAN 3
DATE: MARCH '79
GEOLOGIST: G.L.B.
DRAWN: J.P.M.
CHECKED: J.L.B.

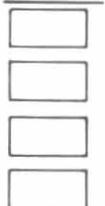
T510/74 3
 Fig 8
 MARINER 5 - WINDWARD
 Bi, Sn, W. Soil/GEOCHEM
 RESULTS
 1:2500

03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL10/1974)
 Placer Dome Asia Pacific*
 Green, D. EL10/1974; EL9/1966



LEGEND:



B-Horizon

C-Horizon
 15
 <5
 <10
 Bi } ppm.
 Sn }
 W }
 SAMPLE LOCATION.



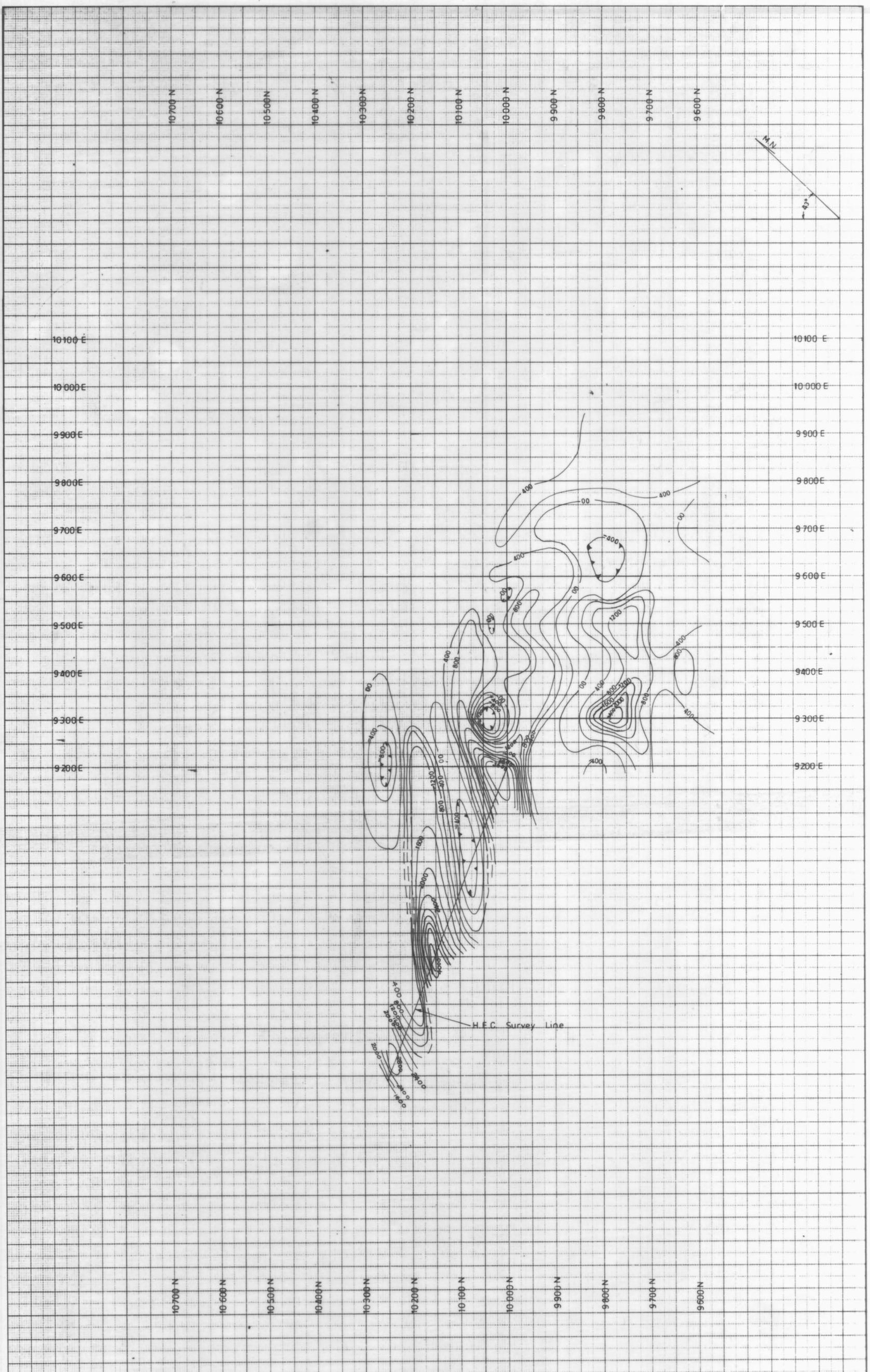
GEOPEKO LIMITED
 DEVONPORT

Scale: 1:2500

NO FIG. 8

DATE: Nov '80
 GEOL: K.H.
 DWN: D.B.
 CHKD:

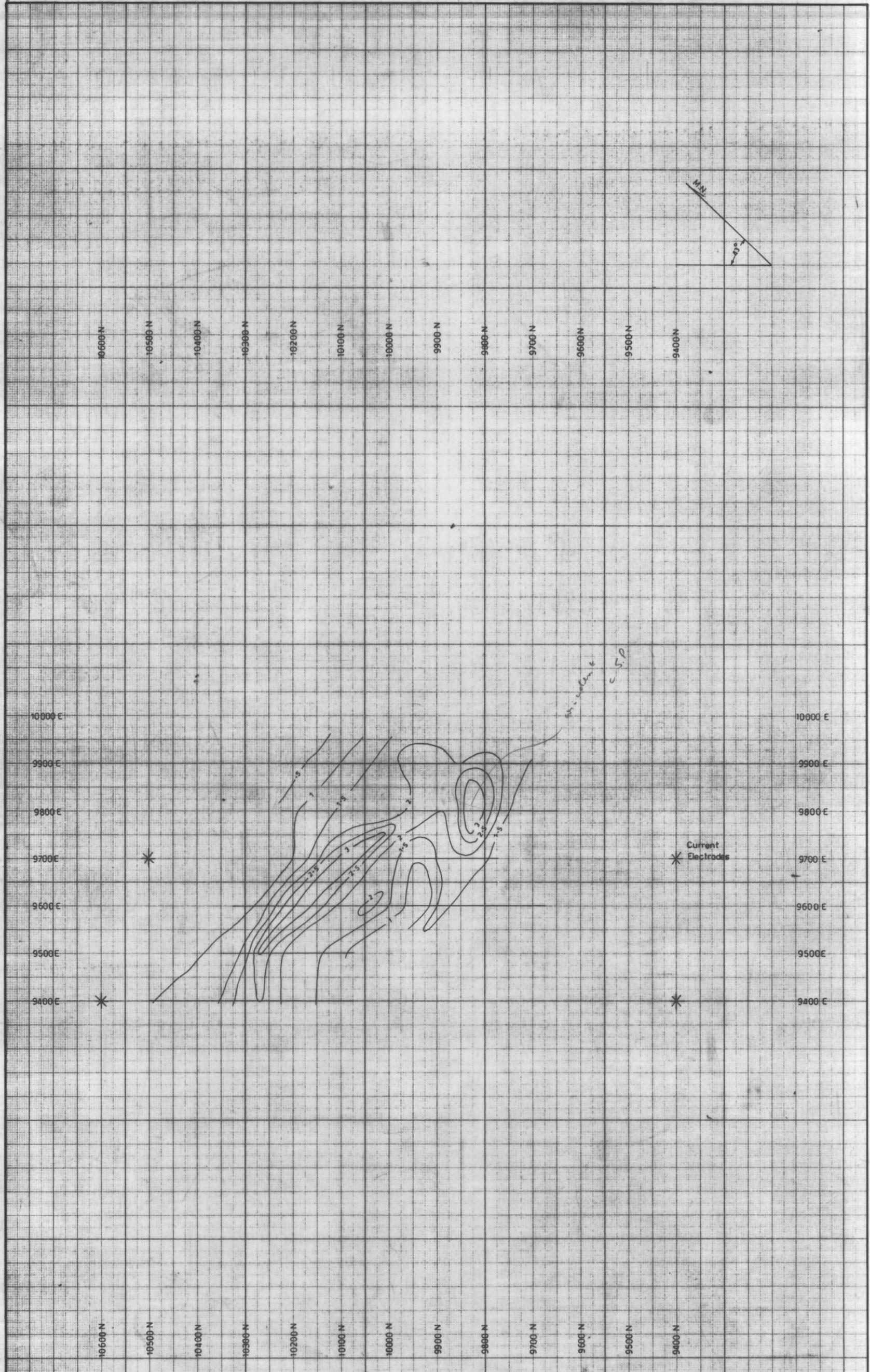
MARINER 5 - "KINDON"
 Bi, Sn, W. SOIL GEOCHEMICAL
 RESULTS.



03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL10/1974)
 Placer Dome Asia Pacific
 Green, D. EL10/1974; EL9/1966

GEOPEKO LTD. Geophysical Surveys. Plan No 3327.	Instrument	Geometrics 816	Datum	62 000 nT.	Hor. Scale	1cm = 50 metres	AREA.	Black Bluffs EL10/74
	Observer	S. Mudge	Base Peg	9 800 E / 10 000 N	Vert. Scale	—	PROSPECT.	MARINER 1.
	Scale Fact.	—	Date	Jan. 1977	Cont. Int.	400 nT.	PLAN SHOWS	Geomagnetic Total Force Contours.



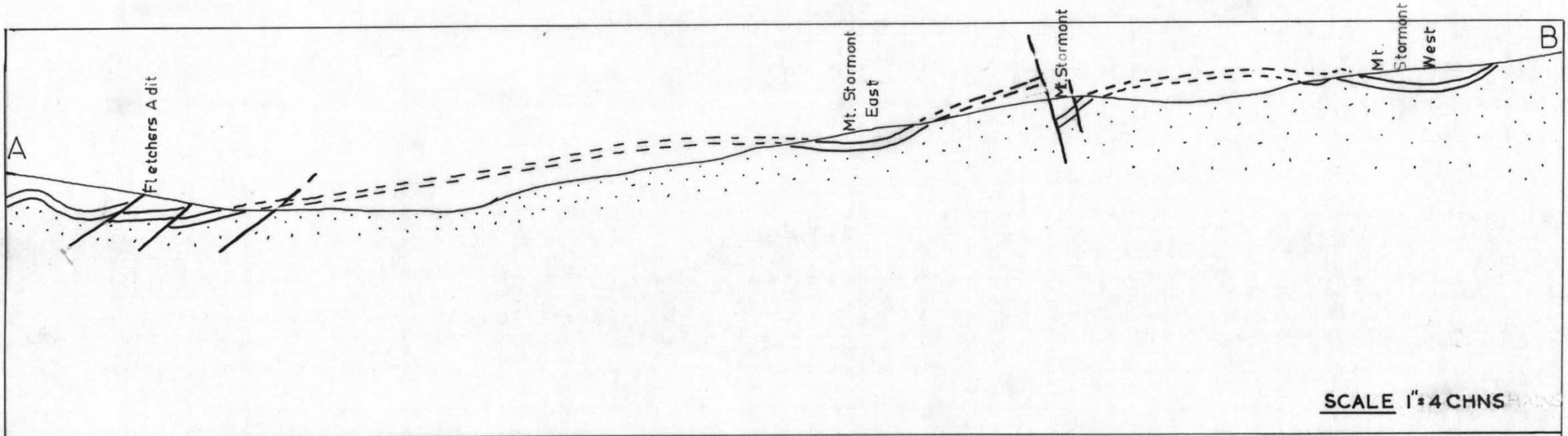
NOTE:- Lines 9600E, 9700E, 9800E & 9900E measured with current electrodes at 9700E/10500N & 9700E/9400N
 Lines 9500E & 9400E measured with current electrodes at 9400E/10600N & 9400E/9400N

03_4902
 Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL10/1974)
 Placer Dome Asia Pacific
 Green, D. EL10/1974; EL9/1966



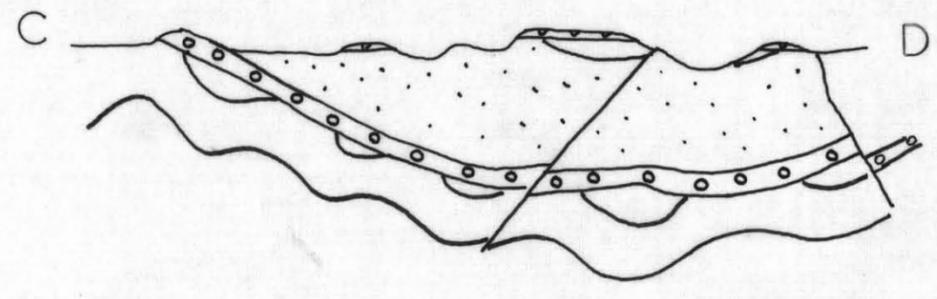
GEOPEKO LTD. Geophysical Surveys. Plan No 3330	Instrument	Huntec Palmer	Datum		Hor Scale	1 cm = 50 metres	AREA.	Black Bluffs EL10/74
	Observer	S Mudge	Base Peg	9800 E / 10000 N	Vert. Scale		PROSPECT.	MARINER 1.
	Scale Fact.		Date	Jan. 1977	Cont. Int.	0.5%	PLAN SHOWS	I.P. Contours of Chargeability M1.

460



REFERENCE

	Basalt
	Calc. Silicate
	Magnetite-garnet Rock
	Meina Quartzite
	Reland Conglomerate
	Undifferentiated Cambrian Sediments

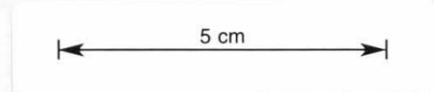


SCALE 1" = 3000'

NEW CONSOLIDATED GOLD FIELDS (ASIA) PTY LIMITED			
GEOLOGICAL SECTIONS			
MT STORMONT DISTRICT			
TASMANIA			
MAPPED BY	DATE	DRAWN BY	PLAN NO
K.S.C.	27-1-61	K.S.C.	3

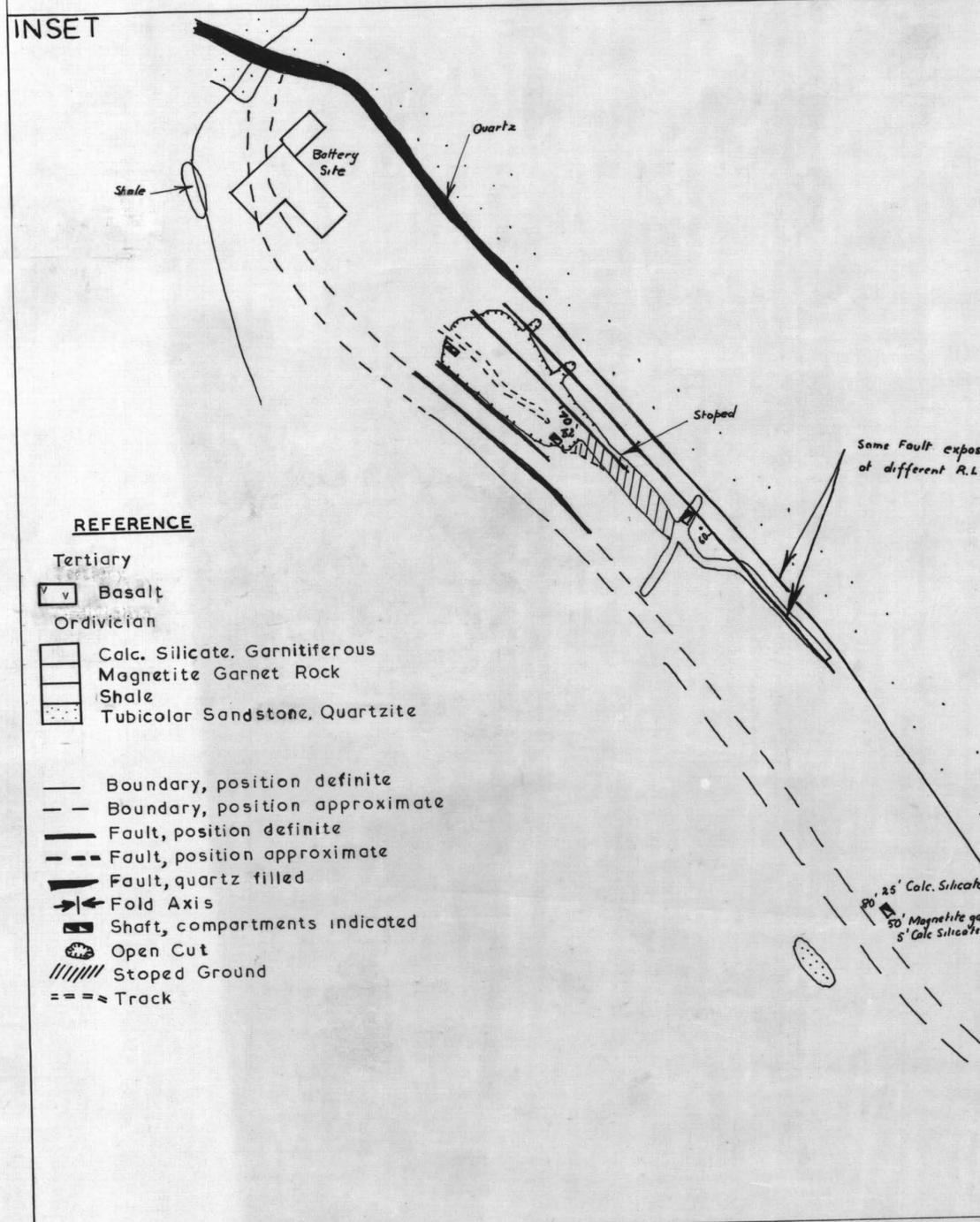
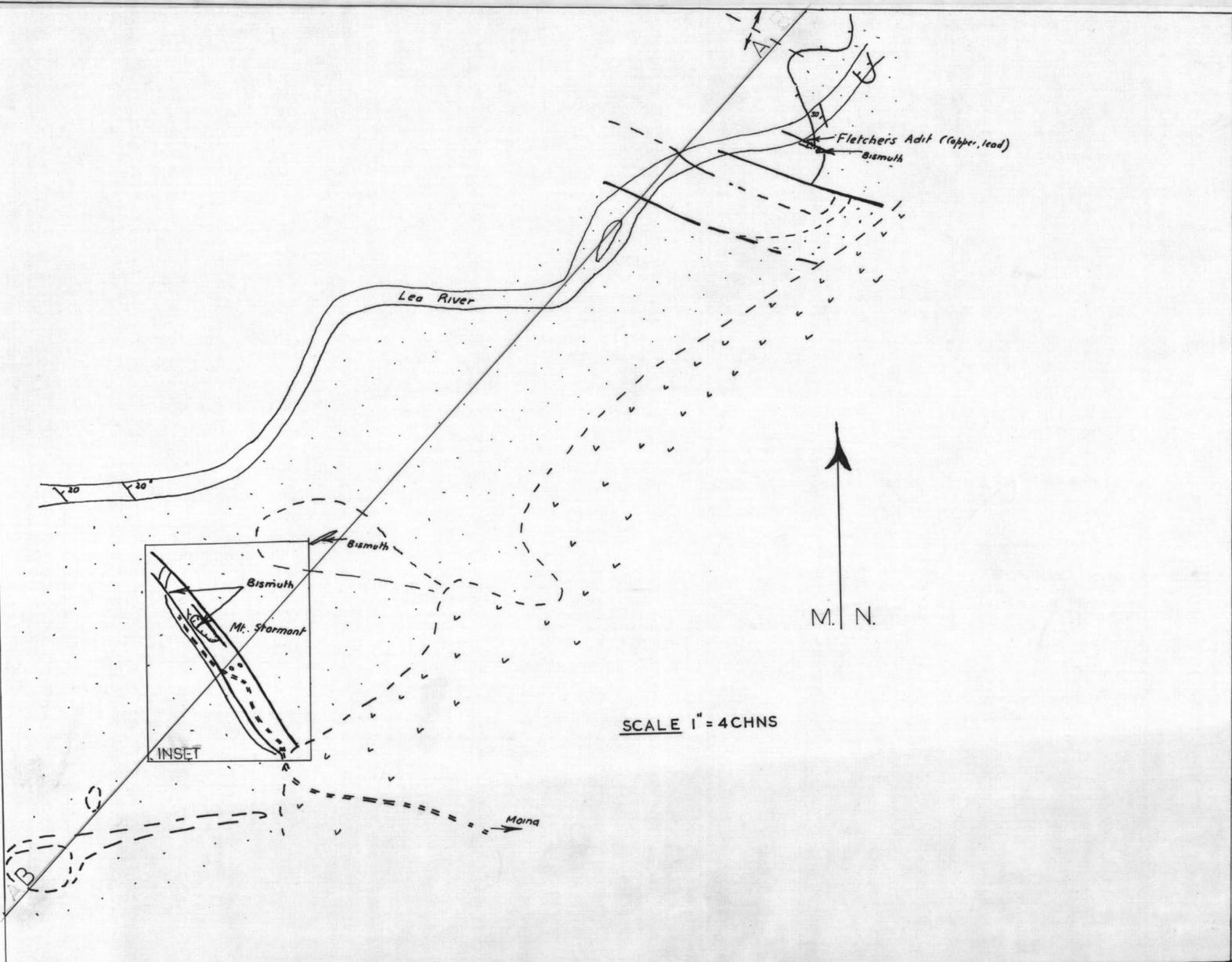
03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL10/1974)
 Placer Dome Asia Pacific*
 Green, D. EL10/1974; EL9/1966



NEW CONSOLIDATED GOLD FIELDS (ASIA) PTY. LTD.
 DRAWING NO. 2168

460



NEW CONSOLIDATED GOLD FIELDS (A'SIA) PTY LIMITED

GEOLOGICAL MAP OF THE STORMONT BISMUTH MINE TASMANIA

MAPPED BY	DATE	DRAWN BY	PLAN NO
K.S.C.	27-1-61	K.S.C.	2

- REFERENCE**
- Tertiary
- Basalt
- Ordovician
- Calc. Silicate. Garnitiferous
 - Magnetite Garnet Rock
 - Shale
 - Tubicolour Sandstone, Quartzite
- Boundary, position definite
 - Boundary, position approximate
 - Fault, position definite
 - Fault, position approximate
 - Fault, quartz filled
 - Fold Axis
 - Shaft, compartments indicated
 - Open Cut
 - Stopped Ground
 - Track

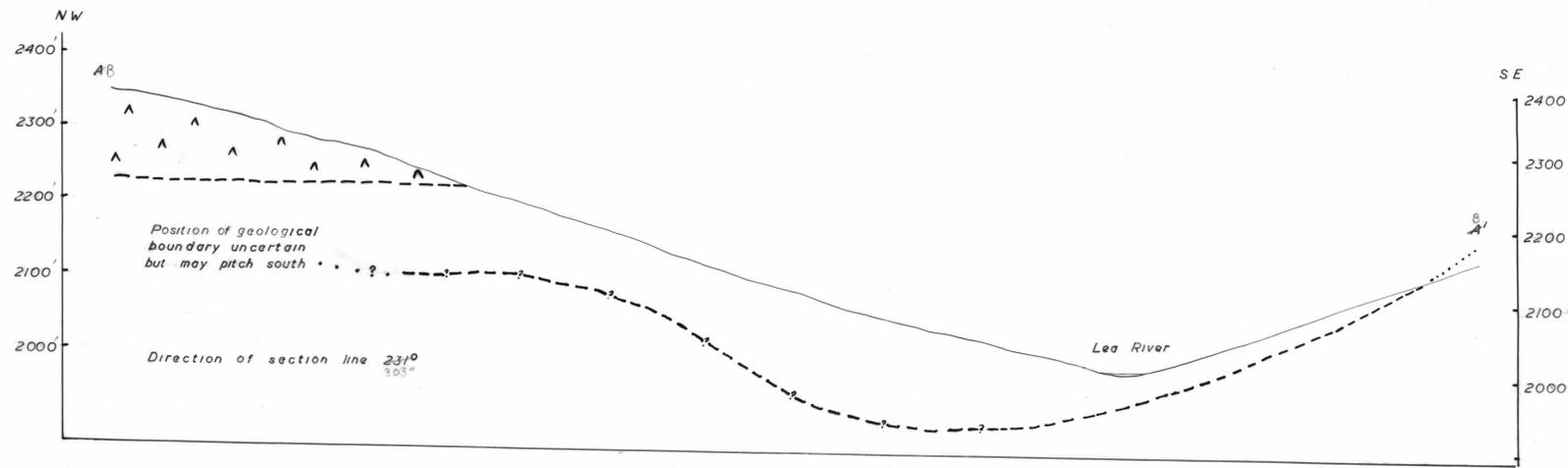
SCALE 1" = 100'

03_4902

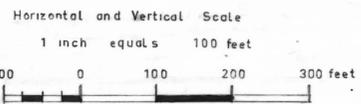
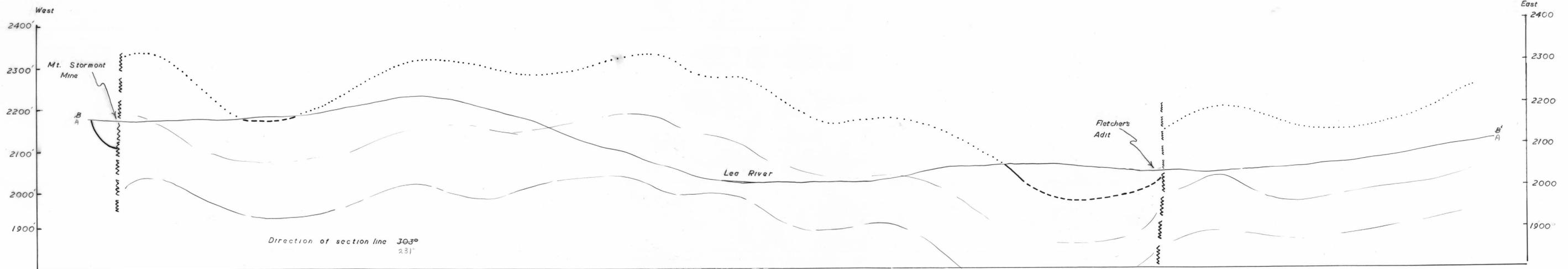
Tube Number 19: Black Bluff, Mariner, Mt Stormont (EL 9/1966, EL10/1974)
Placer Dome Asia Pacific*
Green, D. EL10/1974; EL9/1966

5 cm

Plan No 1575



- Legend
- | | | |
|------------|--|--|
| TERTIARY | | Basalt flows and breccia. |
| ORDOVICIAN | | Gordon Limestone |
| | | Mona Quartzite |
| | | Garnet-magnetite calc-silicate rocks. |
| | | Quartzite and minor sericitised shale bands. |
- Reference
- | | |
|--|--|
| | Geological boundary - definite |
| | Geological boundary - position approximate |
| | Geological boundary - position inferred |
| | Fault |
| | Structural form lines |



Based on plane table traverse by G.I. Wilson and W. Delaney, March 1962. Surface profile is approximate

03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont (EL: 91966, EL101974)
Placer Dome Asia Pacific
Green, D. EL101974; EL91966

NEW CONSOLIDATED GOLD FIELDS (A'SIA) PTY LTD

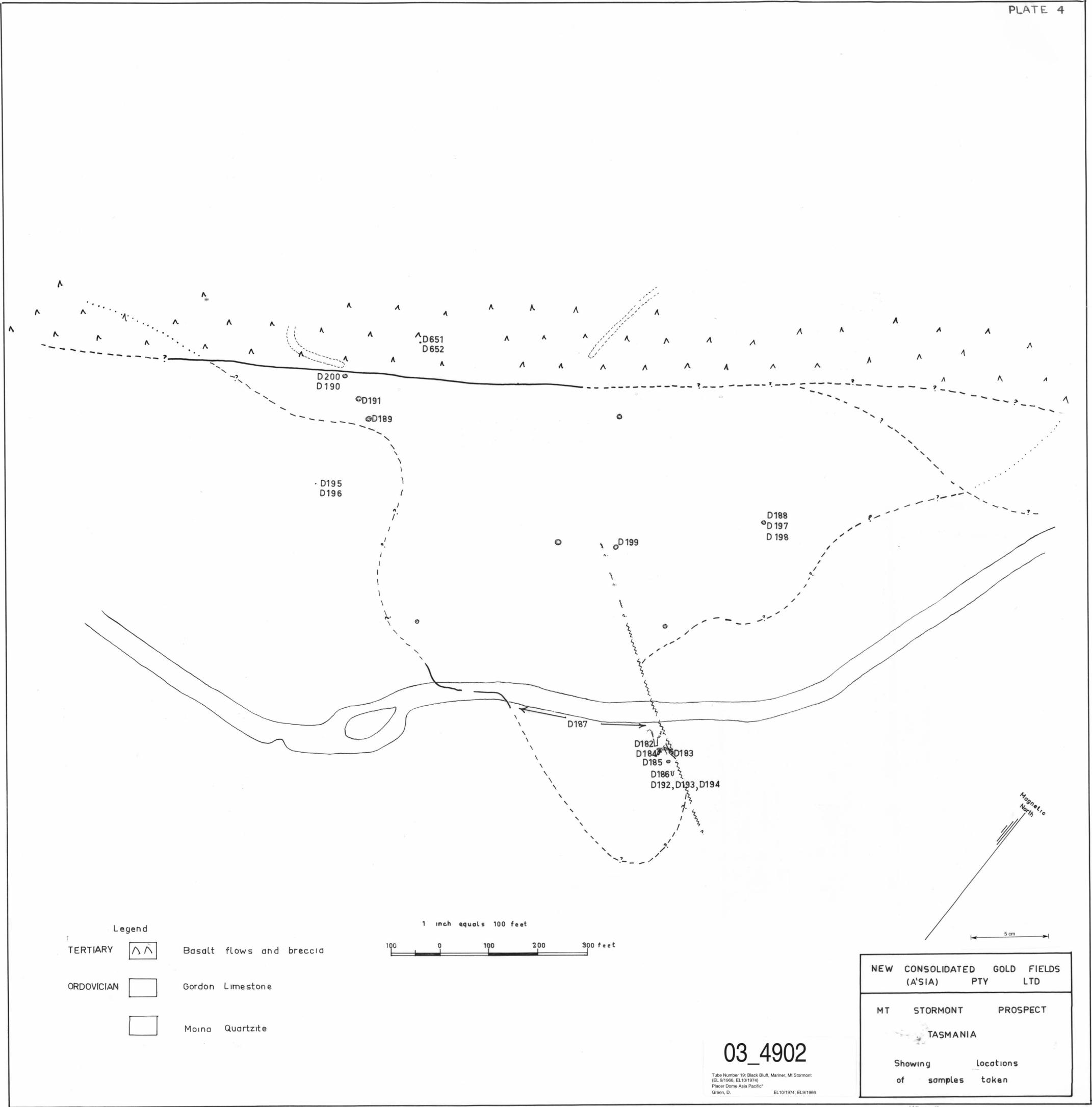
Mt Stormont Prospect,
Tasmania.

Geological Sections

Based on plane table mapping

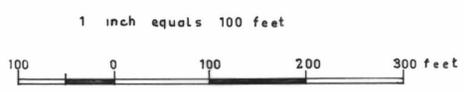
460

460



Legend

- TERTIARY  Basalt flows and breccia
- ORDOVICIAN  Gordon Limestone
-  Moina Quartzite

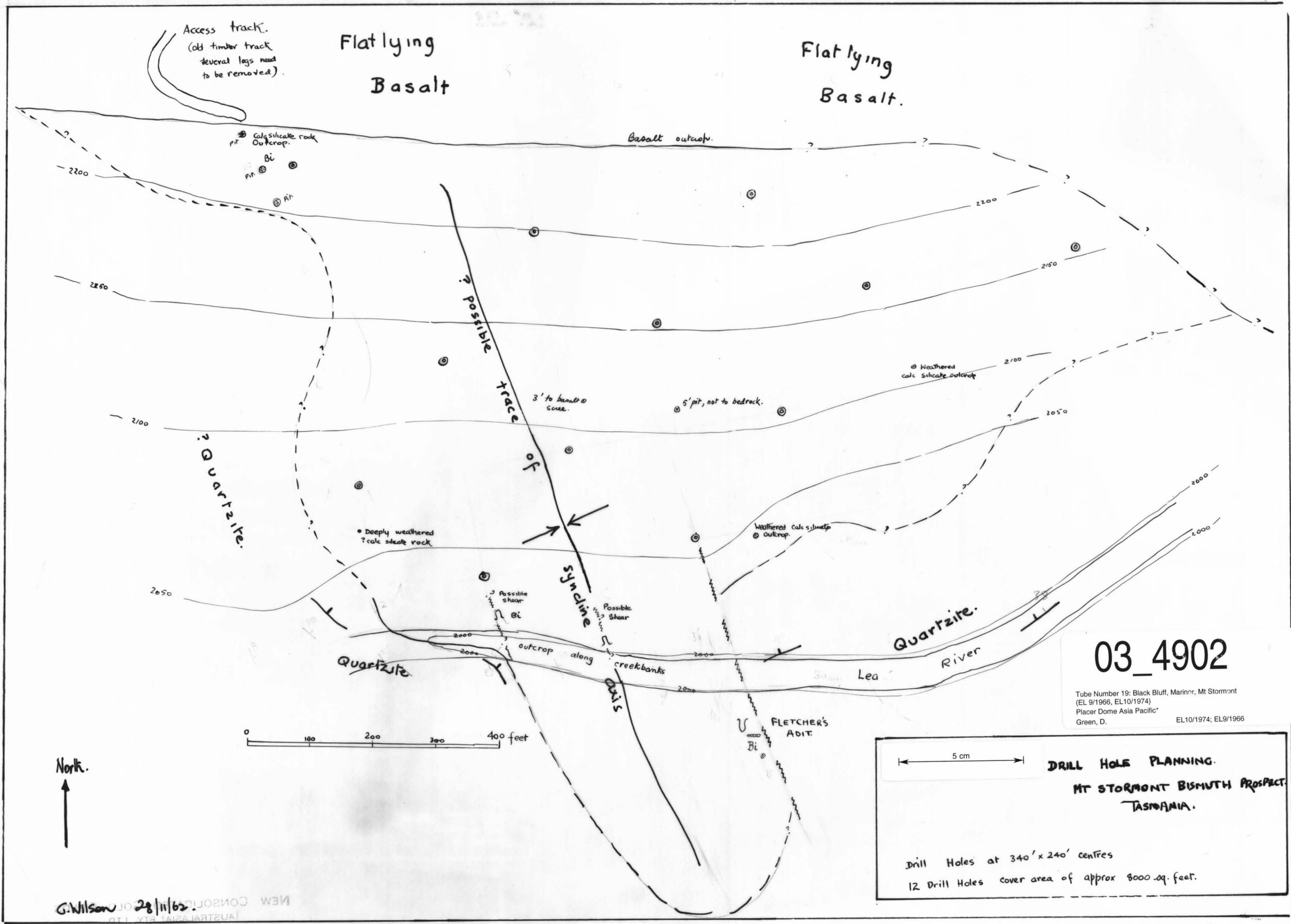


03_4902

Tube Number 19; Black Bluff, Mariner, Mt Stormont
 (EL 91966, EL101974)
 Placer Dome Asia Pacific
 Green, D. EL101974; EL91966

NEW CONSOLIDATED GOLD FIELDS (A'SIA) PTY LTD		
MT	STORMONT	PROSPECT
TASMANIA		
Showing locations of samples taken		

460



03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL10/1974)
 Placer Dome Asia Pacific
 Green, D. EL10/1974; EL9/1966

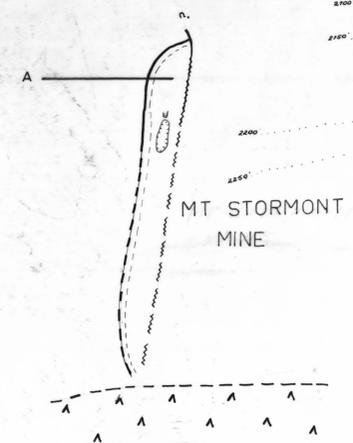
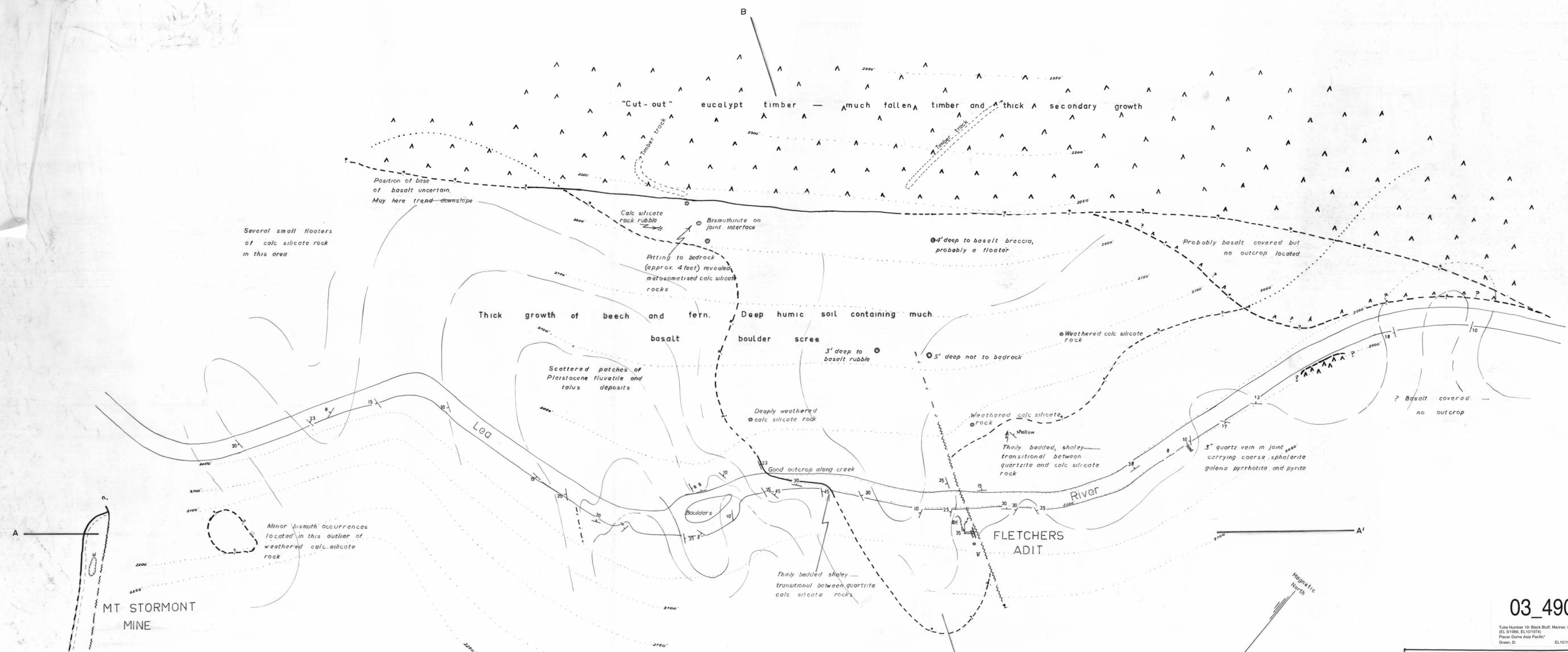
5 cm

DRILL HOLE PLANNING.
MT STORMONT BISMUTH PROSPECT
TASMANIA.

Drill Holes at 340' x 240' centres
 12 Drill Holes cover area of approx 8000 sq. feet.

G. Wilson 28/11/62 NEW CONSOLIDATED
 AUSTRALIAN GEOLOGICAL SURVEY

BRAWING NO. 1016



- Reference**
- Strike and dip of bedding
 - Geological boundary — definite
 - - - Geological boundary — approximate
 - ... Geological boundary — inferred
 - Fault
 - Structural form lines
 - ... Topographic contours, position approximate

- Legend**
- | | | |
|-----------|--|--|
| TERTIARY | | Basalt flows and breccia. |
| OROVICIAN | | Gordon Limestone |
| | | Garnet-magnetite calc-silicate rocks. |
| | | Moira Quartzite |
| | | Quartzite and minor sericitised shale bands. |

1 inch equals 100 feet
 100 0 100 200 300 feet

Plan based on plane table mapping by G.I. Wilson and W Delaney, March 1962. 1:1,200

Magnetic North

5 cm

03_4902

Tube Number 19; Black Bluff, Mariner, Mt Stormont (E.L. 91566, E.L. 101974); Plover Drive, Asia Pacific Green, D. E.L. 101974; E.L. 91566

NEW CONSOLIDATED GOLD FIELDS (A'SIA) PTY LTD

Geological Plan of the MT STORMONT PROSPECT TASMANIA

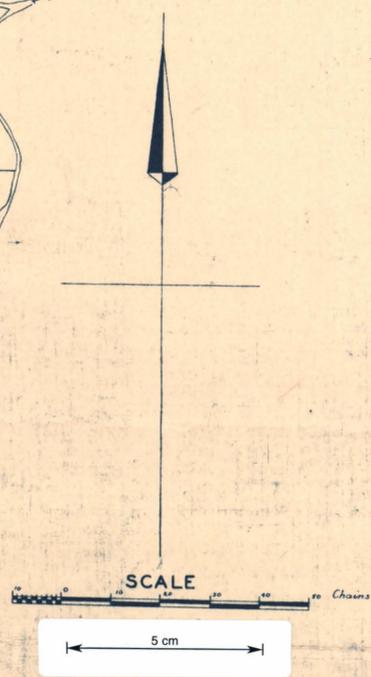
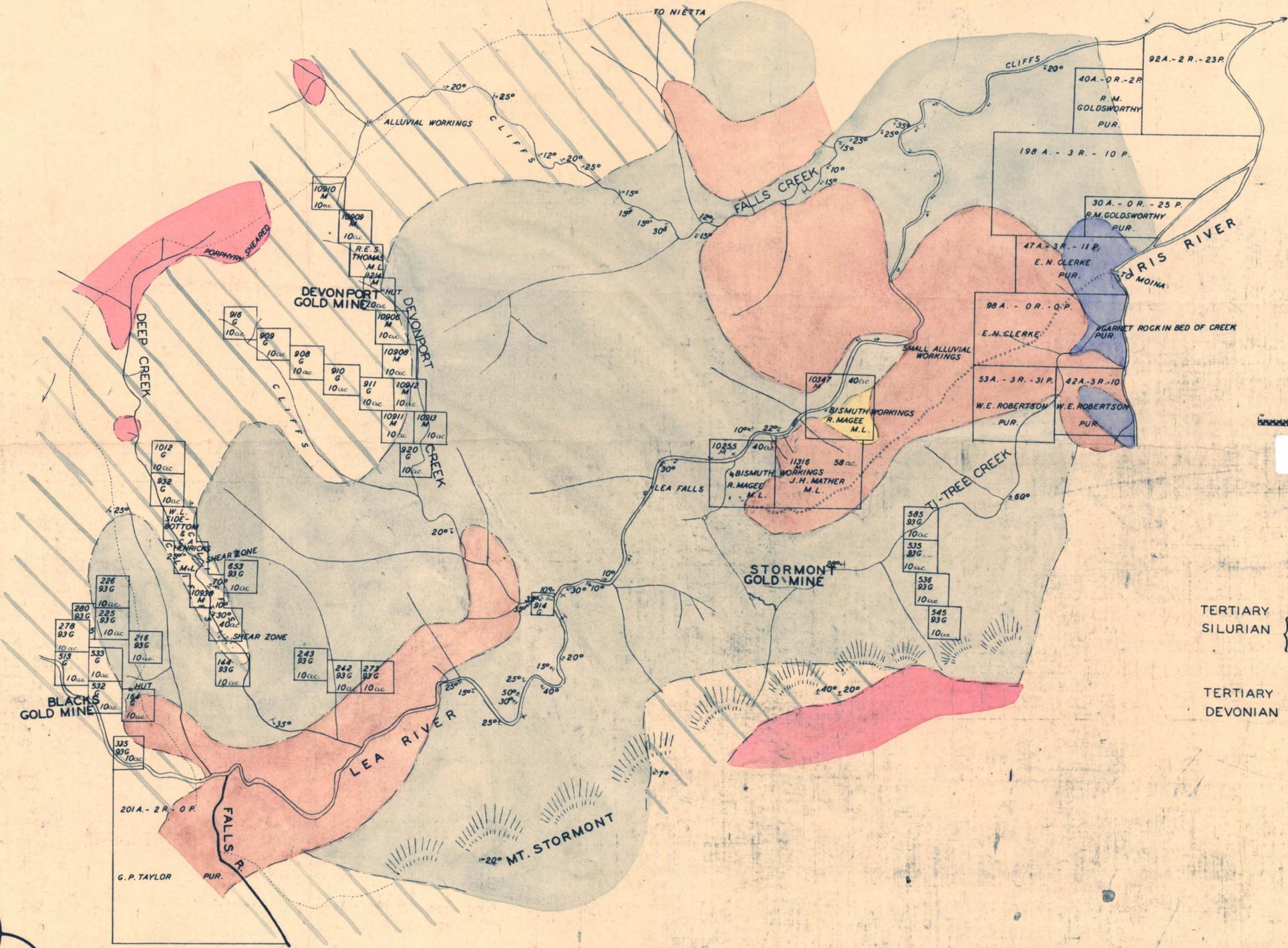
460

460

03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
(EL 9/1966, EL10/1974)
Placer Dome Asia Pacific
Green, D. EL10/1974; EL9/1966

GEOLOGICAL SKETCH MAP OF LEA RIVER DISTRICT



LEGEND

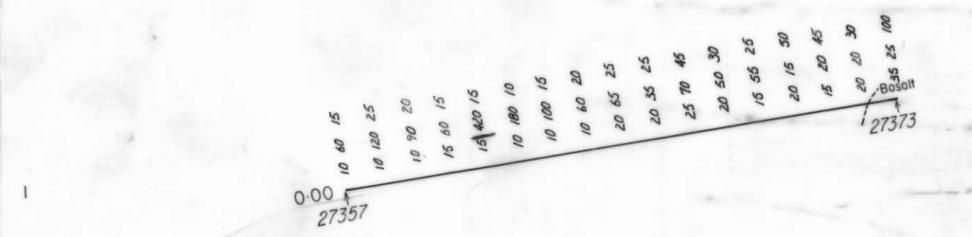
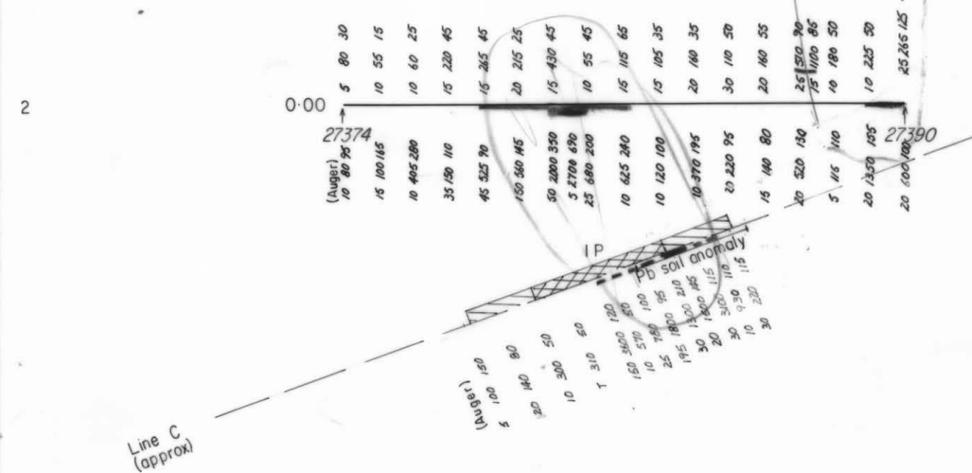
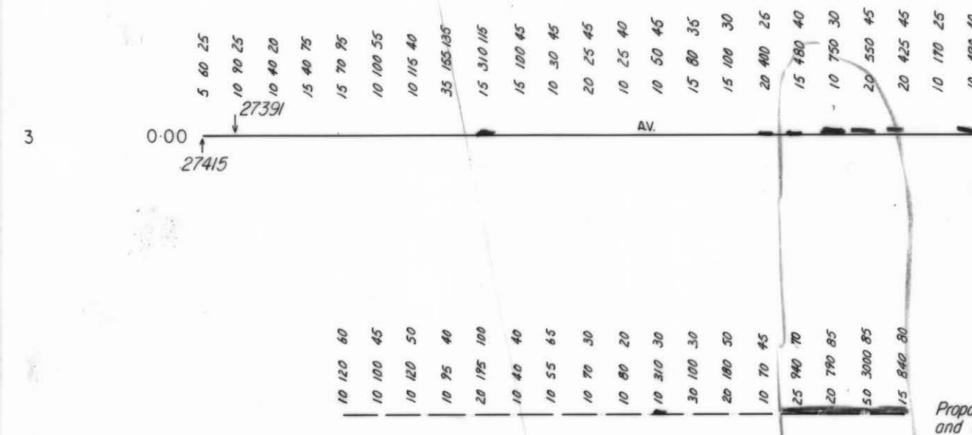
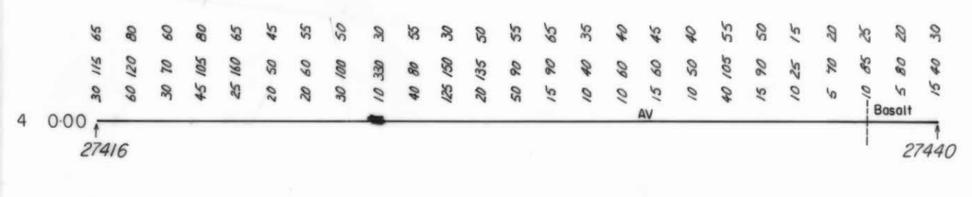
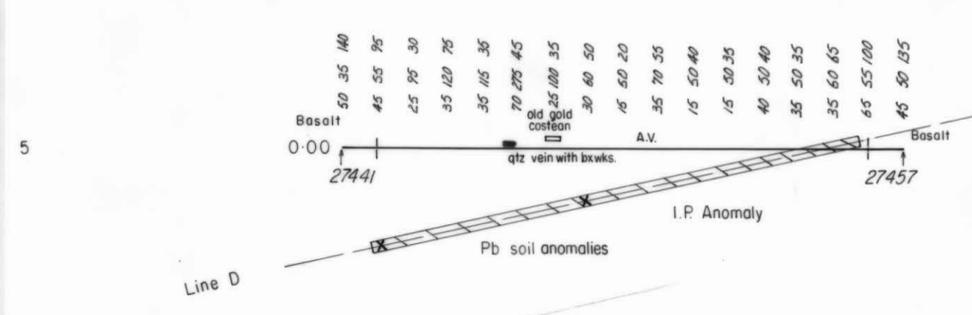
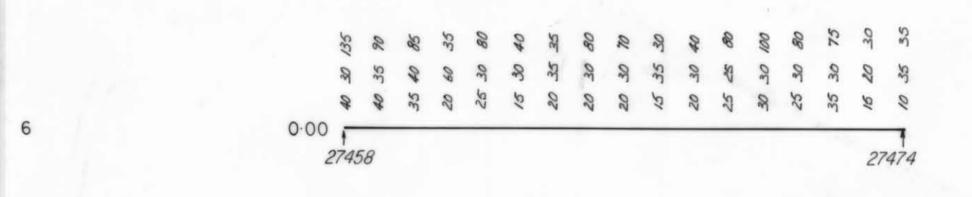
SEDIMENTARY		
TERTIARY	BRECCIA	
SILURIAN	LIMESTONE	
	TUBICULAR SANDSTONE	
	WEST COAST RANGE CONGLOMERATE	
IGNEOUS		
TERTIARY	BASALT	
DEVONIAN	PORPHYRY	

TO ACCOMPANY REPORT ON STORMONT-BLACK BLUFF BY E. BROADHURST
FIELD GEOLOGIST
1934

NEW CONSOLIDATED GOLD FIELDS
(AUSTRALASIA) PTY. LTD.
DRAWING No. 2450

9-692

6 10 mag



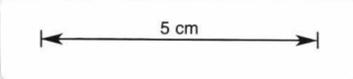
03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
 (EL 9/1966, EL10/1974)
 Placer Dome Asia Pacific*
 Green, D. EL10/1974; EL9/1966

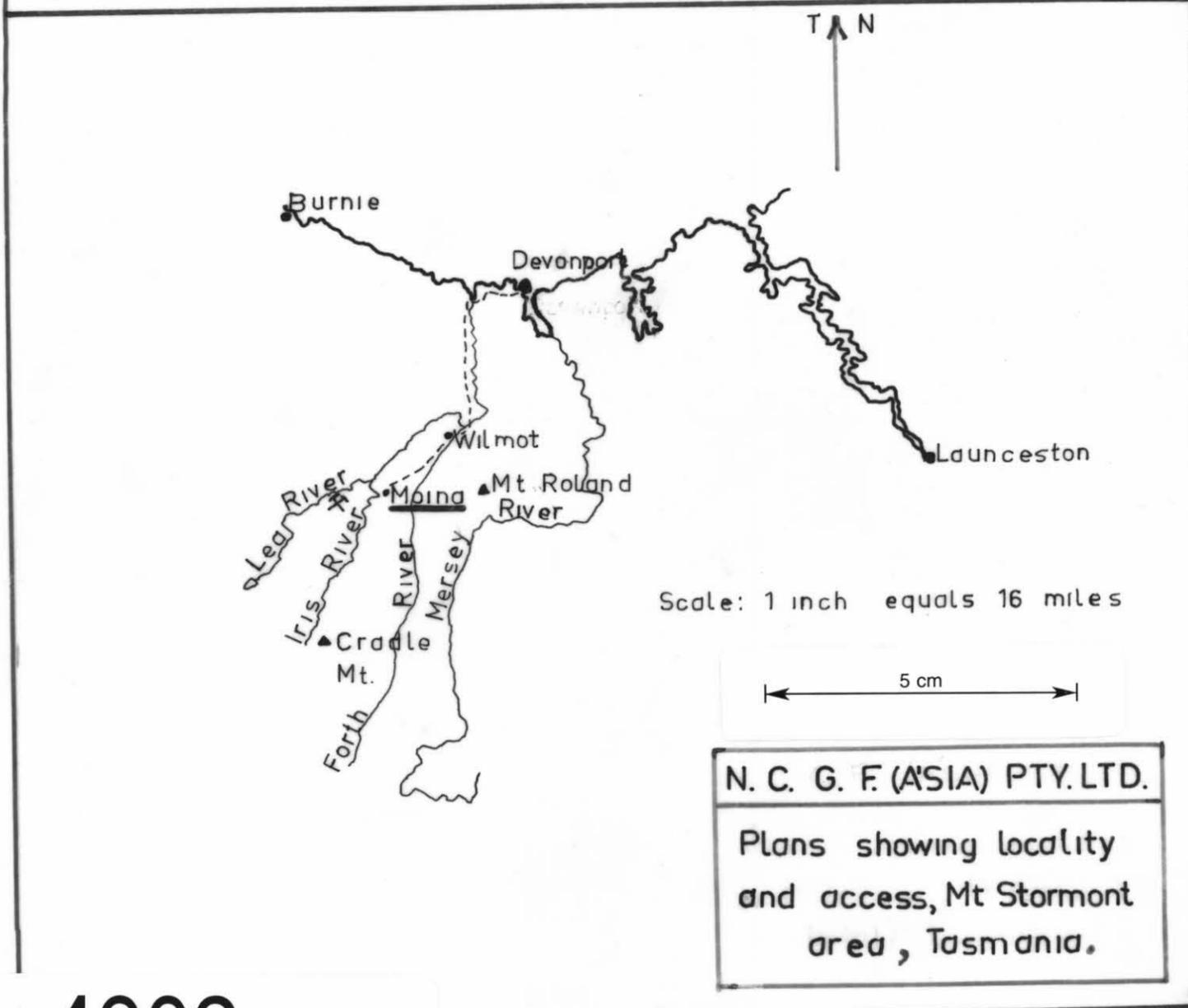
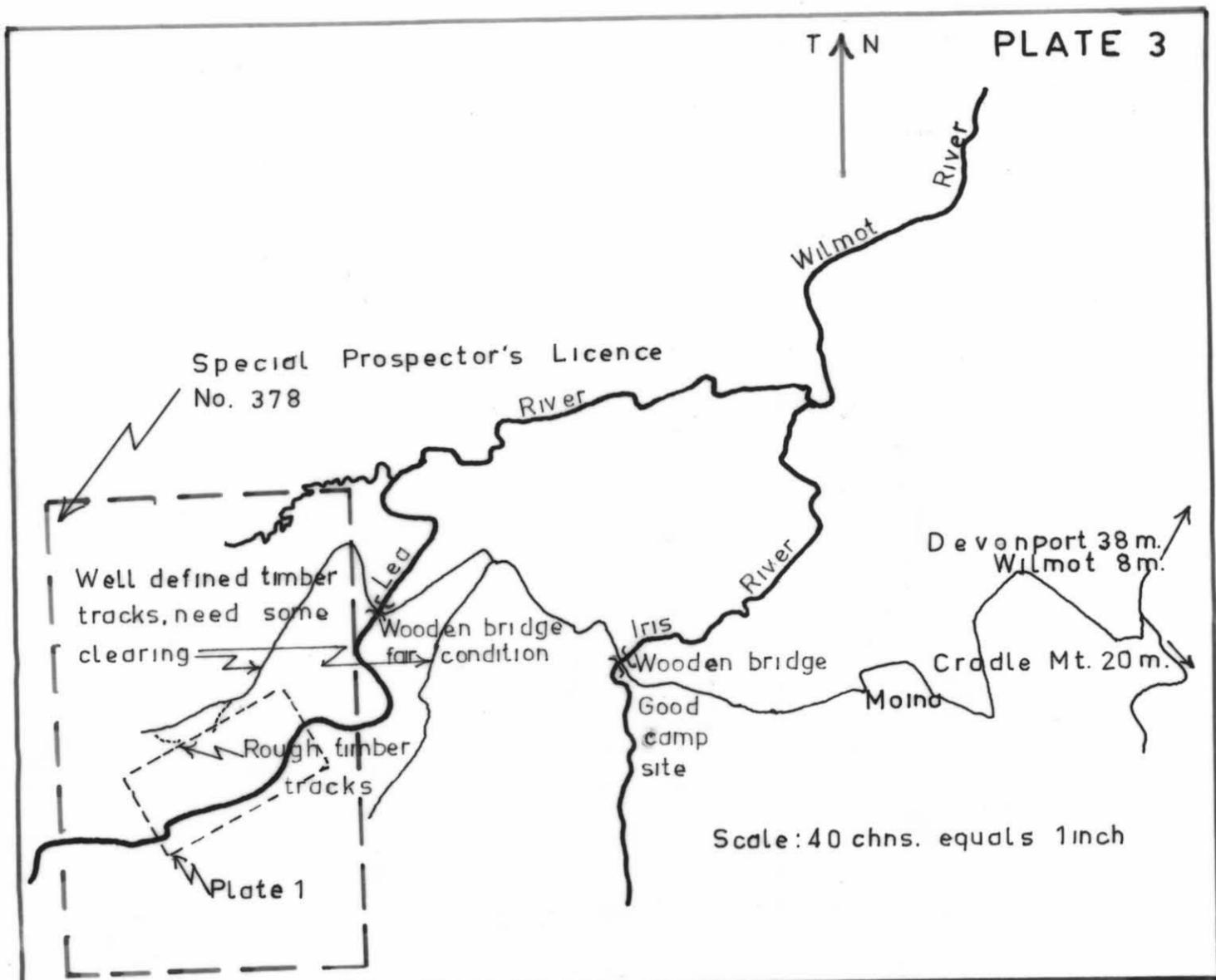
U. O. D. C.
BLACK BLUFF
AREA B

Soil sample results
 Cu Pb Zn

Sample interval 25m.
 Scale 1" = 100m



460



03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
(EL 9/1966, EL10/1974)
Placer Dome Asia Pacific*
Green, D.

EL10/1974; EL9/1966

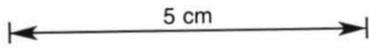
NEW CONSOLIDATED GOLD FIELDS
(AUSTRALASIA) PTY. LTD.
1831

DRAWING NO. _____

61°mag

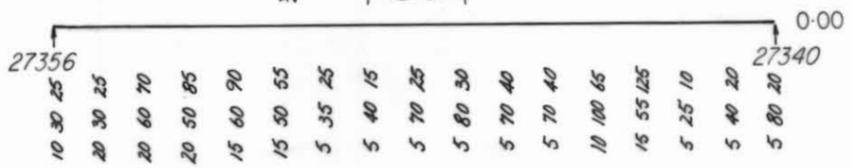


5 cm

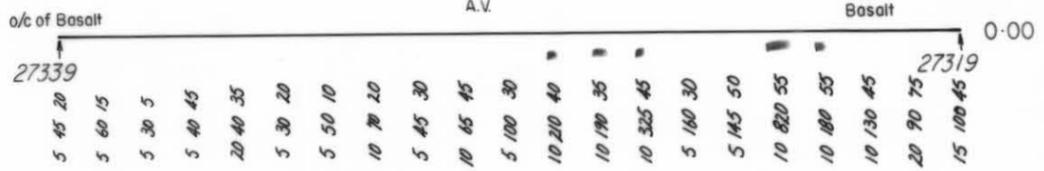


Gold costeans

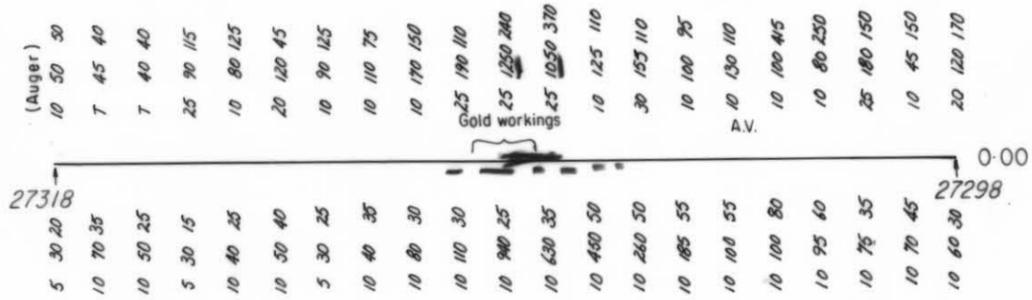
AV



4

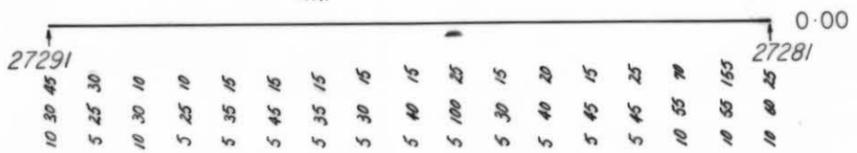


3



2

A.V.



1

Soil sample results
Cu Pb Zn

03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
(EL 9/1966, EL10/1974)
Placer Dome Asia Pacific*
Green, D. EL10/1974; EL9/1966

U. O. D. C.
BLACK BLUFF
AREA A

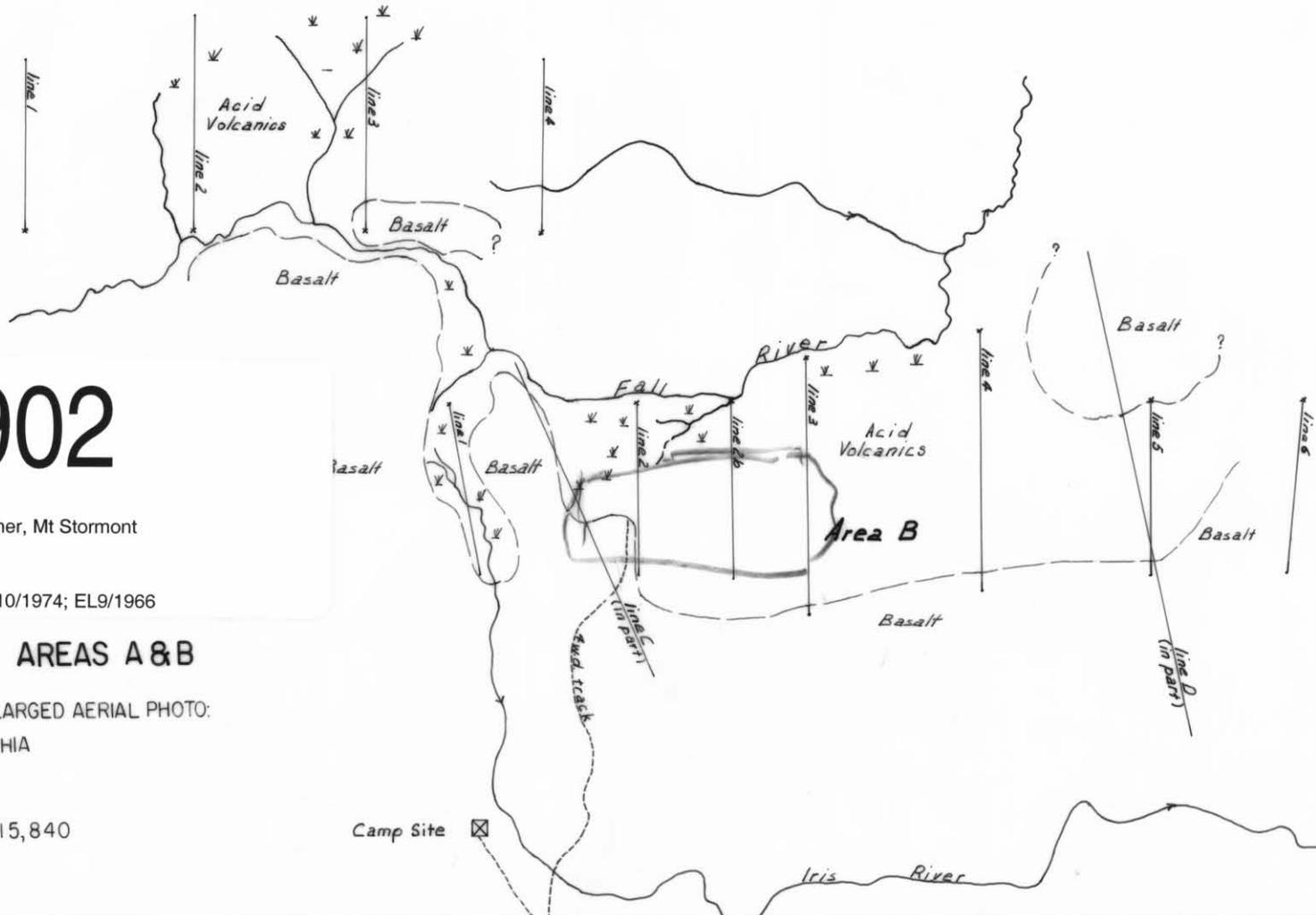
Sample interval 25m
Scale 1" = 100m

5 cm



× Bond Peak

Area A



03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont

(EL 9/1966, EL10/1974)

Placer Dome Asia Pacific*

Green, D.

EL10/1974; EL9/1966

BLACK BLUFF AREAS A & B

PLOTTED FROM ENLARGED AERIAL PHOTO:

CONICAL ROCKS - SOPHIA

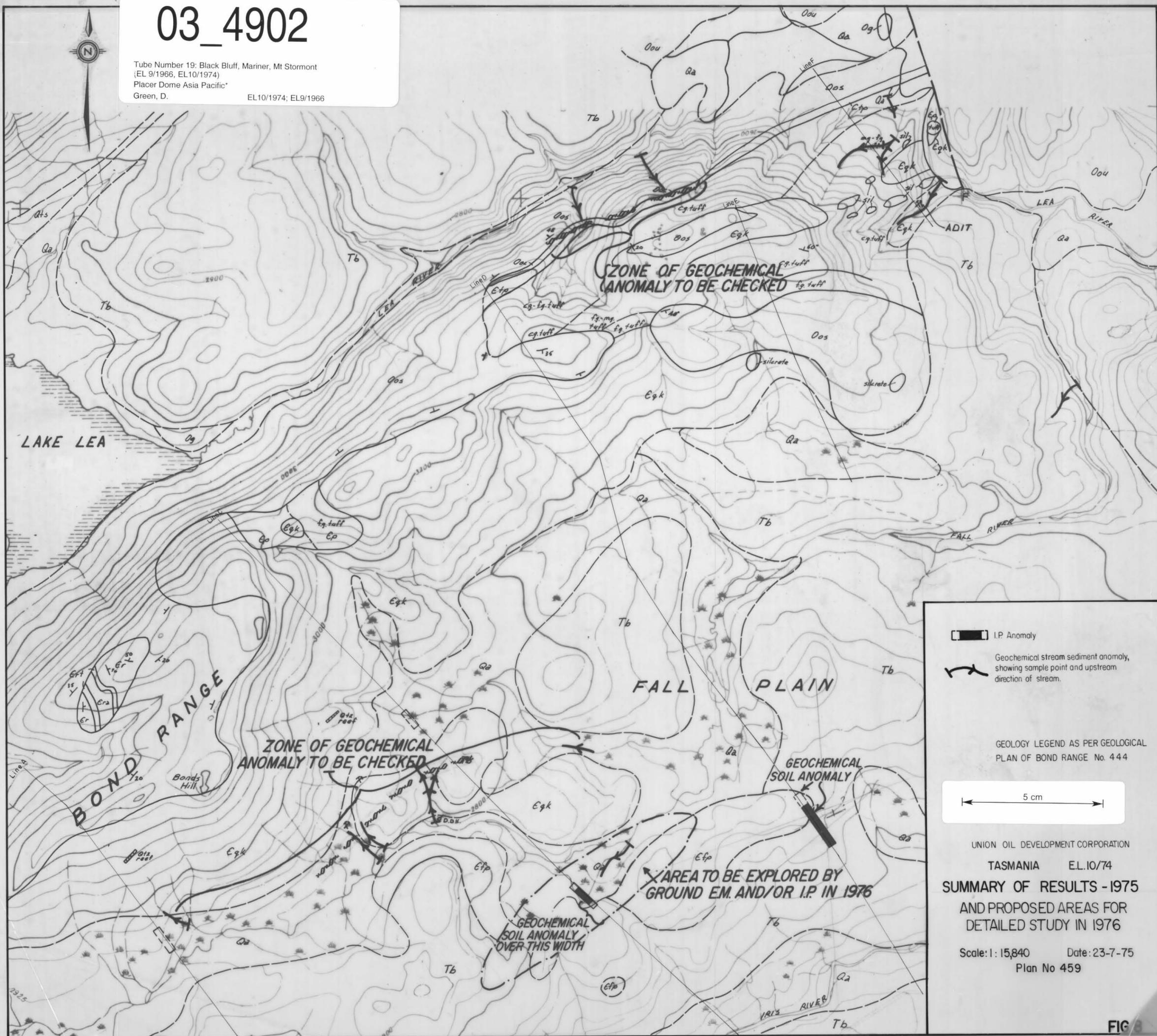
RUN I T679 - 116

Scale: 1 : 15,840

Camp Site

03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
(EL 9/1966, EL10/1974)
Placer Dome Asia Pacific
Green, D. EL10/1974; EL9/1966



▬ I.P. Anomaly

↖ Geochemical stream sediment anomaly, showing sample point and upstream direction of stream.

GEOLOGY LEGEND AS PER GEOLOGICAL PLAN OF BOND RANGE No. 444

5 cm

UNION OIL DEVELOPMENT CORPORATION

TASMANIA EL.10/74

SUMMARY OF RESULTS -1975

AND PROPOSED AREAS FOR DETAILED STUDY IN 1976

Scale: 1:15,840 Date: 23-7-75
Plan No 459

FIG 3



KEY
Sample location • CuPbZn
ppm

U O D C
BLACK BLUFF
TASMANIA
(E.L.10/74)
SOIL SAMPLE RESULTS

Date June 75 Scale: 1:5,840 Plan No.447



5 cm

03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
(E.L. 9/1966, E.L.10/1974)
Placer Dome Asia Pacific
Green, D. EL10/1974, EL9/1966



03_4902

U O D C

BLACK BLUFF



TASMANIA
(E.L.10/74)

STREAM SEDIMENT SAMPLE RESULTS

Date June 75 Scale: 1:6,840 Plan No. 446

KEY
Sample Number $\left\{ \begin{array}{l} \text{CB} \\ \text{FD} \\ \text{ZR} \end{array} \right\}$ ppm

Tube Number 19: Black Bluff, Mariner, Mt Stormont
(EL. 9/1968, EL.10/1974)
Placer Dome Asia Pacific*
Green, D. EL.10/1974, EL.9/1968

Geopetro
○ Interim sample drainage
○ follow up sample
○ follow up sample





KEY
Sample location  ppm
 ppm
 ppm

03_4902

Tube Number 19: Black Bluff, Mariner, Mt Stormont
(EL. 9/1966, EL10/1974)
Placer Dome Asia Pacific
Green, D. EL10/1974; EL9/1966

U O D C
BLACK BLUFF
TASMANIA
(E.L. 10/74)
HUMIC SAMPLE RESULTS



Date: June 75 Scale: 1:5,840 Plan No 445





LEGEND

- (Cu-Pb) Stream sediment anomaly showing anomalous element
- Cu-Pb } Soil anomalies
- Cu-Pb-Zn } Soil anomalies
- ▲ Pb } Soil anomalies
- X Zn } Rock chip anomaly
- Cu-Zn } Rock chip anomaly
- Pb-Zn } Rock chip anomaly
- Questionable I.P. anomaly
- I.P. anomaly - shaded area indicates possible minimum body thickness

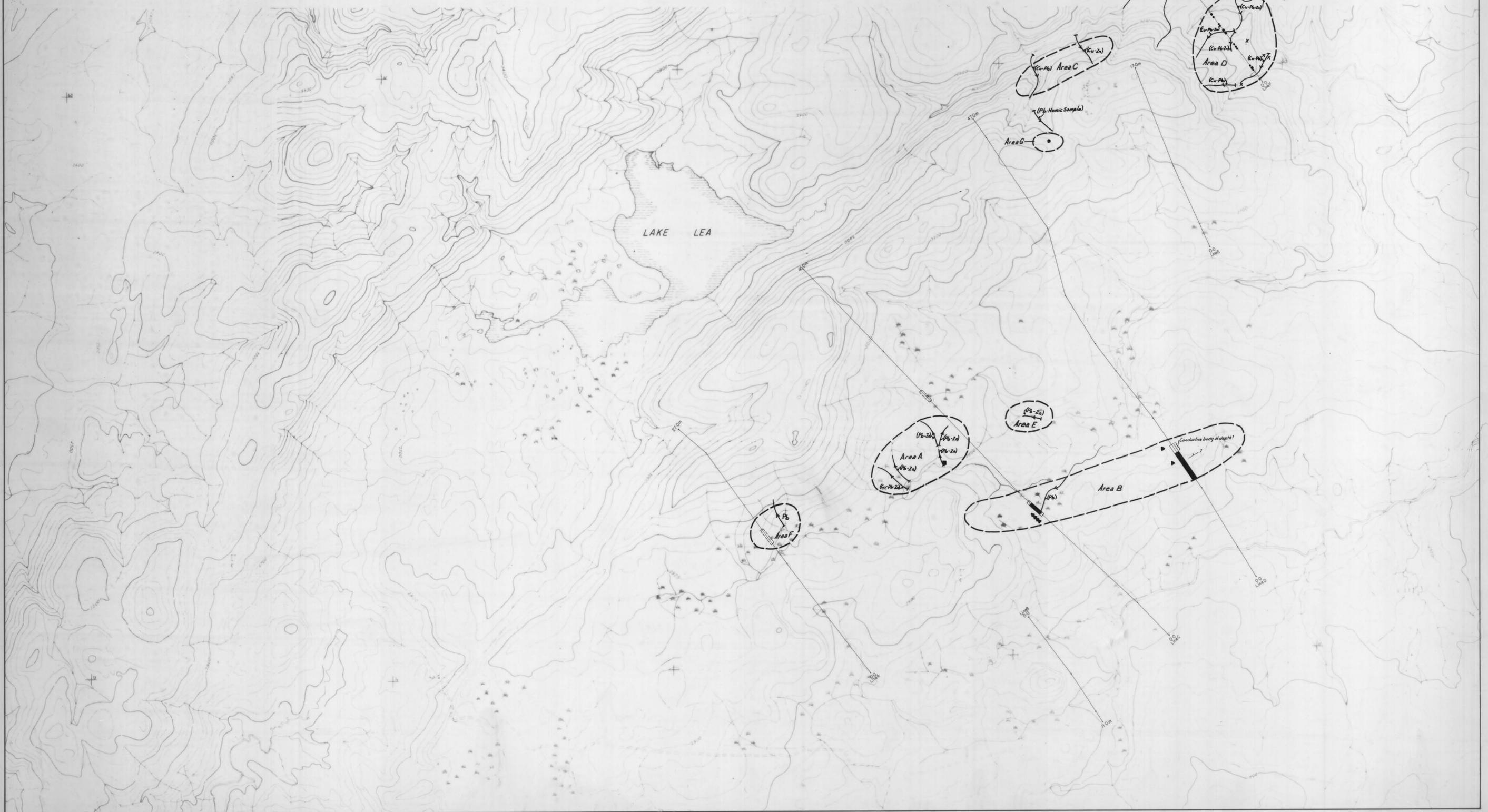
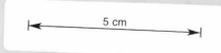
03_4902

Tube Number 19 Black Bluff, Mariner, Mt Stormont
(EL 9/1966, EL10/1974)
Placer Dome Asia Pacific
Green, D. EL10/1974; EL9/1966

BLACK BLUFF
TASMANIA

ANOMALOUS AREAS

Date: 2-8-75 Scale: 1:15,840 Plan No: 464



for Report '77

(Cu-Pb) Area C
(Cu-Pb) Area D

(Pb-Humic Sample)
Area G

(Pb-Zn) Area A
(Pb-Zn) Area E

Area B
Conductive body of depth?

Pb Area F



Sample No	Cu	Pb	Zn	Sample No	Sample No	Sample No	Sample No
5666			10	5901	5941	5981	5981
700			10	5902	5942	5982	5982
701			10	5903	5943	5983	5983
702			10	5904	5944	5984	5984
703			10	5905	5945	5985	5985
704			10	5906	5946	5986	5986
705			10	5907	5947	5987	5987
706			10	5908	5948	5988	5988
707			10	5909	5949	5989	5989
708			10	5910	5950	5990	5990
709			10	5911	5951	5991	5991
710			10	5912	5952	5992	5992
711			10	5913	5953	5993	5993
712			10	5914	5954	5994	5994
713			10	5915	5955	5995	5995
714			10	5916	5956	5996	5996
715			10	5917	5957	5997	5997
716			10	5918	5958	5998	5998
717			10	5919	5959	5999	5999
718			10	5920	5960	6000	6000
719			10	5921	5961	6001	6001
720			10	5922	5962	6002	6002
721			10	5923	5963	6003	6003
722			10	5924	5964	6004	6004
723			10	5925	5965	6005	6005
724			10	5926	5966	6006	6006
725			10	5927	5967	6007	6007
726			10	5928	5968	6008	6008
727			10	5929	5969	6009	6009
728			10	5930	5970	6010	6010
729			10	5931	5971	6011	6011
730			10	5932	5972	6012	6012
731			10	5933	5973	6013	6013
732			10	5934	5974	6014	6014
733			10	5935	5975	6015	6015
734			10	5936	5976	6016	6016
735			10	5937	5977	6017	6017
736			10	5938	5978	6018	6018
737			10	5939	5979	6019	6019
738			10	5940	5980	6020	6020
739			10	5941	5981	6021	6021
740			10	5942	5982	6022	6022
741			10	5943	5983	6023	6023
742			10	5944	5984	6024	6024
743			10	5945	5985	6025	6025
744			10	5946	5986	6026	6026
745			10	5947	5987	6027	6027
746			10	5948	5988	6028	6028
747			10	5949	5989	6029	6029
748			10	5950	5990	6030	6030
749			10	5951	5991	6031	6031
750			10	5952	5992	6032	6032
751			10	5953	5993	6033	6033
752			10	5954	5994	6034	6034
753			10	5955	5995	6035	6035
754			10	5956	5996	6036	6036
755			10	5957	5997	6037	6037
756			10	5958	5998	6038	6038
757			10	5959	5999	6039	6039
758			10	5960	6000	6040	6040
759			10	5961	6001	6041	6041
760			10	5962	6002	6042	6042
761			10	5963	6003	6043	6043
762			10	5964	6004	6044	6044
763			10	5965	6005	6045	6045
764			10	5966	6006	6046	6046
765			10	5967	6007	6047	6047
766			10	5968	6008	6048	6048
767			10	5969	6009	6049	6049
768			10	5970	6010	6050	6050
769			10	5971	6011	6051	6051
770			10	5972	6012	6052	6052
771			10	5973	6013	6053	6053
772			10	5974	6014	6054	6054
773			10	5975	6015	6055	6055
774			10	5976	6016	6056	6056
775			10	5977	6017	6057	6057
776			10	5978	6018	6058	6058
777			10	5979	6019	6059	6059
778			10	5980	6020	6060	6060
779			10	5981	6021	6061	6061
780			10	5982	6022	6062	6062
781			10	5983	6023	6063	6063
782			10	5984	6024	6064	6064
783			10	5985	6025	6065	6065
784			10	5986	6026	6066	6066
785			10	5987	6027	6067	6067
786			10	5988	6028	6068	6068
787			10	5989	6029	6069	6069
788			10	5990	6030	6070	6070
789			10	5991	6031	6071	6071
790			10	5992	6032	6072	6072
791			10	5993	6033	6073	6073
792			10	5994	6034	6074	6074
793			10	5995	6035	6075	6075
794			10	5996	6036	6076	6076
795			10	5997	6037	6077	6077
796			10	5998	6038	6078	6078
797			10	5999	6039	6079	6079
798			10	6000	6040	6080	6080
799			10	6001	6041	6081	6081
800			10	6002	6042	6082	6082

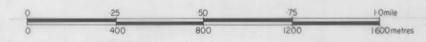
N.B. TS = Thin section

03_4902
 Tube Number 19, Black Bluff, Mariner, Mt Stormont
 (EL 011966, EL 011974)
 Placer Dome Asia Pacific
 Green, D. EL10/1974; EL9/1966

U O D C
BLACK BLUFF
 TASMANIA
 (E.L.10/74)

ROCK CHIP SAMPLE RESULTS, HAND SPECIMEN LOCATIONS AND
 IPANOMALIES

Date June 75 Scale 1:15,840 Plan No 448



*Some Goodwin An
 report*

for report

? [] Questionable IP anomaly
 [] IP anomaly - shaded area possible minimum
 body thickness
 N.B. Owen derived anomalies not displayed