1 of 70

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OPEN FILE

94-3582

List of tranparencies of plans from portions of EL 9/66 relinquished by Goldfields Exploration and covering the Mt Huxley and Jukes-Darwin area including the Clark and Garfield Rivers.

Clark Valley		Ground Magnetic Contours	1:6 000 Plate 3
"	"	Resistivity Contours	1:6 000 Plate 2
"	"	Chargeability Contours	1:6 000 Plate 1
"	"	Geophys Interp	1:6 000 Plate 4
"	"	Contours and Access	1:6 000 33/002
"	"	Soil Geochem	1:6 000 33/301
Jukes-Darwin		Contours and Access (Jukes Pty)	1:5 000 A2-201
"	"	Geology and Adit Sampling	1:2 500 Fig 9
"	"	Drill Hole Locations and Structure Contours (Jukes Pty)	1:1 000 Fig 11
"	"	Geology (Jukes Pty)	1:5 000 Fig 64
"	"	Geology, Drilling and IP (Jukes Pty)	1:1 000 A1-155
"	"	Adit Sampling (Jukes Pty)	1:1 000 A2-237
"	"	Geochem, Cu, Pb, Zn (Jukes Pty)	1:5 000 A2-201-6
"	"	Geochem, Fe (Jukes Pty)	1:5 000 Fig 74
"	"	Geochem, Cu (Jukes Pty)	1:5 000 Fig 73
"	"	Geochem, Fe, Ag, Au (Jukes Pty)	1:5 000 A2-201-5
"	"	Longitudinal Projection of Mineralization in Chloritic Volcaniclastics (Jukes Pty) (x2)	1:1 000 Fig 8 & Fig 10
"	"	Longitudinal Projection along Mineralization in Basinal Rocks (Jukes Pty)	1:1 000 Fig 7
"	"	Anomaly Compilation (Jukes Pty)	1:5 000 Fig 72
"	"	Ground Magnetics (Jukes Pty)	1:5 000 A2-201-7
"	"	Resistivity (Jukes Pty)	1:5 000 A2-201-8
"	"	Chargeability (Jukes Pty)	1:5 000 A2-201-9
"	"	Genie EM, Lines 100N-400N (Jukes Pty)	1:2 000 A2-232
"	"	Genie EM, Lines 500N-860N (Jukes Pty)	1:2 000 A2-231
"	"	Drill Sectn, DDH JP1	1:1 000 A0-226
"	"	Drill Sectn, DDH JP2	1:1 000 A0-227
"	"	Drill Sectn, DDH JP2 & JP4	1:1 000 Fig 9
"	"	Drill Sectn, DDH JP3	1:1 000 Fig 3
"	"	Mt Ellen Mine Plan and Sample Results	1:360 Map 7
"	"	Contours	1:10 000 A0-225
"	"	Geology (King River Gorge)	1:15 840 Map 8
"	"	Geology Sectn (Roaring Meg)	1:6 000 Fig 3

Jukes-Darwin	Drill Sectn, DDH HX1	1:1 000	Fig 21
" "	Sirotem Survey, DDH HX1	1:2 000	Figs 10a & 10b
" "	Ground Magnetic Contours (Huxley)	1:6 000	Map 6
" "	Geology Interp (Huxley)	1:6 000	Map 5
" "	Soil Geochem, Cu (Huxley)	1:6 000	Map 11
" "	Soil Geochem, Pb (Huxley)	1:6 000	Map 12
" "	Soil Geochem, Zn (Huxley)	1:6 000	Map 13
" "	Geochem	1:10 000	Fig 11
" "	Geochem and EM Anomalies	1:10 000	Fig 63
" "	Aeromag Contours	1:10 000	-
Snake Spur	Contour Base	1:5 000	-
" "	Geological Sectn	1:5 000	Fig 25
" "	Geology Interp (1978)	1:31 680	Fig 3
" "	Geochem	1:1 000	29/302
" "	Contours and Access	1:1 000	29/002
" "	Contours and Access	1:31 680	Fig 2
" "	Drill Sectn, DDH SS1, SS2 & SS2A	1:1 000	Fig 26
" "	Sirotem Survey, DDH SS2	1:1 000	Fig 13a & 13b
" "	UTEM Interp	1:5 000	Fig 90
" "	Reconnaissance	1:20 000	Map 4
" "	Line Profiles, Line 1 000N	1:2 000	Fig 91
" "	" " Line 1 400N	1:2 000	Fig 92
" "	" " Line 1 600N	1:2 000	Fig 93
" "	" " Line 1 800N	1:2 000	Fig 94
" "	" " Line 2 000N	1:2 000	Fig 95
" "	" " Line 2 200N	1:2 000	Fig 96
" "	" " Line 2 400N	1:2 000	Fig 97
" "	" " Line 2 600N	1:2 000	Fig 98
" "	" " Line 3 100N	1:2 000	Fig 99
" "	" " Line 3 300N	1:2 000	Fig 100
Oversize Plans	Geology Interp, Jukes-Darwin	1:5 000	
" "	Geology Interp, Flanningans-Snake Spur (x2)	1:5 000	Figs 24 & 101
" "	Geology Interp, Huxley Area (x2)	1:5 000	Figs 51 & 42

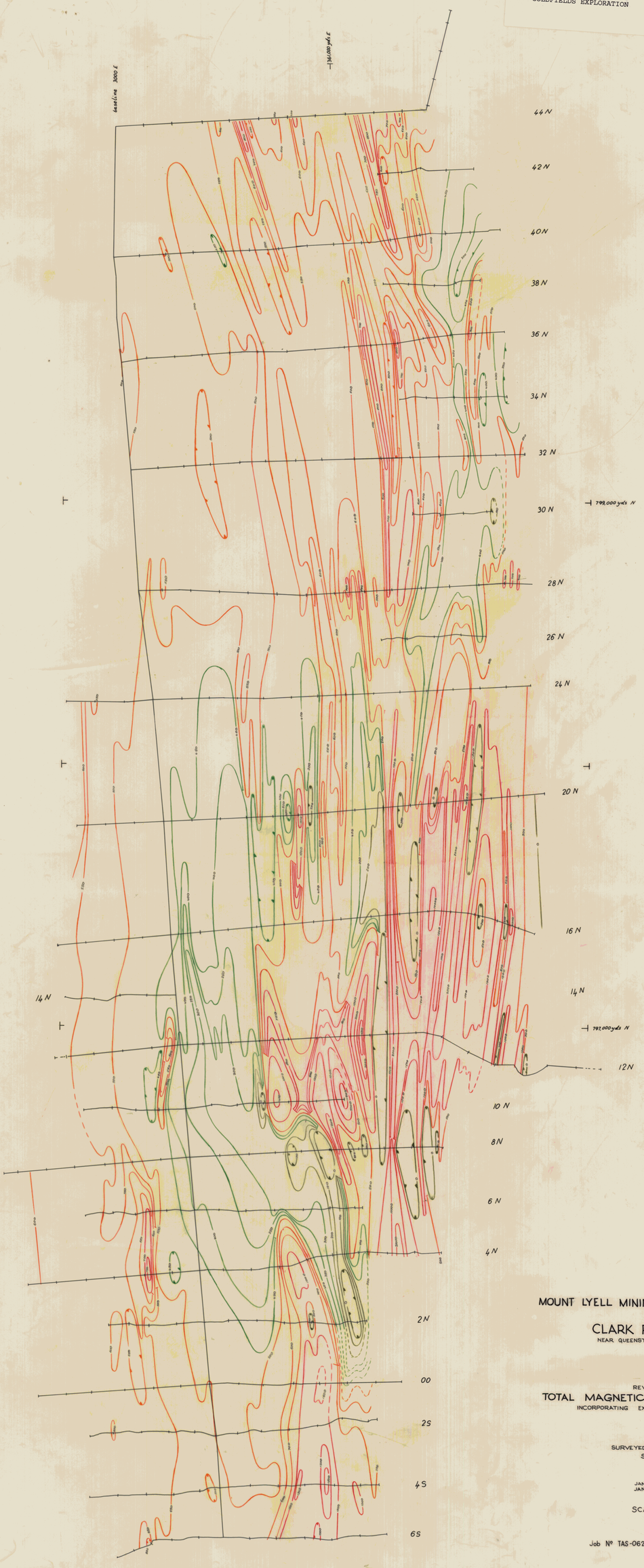
CLARK VALLEY GRID 1:6000

GEOPHYSICS MAGNETICS

1979

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

3



ANG COORDINATES

MOUNT LYELL MINING & RAILWAY COMPANY LTD.

CLARK RIVER GRID
NEAR QUEENSTOWN - TASMANIA

REVISED
TOTAL MAGNETIC FIELD CONTOUR PLAN
INCORPORATING EXTENSIONS & INFILL LINES

SURVEYED & COMPILED BY
SCINTREX

JAN - FEB 1978 (TAS-054)
JAN - FEB 1979

SCALE 1:6000

5 cm

Job Nº TAS-062-A

Sht 1 of 1

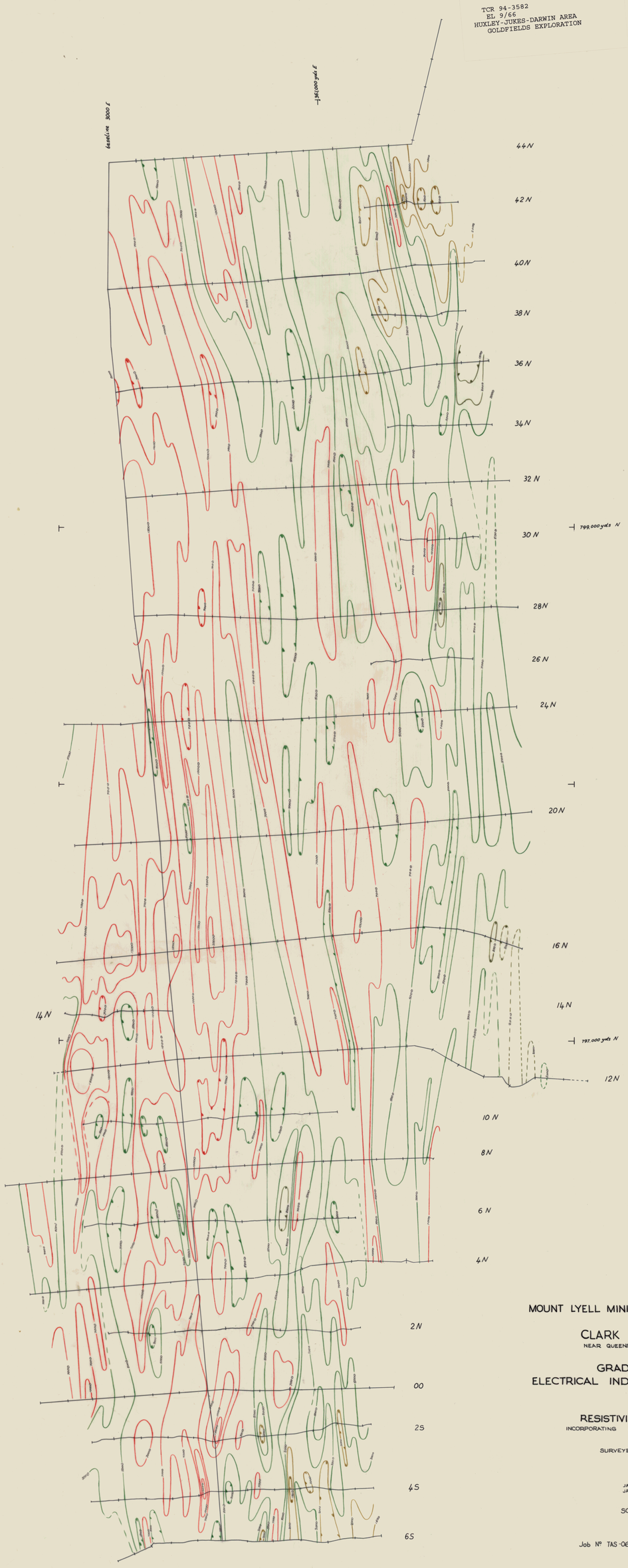
PLATE 3

CLARK VALLEY GRID 1:6000

GEOPHYSICS RESISTIVITY

1979

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION



ANG COORDINATES

MOUNT LYELL MINING & RAILWAY COMPANY

CLARK RIVER GRID
NEAR QUEENSTOWN — TASMANIA

GRADIENT ARRAY
ELECTRICAL INDUCED POLARIZATION SURVEY

REVISED
RESISTIVITY CONTOUR PLAN
INCORPORATING EXTENSIONS & INFILL LINES

SURVEYED & COMPILED BY
SCINTREX

JAN - FEB 1978 (TAS-054)
JAN - FEB 1979

SCALE 1:6000

5 cm

Job Nº TAS-062-A

Sht 1 of 1

PLATE 2

CLARK VALLEY GRID
1:6,000

GEOPHYSICS
CHARGEABILITY

1979

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION



ANG COORDINATES

MOUNT LYELL MINING & RAILWAY COMPANY

CLARK RIVER GRID
NEAR QUEENSTOWN - TASMANIA

GRADIENT ARRAY
ELECTRICAL INDUCED POLARIZATION SURVEY

REVISED
CHARGEABILITY CONTOUR PLAN
INCORPORATING EXTENSIONS & INFILL LINES

SURVEYED & COMPILED BY
SCINTREX

JAN-FEB 1978 (TAS-054)
JAN-FEB 1979

SCALE 1:6000

5 cm

Job Nº TAS-062-A

Sht 1 of 1

PLATE 1

ANG COORDINATES

MOUNT LYELL MINING & RAILWAY COMPANY LTD.

CLARK RIVER GRID
NEAR QUEENSTOWN TASMANIA

GRADIENT ARRAY
ELECTRICAL INDUCED POLARIZATION
&
TOTAL MAGNETIC FIELD SURVEY

INTERPRETATION PLAN

SURVEYED & COMPILED BY
SCINTREX
JANUARY - FEBRUARY 1978

SCALE - 1: 6000
5 cm

Job. N° TAS-054-D Sheet 1 of 1 PLATE 4.

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

1:6000 CLARK VALLEY GRID GEOPHYSICS INTERPRETATION

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

1:6000

CLARK VALLEY GRID

CONTOUR + ACCESS BASE MAP

DRAWN	MT.LYELL G.O.D.L. JOINT VENTURE
TRACED	EL. 9/66
CHECKED	CLARK VALLEY GRID
DATE	
SCALE 1:6000	

33/002

5 cm

TRUE NORTH
MAGNETIC NORTH

LOCATION MAP

SHEET 34 · SHEET 33 · SHEET 32 · SHEET 31 · SHEET 30 · SHEET 29 · SHEET 28 · SHEET 27
SOUTH DARWIN PEAK
MT DARWIN
MT SORELL
CONGLOMERATE PEAK
CROFTY RIVER
GARFIELD RIVER
ROAD
LEASE BOUNDARY
AMT. JUKES

ANG COORDINATES

791000 YDS N
792000 YDS N
793000 YDS N
794000 YDS N
795000 YDS N
796000 YDS N
797000 YDS N
798000 YDS N

358 000 YDS E
359 000 YDS E
360 000 YDS E
361 000 YDS E
362 000 YDS E

CLARK RIVER CAMP

2N 4N 6N 8N 10N 12N 14N 16N 20N 24N 26N 28N 30N 32N 34N 36N 38N 39N 40N 42N 44N

1:6,000

CLARK VALLEY GRID

GEOCHEMISTRY SOIL RESULTS

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

44N
42N
40N
39N
38N
36N
34N
32N
30N
28N
26N
24N
22N
20N
18N
16N
14N
12N
10N
8N
6N
4N
2N
0
2S
4S
6S

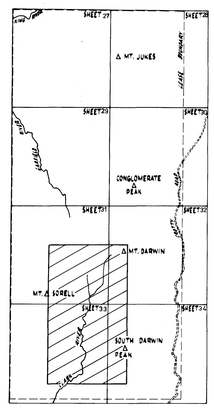
CLARK RIVER CAMP

E.C. CAMPSITE

797,000 Yss N.
796,000 Yss N.
795,000 Yss N.
794,000 Yss N.
793,000 Yss N.
792,000 Yss N.
791,000 Yss N.

359,000 Yss E.
360,000 Yss E.
361,000 Yss E.
362,000 Yss E.
363,000 Yss E.

LOCATION MAP



SOIL
Cu Pb Zn (p.p.m.)
200m
z, 4, 6
ALL Ag VALUES < 1 p.p.m.
EXCEPT LINE 8N
1275 & 1400E ARE BOTH 3 p.p.m.
300m
400m

TRUE NORTH
MAGNETIC NORTH

ANG COORDINATES

5 cm

MT. LYELL - G.O.D.L. JOINT VENTURE

CLARK VALLEY GRID
SOIL GEOCHEMISTRY DATA
-80 FRACTION

DRAWN	M.H.
TRACED	R.G.W.
CHECKED	
DATE	MAY 1978
SCALE	1:6,000

33/301

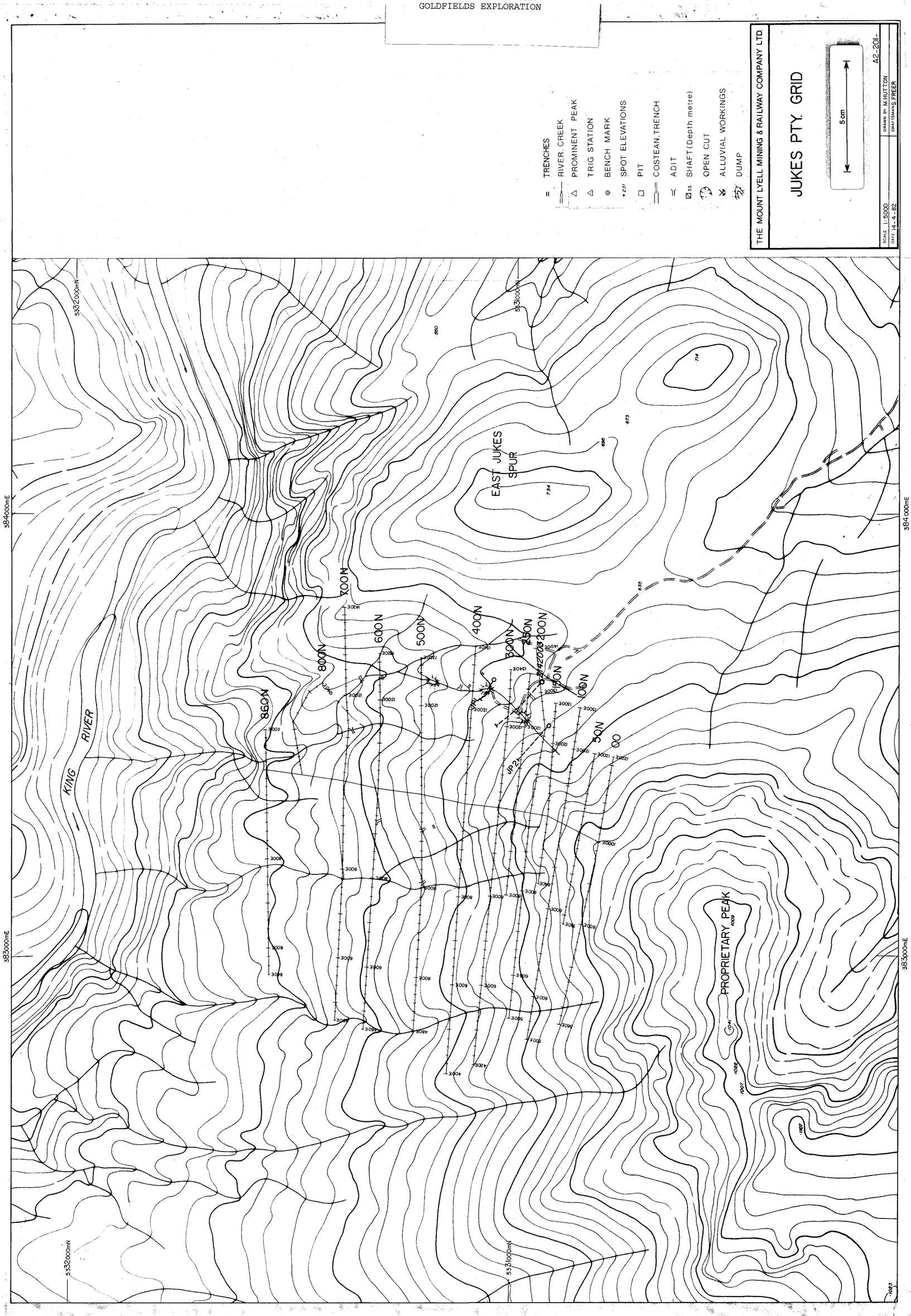
1:5000

JUKES

TY[illegible]T

CONTOUR + ACCESS BASE PLAN

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION



△ CONGLOMERATE PEAK

Township Creek

Darwin Pty. Adit

Z142002

150 N.

000

00

200 S.

Magnetic Anomalies

Pearce's Adit

400 S.

500 S.

Z142000

Z142001

Dillon's Adit

Lower

Upper

600 S.

△ SNAKE PEAK

Top

Souter's Adit

Lower

Allora Creek

LEGEND

UPPER CAMBRIAN

Owen Conglomerate

CAMBRIAN - MT READ VOLCANICS

Ignimbrites quartz-phyric, massive, welded

volcaniclastic breccia-conglomerates, tuffaceous siltstones and, minor cherts. Disseminated carbonaceous and minor massive mineralization : pyrite - chalcopyrite, specularite, magnetite and minor gold.

Massive rhyolitic lava - part of Jukes - Darwin Ridge lavas Stockwork mineralization : specularite, magnetite chlorite and minor pyrite - chalcopyrite

Fault

Axis of IP anomaly (Inco, 1973)

EM anomaly - 4° contour (BMR, 1959) position approximate

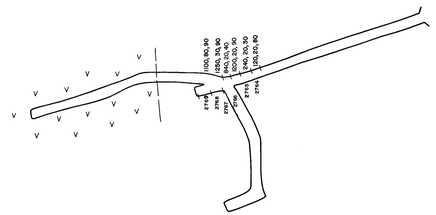
Diamond drill hole (Inco, 1973)

Adit

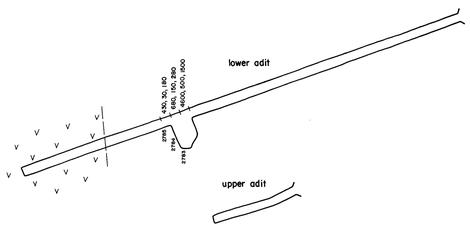
Trench, costean

N.B. Locations only approximate, data modified from I.Ruddock (INCO, 1973)

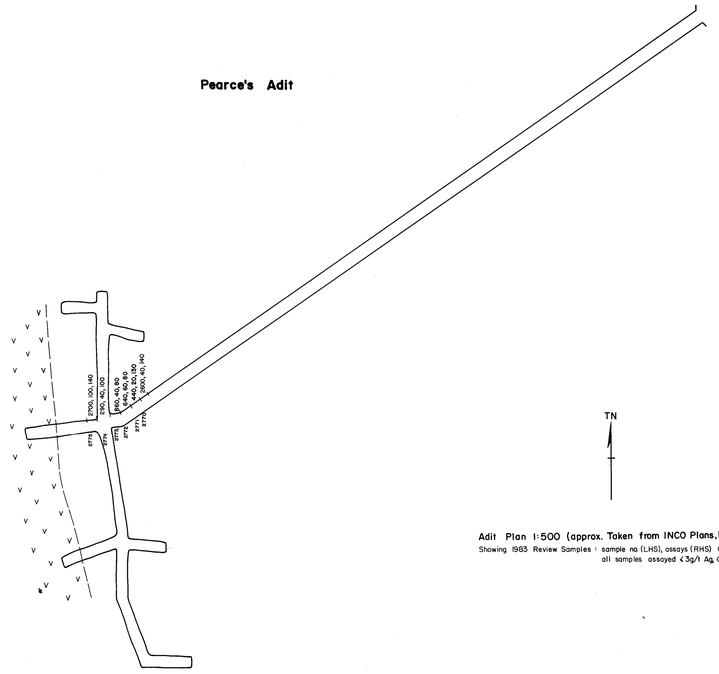
Darwin Pty. Adit



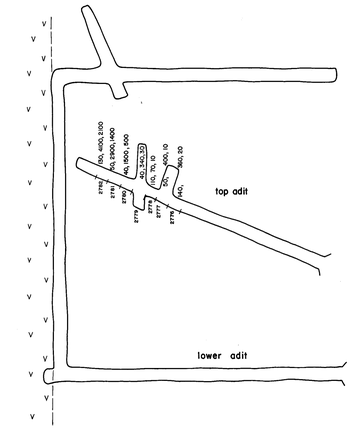
Dillon's Adit



Pearce's Adit



Souter's Adit



Adit Plan 1:500 (approx. Taken from INCO Plans, 1973)
Showing 1983 Review Samples : sample no (LHS), assays (RHS) Cu, Pb, Zn in ppm
all samples assayed < 3g/t Ag, < 0.1g/t Au.

5 cm

GOLD FIELDS EXPLORATION PTY. LIMITED	
JUKES – DARWIN EAST DARWIN AREA GEOLOGY & ANOMALY COMPILATION	DRAWN BY : F.G.F. DRAFTSMAN: T.G.D.S. DATE : June '83 REVISIONS : J.G.P.- June, 1983 FILE NO.
SCALE 1:2500 50 0 50 100 METRES	FIG. 9

1:2500

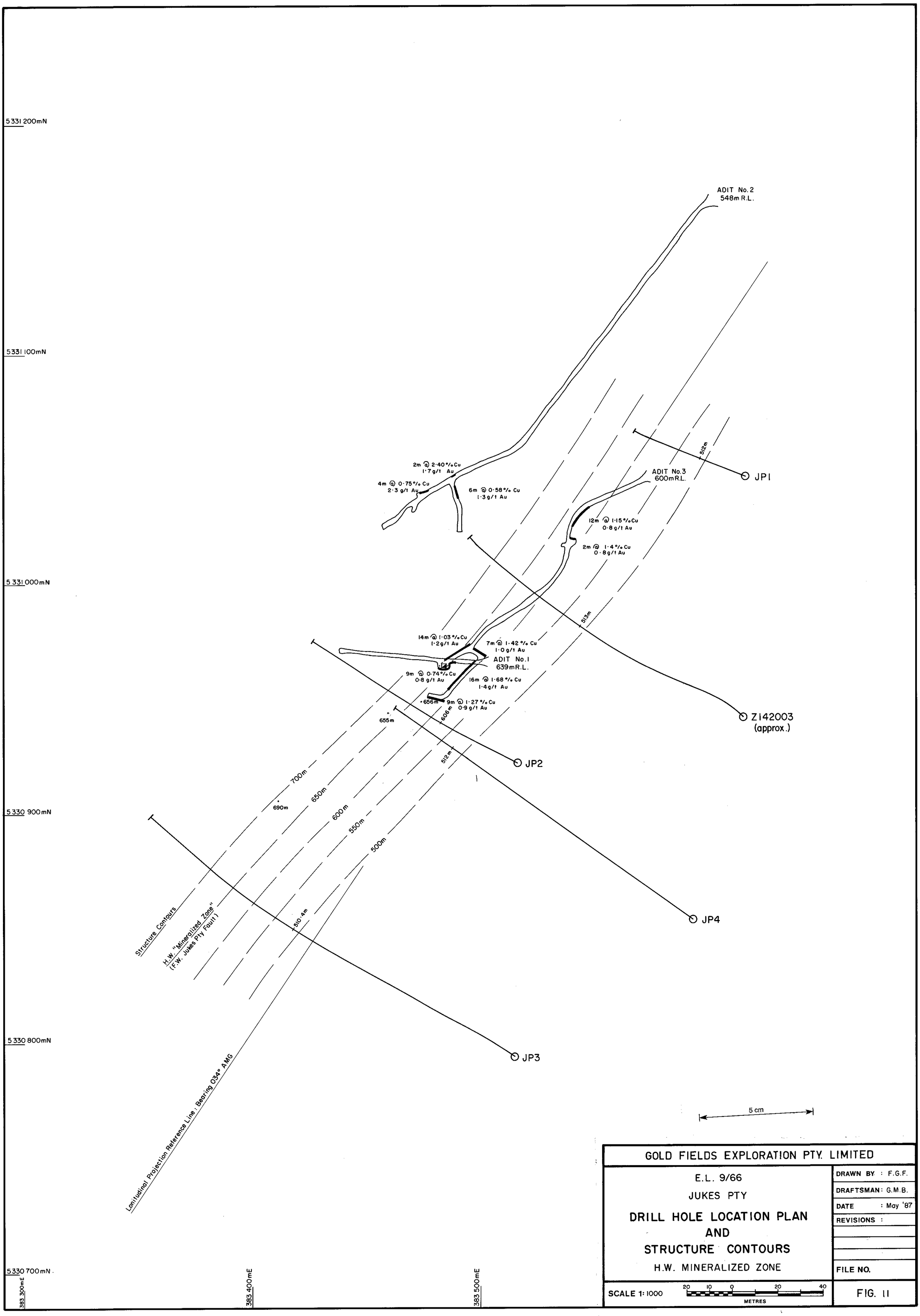
JUKES-DARWIN

GEOLOGY + ADIT SAMPLING

TCR 84-3582
EL 1966
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

JUKES PTY
1:1000
DRILL HOLE LOC. PLAN
& STRUCTURE CONTOURS
H.W. MINERALIZED ZONE



GOLD FIELDS EXPLORATION PTY. LIMITED	
E.L. 9/66 JUKES PTY **DRILL HOLE LOCATION PLAN AND STRUCTURE CONTOURS** H.W. MINERALIZED ZONE	DRAWN BY : F.G.F. DRAFTSMAN : G.M.B. DATE : May '87 REVISIONS : FILE NO.
SCALE 1:1000 (20 10 0 20 40 METRES)	FIG. 11



JUKES PROPRIETARY AREA

GEOLOGY AND ALTERATION

- Owen Conglomerate & Jukes Breccia
- Unconformity

MT. READ VOLCANICS

- "Eastern Sequence": Quartz grit, gritty volcanoclastic Conglomerate & minor lava. Basal chloritised & mineralised quartz grit.
- Unconformity

"Central sequence" — Rhyolitic lavas

- Sericite + chlorite +...., Eastern limit of columnar jointing indicated.
- Massive pink to brown lava with minor chlorite. (0-1)
- Intermediate chloritisation (2)
- Intense chloritisation (3)
- Intrusive Quartz Porphyry

- Bedding attitude
- Attitude estimated from columnar jointing
- Cleavage attitude
- Fault
- F630 sample location
- s sericite occurence
- Barite vein
- Magnetic vein
- Area in which magnetic veins occur

5 cm

GEOLOGY & ALTERATION

FIG. 64

4

B. C. EASTOE

1:5,000

JUKES

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

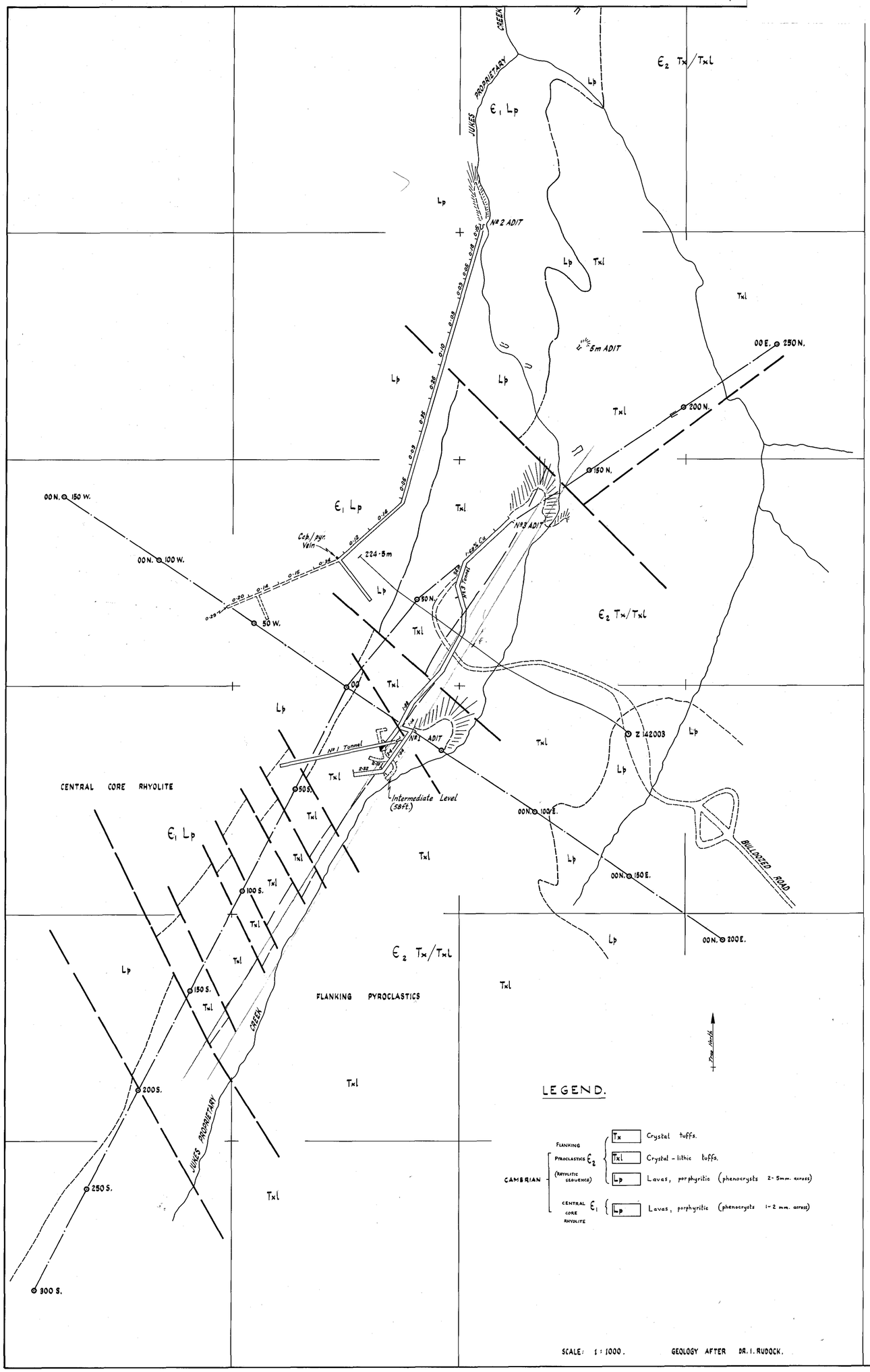
GEOLOGY + ALTERATION

1:1,000

JUKES

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

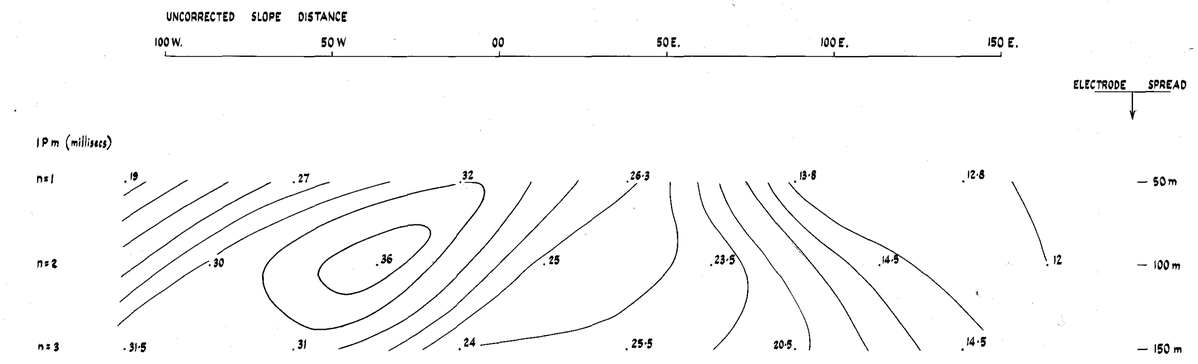
MAPPING
DRILLING
I.P.

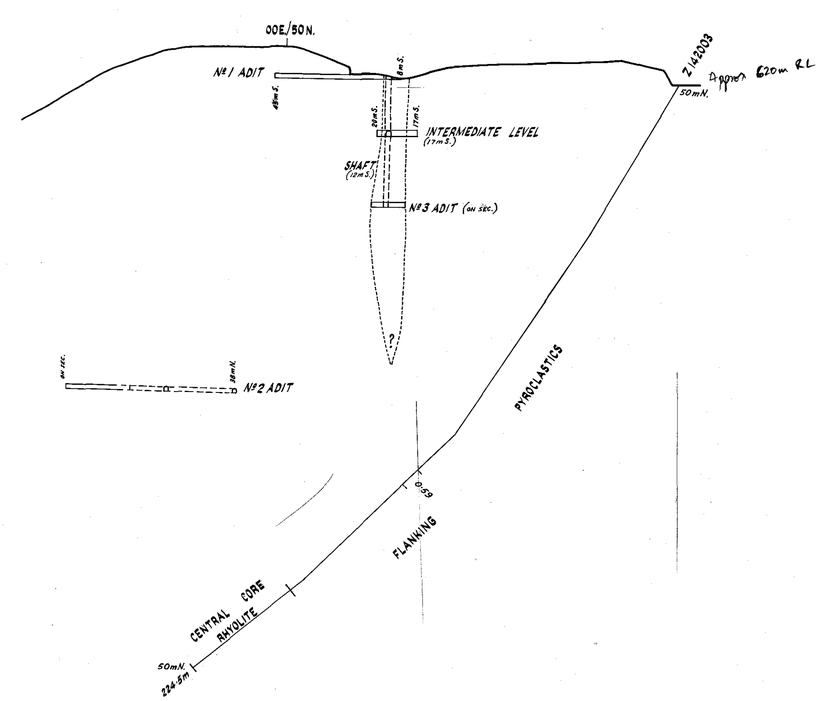


LEGEND.

CAMBRIAN
- FLANKING PYROCLASTICS ϵ_2 (RHYOLITIC SEQUENCE)
  - Tx — Crystal tuffs.
  - Txl — Crystal - lithic tuffs.
  - Lp — Lavas, porphyritic (phenocrysts 2-5mm. across)
- CENTRAL CORE RHYOLITE ϵ_1
  - Lp — Lavas, porphyritic (phenocrysts 1-2 mm. across)

SCALE: 1:1000. GEOLOGY AFTER DR. I. RUDOCK.





MAP 5

THE MOUNT LYELL M. & R. CO. LTD.	
JUKES - DARWIN AREA E.L. 21/76	Drawn: K.O.R. Traced: A.E.W. Checked:
JUKES PROPRIETARY MINE	Date: 27:9:'77 Scale: 1:1,000
AI-155	

JUKES

ADIT SAMPLING

1:1,000

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

14

ADIT NO. 2
Main Drive

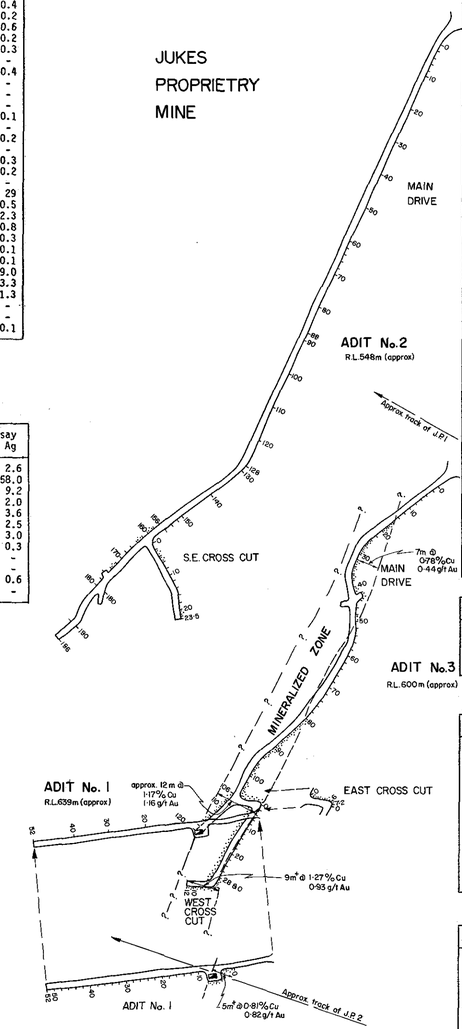
m	Cu	Pb	Zn	Ag	S%	Mn	Au	Ag
0-10	960	20	130	-	0.2	300	-	0.2
10-20	830	30	70	-	-	160	-	0.4
20-30	480	30	80	-	0.1	220	-	0.1
30-40	980	30	140	-	1.9	290	-	0.3
40-50	250	10	70	-	0.1	330	-	-
50-60	310	110	80	-	0.4	410	-	0.1
60-62	370	80	80	-	0.6	470	-	0.3
62-64	310	40	120	-	0.9	2200	-	0.4
64-66	760	20	120	-	0.7	1600	-	0.2
66-68	2200	20	110	-	1.1	1700	-	0.6
68-70	900	20	100	-	0.5	1800	-	0.2
70-80	1700	30	100	-	0.5	2100	-	0.3
80-88	320	10	80	-	0.6	2100	-	-
88-90	1750	20	90	-	2.6	2700	-	0.4
90-100	150	20	90	-	0.2	1300	-	-
100-110	470	10	90	-	-	1000	-	-
110-120	300	-	50	-	-	700	-	-
120-130	680	10	100	-	0.2	640	-	0.1
130-140	590	20	80	-	-	500	-	-
140-150	620	20	130	-	0.5	940	-	0.2
150-152	520	20	120	-	0.1	950	-	-
152-154	4800	20	140	-	0.4	780	-	0.3
154-156	800	10	110	-	0.5	610	-	0.2
156-158	1000	40	110	-	0.1	890	-	-
158-160	2.40%	7000	400	35	3.2	3300	1.7	29
160-162	1700	20	90	-	0.7	740	-	0.5
162-164	0.54%	20	100	3	1.0	1200	0.3	2.3
164-166	890	30	150	2	0.2	850	-	0.8
166-168	970	30	190	-	0.2	1300	-	0.3
168-170	700	10	120	-	0.4	1600	-	0.1
170-172	600	20	120	-	0.1	1150	-	0.1
172-174	1.00%	120	220	12	1.3	22000	3.4	9.0
174-176	4900	40	190	6	2.0	12000	1.1	3.3
176-178	2400	60	220	4	0.4	15000	0.2	1.3
178-180	370	40	180	-	0.7	3600	-	-
180-190	750	20	110	-	0.4	2200	-	-
190-196	830	30	130	-	0.3	1300	-	0.1

S.E. Cross Cut

m	Cu	Pb	Zn	Ag	S%	Mn	Fire Assay Au	Fire Assay Ag
0-2	2100	70	90	3	1.0	1300	0.3	2.6
2-4	5.68%	1900	3800	55	5.7	1600	2.3	58.0
4-6	1.52%	450	230	12	1.6	860	1.0	9.2
6-8	3900	250	150	4	0.7	1400	0.6	2.0
8-10	3800	250	190	6	0.6	560	0.2	3.6
10-12	0.60%	120	180	4	0.9	1450	0.2	2.5
12-14	4400	230	100	4	0.8	400	-	3.0
14-16	1100	30	130	-	0.4	950	-	0.3
16-18	1100	10	150	-	0.2	920	-	-
18-20	480	20	130	-	0.2	1100	-	-
20-22	0.56%	-	140	2	0.7	1500	-	0.6
22-23.5	430	-	140	-	0.2	1150	-	-

ADIT NO. 1

m	Cu	Pb	Zn	S%	Mn	Au	Ag
0-1	0.42%	70	210	0.5	460	0.6	1.7
1-2	0.88%	40	150	0.5	420	0.4	4.0
2-3	1.10%	50	160	0.4	500	1.5	6.8
3-4	0.48%	40	180	0.3	590	0.3	1.8
4-5	0.70%	70	200	0.6	620	1.3	3.0
5-6	0.92%	80	200	0.8	600	1.1	3.1
6-7	0.80%	60	180	0.8	520	0.9	3.1
7-8	1.16%	80	230	1.0	650	0.5	4.7
8-9	0.22%	50	230	0.9	670	0.5	1.5
9-10	0.12%	50	220	0.4	680	-	0.3
10-12	0.10%	40	170	0.3	910	-	0.5
12-14	820	30	120	0.3	450	-	-
14-16	230	20	90	0.1	350	-	-
16-18	240	30	90	0.3	370	-	-
18-20	330	40	80	0.6	370	-	-
20-22	350	110	90	-	340	-	0.2
22-24	230	20	90	0.2	610	-	-
24-26	240	40	100	-	1150	-	-
26-28	1050	30	160	0.2	1500	-	0.2
28-30	420	20	60	-	170	-	-
30-32	560	20	60	-	160	-	-
32-34	130	30	70	-	160	-	-
34-36	570	60	90	-	230	-	0.8
36-38	250	90	90	-	280	-	0.5
38-40	370	60	90	0.3	310	-	0.4
40-42	380	50	70	0.2	280	-	0.3
42-44	500	50	80	0.2	360	-	0.2
44-46	540	100	70	0.1	310	0.2	0.5
46-48	990	100	80	0.2	590	-	0.8
48-50	730	100	70	0.3	330	-	0.4
50-52	200	50	60	-	500	-	0.1



ADIT NO. 3
Main Drive

m	Cu	Pb	Zn	S%	Mn	Fire Assay Au	Fire Assay Ag
0.2	2400	60	150	-	250	-	0.5
2.4	2400	40	150	0.3	180	-	0.4
4.6	2500	30	160	-	300	-	0.4
6.8	2600	30	180	0.5	380	-	0.6
8-10	2000	30	200	0.6	570	-	0.3
10-12	2900	20	170	0.5	650	-	0.3
12-14	4000	30	200	0.5	1000	-	0.4
14-16	3800	20	200	0.6	770	-	0.3
16-18	0.82%	20	180	0.5	570	0.2	0.7
18-20	0.62%	20	170	0.2	480	0.1	1.7
20-22	3000	30	180	-	500	-	0.8
22-24	2500	20	140	0.5	300	0.3	1.1
24-26	1.38%	30	220	0.8	530	0.7	4.6
26-28	2.70%	50	240	0.5	630	2.0	14.1
28-30	0.72%	30	200	0.5	460	0.4	3.6
30-32	2800	30	190	0.9	450	0.2	1.7
32-34	1.00%	30	240	0.6	630	1.1	3.4
34-36	0.80%	30	230	0.4	530	0.5	1.7
36-38	0.72%	20	180	0.2	460	0.1	1.5
38-40	3000	20	200	0.1	460	-	0.8
40-42	1.40%	30	160	0.5	300	0.8	2.7
42-44	0.92%	40	100	0.4	220	0.2	1.9
44-46	2800	50	80	-	160	0.4	1.8
46-48	1700	60	30	-	50	0.3	2.1
48-50	0.60%	40	30	0.1	640	0.2	0.7
50.52.5	1500	60	40	0.4	2400	-	-
52.5.54	330	150	30	-	410	-	0.2
54-56	170	360	30	-	400	2.0	1.0
56-58	620	100	30	-	520	-	0.1
58-60	100	80	20	-	250	-	-
60-62	90	160	20	-	600	0.2	0.2
62-64	380	350	40	-	1100	-	-
64-66	90	230	30	-	900	-	0.1
66-68	80	110	40	-	1100	-	-
68-70	90	100	30	-	1500	-	0.1
70-72	NOT ASSAYED						
72-74	50	20	20	-	1800	-	-
74-76	350	60	50	-	1300	0.1	0.5
76-78	900	120	80	0.2	780	-	0.7
78-80	300	150	60	0.4	430	-	0.3
80-82	0.74%	180	80	0.4	5400	0.1	2.0
82-84	1.10%	900	570	1.2	5400	0.3	13.5
84-86	0.72%	70	130	0.9	7000	0.1	1.6
86-88	0.98%	50	90	0.8	8400	0.4	1.7
88-90	1.88%	40	100	1.6	11800	0.4	3.1
90-92	0.82%	40	110	1.2	8400	0.3	1.3
92-94	1.10%	40	160	0.9	1700	0.2	1.7
94-96	4100	50	200	0.6	840	0.2	1.3
96-98	0.92%	60	200	0.7	1500	0.3	3.2
98-100	0.80%	60	210	0.3	700	0.4	3.6
100-102	3200%	50	200	0.5	960	0.4	1.2
102-104	1.10%	50	190	1.1	2000	0.8	3.6
104-106	1.28%	60	220	1.4	1800	0.5	3.9
106-108	1.54%	90	210	1.7	2500	4.6	7.0
108-110	1.28%	80	210	1.0	3800	0.7	4.1
110-112	0.78%	60	210	1.0	1800	0.5	1.6
112-114	3600	60	250	0.3	3000	0.1	1.1
114-116	0.90%	70	210	1.0	880	1.3	3.0
116-118	1700	40	220	0.2	900	-	0.3
180-120	900	30	170	-	850	-	0.2

EAST CROSS CUT

m	Cu	Pb	Zn	S%	Mn	Au	Ag
0-2	1.47%	20	190	1.3	4200	0.6	2.6
2-4	1.04%	20	170	0.9	4000	0.7	2.1
4-6	1.06%	30	100	1.1	7000	1.6	3.0
6-7	2.11%	110	130	1.9	7600	0.9	5.9

WEST WALL HANGING WALL DRIVE

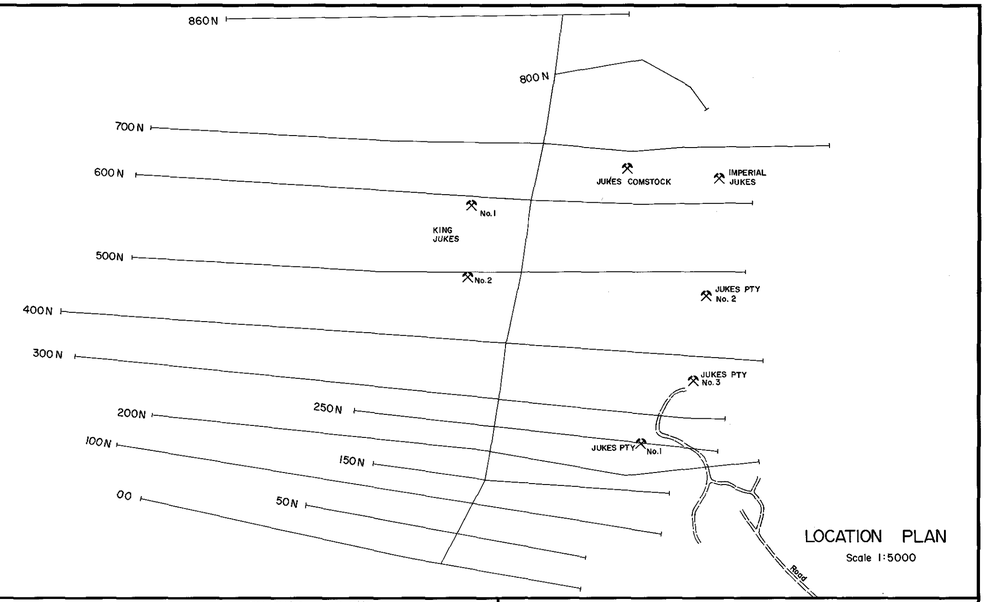
0-2	NO ASSAY						
2-4	0.96%	60	110	1.1	6800	0.2	2.3
4-6	3.76%	100	180	3.7	7800	5.0	11.4
6-8	1.85%	140	210	1.4	8600	2.2	6.7
8-10	1.34%	70	270	1.2	5200	0.3	2.9
10-12	0.76%	60	200	0.6	4500	0.3	1.4
12-14	0.82%	70	200	1.0	800	1.3	2.5
14-16	1.30%	50	190	1.3	5200	1.3	2.6
16-18	1.76%	40	130	1.7	7400	0.2	3.9
18-20	1.82%	50	130	1.7	7600	0.9	4.6
20-27	1.22%	50	180	1.2	6800	0.4	2.0
22-24	2700	40	200	0.4	4600	-	0.5
24-25.4	0.80%	60	140	0.8	9600	0.2	1.2

EAST WALL HANGING WALL DRIVE

m	Cu	Pb	Zn	S%	Mn	Au	Ag
0-2	840	160	30	-	530	-	-
2-4	560	500	50	-	3900	-	0.7
4-6	230	100	20	-	480	-	0.1
6-8	140	50	20	-	1200	-	-
8-10	350	50	30	-	1200	-	-
10-12	110	10	20	-	320	-	-
12-14	250	40	20	-	660	-	0.1
14-16	230	40	20	-	390	-	0.2
16-18	2800	40	70	0.3	570	0.1	1.0
18-20	1850	140	90	-	1300	0.1	1.4
20-22	460	60	30	-	870	-	0.5
22-24	430	80	30	-	1200	-	0.5
24-26	660	120	40	-	1900	-	0.5
26-28	1100	180	150	1.2	530	-	0.6

WEST CROSS CUT

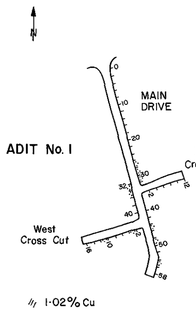
m	Cu	Pb	Zn	S%	Mn	Au	Ag
0-1	0.52	30	250	0.6	2100	0.2	0.7
1-2	0.76	30	230	0.8	7000	0.2	1.2
2-3	0.82	90	310	1.0	5600	0.2	1.2
3-4	0.70	60	280	1.2	6300	0.2	0.9
4-5	0.72	50	240	0.9	2030	0.3	1.6
5-6	1.00	60	260	1.3	1080	0.2	2.8
6-7	1.08	60	240	1.2	1090	0.2	2.4
7-8	0.96	80	200	1.0	1060	2.0	3.1
8-9	0.94	70	150	1.0	230	0.4	2.8
9-10	2.32	90	200	2.5	1600	4.5	8.8
10-11	2.88	120	240	3.3	950	0.9	11.4
11-12	1.40	50	210	1.5	1040	0.4	4.6



KING JUKES

ADIT NO. 1
Main Drive

m	Cu	Pb	Zn	Ag	S%	Mn	Fire Assay Au	Fire Assay Ag
0-2	2200	30	150	2	0.1	300	-	0.8
2-4	0.64%	30	210	6	0.6	480	0.2	3.5
4-6	0.58%	40	150	5	0.7	470	0.1	2.4
6-8	0.86%	30	200	9	1.3	370	0.1	5.4
8-10	1.02%	60	260	8	0.9	420	0.2	4.2
10-12	0.60%	40	290	7	1.2	500	-	3.4
12-14	3700	30	210	5	0.7	380	-	2.8
14-16	3700	40	190	4	0.3	470	0.1	1.5
16-18	1.18%	40	200	8	1.1	1450	2.4	5.8
18-20	4000	40	220	5	0.3	660	0.4	2.2
20-22	2700	40	190	2	0.2	1750	0.1	0.9
22-24	1.08%	50	180	9	2.1	2600	1.0	5.7
24-26	2.16%	90	250	20	3.0	3200	4.1	16.0
28-28	0.58%	20	150	4	0.7	2200	0.1	0.8
28-30	0.60%	30	190	6	0.9	1700	0.2	3.1
30-32	3.98%	80	270	35	6.1	1050	0.9	31.0
32-34	1.78%	60	180	14	2.8	630	0.6	11.0
34-36	0.82%	40	170	14	1.0	510	0.3	10.0
36-38	4800	50	230	6	0.8	1500	0.2	2.0
38-40	1200	20	160	3	0.3	1400	-	-
40-42	2000	30	140	2	0.2	2600	-	0.8
42-44	2900	60	160	3	0.7	2800	-	0.9
44-46	5000	40	140	4	0.6	1900	-	2.2
46-48	1500	20	110	-	-	1600	-	-
48-50	0.56%	20	140	5	0.6	2300	0.1	1.9
50-52	4600	40	110	4	0.6	1900	-	1.1
52-54	3800	20	120	3	0.4	340	-	0.4
54-56	0.58%	40	150	4	0.8	820	0.3	1.5
56-58	1100	30	100	-	0.2	1200	-	0.4



EAST CROSS CUT

m	Cu	Pb	Zn	Ag	S%	Mn	Au	Ag
0-2	4500	30	110	3	0.5	630	0.3	0.8
2-4	2000	20	110	3	0.6	840	0.1	1.3
4-6	550	20	80	-	-	1400	-	0.7
6-8	340	20	60	-	0.1	370	-	-
8-10	130	20	60	-	-	420	-	-
10-12	650	20	80	-	0.2	830	-	-

WEST CROSS CUT

m	Cu	Pb	Zn	Ag	S%	Mn	Au	Ag
0-2	1700	40	110	-	0.4	1800	-	0.5
2-4	0.70%	30	160	7	0.7	2200	-	4.9
4-6	1700	20	190	2	0.3	700	-	0.7
6-8	600	30	140	-	0.2	550	-	0.1
8-10	1000	30	140	2	-	460	-	0.2
10-12	1.95%	40	200	15	2.5	560	0.2	8.3
12-14	1300	20	130	-	0.2	710	-	0.2
14-16	570	30	110	-	0.2	1500	-	-
16-17.5	140	20	80	-	-	700	-	-

ADIT NO. 2

m	Cu	Pb	Zn	Ag	S%	Mn	Au	Ag
0-2	1600	20	110	-	0.1	280	0.1	0.6
2-4	1250	20	90	-	0.2	210	0.2	0.4
4-6	850	10	120	-	-	310	-	-
6-8	1200	-	100	-	0.3	350	-	0.3
8-10	1000	-	100	-	-	380	0.1	0.5

Scale 1:1000

JUKES COMSTOCK

m	Cu	Pb	Zn	S%	Mn	Fire Assay Au	Fire Assay Ag
0-2	600	-	70	0.3	380	-	0.1
2-4	270	-	70	1.2	1600	-	0.1
4-6	140	20	80	5.9	1750	-	0.3
6-8	50	-	90	1.9	1300	-	-
8-9	40	-	70	6.4	1350	-	0.2

Scale 1:1000

IMPERIAL JUKES

m	Cu	Pb	Zn	S%	Mn	Fire Assay Au	Fire Assay Ag
0-2	580	-	50	0.4	290	-	-
2-4	280	-	40	0.1	470	-	-
4-6	330	-	50	0.1	1050	-	-
6-7	90	-	50	0.2	1100	-	-
Face of Drive	430	-	30	0.4	460	-	0.3

5 cm

Scale 1:1000

THE MOUNT LYELL MINING & RAILWAY COMPANY LTD.

JUKES PTY.
ADIT SAMPLING
1981-82 ASSAYS

Detection Limits : Cu, Pb, Zn, Mn = 10ppm; S = 0·1%;
Au, Ag = 0·1 ppm.
- = less than detection limits

SCALE	1:1000	DRAWN BY	P.K.
DATE	July, 1982	DRAFTSMAN	T.G.D.S.

REVISIONS
J.G.P May 1983

A2-237

FIG. 8

1:5,000

JUKES

TY

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

15

GEOCHEMISTRY
Cu, Pb, Zn

GEOCHEMISTRY
Cu, Pb, Zn
30,10,10,10,
50,20,-,-
60,10,20,

S = SOIL SAMPLE
ALL OTHERS ROCK CHIP SAMPLES
VALUES IN PPM

5 cm

= TRENCHES
RIVER CREEK
PROMINENT PEAK
TRIG STATION
BENCH MARK
•231 SPOT ELEVATIONS
PIT
COSTEAN TRENCH
ADIT
SHAFT (Depth metre)
OPEN CUT
ALLUVIAL WORKINGS
DUMP

THE MOUNT LYELL MINING & RAILWAY COMPANY LTD.

JUKES PTY. GRID
ROCK CHIP &
SOIL GEOCHEMISTRY
Cu, Pb, Zn

FIG. 66
A2-201-6

SCALE 1:5000
DATE 14-4-82
DRAWN BY M.HUTTON
DRAFTSMAN S.FREER

384000mE
5332000mN
5331000mN
383000mE

EAST JUKES SPUR
KING RIVER
PROPRIETARY PEAK
1041
1022
1007
1107
1023
550
673
695
714
734
635
NS
800N
600N
500N
400N
300N
250N
200N
150N
100N
50N
00

1:5000

JUKES

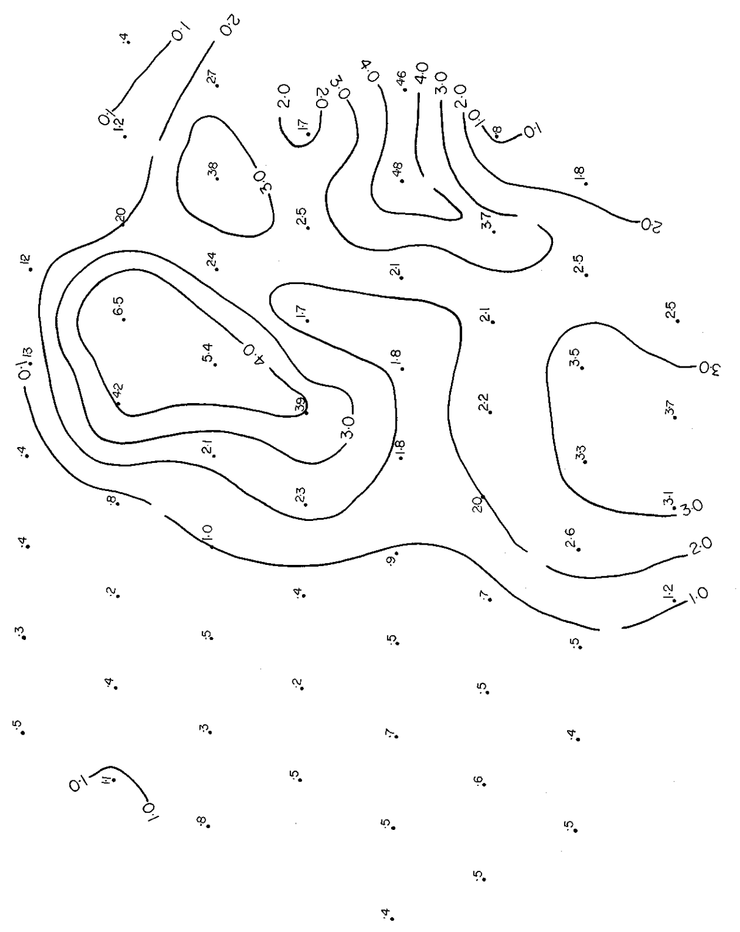
TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

GEOCHEMISTRY

Fe

GEOCHEMISTRY

AREA DIVIDED INTO DIAMOND SHAPED BLOCKS -400m N-S, 200m E-W AXES. ARITHMETIC MEAN WITH Fe% PLOTTED AT AXES.



ROCK CHIP GEOCHEMISTRY
1981-82 ASSAYS
BLOCK AVERAGES
Fe%

FIG. 74 -2

1:5000 JUKES GEOCHEMISTRY Cu

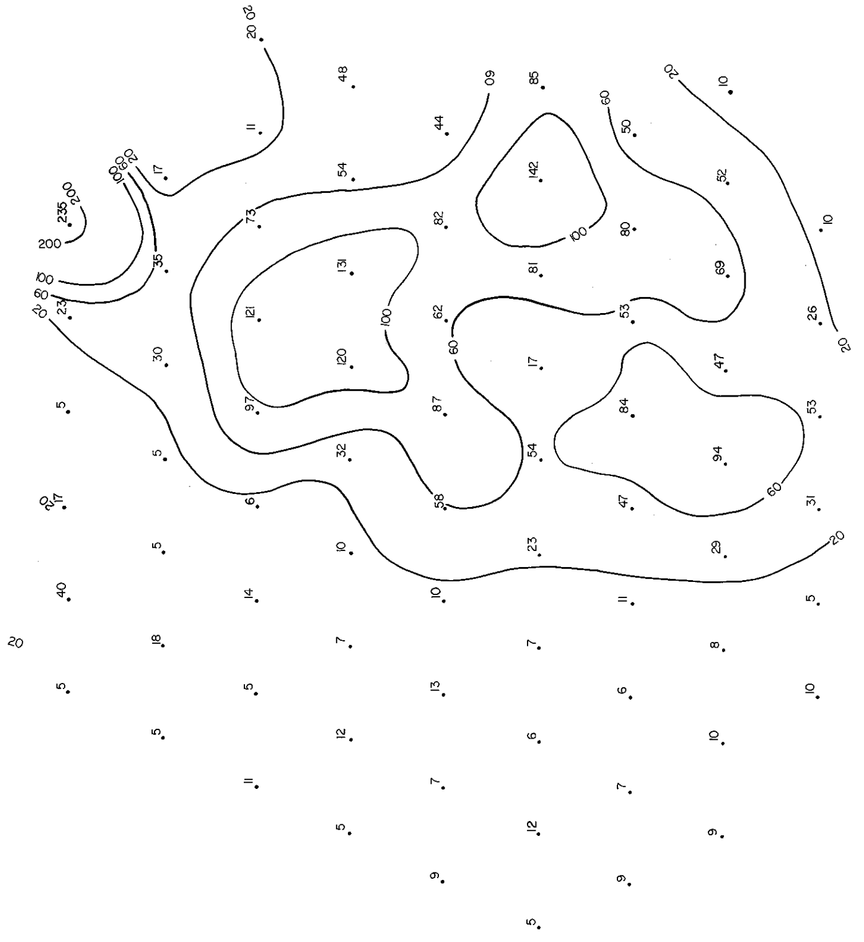
TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

GEOCHEMISTRY
AREA DIVIDED INTO DIAMOND SHAPED BLOCKS - 400m N-S, 200m E-W AXES
ARITHMETIC MEAN, WITH Cu ppm PLOTTED AT AXES

5 cm

SOIL & ROCK CHIP GEOCHEMISTRY
1981-82 ASSAYS
BLOCK AVERAGES
Cu

FIG. 73



1:5000

JUKES

T

GEOCHEMISTRY
Fe, Ag, Au

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

GEOCHEMISTRY
Fe,Ag,Au
-,20,30,
70,20,10,
70,20,20,

ALL ROCK CHIP SAMPLES
Fe IN %— AAS
Ag,Au IN G/T — FIRE ASSAY

5 cm

= TRENCHES
RIVER CREEK
PROMINENT PEAK
TRIG STATION
BENCH MARK
SPOT ELEVATIONS
PIT
COSTEAN TRENCH
ADIT
SHAFT (Depth metre)
OPEN CUT
ALLUVIAL WORKINGS
DUMP

THE MOUNT LYELL MINING & RAILWAY COMPANY LTD.

JUKES PTY. GRID
ROCK CHIP GEOCHEMISTRY
Fe,Ag-Au
(FIRE ASSAY)

FIG. 67
A2-201-5

SCALE 1:5000
DATE 14-4-82
DRAWN BY M.HUTTON
DRAFTSMAN S.FREER

384000mE
533200mN
533100mN
383000mE
533000mN

EAST JUKES SPUR
KING RIVER
PROPRIETARY PEAK

SOUTH

NORTH

5,330 800mN

5,330 900mN

5,331 000mN

5,331 100mN

800mR.L.

700mR.L.

600mR.L.

500mR.L.

Au Cu Pb Zn Ag Sn WO3

6m @ 0·15, 485, 20, 100, 1, 20, 170

8m @ 0·76, 720, 40, 150, 2, 10, 330

5m @ 0·30, 850, 20, 150, 2, 20, 90

4m @ 0·15, 850, 20, 90, 1, 30, 180

16m @ 0·21, 890, 20, 100, 1, 10, 350

12m @ 0·20, 485, 30, 100, 1, 10, 40

11m @ 3·37, 1370, 30, 100, 3, 10, 90

7m @ 0·13, 1150, 10, 160, 1, 10, 70

14m @ 0·01, 1020, 40, 80, 1, 10, 160

15m @ 0·04, 850, 30, 110, 1, 10, 60

20m @ 0·04, 930, 30, 120, 1, 10, 90

9m @ 0·74% Cu 0·8 g/t Au

No. 1 ADIT

14m @ 1·03 % Cu 1·2 g/t Au

EAST X CUT proj. 7m @ 1·42 % Cu 1·0 g/t Au

2m @ 1·4 % Cu 0·8 g/t Au

12m @ 1·15% Cu 0·8 g/t Au

No. 3 ADIT

JP2 9m @ 1·55% Cu 1·56g/t Au

WEST WALL H'WALL DRIVE 16m @ 1·68% Cu 1·4 g/t Au

WEST X-CUT 5m @ 1·70% Cu 1·6 g/t Au

No. 2 ADIT

N.B. This adit is driven in the lavas to the North West.

JP 1 Intersection with mineralised zone – barren

Z142003 5m @ 0·59% Cu (0·5g/t Au

N.B. Position approximate

JP1 2m @ 0·41% Cu 0·1 g/t Au

N.B. This intersection is not the major mineralised zone.

JP 3 9m @ 0·65 % Cu 0·08g/t Au

PROPOSED DRILL HOLE

POTENTIALLY MINERALISED ZONE (2% Cu equivalent cut-off grade)

Proposed H.E.C. tunnel at 220 m R.L.

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

5 cm

NOTE: All thicknesses shown are horizontal.

GOLD FIELDS EXPLORATION PTY. LIMITED

JUKES PTY.

LONGITUDINAL PROJECTION OF MINERALISATION IN CHLORITIC VOLCANICLASTICS

DRAWN BY : A.J.C.
DRAFTSMAN: T.G.D.S.
DATE : MAY '83
REVISIONS :
FILE NO.

SCALE 1:1000 20 10 0 10 20 30 40 METRES

FIG. 8

1:1,000

LONG. PROJ. OF MINERALISATION IN CHLORITIC VOLC.

JUKES PTY.

SOUTH

NORTH

5,330 800mN | 5,330 900mN | 5,331 000mN | 5,331 100mN

800mR.L.

700mR.L.

600mR.L.

500mR.L.

Au Cu Pb Zn Ag Sn WO_3

6m @ 0·16, 485, 20, 100, 1, 20, 170

8m @ 0·78, 725, 40, 150, 2, 10, 330

9m @ 0·30, 850, 20, 150, 2, 20, 90

4m @ 0·95, 850, 20, 90, 1, 30, 180

16m @ 0·21, 890, 20, 100, 1, 10, 350

12m @ 0·20, 465, 30, 100, 1, 10, 40

11m @ 3·37, 1370, 30, 100, 3, 10, 90

7m @ 0·13, 1150, 10, 160, 1, 10, 70

14m @ 0·06, 1020, 40, 90, 1, 10, 80

15m @ 0·04, 850, 30, 70, 1, 30, 60

20m @ 1·10, 930, 50, 120, 1, 10, 90

9m @ 0·74% Cu
0·8g/t Au

No. 1 ADIT

14m @ 1·03% Cu
1·2g/t Au

JP2 9m @ 1·55% Cu
1·56g/t Au

EAST X CUT proj. 7m @ 1·42% Cu
1·0 g/t Au

2m @ 1·4 % Cu
0·8 g/t Au

WEST WALL H'WALL DRIVE
16m @ 1·68% Cu
1·4 g/t Au

12m @ 1·15% Cu
0·8 g/t Au

No. 3 ADIT

WEST X- CUT
5m @ 1·70% Cu
1·6 g/t Au

No. 2 ADIT

N.B. This adit is driven in the lavas to the North West.

JP 1 Intersection with mineralised zone – barren

JP3 11m @ 0·49% Cu
0·06g/t Au

JP4 10·5m @ 0·46 % Cu
0·08 g/t Au

Z142003 5m @ 0·59% Cu
0·5g/t Au

N.B. Position approximate

JP1 2m @ 0·41% Cu
0·1 g/t Au

N.B. This intersection is not the major mineralised zone.

5 cm

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

NOTES 1. Position of projection reference line is shown on 1:5000 scale Huxley sheet geology plan.
2. Projection surface orientation is 034° AMG
3. All thicknesses shown are horizontal

GOLD FIELDS EXPLORATION PTY. LIMITED

JUKES PTY.

LONGITUDINAL PROJECTION OF MINERALISATION IN CHLORITIC VOLCANICLASTICS

DRAWN BY : A.J.C.
DRAFTSMAN : T.G.D.S.
DATE : MAY '83
REVISIONS :
F.G.F. May '87
FILE NO.

SCALE 1:1000 20 10 0 10 20 30 40 METRES

FIG. 10

1:1000
TYNDALL PROJECT

LONG. PROJ.
OF MINERALISATION
IN CHLORITIC VOLCAN.

SOUTH

NORTH

500mS 400mS 300mS 200mS 100mS 00 100mN

OWEN CONGLOMERATE

800mRL

VOLCANICS

700mRL

600mRL

500mRL

Line 00

Line 50N

Line 100N

Line 150 N

Line 200 N

Line 250N

Approximate southern limit of 'basinal' rocks on surface.

Nº 1 ADIT
5m² @ 0·81% Cu
0·82g/t Au

track

Creek

JP 2
10m @ 1·55% Cu
1·56g/t Au

W. XCUT

9m² @ 1·27% Cu
0·95g/t Au

E.XCUT

12m @ 1·17% Cu
1·16 g/t Au

MAIN DRIVE

7m² @ 0·78% Cu
0·44g/t Au

Nº 3 ADIT

Approximate northern limit of 'basinal' rocks on surface

Creek

S.E. XCUT

Nº 2 ADIT
(In haven west of mineralized 'basinal' rocks)

PROPOSED HOLE B
(225m)

PROPOSED HOLE A
(275m)

Z142003
4·5m @ 0·99 % Cu
(0·5 g/t Au

JP 1
2m @ 0·41% Cu
(0·1g/t Au

5 cm

GOLD FIELDS EXPLORATION PTY. LIMITED

JUKES PTY.

LONGITUDINAL PROJECTION ALONG MINERALIZATION IN 'BASINAL' ROCKS

LOOKING WEST

SCALE 1:1000 — 20 10 0 10 20 30 40 METRES

DRAWN BY	: J.G.P.
DRAFTSMAN	: T.G.D.S.
DATE	: May 1983
REVISIONS	:
FILE NO.	
FIG. 7	

1:1,000

JUKES

LONGITUDINAL PROJECTION

TCR 94-3582
EL 9/66
HUMLET-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

1:5,000

JUKES

TY

ANOMALY COMPILATION

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

22

GEOPHYSICS

GROUND MAGNETICS 1981-82

TOTAL FIELD > 63400 γ

GRADIENT ARRAY I.P. 1981-82

CHARGEABILITY > 20mV/V

RESISTIVITY < 5000 ohm-m

GEOCHEMISTRY

ROCK CHIPS 1981-82 ASSAYS

Ag ≥ 2ppm / Au ≥ 0·2ppm
Zn ≥ 100ppm
Pb ≥ 100ppm
Cu ≥ 400ppm

SOILS 1981-82 ASSAYS

Zn ≥ 50ppm
Pb ≥ 100ppm
Cu ≥ 200ppm

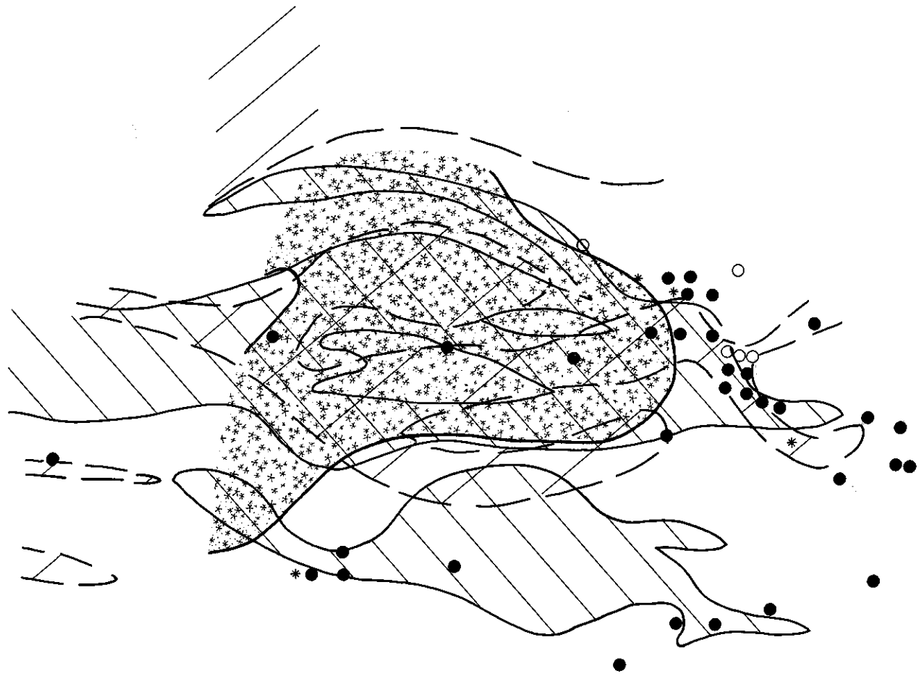
DRILLING

DIAMOND DRILL HOLE

5 cm

ANOMALY COMPILATION
1981-82

FIG. 72 3



1:5,000

JUKES

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

GROUND MAGNETICS

GROUND MAGNETICS
SURVEY: BY SCINTREX
SURVEY DATE: FEBRUARY, 1982
INSTRUMENTS: SCINTREX MP-2 PROTON PRECESSION MAGNETOMETERS
BASE STATION: A.M.G. CO-ORDINATES
-5330820 N, 383720 E
DESIGNATED BASE VALUE-
62751 GAMMAS

5 cm

= TRENCHES
RIVER, CREEK
PROMINENT PEAK
TRIG STATION
BENCH MARK
SPOT ELEVATIONS
PIT
COSTEAN TRENCH
ADIT
SHAFT (Depth metre)
OPEN CUT
ALLUVIAL WORKINGS
DUMP

THE MOUNT LYELL MINING & RAILWAY COMPANY LTD.

JUKES PTY. GRID
GROUND MAGNETICS
(TOTAL FIELD)
1981-82
SMOOTHED CONTOURS

FIG. 79
A2-201-7

SCALE 1:5000
DATE 14-4-82
DRAWN BY M. HUTTON
DRAFTSMAN S. FREER

384000mE
383000mE
5332000mN
5331000mN
EAST JUKES SPUR
KING RIVER
PROPRIETARY PEAK
800N
700N
600N
500N
400N
300N
250N
200N
150N
100N
50N
00
860N
JP1
JP2

383000mE

384000mE

5332000mN

5331000mN

KING RIVER

860N

800N

700N

600N

500N

400N

300N

250N

200N

150N

100N

50N

00

⊗2

⊗1

EAST JUKES SPUR

PROPRIETARY PEAK

1041

1009

1007

1022

1107

1023

734

695

673

635

714

550

5 cm

= TRENCHES

RIVER CREEK

△ PROMINENT PEAK

△ TRIG STATION

◎ BENCH MARK

•733 SPOT ELEVATIONS

□ PIT

COSTEAN TRENCH

ADIT

⊠33 SHAFT (Depth metre)

OPEN CUT

ALLUVIAL WORKINGS

DUMP

RESISTIVITY

TRANSMITTER : SCINTREX 2·5/3 KW TIME DOMAIN I.P. TRANSMITTER

RECEIVERS : SCINTREX I.P.R-8 RECEIVERS

CYCLE : ALTERNATING SQUARE WAVE, 8 SECONDS PER CYCLE (2 SECS. ON-2 OFF-2 ON, REVERSE POLARITY-2 OFF)

RECEIVER DIPOLE : 20 m

STATION INTERVAL : 20m, PLUS SOME INTERMEDIATE STATIONS

PLOTTING POINT : MID-POINT OF RECEIVER DIPOLE

SURVEY DATES : 5TH., 6TH., 7TH. & 10TH. FEB., 1982.

THE MOUNT LYELL MINING & RAILWAY COMPANY LTD.

JUKES PTY. GRID GRADIENT ARRAY I.P. RESISTIVITY

FIG. 76
A2-201-8

SCALE 1:5000	DRAWN BY M. HUTTON
DATE 14-4-82	DRAFTSMAN S. FREER

1:5000

JUKES

I.P. RESISTIVITY

TCR 94-3582
EL 9/96
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

1:5,000

JUKES

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

25

CT

I.P.
CHARGEABILITY

CHARGEABILITY

TRANSMITTER : SCINTREX 2.5/3 KW TIME DOMAIN I.P. TRANSMITTER
RECEIVERS : SCINTREX I.P.-8 RECEIVERS
CYCLE : ALTERNATING SQUARE WAVE, 8 SECONDS PER CYCLE (2 SECS. ON-2 OFF-2 ON, REVERSE POLARITY-2 OFF)
RECEIVER DIPOLE : 20m
STATION INTERVAL : 20m, PLUS SOME INTERMEDIATE STATIONS
PLOTTING POINT : MID-POINT OF RECEIVER DIPOLE
SURVEY DATES : 5TH., 6TH., 7TH. & 10TH. FEB., 1982

5 cm

= TRENCHES
RIVER CREEK
PROMINENT PEAK
TRIG STATION
BENCH MARK
•231 SPOT ELEVATIONS
PIT
COSTEAN TRENCH
ADIT
SHAFT (Depth metre)
OPEN CUT
ALLUVIAL WORKINGS
DUMP

THE MOUNT LYELL MINING & RAILWAY COMPANY LTD.

JUKES PTY. GRID
GRADIENT ARRAY I.P.
CHARGEABILITY

FIG. 75
A2-201-9

SCALE 1:5000
DATE 14-4-82
DRAWN BY M. HUTTON
DRAFTSMAN S. FREER

384000mE
5332000mN
5331000mN
383000mE

EAST JUKES SPUR
KING RIVER
PROPRIETARY PEAK
⊕2
⊕1
860N
800N
700N
600N
500N
400N
300N
250N
200N
150N
100N
50N
00

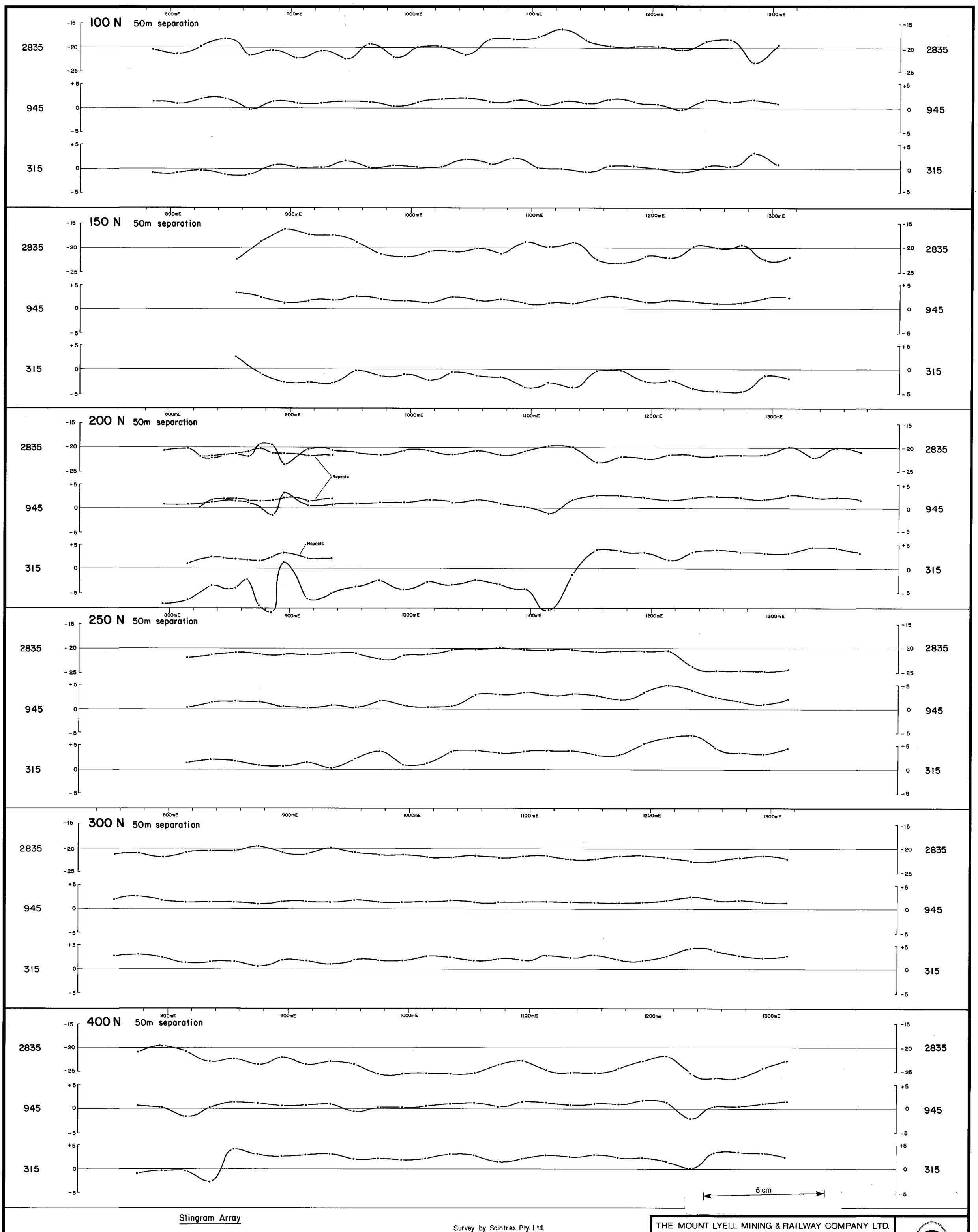
1:2000

JUKES

26

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

GROUND E.M
100N - 400N



Slingram Array

Rx Tx Lines 150N - 700N
Tx Rx Lines 100N, 800N, 860N

Horizontal scale : 1 : 2000 (no slope correction)
Vertical scale : Relative Field strength of Signal/Reference in %

Survey by Scintrex Pty. Ltd.
Survey Dates :

100N	14-3-'82
150N	14-3-'82
200N	13-3-'82, 15-3-'82 (Repeat)
250N	15-3-'82
300N	14-3-'82
400N	14-3-'82

Reference frequency : 105 Hz
Signal frequency : 315, 945, 2835 Hz
Coil orientation : Horizontal Co-planar

THE MOUNT LYELL MINING & RAILWAY COMPANY LTD.

E.L. 9/66

JUKES PTY. GRID

GROUND E.M. 1981-82

Genie SE-88

LINES 100N - 400N

SCALE 1:2000	DRAWN BY T.G.D.S.
DATE JUNE 1982	DRAFTSMAN T.G.D.S.

REVISIONS

FIG. 80

A2-232

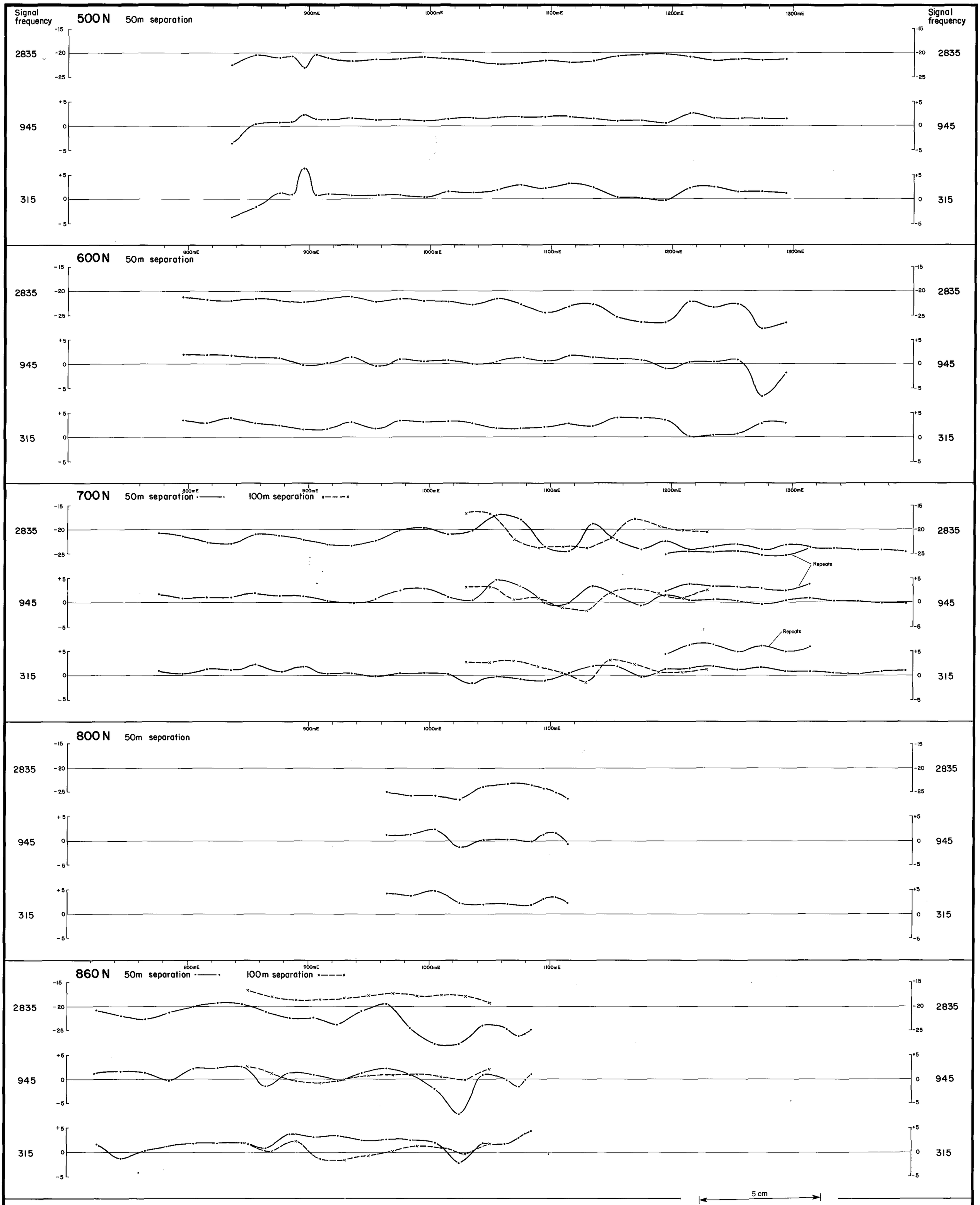
1:2,000

JUKES

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

27

GROUND E.M.
500N - 860N



Slingram Array

Rx Tx Lines 150N - 700N
Tx Rx Lines 100N, 800N, 860N

Horizontal scale : 1 : 2000 (no slope correction)
Vertical scale : Relative Field strength of Signal/Reference in %

Survey by Scintrex Pty. Ltd.
Survey Dates :

500N	13-3-'82
600N	13-3-'82
700N	12-3-'82, 15-3-'82 (Repeat 50m), 15-3-'82 (100m)
800N	12-3-'82
860N	12-3-'82 (50m), 15-3-'82 (100m)

Reference frequency : 105 Hz
Signal frequency : 315, 945, 2835 Hz
Coil orientation : Horizontal Co-planar

THE MOUNT LYELL MINING & RAILWAY COMPANY LTD.

E.L. 9/66

JUKES PTY. GRID

GROUND E.M. 1981-82

Genie SE-88

LINES 500N - 860N

SCALE 1 : 2000	DRAWN BY T.G.D.S.
DATE JUNE 1982	DRAFTSMAN T.G.D.S.

REVISIONS

FIG. 81
A2-231

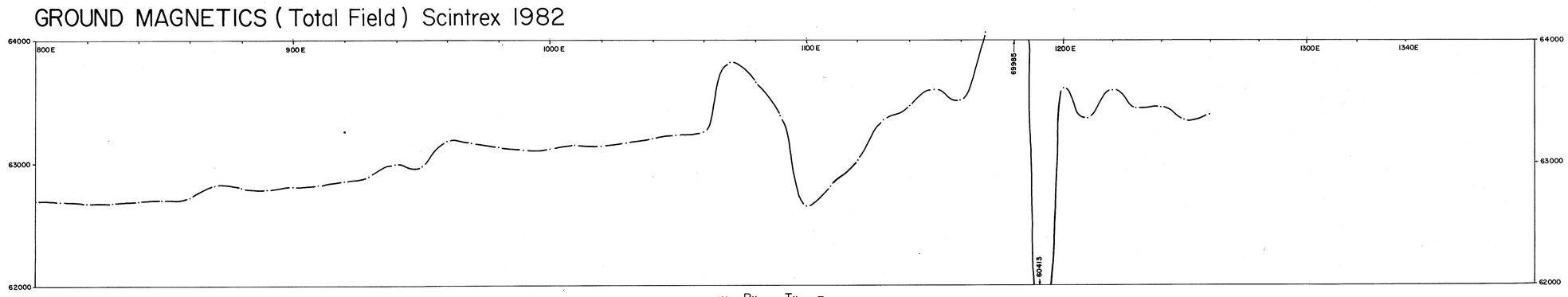
1:1,000

JUKES

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

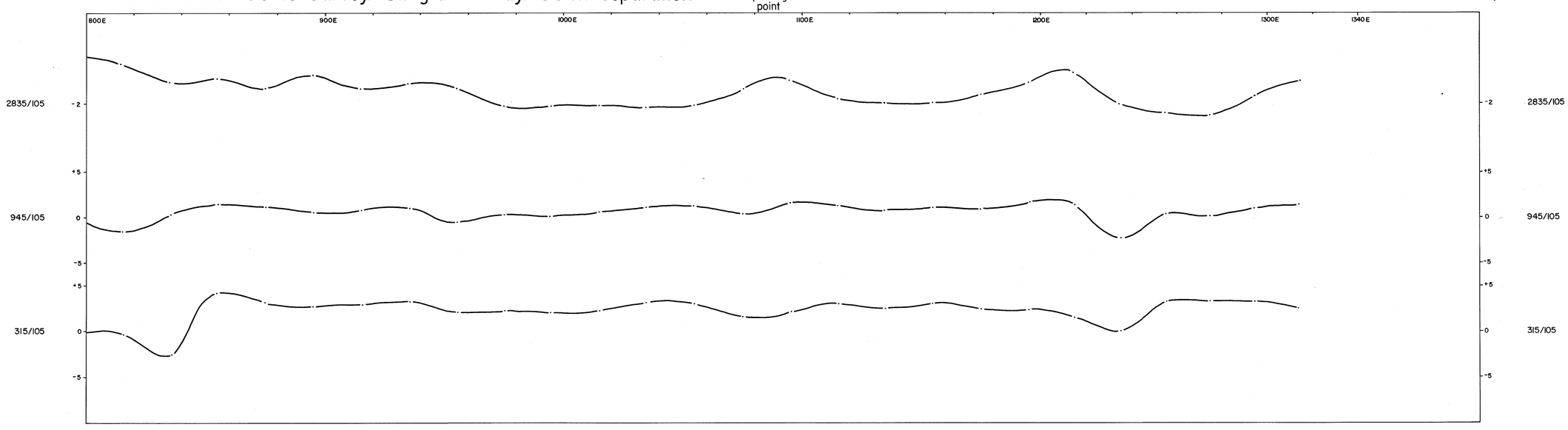
COMPOSITE DRILL SECTION
D.D.H. J.P. 1

GROUND MAGNETICS (Total Field) Scintrex 1982

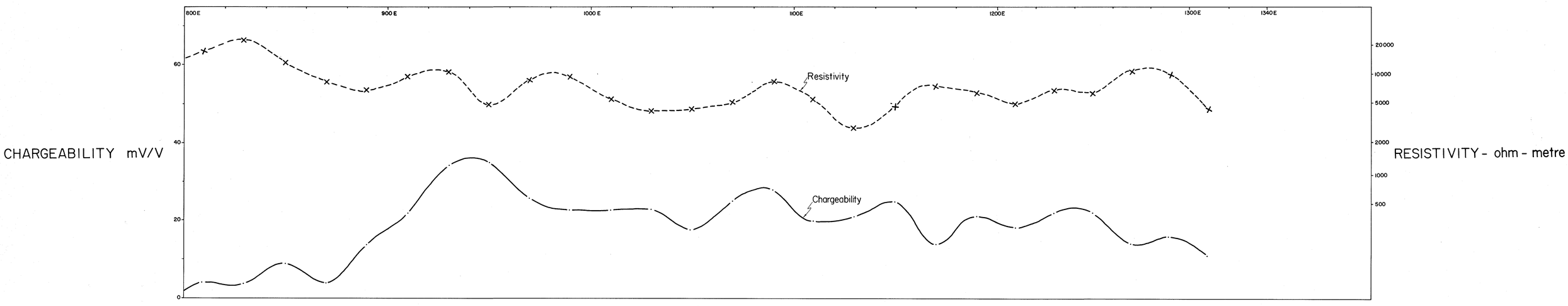


GROUND E.M. Genie Survey. Slingram array. 50 m separation

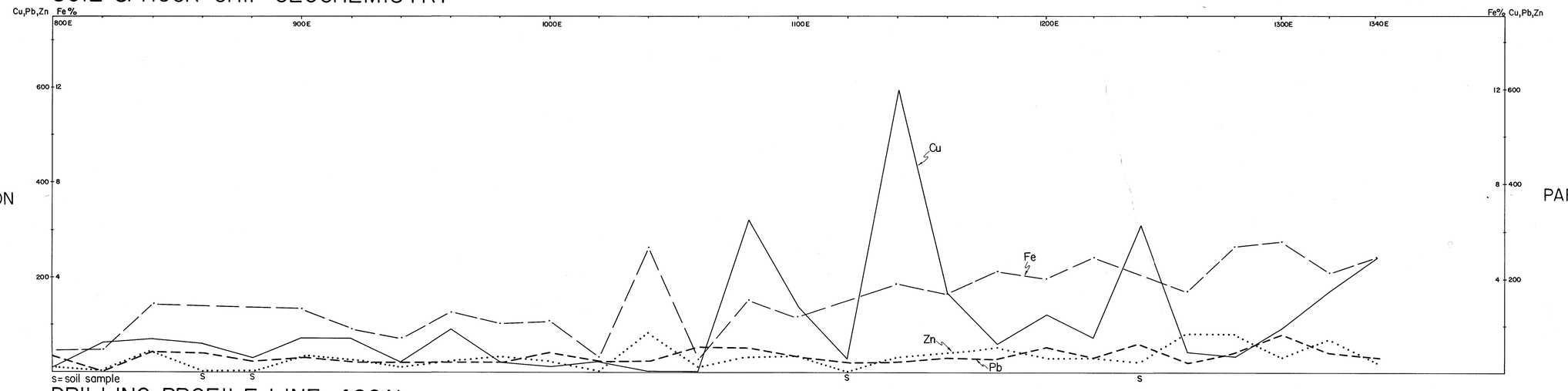
W Rx Tx E
plotting point



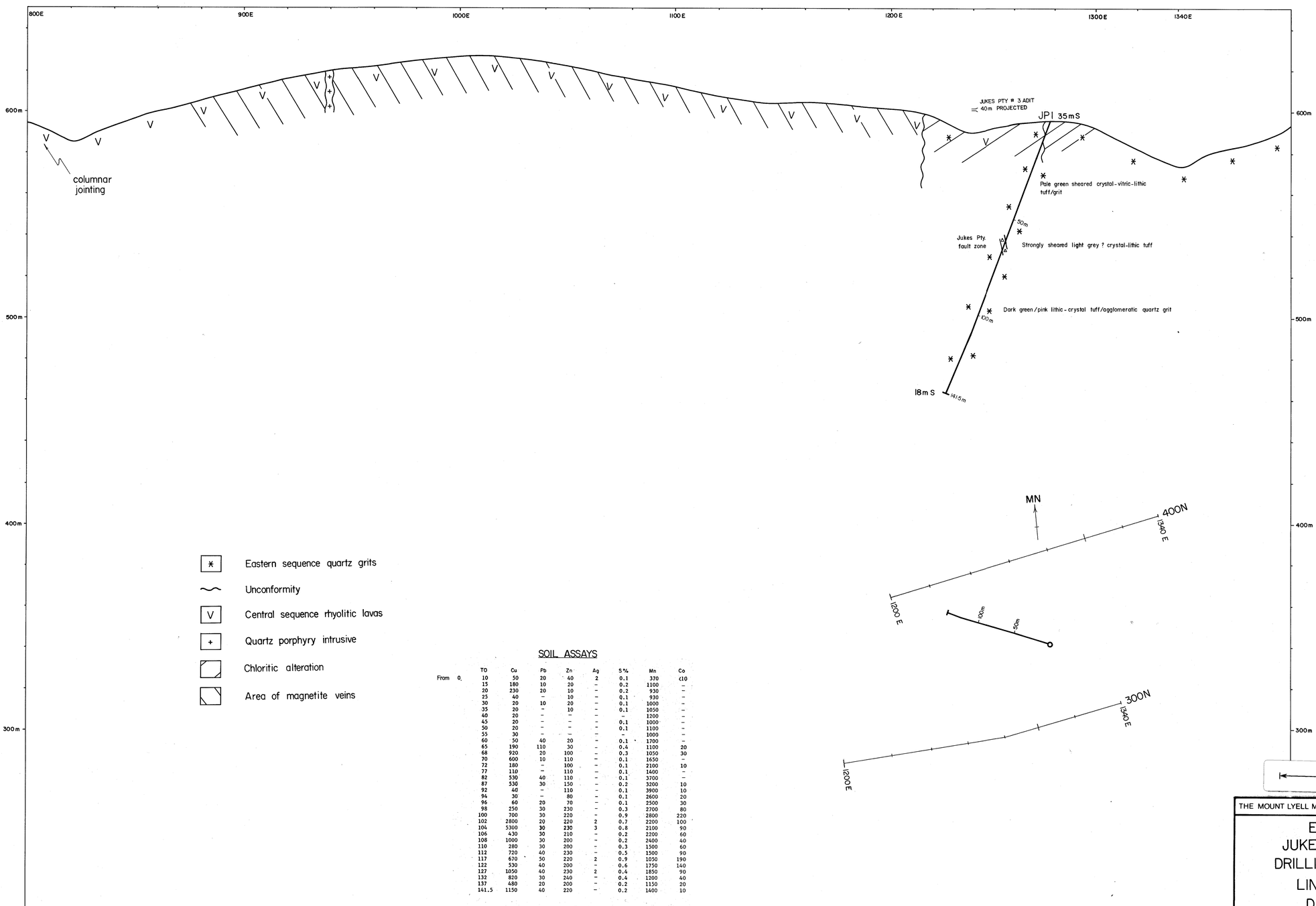
E.I.P. GRADIENT ARRAY Scintrex 1982 a = 20m



SOIL & ROCK CHIP GEOCHEMISTRY



DRILLING PROFILE LINE 400N



SOIL ASSAYS

	TO	Cu	Pb	Zn	Ag	S%	Mn	Co
From 0.	10	50	20	40	2	0.1	370	<10
	15	180	10	20	-	0.2	1100	-
	20	230	20	10	-	0.2	930	-
	25	40	-	10	-	0.1	930	-
	30	20	10	20	-	0.1	1000	-
	35	20	-	10	-	0.1	1050	-
	40	20	-	-	-	-	1200	-
	45	20	-	-	-	0.1	1000	-
	50	20	-	-	-	0.1	1100	-
	55	30	-	-	-	-	1000	-
	60	50	40	20	-	0.1	1700	-
	65	190	110	30	-	0.4	1100	20
	68	920	20	100	-	0.3	1050	30
	70	600	10	110	-	0.1	1650	-
	72	180	-	100	-	0.1	2100	10
	77	110	-	110	-	0.1	1400	-
	82	530	40	110	-	0.1	3700	-
	87	530	30	150	-	0.2	3200	10
	92	40	-	110	-	0.1	3900	10
	94	30	-	80	-	0.1	2600	20
	96	60	20	70	-	0.1	2500	30
	98	250	30	230	-	0.3	2700	80
	100	700	30	220	-	0.9	2800	220
	102	2800	20	220	2	0.7	2200	100
	104	5300	30	230	3	0.8	2100	90
	106	430	30	210	-	0.2	2200	60
	108	1000	30	200	-	0.2	2400	40
	110	280	30	200	-	0.3	1500	60
	112	720	40	230	-	0.5	1500	90
	117	670	50	220	2	0.9	1050	190
	122	530	40	200	-	0.6	1750	140
	127	1050	40	230	2	0.4	1850	90
	132	820	30	240	-	0.4	1200	40
	137	480	20	200	-	0.2	1150	20
	141.5	1150	40	220	-	0.2	1400	10

5 cm

THE MOUNT LYELL MINING & RAILWAY COMPANY LTD.

E.L. 9/66
JUKES PTY. GRID
DRILLING PROFILE
LINE 400N
D.D.H. JP1

REVISIONS

SCALE 1:1000 | DRAWN BY M. HUTTON
DATE 11-6-82 | DRAFTSMAN S. FREER

FIG. 82
AO-226

1:1,000

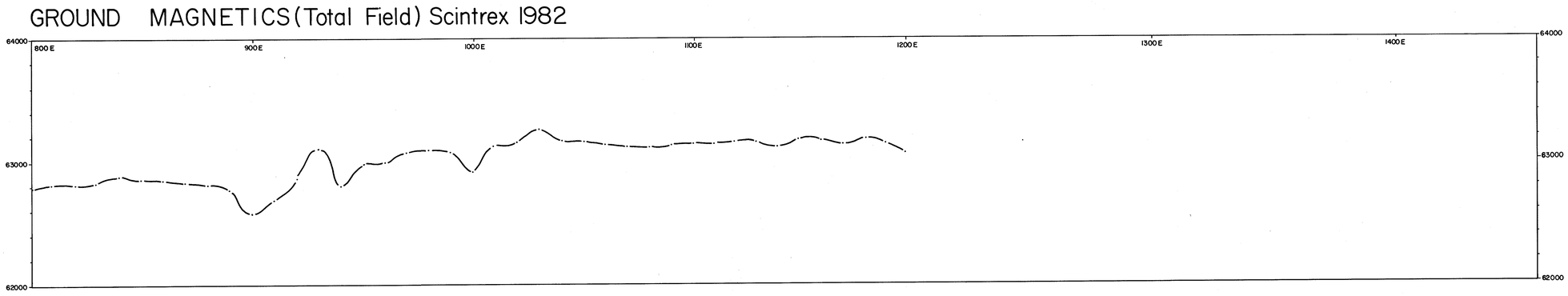
JUKES

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

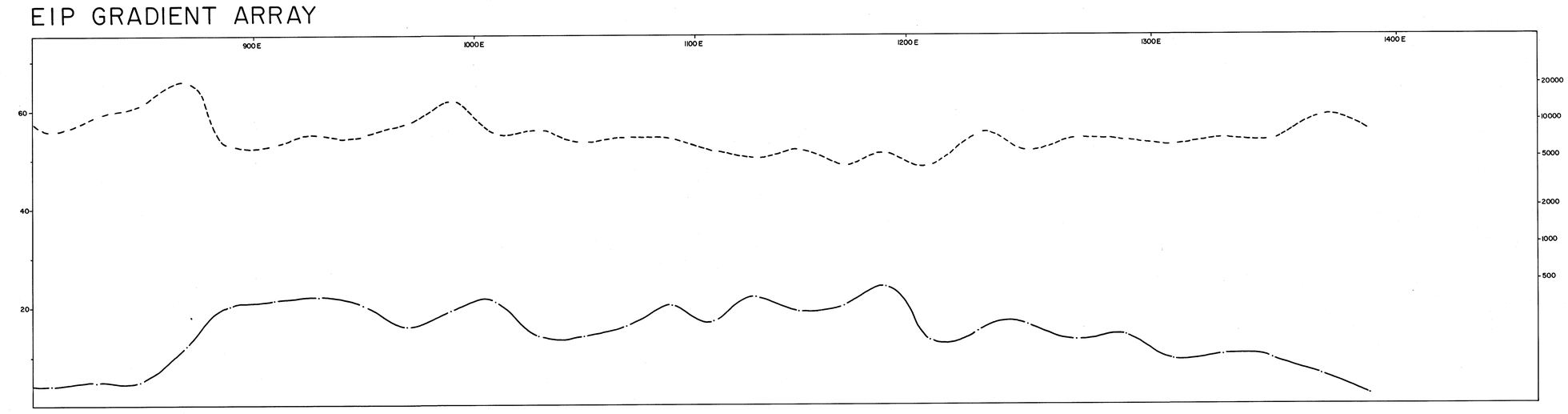
COMPOSITE DRILL SECTION

D.D.H. J.P. 2

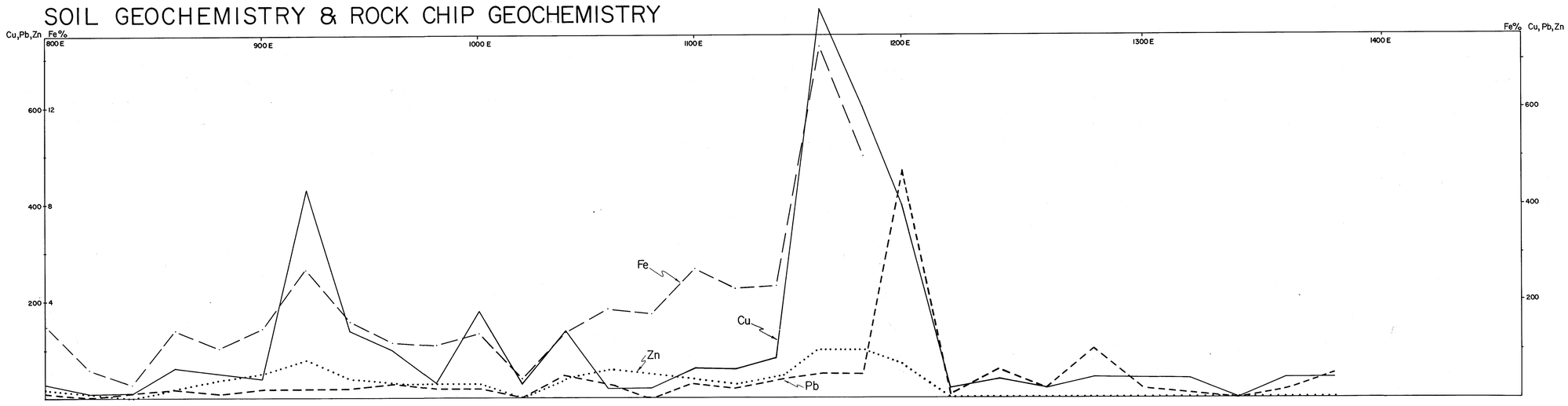
GROUND MAGNETICS (Total Field) Scintrex 1982



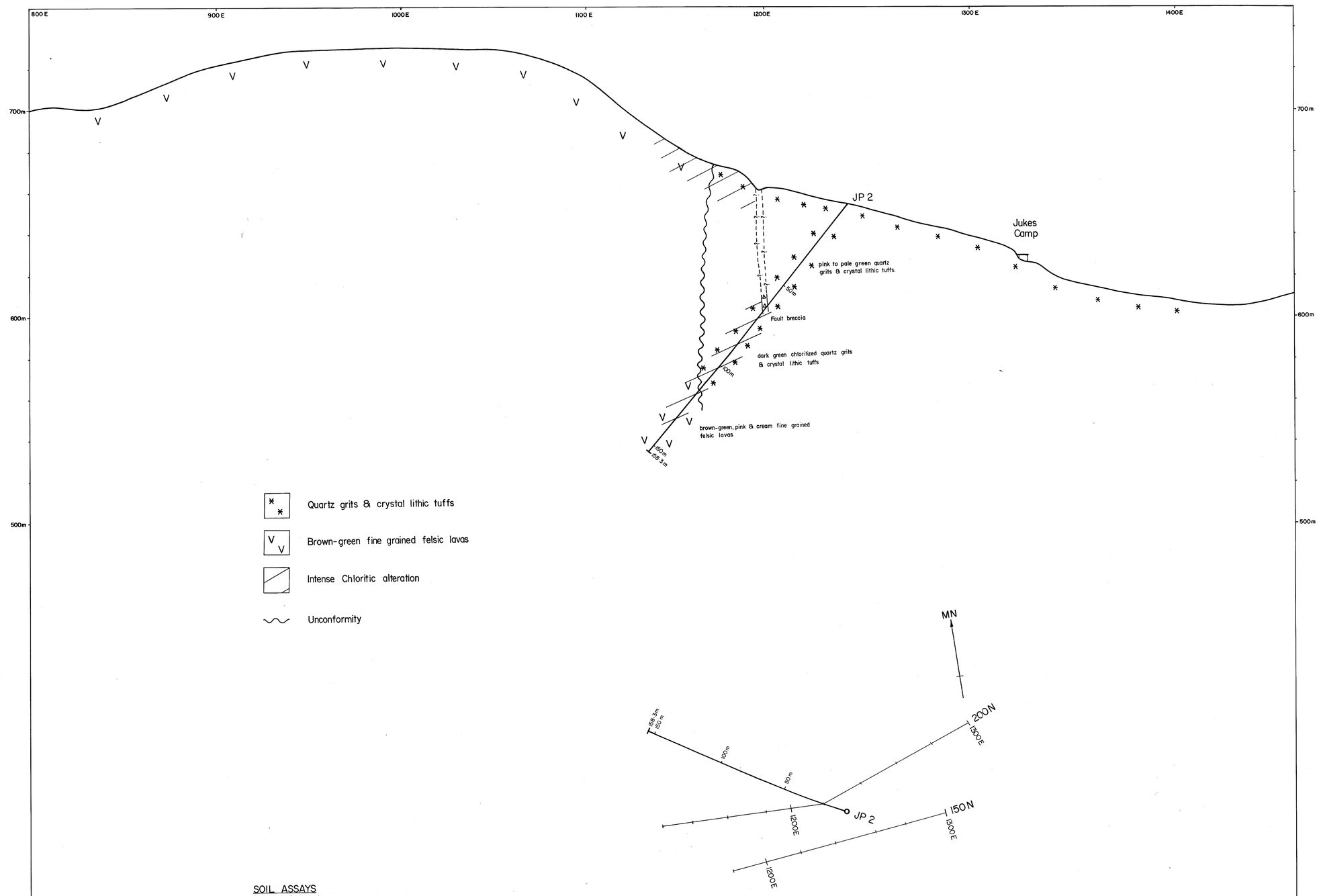
EIP GRADIENT ARRAY



SOIL GEOCHEMISTRY & ROCK CHIP GEOCHEMISTRY



DRILLING PROFILE LINE 200 N



SOIL ASSAYS

	From	To	Cu	Pb	Zn	Ag	Mg	S%
	61.6	63.3	1.36 %	–	130	5	10000	1.5
		65.0	0.76 %	10	130	4	10000	1.0
		66.0	1.06 %	30	320	4	2300	1.3
		67.0	1.38 %	30	200	6	6700	1.4
		68.0	1.58 %	40	190	6	7300	1.8
		69.0	2.72 %	40	230	10	3000	3.0
		70.0	0.80 %	30	220	3	1200	0.8
		71.0	2.18 %	40	230	8	1300	2.3
		72.0	1.46 %	40	240	6	1400	1.6
		73.0	2.46 %	70	240	9	1600	2.8
		74.0	2.26 %	50	240	8	1600	2.6
		75.0	1.98 %	50	210	6	1100	2.1
		76.0	0.76 %	50	210	3	1000	0.7
		77.0	3600	30	230	2	850	0.6
		78.0	1200	40	230	2	1100	0.4
		79.0	1600	30	220	–	800	0.4
		80.0	340	30	190	–	650	0.3
		85.0	460	40	170	–	1000	0.1
		90.0	250	70	110	–	680	0.4
		95.0	340	90	130	–	550	0.3
		100.0	390	40	110	–	590	0.1
		105.0	80	20	100	–	250	0.1
		110.0	920	60	130	–	530	0.4
		115.0	760	50	90	2	590	0.2
		120.0	2200	100	110	–	700	0.4
		125.0	250	30	80	–	620	0.2
		130.0	570	100	140	–	1100	0.1
		135.0	320	50	130	–	640	0.2
		140.0	960	210	200	–	1200	0.3
		145.0	1050	350	200	–	1300	0.1
		150.0	1500	30	180	–	620	0.4
		155.0	2600	120	210	–	710	0.4
		158.3	3300	90	240	–	1200	0.6

5 cm

THE MOUNT LYELL MINING & RAILWAY COMPANY LTD.

E.L. 9/66
JUKES PTY. GRID
DRILLING PROFILE
LINE 200N
D.D.H. JP 2

REVISIONS

FIG. 83

SCALE 1:1000
DATE 12-6-82
DRAWN BY M. HUTTON
DRAFTSMAN S. FREER

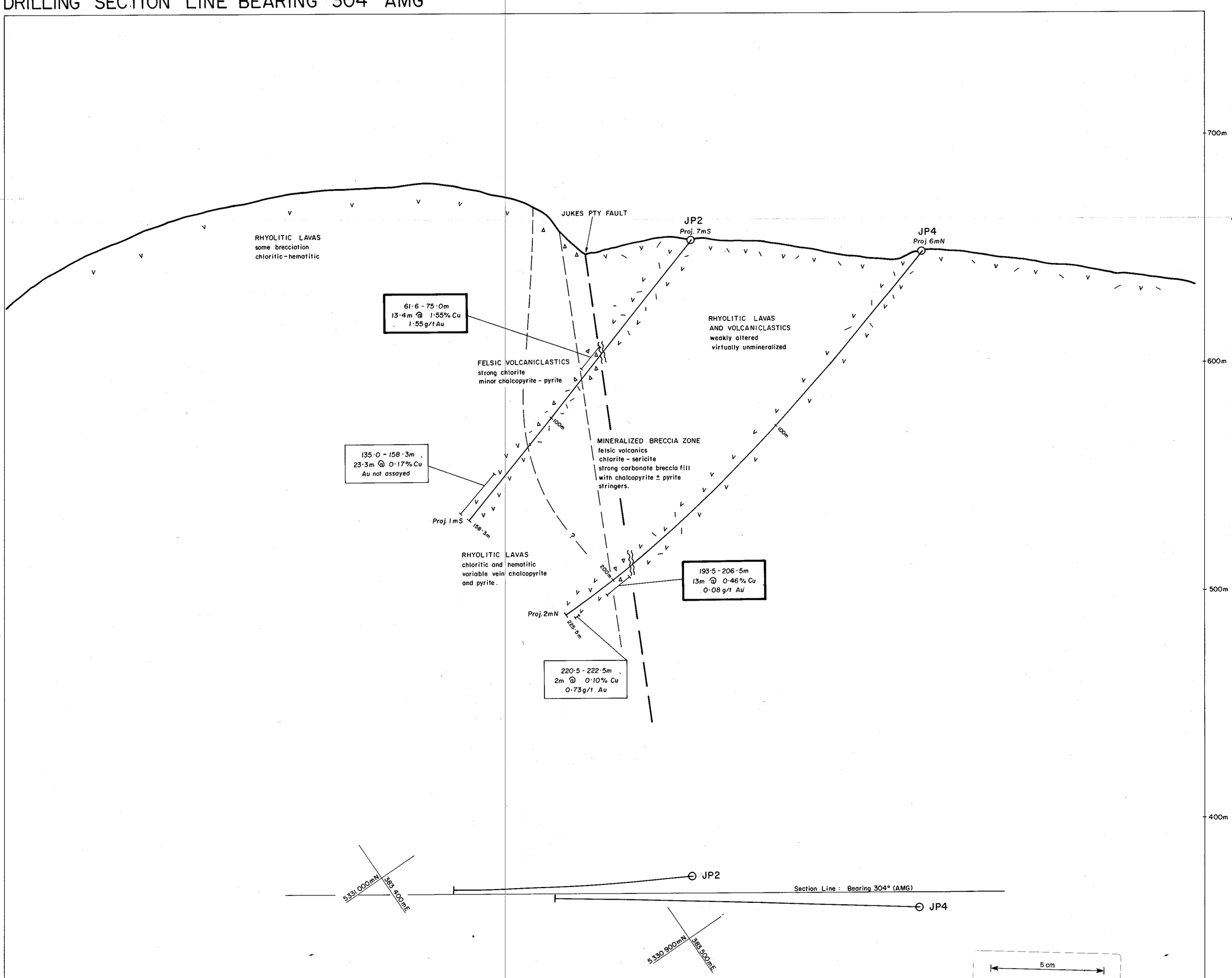
AO-227

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

9

JUKES PTY
1:1000
DRILL SECTION
304° AMG
HOLES JP2 & JP4

DRILLING SECTION LINE BEARING 304° AMG



5 cm

GOLDFIELDS EXPLORATION PTY. LIMITED

E.L. 9/66
JUKES PTY
DRILL SECTION 304° AMG
HOLES JP2 & JP4

DRAWN BY : F.G.F.
DRAFTSMAN: G.M.B.
DATE : May '87
REVISIONS :
FILE NO.

SCALE 1:1000 20 10 0 20 40 Metres

FIG. 9

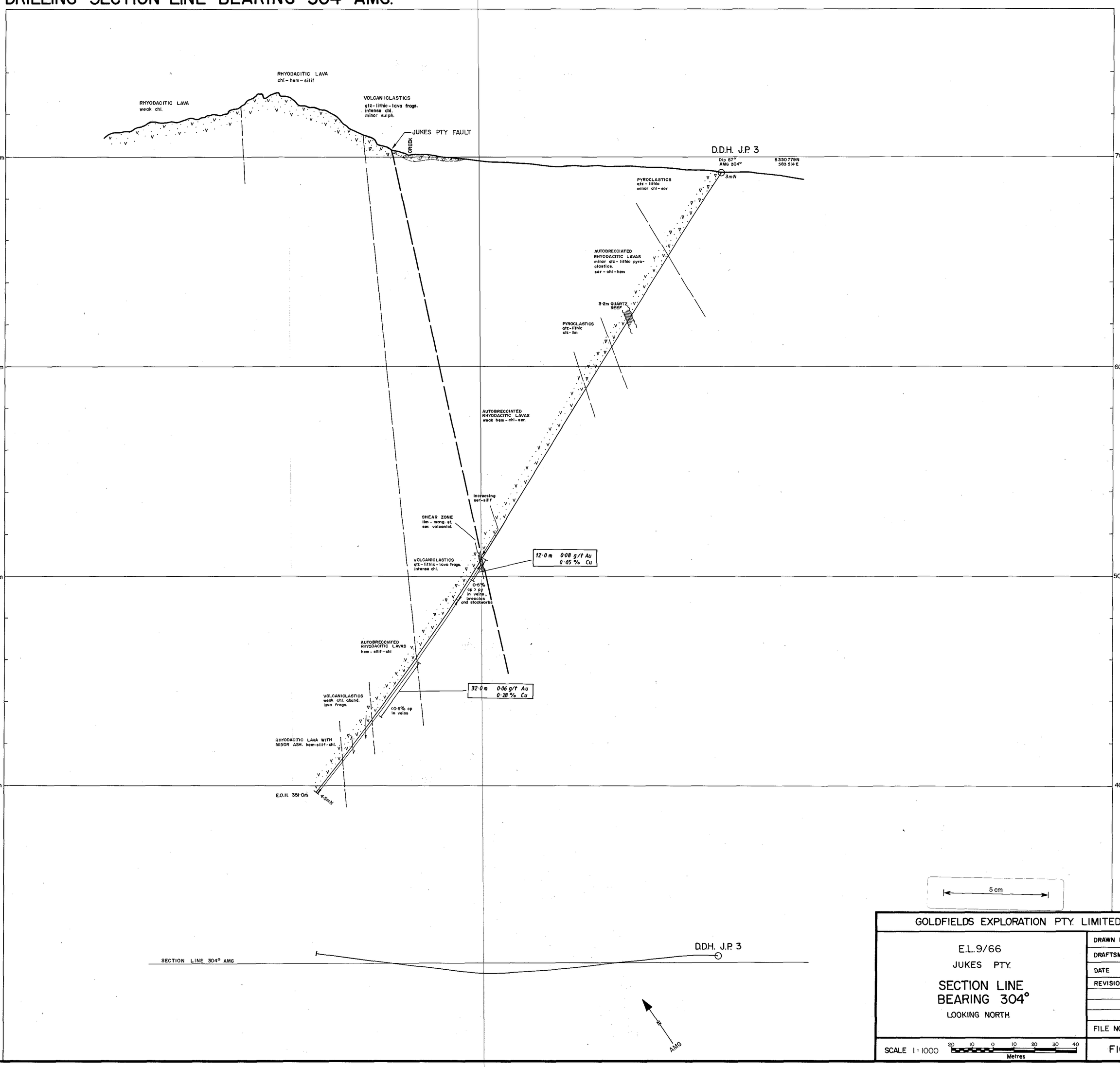
1:1,000

DRILL PROFILE
SECTION LINE
BEARING 304°

JUKES PTY.
D.D.H. J.P 3

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION
31

DRILLING SECTION LINE BEARING 304° AMG.



5 cm

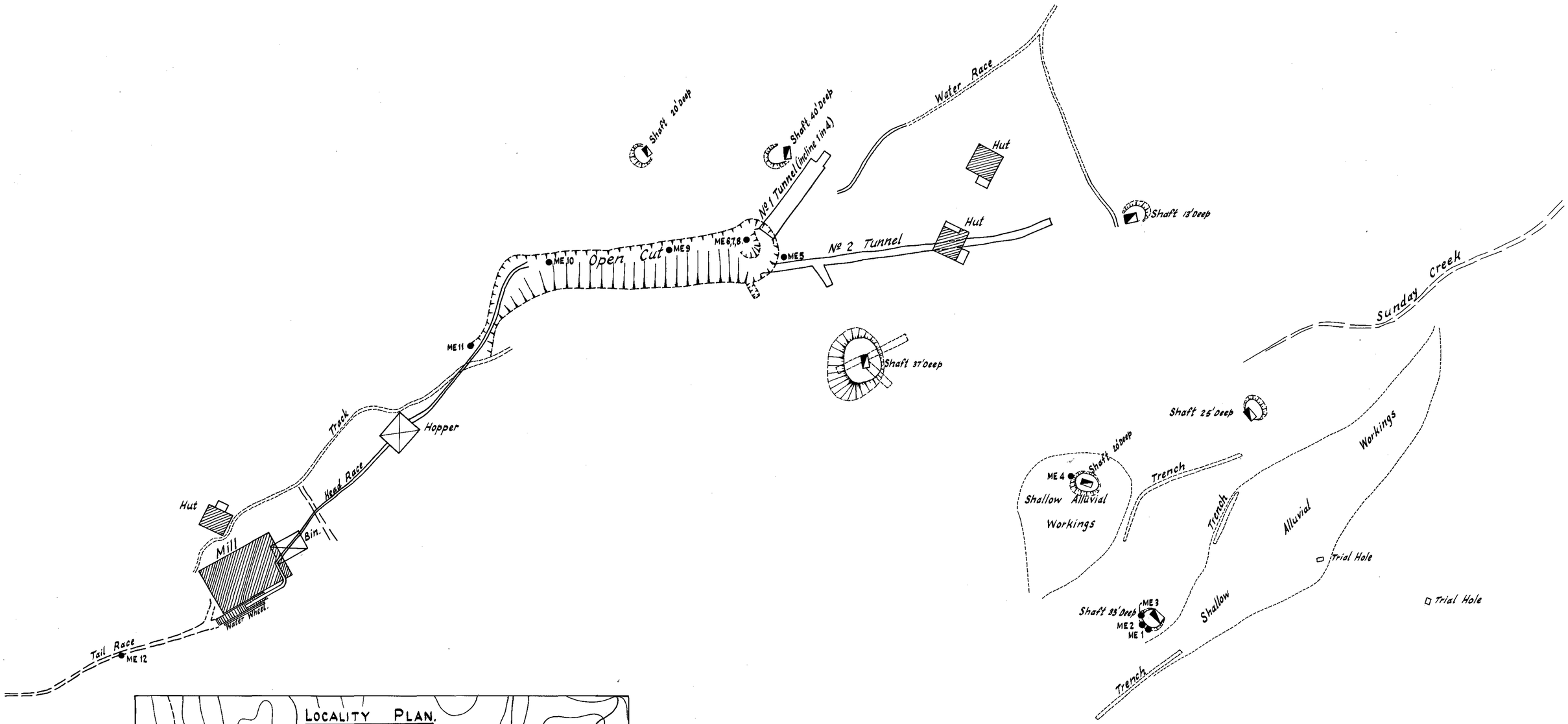
GOLDFIELDS EXPLORATION PTY. LIMITED	
E.L. 9/66 JUKES PTY. SECTION LINE BEARING 304° LOOKING NORTH	DRAWN BY : A.C. DRAFTSMAN: T.G.D.S. DATE : May '84 REVISIONS : FILE NO.
SCALE 1 : 1000 20 10 0 10 20 30 40 Metres	FIG. 3

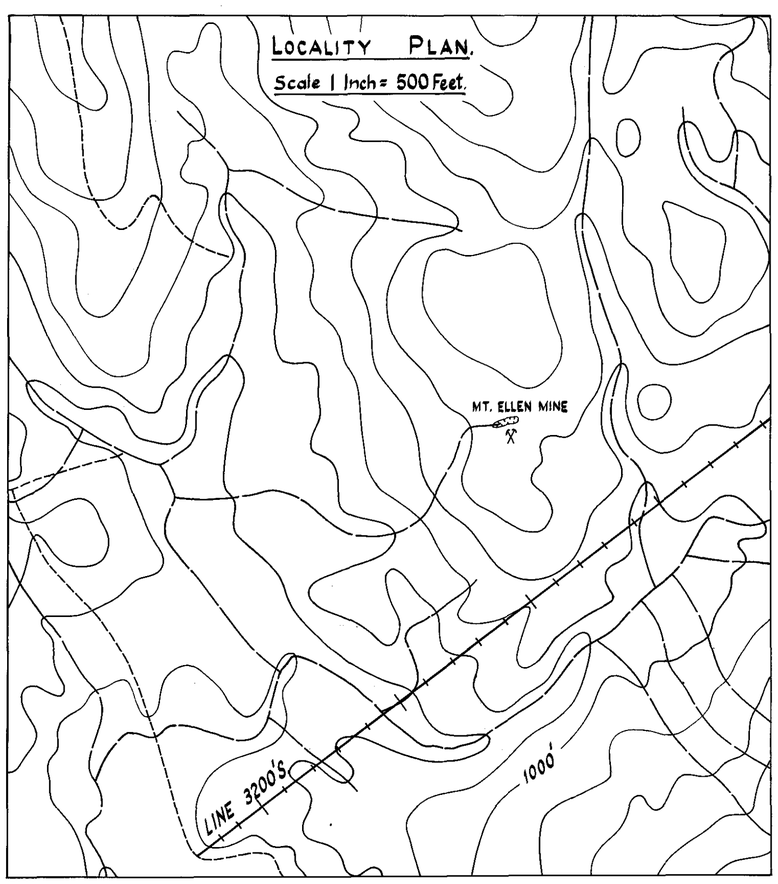
1:360

MT. ELLEN MINE (S. of LYELL)

MINE PLAN + SAMPLE RESULTS 1976

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION





ASSAY DATA 1976

	Cu	Pb	Zn	Au	Ag (p.p.m.)
ME 1	156	21	57	0·05	N.D.
ME 2	197	6	10	0·01	"
ME 3	323	15	61	<0·01	"
ME 4	255	22	17	0·50	"
ME 5	141	8	15	0·04	"
ME 6	133	6	23	0·07	"
ME 7	165	3	31	0·02	"
ME 8	157	32	138	4·60	"
ME 9	541	7	21	0·33	"
ME 10	231	20	29	0·03	"
ME 11	87	11	14	0·25	"
ME 12	119	373	36	6·20	"
AVERAGE OF 12 SAMPLES.	209	44	43	1·10	

5 cm

MAP 7

THE MT. LYELL M. & R. CO. LTD.

DORA-HUXLEY AREA
MT. ELLEN GOLD MINE

DRAWN. P.B.
CHECKED.
DATE. April 1976
SCALE. 1" = 30'

1:10,000

AREA SOUTH OF QUEENSTOWN

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

33

76 77 78 79 80 81 82 83 84

42 41 40 39 38 37 36 35 34 33 32

EL 9/66

Kubler Creek

Explorers

Rail Trace

Creek

SEALED ROAD BRIDOF
VEHICULAR TRACK
LOGGING TRACK BULLDOZER SCAR
WALKING TRACK
RAILWAY TRAMWAY ABANDONED
PROMINENT PEAK
TRIG STATION
BENCH MARK
SPOT ELEVATIONS
POWER LINE & PYLON
BUILDING
FLYING FOX
PIT
COSTEAN TRENCH
ADIT
SHAFT(depth metres)
OPEN CUT
ALLUVIAL WORKINGS
DUMP

THE MOUNT LYELL MINING & RAILWAY COMPANY LTD.

HUXLEY AREA

5 cm

REVISIONS

SCALE 1:10000
DATE 21-6-82
DRAWN BY P. KOMYSHAM
DRAFTSMAN S. FREER
A0-225-

5331000mN
376000mE

1:15,840

KING RIVER GORGE
(S. of LYELL)
GEOLOGY-OUTCROP

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

5 cm

MAPPING IN THE KING RIVER GORGE

BY K.W. & J.C. 9-2-72

SCALE: APPROX. 4":1 MILE

CAMBRIAN SECTION POSSIBLY THE CORE OF AN ANTICLINE:
OWEN CONGLOMERATE DIPS AWAY ON FLANKS,
JUKES BRECCIA ? IS REPEATED ON BOTH SIDES,
BOTH COARSENING TOWARDS THE CONGLOMERATE.
OWEN CONGLOMERATE HAS NUMEROUS SMALL TIGHT FOLDS.
MANY QUARTS FILLED TENSION GASHES.
CAMBRIAN TUFFS HAVE NUMEROUS SMALL FAULTS.

TRUE NORTH

N

GREY/PINK MEDIUM GRAINED TUFF BROKEN AND SHEARED OUT
FRAGMENTS OF PINK ACID LAVA AND MANY SMALL
ROUNDED CLEAR QUARTZ CRYSTALS.
(SPECIMEN⑤)

OWEN CONGLOMERATE
DIPPING WEST APPROX.50°

JUKES BRECCIA ?
VERY SIMILAR TO④
LARGER FRAGMENTS
TEND TO DISAPPEAR
EASTWARDS

GREY/PINK TUFF SHEARING 320°
VERY SIMILAR TO ⑤&⑥
PINK FRAGMENTS, ACID LAVA & QUARTZ CRYSTALS
ALSO LARGER ROCK FRAGMENTS UP TO 1" LONG
AND ½" WIDE

SHEARED PURPLISH GRIT WITH
FRAGMENTS OF QUARTZ, CHERT
AND ACID LAVA UP TO 9"
USUALLY UP TO 2" SHEARING 340°
(SPECIMEN④)
JUKES BRECCIA ? LARGER
FRAGS. DISAPPEAR WESTWARDS

SMALL TIGHT FOLDING IN SANDSTONE
WAVE LENGTHS 15'-20'
STRIKE APPROXIMATELY 305°

DARK GREEN/GREY
VERY HARD CHERTY TUFF
(SPECIMEN⑨)

DARK GREY/PURPLE (HEMATITIC) OWEN SANDSTONE
WITH QUARTZ FILLED TENSION GASHES
DIP AND STRIKE VARIABLE (270°/35°S.)

BROWNISH COARSE GRAINED SILICEOUS
QUARTZ, FELDSPAR CRYSTAL TUFF
FAIRLY MASSIVE & VERY POORLY SHEARED
(SPECIMEN⑧)

SANDSTONE AND FINE CONGLOMERATE DIPPING STEEPLY EAST (70°-80°)
BEDDING 325° - POSSIBLY OF A LARGE ANTICLINE
OR COULD BE A VERY LARGE FALLEN BLOCK
MANY QUARTZ FILLED TENSION GASHES

PINK MEDIUM GRAINED TUFF
VERY SIMILAR TO⑤ BUT
MORE FRAGMENTS OF ACID LAVA
AND VERY FEW QUARTZ CRYSTALS
SHEARING 315°/54° S.W.
(SPECIMEN⑥)

MAP 8

DRAWN: R.G.WILSON 7th AUGUST 1972

1:6,000

ROARING MEG (S. of LYELL)

GEOLOGY

INTERPRETATIVE SECTION

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

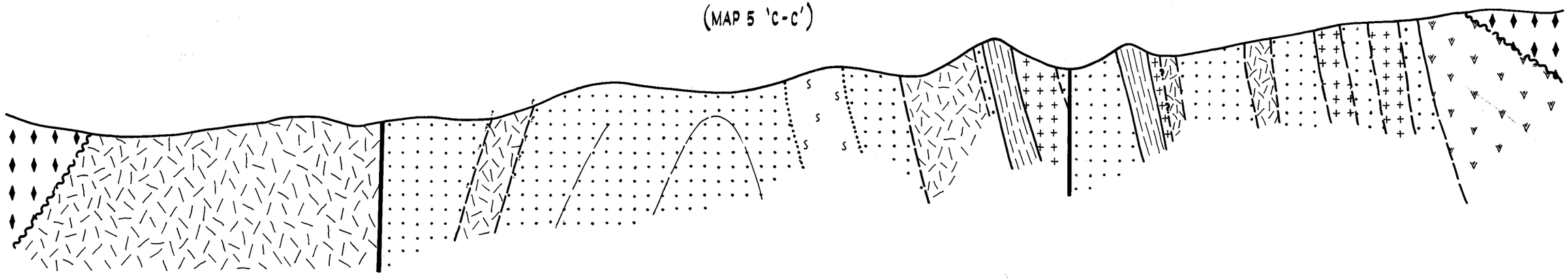
WEST.

EAST.

FIG. 3

SECTION THROUGH ROARING MEG CREEK - MINER'S SLATE RIDGE.

(MAP 5 'C-C')



SCALE: 1:6000. HORIZONTAL & VERTICAL.

NOTE: REFER TO MAP 5 FOR KEY.

5 cm

1:1,000

HUXLEY AREA

DRILL HOLE SECTION HX1

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

GOLDFIELDS EXPLORATION PTY. LIMITED

DRAWN BY : F.E
DRAFTSMAN: S.E
DATE : Nov. 86
REVISIONS :

EL.9/66 - TYNDALL
HUXLEY AREA
DRILL SECTION HX 1

FILE NO.

SCALE 1:1000 Metres 20 10 0 20 40

FIG. 21

5 cm

On section

WELDED IGNIMBRITE
Weakly altered

MAFIC DYKE ch.

vein sp-gn-py

PELITIC ASH Silt
crystal bearing

WELDED IGNIMBRITE
Weakly altered

minor sp-py-trp

22m @ 0.08%Pb.
0.27%Zn.
1.5g/t Ag
including
2m @ 0.16% Pb
0.56%Zn
3g/t Ag

Pseudom vein py-sp & tr gn
-cpy + dissem
total sulphide 1-5 %

MIXED EPICLASTIC SEDIMENT:
BLACK SHALE/GRAPHITIC,
TUFFACEOUS SILTSTONE, SANDSTONE
& CONGLOMERATE
Soft sediment deformation
mod carb.-qtz. veinets

FELSIC PYROCLASTICS
weakly altered with only trace
veinlet sulphide mineralization

Volcaniclastic
Weak chl.-ser

tr sp veins

100m

GRAPHITIC BLACK SHALE - TUFFACEOUS SILTSTONE, SANDSTONE & CONGLOMERATE
Moderate vein & dissemination sulphide mineralization

DACITIC LAVA
Weakly altered & mostly unmineralized

DACITIC LAVA
Weak chl

minor py

DACITIC LAVA
Breccia

DACITIC LAVA
Weakly altered
magnetic

FELSIC VOLCANICLASTICS

GLACIAL MORAINE

CHLORITIC TUFFS
minor pyrite - sphalerite
mineralization

ISLAND RIDGE

LINE 75,175mW

LINE 65,250mW

PYROCLASTIC SCREE

HX 1
On section

FELSIC IGNIMBRITES

LINE 45,425mW

IP ANOMALY

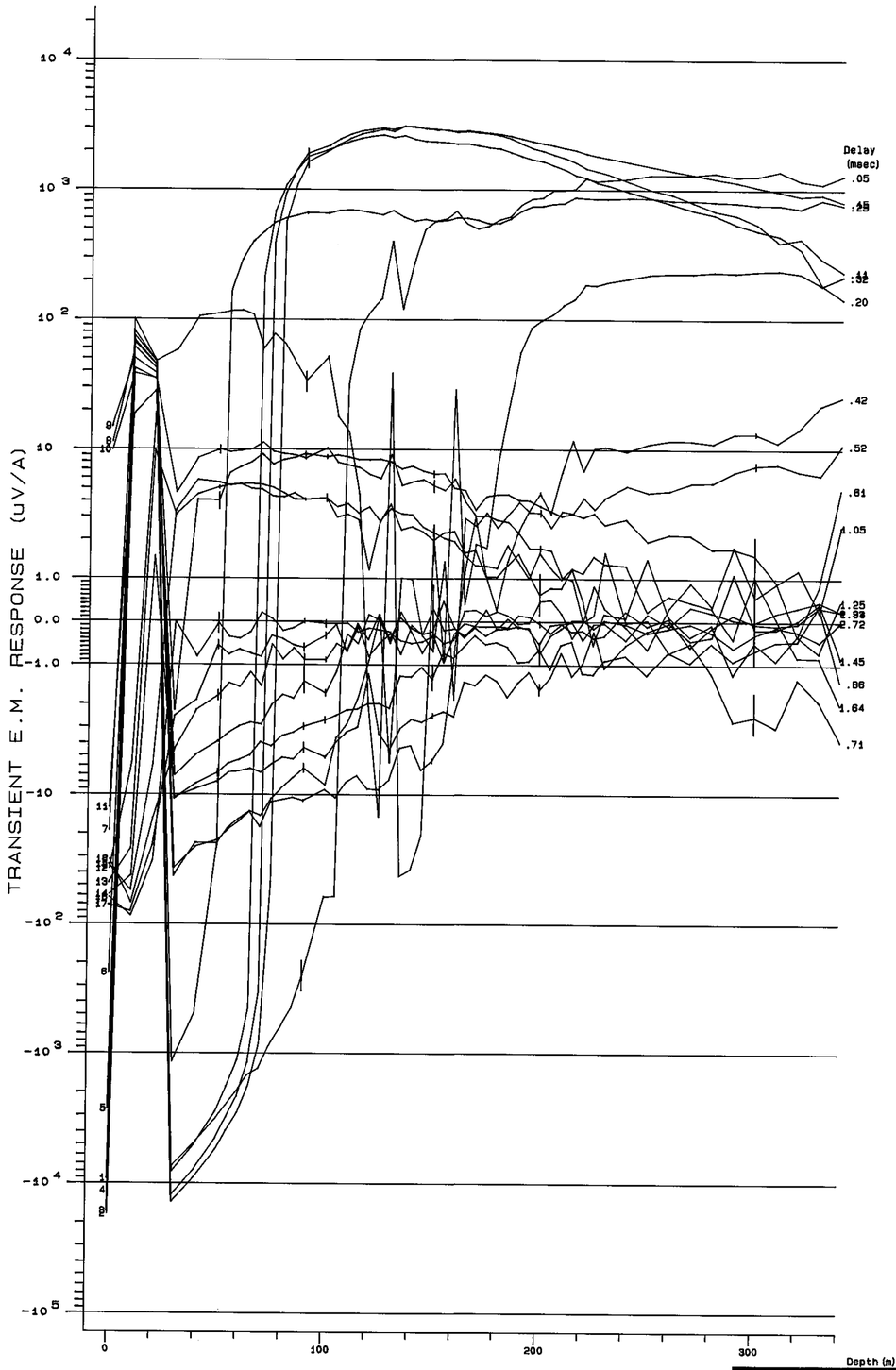
SECTION 120° AMG

DRILLING PROFILE LINE

HEIGHT ABOVE SEA LEVEL

300m
400m
500m
600m

3829000mE
383000mE
383100mE
383200mE
383 300mE



GOLDFIELDS EXPLORATION PTY.LTD.
QUEENSTOWN, TASMANIA
HUXLEY (JOB NO.613A)
HOLE HX-1 14.0 AMPS
SIROTEM Survey by SOLO Geophysics & Co. 15/ 2/86
SOLO hole ref.502 Reading interval 5.0 m
SCALE 1 : 2000 Loop size : 150 m
LOOP configuration : Drill hole
Plotted : 3:07 PM 27/ 5/86

5 cm

GOLD FIELDS EXPLORATION PTY. LIMITED

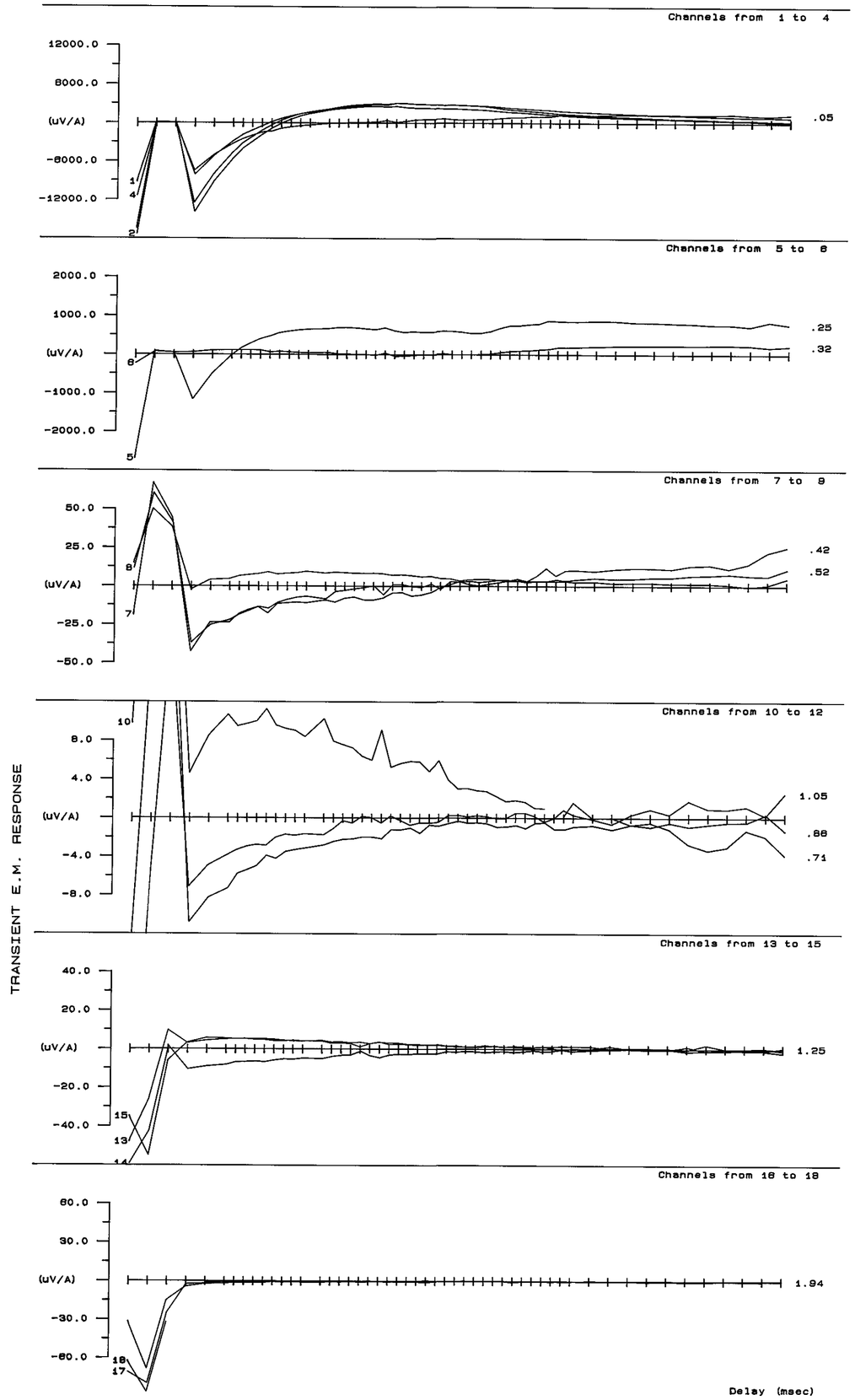
Huxley (E.L.9/66)
DHEM SURVEY
Hx1 : log-lin plot

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

SCALE 1:2000 Metres

FIG.10a

SOLO



TRANSIENT E.M. RESPONSE

0m 50m 100m 150m 200m 250m 300m

GOLDFIELDS EXPLORATION PTY.LTD.
QUEENSTOWN, TASMANIA
HUXLEY (JOB NO.613A)
HOLE HX-1 14.0 AMPS
SIROTEM Survey by SOLO Geophysics & Co.
SOLO hole ref.502 Reading interval 5 m
SCALE 1 : 2000 Loop size : 150 m
LOOP configuration : Drill hole
Plotted : 4:36 PM 27/ 5/86

5 cm

GOLD FIELDS EXPLORATION PTY. LIMITED

Huxley (E.L. 9/66)
DHEM SURVEY
Hx1 : lin - lin plot

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

SCALE 1:2000 Metres

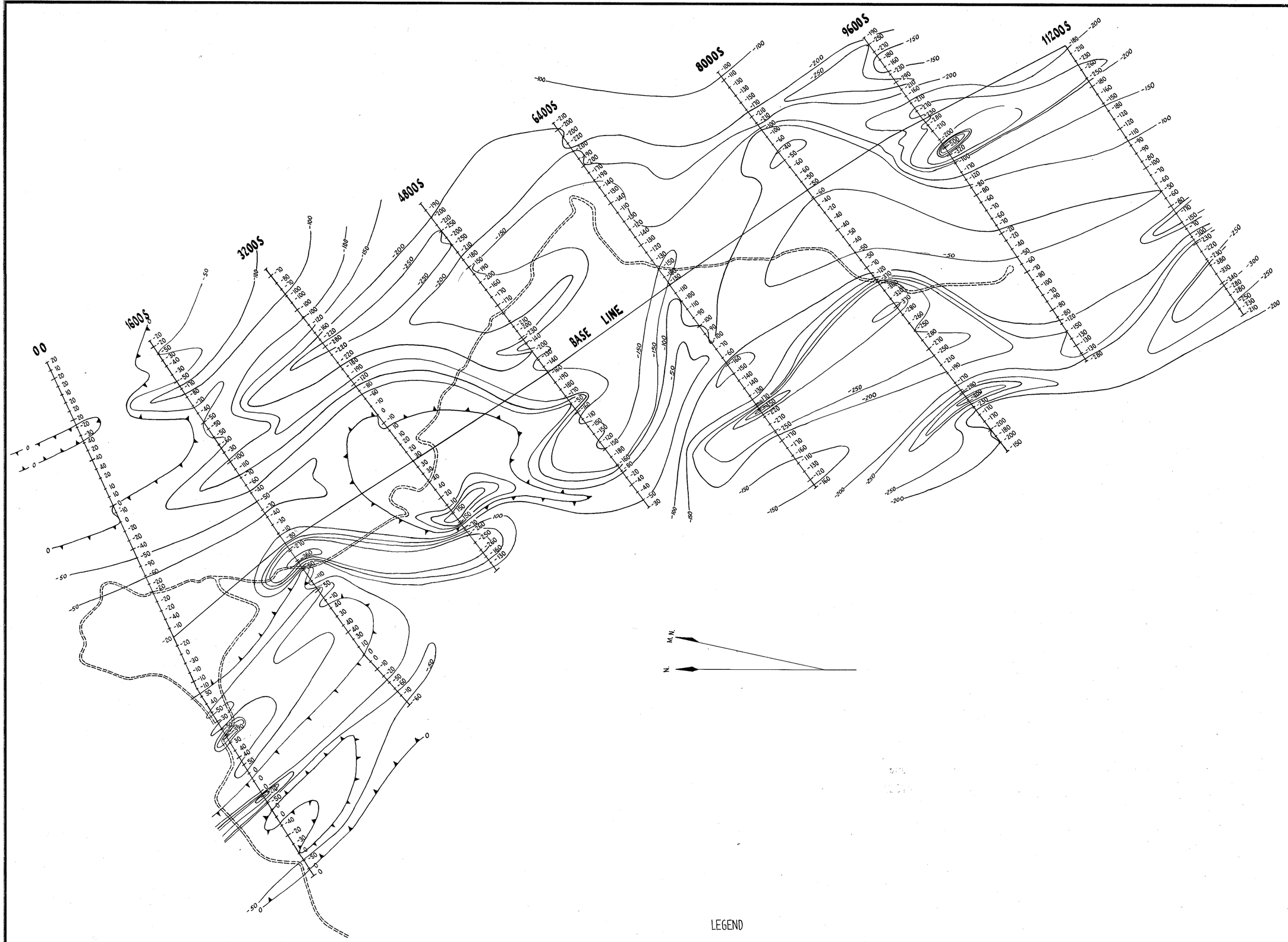
FIG.10b

SOLO

SIROTEM SURVEY DDHX-1

HUXLEY

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION



LEGEND

- GREATER THAN + 150 GAMMAS
- + 150 TO 0
- 0 TO -150
- -150 TO -300
- -300 TO -450
- -450 TO -600
- LESS THAN -600 GAMMAS

CONTOUR INTERVAL 50 GAMMAS

5 cm

THE MOUNT LYELL M. & R. COY LTD.	DRAWN BY K.W.
EXPLORATION DEPARTMENT	TRACED BY R.W.
DORA – HUXLEY AREA	CHECKED BY K.Walls.
E.L. 10/69	DATE 22-6-'72
HUXLEY GRID	SCALE 1 : 6000
MAGNETIC INTENSITY CONTOURS	MAP 6

TCR 94-3582
EL 9/69
HUXLEY-TUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

HUXLEY GRID
1:6000
GEOPHYSICS
MAGNETICS

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

HUXLEY AREA (S. of Queenstown) GEOLOGY INTERPRETATION 1976

LEGEND

QUATERNARY

- MORAINE AND/OR SCREE.

SILURO - DEVONIAN

- POST ORDOVICIAN SEDIMENTS.

ORDOVICIAN

- GORDON LIMESTONE.

CAMBRIAN

TYNDALL GROUP
- JUKES CONGLOMERATE.
- INTERBEDDED TUFFS AND SEDIMENTS.
- WEATHERED ACID LITHIC TUFFS.
- LAMINATED BLUE - GREY SHALES.
- COARSE GRAINED CHLORITIC CRYSTAL TUFF - COMSTOCK TUFF.

CENTRAL LAVA BELT — LITTLE OWEN PYROCLASTIC SEQUENCE
- WELDED TUFFS WITH MINOR LITHIC TUFF HORIZONS.
- MEDIUM - COARSE GRAINED INTERMEDIATE PYROCLASTICS.
- THINLY BEDDED GREY SHALES.
- ACID TUFFS MAINLY CRYSTAL LITHIC.
- FINE GRAINED ACID LAVAS.

QUEENSTOWN PYROCLASTICS
- QUARTZITE - RICH SANDSTONE / GRIT.
- FINE TO COARSE GRAINED CRYSTAL AND CRYSTAL LITHIC TUFFS WITH ISOLATED BLOCKS OF BLUE SHALE - DOMINANTLY PYROCLASTICS.
- LAPILLI TUFF WITH CHLORITIC MATRIX CONTAINING MINOR WELDED UNITS.
- TUFF BRECCIA WITH LARGE BLOCKS OF ACID LAVA UP TO 25 CM IN DIAMETER.
- FINE TO MEDIUM GRAINED LITHIC AND CRYSTAL LITHIC TUFFS WITH FREQUENT LAMINATED SHALE HORIZONS - DOMINANTLY SEDIMENTS.
- FINE TO COARSE GRAINED ACID CRYSTAL TUFF.
- UNDIFFERENTIATED PYROCLASTICS.

- UNDIFFERENTIATED CAMBRIAN VOLCANICS.
- QUARTZ - FELDSPAR PORPHYRY INTRUSIVES / EXTRUSIVES.
- BASIC, STRONGLY BRECCIATED FLOWS.
- INTERMEDIATE INTRUSIVES - PYROXENE FELDSPAR PORPHYRY.

- FAULT.
- POSSIBLE FAULT.
- GEOLOGICAL BOUNDARY.
- POSSIBLE GEOLOGICAL BOUNDARY.
- BEDDING AND FACING.
- FOLIATIONS.
- UNCONFORMITY.
- SYNCLINE AXIS.
- ANTICLINE AXIS.

UNDIFFERENTIATED POST - ORDOVICIAN LOWER PALAEOZOIC SEDIMENTS

UNDIFFERENTIATED POST ORDOVICIAN LOWER PALAEOZOIC SEDIMENTS

ORDOVICIAN SEDIMENTS

UNDIFFERENTIATED CAMBRIAN VOLCANICS

ANG COORDINATES

TRUE NORTH

5 cm

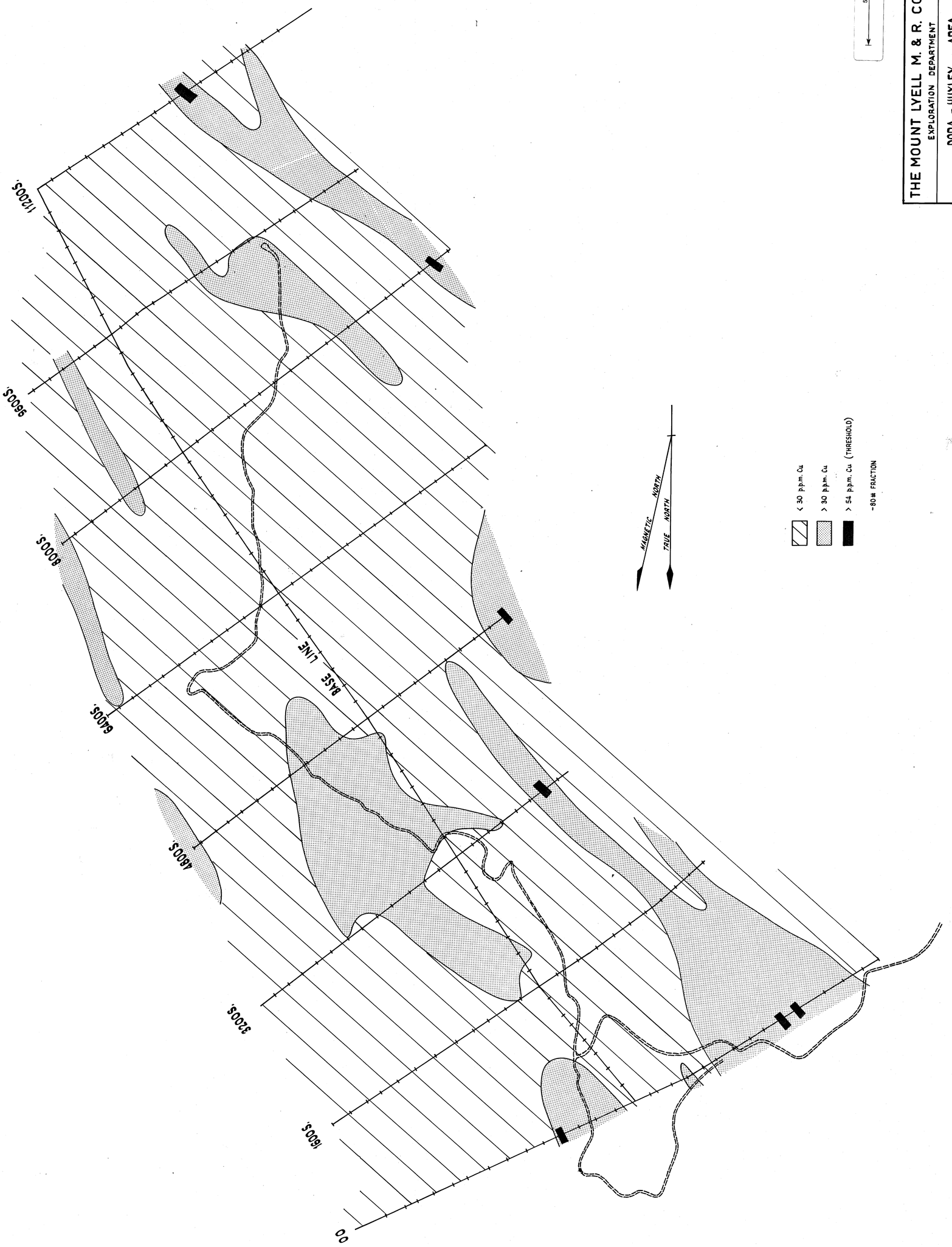
THE MOUNT LYELL M. & R. COY. LTD. GEOLOGICAL DEPARTMENT	DRAWN. P. BROPHY.
	TRACED. R.G.WILSON
	CHECKED.
DORA – HUXLEY AREA E.L. 10/69 ROARING MEG CREEK - MINER'S SLATE RIDGE GEOLOGICAL MAP	DATE. 4:6:'76
	SCALE. 1" = 500' 1:6000
	MAP 5

1:6,000

HUXLEY GRID

GEOCHEMISTRY SOIL RESULTS — Cu —

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION



THE MOUNT LYELL M. & R. COY. LTD.
EXPLORATION DEPARTMENT

DRAWN BY: P.B.
TRACED BY: R.G.W.
CHECKED BY:
DATE: 13:8:'75
SCALE: 1:6000

DORA - HUXLEY AREA
E.L.10/69
HUXLEY GRID
SOIL SAMPLING - COPPER

MAP 11

1:6,000

HUXLEY GRID

GEOCHEMISTRY

SOIL RESULTS - Pb -

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

41

5 cm

THE MOUNT LYELL M. & R. COY. LTD
EXPLORATION DEPARTMENT

DRAWN BY: P.B.
TRACED BY: R.G.W.
CHECKED BY:
DATE: 13·8·75
SCALE: 1:6,000

DORA - HUXLEY AREA
E.L.10/69
HUXLEY GRID
SOIL SAMPLING - LEAD

MAP 12

MAGNETIC NORTH
TRUE NORTH

< 30 p.p.m. Pb
> 30 p.p.m. Pb
> 75 p.p.m. Pb (THRESHOLD)
- 80# FRACTION

BASE LINE

11200S.
9600S.
8000S.
6400S.
4800S.
3200S.
1600S.
00

1:6,000

HUXLEY GRID

GEOCHEMISTRY SOIL RESULTS -Zn-

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

5 cm

THE MOUNT LYELL M. & R. COY. LTD
EXPLORATION DEPARTMENT

DORA - HUXLEY AREA
E.L.10/69
HUXLEY GRID
SOIL SAMPLING - ZINC

DRAWN BY: P.B.
TRACED BY: R.G.W.
CHECKED BY:
DATE: 13.8.'75
SCALE: 1:6,000

MAP 13

MAGNETIC NORTH
TRUE NORTH

< 30 p.p.m. Zn
> 30 p.p.m. Zn
> 40 p.p.m. Zn (THRESHOLD)
-80# FRACTION

BASE LINE

11200S.
9600S.
8000S.
6400S.
4800S.
3200S.
1600S.
00

1:10,000

AREA SOUTH OF QUEENSTOWN

STREAM SEDIMENT + ROCK CHIP SAMPLES

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

43

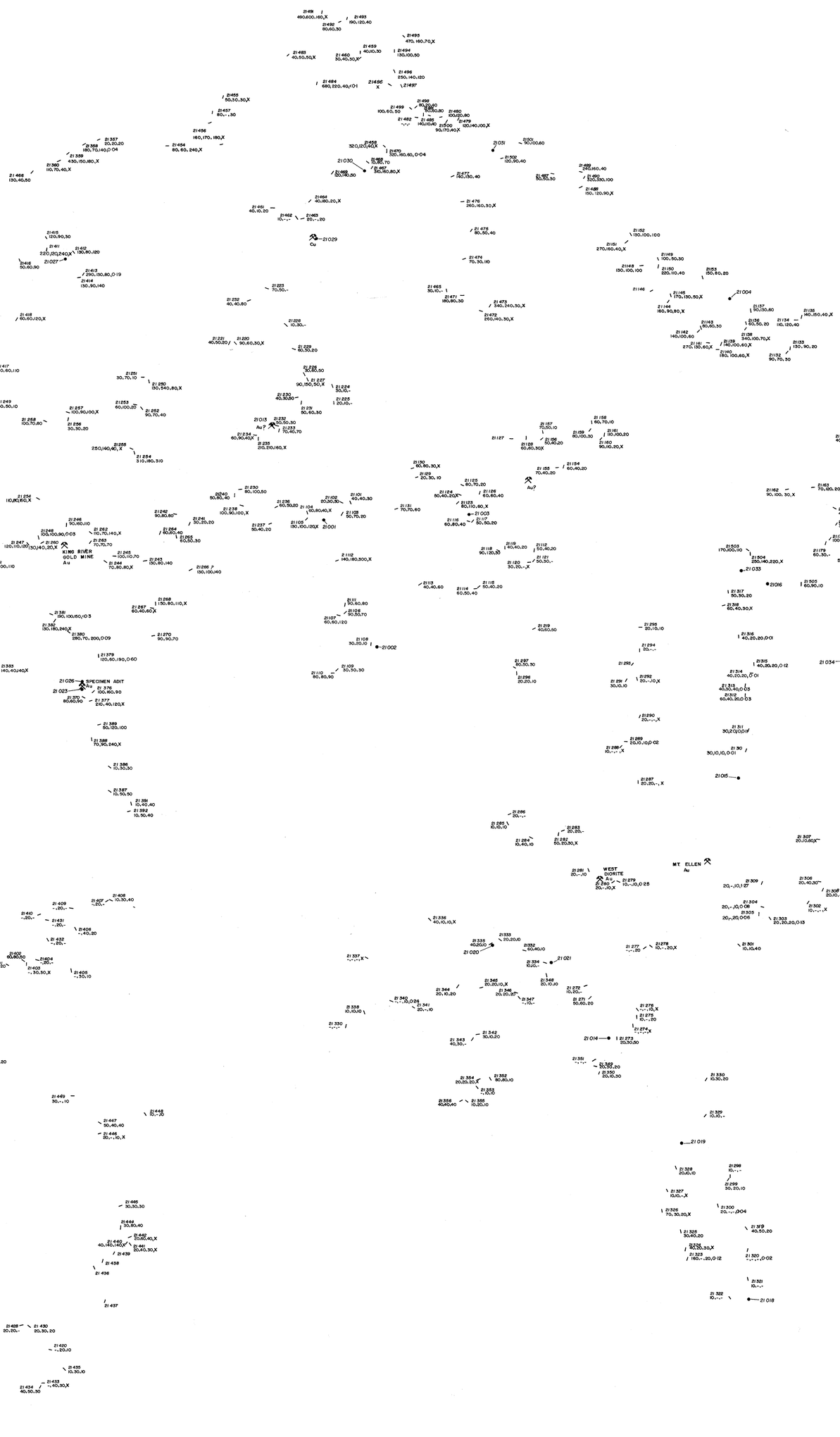
ROCK CHIP ASSAYS

Sample No.	Cu	Pb	Zn	Ag	Fe%	W%	Mn	Ba
21001	580	-	50	<2	2.3	0.1	1080	-
21002	230	10	60	-	4.5	<0.1	50	-
21003	200	-	20	-	0.7	0.2	120	-
21004	270	-	30	-	1.7	<0.1	40	-
21005	200	-	40	-	1.4	0.1	70	-
21006	230	-	20	-	0.6	<0.1	-	-
21007	110	-	-	-	0.2	0.1	-	-
21008	150	20	40	-	1.2	<0.1	90	-
21009	120	-	-	-	0.2	0.1	-	-
21010	120	-	110	-	2.8	<0.1	430	-
21011	80	170	100	-	1.7	0.1	370	-
21012	90	10	100	-	5.4	0.3	150	600
21013	110	20	10	-	0.4	<0.1	20	-
21014	250	10	120	-	6.2	-	260	-
21015	70	10	40	-	2.2	-	90	-
21016	110	-	30	-	2.4	-	30	-
21017	90	90		-	1.2	1.7	20	-
21018	70	-	190	-	2.2	<0.1	1240	-
21019	40	20	20	-	0.2	0.1	70	-
21020	130	20	110	-	1.5	0.1	380	-
21021	70	30	220	-	9.0	<0.1	440	-
21022	40	-	30	-	1.2	0.1	20	-
21023	160	20	160	-	6.6	<0.1	160	-
21024	110	-	60	-	2.5	-	60	-
21025	250	20	140	-	6.0	0.1	1020	-
21026	130	1-5%	10	28	0.6	0.3	50	-
21027	100	150	70	-	4.0	<0.1	390	-
21028	120	140	20	-	2.8	0.2	50	200
21029	80	50	70	-	4.0	<0.1	190	-
21030	80	70	160	-	7.5	-	290	-
21031	50	-	20	-	1.3	-	290	-
21032	120	-	40	-	2.8	0.2	850	-

ppm unless otherwise stated
- = below detection limit
NA = NOT ASSAYED

Sample No.	Cu	Pb	Zn	Ag	W%	Mn	Ba
21033	60	<10	30	<2	0.1	40	<100
21034	70	10	80	-	<0.1	300	-
21035	50	10	70	-	<0.1	150	-
21036	80	<10	130	-	<0.1	240	-
21037	50	10	90	-	<0.1	160	-
21038	30	<10	90	-	0.1	100	-
21039 A	70	20	10	-	0.2	30	1000
21039 B	220	40	240	-	<0.1	2100	300
21040	50	<10	20	-	<0.1	120	<100
21041	60	20	80	-	0.1	170	-

ppm unless otherwise stated
- = below detection limit
NA = NOT ASSAYED



LEGEND

- ●— 21001 — Rock chip sample location.
- 21123 80,110,60 — Stream sediment No. Assays Cu, Pb, Zn, Au — x = Less than detection limit (generally <002)

Stream Sediment Survey (1981-83)
Cu, Pb, Zn, Au

J.G. Purvis, May, 83

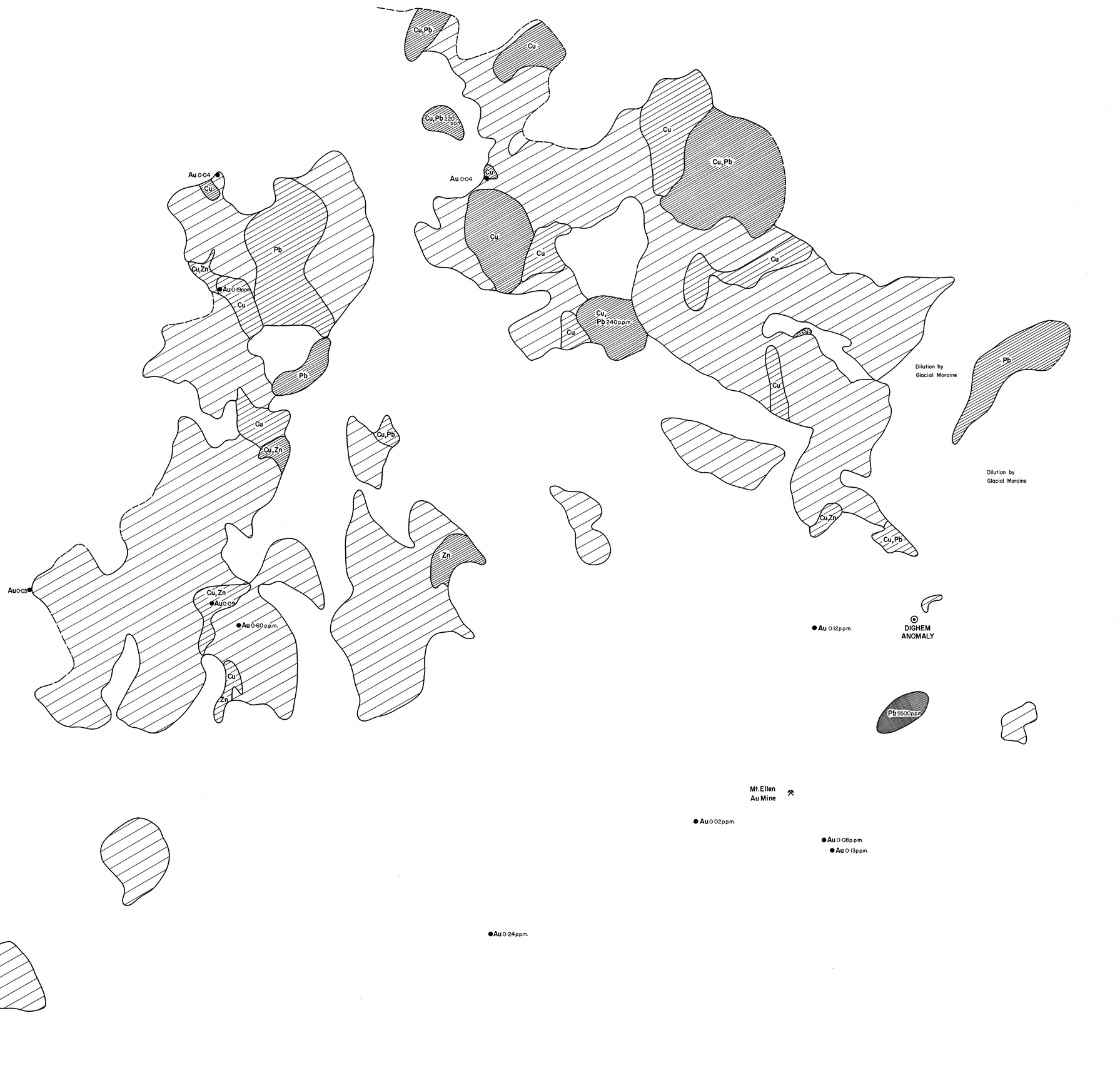
FIG. II

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

1:10,000

HUXLEY AREA.

GEOCHEM. + E.M ANOMALIES.



1981 - 82 Stream Sed. Survey

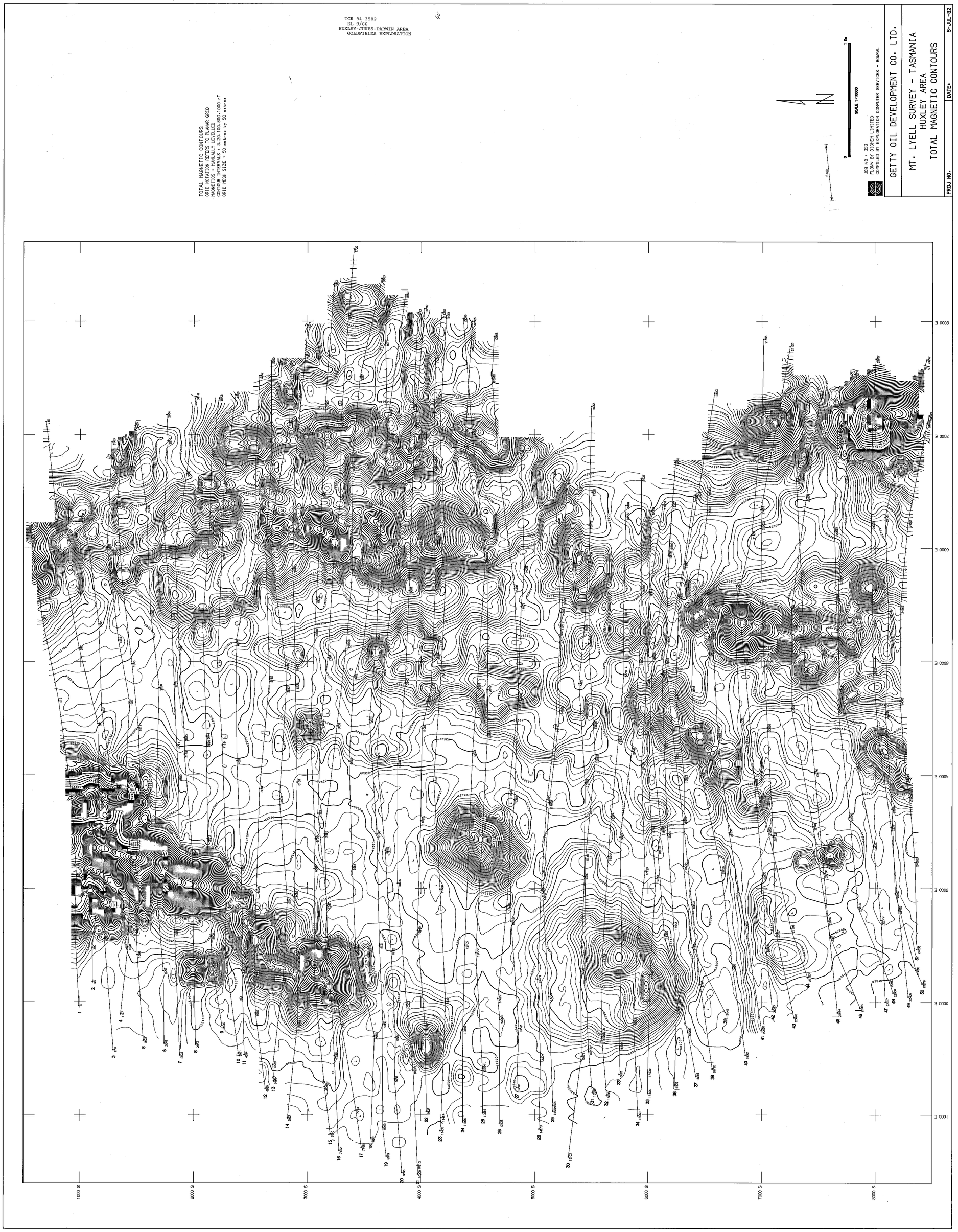
- > 100, < 200 p.p.m. : Any of elements Cu, Pb, Zn.
- > 200, < 300 p.p.m. : Element indicated.
- > 300 p.p.m. : Element indicated.
- Au stream sed. assay above variable detection limit.
- Pickens Mather stream sed. anomaly (1966-67) not sampled this survey.

5 cm

Stream Sediment Drainage Anomalies
&
Dighem Anomaly

FIG. 63

TOTAL MAGNETIC CONTOURS 1:10,000 HUXLEY AREA QUEENSTOWN AIR-MAG. DIGHEM. SURVEY JULY 82



1:5,000

SNAKE SPUR GRID

COMPOSITE CONTOUR BASE

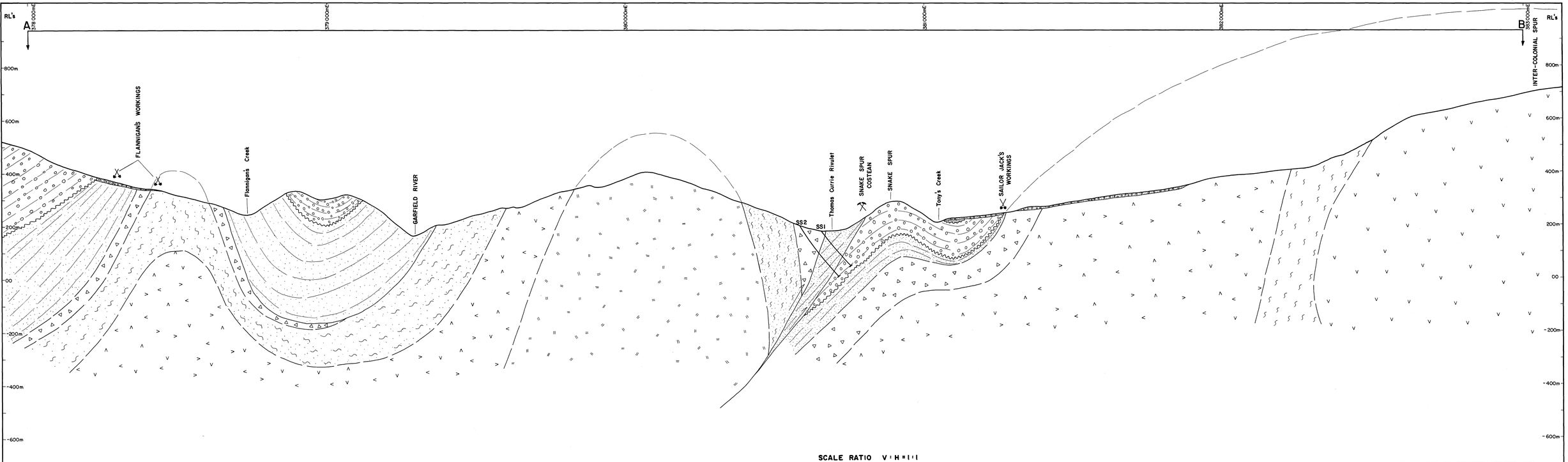
DRAWN BY :	
DRAFTSMAN :	
DATE :	
REVISIONS :	
FILE NO.	
5 cm	
SCALE 1:	METRES
FIG.	

GOLD FIELDS EXPLORATION PTY. LIMITED

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

46

382 000mE
384 000mE
386 000mE
388 000mE
24 000mN
25 000mN
26 000mN
27 000mN
SNAKE SPUR GRID
1000N
1200N
1400N
1600N
1800N
2000N
2200N
2400N
2600N
2800N
3000N
3200N
3400E
3600E
3800E
4000E
4200E
4400E
4600E
4800E
5000E
5200E
5400E
5600E
5800E
6000E
6200E
6400E
6600E
6800E
7000E
7200E
7400E
7600E
7800E
8000E
8200E
8400E
8600E
8800E
9000E
9200E
9400E
9600E
9800E
10000E
10200E
10400E
10600E
10800E
11000E
11200E



SCALE RATIO V : H = 1 : 1

LEGEND

QUARTERNARY
Pleistocene moraine, recent talus

ORDOVICIAN
Gordon Limestone

UPPER CAMBRIAN-LOWER ORDOVICIAN
Owen Conglomerate

CAMBRIAN —— MOUNT READ VOLCANICLASTICS

TYNDALL GROUP
Fine grained tuffaceous sediments black shales, siltstones, biotite sandstones
Coarse grained tuffaceous sediments, hematitic tuffs, volcaniclastic breccias

WESTERN SEQUENCE
Felsic pyroclastics, ignimbrites, partly reworked volcaniclastics
Quartz-sericite schists + pyrite, after quartz-phyric volcaniclastics

CENTRAL SEQUENCE
Felsic pyroclastics, ignimbrites tuffs & agglomerates
Rhyo dacitic lavas & breccias often dome-like, some sub-volcanic

Undifferentiated volcanics

N.B. - Refer to Geological map for plan position of section line A-B

5 cm

GOLD FIELDS EXPLORATION PTY. LIMITED

E.L. 9/66 — TYNDALL

FLANNIGANS — SNAKE SPUR

GEOLOGICAL SECTION

DRAWN BY : F.G.F.
DRAFTSMAN : S.F.
DATE : JUNE.86
REVISIONS :
FILE NO.

SCALE 1:5000 100 50 0 100 200 METRES

FIG. 25

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

FLANNIGANS
SNAKE SPUR

GEOLOGICAL
SECTION

1:31,680

GARFIELD - CURRY

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

48

GEOLOGY 1978
INTERPRETATION

RIVER
GARFIELD
CURRIE
MT. JUKES
CROTTY
DARWIN
MT. DARWIN
SLATE SOUR
CLARK VALLEY GRID
MT. SORELL
CLARK CAMP
SOUTH DARWIN PEAK
TEN MILE HILL
LIMONITIC GOSSAN
MACQUARIE HARBOUR
PIS.1

810 000 mN.
805 000 mN.
800 000 mN.
795 000 mN.
355 000 mE.
360 000 mE.
365 000 mE.

QUATERNARY
- MORAINE, SCREE, ALLUVIALS, (NOT SHOWN)

TERTIARY
- MACQUARIE BEDS: SANDSTONES, QUARTZ & CLAYS.

ORDOVICIAN - DEVONIAN
- OWEN CONGLOMERATE, GORDON LIMESTONE & ELDON GROUP.

CAMBRIAN
- JUKES CONGLOMERATE - VOLCANOCLASTIC CONGLOMERATE.
- DOMINANTLY QUARTZ - FELDSPAR PORPHYRY TUFFS WITH FELSIC LAVAS AND TUFFACEOUS SEDIMENTS.
- MIXED SEQUENCE OF SHALES, FELSIC LAVAS AND TUFFS, AND INTERMEDIATE TUFFS. CHARACTERISED BY LENSES OF BLACK SHALE.
- DOMINANTLY SILICIC/FELSIC LAVAS WITH MINOR FELSIC TUFFS.
- DARWIN GRANITE.
- GEOLOGICAL BOUNDARY
- FAULT.
- SYNCLINE.
- ANTICLINE.
- OLD WORKINGS.
- CLARK VALLEY GRID.
- GARFIELD RIVER ACCESS TRACKS.
- H HELICOPTER PAD

ANG COORDINATES

TRUE NORTH
MAGNETIC NORTH

5 cm

FIG. 3

MT. LYELL - G.O.D.L. JOINT VENTURE

JUKES - DARWIN E.L. 21/76

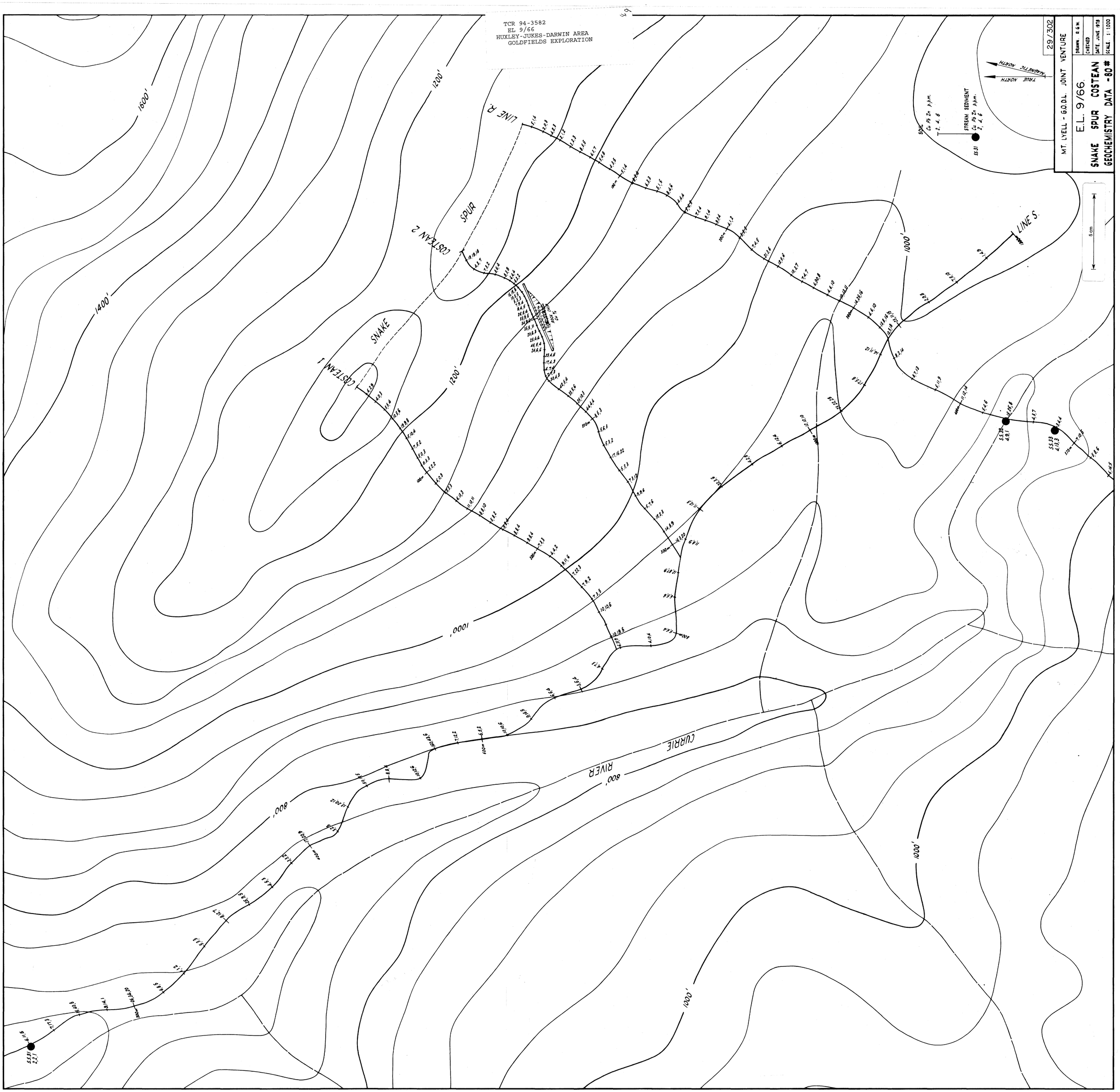
GEOLOGICAL INTERPRETATION MAP

DRAWN: M.H.
CHECKED:
DATE: AUG. 1978
SCALE: 1:31,680

1:1,000

GARFIELD-CURRY AREA

GEOCHEMISTRY SOIL + ROCK ASSAYS



1:1,000

GARFIELD - CURRY (SNAKE SPUR)

CONTOUR + ACCESS BASE MAP

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

AMG REFERENCE POINTS ADDED

29/002

MT. LYELL - G.O.D.L. JOINT VENTURE

E.L. 9/66.

SNAKE SPUR COSTEAN

DRAWN: R.G.W.
CHECKED:
DATE: JUNE 1978
SCALE: 1:1000

5 cm

1600'
1400'
1200'
1000'
800'

LINE R.
LINE S.
SPUR
COSTEAN 2
COSTEAN 1
SNAKE
CURRIE RIVER

AMG 381047E, 5325008N

AMG 381004E 5324070N

1:31,680

GARFIELD-CURRY

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

CONTOUR + ACCESS BASE PLAN

KING RIVER
MT. JUKES
CROTTY
HUXLEY RIVER
CURRIE CAMP
DARWIN ROAD
GARFIELD CAMP
MT. DARWIN
SLATE SPUR
CLARK VALLEY GRID
MT. SORELL
CLARK CAMP
TEN MILE HILL
SOUTH DARWIN PEAK
MACQUARIE HARBOUR
TRUE NORTH
MAGNETIC NORTH

810,000 Yds N.
805,000 Yds N.
800,000 Yds N.
795,000 Yds N.
790,000 Yds N.
355,000 Yds E.
360,000 Yds E.
365,000 Yds E.

LEGEND

FOUR WHEEL DRIVE TRACKS
ACCESS TRACKS
GRID LINES
H HELIPADS

5 cm

ANG COORDINATES

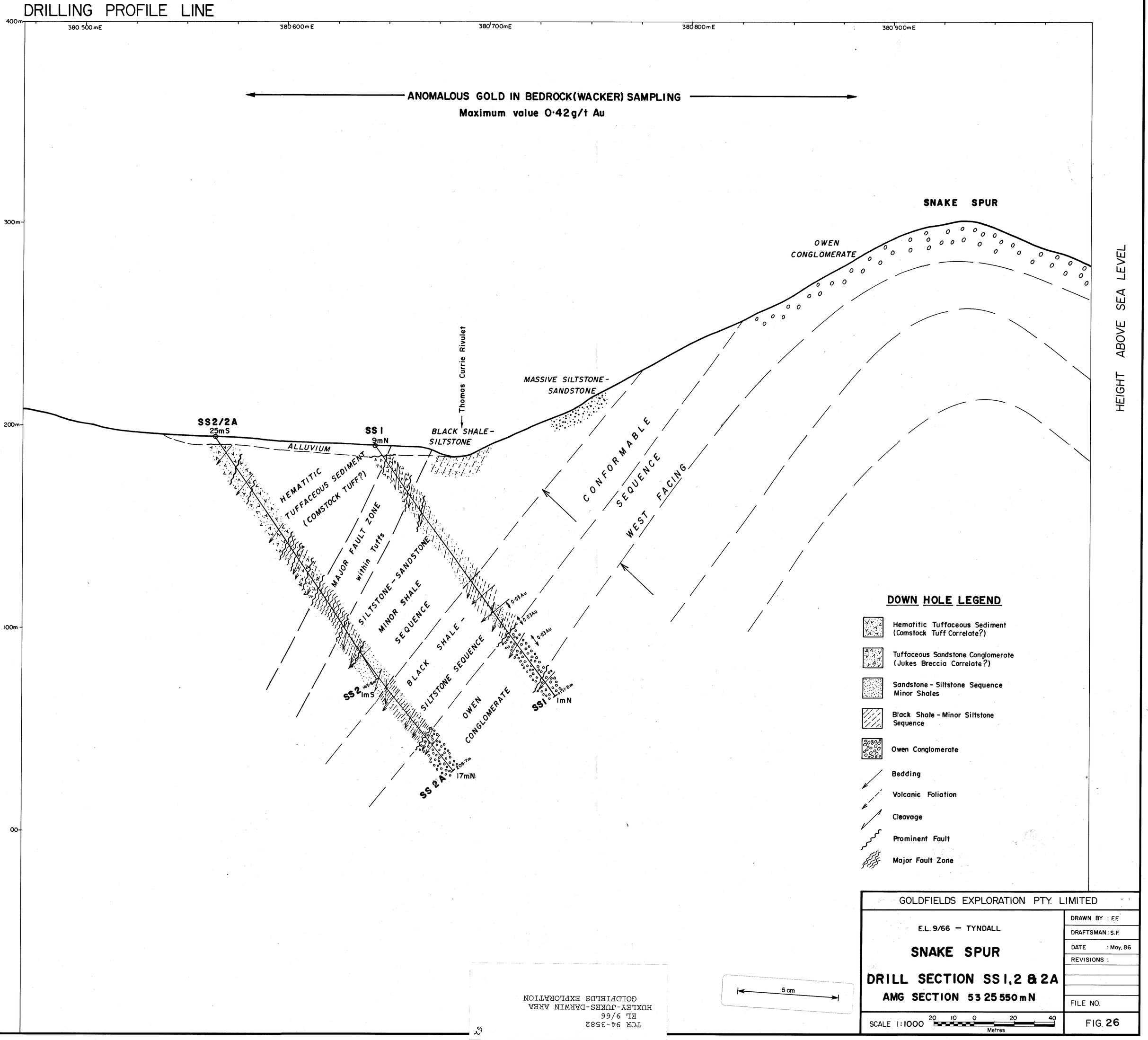
FIG. 2

MT. LYELL - G.O.D.L. JOINT VENTURE

JUKES - DARWIN
E.L. 21/76
ACCESS MAP

DRAWN: R.G.W.
CHECKED:
DATE: Aug. 1978
SCALE: 1:31,680

DRILLING PROFILE LINE



GOLDFIELDS EXPLORATION PTY. LIMITED

E.L. 9/66 — TYNDALL

SNAKE SPUR

DRILL SECTION SS1,2 & 2A

AMG SECTION 53 25 550 mN

DRAWN BY : F.F.
DRAFTSMAN : S.F.
DATE : May, 86
REVISIONS :
FILE NO.

SCALE 1:1000 20 10 0 20 40 Metres

FIG. 26

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

5 cm

1:1,000

SNAKE SPUR

DRILL SS1,2 SECTION & 2A

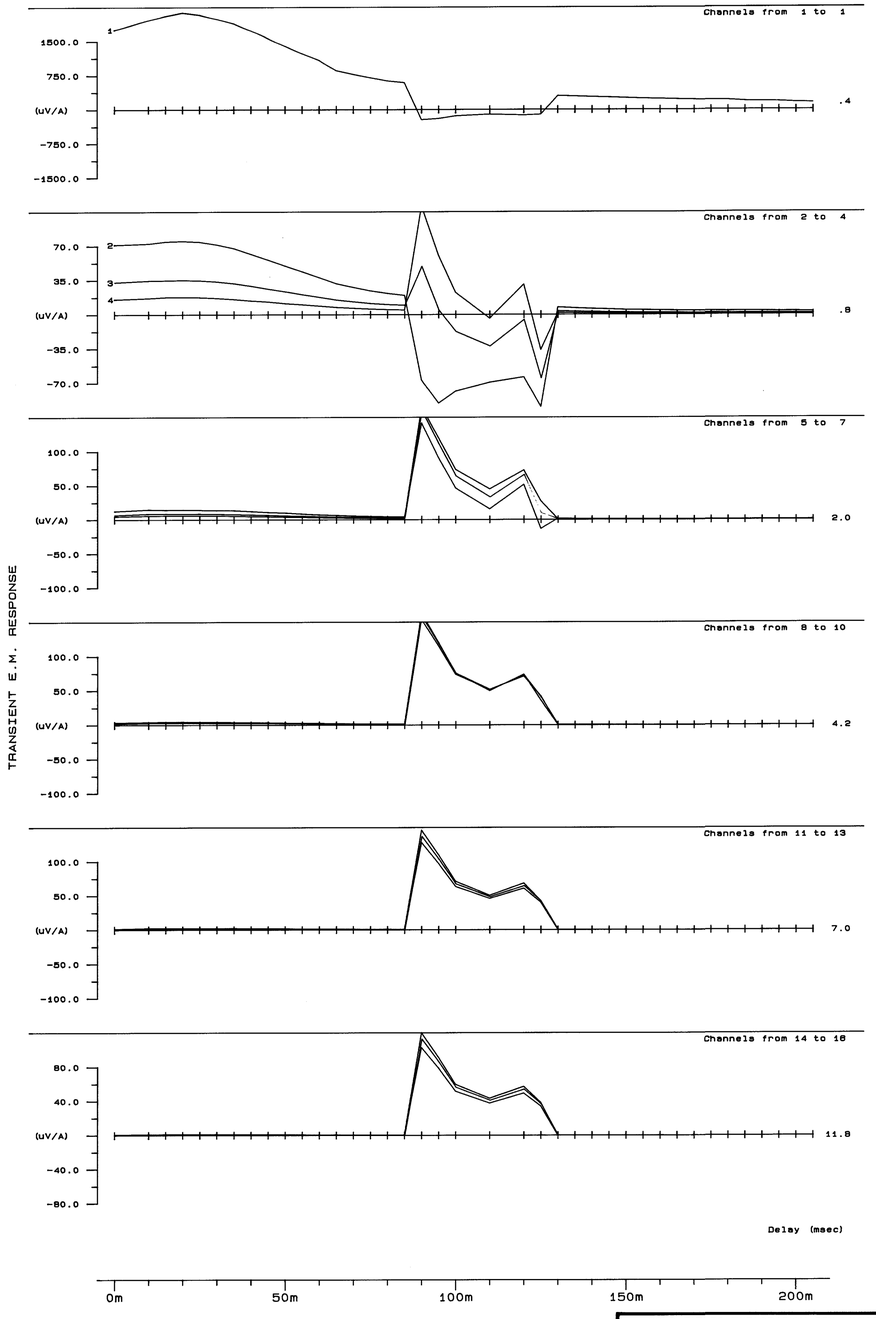
TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

TYNDALL PROJECT

SNAKE SPUR

DHEM SURVEY

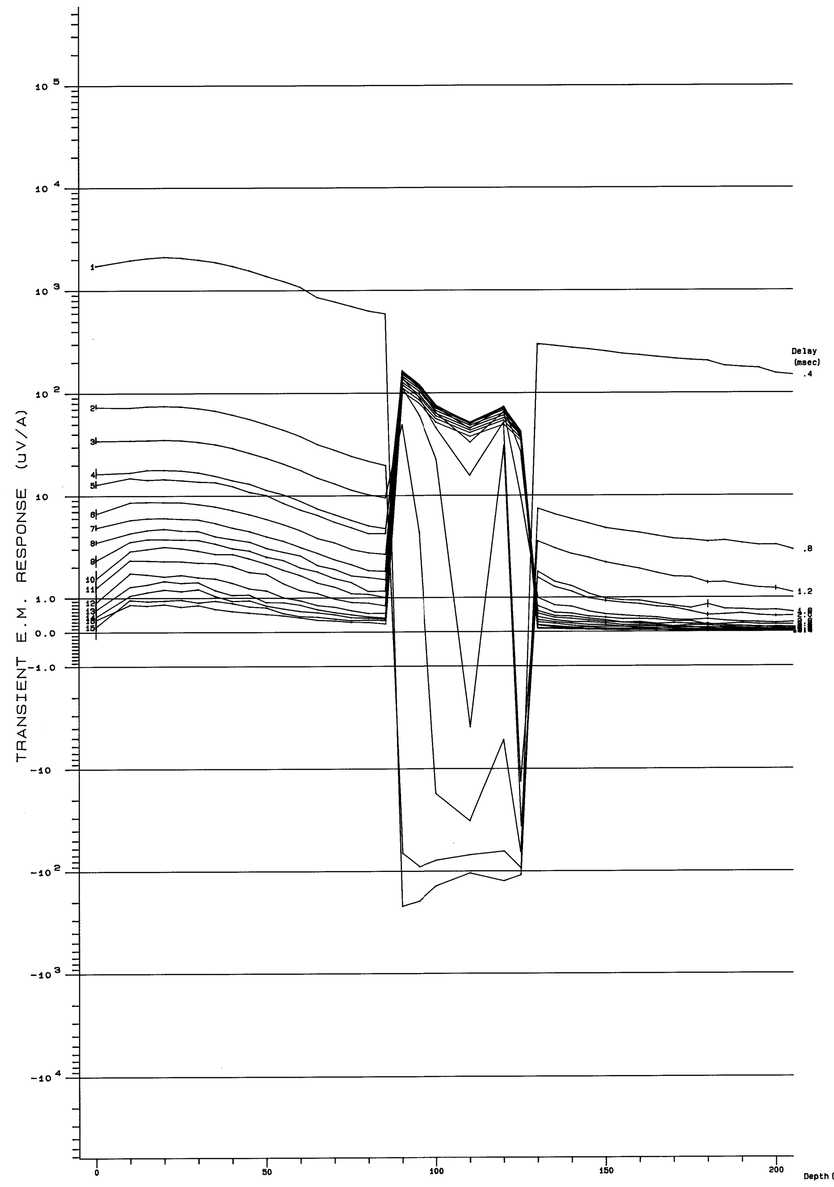
DDH SS 2



GOLDFIELDS EXPLORATION PTY.LTD.
CROTTY, N.T. (JOB NO.612L)
SNAKE SPUR (STANDARD TIMES)
DH SS2 CURRENT 15.4AMP
SIROTEM Survey by SOLO Geophysics & Co.
SOLO hole ref.550 Reading interval 5 m
SCALE 1 : 1000 Loop size : 150 m
LOOP configuration : Drill hole
Plotted : 4:52 PM 24/ 6/88

GOLD FIELDS EXPLORATION PTY. LIMITED	
SNAKE SPUR (E.L.9/66) DHEM SURVEY SS 2/2A: lin - lin plot	DRAWN BY : DRAFTSMAN: DATE : REVISIONS :
SOLO SCALE 1:1000 Metres	FILE NO. FIG. 13b

5 cm



GOLDFIELDS EXPLORATION PTY.LTD.
CROTTY, N.T. (JOB NO.612L)
SNAKE SPUR (STANDARD TIMES)
DH SS2 CURRENT 15.4AMP
SIROTEM Survey by SOLO Geophysics & Co. 1/ 5/86
SOLO hole ref.550 Reading interval 5.0 m
SCALE 1 : 1000 Loop size : 150 m
LOOP configuration : Drill hole
Plotted : 2:43 PM 23/ 6/88

GOLD FIELDS EXPLORATION PTY. LIMITED	
Snake Spur (E.L.9/66) DHEM SURVEY SS2/2A: log - lin plot	DRAWN BY : DRAFTSMAN: DATE : REVISIONS :
SOLO SCALE 1:1000 Metres	FILE NO. FIG. 13a

5 cm

1:5,000

SNAKE SPUR GRID

UTEM INTERPRETATION

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

GOLD FIELDS EXPLORATION PTY. LIMITED

DRAWN BY : J.B.
DRAFTSMAN: S.F
DATE : April.85
REVISIONS :

E.L. 9/66 - SNAKE SPUR

UTEM INTERPRETATION

REF - GF/MG85/04

FILE NO.

SCALE 1: 5000
METRES 100 50 0 100 200

FIG. 90

SURVEY BY: LAMONTAGNE GEOPHYSICS
DATE : FEB.1985

Legend

5cm

B
Single line Anomaly
(poorly) conductive surface layer
UTEM Coverage
Anomalous zone

TX3
TX4
SNAKE SPUR GRID
TRENCH
CAMPSITE
GARFIELD
RIVER
A
B
C
1400N
1600N
1800N
2000N
2200N
2400N
2600N
3000N
3200N
3400N
3600E
3800E
4000E
4200E
4400E
4600E
4800E
5000E
382 000mE
384 000mE
386 000mE
388 000mE
7 825 000mN
7 826 000mN
7 827 000mN
7 824 000mN

1:20,000

GARFIELD—CURRY
JUKES-DARWIN

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

GEOPHYSICS
RECONNAISSANCE
DATA 1977

THE MOUNT LYELL M. & R. CO. LTD.

JUKES - DARWIN AREA
E.L. 21/76

RECONNAISSANCE GEOPHYSICS

Drawn: K.O.R.
Traced: R.G.M.
Checked:
Date: 29:9:'77
Scale: 1:20,000

MAP 4

AMG REFERENCE POINTS ADDED

True North

5 cm

KEY

AEROMAGNETIC CONTOURS. 1000γ
TURAIR ANOMALIES. } SCINTREX PTY. LTD. FEB.1973
PROPOSED GRID.
PROPOSED CAMP SITES.

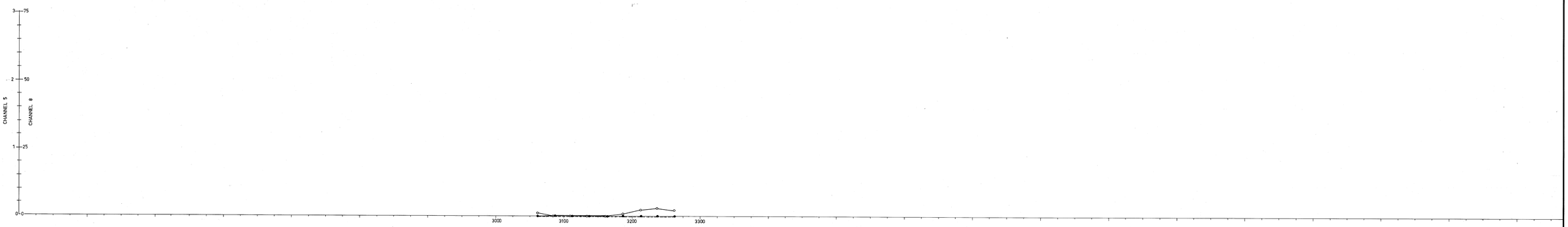
LEASE BOUNDARY

South Darwin Peak
Mt. Sorell
Garfield River
Thomas Currie Rivulet
Sumpters Peak
Mt. Darwin AMG 382031E 5330078N
Conglomerate Peak
Snake Peak
Allans Creek
River
Andrew
HUXLEY BASIN ROAD
South Jukes Peak
Lower Lake Jukes
Pyramid Peak
Upper Lake Jukes
West Jukes Peak
Central Peak
Mt. Jukes
Prohibitory Peak
East Jukes Peak
AMG 388039E 5331050N
King River

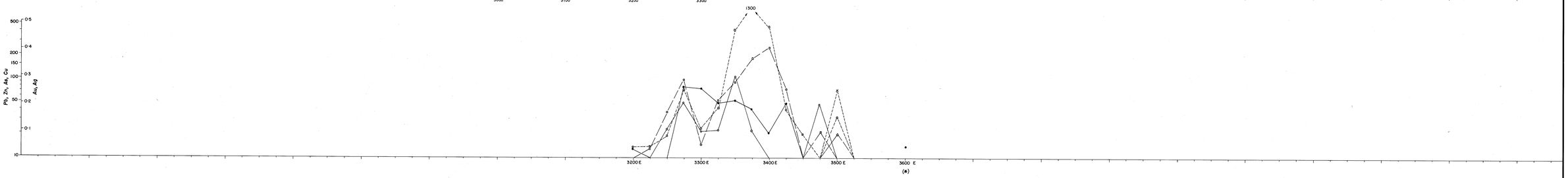
E.L. 9/66 Tyndall Project
Snake Spur Grid
1:2000
Line Profile 1000 N

TCR 94-3582
E.L. 9/66
HEXLEY-TORRES-DARWIN AREA
GOLDFIELDS EXPLORATION

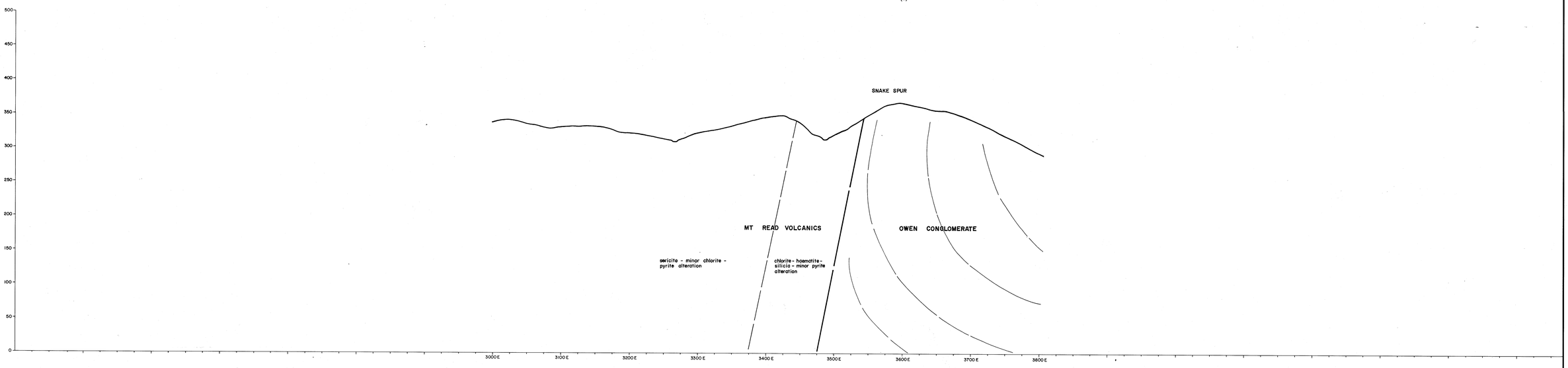
Utem Survey
(%)



Bedrock Geochemistry
(P.P.M.)
Pb, Zn, As, Cu
Au, Ag



Topography & Geology
HEIGHT ABOVE SEA LEVEL - (Metres)



GEOCHEMISTRY

Pb
Zn
As
Cu
Au
Ag

* Not to Bedrock

5 cm

UTEM SURVEY

Hilbert (10 Terms) filtered results.

Channel 5
Channel 8

GOLD FIELDS EXPLORATION PTY. LIMITED	
E.L.9/66 – TYNDALL PROJECT	DRAWN BY A.C.
SNAKE SPUR GRID	DRAFTSMAN T.G.D.S.
LINE 1000 N.	DATE June '85
LOOKING N.	REVISIONS
SCALE 1:2000 40 0 40 80 METRES	FILE NO.
	FIG. 91

E.L. 9/66 Tyndall Project
Snake Spur Grid
1: 2000
Line Profile 1400 N.

TCR 94-3582
E.L. 9/66
HUXLEY-JONES-DARWIN AREA
GOLDFIELDS EXPLORATION

Utem Survey

(%)

CHANNEL 5 — CHANNEL 8

3 — 75
2 — 50
1 — 25
0 — 0

3000 E 3100 E 3200 E 3300 E 3400 E 3500 E 3600 E

Bedrock Geochemistry

(P.P.M.)

Pb, Zn, As, Cu — Au, Ag

500 — 200 — 150 — 100 — 50 — 10
0·5 — 0·4 — 0·3 — 0·2 — 0·1

3200 E 3300 E 3400 E (a) 3500 E (a)

Topography & Geology

HEIGHT ABOVE SEA LEVEL - (Metres)

500 450 400 350 300 250 200 150 100 50 0

SNAKE SPUR

THOMAS CURRIE RIVULET

MT READ VOLCANICS

OWEN CONGLOMERATE

sericite - minor chlorite - pyrite alteration

chlorite - haematite - silica - minor pyrite alteration

3000 E 3100 E 3200 E 3300 E 3400 E 3500 E 3600 E

GEOCHEMISTRY

Pb
Zn
As
Cu
Au
Ag
* Not to bedrock

UTEM SURVEY

Hilbert (10 Terms) filtered results

Channel 5
Channel 8

5 cm

GOLD FIELDS EXPLORATION PTY LIMITED	
E.L.9/66 – TYNDALL PROJECT	DRAWN BY A.C.
SNAKE SPUR GRID	DRAFTSMAN T.S.D.S.
LINE 1400 N.	DATE June '85
LOOKING N.	REVISIONS
SCALE 1:2000 (0 20 40 60 80 METRES)	FILE NO.
FIG. 92	

E.L.9/66 Tyndall Project
Snake Spur Grid
1: 2000
Line Profile 1600 N

TCR 94-3562
EL 9/66
HISTORICAL REPORT - GRANTS AREA
GOLDFIELDS EXPLORATION

Utem Survey

(%)

CHANNEL 5 — CHANNEL 8

3 — 75
2 — 50
1 — 25
0 — 0

3000 E 3100 E 3200 E 3300 E 3400 E 3500 E 3600 E 3700 E 3800 E 3900 E 4000 E 4100 E 4200 E

Bedrock Geochemistry

(P.P.M)

Pb, Zn, As, Cu — Au, Ag

500 — 0·5
200 — 0·4
150 — 0·3
100 — 0·2
50 — 0·1
10

620

3100 E 3200 E 3300 E 3400 E

Topography & Geology

HEIGHT ABOVE SEA LEVEL - (Metres)

500 450 400 350 300 250 200 150 100 50 0

SNAKE SPUR

THOMAS CURRIE RIVULET

TONY'S CK

MT READ VOLCANICS

OWEN CONGLOMERATE

sericite – minor chlorite – pyrite alteration

chlorite – haematite – silicia – minor pyrite alteration

3000 E 3100 E 3200 E 3300 E 3400 E 3500 E 3600 E 3700 E 3800 E 3900 E 4000 E 4100 E

GEOCHEMISTRY

Pb
Zn
As
Cu
Au
Ag

UTEM SURVEY

Hilbert (10 Terms) filtered results

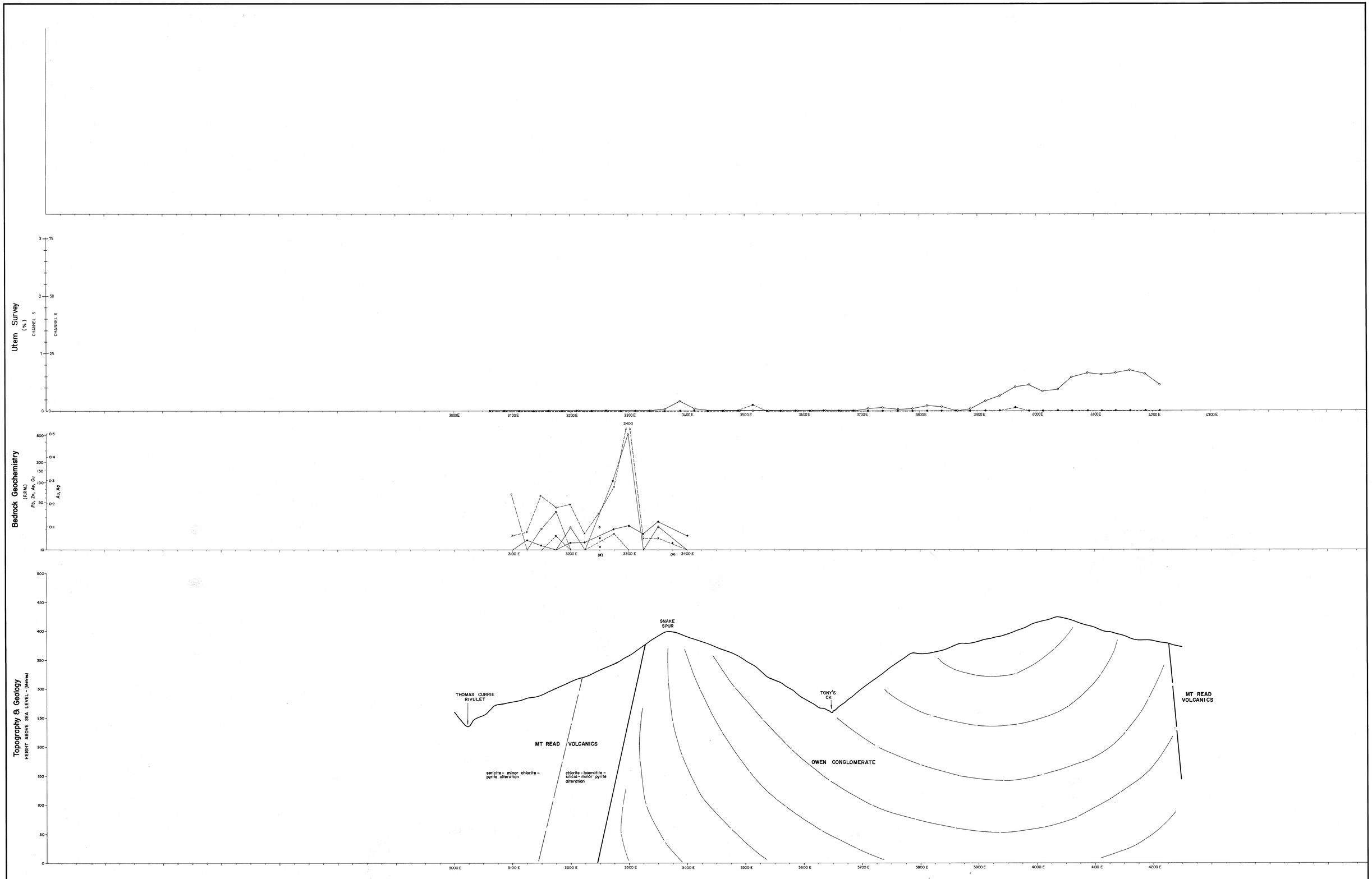
Channel 5
Channel 8

5 cm

GOLD FIELDS EXPLORATION PTY LIMITED	
E.L.9/66 – TYNDALL PROJECT SNAKE SPUR GRID LINE 1600 N. LOOKING N.	DRAWN BY : A.C. DRAFTSMAN : T.G.D.S. DATE : June'85 REVISIONS : FILE NO.
SCALE 1:2000 40 0 40 80 METRES	FIG. 93

E.L. 9/66 Tyndall Project
Snake Spur Grid
1:2000
Line Profile 1800 N

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION



GOLD FIELDS EXPLORATION PTY. LIMITED

E.L.9/66 – TYNDALL PROJECT
SNAKE SPUR GRID
LINE 1800 N.
LOOKING N.

DRAWN BY	A.C.
DRAFTSMAN	T.G.D.S.
DATE	June '85
REVISIONS	
FILE NO.	

SCALE 1:2000 — 40 0 40 80 METRES

FIG. 94

E.L. 9/66 Tyndall Project
Snake Spur Grid
1: 2000
Line Profile 2000 N

TCR 94-3582
EL 9/66
HUDDLESTONE-DARWIN AREA
GOLDFIELDS EXPLORATION

Utem Survey

(%)

CHANNEL 5: 3 — 75; 2 — 50; 1 — 25; 0

CHANNEL 8

3000 E 3100 E 3200 E 3300 E 3400 E 3500 3600 E

Bedrock Geochemistry

(P.P.M)

Pb, Zn, As, Cu: 500; 200; 150; 100; 50; 10

Au, Ag: 0·5; 0·4; 0·3; 0·2; 0·1

3100 E 3200 E 3300 E

Topography & Geology

HEIGHT ABOVE SEA LEVEL - (Metres)

500; 450; 400; 350; 300; 250; 200; 150; 100; 50; 0

SNAKE SPUR

THOMAS CURRIE RIVULET

TONY'S CK

OWEN CONGLOMERATE

MT READ VOLCANICS

sericite - minor chlorite - pyrite alteration

chlorite-haematite-silicia - minor pyrite alteration

3000 E 3100 E 3200 E 3300 E 3400 E 3500 E

GEOCHEMISTRY

Pb
Zn
As
Cu
Au
Ag

UTEM SURVEY

Hilbert (10 Terms) filtered results

Channel 5
Channel 8

5 cm

GOLD FIELDS EXPLORATION PTY LIMITED	
E.L.9/66 – TYNDALL PROJECT	DRAWN BY A.C.
SNAKE SPUR GRID	DRAFTSMAN T.G.D.S.
LINE 2000 N.	DATE June '85
	REVISIONS
LOOKING N.	FILE NO.
SCALE 1:2000 40 0 40 80 METRES	FIG. 95

E.L. 9/66 Tyndall Project
Snake Spur Grid
1:2000
Line Profile 2200 N

TCR 94-3582
EL 9/66
MIXED FIELDS-DARWIN AREA
GOLDFIELDS EXPLORATION

Utem Survey

(%)

CHANNEL 5 / CHANNEL 8

3 — 75
2 — 50
1 — 25
0 — 0

3000 E 3100 E 3200 E 3300 E 3400 E 3500 E 3600 E 3700 E 3800 E 3900 E 4000 E 4100 E 4200 E

Bedrock Geochemistry

(P.P.M.)

Pb, Zn, As, Cu — Au, Ag

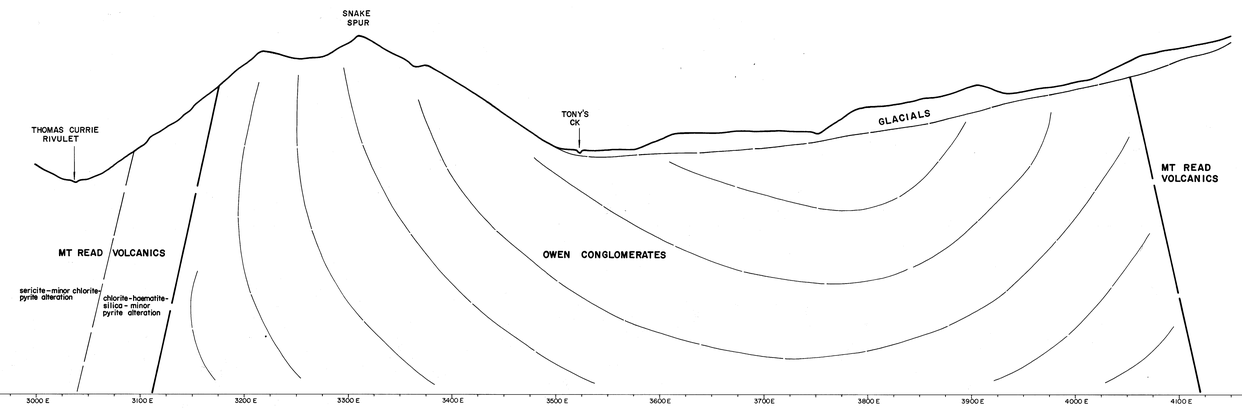
500 — 200 — 150 — 100 — 50 — 10
0·5 — 0·4 — 0·3 — 0·2 — 0·1

3000 E 3100 E 3200 E 3300 E 3400 E 3500 E N/S (a) (a) 3600 E (a) (a) (a) 3700 E

Topography & Geology

HEIGHT ABOVE SEA LEVEL - (Metres)

500 450 400 350 300 250 200 150 100 50 0



3000 E 3100 E 3200 E 3300 E 3400 E 3500 E 3600 E 3700 E 3800 E 3900 E 4000 E 4100 E 4200 E

GEOCHEMISTRY

Pb
Zn
As
Cu
Au
Ag

* Not to bedrock

5 cm

UTEM SURVEY

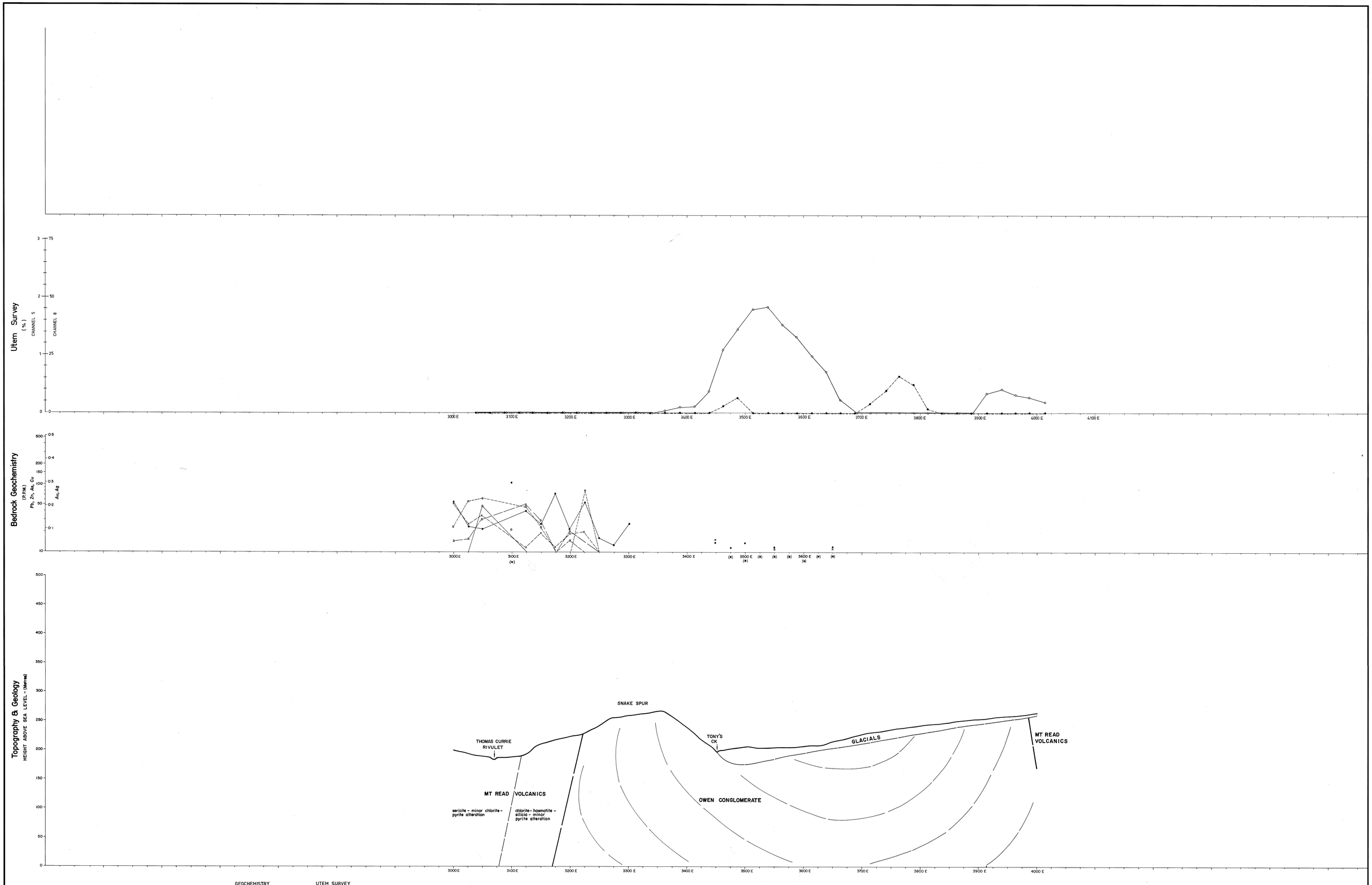
Hilbert (10 Terms) filtered results

Channel 5
Channel 8

GOLD FIELDS EXPLORATION PTY LIMITED	
E.L.9/66 – TYNDALL PROJECT	DRAWN BY A.C.
SNAKE SPUR GRID	DRAFTSMAN T.G.D.S.
LINE 2200 N.	DATE June '85
	REVISIONS
LOOKING N.	FILE NO.
SCALE 1:2000 40 0 40 80 METRES	FIG. 96

E.L. 9/66 Tyndall Project
Snake Spur Grid
1:2000
Line Profile 2400N

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION



GOLD FIELDS EXPLORATION PTY. LIMITED

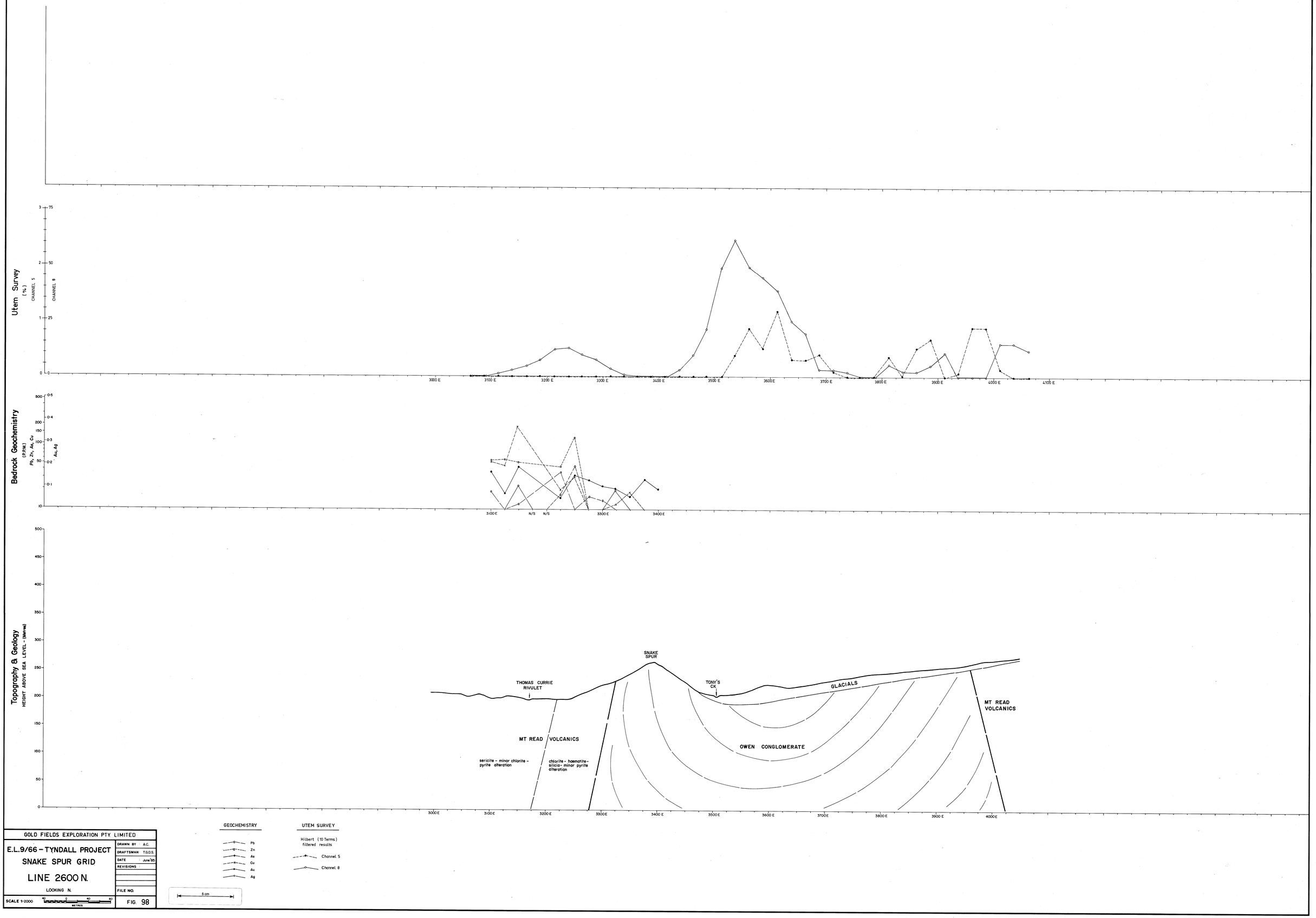
E.L.9/66 – TYNDALL PROJECT
SNAKE SPUR GRID
LINE 2400 N.
LOOKING N.

DRAWN BY	A.C.
DRAFTSMAN	T.G.D.S.
DATE	June '85
REVISIONS	
FILE NO.	

SCALE 1:2000 — 40 0 40 80 METRES

FIG. 97

E.L. 9/66 Tyndall Project
Snake Spur Grid
1:2000
Line Profile 2600N



GEOCHEMISTRY

Pb
Zn
As
Cu
Au
Ag

UTEM SURVEY

Hilbert (10 Terms) filtered results

Channel 5
Channel 8

5 cm

GOLD FIELDS EXPLORATION PTY. LIMITED

E.L.9/66 – TYNDALL PROJECT

SNAKE SPUR GRID

LINE 2600 N.

LOOKING N.

SCALE 1:2000 40 0 40 80 METRES

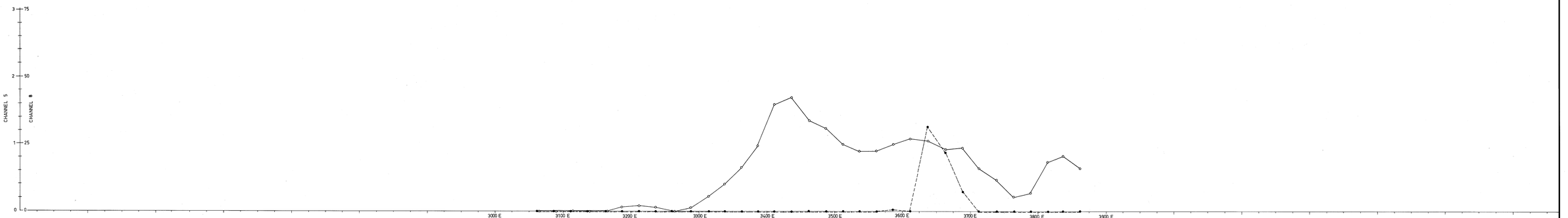
DRAWN BY A.C.
DRAFTSMAN T.G.O.S.
DATE June '85
REVISIONS
FILE NO.
FIG. 98

TCR 94-3582
EL 9/66
HUXLEY-JONES-DARWIN AREA
GOLDFIELDS EXPLORATION

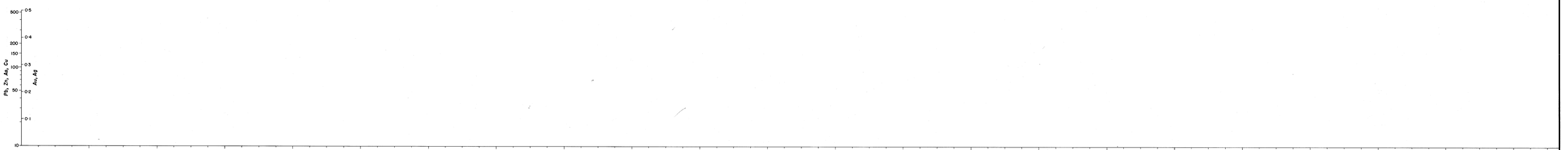
E.L. 9/66 Tyndall Project
Snake Spur Grid
1:2000
Line Profile 3100 N

TYR 94-2582
EL 9/66
HUXLEY-JYKES-DARWIN AREA
GOLDFIELDS EXPLORATION

Utem Survey (%)

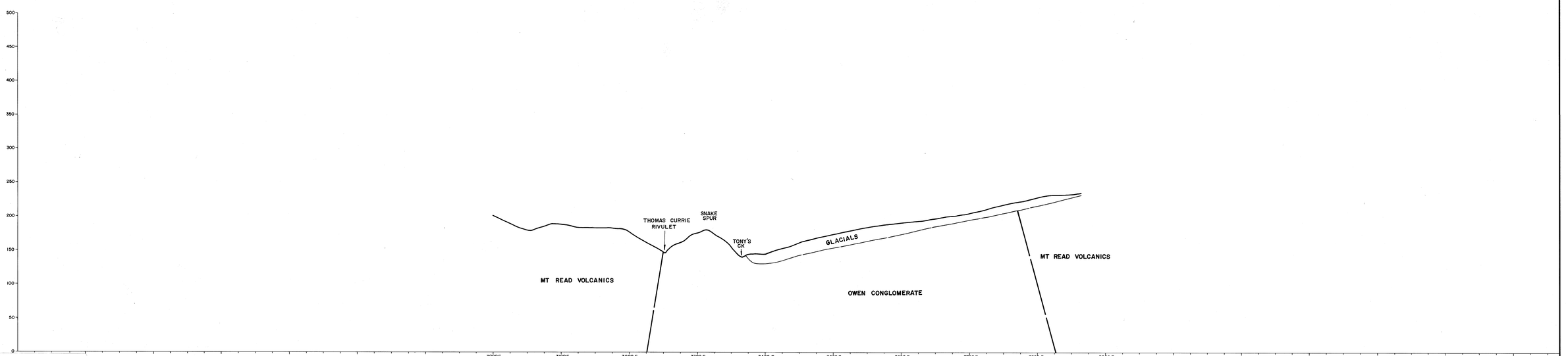


Bedrock Geochemistry (P.P.M.)



Topography & Geology

HEIGHT ABOVE SEA LEVEL - (Metres)



GEOCHEMISTRY

Pb
Zn
As
Cu
Au
Ag

UTEM SURVEY

Hilbert (10 Terms) filtered results

Channel 5
Channel 8

GOLD FIELDS EXPLORATION PTY LIMITED	
E.L.9/66 – TYNDALL PROJECT	DRAWN BY A.C.
SNAKE SPUR GRID	DRAFTSMAN T.G.D.S.
LINE 3100 N.	DATE June '95
LOOKING N.	REVISIONS
SCALE 1:2000 40 0 40 80 METRES	FILE NO.
	FIG. 99

E.L. 9/66 Tyndall Project
Snake Spur Grid
1:2000
Line Profile 3300 N

TCN 94-3582
EL 9/66
HUDBAY MINES-DARWIN AREA
GOLDFIELDS EXPLORATION

Utem Survey

(%)

CHANNEL 5 — CHANNEL 8

3 — 75
2 — 50
1 — 25
0

3000 E 3100 E 3200 E 3300 E 3400 E 3500 E 3600 E 3700 E 3800 E 3900 E

Bedrock Geochemistry

(P.P.M.)

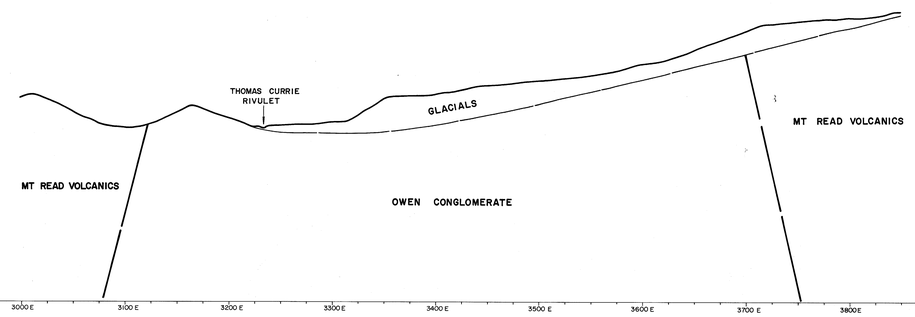
Pb, Zn, As, Cu — Au, Ag

500 — 200 — 150 — 100 — 50 — 10
0·5 — 0·4 — 0·3 — 0·2 — 0·1

Topography & Geology

HEIGHT ABOVE SEA LEVEL - (Metres)

500 450 400 350 300 250 200 150 100 50 0



3000 E 3100 E 3200 E 3300 E 3400 E 3500 E 3600 E 3700 E 3800 E

5 cm

GEOCHEMISTRY

Pb
Zn
As
Cu
Au
Ag

UTEM SURVEY

Hilbert (10 Terms) filtered results

Channel 5
Channel 8

GOLD FIELDS EXPLORATION PTY LIMITED

E.L.9/66 – TYNDALL PROJECT

SNAKE SPUR GRID

LINE 3300N.

LOOKING N.

SCALE 1:2000 40 0 40 80 METRES

DRAWN BY	A.C.
DRAFTSMAN	T.G.D.S.
DATE	June '66
REVISIONS	
FILE NO.	
FIG.	100

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

66

1:5000

JUKES - DA
INTERP GEOL

E.L. 9/66 BOUNDARY

E.L. 9/66 BOUNDARY

ELDON GROUP SEDIMENTS

GORDON LIMESTONE

OWEN CONGLOMERATE - SANDSTONE

OWEN CONGLOMERATE

CAMBRIAN UNDIFF.

CAMBRIAN UNDIFFERENTIATED

OWEN CONGLOMERATE SANDSTONE

OWEN CONGLOMERA SANDSTONE

MORAINE
Owen Conglom. Qtzite Blocks

RHYOLITE LAVAS
SUBAERIAL - SHALLOW WATER
flow banded with ignimbrites, ash and minor hematitic siltstone

LANDSLIP

LAKE JUKES ADIT

RHYOLITE LAVA

IGNIMBRITES/ MINOR ASH, LAVAS
SUBAERIAL
Ignimbrites massive, feldspar phyric rarely with lithics or fiamme
Ash restricted to very fine grained siliceous lenses
Lavas massive - flow banded.

ASH

RHYOLITE LAVA

CAMBRIAN UNDIFFERENTIATED

GLACIALS

RHYOLITE LAVAS
massive, microspherulitic texture, feldspar phyric

Tuffaceous sediments

OWEN/ELDON GROUP ?
SILTSTONE
SANDSTONE micaceous

OWEN/ELDON GROUP
SHALE
SANDSTONE micaceous
QUARTZ RICH VOLCANICLASTICS
COARSE VOLCANICLASTIC

(ALLUVIAL COVER)

GORDON LIMESTONE (ALLUVIAL COVER)

SNAKE SPUR/GARFIELD RIVER SEQUENCE
SHALE FINE TUFFACEOUS SEDIMENT
COARSE VOLCANICLASTIC

SNAKE SPUR — GARFIELD RIVER SEQUENCE

FLANIGANS GOLD

TUFFACEOUS SHALE

COARSE VOLCANICLASTICS

SHALE/CHERTS

SANDY SHALE SUBORDINATE

SHALE

COARSE SILICIFICATION

Quartz feldspar phyric volcanics medium grained, foliated sericitized, pyritic.

RHYOLITE LAVA
qtz biotite porphyritic

SANDY SILIC' SHALE
massive
COARSE VOLCANICLASTICS

RHYOLITE LAVA ?

RHYOLITE LAVA
qtz biotite porphyritic

SHALE

SNAKE SPUR/GARFIELD RIVER SEQUENCE
fine-coarse grained volcaniclastics minor rhyolitic lavas

QUARTZ SERICITE SCHISTS
Qtz feldspar phyric volcanics fine-medium grained subaerial-water laid lithologies frequently pyritic.

Section 2688
Approx. location
Shaft, tunnel, trenching

Section 2688
Approx. location
Shaft, tunnel, trenching

IGNIMBRITE
feldspar phyric fine ash ground mass

SHALES, FINE TUFFACEOUS SEDIMENTS

Section 2275 - Approx. position
Pyritic schist with specular hematite near Owen Contact. Schist slate with galena joint faces

IGNIMBRITE
feldspar phyric fine ash ground mass

Snake Spur Costein
Section 3025

TRENCH
Hematitic medium grained clastics
FINE PYRITIC TUFFACEOUS SEDIMENTS
RHYOLITE LAVA

Ash

Qtz

SHALE

VOLCANICLASTIC MEDIUM-COARSE GRAINED

Section 2101 approx. position
Tunnel, trenches in pyritic schist.

OWEN CONGLOMERATE - SAND

RHYOLITE LAVAS, IGNIMBRITES
SUBAERIAL VOLCANICS DOMINANT
alteration minor, massive

RHYOLITE
feldspar phenocrysts

IGNIMBRITE
feldspar phyric with ash, fine tuffaceous lenses

IGNIMBRITE
quartz feldspar phyric

ANDESITE LAVA
hornblend porphyritic

ANDESITE LAVA
hornblend porphyritic

RHYOLITE, LAVAS, IGNIMBRITES
MASSIVE SUBAERIAL VOLCANICS DOMINANT
dacite/rhyolite minor

IGNIMBRITE Feldspar phyric. Ash, fine tuff lenses

QUARTZ SERICITE SCHISTS
Quartz feldspar phyric volcanics fine - medium grained subaerial water laid lithologies frequently pyritic.

CAMBRIAN UNDIFFERENTIATED

OWEN CONGLOMERATE

OWEN CONGLOMERATE SANDSTONE

Approx. Trend of SHALE/ LAVAS

VOLCANICLASTIC CONGLOMERATE

CAMBRIAN UNDIFFERENTIATED

VOLCANICLASTIC CONGLOMERATE

CAMBRIAN UNDIFFERENTIATED

VOLCANICLASTIC CONGLOMERATE

POSITION / STYLE OF OWEN CONTACT UNKNOWN

IGNIMBRITE ?
Qtz feldspar phyric, massive fine glassy ground mass variable lithic component foliated, sericitized.

Fine tuffaceous chloritized sediment

Fine tuffaceous sediment

IGNIMBRITE ?
qtz feldspar phyric, massive fine glassy ground mass variable lithic component foliated, sericitized

WESTERN LIMIT OF FOLIATED SERICITIZED VOLCANICS

WESTERN LIMIT OF FOLIATED SERICITIZED VOLCANICS

RHYOLITE LAVA
qtz biotite porphyritic

IGNIMBRITE
qtz feld phyric fine ash ground mass no lithics

SHALE, CRYSTAL TUFF

EQUIVALENT OF SNAKE SPUR / GARFIELD RIVER SEQUENCE ?

RHYOLITE LAVA
massive, some feldspar phyric

RHYOLITE LAVA
massive

SHALE LENSES

EASTERN CLARK VALLEY SHALE/LAVA SEQUENCE

SHALE LENSES

RHYOLITE LAVA
massive, some feldspar phyric

EASTERN CLARK VALLEY SHALE / LAVA SEQUENCE

SAILOR JACKS (Approx.)

IGNIMBRITES/MINOR ASH, LAVAS
SUBAERIAL
Ignimbrites, massive, feldspar phyric with lithics & fiamme

Section 4587 Approx position
pyritic schist barite hematite mining

RHYOLITE LA
massive, microspherulit texture, feldspar phyric

INTERPRETTED POSITION

YOUNGER CAMBRIAN

GORDON LIMESTONE

OWEN CONGLOM.

GORDON LIMESTONE

OWEN CONGLOMERATE

GORDON LIMESTONE

OWEN CONGLOM.

SNAKE SPUR/GARFIELD RIVER SEQUENCE

COARSE VOLCANICLASTICS

SNAKE SPUR/GARFIELD RIVER SEQUENCE

GORDON LIMESTONE

INTERPRETTED POSITION

LIMIT OF EXTENSIVE FLUVIO GLACIALS

Section 2688
Approx. location
Shaft, tunnel, trenching

CAMPSITE

Approx. position
Pyritic schist with specular hematite near Owen Contact. Schist slate with galena joint faces

SHALES, FINE TUFFACEOUS SEDIMENTS

IGNIMBRITE
feldspar phyric fine ash ground mass

Section 4587 Approx position
pyritic schist barite hematite mining

Section 2101 approx. position
Tunnel, trenches in pyritic schist.

Snake Spur Costein
Section 3025

TRENCH
Hematitic medium grained clastics
FINE PYRITIC TUFFACEOUS SEDIMENTS
RHYOLITE LAVA

Rhyolite lava massive

RHYOLITE LAVA

IGNIMBRITE ?
Qtz feldspar phyric, massive fine glassy ground mass variable lithic component foliated, sericitized.

Fine tuffaceous sediment

IGNIMBRITE ?
qtz feldspar phyric, massive fine glassy ground mass variable lithic component foliated, sericitized

RHYOLITE LAVA
massive

RHYOLITE LAVA
massive, some feldspar phyric

SHALE LENSES

EASTERN CLARK VALLEY SHALE / LAVA SEQUENCE

SHALE LENSES

RHYOLITE LAVA
massive, some feldspar phyric

EASTERN CLARK VALLEY SHALE / LAVA SEQUENCE

INTERPRETATIVE GEOLOGY

JUKES-DARWIN

TYNDALL - E.L. 9/66

5 cm

E.L. 9/66 BOUNDARY

OWEN CONGLOMERATE - SANDSTONE

CAMBRIAN UNDIFFERENTIATED

WEST JUKES PEAK

RHYOLITE LAVAS
SUBAERIAL - SHALLOW WATER
flow banded with ignimbrites, ash and minor hematitic siltstone.

LANDSLIP

MORAINE
Owen Conglom. Qtzite. Blocks

RHYOLITE LAVA

LAKE JUKES ADIT

FYRAMID PEAK

Lower Lake Jukes

RHYOLITE LAVA
quartz feldspar phyric foliated feldspars all sericitized

SOUTH JUKES PEAK

OWEN CONGLOMERATE - SANDSTONE

IGNIMBRITES/ MINOR ASH, LAVAS
SUBAERIAL
Ignimbrites massive, feldspar phyric rarely with lithics or fiamme.
Ash restricted to very fine grained siliceous lenses.
Lavas massive - flow banded.

ASH

RHYOLITE LAVA

RHYOLITE LAVAS
PART OF CENTRAL FLOW DOME COMPLEX
massive, microspherulitic texture occasionally feldspar phyric

CAMBRIAN UNDIFFERENTIATED

OWEN CONGLOMERATE - SANDSTONE

GORDON LIMESTONE

INTERPRETED POSITION YOUNGER CAMBRIAN

GORDON LIMESTONE / OWEN CONGL.

OWEN CONGLOMERATE

SNAKE SPUR/GARFIELD RIVER SEQUENCE

GLACIALS

LIMIT OF EXTENSIVE FLUVIO GLACIALS

GORDON LIMESTONE

COARSE VOLCANICLASTICS

SNAKE SPUR / GARFIELD RIVER SEQUENCE

SHALES: FINE TUFFACEOUS SEDIMENTS

SAILOR JACKS (Approx.)

IGNIMBRITES/ MINOR ASH, LAVAS
SUBAERIAL
Ignimbrites, massive, feldspar phyric with lithics & fiamme

Section 2688
Approx. location
Shaft, tunnel, trenching

Section 2275 - Approx. position
Pyritic schist with specular hematite near Owen Contact. Schist slate with galena joint faces

Section 4587 Approx. position
pyritic schist barite hematite veining

IGNIMBRITE
feldspar phyric fine ash ground mass

Snake Spur Costein
Section 3025

Hematitic medium grained clastics
FINE PYRITIC TUFFACEOUS SEDIMENTS
RHYOLITE LAVA

Section 2101 approx. position
Tunnel, tranches in pyritic schist.

VOLCANICLASTIC
MED-COARSE GRAINED

SHALE

QUARTZ SERICITE SCHISTS
Quartz feldspar phyric volcanics fine-medium grained subaerial water laid lithologies frequently pyritic.

IGNIMBRITE
feldspar phyric with ash, fine tuffaceous lenses

IGNIMBRITE feldspar phyric. Ash fine tuff lenses

IGNIMBRITE
quartz feldspar phyric

ANDESITE LAVA
hornblend porphyritic

RHYOLITE, LAVAS, IGNIMBRITES
MASSIVE SUBAERIAL VOLCANICS DOMINANT
devitrified minor

RHYOLITE
feldspar phenocrysts

CAMBRIAN UNDIFFERENTIATED

OWEN CONGLOMERATE - SANDSTONE

Approx. Trend of SHALE/ LAVAS

RHYOLITE LAVA
massive, some feldspar phyric

SHALE, TUFFACEOUS SEDIMENTS

IGNIMBRITE, qtz feldspar phyric

Rhyolite lava massive

IGNIMBRITE ?
Qtz feldspar phyric, massive fine glassy ground mass variable lithic component foliated, sericitized.

Fine tuffaceous chloritized sediment

Fine tuffaceous sediment

SHALE LENSES

EASTERN CLARK VALLEY SHALE/LAVA SEQUENCE

IGNIMBRITE ?
qtz feldspar phyric, massive fine glassy ground mass variable lithic component foliated, sericitized

RHYOLITE LAVA
massive

WESTERN LIMIT OF FOLIATED SERICITIZED VOLCANICS

RHYOLITE LAVA
qtz biotite porphyritic

IGNIMBRITE
qtz feldspar phyric fine ash ground mass no lithics

SHALE, CRYSTAL TUFF

VOLCANICLASTIC CONGLOMERATE

EQUIVALENT OF SNAKE SPUR / GARFIELD RIVER SEQUENCE ?

VOLCANICLASTIC CONGLOMERATE

CAMBRIAN UNDIFFERENTIATED

OWEN CONGLOMERATE - SANDSTONE

RHYOLITE LAVAS, IGNIMBRITES
SUBAERIAL VOLCANICS DOMINANT
Epidote alteration minor, massive

QUARTZ SERICITE SCHISTS
Qtz feldspar phyric volcanics
fine-medium grained subaerial-water laid lithologies frequently pyritic

Section 2688
Approx. location
Shaft, tunnel, trenching

SNAKE SPUR/GARFIELD RIVER SEQUENCE
fine-coarse grained volcaniclastics minor rhyolitic lavas

RHYOLITE LAVA
qtz biotite porphyritic

SHALE

TUFFACEOUS SHALE

COARSE VOLCANICLASTICS

Quartz feldspar phyric volcanics medium grained, foliated sericitized, pyritic.

IGNIMBRITE
feldspar phyric with ash, fine tuffaceous lenses

IGNIMBRITE
quartz feldspar phyric

ANDESITE LAVA
hornblend porphyritic

CAMBRIAN UNDIFFERENTIATED

OWEN CONGLOMERATE - SANDSTONE

RHYOLITE LAVAS
massive, microspherulitic texture, feldspar phyric

Tuffaceous sediments

GLACIALS

HYDES ADIT

HAL JUKES ADIT

Hematite qtz tourmaline veining and alteration in massive lavas

APPROX. LIMIT OF ALTERATION

IGNIMBRITE, LAVA ASH

RHYOLITE LAVAS
PART OF CENTRAL FLOW DOME COMPLEX
massive, microspherulitic texture occasionally feldspar phyric, chloritized

Quartz, specular hematite veins

Change in vein composition qtz barite - qtz hematite

Quartz hematite barite veining

Quartz phyric ignimbrite abundant lithic
Fine tuffac. sediment chloritized.

Massive rhyolite lava

IGNIMBRITE qtz phyric lithics to 50mm

Ash spherulitic, Flow banded lavas

TAYLOURS BARITE

CAMBRIAN UNDIFFERENTIATED

OVERTURNED BEDDING

Section 4587 Approx. position
pyritic schist barite hematite veining

Section 2101 approx. position
Tunnel, tranches in pyritic schist.

Qtz

Ash

Crosscut

Section 2275 - Approx. position
Pyritic schist with specular hematite near Owen Contact. Schist slate with galena joint faces

Section 2688
Approx. location
Shaft, tunnel, trenching

Snake Spur Costein
Section 3025

Hematitic medium grained clastics
FINE PYRITIC TUFFACEOUS SEDIMENTS
RHYOLITE LAVA

Fine tuffaceous chloritized sediment

Fine tuffaceous sediment

IGNIMBRITE ?
Qtz feldspar phyric, massive fine glassy ground mass variable lithic component foliated, sericitized.

IGNIMBRITE ?
qtz feldspar phyric, massive fine glassy ground mass variable lithic component foliated, sericitized

RHYOLITE LAVA
massive

SHALE LENSES

RHYOLITE LAVA
massive, some feldspar phyric

EASTERN CLARK VALLEY SHALE/LAVA SEQUENCE

Rhyolite lava massive

RHYOLITE LAVA
massive, some feldspar phyric

SHALE, TUFFACEOUS SEDIMENTS

IGNIMBRITE, qtz feldspar phyric

RHYOLITE LAVA

CAMBRIAN UNDIFFERENTIATED

OWEN CONGLOMERATE - SANDSTONE

Approx. Trend of SHALE/ LAVAS

RHYOLITE LAVAS
massive, microspherulitic texture, feldspar phyric

IGNIMBRITE/ MINOR ASH, LAVAS
SUBAERIAL
Ignimbrites, massive, feldspar phyric with lithics & fiamme

SAILOR JACKS (Approx.)

SNAKE SPUR / GARFIELD RIVER SEQUENCE

GLACIALS

LIMIT OF EXTENSIVE FLUVIO GLACIALS

INTERPRETED POSITION

GORDON LIMESTONE

OWEN CONGLOMERATE

SNAKE SPUR/GARFIELD RIVER SEQUENCE

COARSE VOLCANICLASTICS

SHALES: FINE TUFFACEOUS SEDIMENTS

GORDON LIMESTONE / OWEN CONGL.

GORDON LIMESTONE

INTERPRETED POSITION YOUNGER CAMBRIAN

OWEN CONGLOMERATE

LIMIT OF EXTENSIVE FLUVIO GLACIALS

CAMBRIAN UNDIFFERENTIATED

OWEN CONGLOMERATE - SANDSTONE

CAMBRIAN UNDIFFERENTIATED

LIMESTONE

CAMBRIAN UNDIFFERENTIATED

OWEN CONGLOMERATE

OWEN CONGLOMERATE - SANDSTONE

LIMIT OF EXTENSIVE FLUVIO GLACIALS

GARFIELD RIVER SNAKE SPUR

OWEN CONGLOMERATE - SANDSTONE

CAMBRIAN UNDIFFERENTIATED

ss28 000mN ss28 000mN

ss27 000mN ss27 000mN

ss26 000mN ss26 000mN

ss25 000mN ss25 000mN

ss24 000mN ss24 000mN

ss23 000mN ss23 000mN

ss22 000mN ss22 000mN

181 000mE 182 000mE 183 000mE 184 000mE 185 000mE

LEGEND:

- Geological boundary
- Interpreted geological boundary
- Fault
- Unconformity

Bedding
- 0-30°
- 30-60°
- >60°

Folds
- Syncline
- Anticline
- Plunge

Alteration
- Pyritic sericite/chlorite
- Hematite sericite

Sheet Index

Garfield	Jukes	Crotty
Flonnigan	Snake	Andrew
Sorell	Darwin	Kelly

GN TN MN

GRID CONVERGENCE 0°50'

GRID MAGNETIC ANGLE 12°

The relationship between True North Grid North and Magnetic North is shown diagrammatically. Magnetic value is correct for 1980. Annual change is 0.0° (0.9 miles) Easterly.

5 cm

GOLD FIELDS EXPLORATION PTY. LIMITED

TYNDALL - E.L. 9/66

JUKES/DARWIN

INTERPRETATIVE GEOLOGY

SCALE 1:5000 100 0 100 200 METRES

DRAWN BY : R.Pollock
DRAFTSMAN: T.G.D.S.
DATE : May '84
REVISIONS :
FILE NO.
FIG.

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

67

1:5000

FLANNIGAN SNAKE SP — IR

INTERP GEOLOGY

5 cm

E.L. 9/66 BOUNDARY

SEDIMENTARY SEQUENCE
black shale, siltstone, micaceous sandstone

QUARTZ PHYRIC VOLCANICLASTICS

TUFFACEOUS SHALE

RHYO-DACITIC LAVA
massive columnar jointing

QUARTZ PHYRIC SEDIMENTARY SEQUENCE
black shale, siltstone, micaceous sandstone

QUARTZ PHYRIC VOLCANICLASTICS
Quartz feldspar phyric volcanics medium grained, foliated sericitized, pyritic

SNAKE SPUR GRID

RHYOLITE LAVA
qtz biotite porphyritic

SANDY SILICI SHALE
massive

COARSE VOLCANICLASTICS

QUARTZITE OWEN OR ELDON GROUP?

GORDON LIMESTONE

OWEN CONGLOMERATE - SANDSTONE

PYROCLASTICS
partly reworked

TUFFACEOUS SILTSTONE/SANDSTONE

VOLCANICLASTIC CONGLOMERATE

POST CAMBRIAN QUARTZITE

OWEN OR ELDON GROUP?

TUFFACEOUS SILTSTONE/SANDSTONE MINOR SHALES

PYROCLASTICS (Reworked)

IGNIMBRITE

TERTIARY-RECENT GRAVELS & SCREE

FLANNIGANS GRID

TUFFACEOUS SILTSTONE/SANDSTONE

CAMBRIAN UNDIFFERENTIATED

OWEN CONGLOMERATE - SANDSTONE

VOLCANICLASTIC CONGLOMERATE

FLAT LYING

SNAKE SPUR/GARFIELD RIVER SEQUENCE
fine-coarse grained volcaniclastics minor rhyolitic lavas

QUARTZ SERICITE SCHISTS
Qtz feldspar phyric volcanics fine-medium grained subaerial-water laid lithologies frequently pyritic

FELSIC PYROCLASTICS
ignimbrites with minor epiclastics

RHYOLITE LAVAS, IGNIMBRITES
SUBAERIAL VOLCANICS DOMINANT
alteration minor, massive

RHYOLITE
feldspar phenocrysts

IGNIMBRITE
feldspar phyric with cals, fine tuffaceous lenses

IGNIMBRITE Feldspar phyric Ash, fine tuff lenses

IGNIMBRITE
quartz feldspar phyric

ANDESITE LAVA
hornblend porphyritic

RHYOLITE, LAVAS, IGNIMBRITES
MASSIVE SUBAERIAL VOLCANICS DOMINANT
SPARSE minor

RHYO-DACITIC LAVA
weakly altered

OWEN CONGLOMERATE

GORDON LIMESTONE (Inferred)

SNAKE SPUR GRID

OWEN CONGLOMERATE (Inferred)

HEMATITIC TUFFACEOUS SEDIMENTS (Contact Tuff?)

COARSE VOLCANICLASTICS
Lakes Breccia?

SEDIMENTARY SEQUENCE
black shale, siltstone, micaceous sandstone

Section 2688
Approx. location
Shaft, tunnel, trenching

Section 2270 Approx position
Pyritic schist with specular hematite near Owen Contact Schist - slate with galena joint faces

Snake Spur Costean Section 3025

Hematitic medium grained clastics

FAULT

THRUST

POSSIBLE

UNDIFFERENTIATED VOLCANICS

RHYOLITE LAVA

CAMBRIAN UNDIFFERENTIATED

PART OF CENTRAL FLOW DOME COMPLEX
massive, microspherulitic texture occasionally feldspar phyric
RHYOLITE LAVA

HYDES ADIT

HAL JUKES ADIT

GLACIALS

Tuffaceous sediments

RHYOLITE LAVAS
massive, microspherulitic texture, feldspar phyric

Sericitic volcanics
Saliic Jacks (approx)
pink quartzite

GLACIAL COVER
(20-30m thick in the west, thinning eastwards)

IGNIMBRITES/MINOR ASH, LAVAS
SUBAERIAL
Ignimbrites, massive, feldspar phyric with lithics & fiamme

IGNIMBRITE, LAVA ASH

Carbonaceous mudstone related to limestone ?

Section 4587 Approx position
pyritic schist barite hematite veining

RHYOLITE LAVAS
massive, microspherulitic texture, feldspar phyric

Change in vein co qtz barite ~ qtz

IGNIMBRITE qtz phyric lithics to 50mm

Massive rhyolite lava

CAMBRIAN UNDIFFERENTIATED

OWEN CONGLOMERATE - SANDSTONE

Sandstone beds and lenses, hem. silica

Qtz veining

Section 2101 approx position
Tunnel, trenches in pyritic L schist

FELSIC PYROCLASTICS
ignimbrites with minor epiclastics

RHYO-DACITIC LAVA

Quartz veining in lavas

Qtz

Ash

SHALE

Approx. Trend of SHALE/LAVAS

RHYOLITE LAVA
massive, some feldspar phyric

IGNIMBRITE ?
qtz feldspar phyric

SHALE TUFFACEOUS SEDIMENTS

Rhyolite lava massive

CAMP SITE

CUT TRACK

IGNIMBRITE ?
Qtz feldspar phyric, massive fine glassy ground mass variable lithic component foliated, sericitized.

Fine tuffaceous sediment

Fine tuffaceous chloritized sediment

WESTERN LIMIT OF FOLIATED SERICITIZED VOLCANICS

SHALE LENSES

EASTERN CLARK VALLEY SHALE/LAVA SEQUENCE

E.L. 9/66 BOUNDARY

LEGEND

- Geological boundary
- Interpreted geological boundary
- Fault
- Unconformity

Bedding
- 0-30°
- 30-60°
- >60°

Folds
- Syncline
- Anticline
- Plunge

Alteration
- Pyritic sericite/chlorite
- Hematite sericite

SHEET LOCATION
Garfield | Jukes | Flannigans | Snake

GRID CONVERGENCE 0°50'
GRID MAGNETIC ANGLE 12°

GOLD FIELDS EXPLORATION PTY. LIMITED

TYNDALL - E.L.9/66

FLANNIGANS - SNAKE SPUR AREA

INTERPRETATIVE GEOLOGY

DRAWN BY	: RP/AC.
DRAFTSMAN	: TGDS/SF
DATE	: JULY, 85
REVISIONS	:
F.F. - May, 86	
FILE NO.	

SCALE 1:5000 — 100 50 0 100 200 METRES

FIG. 24

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

68

1:5 000

FLANNIGANS SNAKE SP. INTERP GEOLOGY

5 cm

E.L. 9/66 BOUNDARY

SNAKE SPUR - GARFIELD RIVER SEQUENC

GORDON LIMESTONE (INFERRED)

FLANIGANS GOLD

OWEN/ELDON GROUP ?

SILTSTONE

SANDST... micaceous

QUARTZITE OWEN OR ELDON GROUP?

GORDON LIMESTONE (INFERRED)

COARSE VOLCANICLASTICS

TUFFACEOUS SILTSTONE

OWEN CONGLOMERATE - SANDSTONE

VOLCANICLASTICS

VOLCANICLASTIC CONGLOMERATE

POST CAMBRIAN QUARTZITE

West facing

OWEN OR ELDON GROUP ?

FLANNIGANS OWEN CONGLOMERATE

IGNIMBRITE

TUFFACEOUS GRID EPICLASTICS

UNDIFFERENTIATED VOLCANICS

PREDOMINANTLY VOLCANICLASTICS

SILTSTONE

TUFFACEOUS

Flannigans Creek

1400 N

TUFFACEOUS SHALE

COARSE TUFFACEOUS CLASTICS

Quartz feldspar phyric volcanics medium grained, foliated sericitized, pyritic.

SANDY SILICEOUS SHALE MASSIVE

SHALE CHERTS

COARSE VOLCANICLASTICS

RHYOLITE LAVA qtz biotite porphyritic

SANDY SILIC' SHALE massive

COARSE VOLCANICLASTICS

SHALE

RHYOLITE LAVA qtz biotite porphyritic

SHALE

RHYOLITE LAVA ? qtz biotite porphyritic

SHALE

RHYOLITE LAVA qtz biotite porphyritic

SHALE

QUARTZ SERICITE SCHISTS

Qtz feldspar phyric volcanics fine-medium grained subaerial-water laid lithologies frequently pyritic

Section 2688 Approx. location Shaft, tunnel, trenching

SNAKE SPUR/GARFIELD RIVER SEQUENCE

fine-coarse grained volcaniclastics minor rhyolitic lavas

RHYOLITE LAVAS, IGNIMBRITES SUBAERIAL VOLCANICS DOMINANT f34 alteration minor, massive

RHYOLITE feldspar phenocrysts

IGNIMBRITE feldspar phyric with ash, fine tuffaceous lenses

IGNIMBRITE Feldspar phyric Ash, fine tuff lenses

IGNIMBRITE quartz feldspar phyric

ANDESITE LAVA hornblend porphyritic

ANDESITE LAVA hornblend porphyritic

RHYOLITE, LAVAS, IGNIMBRITES MASSIVE SUBAERIAL VOLCANICS DOMINANT alteration minor

CAMBRIAN UNDIFFERENTIATED

RIVER

OWEN CONGLOMERATE - SANDSTONE

FLAT LYING

VOLCANICLASTIC CONGLOMERATE

VOLCANICLASTIC CONGLOMERATE

CAMBRIAN UNDIFFERENTIATED

WESTERN LIMIT OF FOLIATED SERICITIZED VOLCANICS

WESTERN LIMIT OF FOLIATED SERICITIZED VOLCANICS

Fine tuffaceous chloritized sediment

Fine tuffaceous sediment

IGNIMBRITE ? Qtz feldspar phyric, massive fine glassy ground mass variable lithic component foliated, sericitized

CAMP SITE

CUT TRACK

E.L. 9/66 BOUNDARY

Approx. Trend of SHALE/ LAVAS

RHYOLITE LAVA

RHYOLITE LAVA massive, some feldspar phyric

IGNIMBRITE ? qtz feldspar phyric

SHALE TUFFACEOUS SEDIMENTS

SHALE LENSES

EASTERN CLARK VALLEY SHALE/LAVA SEQUENCE

E.L. 9/66 BOUNDARY

GLACIALS

GORDON LIMESTONE

GORDON LIMESTONE (OWEN CONGL.)

OWEN CONGLOM.

VOLCANICLASTICS minor rhyolite lavas & tuffs

GORDON LIMESTONE

OWEN CONGLOMERATE

CAMBRIAN UNDIFFERENTIATED

SNAKE SPUR GRID

LIMIT OF EXTENSIVE FLUVIO GLACIALS

COARSE VOLCANICLASTICS

SNAKE SPUR/ GARFIELD RIVER SEQUENCE

IT IS HIGHLY LIKELY THAT A THIN FINGER OF GORDON LIMESTONE OCCURS IN THE CENTRE OF THIS SYNCLINE, HIDDEN BENEATH THE GLACIALS.

Sericitic volcanics

Sailor Jacks (approx) * pink Quartzite

GLACIAL COVER (~20-30m thick in the west, thinning eastwards.)

IGNIMBRITES/ MINOR ASH, LAVAS SUBAERIAL

Ignimbrites, massive, feldspar phyric with lithics & fiamme

Carbonaceous mudstone related to limestone?

Section 2275 - Approx. position Pyritic schist with specular hematite near Owen Contact Schist slate with ophiolite joint faces

IGNIMBRITE feldspar phyric fine ash ground mass

IGNIMBRITE feldspar phyric fine ash ground mass

OWEN CONGLOMERATE

Snake Spur Costean Section 3025

Hematitic medium grained clastics

TRENCH

FINE PYRITIC TUFFACEOUS SEDIMENTS

RHYOLITE LAVA

Axis of overturned Owen

Quartz veining in lavas

Ash

SHALE

VOLCANICLASTIC MED-COARSE GRAINED

INTERCALATED DACITIC LAVAS AND VOLCANICLASTICS Ch. ear

Section 2101 approx. position Tunnel, trenches in pyritic schist.

Sandstone beds and lenses, herh. siltst.

Qtz veining

PROBABLE FAULTED CONTACT

CAMBRIAN UNDIFFERENTIATED

OWEN CONGLOMERATE - SANDSTONE

QUARTZ SERICITE SCHISTS

Quartz feldspar phyric volcanics fine-medium grained subaerial water laid lithologies frequently pyritic.

SNAKE SPUR GRID

SHALES/FINE TUFFACEOUS SEDIMENTS

Section 2688 Approx. location Shaft, tunnel, trenching

SAMPSITE

RHYOLITE LAVA massive, microspherulitic texture, feldspar phyric

ASH

RHYOLITE LAVA

CAMBRIAN UNDIFFERENTIATED

GLACIALS

Tuffaceous sediments

RHYOLITE LAVAS massive, microspherulitic texture, feldspar phyric

HYDES ADIT

HAL JUKES ADIT

massive, microspherulitic texture occasionally feldspar phyric

IGNIMBRITE, LAVA ASH

Section 4567 Approx. position pyritic schist barite hematite veining

RHYOLITE LAVAS massive, microspherulitic texture, feldspar phyric

Massive rhyolite lava

IGNIMBRITE qtz phyric lithics to 50m

CAMBRIAN UNDIFFERENTIATED

OWEN CONGLOMERATE - SANDSTONE

LEGEND:

- Geological boundary
- Interpreted geological boundary
- Fault
- Unconformity

Bedding
- 0-30°
- 30-60°
- >60°

Folds
- Syncline
- Anticline
- Plunge

Alteration
- Pyritic sericite/chlorite
- Hematite sericite

SHEET LOCATION

Garfield | Jukes | Flannigans | Snake

GRID CONVERGENCE 0°40'

GRID MAGNETIC ANGLE 10°

5 cm

GOLD FIELDS EXPLORATION PTY. LIMITED

TYNDALL – E.L. 9/66

FLANNIGANS–SNAKE SPUR AREA

INTERPRETATIVE GEOLOGY

SCALE 1:5000 (100 0 100 200 METRES)

DRAWN BY :
DRAFTSMAN: T.G.D.S.
DATE : July '85
REVISIONS :

FILE NO.

FIG. 101

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

69

1:5,000 TYNDALL PROJECT INTERPRETATIVE GEOLOGY, 1984 HUXLEY AREA COMPOSITE SHEET

GOLD FIELDS EXPLORATION PTY LIMITED

TYNDALL – E.L. 9/66
HUXLEY AREA
INTERPRETATIVE GEOLOGY & GOLD GEOCHEMISTRY 1982-84

SCALE 1:5000 (100 0 100 200 METRES)

DRAWN BY | DRAFTSMAN | DATE | REVISIONS | FILE NO. | FIG.

E.L. 9/66 BOUNDARY

NOTE: KING RIVER and DIORITE CREEK SECTIONS AFTER CORBETT 1976.

NOTE: AREA ENCLOSED BY LIMITED FACTUAL INFORMATION.

NOTE: AREA ENCLOSED BY LIMITED FACTUAL INFORMATION.

LEGEND

Geological boundary
Interpreted geological boundary
Fault
Unconformity
Bedding
0-30°
30-60°
>60°
Folds
Syncline
Anticline
Plunge
Alteration
Pyritic sericite/chlorite
Hematite sericite
Gossan

GEOLOGY

SAMPLES

GEOCHEMISTRY

80# Stream Sediment
– 21004 – 21509 not inc
Golden Apple Syndicate
NB. detection limit <0.7
(due to low sample we
0005-0084 not inclus
Renison Goldfields – P.
– 11535-11580 not inclus
Renison Goldfields – R.
Rock Chips
– 2651-2665 1983 Re
Renison Go
– 11527-11579 1984 R.
Renison Go

5 cm

WESTERN SEQUENCE
quartz feldspar porphyries
quartz phyric pyroclastics
tuffaceous greywackes

WHIP SPUR SEQUENCE

RHYOLITE IGNIMBRITE

RHYOLITE LAVAS

TUFFACEOUS SEDIMENTS

OWEN CONGLOMERATE

VOLCANIC AGGLOMERATE

VOLCANICLASTICS

BASIC DYKES

Mt. ELLEN GOLD MINE
open cut and shafts

Section 4064
LADY HAVILL (approx location)
trench/adit in chloritic pyritic schist

Section 3713
SUNRISE PITS (approx location)
some agglomeratic

Section 2355
MOUNTAIN MAID
trench/tunnel ferruginous haisite bond in 9 oxt Au

Three samples within 250 m of each other sampling similar outcrops in main creek valley

NB. 21801 21388 as located on Golden Apple field plots, 1982

NB. 21801 21388 as reported in field Rpt. 1984

MASSIVE SCATTERED FELDSPAR PHENOCRYSTS
LOCALLY FOLIATED – WEAK SERICITIZATION
MINOR FINE TUFFACEOUS SEDIMENT LENSES

Reworked fine-medium grained crystal/lithic tuffs with siltstone, chert and bedded hematite

Basaltic tuffs sandstone-shale

Bedded tuffs - sandstone - shale

Interbedded greywacke shale and quartz feldspar phyric tuff

Massive quartz-feldspar porphyry (mainly intrusive)

Feldspar crystal tuffs with block shale fragments

Three samples within 250 m of each other sampling similar outcrops in main creek valley

Fine-medium grained volcanic and pre-cambrian detritus

Vol-clastics, lithic tuffs and fine grained sediments

Fine-medium grained volcanic and pre-cambrian detritus

Fine-medium grained, volcanic and pre-cambrian detritus

Pyrite hematite BRCPHY

Crystal lithic tuffs

Trench/Tunnel ferruginous haisite bond in 9 oxt Au

Tuffaceous shale Cherts tuffs

Reworked fine-medium grained crystal/lithic tuffs with siltstone, chert and bedded hematite

Trench/adit in chloritic pyritic schist

Basaltic tuffs sandstone-shale

Interbedded greywacke shale and quartz feldspar phyric tuff

Massive quartz-feldspar porphyry (mainly intrusive)

quartz feldspar porphyries, porphyritic pyroclastics, tuffaceous greywackes

Andesitic agglomerates, tuffs shales and minor cherts

quartz phyric pyroclastics tuffaceous greywackes

Basaltic tuffs sandstone-shale

Feldspar crystal tuffs with block shale fragments

Interbedded greywacke shale and quartz feldspar phyric tuff

Massive quartz-feldspar porphyry (mainly intrusive)

quartz feldspar porphyries, porphyritic pyroclastics, tuffaceous greywackes

5 cm

TCR 94-3582
EL 9/66
HUXLEY-JUKES-DARWIN AREA
GOLDFIELDS EXPLORATION

69

1:5,000 TYNDALL PROJECT INTERPRETATIVE GEOLOGY, 1984 HUXLEY AREA COMPOSITE SHEET

GOLD FIELDS EXPLORATION PTY LIMITED

DRAWN BY : R.Pollock
DRAFTSMAN: T.G.S.
DATE : May '84
REVISIONS :
FILE NO.

TYNDALL – E.L. 9/66
HUXLEY AREA
INTERPRETATIVE GEOLOGY
&
GOLD GEOCHEMISTRY
1982 - 84

SCALE 1:5000
METRES

FIG. 42

GEOLOGY

LEGEND:
Geological boundary
Interpreted geological boundary
Fault
Unconformity
Bedding
Folds
Syncline
Anticline
Plunge
Alteration
Pyritic silicic/chlorite
Hematite sericite
Gossan

5 cm

SAMPLES

GEOCHEMISTRY

80# Stream Sediments
– 21104 – 21509 not inclusive
Golden Apple Syndicate 1982
NB. detection limit<0.17–<0.01
21654 <0.01 Sample site
21656 no au assay
(due to low sample weights)
– 0005–0084 not inclusive
Rentech Goldfields–P.Kompyshon 1983
– 11535–11580 not inclusive
Rentech Goldfields–R. Pollock 1984

Rock Chips
– 2651–2665 1983 Rheiger
Rentech Goldfields
11527 <0.01 * 11579
– 11527–11579 1984 R.Pollock
Rentech Goldfields

Section 4064
LADY HAVILL (approx location)
Trench/adit in chloritic pyritic schist

Section 3713
SUNRISE PITS
(approx location)

Section 2956 R
MOUNTAIN MAID
Trench/tunnel (approximate location)

MR 21307 21308 as located on Golden Apple field plots, 1982

MR 21307 21308 as located in field 1984

Mt. ELLEN GOLD MINE
open cut and shafts

These samples within 220 m of both ends of sampling similar outcrops in main creek valley
21303 0.03
21304 0.08
21305 0.06

NOTE: AREA ENCLOSED BY —— —— LIMITED FACTUAL INFORMATION

NOTE: KING RIVER and DIORITE CREEK SECTIONS AFTER CORBETT 1976.

Py old workings K. WELLS, 1972

Bedded tuffs - sandstone - shale

Massive quartz – feldspar porphyry (mainly intrusive)

Bedded greywacke and quartz feldspar tuff

Bedded tuffs - sandstone - shale

Feldspar crystal tuffs with block fragments

Massive, feldspar phenocrystic RHYOLITE LAVAS

BASIC DYKES

Porphyritic, tuffaceous greywacke

WESTERN SEQUENCE

quartz feldspar porphyries
quartz phyric pyroclastics
tuffaceous greywackes

WHIP SPUR SEQUENCE

RHYOLITE IGNIMBRITE

RHYOLITE LAVAS

MASSIVE SCATTERED FELDSPAR PHENOCRYSTS
LOCALLY FOLIATED - WEAK SERICITIZATION
MINOR FINE TUFFACEOUS SEDIMENTARY LENSES

BASIC DYKE

TUFFACEOUS SEDIMENTS

Andesitic oggiomerates, tuffs
shales and minor cherts

DACITIC
crystal lithic tuffs

Tuffaceous shale
cherts tuffs

RHYOLITE LAVA

DACITIC IGNIMBRITE
some agglomeratic

Fine-medium grained volcanic and pre-cambrian detritus

VOLCANICLASTICS

RHYOLITE LAVA

Fine-medium grained volcanic and precambrian detritus

Volcanic lithic tuffs and minor fine grained sediments

Fine-medium grained, volcanic and pre-cambrian detritus

RHYOLITE LAVAS
VOLCANICLASTICS

VOLCANIC AGGLOMERATE

OWEN CONGLOMERATE

QUEEN CONGLOMERATE

Pyrite hematite BRECCIA

Fine-medium grained volcanic and precambrian detritus

Bedded tuffs
sandstone-shale

Recorded fine-medium grained crystal/lithic tuffs with siltstone chert and bedded hematite

TUFFACEOUS SEDIMENTS

RHYOLITE IGNIMBRITE

Trench/tunnel (approximate location)
Historic bond 15 g/mt Au

Pyritic hematite BRECCIA

DACITIC

RHYOLITE LAVA

RHYOLITE IGNIMBRITE

quartz feldspar phyric

RHYOLITE IGNIMBRITE

quartz feldspar phyric

RHYOLITE LAVA

FAULT

SOUTH

OWEN

OWEN CONGLOMERATE

RHYOLITE IGNIMBRITE

RHYOLITE IGNIMBRITE

RHYOLITE IGNIMBRIT

TCR 94-3593
EL 9/66
HUXLEY-YIKEE-DARWIN AREA
GOLDFIELDS EXPLORATION

1:5000

HUXLEY
INTERP GEOL

RHYOLITE LAVA
Tuffaceous shale charts tuffs
RHYOLITE IGNIMBRITE
quartz feldspar phyric
RHYOLITE IGNIMBRITE
quartz feldspar phyric
OWEN CONGLOMERATE
WHIP SPUR SEQUENCE
Andesitic agglomerates, tuffs shales and minor cherts
TUFFACEOUS SEDIMENTS
RHYOLITE IGNIMBRITE
WHIP SPUR SEQUENCE
HUXLEY GRID
E.L.9/66 BOUNDARY
WHIP SPUR SEQUENCE
RHYOLITE IGNIMBRITE
RHYOLITE LAVAS
DACITIC IGNIMBRITE
some agglomerate
Section 5713
SUNRISE PITS
coarse feldspar
RHYOLITE IGNIMBRITE
DACITIC
crystal tuffs
RHYOLITE IGNIMBRITE
RHYOLITE LAVA
VOLCANICLASTIC-EPICLASTIC SEQUENCE
INTERLAYERED QUARTZ-PHYRIC VOLCANICS AND TUFFACEOUS SILTSTONES AND BLACK SHALES
WHIP SPUR SEQUENCE
Section 4064
LADY HAVILL
trench/adit in chloritic pyritic schist
OWEN CONGLOMERATE
RHYOLITE LAVA
RHYOLITE LAVAS
MASSIVE SILTSTONES, FELDSPAR PHENOCRYSTS LOCALLY FOLIATED - WEAK SERICITIZATION MINOR FINE TUFFACEOUS SEDIMENT LENSES
BASIC DYKE
TUFFACEOUS SEDIMENTS
Bleached fine-medium grained crystal / lithic tuffs with siltstone chert and bedded hematite
RHYOLITE IGNIMBRITE
Mt. ELLEN GOLD MINE
open cut and shafts
MT. ELLEN GRID
NOTE AREA ENCLOSED BY LIMITED FACTUAL INFORMATION
RHYOLITE LAVA
Section 3956
MOUNTAIN MAID
trench/tunnel, ferruginous hydro band 6' 5 per N.
VOLCANIC AGGLOMERATE
VOLCANICLASTICS
Fine-medium grained, volcanic and pre-cambrian detritus
OWEN CONGLOMERATE
IGNIMBRITE
FELDSPAR-PHYRIC, FOLIATED COMMON VOLCANIC LITHIC AND SHARD FRAGMENTS
VOLCANICLASTIC
VOLCANIC AGGLOMERATE
OWEN CONGLOMERATE
VOLCANIC-EPICLASTIC SEQUENCE
quartz feldspar porphyritic, dacryl phyric pyroclastics, tuffaceous greywacke
BASIC DYKES
IGNIMBRITE
Feldspar shards fragments, common chloritic clinc & shared fragments.
MT. ELLEN GRID
NOTE AREA ENCLOSED BY LIMITED FACTUAL INFORMATION
Massive quartz-feldspar porphyry (mostly intrusive)
Interbedded greywacke, shale and quartz feldspar phyric tuff
Massive crystal tuffs with black shale
Bedded tuffs - greywacke - shale
NOTE - KING RIVER and DIORITE CREEK SECTIONS AFTER CORBETT 1976.
RHYOLITE LAVAS
massive, feldspar phenocrysts
VOLCANICLASTICS
Fine-medium grained, volcanic and pre-cambrian detritus
RHYOLITE LAVA
OWEN CONGLOMERATE
VOLCANIC AGGLOMERATE
RHYOLITE LAVAS VOLCANICLASTICS
IGNIMBRITES
massive feldspar phyric crystals
IGNIMBRITES
E.L.9/66 BOUNDARY
JUKES PTY. GRID
E.L.9/66 BOUNDARY
OWEN CONGLOMERATE

JUKES PTY. LEGEND
Owen Conglomerate
MT. READ VOLCANICS
Weakly sericitic dacite with minor
Intensely chloritic intercalated with
Strongly hematitic tonite with minor
Moderately dacite tonite with dacite
Sericitic and ch with minor volc
Intrusive quartz
Unconformity
Fault
Contact
LEGEND
Geological bou
Interpreted geo
Fault
Unconformity
Bedding
Inclined
Vertical
Syncline
Anticline
Plunge
Alteration
Pyrite sericite
Hematite sericit
SEALED ROAD BRIDGE
VEHICULAR TRACK
LOGGING TRACK, BULLDOZER
WALKING TRACK
RAILWAY TRAMWAY ABANDON
PROMINENT PEAK
TRIG STATION
BENCH MARK
SPOT ELEVATIONS
RIVER CREEK
LAKE
SWAMP
MAP INDEX
Photography: Lunc
South West
Photogrammetry Associates
Grid Lines are 1000N
Grid Values are Sha
South West Co
Horizontal Datum: Aust
Vertical Datum: Australi
Transverse Mer
GEOLOGICAL SOURCE: Hutton & Fischer
Cartwright 1964
Pollock 1968-69
GOLD FIELDS EXPL
TYNDALL — E.L.
HUXLEY ARE
INTERPRETA
GEOLOG
SCALE 1:5000

TCR 84-1582
EL 9/66
HUXLEY-TYERS-DARWIN AREA
GOLDFIELDS EXPLORATION

1:5000

HUXLEY
INTERP. GEOL

RHYOLITE LAVA
RHYOLITE IGNIMBRITE
quartz feldspar phyric
TUFFACEOUS SEDIMENTS
WHIP SPUR SEQUENCE
rhyolitic agglomerates, tuffs, shales and minor cherts
OWEN CONGLOMERATE
DACITIC IGNIMBRITE
crystal crystal tuffs
RHYOLITE LAVAS
VOLCANICLASTIC-EPICLASTIC SEQUENCE
INTERLAYERED QUARTZ-PHYRIC VOLCANICS AND TUFFACEOUS SILTSTONES AND BLACK SHALES
BASIC DYKE
MT ELLEN GOLD MINE
open cut and shafts
MOUNTAIN MAID
Section 3966
Section 4064
LADY HAVILL
Section 3713
SUNRISE PITS
VOLCANIC AGGLOMERATE
VOLCANICLASTICS
fine-medium grained, volcanic and pre-volcanic detritus
IGNIMBRITE
feldspar phyric, foliated, quartz phyric, crystal tuffs & lavoid fragments
IGNIMBRITES
quartz feldspar phyric
RHYOLITE LAVAS
massive, feldspar phenocrysts
JUKES PTY. GRID
E.L. 9/66 BOUNDARY
HUXLEY GRID
MT. ELLEN GRID
NOTE: AREA ENCLOSED BY ——— LIMITED FACTUAL INFORMATION

JUKES PTY LEGEND

Owen Conglomerate

MT. READ VOLCANICS

- Weakly sericitic ± chloritic subbrecciated tuffs with minor porphyritites
- Intensely chloritised and mineralised volcaniclastics
- Strongly hematitic-silicic-chloritic brecciated lavas with minor volcaniclastics
- Moderately hematitic-silicic-chloritic brecciated lavas with minor volcaniclastics
- Sericitic and chloritic lava with minor volcaniclastics
- Intrusive quartz porphyry

Unconformity
Fault
Contact

LEGEND

Geological boundary
Interpreted geological boundary
Fault
Unconformity
Bedding
Folds
Syncline
Anticline
Plunge
Alteration
Pyritic sericite/chlorite
Hematite sericite

SEALED ROAD BRIDGE
VEHICULAR TRACK
LOGGING TRACK, BULLDOZER SCAR
WALKING TRACK
RAILWAY, TRAMWAY ABANDONED
PROMINENT PEAK
TRIG STATION
BENCH MARK
SPOT ELEVATIONS
RIVER, CREEK
LAKE
SWAMP
POWER LINE & PYLONS
BUILDING
FLYING FOX
PIT
COSTEAN, TRENCH
ADIT
SHAFT (Depth metres)
OPEN CUT
ALLUVIAL WORKINGS
DUMP

MAP INDEX

Lynches | Tyers | Tyers Hill | Darby | Darwin | Jukes | Liberty

Photography: Lands Department 1979-80
South West Project F.637
Photogrammetry: Associated Aerial Surveys Pty. Ltd. 1980

Grid Lines are 1000 Metre Intervals of the Australian Map Grid Zone 53
Grid Values are Shown at Corners of the South West Corner of the Map
Horizontal Datum: Australian Geodetic Datum 1966
Vertical Datum: Australian Height Datum Tasmania
Transverse Mercator Projection

GEOLOGICAL SOURCE: Hoffan & Foster 1982
Corbett 1986
Pollock 1984-85

5 km

GOLD FIELDS EXPLORATION PTY. LIMITED

TYNDALL – E.L. 9/66
HUXLEY AREA
INTERPRETATIVE GEOLOGY

DRAWN BY: A.J.C.
DRAFTSMAN: T.G.S.
DATE: July '86
REVISIONS:
FILE NO.
SCALE 1:5000
FIG. 51