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ANNUAL REPORT

E.L. 2/63 - MT LINDSAY AREA

WESTERN TASMANIA

1980 - 1981

MICROFILMED

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1. SUMMARY

Exploratory work on E.L. 2/63 during 1980-81 was centred on two main areas:

(i) Merton Hill Tin - base metal sulphide prospect

(ii) Mt Lindsay Tin - tungsten skarn zones

At Merton Hill, three diamond drill holes designed to test previously defined geochemical and geophysical anomalies in the vicinity of the old Merton Hill adits, intersected significant amounts of tin and base metal sulphides both within a fault zone and adjacent Gordon Limestone. The results are considered most encouraging, and warrant further immediate investigation.

At Mt Lindsay, research work undertaken at La Trobe University suggested that mineralization within the substantial skarn zones in the region are temperature-zoned, and the predicted cassiterite zones have been largely untested to date.

In addition, further work at Mt Lindsay was directed firstly towards the development of geochemical techniques which may be useful in the detection of non-outcropping carbonates and, secondly, towards the further study of a large geophysical - geochemical anomaly north of the main skarn zones. Results of this work were not particularly encouraging.

The above work cost $63,841 to complete. In 1981-82, it is proposed to expend $177,192 on E.L. 2/63 ($106,315 from Renison, and $70,877 Aberfoyle) principally in three areas:

(i) Merton Hill Area

(ii) Mt Lindsay Area

(iii) Harman River Grid

At Merton Hill, it is proposed to complete a further four drill holes aimed at testing the above-mentioned mineralized zones at greater depth and laterally, both north and south.

This drilling will be preceded and guided by the extension of the Merton Hill Grid System and the completion of mapping, geochemical and geophysical surveys on the grid extensions.

At Mt Lindsay, it is proposed to drill one hole aimed at testing the postulated cassiterite zone both in the No. 2 and Main Ore Zone skarns, and possibly also in the No. 1 skarn zone.

On the Harman River Grid, which lies north of the Mt Lindsay Mine, it is proposed to undertake detailed geochemical and geophysical surveys over selected areas which were defined as anomalous by reconnaissance surveys completed in 1979-80.

2. INTRODUCTION

E.L. 2/63, the Mt Lindsay area, is located north of Renison Bell on the west coast of Tasmania and covers a 90 square kilometre area (see Figure 1) of faulted and folded NW-SE trending Cambrian - Devonian sediments on the western limb of the Huskisson Syncline. A band of re-mobilised ultramafics intrudes along the Cambrian - Ordovician boundary in the middle of the licence area. In the north-west corner of the licence, the Devonian Meredith Granite intrudes the sediments and the ultramafics.

Over the past few years interest has centred on three main areas:

(i) The Mt Lindsay Mine area where a series of carbonate-chert beds are contact metamorphosed and mineralized by the Meredith Granite. The old Mt Lindsay Tin Mine was situated on one of these beds.

(ii) The Harman River Grid area where the Crimson Creek Formation and the ultramafics come in contact with the Meredith Granite.

(iii) The Merton Hill area where the Cambrian - Devonian sequence is faulted and mineralized with tin as cassiterite and lead - zinc sulphides.

This report describes the work undertaken on these areas in 1980-1981 and the proposals for further work in 1981-1982.

3. LICENCE TENURE

Aberfoyle Limited is the holder of E.L. 2/63 renewed to 1st October 1981. Renison Limited is the operator through a Joint Venture Agreement with Consolidated Gold Fields Australia Limited, Aberfoyle Limited and associated companies. Equity in the project as at 15th June 1981 is

Aberfoyle / Paringa	40%
C.G.F.A.	19%
Renison Limited	41%

4. PREVIOUS WORK

Work completed before 1979 has been described in detail in previous reports and listed in the 1979-80 Mt Lindsay Annual Report Bibliography by A. Ross.

Work completed in 1979-80 consisted of establishing

(i) The Harman River Grid,

(ii) The Merton Hill Grid.

Geological mapping, geochemical soil sampling, magnetics I.P. and resistivity surveys were carried out over the grids.

This work outlined numerous anomalies on the Harman River Grid associated with (a) the Crimson Creek Formation - Meredith Granite Contact, (b) the ultramafics, or (c) the Gordon Limestone - Ultramafics Contact.

Work on the Merton Hill Grid outlined anomalies occurring in the vicinity of the old adits and indicated a NW - SE trending mineralized zone.

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5. WORK COMPLETED 1980 - 1981

Work carried out in 1980 - 1981 centred on two main areas:

(i) The Mt Lindsay Grid

(ii) The Merton Hill Area

$63,841 were expended on exploration activities for the year and itemised expenditure to the end of May is presented in Appendix 1.

5.1. The Mt Lindsay Grid

5.1.1. Resampling of "Anomaly A"

"Anomaly A" is a linear anomaly approximately parallel to the general strike of the rocks and is shown on Corinna D3 Regional Geological plans. It is a series of anomalous I.P., magnetic and geochemical responses as listed in Table 1. It was resampled in November 1980 by Contract Geologist, Roger Poltock, and the results are discussed in detail in Appendix 3. This resampling involved soil sampling every 25m along sections of eight cut grid lines. Magnetic readings were taken every 10m and any outcrops were mapped and sampled. Interesting rock chip samples were petrologically described by D. Cowan and presented in Appendix 7 (i). The soil samples were sieved to -180 micrometre, then assayed by X.R.F. for Sn, As, WO_3, and by A.A.S. for Cu, Pb, and Zn. The results are presented on the appended 1:5000 Corinna D3/2 Soil Geochemistry plans and 1:5000 Composite Line Profiles.

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TABLE 1 - 'ANOMALY A' ON MT LINDSAY GRID

M.L. LINE	GEOPHYSICAL ANOMALIES	GEOCHEMICAL ANOMALIES	LINES SAMPLED /RESAMPLED
5	I.P. Anomaly at 2850 - 3000N	Sn (weak) at 2875 - 2975N Zn (weak) at 2975N	2700 - 3300N
6	Magnetic Anomaly at 3050 - 3100N (No I.P. done)	No significant response	2800 - 3300N
7	No I.P. or Magnetics done on this part of line	Cu (weak) at 3300N	2900 - 3600N
8	I.P. Anomaly at 3200 - 3450N	Sn (weak) at 3225 - 3275N Zn (strong) at 3350 - 3400N Pb (weak) at 3350 - 3400N	2900 - 3700N
9	I.P. Anomaly at 3250 - 3450N Magnetic Anomaly at 3225 - 3275N	Zn (weak) at 3400 - 3500N	3000 - 3600N
10	Line not extended North	-	3000 - 3500N
11	I.P. Anomaly at 3200 - 3400N	Sn (weak) at 3375 - 3425N Pb (weak) at 3475N	3000 - 3500N
12	Line not extended North	-	3000 - 3500N

Note Anomalies:

Sn, As: >100 - strong; >50 - weak

Cu, Pb, Zn: >200 - strong; >100 - weak

WO_3: >50 - strong; >30 - weak

5.1.2. Detection of Carbonate Strata by Soil Geochemistry

On the Mt Lindsay Grid most rock types, particularly carbonates, are covered by a thick soil horizon. Since most of the mineralization in the area is associated with carbonates as skarns or replacement mineralization, it is desirable to determine a method for detecting carbonates or their derivatives in the soils. A method was devised where five grid lines which crossed over projected carbonate sub-crops (projected from drill holes) were soil sampled and pH-tested every 10 - 20m. The samples were assayed for MgO, CaO, TiO_2, Al_2O_3, Fe_2O_3 and SiO_2. The method and the results are discussed in detail in Appendix 4 ("Detection of Carbonate Strata by Soil Geochemistry" by Colin Cannard, 1981).

5.2. The Merton Hill Area

5.2.1. Stream Sediment Orientation Survey

Tin - lead zinc mineralization had been discovered at Merton Hill and investigated in the 1910's by means of three adits and some surface workings. If its geochemical "signature" could be determined, then this could be used to recognize anomalous values in a regional stream sediment sampling programme.

An orientation survey was carried out in the immediate streams surrounding Merton Hill to determine the density of sampling, what sieve size fraction to use and which elements to assay for.

A total of 59 samples were taken at an approximate spacing of 150m. Three fraction sizes were sieved out - minus 180 micrometre, minus 300 micrometre and

minus 425 micrometre, and assayed by X.R.F. for Sn, As, WO_3 and by A.A.S. for Cu, Pb, Zn and Ni.

Results of the three sieve size fraction assays have been plotted graphically and presented in Appendix 5. Minus 180 micrometre fraction results are plotted on 1:10,000 Corinna D/4 Stream Sediment Geochemistry Maps.

5.2.2. Drilling

Work in 1979 - 1980 indicated a mineralized zone traversing through Merton Hill in a north-westerly direction. Three diamond drill holes totalling 469.3m were drilled in a south-westerly direction to test it. Each drill hole is located near a cut grid line and is shown on 1:1000 Merton Hill Area Plan A.

Mineralized intervals were assayed for Sn, As, Cu, Pb, Zn, S, Fe and WO_3 by X.R.F. and for Ag, Bi, SSn, Cr, Ni, Sb, Mo by A.A.S. The results of these are presented with the drill logs and plots in Appendix 6.

Samples were taken of mineralized intervals and significant rock types and petrologically described by D. Cowan in Appendix 7 (ii).

6. RESULTS

6.1. Merton Hill Area

6.1.1. Stream Sediment Orientation Survey

This survey was carried out over the Merton Hill area and resulted in several co-incident Sn - Pb - Zn anomalies. The results for -180µm fraction are plotted on Stream Sediment Geochemistry Plans (Figures 8 (a) - (b)). In addition, results from the three size fractions (-180µm, -300µm, -425µm) are plotted graphically and discussed in Appendix 5. After comparing the three graphs, the -180µm fraction would be chosen in a regional stream sediment survey as it is more homogeneous and a more representative sample.

Highly anomalous co-incident Sn, Pb and Zn, and lesser Cu and As responses occur in Christina Creek above its junction with Merton Creek. Minor responses for these also occur at M.H. S.S. 26. These responses are probably the result of drainage from the old adits. Slightly anomalous Cu, Pb, Zn and As responses occur over the ultrabasic near the Ultrabasic - Ordovician/ Devonian sediments contact. Nickel responses are high over the Ultrabasic and decrease downstream from the Ultrabasic contact. Tungsten responses were at or below the limit of detection.

As a result of this survey, several parameters have been determined: samples should be taken no more than 200m apart; the -180µm fraction should be assayed; and the sample should be assayed for Sn, Pb, Zn and probably As and Cu. The assay results from the mineralized drill core confirm the choice of elements assayed, as the mineralization appears to be chiefly cassiterite with Pb - Zn sulphides.

6.1.2. Drilling

The drilling of three diamond drill holes confirmed the presence of a cassiterite - base metal mineralized fault zone and adjacent mineralized limestone. The drill hole locations are shown on Figure 6 (a) and the drill logs and plots are presented as Appendix 6. The drill holes are also plotted on Composite Line Profiles, Figures 7 (b), (d) and (e).

The mineralized fault zone as defined by the drilling is steeply dipping at approximately 70° to the north-east, is of unknown depth, striking at approximately 140° A.M.G. and of unknown lateral extent. It appears to be offset by subsequent north-east trending faults and may be associated with acid intrusive or porphyry dykes. Limestone units occurring adjacent to the fault are preferentially mineralized by metal bearing solutions from the fault. This fault is represented on all of the Composite Line Profiles, Figures 7 (a) - (f), and is worthy of further investigation.

The mineralization associated with the fault zone is composed of iron - lead - zinc sulphides with corresponding high silver values, and zones of moderate cassiterite enrichment.

M.H.1 intersected 7.6m of mineralization at 48.9 - 56.5m averaging 0.08% Sn, 0.76% Pb, 2.0% Zn, 36 g/t Ag, with approximately 85% core recovery. The mineralization occurs in friable sandstone and siltstone as veins and irregular patches of pyrrhotite, galena and sphalerite. A 3m gossanous section averaged 0.19% Sn, 1.27% Pb, 3.68% Zn, 53 g/t Ag, but core recovery was reduced to 65%. A brecciated section at the base of the mineralized zone containing fragments of sphalerite, galena, pyrrhotite, as well as siltstone and sandstone, could indicate a re-activation of the fault zone after the mineralizing phase.

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M.H.2 intersected two zones of mineralization. Firstly in friable sandstone at 77.5 - 90.75m averaging <0.01% Sn, 1.82% Pb, 3.6% Zn, 67 g/t Ag, but core recovery averaged 8%. This zone is essentially similar to that intersected by M.H.1. Secondly, a series of pyrrhotite - sphalerite - galena veins in Gordon Limestone at 99.75 - 107.4m. This zone averaged 0.04% Sn, 0.26% Pb, 0.42% Zn, 16 g/t Ag and, though not as strongly mineralized as the first zone, nevertheless has 100% core recovery.

M.H.3 intersected a series of mineralized veins at 100.9 - 107.4m in Gordon Limestone similar to that intersected in M.H.2 (second zone). The most significant interval at 101.9 - 102.9m averaged 0.02% Sn, 0.37% Pb, 1.57% Zn, 18 g/t Ag.

6.2. Mt Lindsay Area

6.2.1. "Anomaly A" Resampling

Resampling of "Anomaly A" gave minor anomalous geochemical and magnetic responses. Results are plotted on Soil Geochemical Plans (Figures 2 (a) - (f)), Magnetic Results Plan (Figure 4) and on Composite Line Profiles (Figures 3 (a) - (h)), and discussed in part in Appendix 3. The geochemical anomalies are no more than one or two point anomalies, rarely with two or more elements co-incident, and are not continuous from line to line.

On each of lines 5, 6, 7, 9, 10 and 11, a prominent 75 - 200m wide magnetic anomaly occurs, but generally is not continuous from line to line. On lines 6, 7 and 11 pyrrhotite bearing gabbro dykes outcrop and are thought to be responsible for these anomalous responses. No

outcrop occurs on lines 5, 9 and 10. On several lines carbonate (?) type rocks outcrop but were petrographically described by D. Cowan (Appendix 7) as pelites. As no encouraging results were obtained from this work, further investigation of Anomaly A does not appear warranted.

6.2.2. Detection of Carbonate Strata by Soil Geochemistry

The results of this work are plotted and discussed in Appendix 4. They are inconclusive and further work is required to better define a method of detection of non-outcropping carbonates.

6.3. Regional Geological Mapping

Compilation of regional mapping was completed over the Corinna D4 sheet (Figure 5 (c)) and is continuing over the Corinna D3 and D1 sheets (Figures 5 (a) and (b)). This mapping consists of photogeological mapping by P.R. Boshier, mapping by several Renison Limited geologists and extensive mapping by A.V. Brown, Mines Department geologist, which is acknowledged here. Particular attention was paid to the Merton Hill area to elucidate the stratigraphy of this complexly faulted region.

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7. CONCLUSIONS AND RECOMMENDATIONS

7.1. Merton Hill Area

7.1.1. Drilling

Four diamond drill holes are planned for the immediate Merton Hill area totalling 1,000 metres. As the ground is quite broken, these will be drilled triple tube HQ - NQ. It is proposed to drill two holes, M.H.4 and M.H.5, to test for extension to the mineralized fault at depth. In addition, two holes, M.H.6 and M.H.7, are planned north and south of Merton Hill, to test for lateral extension of the mineralized fault and for mineralization in the faulted limestone blocks. This work is planned for September and October. Details of the holes are as follows.

Drill Hole No.	Co-ordinates		Bearing (A.M.G.)	R.L.	Angle	Length
M.H.4	5379810mN	367720mE	215°	2206m	-75°	290
M.H.5	5379670mN	367875mE	215°	2187m	-50°	260
M.H.6	5379360mN	368090mE	220°	2192m	-50°	250
M.H.7	5380125mN	367470mE	225°	2180m	-70°	200

The location of the drill holes is shown on Figures 6 (a) and (b), and their plots are shown on Figures 7 (a), (c), (e) and (f).

7.1.2. Merton Hill Grid

It is proposed to extend and sample the Merton Hill Grid to the north-east and south-west of the present grid, where both the mineralizing fault and limestone or carbonate bearing units are thought to occur. This extension totals 5.75 km and is comprised of 8 lines, 100m apart, cut to the north-west of the present grid and 2 lines, 100m apart to the south-east as shown on Figure 5 (c) and Figures 6 (a) and (b). This work

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can be carried out in the winter months and is planned for the end of July to August. Details of the lengths of the lines are as follows.

Line 300E	400m	Line 700E	350m	Line 1700	600m
Line 400E	400m	Line 800E	350m	Line 1800	600m
Line 500E	400m	Line 900E	650m	Baseline	1000m
Line 600E	350m	Line 1000E	650m	TOTAL	5.75km

7.1.3. Stream Sediment Sampling

The area from Merton Hill to the north-east corner of the licence area has been essentially untouched and it is proposed to conduct a reconnaissance stream sediment survey over the area. Samples would be taken every 200m approximately, and all small creeks sampled. These would be sieved to -180µm and assayed for Sn, Cu, Pb, Zn, As and WO_3. It is proposed that this sampling take place in November - December.

7.2. Mt Lindsay Grid

Research work on the complex skarn zones at Mt Lindsay has been undertaken at La Trobe University and has suggested that the mineralization within these zones is temperature zoned. The approximate shape of the cassiterite bearing skarn zone in the No. 2 Anomaly and Main Ore Zone is shown on Figures 9 (a) and (b). Few drill holes have penetrated this zone in these two carbonate beds and none in the No. 1 Anomaly. It is proposed to drill one diamond drill hole NQ - BQ 650m long, to intersect this zone in the No. 2 Anomaly, the Main Ore Zone and possibly the No. 1 Anomaly. Details of the hole are:

Drill Hole No.	Co-ordinates	Bearing (A.M.G.)	R.L.	Angle	Length
M.L.58	5382230mN 361470mE	205°	2440m	-50°	650m

The plot of this proposed hole is shown on Figures 9 (a) and (b) and on Figure 10. It is planned that this drilling would be carried out from November to December.

7.3. The Harman River Grid

The 1979 work on the Harman River Grid resulted in numerous anomalies, the most interesting of which occurs along the Meredith Granite - Crimson Creek Formation contact. Carbonate units commonly occur in the Crimson Creek Formation and may contain mineralization when in contact with the Meredith Granite. These anomalies may be explained as the surface expression of such mineralization. Therefore it is proposed to cut five intermediate lines totalling 3.6 km with 400m of cut access track between lines 4 and 14. Details of the lines are as follows.

Line 5	1000m	Line 9	700m	Line 13	500m
Line 7	900m	Line 11	500m	Access Tracks	400m
				TOTAL	4000m

These lines are located on Figure 5 (a). This work will be accessed by helicopter and will be carried out between mid-January and the end of February.

7.4. Proposed Expenditure

For the above proposed programs, a budget of $177,192 ($106,315 Renison, $70,877 Aberfoyle) is proposed and allocated as follows:

Merton Hill Area	
- drilling, site access, assaying	$62,000
- track cutting, soil sampling, mapping, geophysics, assaying, consumables	$11,000
- stream sediment sampling, track cutting, assaying, consumables	$12,000
Mt Lindsay Area	
- drilling, site access, assaying	$39,000
Harman River Grid Area	
- track cutting, sampling, geophysics, helicopter access, mapping, consumables	$6,000
Contingencies	
- additional drilling at Merton Hill additional track cutting at Merton Hill additional stream sediment sampling	$47,192
TOTAL	$177,192

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8. BIBLIOGRAPHY

A more extensive list is included in the 1979 - 1980 Mt Lindsay Annual Report by A. Ross.

1. E.L. 2/63 Mt Lindsay Area Annual Report 1979 - 1980 by A. Ross. November 1980. Renison Limited Unpublished Report.

2. 'Some Aspects of the Geology of the Mt Lindsay - Dundas Areas, Western Tasmania.' by A.V. Brown, 1980. Unpublished Report 1980/42. Tasmanian Department of Mines.

3. 'Mt Lindsay Sn Prospect, Dundas Trough, Tasmania.' by A.F. Ross and R.R. Schellekens. Journal of Geochemical Exploration. May 1980. Vol. 12, No. 2/3.

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APPENDIX I

EXPENDITURE 1980 - 1981

RENISON LIMITED
GEOLOGY DEPARTMENT

EL 2763 - MOUNT LINDSAY RESPONSIBILITY 076 P/E 267 5781

ACCOUNT NUMBER	ACCOUNT NAME	PERIOD TO DATE ACTUAL	PERIOD TO DATE VARIANCE	YEAR TO DATE ACTUAL	YEAR TO DATE VARIANCE
010760702	SALARIES	516	937 G	8252	4250 G
010760703	SALARY LOADING	95	175 G	1147	1177 G
010760705	CONSUMABLES	314	314 L	1890	3895 G
010760708	VEHICLES			104	2460 G
010760710	TRAVEL & ACCOMODATION			83	83 L
010760720	RENISON SERVICES - SURVEY				694 G
010760721	RENISON SERVICES - ASSAY	688	688 L	4594	2192 L
010760722	RENISON SERVICES - RESEARCH	24	24 L	24	154 G
010760723	RENISON SERVICES - OTHER				
010760730	OUTSIDE SERVICES - GEOLOGICAL	275	319 G	870	276 L
010760731	OUTSIDE SERVICES - GEOPHYSICAL			2437	121 L
010760732	OUTSIDE SERVICES - GEOCHEMICAL			1467	772 L
010760733	OUTSIDE SERVICES - TRK CUTTING			1274	810 G
010760735	OUTSIDE SERVICES -SITE ACC DEV			5254	4096 L
010760736	OUTSIDE SERVICES-DIAMOND DRLNG			35940	16906 G
010760737	OUTSIDE SERVICES - OTHER	505	505 L	505	6879 G
010760740	LEASE PAYMENTS				1565 G
010760760	SUB TOTAL	2417	100 L	63841	31250 G
010760770	CHARGED TO PARTNERS	967-	245 L	25252-	12787 L

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APPENDIX II

BUDGETTED EXPENDITURE 1981 - 1982

MITED BUDGET. 1981/1982. 959025 SHEET 024

ITEM	REF.	P#01.	P#02.	P#03.	P#04.	P#05.	P#06.	P#07.	P#08.	P#09.	P#10.	P#11.	P#12.	TOTAL
EOLOGY - EL2/63 MT LINDSAY														
		130	1427	1412	3011	5392	3070	4686	3015	1413	1251	749	356	26884
SALARIES	L760702	~~554~~	~~1108~~	~~1108~~	1446	~~2293~~	~~1446~~	2879	~~1184~~	1186	915	~~610~~	805	13936
SALARY LOADING (50%)	L760703	166	332	332	344	688	344	712	356	356	274	183	91	4178
CONSUMABLES	C760705	55	55	109	1125	1125	1125	1158	579	116	59	59		5565
VEHICLES	C760708	55	55	55	169	169	169	116	116	58	59	59		1080
TRAVEL & ACCOMMODATION	C760710			273								297		570
ZENISON SERVICES-SURVEY	C760720			367		378								745
-ASSAY	C760721			699	360	1484			1900					4443
-RESEARCH	C760722		82	737					695					1514
UTSIDE SERVICES-GEOLOGICAL	C760730							1158		579	1781			3518
-GEOPHYSICAL	C760731		2730						2896					5626
-GEOCHEMICAL	C760732		1092						1737					2829
-TRK CUTTING	C760733	2184						2317						4501
-SITE & ACCESS DEV'MENT	C760735			1638	281	281	562	290	290					3342
-DIAMOND DRILLING	C760736				22492	33738	22492	13900	11583					104205
-OTHER(HELICOPTER)	C760737							2896	2896					5792
PAYMENTS	F760740										1200			2400
		3190	5113	5622	29038	43155	27162	27233	26463	2522	4630	1341	447	171192
SUB-TOTAL		~~3014~~	~~5454~~	~~5310~~	~~27117~~	~~40156~~	~~25629~~	~~24920~~	~~24234~~	~~2395~~	~~4265~~	~~1206~~	~~896~~	~~164288~~
		(1216)	(2309)	(2249)	(11619)	(17262)	(11105)	(10893)	(10585)	(1009)	(1852)	(539)	(179)	(106811)
ESS RECHARGE TO ABERFOYLE	F760770	~~1100~~	~~1990~~	~~1940~~	~~9666~~	~~14265~~	~~9100~~	~~6580~~	~~6556~~	~~750~~	~~1510~~	~~400~~	~~130~~	~~57917~~
				3313			16651			1513			2688	106315
SECTION TOTAL		1914	3464	3378	17429	25893	16659	16340	15878	1515	2778	808	266	106321

025

959026

APPENDIX III

EL 2/63 MT. LINDSAY-PARSON'S HOOD

ML 5 - 12 2700-3700N

NOV. 10 - 20th 1980

Poltock Bros.

Roger Poltock.

026

959027

CONTENTS

Discussion:

DWG. 1 Mount Lindsay - Parson's Hood.
Location & geology

2 A-B Magnetic & topographic profiles
ML 5-12

Appendices - Proton magnetics data, base station & lines.

- Rock sample locations & descriptions.

- Organic soil sample locations.

Discussion

This contract involved relocating and extending the Mt. Lindsay grid:

ML 5 2700-3300N
ML 6 2800-3300N
ML 7 2900-3600N
ML 8 2900-3700N
ML 9 3000-3600N
ML 10-12 3000-3500N

a total of 1.3 km line cutting - pegged at 25m intervals followed by soil sampling and proton magnetics.

Soils were augered at 25m intervals, the average depth of sampling was 0.7 - 1.0m in brown=green grey clays. Most samples were collected in the "B-C" horizons however on the steep southern slopes of Padman Creek soils were poorly developed, with a large organic component. See appendices.

Magnetic survey carried out on 18th-19th November using Proton Magnetometor Geometrix G.816 with a remote sensor approx 2m above ground. Readings recorded each 10m along lines, and base station readings taken each 10 minutes.

Base station diurnal variation during 11 hr. period was 45γ, no correction was applied to the data. See appendices & DWG. 2A - B.

The geology is dominated by a N.W. trending steeply dipping sequence of fine-medium grained tuffaceous greywackes, siltstones and possibly minor carbonate horizons. See DWG. 1. These sediments belong to the Cambrian Crimson Creek Group, and have been hornfelsed by Devonian granites which outcrop to the west of the area.

The greywackes and siltstones have been intruded by steeply dipping, apparently conformable bodies of gabbro which are up to 25m thick, these outcrop sporadically through the area as resistant spines, and coincide with positive magnetic features, see 2A-B Profiles.

All the above rock types are weakly mineralized, pyrrhotite occuring as scattered blebs and thread like veinlets often associated with actinolite. Minor magnetite chlorite actinolite (< 5cm band) outcrops in Padman Creek on ML 8.

959030

Parsons ? Hood

HARMAN RIVER GRID

LINE 4

3500N

3150W

3600N

3700N

3000N

2900N

2800N

3300N

M.L. 12.

M.L. 11

M.L. 10.

M.L 9

M.L. 8.

M.L. 7.

M.L. 6.

M.L. 5

"ANOMALY A"

Padman

Creek

Pink Palace Base Station

KEY

Cambrian

(i) Crimson Ck. group. Hornfelsed, greywacke, siltstones, & minor carbonates.

(ii) Gabbroic intrusives

Dozed road system.

TN.

GN.

15° Mag.

100 50 0 100 200 Metres

Scale 1:5000.

5 cm

RENISON LIMITED	
MOUNT LINDSAY PARSONS HOOD AREA	
81-1568 (Vol 1 of 2)	
Compiled. POLTOCK BROS.	Revisions
Drawn. POLTOCK BROS.	
Date. NOV 1980	Drg.N° 1

RENISON LIMITED

MT. LINDSAY
MAGNETIC PROFILES

81-1568 (Vol 1 of 2)

GEOLOGIST : R Poltock

DRAUGHTSMAN :

DATE : May 1981

SCALE 1:5000 METRES

100 0 100 200

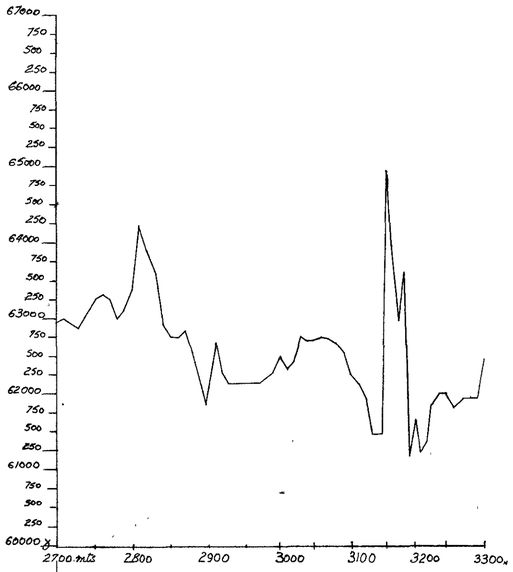
REVISIONS :

DRAWING No. 2(a)

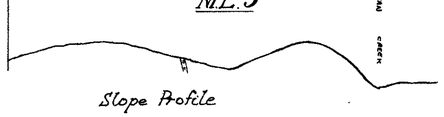
959031

5 cm

056

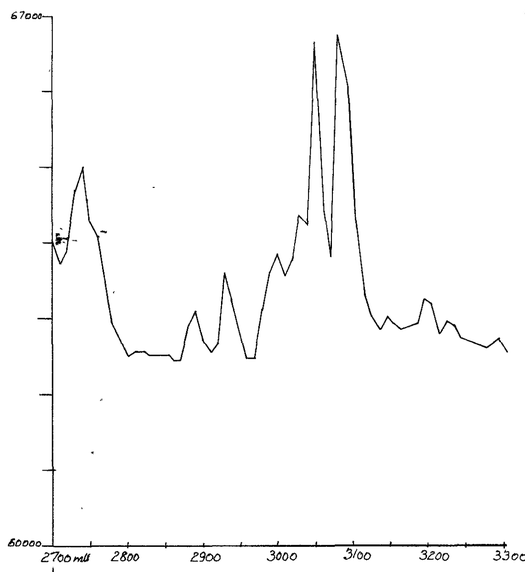


M.L.5

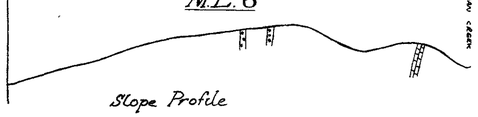


Slope Profile

Scale 1:5000, 10mm = 500 ft.

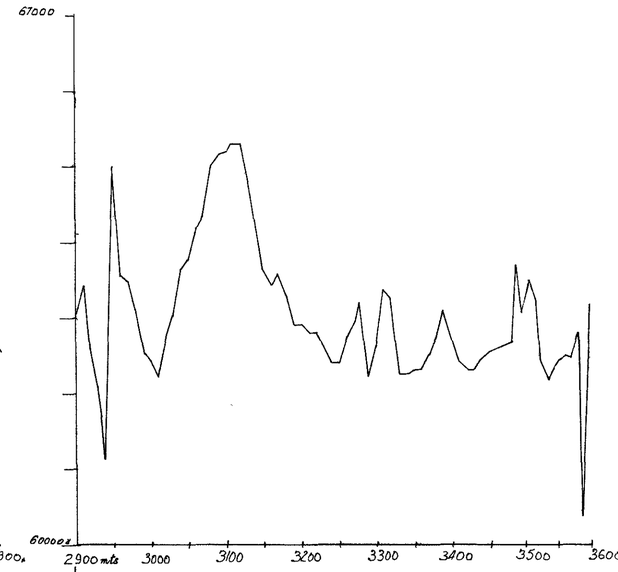


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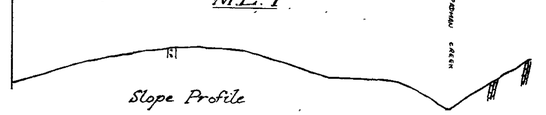


Slope Profile

Scale 1:5000, 10mm = 500 ft.

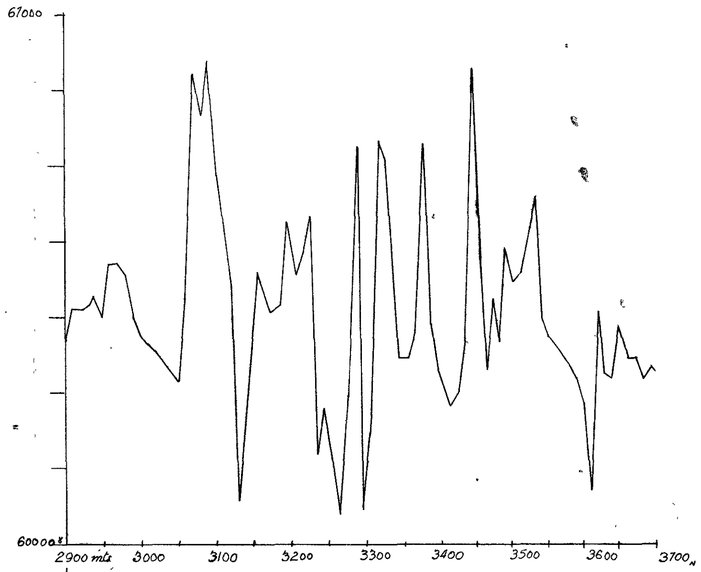


M.L.7

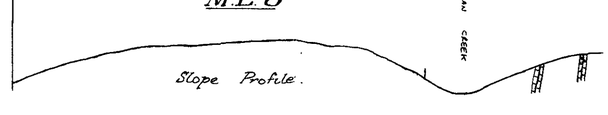


Slope Profile

Scale 1:5000, 10mm = 500 ft.



M.L.8



Slope Profile.

Scale 1:5000, 10mm = 500 ft.

DRG. 2A Profiles : Magnetic.

Topographic.

959032

RENISON LIMITED

MT. LINDSAY

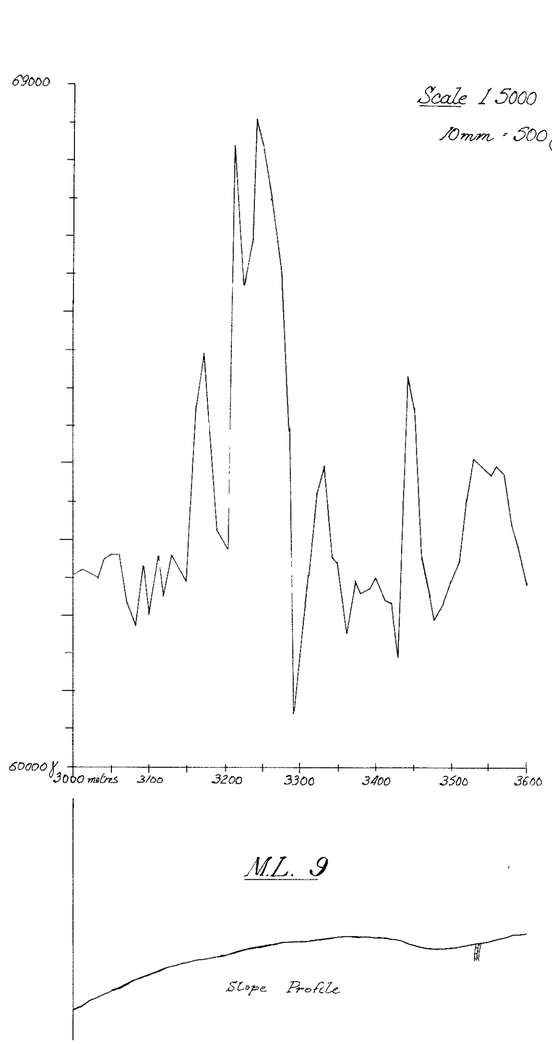
MAGNETIC PROFILES

81 - 1568 (Vol 1 of 2)

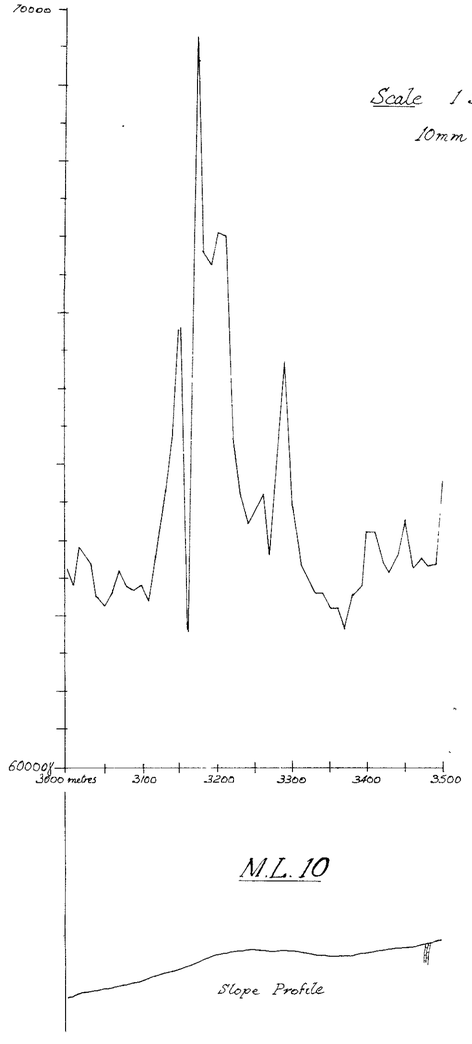
GEOLOGIST : R Poltock	SCALE · 1 · 5000 METRES (100 0 100 200)
DRAUGHTSMAN :	
DATE May 1981	
REVISIONS	DRAWING No. 2b

5 cm

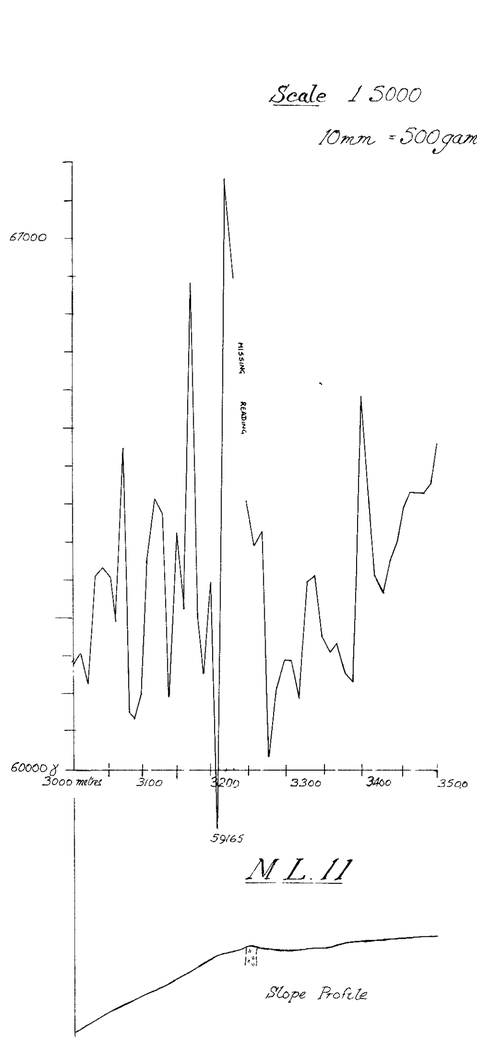
055



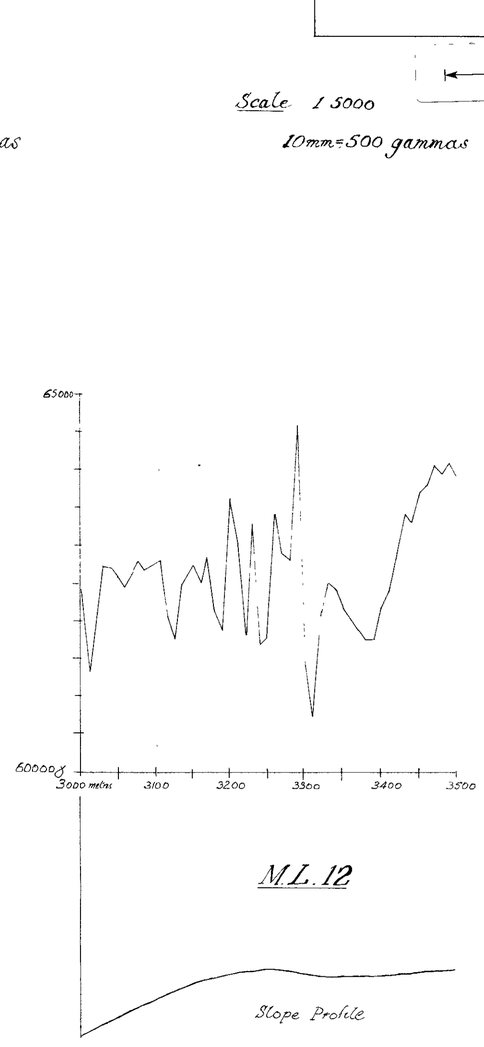
M.L. 9



M.L. 10



M.L. 11



M.L. 12

DRG. 2B. Profiles : Magnetic
Topographic.

029

959033

APPENDICES

1. Proton Magnetics data.

2. Organic soil sample locations

ML 5 2950, 3200-3275N
6 3100-3125N
7 3475, 3525-3600N
8.3200-3325, 3425-3550, 3615N
9 3375-3400, 3600N
10 3375-3425
11 3000-3100N
12 3100-3250N

3. Rock sample locations and descriptions

P ML.5 2925.N Dark grey siliceous siltstone - contact with fine pyritic gabbro.

ML.6 2875.N Tuffaceous greywacke, fine-medium grained with abundant angular quartz grains.

P ML.7 3100.N Gabbro

P ML.7 3600.N Calc-silicate hornfels, fine grained siliceous, pale-dark grey, irregularly banded, with pyrrhotite.

ML.8 3450.N Siliceous siltstone hornfelsed, black with fine grained pyrite on joint faces.

P 3500.N Hornfels fine grained, black with magnetite, actinolite chlorite bands, minor pyrite and chalcopyrite.

P 3615 N Calc-silicate hornfels, fine grained, pink-grey with minor pyrrhotite actinolite veinlets.

3700.N Tuffaceous greywacke, hornfelsed, medium grained.

P ML.9 3520.N Calc-silicates, hornfels, fine-medium grained with abundant fine disseminated pyrrhotite, weakly magnetic.

P ML.10 3200.N Tuffaceous greywacke with liths of black siltstone and pyrite blebs < 2mm.

030

P	ML.11	3225.N	Gabbro some with pyrrhotite blebs.
P		3375.N	Hornfels fine grained black with pyrrhotite actinolite veinlets, possible flecks of native copper.
P	ML.12	3275.N	Tuffaceous greywacke, fine grained.

Form No. 73/269 RENISON LIMITED 959035 1.

031

PROTON MAGNETOMETER FEILD RECORDINGS

Date: 18th NOV. 1980 Operator: Poltock Bros. Grid Location: Base Station.

Grid Station	Gamma Reading	Time	Diurnal correction	Corrected Reading
BASE	65357	2.00		
"	65356	2.10		
"	65356	2.20		
"	65356	2.30		
"	65358	2.40		
"	65358	2.50		
"	65361	3.00		
"	65358	3.10		
"	65359	3.20		
"	65360	3.30		
"	65361	3.40		
"	65359	3.50		
"	65365	4:00		
"	65365	4.10		
"	65365	4.20		
"	65369	4.30		
"	65370	4.40		
"	65373	4.50		
"	65377	5.00		
"	65377	5.10		
"	65378	5.20		

Form No. 73/269 RENISON LIMITED 959036 2.

032

PROTON MAGNETOMETER FEILD RECORDINGS

e: 19th NOV. 1980. Operator: Pollock Bros. Grid Location: Base Station

Grid Station	Gamma Reading	Time	Diurnal correction	Corrected Reading
BASE	65353	7.32		
"	65349	7.42		
"	65350	7.51		
"	65351	8.02		
"	65351	8.10		
"	65347	8.20		
"	65348	8.30		
"	65350	8.40		
"	65350	8.50		
"	65349	9.00		
"	65351	9.10		
"	65349	9.20		
"	65350	9.30		
"	65347	9.40		
"	65345	9.52		
"	65345	10.00		
"	65349	10.11		
"	65345	10.20		
"	65330	10.30		
"	65339	10.40		
"	65337	11.20		
"	65338	11.30		
	65339	11.40		
	65337	11.50		
	65338	12.00		
	65341	12.10		

03

959037 3.

Form No. 69/89

RENISON LIMITED

~~FIELD SHEET FOR GEOCHEMICAL SURVEY~~

AREA M.L. Base St. [illegible] Magnetometor Recordings. DATE 19th Nov '80 Pollock Bros.

STATION	Gamma's	Time		Gammas	Time.
	[illegible]	[illegible]		DESCRIPTION	
. Base.	65341	12.20		65368	4.30
045° mag.	65340	12.30		65372	4.50
from	65342	12.40		65378	5.00
Pink	65343	12.50		65376	5.10
Palace.	65342	1.00		65377	5.20
at distance	65344	1.10		65380	5.31
of 77 mts.	65343	1.20		65382	5.40
	65345	1.30		65383	5.50.
	65347	1.40		65381	6.00
	65345	1.50		65379	6.10
	65344	2.00		65382	6.20.
	65346	2.10		65382	6.30
	65345	2.20			
	65349	2.30			
	65351	2.40			
	65352	2.50			
		3.00			
	65356	3.14			
	65358	3.20			
	65359	3.30			
	65360	3.40			
	65361	3.50			
	65362	4.00			
	65361	4.11			
	65365	4.20			

034

KENISON LTD.

959038

MAG SURVEY.

M.L. 5. Poltock Bros. 19th Nov 1980.

Grid St.	Gammas	Time	Slope angles
2700	62942	3.40	2700 - 2750 +20, +13
10	62984		
20	62949		
30	62878		
40	63025	3.45.	
2750	63252		2750 - 2800 +7, +3
60	63297		
70	63246		
80	62981		
90	63094		
2800	63351	3.50	2800 - 2850 +4, -3
10	64166		
20	63913		
30	63603		
40	62961		
2850	62769	3.53.	2850 - 2900 -5, -25
60	62725		
70	62837		
80	62531		
90	62114		
2900	61827		2800 - 2950 -4, -15
10	62708	4.00	
20	62263		
30	62166		
40	62133		
2950	62156		2850 - 3000 -5, -15
60	62127		
70	62157		
80	62212	4.05	
90	62280		
3000	62484		3000 - 3050 +20, +21

035

Renison Ltd.
Mag Survey

959039

M.L.S. — Pollock Bros. — 19th Nov 1980.

Grid St.	Gammas.	Time	Slope angles
3010	62340		
20	62427		
30	62767		
40	62715	4.09	
3050	62705		3050 - 3100 +20, +17
60	62731		
70	62721		
80	62688		
90	62545	4.15	
3100	62276		3100 - 3150 -5, -30
10	62140		
20	61929		
30	61446		
40	61496		
3150	64914	4.22	3150 - 3200 -36 -5[illegible]
60	63932		
70	62948		
80	63627		
90	61139		
3200	61651	4.28	3200 - 3250 -40 +1
10	61262		
20	61431		PADMAN CK 3225.
30	61879		
40	62011		
3250	62014	4.34	3250 - 3300 0
60	61805		
70	61942		
80	61974		
90	61989		
3300	62494	4.40	

036

RENISON LIMITED

Mag. Survey

959040

M.L. 6 — Pollock Bros. — 19th Nov. 1980.

Grid Station	Gammas.	Time	
2700	64023	6.15	
10	63721		
20	63879		
30	64649		
40	64978		
2750	64230	6.10	
60	64070		
70	63192		
80	62887		
90	62667		
2800	62522		2800 -2850, +18
10	62531	6.00	
20	62543		
30	62495		
40	62479		
2850	62483		2850 - 2900 +14
60	62444		
70	62465		
80	62879		
90	63141		
2900	62698	5.54	2900 -2950 +0
10	62555		
20	62643		
30	63620		
40	63234		
2950	62775	5.50	2950 -3000 +5
60	62425		
70	62444		
80	63093		
90	63562		
3000	63838	5.45	3000 -3050 +5

KENISON LTD.

MAG. SURVEY

037

959041

M.L. 6. Pollock Bros. 19th Nov 1980.

Grid Station	Gammas.	Time		Slope angles
	63560			
20	63748			
30	64337			
40	64270			
3050	66632			3050 -3100 +2 -10
60	64386	5.39		
70	63796			
80	66780			
90	66046			
3100	64189			3100 - 3150 -25 -29
10	63268			
20	62986			
30	62844	5.30		
40	63033			
3150	62907			3150 - 3200 -18 +13
60	62841			
70	62907			
80	62950	5.25.		
90	63269			
3200	63189			3200 - 3250 +11 -8
10	62794			
20	62939			
30	62873			
40	62751	5.20		
3250	62697			3250 - 3300 -20 -35
60	62628			
70	62579			
80	62662			
90	62712			
3300	62565	5.13		

Form No. 69/89 038

959042

RENISON LIMITED

FIELD SHEET FOR MAGNETOMETOR SURVEY

AREA M.L. 7. [redacted] Poltock Bros. DATE 19.11.80 OBS

Base STATION	Gammas [redacted]	Time [redacted]	DESCRIPTION [redacted]
2900	63145	11.48	2900 - 2950 +17 +15
10	63443		
20	62591		
30	62081		
40	61129		
2950	64969	11.53	2950 - 3000 +16 +12
60	63536		
70	63463		
80	63086		
90	62560		
3000	62448	11.59	3000 - 3050 +13 +10
10	62210		
20	62774		
30	63122		
40	63610		
3050	63748	12.02	3050 - 3100 +10 +6
60	64166		
70	64364		
80	65023		
90	65148		
3100	65205	12.12	3100 - 3150 +3 -2
10	65315		
20	65311		
30	64752		
40	64053		

039

959043

Form No. 69/89

RENISON LIMITED Mag.

FIELD SHEET FOR GEOPHYSICAL SURVEY

AREA M.L. 7. TRAVERSE Op. Pollock Bros. DATE 19.11.80 OBS

Grid. Gamma Time.

STATION	GAMMA No.	DEPTH		DESCRIPTION		
3150	63612	12.16.		3150 - 3200	-4	-6
60	63420					
70	63585					
80	63277					
90	62892					
3200	62891	12.21		3200 - 3250	-11	-17
10	62805					
20	62769					
30	62562					
40	62424.					
3250	62385	12.26		3250 - 3300	-22	-18
60	62680					
70	62908					
80	63173					
90	62153					
3300	62581	12.30		3300 - 3350	-18	+1
10	63436					
20	63276					
30	62251					
40	62267					
3350	62322	12.35		3350 - 3400	0	-5
60	62319.					
70	62512					
80	62698					
90	63051					

040

959044

Form No. 69/89

RENISON LIMITED Mag.

FIELD SHEET FOR ~~GEOPHYSICAL~~ SURVEY

AREA M.L. 7. ~~TRAVERSE~~ of Pollock Bros. DATE 19.11.80 OBS

Grid. Gamma. Time.

STATION	~~SUSCEPTIBILITY~~	~~DENSITY~~		DESCRIPTION	slope angles
3410	62376				
20	62272				
30	62293				
40	62462				
3450	62564	12.48		3450 - 3500	-34° clkwise -35 +35
60	62596				
70	62672				
80	63685				
90	63073				
3500	63499	1.02		3500 - 3550	+30 +33
10	63204				
20	62410				
30	62200				
40	62317				
3550	62416	1.07		3550 - 3600	+30 +30
60	62496				
70	62462				
80	62784				
90	60346				
3600	63170	1.12.			

041

959045

Form No. 69/69

RENISON LIMITED

FIELD SHEET FOR ~~PROSPECTING~~ SURVEY

AREA M.L. 8 OP. ~~PROSPECTOR~~ Pollock Bros. DATE 19.11.80 OBS

Grid. STATION	Gamma. SAMPLE No.	Time ~~DEPTH~~		DESCRIPTION
.2900	62711.	2·40		2900 - 2950 +2 Shoot grid
10	63099			
20	63093			
30	63158			
40	63218			
2950	62988	2·37		2950 - 3000 +19 +15
60	63722			
70	63671			
80	63560			
90	62992			
3000	62725	2·33		3000 - 3050 +13
10	62599			
20	62524			
30	62371			
40	62249			3050 - 3100 +12 +1
3050	62145			
60	63257			
70	66215			
80	65639			
90	66320			
3100	64838	2·26.		3100 - 3150 +7 +1
10	63942			
20	63389			
30	60567			
40	62289			

042

959046

Form No. 69/89

RENISON LIMITED

FIELD SHEET FOR ~~SPECTROMETER~~ MAG. SURVEY

AREA ML. 8. ~~PROPERTY~~ Poltock Bros. DATE 19.11.80 OBS

Grid STATION	Gamma. ~~SAMPLE No.~~	Time. ~~DEPTH~~		DESCRIPTION	Slope Gradient
3150	63585	2.21.		3150 - 3200	+4
60	63264				
70	63057				
80	63151				
90	64262				
3200	63562	2.16		3200 - 3250	+2
10	63860				
20	64368				
30	61143				
40	61804				
3250	61080	2.11		3250 - 3300	+3 -7
60	60412				
70	61942				
80	65244				
90	60457				
3300	61678			3300 - 3350	-13 -3
10	65348				
20	65107				
30	63365				
40	62424				
3350	62448	2.03		3350 - 3400	-8 -23
60	62790				
70	65304				
80	62914				
90	62286				

043

959047

Form No. 69/89

RENISON LIMITED MAG.
FIELD SHEET FOR ~~ELECTRICAL~~ SURVEY

AREA M.L. 8. of ~~TRENCH~~ Pollock Bros. DATE 19.11.80 OBS

Grid. STATION	Gamma ~~READING~~	Time ~~DEPTH~~		DESCRIPTION	Slope Angle
3400	62150.	1.58		3400 - 3450	-24 -38
10	61776				
20	61986				
30	62733				
40	66314				
3450	63804	1.50		3450 - 3500	-22 +8
60	62306				
70	63257				
80	62656				
90	63928				
3500	63484	1.44		3500 - 3550	+27
10	63620				
20	64097				
30	64577				
40	62987				
3550	62749	1.39		3550 - 3600	+25 +18
60	62694				
70	62560				
80	62355				
90	62125				
3600	61853	1.34		3600 - 3650	+22 +15
10	60689				
20	63064				
30	62233				
40	62190				

044

959048

Form No. 69/89

RENISON LIMITED MAG.

FIELD SHEET FOR ~~GEOCHEMICAL~~ SURVEY

AREA ML. 8 TRAVERSE OF Pollock Bros. DATE 19.11.80 OBS

Grid. Gamma Time.

STATION	SAMPLE NO.	DEPTH		DESCRIPTION
3650	62866	1.30		3650 - 3700 +8 +2
60	62422			
70	62440			
80	62183			
90	62308			
3700	62279.	1.26.		

Form No. 73/269 RENISON LIMITED

959049

PROTON MAGNETOMETER FEILD RECORDINGS

Date: 8th NOV. 1980. Operator: Pollock Bros. Grid Location: ML.9.

Grid Station	Gamma Reading	Time	Diurnal correction	Corrected Reading
3000	62552	2.15	3000 - 3050	+26
10	62579			
20	62537			
30	62511			
40	62754			
3050	62822	2.25	3050 - 3100	+25 +21
60	62788			
70	62162			
80	61850			
90	62634			
3100	61993	2.30	3100 - 3150	+19
10	62764			
20	62303			
30	62788			
40	62648			
3150	62462	2.33	3150 - 3200	+9
60	64773			
70	65458			
80	63852			
90	63136			
3200	62886	2.40	3200 - 3250	+12
10	68196			
20	66261			
30	66873			
40	68517			
3250	67953	2.43		

Form No. 73/269 RENISON LIMITED

959050

046

PROTON MAGNETOMETER FEILD RECORDINGS

Date: 18th NOV 1980 Operator: Poltock Bros. Grid Location: ML. 9.

Grid Station	Gamma Reading	Time	Diurnal correction	Corrected Reading
3260	67476			
70	66566			
80	64390			
90	60679			
3300	61738	2.48	3300 -3350	0 +10
10	62474			
20	63640			
30	63963			
40	62790			
3350	62695	2.53	3350 -3400	+4 +2
60	61762			
70	62448			
80	62285			
90	62328			
3400	62511	2.58	3400 -3450	-3. -18
10	62199			
20	62164			
30	61455			
40	65147			
3450	64702	3.04	3450 -3500	-18 +3
60	62762			
70	62254			
80	61963			
90	62149			
3500	62468	3.14	3500 -3550	+5 +13
10	62667			

Form No. 73/269 RENISON LIMITED

959051

047

PROTON MAGNETOMETER FEILD RECORDINGS

e: 18th NOV 1980. Operator: Poltock Bros Grid Location: ML 9.

Grid Station	Gamma Reading	Time	Diurnal correction	Corrected Reading
3520	63540			
30	64073			
40	63950			
3550	63837	3.19	3550 -3600	+12
60	63956			
70	63864			
80	63185			
90	62896			
3600	62404	3.24		

Form No. 73/269 RENISON LIMITED

959052

PROTON MAGNETOMETER FEILD RECORDINGS

048

te: 18th NOV 1980 Operator: Poltock Bros. Grid Location: M.L. 10.

Grid Station	Gamma Reading	Time	Diurnal correction	Corrected Reading
3000	62590	5·01	3000 -3050	+14
10	62407			
20	62880			
30	62764			
40	62241			
3050	62159	4·56	3050 -3100	+12
60	62278			
70	62594			
80	62409			
90	62296			
3100	62352	4·51	3100 -3150	+22 +17
10	62182			
20	62785			
30	63644			
40	64826			
3150	65740	4·47	3150 -3200	+17
60	61783			
70	69772			
80	66818			
90	66637			
3200	67051	4·43	3200 -3250	+7
10	66977			
20	64286			
30	63576			
40	63224			
3250	63386	4·39	3250 -3300	0 -2

Form No. 73/269 RENISON LIMITED

049

959053

PROTON MAGNETOMETER FEILD RECORDINGS

e: 18th NOV. 1980. Operator: Poltock Bros. Grid Location: M.L. 10.

Grid Station	Gamma Reading	Time	Diurnal correction	Corrected Reading
3260	63611			
70	62823			
80	63872			
90	65351			
3300	63445	4.35	3300-3350	-13 -8
10	62727			
20	62475			
30	62272			
40	62274			
3350	62120	4.29	3350 -3400	0 +4
60	62105			
70	61851			
80	62313			
90	62375			
3400	63119	4.25	3400 -3450	+3. +8
10	63100			
20	62734			
30	62601			
40	62802			
3450	63250	4.20	3450 -3500	+9
60	62665			
70	62773			
80	62703			
90	62696			
3500	63731	4.15		

05L

959054

Form No. 69/89

RENISON LIMITED

FIELD SHEET FOR ~~GEOCHEMICAL~~ MAGNETOMETOR SURVEY

AREA M.L. 11 OPERATOR ~~MANAGE~~ Pollock Bros. DATE 19.11.80 OBS

GRID STATION	SAMPLE No.	GAMMA RDG. TIME. DEPTH		DESCRIPTION	
3000	61409	7.50		3000 - 3050	+28
10	61545				
20	61120				
30	62582	8.00			
40	62680				
3050	62535			3050 - 3100	+30 +25
60	61965				
70	64267	8.06			
80	60790				
90	60709	8.09			
3100	60975			3100 - 3150	+28
10	62708	8.12			
20	63597				
30	63388	8.14			
40	60963				
3150	63163	8.17		3150 - 3200	+28
60	62107	8.19			
70	66442				
80	62025				
90	61260	8.23			
3200	62483			3200 - 3250	+15 +18
10	59165				
20	67785	8.26			
30	66491				
40					

051

959055

Form No. 69/89

RENISON LIMITED

FIELD SHEET FOR ~~GRAVIMETRICAL~~ MAGNETOMETER SURVEY

AREA M.L. 11 OPERATOR ~~TRAVERSE~~ Pollock. Bros. DATE 19.11.80 OBS

Grid. Gammas. Time

STATION	SAMPLE No.	~~DEPTH~~		DESCRIPTION	
3250	63502			3250 - 3300	-12 0
60	62949				
70	63121	8.30			
80	60194				
90	61103				
3300	61479			3300 - 3350	-4 +7
10	61448	8.33			
20	60953				
30	62486				
40	62545	8.38			
3350	61762			3350 - 3400	+13 +5
60	61548	8.39			
70	61685				
80	61293				
90	61135				
3400	64935	8.42		3400 - 3450	+4
10	63754				
20	62542				
30	62362	8.45.			
40	62770				
3450	63018			3450 - 3500	+4
60	63463	8.49			
70	63648				
80	63648				
90	63762	8.51			
3500	64245	8.52		3500 - 3550	

959056

Form No. 69/89 052

RENISON LIMITED

FIELD SHEET FOR ~~GRAVITY~~ MAGNETOMETOR SURVEY

AREA M.L. 12. OPERATOR ~~LICENSEE~~ POLTOCK BROS. DATE 19.11.80 OBS

GRD. GAMMAS TIME.

STATION	~~BASE READ~~	~~DRIFT~~		DESCRIPTION	Gyro angles
.3000	62409	9.47		3000 - 3050	+26
10	61296				
20	62278				
30	62728				
40	62686				
3050	62573			3050 - 3100	+24
60	62452				
70	62615	9.43			
80	62780				
90	62719				
3100	62756			3100 - 3150	+24
10	62786				
20	62047				
30	61756	9.37			
40	62500				
3150	62750			3150 - 3200	+15
60	62495				
70	62793	9.34			
80	62115				
90	61833				
3200	63612			3200 - 3250	+11 +4
10	62995				
20	61814				
30	63319				
40	61716				
3250	61798	9.29		3250 - 3300	-2 -8

053

959057

Form No. 69/89

RENISON LIMITED

FIELD SHEET FOR ~~GRADIENTAL~~ Magnetometer SURVEY

AREA M.L. 12. Operator ~~TRAVERSE~~ Poltock Bros. DATE 19.11.80 OBS

Grid STATION	Gammas. ~~STRENGTH~~	Time ~~SPEED~~		DESCRIPTION	slope angle
3260	63386				
70	62896				
80	62868				
90	64582				
3300	61427	9.25		3300 - 3350	-5
10	60758				
20	62103				
30	62476				
40	62431				
3350	62131	9.21		3350 - 3400	-1
60	61983				
70	61848	9.19			
80	61738				
90	61759				
3400	62202	9.17		3400 - 3450	+4
10	62400				
20	62896				
30	63380				
40	.63320				
3450	63717	9.14		3450 - 3500	+5
60	63802				
70	64050				
80	63967				
90	64122				
3500	63875	9.10			

057

959058

RENISON LIMITED

APPENDIX IV

DETECTION OF CARBONATE STRATA BY SOIL GEOCHEMISTRY

MICROFILMED

By: COLIN CANNARD,
C.G.F.A. GRADUATE TRAINEE

9th June, 1981

058

959059

LIST OF CONTENTS

1. INTRODUCTION
2. WORK DONE
3. RESULTS
4. CONCLUSIONS

PLANS

1.	a.	Line 4.5	Geochemistry	1:1000
	b.	Line 6	Geochemistry	1:1000
	c.	Line 6.5	Geochemistry	1:1000
	d.	Line 7	Geochemistry	1:1000
	e.	Line 13.5	Geochemistry	1:1000

APPENDICES

1. FIELD DATA SHEETS
2. ASSAY RESULTS

959060

1. INTRODUCTION

Carbonate horizons, which are favourable environments for replacement mineralisation or skarn mineralisation, generally have little or no outcrop. In this project, geochemical techniques have been used to try to locate carbonate strata in an area in which the stratigraphy is reasonably well known from diamond drill holes. Such an area is Mt Lindsay, where grid lines have been cut across the interpreted positions of carbonate horizons.

2. WORK DONE

Soil samples, at 10 or 20 metre intervals along five lines of the Mt Lindsay Grid, were taken using a 0.9m hand auger. "B" horizon samples were taken in all instances and "A" and "B-C" horizon samples where possible.

The soil samples were sieved with a 1.7mm mesh screen to remove rock fragments and organic matter. Samples were assayed for MgO, CaO, TiO_2, Al_2O_3, Fe_2O_3 and SiO_2 by the Renison Assay Laboratory. In addition, a soil pH was determined for all samples.

3. RESULTS

The field sheets with descriptions of samples and their pH's are included as Appendix 1.

The assay results and pH's for "B" horizon are on the relevant line profiles (Plan 1 a - e). The "A" horizon results are included where sufficient samples were present. The "B" horizon of the profiles is constructed from the deepest available soil samples.

As some "A" horizon assays have not been plotted, the assay sheets are included as Appendix 2.

959061

4. CONCLUSIONS

The following relationships between geochemical results and the soils above carbonate strata have been considered:

(i) Increase in CaO and MgO due to weathering of dolomite.

(ii) Increase in Al_2O_3 due to increased clay fraction in carbonate.

(iii) Decrease in SiO_2 due to decreased clastic content of carbonates.

(iv) Increase in pH due to carbonate.

(v) Decrease in pH due to sulphide in mineralised strata (line 13.5).

No obvious relationships between the above were found to exist. The most probable reasons for the lack of relationship are:

(i) soils were not residual, but transported,

(ii) high mobility of Ca, Mg, CO_3 ions.

Further work on ratios of elements (e.g. $\frac{Ca + Mg}{Si}$) or results from other elements may help to define a method for the geochemical detection of carbonate strata.

Geochemistry
PPM

200 180 160 140 120 100 80 60 40 20 0

500 S 400 S 300 S 200 S 100 S 0 100 N

SOIL pH

5·8 5·6 5·4 5·2 5·0 0

A horizon
B horizon

200 S 100 S 0

50 40 30 20 0

B horizon

% MgO
% CaO x 10
% TiO2

200 S 100 S 0

26 24 22 20 18

B horizon

% Al2O3
% Fe2O3
% SiO2 x 0·5

260 240 220 200 180 160

500 S 400 S 300 S 200 S 100 S 0 100 N

2400 2350 2300 2250 2200 2150 2100 2050 2000 1950

HEIGHT ABOVE SEA LEVEL + 2000 m

Topography & Geology

MAGNETIC SUSCEPTIBILITY
[k x 10⁻⁴ c g s]
10000 1000 100

BASELINE

SOUTH EAST CREEK

Weathered rock and clays

50 m
Trace pyrrhotite <0·1% Sn
100 m
Broken zone with core loss.
Carbonate, chert Trace pyrrhotite
Very broken core Rhodochrosite, calcite veinlets
150 m
200 m
Trace pyrrotite <0·1% Sn
250 m
300 m
Broken zone, Actinolite, rhodochrosite veinlets
350 m
Trace pyrrhotite
Impure carbonate, bedded chert Rare stylolites Trace pyrrhotite <0·1% Sn
400 m
450 m
D.D.H. 42 460m

959062

RENISON LIMITED

E.L. 2/63
MT. LINDSAY GRID.
D.D.H. 42 LINE 4·5

81-1568 (Vol 1 of 2)

GEOLOGIST	C. Canard
DRAUGHTSMAN	
DATE	June 1981
REVISIONS	

SCALE 1 1000 METRES
20 0 20 40

DRAWING No 1(a)

4122

NO I P COVERAGE

MAGNETICS
5000 γ SCALE
1000 γ SCALE

GEOMETRICS G816 PROTON MAGNETOMETER
USED SPACING 10m ALONG LINE
SENSOR HEAD 3m ABOVE SURFACE

SOIL GEOCHEMISTRY
Sn
Cu
Pb
Zn
As
W

SECTION LOOKING N.W

5 cm

LEGEND

VOLCANICLASTIC SEDIMENTS
Greywacke - siltstones
a Strongly magnetic zones
b Mottled alteration zones
Bleached mottled colours at contact of carbonate horizon

CARBONATE — CHERT HORIZON
Impure carbonate, chert, minor calc-silicate alteration and trace pyrrhotite

SKARN MINERALISATION
Replacing carbonate chert horizon
Magnetite rich

GRANITE

4123

Geochemistry
P P M

Soil pH

B horizon

B horizon
% MnO
% CaO x 10
% TiO_2

B horizon
% Al_2O_3
% Fe_2O_3
% SiO_2 x 0·5

Topography & Geology
HEIGHT ABOVE SEA LEVEL + 2000 m

MAGNETIC SUSCEPTIBILITY 100 1000 10000 x 10^{-6} c g s units

MAGNETIC SUSCEPTIBILITY 100 1000 10000 100000 x 10^{-6} c g s units

Magnetic shale
Weathered rock and clays
Mottled zone
Carbonate rich shale
Trace pyrrhotite <0 1% Sn
Non-magnetic shale
Green diagenetic ovoids
Carbonate
Very broken zone
Magnetic shale
Chert and shale
Red garnet common
Trace pyrrhotite throughout <0 1% Sn
Actinolite veinlets increasing
Contorted sediments
Carbonate and calc-silicate
Chert

Nº 1
MAIN LODE
SOUTH EAST CREEK
Nº 2
Nº 2 ANOMALY
ML 40
ML 45

67 8
79 3
90 0
173 7
196 1
214 0
219 0
221 0
238 0
272 0
289 0
299 0
363 7
378 9
391 0
440 6
460 2
576 5
602 7
615 5
648 5

ML 40
457 2m
444 0m
453 0m
% Sn
% Sol Sn
ML 45
687·2m

959063

RENISON LIMITED

E.L. 2/63
MT. LINDSAY GRID
LINE 6

81-1568 (Vol 1 of 2)

GEOLOGIST C Connard
DRAUGHTSMAN
DATE : JUNE 1981
REVISIONS

SCALE · 1: 1000 METRES
20 0 20 40

DRAWING No.
2 (b)

I P DATA
CHARGEABILITY
RESISTIVITY

MAGNETICS
5000 ϑ SCALE
1000 ϑ SCALE

SOIL GEOCHEMISTRY
Sn
Cu
Pb
Zn
As
W

SECTION LOOKING N W
NOTE DISTANCES SLOPE NOT HORIZONTAL

LEGEND

VOLCANICLASTIC SEDIMENTS
Greywacke siltstones
a Strongly magnetic zones
b Mottled alteration zones
Bleached mottled colours at contact of carbonate horizon

CARBONATE – CHERT HORIZON
Impure carbonate, chert, minor calc-silicate alteration and trace pyrrhotite

SKARN MINERALISATION
Replacing carbonate chert horizon
Magnetite rich

GRANITE

5 cm

4123

4124

Geochemistry
PPM

300 As
595 As
275 As

200 180 160 140 120 100 80 60 40 20 0

400 S 300 S 200 S 100 S 00 100 N 200 N

SOIL pH
A horizon
B horizon

5·6 5·4 5·2 5·0 0

B horizon
% MgO
% CaO x10
% TiO_2

5·0 4·0 3·0 2·0 1·0 0

B horizon
% Al_2O_3
% Fe_2O_3
% SiO_2 x0·5

26·0 24·0 22·0 20·0 18·0 16·0

5 4 3 2

26 24 22 20 18

400 S 300 S 200 S 100 S 00 100 N 200 N

Topography & Geology
HEIGHT ABOVE SEA LEVEL + 2000 m

2450 2400 2350 2300 2250 2150 2100 2050 2000 1950 1900 1850 1800 1750

MAGNETIC SUSCEPTIBILITY 100 1000 10000 100000 × 10^{-6} c g s units

MAGNETIC SUSCEPTIBILITY 100 1000 10000 100000 × 10^{-6} c g s units

MAGNETIC SUSCEPTIBILITY 100 1000 10000 100000 × 10^{-6} c g s units

No 1
MAIN LODE
SOUTH EAST CREEK
No 2

Base of weathering

25·7 83·0 92·3 103·0 110·0 119·0 127·2 139·7
No 1 ANOMALY
Mostly chert, minor carbonate near centre

Trace pyrrhotite <0·1% Sn

Trace pyrrhotite throughout <0·1% Sn
Garnet - vesuvianite alteration

Trace pyrrhotite, minor calc silicate alteration <0·1% Sn

Altered seds Trace pyrrhotite

Magnetite carbonate cassiterite skarn

ML38

Core broken
Minor brecciated fragments
Rhodochrosite veins

Minor quartz, actinolite veinlets with trace pyrrhotite

ML 44

210·9 218·8 223·8 231·9

262·4 278·2

309·5 318·7
Calc - silicates, rare scheelite

MAIN LODE

Grey carbonate with minor cherts

Shales, chert and carbonate
Calc silicate and carbonate cherty sediments 363·1 379·0

MAIN LODE

421·1
Interbedded magnetic and non magnetic bands

475·5 483·1

541·8 545·0
Mottled zone

578·6
No 2 ANOMALY
Carbonate, calc-silicate chert and shale
Pyrrhotite - chlorite
Calc-silicates
Carbonate
Calc - silicates minor pyrrhotite
Fault zone

624·5 629·0 632·0
ML 46

316·7m 330·0m
354·0m 358·0m
361·0m 367·0m
570·2m 630·2m
ML 46 & ML 46 A

79·6m 112·8m 281·0m 388·0m
ML 38

90·0m 96·0m
ML 44

% Sn

959064

RENISON LIMITED	
E.L. 2/63 MT. LINDSAY GRID LINE 6·5	
81-1568 (Vol 1 of 2)	
GEOLOGIST · C. Cannard	SCALE · 1 · 1000 METRES 20 0 20 40
DRAUGHTSMAN ·	
DATE · June 1981	
REVISIONS ·	DRAWING No · (c)

I P DATA
CHARGEABILITY
RESISTIVITY

MAGNETICS
5000 ϑ SCALE
1000 ϑ SCALE

SOIL GEOCHEMISTRY
Sn Cu Pb Zn As W

SECTION LOOKING N W
NOTE DISTANCES SLOPE NOT HORIZONTAL

LEGEND

VOLCANICLASTIC SEDIMENTS
Greywacke siltstones
a Strongly magnetic zones
b Mottled alteration zones
Bleached mottled colours at contact of carbonate horizon.

CARBONATE - CHERT HORIZON
Impure carbonate, chert, minor calc-silicate alteration and trace pyrrhotite

SKARN MINERALISATION
Replacing carbonate chert horizon
Magnetite nch

GRANITE

5 cm

4124

4125

Geochemistry

Cu ppm

Zn ppm

Pb ppm

As ppm

Ag ppm

Sb ppm

Au ppb

Bi ppm

W ppm

Mo ppm

Sn ppm

Ba ppm

Sr ppm

Mn ppm

Co ppm

Ni ppm

V ppm

Cr ppm

Fe %

Ca %

Mg %

Ti %

K %

Al %

Na %

P %

Sc ppm

Hg ppb

Te ppm

Se ppm

Ga ppm

Y ppm

Nb ppm

Zr ppm

Th ppm

U ppm

La ppm

Ce ppm

Nd ppm

Rb ppm

Cs ppm

Hf ppm

Ta ppm

Tl ppm

Be ppm

Li ppm

Sc ppm

Hg ppb

Te ppm

Se ppm

Ga ppm

Y ppm

Nb ppm

Zr ppm

Th ppm

U ppm

La ppm

Ce ppm

Nd ppm

Rb ppm

Cs ppm

Hf ppm

Ta ppm

Tl ppm

Be ppm

Li ppm

SOIL pH

A horizon

B horizon

B horizon

% MgO

% CaO x 10

% TiO_2

A horizon

% MgO

% CaO x 10

% TiO_2

B horizon

% Al_2O_3

% Fe_2O_3

% SiO_2 x 0·5

Topography & Geology

HEIGHT ABOVE SEA LEVEL + 2000 m

Magnetic Susceptibility ×10⁻⁴ c.g.s units

ML 50 Proj 4.0m NW

ML 51 Proj 2.5m NW

ML 55 Proj 17.0m NW

Proj 2.5m NW Length 104.0m

Proj 3.0m NW Length 340.0m

Proj 14.0m NW Length 493.0m

Fault zone

N° 2 Carbonate (upper) partly weathered carbonate and calc-silicates

Magnetite skarn

N° 2 carbonate (lower) Calc silicates + chert

N° 2 Carbonate (calc-silicates + minor sulphides)

IP DATA

Chargeability

Resistivity

MAGNETICS

5000 ϒ Scale

1000 ϒ Scale

SOIL GEOCHEMISTRY

Sn, Cu, Pb, Zn, As, W

Section looking N W

NOTE Distances slope not horizontal

LEGEND

VOLCANICLASTIC SEDIMENTS
Strongly magnetic zones
Non magnetic zones

CHERT

MOTTLED ZONES

CARBONATE ZONE
Minor chert and calc-silicates

CALC SILICATES

CLAY
Weathered carbonate and / or calc-silicates

SKARN MINERALISATION
Magnetite, pyrrhotite and phlogopite

FAULT ZONE

MEREDITH GRANITE

5 cm

959065

RENISON LIMITED

E.L. 2/63
MT. LINDSAY GRID
LINE ML.7
HOLES ML50, 51 & 55

81-1568 (Vol 1 of 2)

GEOLOGIST C. Canard

DRAUGHTSMAN

DATE June, 1981

SCALE 1 1000 METRES

20 0 20 40

REVISIONS

DRAWING No 1(d)

4125

SOIL pH

5.6
5.4
A horizon
5.2
B horizon
5.0
5.0

100 S BASELINE 100 N

5.0
4.0
B horizon
% MgO
3.0
% CaO
2.0
% TiO_2
1.0

100 S BASELINE 100 N

26.0
24.0
22.0
B horizon
% Al_2O_3
20.0
% Fe_2O_3
18.0
% SiO_2 X 0.5
16.0

100 S BASELINE 100 N

Topography & Geology

HEIGHT ABOVE SEA LEVEL + 2000 m

2600
2500
2400
2300

DDH 5
collar projected 15m West

Western Adit

Weathered sulphide and gossan

DDH 2/6
collar projected 20m West.

Crystal Tuffs

300 S 200 S 100 S BASELINE 100 N 200 N

I P DATA
Chargeability
Resistivity

MAGNETICS
5000 γ Scale
1000 γ Scale

SOIL GEOCHEMISTRY
Sn
Cu
Pb
Zn
As
W

5 cm

959066

RENISON LIMITED

E.L 2/63
MT LINDSAY GRID
LINE 13·5
81-1568 (Vol 1 of 2)

GEOLOGIST C Cannard.	SCALE 1 1000 METRES (20 0 20 40)
DRAUGHTSMAN :	
DATE June 1981	
REVISIONS	DRAWING No 1(e)

4126

06

959067 APPENDIX I.

Form No. 69/89

RENISON LIMITED

FIELD SHEET FOR GEOCHEMICAL SURVEY

AREA MT. LINDSAY TRAVERSE M.L. 4·5 DATE 23/2/81 OBS

STATION	SOIL HORIZON	DEPTH	pH	DESCRIPTION
.150 S	B .	0·2	5·3	yellow green grey silty clay.
" "	B-C ?	0·8	5·1	yellow-brown clay. NO A HORIZON
130 S	A	0·1	5·1	grey-brown silt with abundant vegetable matter
" "	B-C ?	0·9	5·2	brown yellow clay with highly weathered rock fragments.
110 S	B	0·5	5·3	grey green silty clay.
" "	B-C	0·9	5·6	yellow brown clay with patches of red highly weathered rock particles. NO A HORIZON
90 S	"B	0·5	5·5	green-grey silty clay with some unweathered rock particles.
" "	B-C	0·9	5·7	yellow brown grey clay with weathered rock particles. Patches of red clay. NO A HORIZON
70 S	A	0·1	5·3	grey brown friable silt with abundant vegetable matter.
" "	B	0·7	5·3	grey brown silty clay with a few slightly weathered rock fragments.

959068

062

Form No. 69/89

RENISON LIMITED

FIELD SHEET FOR GEOCHEMICAL SURVEY

AREA MT. LINDSAY TRAVERSE M.L. 4·5(cont) DATE 23/2/81 OBS

STATION	SOIL HORIZON	DEPTH	pH	DESCRIPTION
50 S	B	0·7	5·4	yellow grey brown silty clay. NO A HORIZON
30 S	A	0·1	5·3	grey brown friable silt containing abundant vegetable matter.
" "	B	0·4	5·2	yellow grey brown friable clayey silt with weathered and unweathered rock fragments.
" "	B-C ?	0·8	5·4	yellow grey brown silty clay with abundant weathered rock fragments.
10 S	A	0·1	5·2	grey brown friable silt with a few unweathered pebbles.
" "	B	0·6	5·2	yellow grey brown silty clay with numerous pebbles some partially weathered.
" "	B-C ?	0·8	5·3	yellow grey brown clay with numerous weathered pebbles.
0 N	A	0·1	5·0	grey brown clayey silt.
	B	0·4	5·5	grey brown silty clay with unweathered rock particles.
				HOLE STOPPED ON ROCKS AT 0·5m

959069

063

Form No. 69/89

RENISON LIMITED

FIELD SHEET FOR GEOCHEMICAL SURVEY

AREA MT. LINDSAY TRAVERSE ML. 6. DATE 20/2/81 OBS

STATION	SOIL HORIZON	DEPTH	pH	DESCRIPTION
2100 N	B	0.5	5.3	yellow grey brown silty clay with unweathe pebbles. HOLE STOPPED ON ROCKS AT 0.6M NO A HORIZON
2120 N	A	0.1	5.0	brown root-rich silt.
" "	A-B	0.6	5.2	yellow grey silty clay. HOLE STOPPED ON ROCKS AT 0.6 M
2140 N	A	0.1	5.0	brown root-rich silt.
" "	B	0.6	5.6	yellow grey silty clay. HOLE STOPPED ON ROCKS AT 0.6m
2160 N	A-B	0.6	5.3	bog green-grey clayey silt. NO A HORIZON. HOLE STOPPED ON ROCKS AT 0.6 M.
2180 N	A-B	0.8	5.3	bog green-grey clayey but friable silt.
2200 N	B	0.5	5.5	bog green gritty clay, containing abundant pebbles. NO A HORIZON STOPPED ON ROCKS AT 0.5 M
2220 N	B	0.6	5.7	green grey puggy clay with some partially weathered pebbles. NO A HORIZON. HOLE STOPPED ON ROCKS AT 0.6 m.

064

959070

Form No. 69/89

RENISON LIMITED

FIELD SHEET FOR GEOCHEMICAL SURVEY

AREA MT. LINDSAY TRAVERSE M.L. 6 (cont) DATE 20/2/81 OBS

STATION	SOIL HORIZON	DEPTH	pH	DESCRIPTION
2240 N	A ?	0.1	5.8	grey brown clayey silt
" "	B	0.6	5.8	green grey clay.
2260 N	A-B ?	0.6	5.2	grey brown clayey silt. NO A HORIZON. HOLE STOPPED ON ROCKS AT 0.6M.
2280 N	B	0.6	5.5	yellow grey silty clay with partially weathered rock fragments. NO A HORIZ HOLE STOPPED ON ROCKS AT 0.6M
2300 N	B	0.8	5.3	yellow grey clay with unweathered rock fragments. NO A HORIZON
2320 N	A	0.1	5.4	yellow brown friable silt rich in vegetable matter.
" "	A-B ?	0.5	5.4	yellow grey brown clay with rock fragments. HOLE STOPPED ON ROCKS AT 0.6m
2350 N	A ?	0.2	5.3	grey brown silt. NO B HORIZON : PROBABLY TALUS SLOPE.
2370 N	B	0.7	5.3	yellow grey brown silty clay. No A Horiz

065

959071

Form No. 69/89

RENISON LIMITED

FIELD SHEET FOR GEOCHEMICAL SURVEY

AREA MT. LINDSAY TRAVERSE M.L.6 (cont) DATE 20/2/81 OBS

STATION	SOIL HORIZON	DEPTH	pH	DESCRIPTION
2390 N	B .	0.6	5.2	yellow grey brown silty clay. NO A HORIZON

06

959072

Form No. 69/89

RENISON LIMITED

FIELD SHEET FOR GEOCHEMICAL SURVEY

AREA MT. LINDSAY TRAVERSE M.L. 6-S DATE 24/2/81 OBS

STATION	SOIL-HORIZON	DEPTH	pH	DESCRIPTION
20 N	A	0.1	5.6	grey brown friable silt.
" "	B	0.8	5.4	yellow grey brown silty clay.
10 N	A	0.1	5.3	grey brown friable silt.
" "	B	0.9	5.0	yellow grey brown silty clay.
0 N.	A	0.1	5.2	grey brown friable silt.
" "	B	0.9	5.3	yellow grey brown silty clay.
10 S	A	0.1	5.1	grey brown friable silt.
" "	B	0.9	5.1	yellow grey brown silty clay with a few weathered pebbles
20 S	A	0.1	4.9	grey brown friable silt with abundant vegetable matter.
" "	B	0.8	5.0	yellow grey brown silty clay with a few small unweathered particles.
30 S	A	0.1	4.6	grey brown clayey silt with abundant vegetable matter.
" "	B	0.8	5.1	yellow grey brown silty clay containing numerous weathered pebbles.

067

959073

Form No. 69/89

RENISON LIMITED

FIELD SHEET FOR GEOCHEMICAL SURVEY

AREA MT. LINDSAY TRAVERSE ML 6.5 (cont) DATE 24/2/81 OBS

STATION	SOIL HORIZON	DEPTH	pH	DESCRIPTION
40 S	A	0.2	5.1	grey brown clayey silt with abundant vegetable matter.
" "	B	0.8	5.2	yellow grey brown silty clay with some small partially weathered pebbles
50 S	A	0.1	4.6	grey brown silt containing abundant plant matter.
	B	0.5	5.1	grey brown silty clay with numerous unweathered rock fragments.
				FROM 50S → 120S road working, Then creek, made sampling impossible.

068

959074

Form No. 69/89

RENISON LIMITED

FIELD SHEET FOR GEOCHEMICAL SURVEY

AREA MT. LINDSAY TRAVERSE M.L. 7 DATE 19/2/81 OBS

STATION	SOIL HORIZON	DEPTH (metres)	pH	DESCRIPTION
2400 N	A	0.2	5.4	grey brown silt.
" "	B	0.8	5.2	yellow grey brown silty clay.
2380 N	B	0.5	5.2	yellow grey brown silty clay.
"	B-C ?	0.9	5.3	yellow grey brown silty clay with partially weathered siltstone pebbles.
2360 N	A	0.2	5.0	grey brown organic rich silt.
" "	B	0.6	5.4	yellow grey brown silty clay
				HOLE STOPPED ON ROCKS
2340 N	A	0.2	5.1	brown root rich soil.
" "	B	0.8	5.3	yellow grey brown silty clay.
2320 N	B	0.8	5.2	yellow grey brown silty clay.
				NO A HORIZON
2310 N	B	0.3	5.3	yellow grey brown silty clay.
" "	B-C ?	0.9	5.3	yellow grey brown silty clay with weathered and unweathered pebbles.
				NO A HORIZON
2300 N	A	0.1	4.9	dark brown silt with abundant vegetable matter
" "	B	0.9	5.2	yellow grey brown silty clay.

069

959075

Form No. 69/89

RENISON LIMITED

FIELD SHEET FOR GEOCHEMICAL SURVEY

AREA MT. LINDSAY TRAVERSE ML.7 (cont) DATE 19/2/81 OBS

STATION	SOIL HORIZON	DEPTH (metres)	pH	DESCRIPTION
2290 N	B	0.6	5.2	yellow grey brown silty clay.
				HOLE STOPPED ON ROCKS AT 0.7M
				NO A HORIZON
2280 N	A	0.1	4.8	brown root-rich clayey silt.
" "	B	0.8	5.1	yellow grey brown silty clay.
2270 N	A	0.1	5.1	brown root-rich silt.
" "	A-B	0.8	5.2	yellow grey brown silty clay with unweathered pebbles.
2260 N	B	0.8	5.3	yellow grey brown silty clay
				NO A HORIZON.
2250 N	A	0.1	5.3	grey brown clayey silt.
" "	B	0.6	5.2	yellow grey brown silty clay
" "	B-C?	0.8	5.4	yellow grey brown silty clay containing weathered pebbles
2240 N	B	0.8	5.4	yellow grey brown silty clay with unweathered pebbles.
				NO A HORIZON

070

959076

Form No. 69/89

RENISON LIMITED

FIELD SHEET FOR GEOCHEMICAL SURVEY

AREA MT. LINDSAY TRAVERSE M.L.7. (cont) DATE 19/2/81 OBS

STATION	SOIL HORIZON	DEPTH	pH	DESCRIPTION
2235 N	A	0.1	5.3	grey brown clayed silt.
" "	B	0.8	5.4	grey brown clay with pockets of yellow clay. Also slightly weathered pebbles.
2180 N	A	0.3	5.1	brown root rich silt.
" "	B 1	0.6	5.2	yellow grey brown clay.
" "	B 2	1.6	5.1	red brown clay containing pockets of yellow clay and very weathered pebbles
" "	C	2.0	5.2	weathered crumbly rock particles containing grey, black and red weathered patches.
				SAMPLES FROM ROAD CUTTING
				From 2235 N to 2150 N (excepting 2180 N) no samples possible because of creek and road.

071

959077

Form No. 69/89

RENISON LIMITED

FIELD SHEET FOR GEOCHEMICAL SURVEY

AREA MT. LINDSAY TRAVERSE M.L. 13·S DATE 24/2/81 OBS

STATION	Soil Horizon	DEPTH	pH	DESCRIPTION
100 S	A	0·1	5·1	brown friable silt with abundant vegetable matter.
" "	B	0·6	5·3	orange brown silty clay with numerous weathered and unweathered pebbles
				HOLE STOPPED ON ROCKS AT 0.6M
80 S	A	0·1	5·2	grey brown clayey silt with abundant vegetable matter.
" "	B	0·5	5·3	yellow grey brown silty clay with a few weathered and unweathered pebbl
" "	B-C	0·8	5·2	yellow grey brown clay with numerous weathered and unweathered pebbles.
60 S	A	0·1	4·9	yellow brown clayey silt.
" "	B	0·5	5·0	yellow orange brown silty clay containing limonitic pebbles.
				HOLE STOPPED ON ROCKS AT 0.6M
40 S	B	0·7	4·8	grey brown puggy clay with weathered grey pebbles.
				NO A HORIZON
20 S	A	0·1	4·9	grey brown clayey silt.
" "	B	0·6	5·1	yellow grey brown silty clay with abundant unweathered pebbles.

072

959078

Form No. 69/89

RENISON LIMITED

FIELD SHEET FOR GEOCHEMICAL SURVEY

AREA MT. LINDSAY TRAVERSE ML 13-S (cont) DATE 24/2/81 OBS

STATION	- - .	DEPTH	pH	DESCRIPTION
.0 N	A .	0·1	5·0	dark grey brown silt with abundant vegetable matter.
" "	B	0·5	5·3	yellow grey brown silty clay with a few weathered and unweathered pebbles
	B-C	0·8	5·3	yellow grey brown clay with patches of red and yellow weathered rock.
20 N	A	0·1	5·3	grey brown friable root rich silt.
" "	B	0·7	5·3	orange brown silty clay.
40 N	A	0·1	5·1	grey brown friable silt.
" "	B	0·6	5·5	grey brown puggy clay
60 N	A	0·1		chocolate brown silt.
" "	B	0·5	5·3	yellow grey brown clay with unweathered pebbles.
" "	B-C ?	0·8	5·2	orange brown clay with weathered pebbles.
80 N	A	0·1	5·1	grey brown friable silt.
" "	B	0·5	5·2	yellow grey brown silty clay with partially weathered rock fragments
				HOLE STOPPED ON ROCKS AT 0·6M

073

959079

Form No. 69/89

RENISON LIMITED

FIELD SHEET FOR GEOCHEMICAL SURVEY

AREA MT. LINDSAY TRAVERSE M.L. 13-S (cont.) DATE 24/2/81 OBS

STATION	SOIL HORIZON	DEPTH	pH	DESCRIPTION
100 N	A	0.1	5.1	brown friable silt.
" "	B	0.6	5.1	grey brown silty clay with numerous unweathered pebbles
				ROCKS STOPPED HOLE AT 0.6 M

074

959080

APPENDIX 2

RENISON LIMITED

№ 2063

ANALYTICAL REPORT SHEET

10/81/B

Sple No.	Sample Identification			MgO	Al_2O_3	SiO_2	CaO	TiO_2	Fe_2O_3				
133	ML6	2100N	B	3.43	18.6	50.4	0.36	3.96	23.5				
134		2120N	A	2.55	15.3	54.8	0.54	4.67	22.8				
135			A-B?	2.65	15.5	54.4	0.53	4.62	23.0				
136		2140N	A	2.78	15.0	55.9	0.53	4.74	21.7				
137			A-B	2.91	15.5	55.0	0.55	4.68	22.4				
138		2160N	A-B	2.15	15.5	56.1	0.36	4.76	21.7				
139		2180N	A-B	2.72	16.4	55.1	0.34	4.54	21.6				
140	ML6.5	10S	A	2.57	19.2	50.2	0.18	4.60	23.3				
141		00N	A	3.22	18.2	52.1	0.33	4.63	22.0				
142			B	3.96	18.7	49.9	0.55	4.19	22.7				
143		10N	A	3.07	20.9	47.9	0.17	4.53	24.1				
144			B	3.49	19.8	49.3	0.27	4.20	22.8				
145		20N	A	3.56	17.9	52.1	0.67	4.40	21.2				
146			B	3.73	19.1	50.9	0.38	4.22	21.4				
147		10S	B	4.85	19.6	50.3	0.06	4.00	22.2				
148		20S	A	4.20	18.0	52.3	0.33	4.39	21.8				
149			B	3.31	21.9	47.0	0.13	4.29	23.8				
150		30S	A	3.13	19.3	49.7	0.27	4.66	23.1				
151			B	3.11	20.1	48.2	0.19	4.48	24.2				
152		40S	A	3.05	19.3	48.3	0.35	4.76	24.5				
153			B	4.12	20.3	46.4	0.19	4.64	25.1				
154		50S	A	3.04	19.6	48.3	0.27	4.81	24.8				
155			B	3.51	20.3	47.8	0.28	4.61	25.0				
156	ML13.5	20N	A	4.17	19.1	45.4	0.48	4.47	26.6				
157		40N	A	4.65	19.6	52.0	0.25	3.84	20.2				

Analyst: D Shane Chief Chemist: D Oxnard Date: 28-4-81

All results in percent unless otherwise indicated.

075

959081

RENISON LIMITED

№ 2066

ANALYTICAL REPORT SHEET

4/81/B

Sple No.	Sample Identification			MgO	Al_2O_3	SiO_2	CaO	TiO_2	Fe_2O_3				
51	ML 13.5	00N	A	5.36	16.9	45.1	0.68	5.10	25.7				
52			B	5.19	18.5	44.0	0.56	4.88	26.2				
53			B-C	5.65	17.3	43.5	0.70	4.80	26.7				
54		20N	B	4.08	18.3	44.2	0.42	4.37	26.9				
55		40N	B	5.03	19.3	50.8	0.29	4.36	20.7				
56		60N	B	4.90	19.0	47.8	0.24	3.65	23.3				
57			B-C	4.83	19.3	48.4	0.18	3.72	23.1				
58		80N	A	4.03	23.6	43.7	0.22	4.16	23.5				
59			B	3.89	26.3	38.4	0.10	4.46	26.2				
60		100N	A	4.20	22.7	49.0	0.26	4.14	19.1				
61			B	4.23	23.8	47.7	0.20	3.96	19.5				
62		20S	A	5.63	18.1	43.9	0.63	5.16	25.9				
63			B	6.04	17.9	43.6	0.60	5.20	26.7				
64		40S	B	7.16	16.3	46.1	0.56	4.95	24.9				
65		60S	A	3.10	21.5	45.9	1.44	4.31	22.2				
66			B	2.99	22.5	43.7	0.97	4.26	25.1				
67		80S	A	4.32	20.9	44.6	2.02	4.28	23.4				
68			B	4.49	21.2	44.1	2.02	4.27	24.1				
69			B-C	4.16	22.0	42.9	1.79	4.20	24.3				
70		100S	A	3.60	22.8	41.8	1.39	4.66	24.5				
71			B	4.12	22.4	41.8	1.23	4.66	25.4				
72	ML 7	2180N	A	2.40	22.7	43.4	0.14	5.17	25.4				
73			B1	3.29	25.4	39.0	0.04	4.89	27.6				
74			B2	1.99	26.0	36.3	<0.01	5.00	29.9				
75			C	4.73	19.7	41.0	"	4.39	29.2				

Analyst: [signature] Chief Chemist: [signature] Date: 26-5-81

All results in percent unless otherwise indicated.

076

959082

24

RENISON LIMITED

ANALYTICAL REPORT SHEET

№ 2054

10/81

all results in percent

Sple No.	Sample Identification			MgO	SiO_2	CaO	Fe_2O_3				Al_2O_3	TiO_2	
1B	ML 4.5	00N	A	3.32	46.8	0.30	22.8				22.4	4.06	
2B			B	3.30	45.0	0.30	24.1				23.0	4.15	
3B		15S	A	2.52	47.1	0.35	21.9				22.2	4.16	
4B			B	3.01	44.7	0.23	23.3				24.6	3.87	
5B			B-C?	3.12	45.7	0.25	22.6				24.2	3.79	
6B		30S	A	2.24	48.7	0.38	21.8				22.5	4.25	
7B			B	2.62	47.4	0.32	22.3				23.2	4.05	
8B			B-C?	3.46	46.0	0.37	21.3				23.8	3.50	
9B		50S	B	2.32	45.4	0.20	24.3				23.7	4.27	
10B		70S	A	2.10	48.2	0.46	22.8				22.3	4.29	
11B			B	2.38	47.8	0.32	23.5				22.3	4.27	
12B		90S	B	1.80	48.7	0.20	23.0				23.8	4.26	
13B			B-C	1.56	43.3	0.14	27.4				23.8	4.22	
14B		110S	B	1.37	49.3	0.21	22.4				23.2	4.67	
15B			B-C	1.05	42.8	0.07	25.0				26.7	4.52	
16B		130S	A	0.71	55.2	0.20	20.1				19.4	5.45	
17B			B	0.71	50.3	0.09	23.1				21.1	4.92	
18B			B-C	0.64	47.8	0.04	24.9				22.6	4.88	
19B		150S	A	0.34	55.4	0.04	21.4				19.0	5.06	
20B			B	0.38	40.9	<0.01	32.9				22.9	3.81	
21B	ML 6	2200N	B	2.57	52.1	0.37	22.1				18.0	4.54	
22B		2220N	B'	3.84	51.0	0.43	21.2				19.7	3.56	
23B		2240N	A?	2.97	52.3	0.81	21.6				18.1	3.98	
24B			B	3.66	50.6	0.46	21.1				19.3	3.52	
25B		2260N	A-B?	3.98	49.0	0.38	22.5				19.1	4.29	

Analyst: _____ Chief Chemist: _____ Date: 8-4-81

All results in percent unless otherwise indicated.

077

959083

RENISON LIMITED

№ 2057

ANALYTICAL REPORT SHEET

10/81

all results in percent

Sple No.	Sample Identification	MgO	Al_2O_3	SiO_2	CaO	TiO_2	Fe_2O_3				
51B	MLG 2280N B	4.23	21.5	48.1	0.21	3.83	22.5				
52B	2300 N B	3.64	22.3	47.3	0.14	3.93	22.9				
53B	2320 N A	3.15	21.2	50.5	0.40	3.84	20.8				
54	B	3.22	20.8	49.8	0.49	3.84	21.3				
55B	2350 N A?	2.89	20.0	52.4	0.69	3.93	19.4				
56B	2370 N B	3.19	20.3	51.3	0.41	3.71	20.8				
57B	2390 N B	3.63	20.3	48.9	0.38	3.93	22.8				

Analyst: _____ Chief Chemist: _____ Date: 9-4-81

All results in percent unless otherwise indicated.

078

959084

RENISON LIMITED

№ 2069

ANALYTICAL REPORT SHEET

12/81/B

Sple No.	Sample Identification			MgO	Al_2O_3	SiO_2	CaO	TiO_2	Fe_2O_3				
1	ML 7	2235 N	A	3.44	17.60	51.4	0.47	3.73	21.5				
2			B	4.06	18.3	52.2	0.46	3.77	20.1				
3		2240 N	B	4.70	18.8	49.8	0.42	3.46	20.9				
4		2250 N	A	3.30	17.9	50.8	0.40	3.69	22.0				
5			A-B?	3.48	18.7	50.9	0.35	3.63	21.7				
6			B	4.35	19.2	50.8	0.31	3.21	19.6				
7		2270 N	A	3.06	17.9	51.1	0.45	3.83	22.3				
8		2260 N	B	3.38	18.5	50.1	0.58	3.72	21.9				
9		2270 N	A-B	3.76	19.6	49.9	0.31	3.45	21.2				
10		2280 N	A	3.19	17.6	51.5	0.46	3.73	21.2				
11			B	3.61	19.0	50.3	0.37	3.61	21.5				
12		2290 N	B	3.66	18.8	50.3	0.41	3.62	21.7				
13		2300 N	A	3.11	17.8	51.2	0.54	3.76	21.3				
14			B	3.64	20.0	49.9	0.33	3.49	21.2				
15		2310 N	B	3.76	19.3	50.3	0.37	3.52	21.0				
16		2320 N	B	3.74	19.7	49.9	0.35	3.45	21.1				
17		2340 N	A	3.68	18.4	51.7	0.45	3.62	20.5				
18			B	4.34	19.9	50.1	0.34	3.24	19.7				
19		2310 N	B-C?	3.24	18.8	50.5	0.42	3.64	21.7				
20		2360 N	A	3.36	17.9	51.6	0.51	3.78	21.2				
21			B	3.72	19.4	52.2	0.42	3.81	22.0				
22		2380 N	B	3.82	18.9	50.0	0.43	3.69	21.5				
23			B-C?	4.55	20.5	49.3	0.40	3.39	20.5				
24		2400 N	A	3.82	19.3	49.4	0.49	3.70	21.2				
25			B	4.39	21.0	48.0	0.34	3.36	20.4				

Analyst: [signature] Chief Chemist: [signature] Date: 30-5-81

All results in percent unless otherwise indicated.

079

959085

APPENDIX V

MERTON HILL ORIENTATION SURVEY RESULTS

080

959086

MERTON HILL AREA

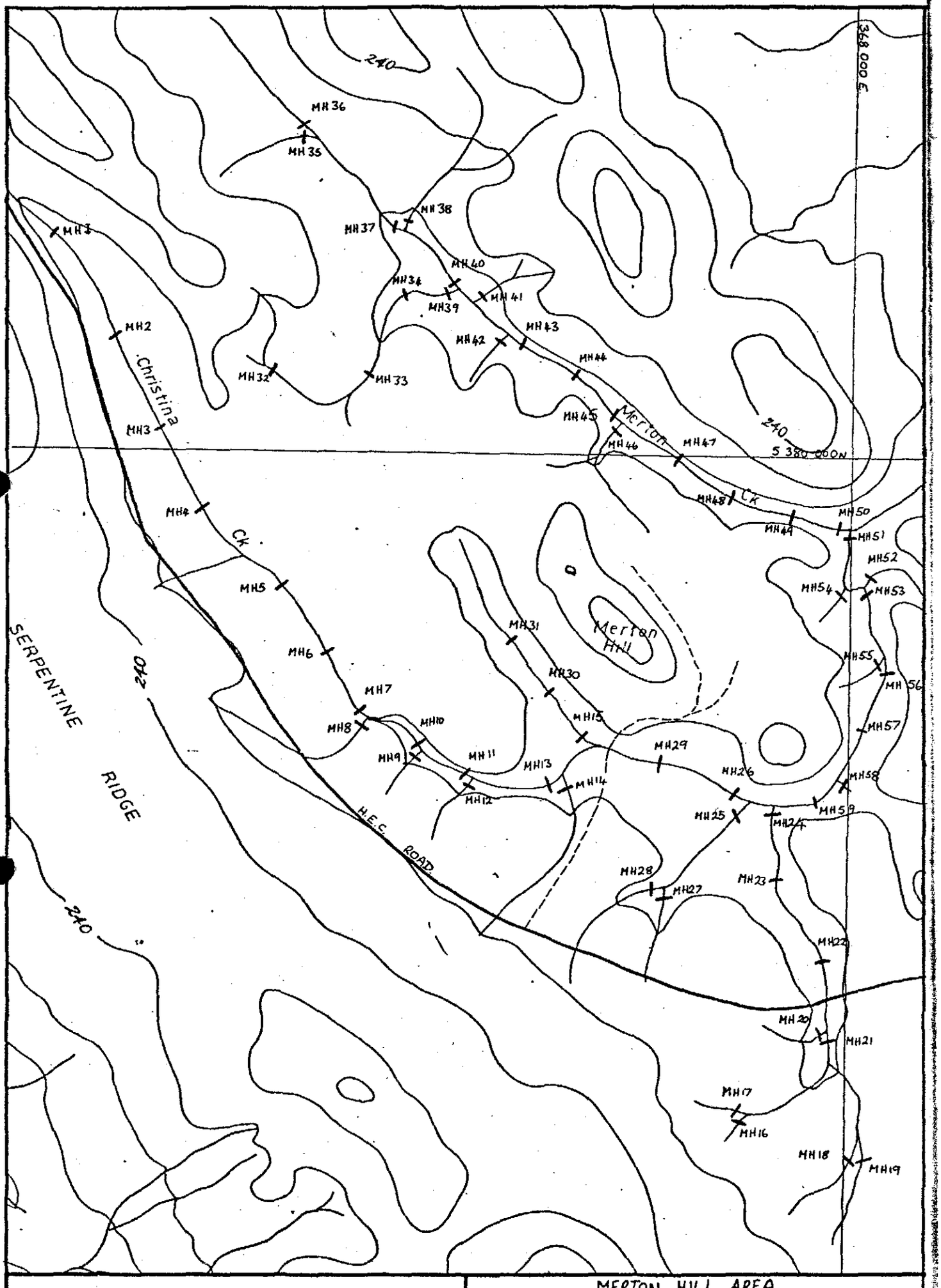
STREAM SEDIMENT ORIENTATION SURVEY

59 samples were collected from the Merton Hill Area as shown on Plan 1. These samples were seived into three fractions:

-80 mesh ..... -180 micrometre (fines)
-48 +80 mesh .... +180 -300 micrometre (intermediates)
-35 +48 mesh .... +300 -425 micrometre (coarses)

The fractions were assayed for Sn, As and WO_3 by X.R.F. and for Cu, Pb, Zn and Ni by A.A.S. The results are plotted in Figures 1 - 6. Tungsten values were at or below the limit of detection in all size fractions and have not been plotted graphically.

Comparison of the three graphs on each of the six Figures shows that they are generally very similar; all of the highly anomalous and most of the weakly anomalous values appear in the three fractions. Therefore in a regional stream sediment survey, the -180 micrometre fraction would be chosen as it is more likely to be homogeneous and a more representative sample.



MERTON HILL AREA.

STREAM SEDIMENT ORIENTATION SURVEY

PLAN I.....SAMPLE LOCATIONS.

1:10,000

FIGURE I .... Sn (PPM)



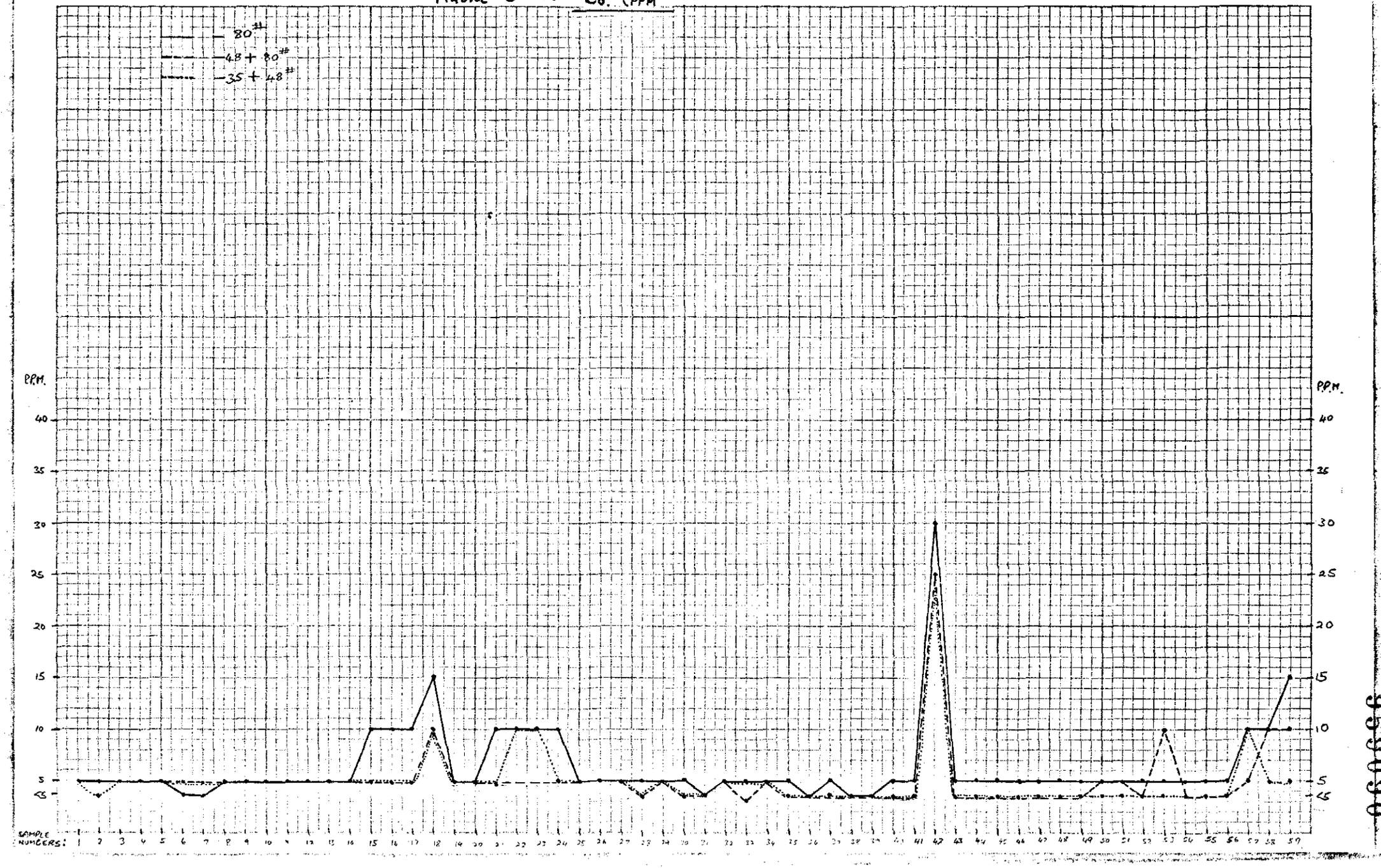
880696

FIGURE 2 .... As (P.P.M.)



9909089

FIGURE 3 .... Cu. (PPM



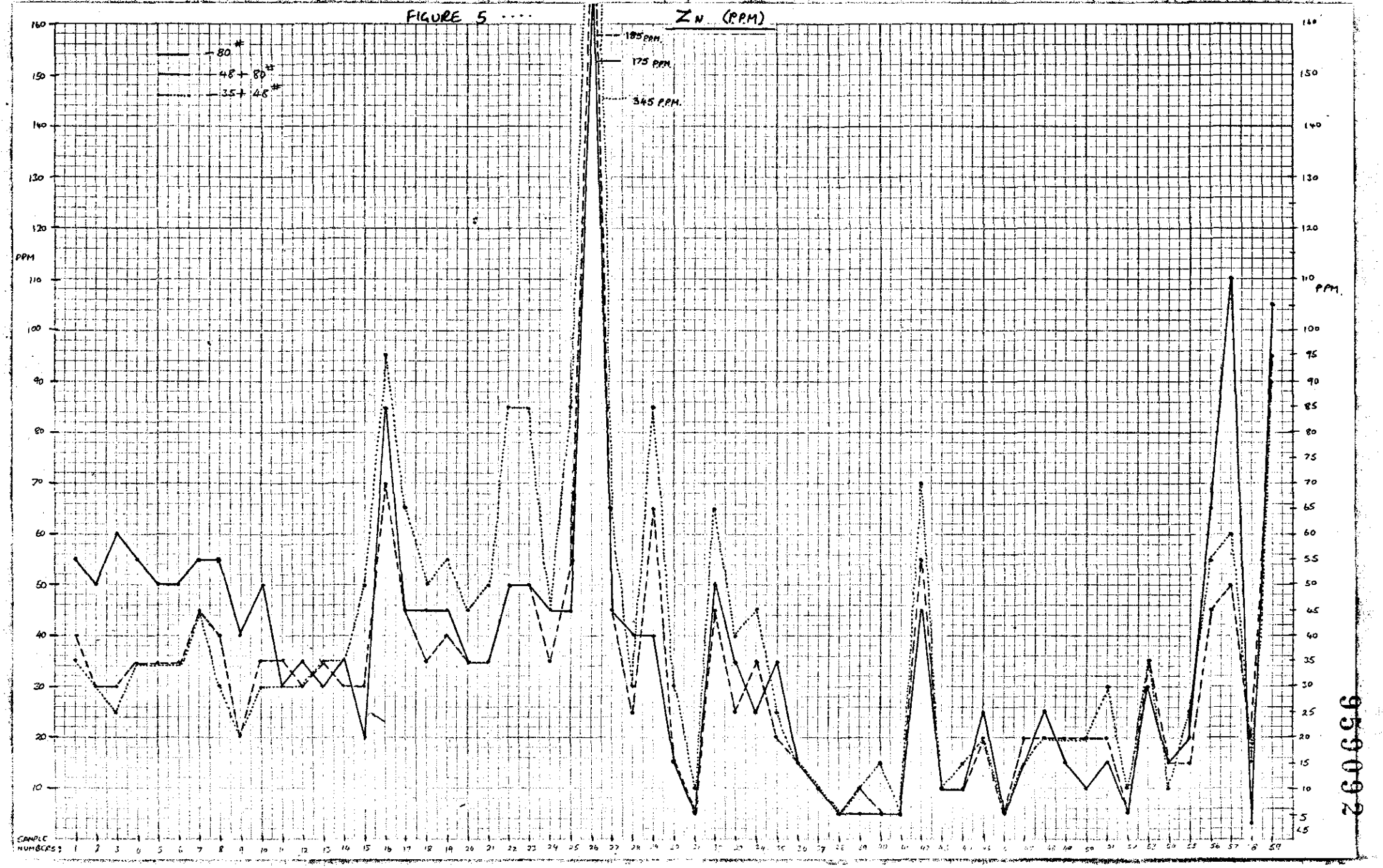
0000956

FIGURE 4 .... Pb (PPM)



99091

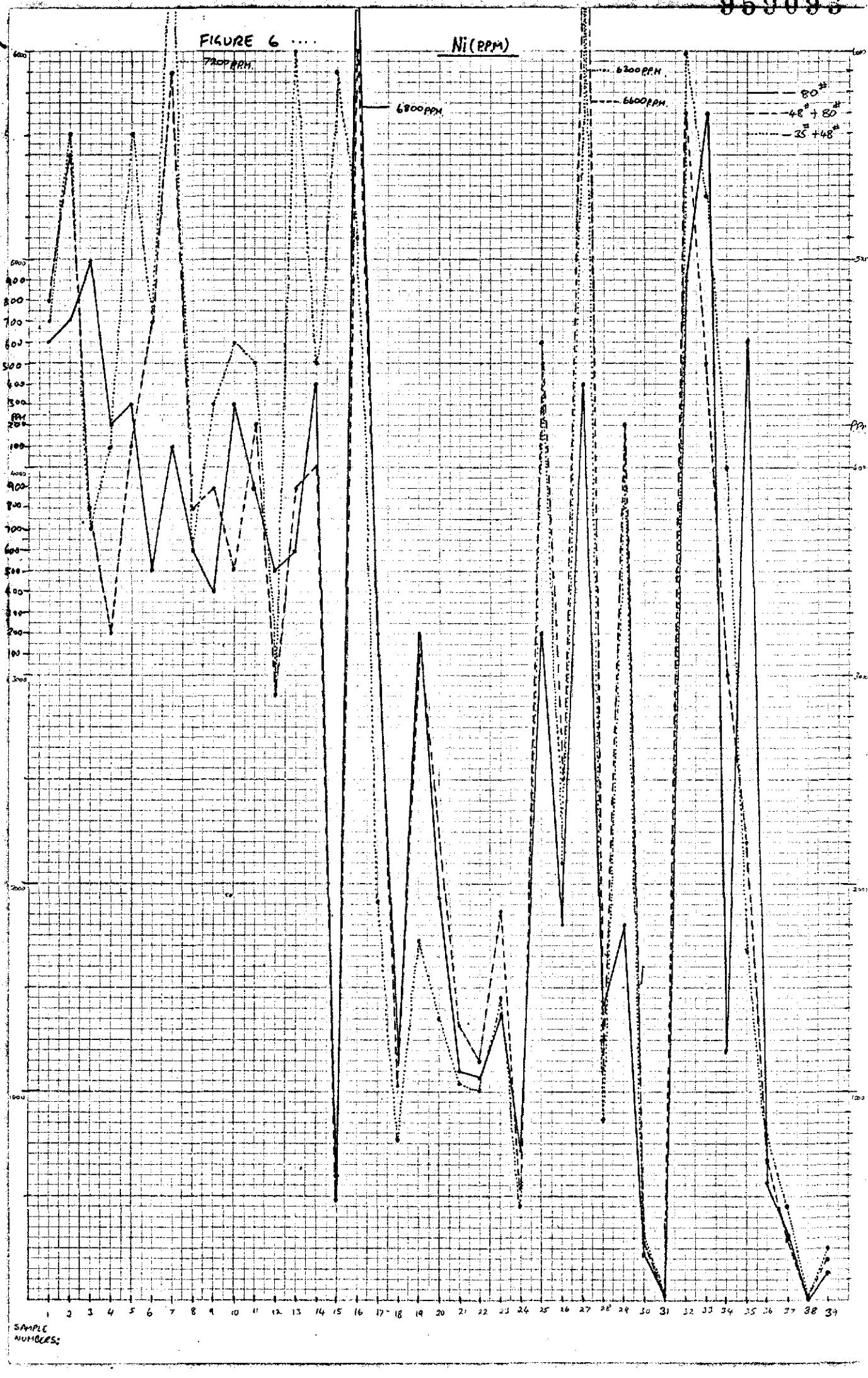
FIGURE 5 ....



9990092

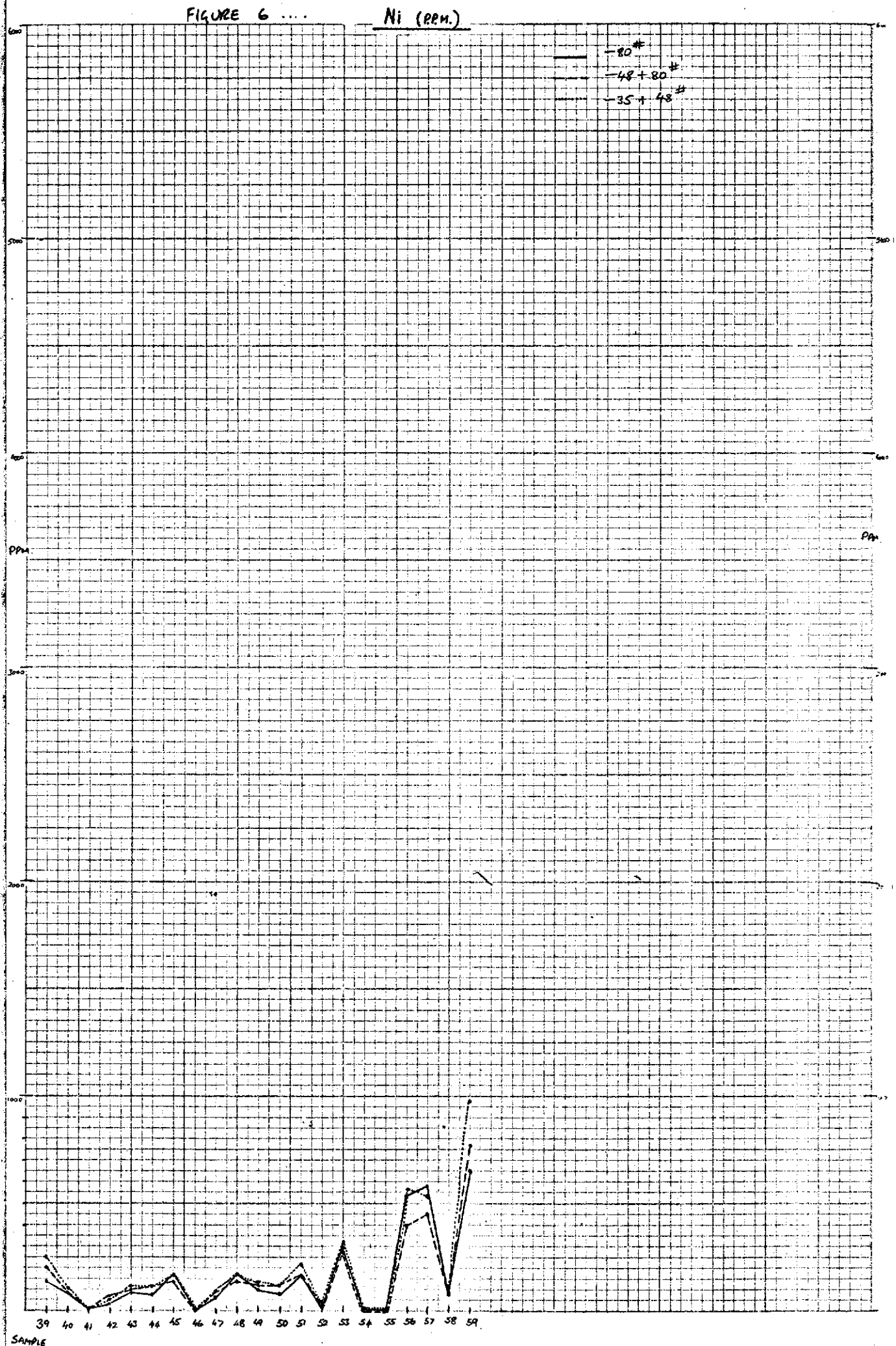
087

FIGURE 6 ....


Ni (PPM)
7900 PPM
6800 PPM
6200 PPM
6600 PPM
80#
48# + 80#
35# + 48#
PPM
SAMPLE NUMBERS:

088

FIGURE 6 ....


Ni (PPM.)
-80#
-48+80#
-35+48#
PPM
6000
5000
4000
3000
2000
1000
39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59
SAMPLE NUMBERS:

089

APPENDIX VI

DRILL LOGS

RENISON LIMITED - DRILL CORE RECORD

090

HOLE NUMBER	MH1
PURPOSE	To intersect the mineralization which is encountered in the three adits and to elucidate the stratigraphy of the area.
LOCATION	MERTON HILL
COLLAR R.L.	2198.514M
CO-ORDINATES	5379628.492N 367687.432E (line 1300E ; 330N)
LENGTH	173.4m
HOLE SIZE	0 - 3m H.W. 3 - 87m H.Q. 87m - 173.5m N.Q.
DATE DRILLED	23.10.80- 13.11.80
SIGNIFICANT CORE LOSS ZONES	53.25 - 55.1m
ORE ZONE GROUND CONDITIONS	Mineralized zone: 48.9-56.5m moderate with some zones of faulted, brecciated and oxidized rock
LOGGED BY	LINDA MARTIN
COMMENTS	ALL MAGNETIC SUSCEPTIBILITY READINGS WERE BELOW THE LIMIT OF DETECTION.

SURVEY			From - To	Distance D	VERTICAL		HORIZONTAL	
Depth	Bearing	Dip			D.Sin.Dip	R.L.	D.Cos.Dip	Prog. Total
(set up on) 0m	(215° grid) 207° mag	- 41°	0 - 1.0	1.0	0.66	197.85	0.75	0.75
2m	(inside casing)	- 41°	-17.0	16.0	10.5	187.35	12.08	12.83
32m	(inside casing)	- 42°	-51.0	34.0	22.75	164.60	25.27	38.10
70m	206° mag	- 43°	-90.5	39.50	26.94	137.66	28.89	66.99
111m	208° mag	- 42½°	-133.5	43.0	29.05	108.61	31.70	98.69
156m	208.5° mag	- 41°	-161.5	28.0	18.37	90.24	21.13	119.82
167m	209° mag	- 41°	-173.5	12.0	7.87	82.37	9.06	128.88

SUMMARY - ASSAY DATA

LODE NAME	FROM	TO	LENGTH (m)	AVERAGE WEIGHTED ASSAYS													B.C.A.
				Sn. %	Acid Sol. Sn. %	Cu. %	As. %	S. %	Pb. %	Zn. %	Bi. ppm	WO_3 %	Ag g/t				
FAULT ZONE	48.9	56.5	7.6 M	0.08	0.02	0.19%	0.15	23.9	0.76	2.00	80	<0.002	36				
FAULT BRECCIA AND GOSSANOUS ZONE	52.9	55.9	3.0 M	0.19	0.03	0.17%	0.18	24.4	1.27	3.68	80	0.002	53				

NWPS 27344

96096

HOLE No M.H. 1

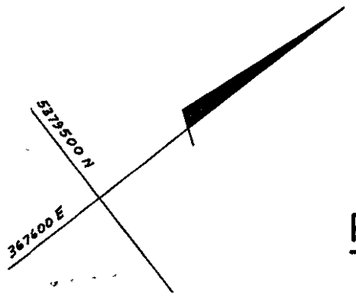
SCALE 0 10 20 metres

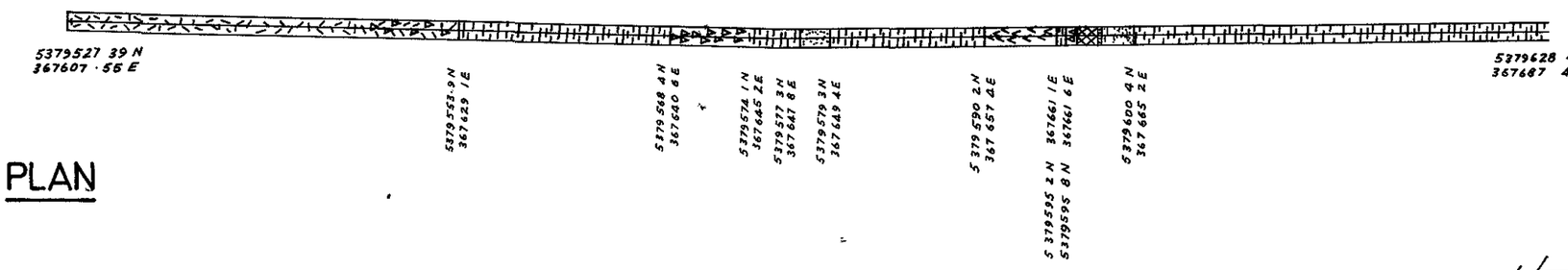
RENISON LIMITED

DIAMOND DRILL HOLE PLOT

959097

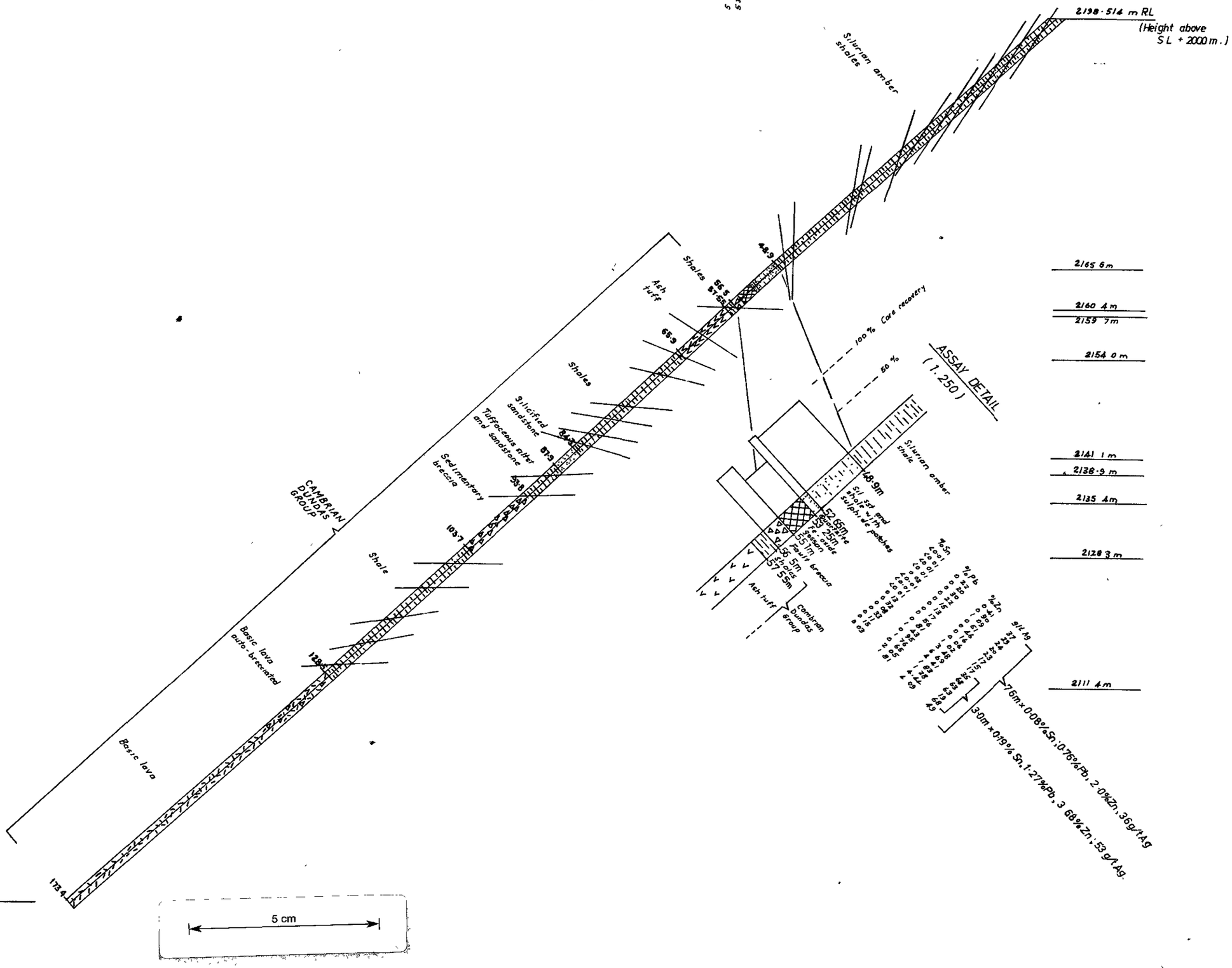
PLAN





DIP PROFILE

(LOOKING NORTH)



81-1598 (101 of 63)

DIAMOND DRILL RECORD

HOLE NUMBER : MH1

LOGGED BY : L. MARTIN

092

NWFS

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORM.	% Sn. FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	ppm Bi.	g/t Ag	% WO_3
0	0.5	0.15	30	RUBBLE Assorted light grey and orange-brown shale fragments.													
0.5	48.9	38.72	80	SHALE 0.5m - 12.4m: Light grey shale to clay finely laminated with light brown iron oxide patches and as staining along joints, bedding planes and fractures. Areas of leisegang banding. Bedding at 15° T.C.A. with casts of fossils in the bedding plane, partially replaced or lined with iron-oxide. Fossils mostly of brachiopods (→ 1cm diam.) and thin serrated spine-like shells, with minor sponges and crinoid ossicles (fossil assemblage is similar to that found on the H.E.C. road as an Amber slate correlate.) The core is very weathered and broken up but becomes more competent further down the hole. 12.4m - 48.9m: Fresher medium to dark grey shale with thin bands of fine sandstone to siltstone, up to 3cm wide. Very minor to no iron-oxide staining. Minor pyrite crystals, but from 31.5m onwards, some pryite on joints. Moulds and casts of fossils as above, and in sandstone bands. Abundant crinoid ossicle moulds (to 2mm diam.) from 29.9 - 35.3m; less fossils from 36.2m onwards. Bedding at 13.0m and 25.4m is 15°; at 27.4m - 30°; at 34.3m - 35°; at 35.2m - 40°; at 45.95m - 47°; at 47.3m - 56°. Core is very broken up and crumbly particularly from 46.2m to 48.7m where it is also sheared and slickensided. Contact with unit below is slickensided at 70°.	AMBER SLATE				N.B.	SSn ± 100ppm						
48.9	56.5	6.62	87	MINERALISED ZONE :													
48.9	52.65	3.56	95	SILICIFIED SANDSTONE/QUARTZITE AND SHALE Fine grained light grey hard silicified sandstone/quartzite and lesser amouts of medium grey finely laminated shale, with patches of sulphide replacing bedding in places (to 3cm wide bands) and infilling fractures and joints in others. The sulphides are mostly cavernous pyrite (after pyrrhotite?) with minor small patches of chalcopyrite, galena and sphalerite. The core is very fractured and is crumbly in places. Minor fractures at 10° - 20° have oxidized sulphide along their surfaces. At 49.3m, bedding - 35° T.C.A.		48.9	49.4	<0.01	0.01	0.31	<0.1	37.9	0.22	0.41	160	37	0.002
						49.4	49.9	<0.01	0.01	0.18	<0.1	24.7	0.20	0.90	140	29	0.002
						49.9	50.4	<0.01	0.01	0.14	<0.1	18.1	0.30	1.09	90	24	<0.002
						50.4	50.9	<0.01	0.01	0.22	<0.1	32.4	0.22	0.51	50	20	<0.002
						50.9	51.4	0.02	0.02	0.50	0.4	32.4	0.15	0.46	70	23	0.002
						51.4	51.9	<0.01	0.01	0.22	0.7	30.8	0.13	0.16	70	17	<0.002
						51.9	52.4	<0.01	0.01	0.14	0.1	19.1	0.17	0.06	60	15	<0.002

960998

DIAMOND DRILL RECORD

HOLE NUMBER : MH1

LOGGED BY : L. MARTIN

093

NWPS

INTERVAL (m) FROM	INTERVAL (m) TO	RECOVERY m	RECOVERY %	DESCRIPTION	FORM.	% Sn. FROM	% Sn. TO	% Sn. TOTAL	% Sn. ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	PPM Bi.	g/t Ag	% WO_3
52.65	53.25	0.6	100	QUARTZITE		52.4	52.9	<0.01	0.02	0.09	<0.1	10.3	0.56	1.02	50	17	<0.002
				Fine grained, greenish grey hard quartzite, with darker grey		52.9	53.4	0.13	0.07	0.12	0.2	16.1	0.81	3.48	60	35	0.002
				irregular small patches, and with irregular veins of fine grained													
				sphalerite and spots of galena. Minor fractures. Sheared and													
				slickensided upper boundary in dark shaley rock, at 40° T.C.A.													
53.25	55.1	1.2	64.86	GOSSANOUS ROCK WITH MASSIVE PYRITE		53.4	53.9	0.32	0.04	0.20	0.3	28.3	1.43	6.69	70	68	<0.002
				Dark brown iron oxide stained, very crumbly core with significant		53.9	54.4	0.08	0.03	0.24	0.2	37.5	0.95	4.41	100	63	<0.002
				core loss. Fine grained, with patches of fine sphalerite and minor		54.4	54.9	0.33	0.03	0.25	<0.1	43.3	1.76	1.83	100	63	0.004
				remnant pyrite. The rest of the sulphides have been altered to													
				dark brown and black oxides. The oxidized zone grades to a zone													
				of massive *marcasite with minor 'caverns'/holes at 54.1m approx.													
				From 54.40m - 54.65m: There is a zone of mixed fine grained													
				sphalerite and galena with areas of oxidized or gossenous material.													
				The core is very crumbly and there has been significant core loss.													
				At base of unit, there is a band of very fractured, dark grey													
				quartzite. Boundaries are not observed due to core loss.													
				* High S to Fe ratio than in pyrite.													
55.1	56.5	1.26	90	QUARTZITE, SHALE AND SULPHIDE BRECCIA	FAULT	54.9	55.4	0.11	0.01	0.09	0.2	7.4	0.65	1.28	40	19	0.002
				Angular to sub-rounded clasts in a soft dark grey clay matrix.	ZONE	55.4	55.9	0.15	0.03	0.11	0.2	13.9	2.05	4.44	80	68	0.004
				The clasts range from sand sized grit to clasts up to 10cm diameter,		55.9	56.5	0.03	0.03	0.09	<0.1	7.0	1.81	4.09	40	49	0.004
				and are composed mostly of grey and cream quartzite/sandstone, with													
				minor light and dark grey shales, cream quartzite and various													
				sulphides. The sulphides are: pyrite as large clasts <10cm diam.;													
				sphalerite as clast <4cm diam., but mostly as grains approx. 1mm													
				diam., and galena as clasts <1cm diam. and mostly as grains <1mm													
				diam.													
				Minor clasts of quartz and quartzite with sulphide vein through them.													
				55.8 - 56.5m: Softer, more puggy core than above, with a greater													
				proportion of dark grey clay matrix.													
56.5	57.55	1.05	100	SHALE WITH SILT BANDS	DUNDAS												
				Fine grained, finely laminated dark grey shale, with lighter grey	GROUP?												
				bands of siltstone/fine sandstone to 2cm width. Bedding at 45°.													
				Fine fracturing faulting bedding by m.m., some with appearance of													
				soft sediment deformation. Fractures mostly filled with white													
				silica and minor green chlorite (similar to unit at 74.9 - 77.5m													
				in MH2).													

939099

DIAMOND DRILL RECORD

HOLE NUMBER : MH1

LOGGED BY : L. MARTIN

094

RWPS

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORM.	% Sn. FROM	TO	TOTAL	ACID SOL.	% Fe	PPM Cr	PPM Ni	PPM Mo	PPM Sb
57.55	65.90	8.35	100	ASH TUFF	DUNDAS GROUP?	48.9	49.4			35.4	100	50	<10	80
				57.55 - 57.75m: Light grey-green, fine grained shaley tuff, finely		49.4	49.9			27.0	100	60	<10	70
				laminated. Very fractured core with poor recovery.		49.9	50.4			19.4	200	50	<10	60
				57.75 - 63.9m: Light olive green pumiceous tuff with medium green		50.4	50.9			27.7	100	30	<10	70
				chloritic flattened pumice fragments. Has minor crystal fragments		50.9	51.4			27.0	100	50	<10	90
				of mostly altered yellow feldspar , with some lithic fragments of		51.4	51.9			27.7	<100	30	<10	90
				grey siliceous material, in places up to 1cm x 4cm; fragments are		51.9	52.4			16.9	500	30	<10	60
				<15% of total volume. Grades into more crystal rich units with		52.4	52.9			10.3	700	40	<10	50
				fragments <50% of volume. Pumic fragments are flattened, probably		52.9	53.4			12.3	600	80	<10	100
				in plane of bedding at 75° T.C.A.		53.4	53.9			21.9	200	100	<10	140
				Thin irregular quartz veins with minor chlorite, occur throughout		53.9	54.4			31.6	100	70	<10	120
				the unit, with an irregular thick zone of quartz veining occurring		54.4	54.9			35.7	<100	50	<10	190
				at 61.05 - 61.45m. Minor coarse crystals of pyrite occur in the		54.9	55.4			7.6	1000	90	<10	100
				tuff surrounding the thick quartz zone and in a zone from 60.36 -		55.4	55.9			11.0	1900	110	<10	180
				60.65m; crystal diameter to 0.7cm.		55.9	56.5			8.0	21000	230	<10	160
				63.90 - 65.90m: Medium grained crystal rich zone with abundant										
				yellow altered feldspars, minor quartz grains and some grey lithic										
				fragments. Fragments are <60% approx. of volume. Sheared upper										
				boundary at 70° in opposite direction to plane of flattening of										
				pumice fragments. Lower boundary obscured by core loss.										
65.90	84.3	14.72	80	SHALE	DUNDAS GROUP?									
				Dark grey fine grained, finely laminated shale with minor layers of										
				lighter coloured siltstone. Bedding: at 65.9m - 65°; at 69.7m -										
				55°; at 75.7m - 47°; at 77.2m - 50°; at 78.4m - 40°; at 81.3m -										
				52°; at 83.0m - 58°. Minor cross laminations. In places the										
				laminations are finely faulted and folded, probably deformed before										
				sediments were completely consolidated. Some pyrite and minor										
				spots of galena occur along joints, fractures and bedding planes.										
				Minor pyrite nodules. From 71.3m, slickensided shears coated with										
				green chlorite and serpentine(?) and at 10° - 30°, break up the core										
				into crumbly slivers resulting in some core loss. Sharp erosional										
				lower boundary.										
84.3	87.9	3.6	100	SANDSTONE/QUARTZITE WITH SILTSTONE ZONES	DUNDAS GROUP?									
				Fine grained fairly hard and silicified medium greyish-green, fairly										
				massive fine sandstone to siltstone with vague bedding; 50° T.C.A.										
				at 84.8m. Siltstone grades into medium grained siliceous sandstone										
				units, which increase in frequency towards base of unit. Sandstone										
				is slightly tuffaceous. Gradational lower boundary. Irregular										
				squiggly veins of pyrite in places are often associated with coarse										

959100

095

DIAMOND DRILL RECORD

HOLE NUMBER : MH1

LOGGED BY : L. MARTIN

NWPS

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORM.	% Sn. FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag	% WO_3
				grained white zeolite which cleaves into oblong blocks.													
				At 85.45m: An open fracture with sphalerite crystals growing on the surface.	DUNDAS GROUP?												
87.9	103.7	15.8	100	SILSTONE TO TUFFACEOUS SANDSTONE GRADING TO SEDIMENTARY BRECCIA 87.9 - 93.8m: Dark grey siltstone grading to coarse grained tuffaceous sandstone, poorly sorted, with angular crystal and lithic fragments. Crystal fragments: mostly altered yellow feldspar, some quartz and minor mafics (hornblende). Lithic fragments: light and dark grey fine shale as sand size particles, and minor porphyritic andesitic tuff fragments to 3cm length, which are deformed as if not consolidated when deposited. Grades into minor siliceous tuff bands in places. Vaguely bedded at approx. 40° T.C.A. Gradational upper and lower boundary. Minor sparkles of pyrite throughout. Numerous quartz veins cut the core at 40° - 50°, (not parallel to bedding), are 1 - 2mm wide and are often open cavities with quartz crystals growing from the walls. At 92.0 - 93.6m several thick quartz veins (to 4cm wide) and numerous fine stringers intersect. 93.8 - 103.7m: Grades into a soft sediment breccia of dark and medium grey 'clasts' of the above material: - fine grained siltstone with minor crystal fragments; medium grained light grey siliceous tuff; coarse tuffaceous sandstone. Towards lower boundary of unit the 'clasts' become more tuffaceous. 'Clasts' appear to be squashed into each other and the boundaries are irregular and wispy in parts, as if the 'clasts' were not consolidated when deposited. The 'clasts' range from 2 - 10cm in length. Lower boundary is sharp at 65°.												
103.7	128.47	24.77	100	SHALE: Black to dark grey brown laminated to thickly bedded shale with zones of soft sediment deformation as slumping, brecciation and disrupted bedding, and minor very folded and contorted siltstone layers to 8cm thickness. Bedding is 70° at 103.9m, 43° at 105.7m and 20° at 106.2m, 32° at 121.4m, 35° at 116.5m, and 40° at 125.6m. In some zones there are minor sub-angular clasts of quartzite and siltstone to 3cm length. Minor carbonate veins and stringers. Minor pyrite in veins, as fine syngenetic grains in zones and as nodules. Boundaries are sheared and slickensided - upper at 65°, lower at 40°.	DUNDAS GROUP											

95101

DIAMOND DRILL RECORD

HOLE NUMBER : MH1

LOGGED BY : L. MARTIN

096

NWPS

INTERVAL (m) FROM	INTERVAL (m) TO	RECOVERY m	RECOVERY %	DESCRIPTION	FORM.	% Sn. FROM	% Sn. TO	% Sn. TOTAL	% Sn. ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag	% WO_3
128.47	173.4	44.93	100	BASIC LAVA													
				128.47 - 142.05m: Brecciated dark and medium green serpentinised basic lava with a matrix commonly of finely ground lava and often of white crystalline carbonate. Some zones of soft dark green soapy serpentine. Minor blotches and stringers of pyrite. Sharp lower boundary of sheared serpentine at 25°.													
				142.05 - 148.30m: Fine grained granular medium greenish lava, fairly homogeneous with carbonate stringers. Grades into:													
				148.30 - 173.40m: Very fine grained medium greenish rock with light green epidote/chlorite, carbonate and some zeolites (IN PATCHES). Very minor veins and stringers of carbonate. Some dark green serpentine-filled veins and shears. MINOR VESICLE-LIKE STRUCTURES FILLED WITH CHLORITE, CARBONATE AND SOME ZEOLITES.													
				E.O.H.													
				THIN SECTION DESCRIPTION (3702): EERS, COMM. A.V. BROWN GOVERNMENT GEOLOGIST:													
				" BASALTIC LAVA WITH HIGHLY ALTERED FELDSPAR CRYSTALS, ALTERED TO SERICITE, FERROMAGNEIUM MINERALS ALTERED TO CHLORITE WITH MINOR RESIDUAL PHENOCRYSTS OF ORTHOPYROXENE. VERY LOW MAGNETITE CONTENT WITH ZEOLITE-FILLED AMYGDALES. ROCK IS PERVADED BY CARBONATE. " (MH1 — 154.2M.)													

959102

RENISON LIMITED

DIAMOND DRILL HOLE PLOT

SCALE :

HOLE No. : MH 1

PETROLOGICAL DESCRIPTION

REPORT CMS 81/3/48

097

SAMPLE NO.	CLASSIFICATION - COMPOSITION	FABRIC	ACCESSORIES	COMMENTS
49.0m (T.S. 37013)	Marcasite-Pyrite-Quartz Rock. Spongy to semi-massive marcasite, pyrite interspersed with clay-stained aggregates of quartz.	Random, breccia-like. Quartz is fine-grained sub- to euhedral, vein-type.	Traces ultrafine cloudy rutile, rare zircon. Rare marginally oxidised chalcopyrite.	Brecciation, pyritisation of fine-grained, ?banded pyrrhotite-quartz rock similar to Renison pyrrhotitic ores. Clays in part represent degraded phlogopite.
51.9m	Pyritic Quartzite. Medium-grained, mildly stressed quartzite with disseminated phlogopitised pelite clasts, sporadic zones, films of fine-grained pyrite, marcasite (after pyrrhotite).	Faint relict fine sandy clastic fabric. Irregular discordant sulphide-quartz veins.	Minor chalcopyrite, rare sphalerite. Disseminated relict clastic leucoxenic semi-opaques, zircon.	Metaquartzite, stressed, with pyritised pyrrhotite-quartz (-chalcopyrite) vein material of similar paragenesis to 49.0m.
53.3m (T.S. 37015)	Quartzite. Fine to medium-grained stressed quartzite with disseminated phlogopitised pelite clasts. Sporadic granulated films quartz, with pyritised pyrrhotite, minor galena. Sparsely disseminated cassiterite.	Similar, closely related to 51.9m, but weakly banded. Sporadic thin zones granulation.	Relict detrital zircon, leucoxenic semi-opaques.	Close affinities with 51.9m. Cassiterite as near-opaque, dark red brown < 50 u particles in silicified matrix, appears to predate the sulphide-quartz veinlets.
54.2m (T.S. 37016)	Pyrite Rock. Porous, semi-massive aggregates of fine-grained, secondary pyrite, marcasite. Sporadic films sphalerite, galena; clots of chlorite, ultrafine-grained clays.	Crudely banded/directed. Cavities represent leached rock-flour-like chlorite-clay aggregates.	Traces chalcopyrite, sparse "mylonitised" ultrafine green schorl.	Sheared, pyritised semi-massive pyrrhotite rock with relics of chlorite, clay (?altered phlogopite)-tourmaline gangue.
54.6m	Sphalerite-Pyrite Rock. Dark red sphalerite with subordinate pyritised pyrrhotite, conspicuous galena, minor chalcopyrite. Frequent clots, films of chlorite, phlogopite, minor quartz.	Semi-schistose to mylonitic, crudely banded. Thoroughly stressed quartz.	Minor traces carbonaceous matter, ultrafine schorl. No detectable cassiterite.	Relatively sphalerite-rich, but essentially identical paragenesis to 54.2m. Secondary pyrite locally recrystallized. Locally leached, cavernous.
55.6m	Breccia. Angular to subangular clasts quartzite, sericite pelite/carbonaceous pelite, quartz/sphalerite, pyritised pyrrhotite grains with sparse sericite-quartz-chlorite matrix, sericite quartzite.	Randomly sorted, semi-brittle breccia, semi-mylonitic matrix.	Traces chalcopyrite, galena, arsenopyrite, Minor trace cassiterite.	Fault breccia with composite sulphides, mainly granulated 54.2, 54.6m type, traces "syngenetic" pyrite in pelite clasts. Cassiterite random, cloudy, sized 20 u.
96.9m	Acid Tuff. Extensively sericitised alkali feldspar, subordinate quartz grains, minor carbonaceous pelite, poorly defined sericitic rhyolite clast with sericitic devitrified shardy matrix.	Poorly sorted, crudely bedded with displacements on carbonaceous micro-faults, quartz veinlets.	Leucozenised clastic opaques. Patchy ankeritic carbonate, minor traces ultrafine pyrite.	Strong affinities with M.H.R.C. 1/1, but with more distinctly pyroclastic matrix, only weakly xenolithic. Probably ignimbritic.
140.3m	Mylonite. Ovoid to flattened lenticular clasts thoroughly dolomitised/chloritised basalt, pumice, basic to intermediate tuff, minor quartz grains, quartzite clasts in similarly altered mylonitic matrix.	Lenticularly banded (flattened clasts), poorly sorted. Phyllitic semi-isotropic matrix.	Minor sericite. Minor traces pyrite, pyrrhotite. Sporadic clasts impure (chloritic)dolomite.	Altered rock-flour matrix. Mild regional metamorphic overprint. Main clast component is basic-intermediate volcanic, but includes some dolomite.
154.2m	Tremolitised Basalt. Felted, albitised plagioclase, acicular microlaths with pervasively tremolitised mesostasis. Sparse amygdales, frequent veinlets of calcite, chlorite ± quartz.	Incipiently feldspar-microporphyritic. Distinctly slaggy microtextured.	Minor traces chalcopyrite rare cloudy sphalerite in calcite-chlorite veinlets.	Chilled basaltic characteristics ("spinifex-textured"). Pervasive tremolitic alteration, apparently contemporaneous with chloritic veinlets.

959103

[redacted]ISON LIMITED - DRILL CORE RECORD

098

HOLE NUMBER	MH2
PURPOSE	To test for south-east extension of the mineralization intersected in MH1 and to intersect the contact with the ultra-basics.
LOCATION	Merton Hill
COLLAR R.L.	2186.42m
CO-ORDINATES	5379579.87mN; 367782.96mE (Line 1400E; 330mN)
LENGTH	148.5m
HOLE SIZE	0 - 3m H.W. 3 - 112m H.Q. 112 - 148.5m N.Q.
DATE DRILLED	20.11.80 - 15.12.80
SIGNIFICANT CORE LOSS ZONES	72.05 - 90.75m
ORE ZONE GROUND CONDITIONS	Mineralized Zone 1 - 77.5-90.75m very bad ground with large cavities Zone 2 - 103.80-108.0 excellent
LOGGED BY	LINDA MARTIN
COMMENTS	

SURVEY			From - To	Distance D	VERTICAL		HORIZONTAL	
Depth	Bearing	Dip			D.Sin.Dip	R.L.	D.Cos.Dip	Prog. Total
COLLAR (Survey Dept.)	204° mag	-55°	0 - 1.0	1.0	0.8	185.6	0.6	0.6
2m	(inside casing)	-55°	1.0 - 17.5	16.5	13.5	172.1	9.5	10.1
33m	205° mag	-56°	17.5-44.0	26.5	22.0	150.1	14.8	24.9
55m	(inside casing)	-57°	44.0-62.0	18.0	15.1	135.0	9.8	34.7
69m	205° mag	-57.5°	62.0-89.5	27.5	23.2	111.8	14.8	49.5
110m	205° mag	-58°	89.5-128.5	39.0	33.1	78.7	20.7	70.2
147.5m	208.5° mag	-57°	128.5-148.5	20.0	16.8	61.9	10.9	81.1

SUMMARY - ASSAY DATA

LODE NAME	FROM	TO	LENGTH (m)	AVERAGE WEIGHTED ASSAYS													B.C.A.
				Sn. %	Acid Sol. Sn. ppm	Cu. %	As. %	S. %	Pb. %	Zn. %	Bi. ppm	WO_3 %	Ag g/t				
FAULT ZONE (ZONE 1)	76.5	90.75 M	14.25 M	<0.01	110	0.05	0.32	4.01	1.82	3.6	15	0.02	67				
MINERALIZED GORDON LIMESTONE (ZONE 2)	99.75	107.4M	7.65 M	0.04	115	0.05	<0.1	3.54	0.26	0.42	40	0.005	16				
	99.75	107.4 M															

NWPS 27344

959104

099

HOLE No MH 2

SCALE

5 cm

0 10 20
metres

RENISON LIMITED

DIAMOND DRILL HOLE PLOT

959105

PLAN

53 79514 7N
36 7736 0E

53 79579 87N
36 7782 96E

5379524 3N 367743 2E
5379526 4N 367744 7E
5379528 2N 367746 2E
5379538 5N 367753 5E
5379544 4N 367757 7E
5379545 5N 367758 6E
5379546 7N 367759 4E
5379548 3N 367760 6E

14.25m x 0.01% Sn; 1.82% Pb; 3.6% Zn; 67g/t Ag.

367730 E
5379450 N

17.65m x 0.04% Sn; 0.25% Pb; 0.42% Zn; 16g/t Ag.

% Sn
% Pb
% Zn
g/t Ag

Amber Shales
76.9m
Siltstone
77.5m
Sandstone and Siltstone
Limey
90.75m
Core recovery
Ordovician Gordon Limestone
114.7m
Dundas Group Shale
119.28m
Leached and silicified Contact zone
123.9m
Cambrian Ultra-Mafic
148.5m

ASSAY DETAIL
(1:250)

50%
100%

Cavity
Sandstone and Siltstone
Caverous in places

2186.42m R.L
(Height above S.L. + 2000m)

Silurian Amber Shales

All readings x 100 c.g.s. units

Magnetic Susceptibility K x 10⁻⁶ c.g.s. units

100
500
1000
5000
10,000

68.8m Grsilte
72.05m Amber Shales
76.9m Siltstone
77.5m

114.7m Dundas Group
119.25m Leached and silicified Contact zone
123.9m

DIP PROFILE
(LOOKING NORTH)

212.8.9m
212.6.1m
212.4.0m
212.1.5m
211.0.6m
209.0.1m
208.6.5m
208.2.3m
206.2.0m

81-1568
(Vol 1 of 2.)

DIAMOND DRILL RECORD

HOLE NUMBER : MH2

LOGGED BY : IM

100

mwps

INTERVAL (m) FROM	INTERVAL (m) TO	RECOVERY m	RECOVERY %	DESCRIPTION	FORM.	% Sn. FROM	% Sn. TO	% Sn. TOTAL	% Sn. ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	ppm Bi.	g/t Ag	% WO_3
0	0.5	-	-	CLAY Light brownish-grey with shale fragments.													
0.5	68.80	54.0	80%	SHALE	AMBER												
		app.	app.	Light to medium grey, fine grained, finely laminated shale with minor siltstone to fine sandstone bands. Fine grained friable sandstone units at 43.5 - 49.5 and 60.0 - 63.0m where core is represented by fine sandy sludge. Fossils as moulds and casts on bedding planes: mostly brachiopods and "tentaculities", with minor gastropods, crinoid ossicles and bryozoans. Minor orange-brown iron oxide staining on joints and some bedding planes for first 20m. Well bedded with bedding readings: 16° at 5m; 20° at 9m; 25° at 12.5m; 17° at 14m; 20° at 16m; 20° at 19m; 22° at 24.5m; 21° at 27m; 24° at 29.5m; 25° at 39m; 26° at 53m; 21° at 57m. Core very broken up, particularly at 66.0 - 68.80m. Lower boundary missing due to core loss.	SLATE											
68.80	72.05	2.6	80	QUARTZITE Fine grained light to medium grey and mottled, with white quartz as irregular patches and veins (euhedral quartz crystals in open veins). The quartzite is vaguely banded and has a leached 'cavernous' appearance in places. Some zones of quartzite have fine black grains of possibly chromite. Core is fractured and quite broken up, and the lower boundary is missing through core loss.													
72.05	74.9	0.2	70	SHALE	AMBER												
				Description as above 0.5 - 68.80m. Core loss at boundaries.	SLATE												
74.9	77.5	0.35	13.46	SILTSTONE Fine grained, finely laminated with slightly lighter and darker grey-brown laminae. Not fossiliferous. Well jointed and fractured; at approximately 75.0m, minor veins of light yellowish-cream soft carbonate. Core loss at boundaries. (Similar to unit at 56.5 - 57.55m in MH1).		76.50	78.0	<0.01	50	0.05	<0.1	1.9	6.45	1.31	10	52	0.05
77.5	90.75	1.15	8.67	SANDSTONE AND SILTSTONE MINERALIZED Fine grained grey sandstone to siltstone, becoming more limey towards base of unit and grading into limestone unit below. Where recovered the core is quite friable, altered, leached and iron-oxide stained and has large veins and irregular patches of mostly sphalerite, some galena, pyrite and secondary yellowish-cream carbonate. Very bad drilling in this unit due to cavernous nature of ground. Very little core recovery: 78 - 81m ... 5cm recovered,		78.0 core	81.0 loss	0.01	80	0.05	<0.1	2.2	0.38	2.61	10	80	0.01
						81.0	87.0	<0.01	80	0.07	<0.1	6.1	0.17	3.30	20	80	0.01
						87.0	88.0	<0.01	190	0.07	0.2	5.0	2.60	6.82	10	45	0.02
						88.0	89.0	0.01	280	0.06	0.4	6.0	2.50	7.78	20	62	0.02
						89.0	90.0	<0.01	120	0.05	3.0	4.2	0.69	4.08	10	57	0.02
						90.0	90.75	<0.01	150	0.04	<0.1	2.9	4.57	2.65	20	49	0.04

959106

101

DIAMOND DRILL RECORD

HOLE NUMBER : MH2

LOGGED BY : LM

NWPS

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORM.	% Sn. FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	ppm Bi.	g/t Ag	% WO_3
				81 - 84m ... no core recovery (through a cavity); 84 - 87m ...													
				5cm recovered; 87 - 90m ... 75cm recovered; 90 - 90.75 ...													
				30cm recovered. (87-88m contaminated with Amber slate chips from up													
				the hole).													
90.75	114.7	23.95	100	LIMESTONE MINERALIZED IN PLACES	GORDON	90·75	91·75	<0·01	<100	0·02	<0·1	0·3	<0·01	<0·01	50	4	<0·002
90.75	105.46	14.71	100	90.75 - 105.46m : Dark and medium grey mottled limestone, with dark	LIMESTONE	91·75	92·75	<0·01	<100	0·02	<0·1	0·4	<0·01	<0·01	50	4	<0·002
				grey to black stylolites, and irregular white calcite veining.		92·75	93·75	<0·01	<100	0·02	<0·1	0·5	<0·01	<0·01	50	3	<0·002
				Increase in abundance of calcite veining from 101.5 - 103.5m. (Near		93·75	94·75	<0·01	<100	0·02	<0·1	0·7	<0·01	<0·01	50	3	<0·002
				mineralization). In places the stylolites cut off calcite veining.		94·75	95·75	<0·01	<100	0·03	<0·1	0·7	<0·01	<0·01	50	4	<0·002
				Stylolites: at 92.4m at 46°; at 98.8m at 45°. Some bands of		95·75	96·75	<0·01	<100	0·02	<0·1	0·7	<0·01	<0·01	40	4	<0·002
				fossil fragments of brachiopods and corals, and some squashed limey		96·75	97·75	<0·01	<100	0·03	<0·1	1·0	0·17	0·17	40	10	<0·002
				lithic fragments. Bedding at		97·75	98·75	<0·01	<100	0·02	<0·1	0·7	<0·01	0·02	40	3	<0·002
				Mineralisation:		98·75	99·75	<0·01	<100	0·02	<0·1	0·8	0·03	0·01	40	27	<0·002
				96.86m: Carbonate vein with sphalerite and minor galena; 2-3mm		99·75	100·75	<0·01	<100	0·03	<0·1	0·7	0·12	0·34	50	10	<0·002
				wide at 23°.		100·75	101·53	<0·01	<100	0·03	<0·1	0·2	<0·01	<0·01	50	4	<0·002
				97.25m: Carbonate vein with sphalerite, galena, 3-4mm wide, at		101·53	101·95	<0·01	170	0·05	0·4	4·8	3·67	4·66	20	74	0·02
				25°.		101·95	102·95	<0·01	<100	0·03	<0·1	0·2	<0·01	<0·01	50	4	<0·002
				98.69m: Carbonate vein with sphalerite, 2mm wide at 40°.		102·95	103·8	<0·01	<100	0·02	<0·1	0·3	<0·01	0·02	50	4	<0·002
				100.04m: Yellowish carbonate vein, with sphalerite and galena,		103·8	104·1	<0·01	70	0·04	<0·1	2·1	0·22	0·95	20	19	0·01
				sharp on hanging wall side, grades into country rock on other		104·1	104·4	0·01	100	0·08	0·2	9·3	0·08	0·06	60	24	0·01
				side, replacing some of limestone; 2-3cm wide, at 15°.		104·4	104·7	<0·01	60	0·08	0·1	9·3	<0·01	0·01	30	10	0·01
				101.53m - 101.95m: 14cm wide zone of banded yellow carbonate,		104·7	105·0	0·08	430	0·17	0·1	19·2	0·04	0·22	40	36	0·02
				sphalerite and galena with minor remaining limestone grains.		105·0	105·3	0·50	830	0·11	0·5	14·5	0·10	0·04	50	43	0·02
				Sharp upper boundary, gradational lower one. Oriented at 40°.		105·3	105·6	0·25	500	0·12	1·2	13·7	0·05	0·02	30	20	0·02
				103.8m: Carbonate vein with sphalerite and galena; 3-4mm wide													
				at 45°; minor spots of sphalerite and galena in country rock.													
				103.92 - 105.68: Mineralized zone with spots of yellowish													
				replacement carbonate, pyrrhotite and minor probably secondary													
				pyrite (with a 'cavernous' texture and mixed up with pyrrhotite)													
				minor carbonate veins and irregular patches throughout.													
				Mineralization is terminated by a pegmatite vein at 105.68 -													
				105.75m at 46°, 4-5cm wide, with minor spots of pyrrhotite.													
105.46	108.02	2.56	100	105.46 - 108.02m: Clastic limestone of coarse sand to grit sized		105·6	105·9	0·10	270	0·07	0·3	6·7	0·02	0·02	30	14	0·01
				clasts; medium grey with minor stylolites.		105·9	106·2	0·11	60	0·04	<0·1	1·1	<0·01	<0·01	30	4	<0·01
				Mineralization:		106·2	106·5	0·02	50	0·03	<0·1	0·4	0·01	<0·01	30	3	0·01
				106.06 - 106.13m: A 3cn wide zone of spots of pyrrhotite,		106·5	106·8	0·11	160	0·05	<0·1	0·7	0·15	0·23	20	16	0·01
				replacement quartz and yellowish carbonate, surrounding a 3mm		106·8	107·1	0·01	120	0·08	<0·1	2·3	0·46	0·71	20	35	0·01
				wide vein of carbonate at 45°.		107·1	107·4	<0·01	40	0·03	<0·1	<0·1	<0·01	<0·01	20	1	0·01
				106.4m: 2-3cm wide vein of carbonate with a pyrrhotite centre		107·4	107·7	<0·01	40	0·06	<0·1	1·3	0·02	0·03	30	5	0·01
				at 32°.		107·7	108·0	0·02	40	0·02	<0·1	0·3	0·01	<0·01	20	3	0·01
				106.7m - 106.98m: Zone of spots of yellowish replacement													

95010.3

DIAMOND DRILL RECORD

HOLE NUMBER : MH2

LOGGED BY : LM

102

NWPS

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORM.	% Sn. FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	ppm Bi.	g/t Ag	% WO_3
				carbonate, particularly replacing fossils, with some spots or pyrrhotite and sphalerite.													
				107.65 - 107.95m: Cavity lined with carbonate then filled with yellowish carbonate and pyrrhotite.													
108.02	110.05	2.03	100	108.02 - 110.05m: Fine grained, light grey limestone, with minor stylolites in places and minor sphalerite and/or pyrrhotite along bedding planes or fractures. Bedding at 108.2m is 32°. Gradational boundaries.		108.0	109.0	<0.01	<100	0.03	<0.1	0.4	0.08	0.06	40	5	<0.002
						109.0	110.0	<0.01	<100	0.03	<0.1	0.1	0.01	0.03	30	3	<0.002
110.05	114.70	4.65	100	110.05m - 114.70m: Sedimentary limestone breccia, with some fine grained, medium and dark grey limestone layers, which in places contain fine dark brown grains of chromite (?). The breccia is a chaotic mass of angular to subangular fragments of limestone and fossils, unsorted with fragment sizes ranging from 3cm diam. to clay sized near base of unit, the matrix becomes more siliceous in places. Cream to yellowish carbonate occurs as irregular abundant veins and replaces the matrix of the breccia in places. Minor quartz veins occur throughout, at 20°-30° T.C.A.		110.0	111.0	<0.01	<100	0.03	<0.1	<0.1	<0.01	<0.01	30	2	<0.002
						111.0	112.0	0.27	<100	0.03	0.4	0.8	0.11	0.01	30	5	<0.002
						112.0	112.8	0.02	<100	0.03	0.1	0.4	<0.01	<0.01	30	4	<0.002
						112.8	113.18	0.05	50	0.04	<0.1	2.3	0.20	0.18	30	14	0.01
						113.18	114.0	<0.01	<100	0.03	<0.1	0.3	<0.01	0.01	30	3	<0.002
				Mineralization:													
				111.80m: 0.5 - 3cm wide irregular vein of white carbonate, sphalerite, arsenopyrite, and very minor specks of galena, at 45°.													
				112.05m: Irregular areas of pyrrhotite and minor pyrite in the breccia and some as cavity fill with cream carbonate, between the breccia fragments.													
				112.84 - 113.18m: Zone of several irregular coarse and numerous fine veinlets of yellowish carbonate with spots and patches of pyrrhotite and minor pyrite, in the vein and as spots in the country rock surrounding the vein.													
				114.05m: Pegmatite vein with pyrrhotite and sphalerite, 3mm wide at 45°.													
				114.10m: Irregular vein of pyrrhotite, sphalerite and minor carbonate at 45°, 3-4mm wide, with minor spots of sphalerite and pyrrhotite in country rock, between this vein and, the vein at 114.05m.													
114.7	119.23	4.53	100	SHALE	Douglas Group ?	114.0	115.0	<0.01	<100	0.03	<0.1	0.4	0.03	0.12	30	3	<0.002
				Fine grained, light grey-green, finely laminated shale with some slightly coarser sandy layers. Flat bedded with very minor soft sediment deformation in form of slightly disrupted bedding and slight folding. Bedding: at 115.4m ... 56°, at 116.95m ... 28°, at 118.70m ... 31°, at 119.10m ... 45°. Some cream coloured thin irregular veins up to 2cm wide occur throughout unit.		115.0	116.0	<0.01	<100	0.03	<0.1	<0.1	<0.01	0.01	20	1	<0.002
						116.0	117.0	<0.01	<100	0.02	<0.1	<0.1	0.06	0.06	20	2	<0.002
						117.0	118.0	<0.01	<100	0.04	<0.1	<0.1	0.01	0.03	20	2	<0.002
						118.0	118.75	<0.01	<100	0.04	<0.1	<0.1	<0.01	<0.01	10	1	<0.002
						118.75	119.23	<0.01	<100	0.02	<0.1	<0.1	<0.01	<0.01	10	1	<0.002

93910

DIAMOND DRILL RECORD

HOLE NUMBER : MH2

LOGGED BY : LM

103

NWPS

INTERVAL (m) FROM	INTERVAL (m) TO	RECOVERY m	RECOVERY %	DESCRIPTION	FORM.
				MINERALIZED VEINS of carbonate with grains of sphalerite and minor galena and pyrrhotite at 117.28m, 116.53m (53°), 118.3m (60°), 118.88m (80°).	
				SULPHIDE VEINS of mostly sphalerite +/- minor pyrrhotite or galena at : 116.43m (42°), 116.48 (52°), 118.62 (58°) upper boundary marked by sheared up zone, 3-4cm wide at 40°, consisting of fragments of quartz and limestone in a matrix of fine grained sphalerite and minor galena. Lower boundary faulted at 57° and marked by calcite crystal lined vein (dipping in different direction to bedding).	
119.23	123.9	4.20	90	LEACHED SILICEOUS "CONTACT" ROCK Hard cream to white silica, vaguely banded in places grading into zones of leached and cavernous silica, sometimes with secondary euhedral quartz crystals lining the cavities. Common quartz veins throughout. From 119.23 - 121.8m, grains of brown sphalerite?to 0.5cmoccur and throughout unit fine black grains of possibly chromite?also occur. Minor fractures with pyrite coatings at 20° - 30° occur at 121.8m, 122.85m and 123.65m. Quite fractured core - some core loss. Lower boundary gradational into serpentine in lower unit.	
123.9	148.5	24.6	100	SERPENTINE Dark to medium green soft 'soapy' rock with black euhedral chromite grains. Minor lighter and darker cracks and seams.	CARBONATE SERPENTINE
				END OF HOLE	

% Sn FROM	% Sn TO	% Sn TOTAL	% Sn ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	PPM Bi.	g/t Ag	% WO_3
119.23	120.0	<0.01	30	0.02	<0.1	0.5	<0.01	0.01	20	2	0.02
120.0	121.0	<0.01	20	0.02	<0.1	0.5	<0.01	<0.01	20	1	0.01
121.0	121.5	<0.01	10	0.02	<0.1	<0.1	<0.01	<0.01	20	<1	0.02
121.5	122.0	<0.01	20	0.02	<0.1	<0.1	<0.01	<0.01	20	<1	0.01
122.0	122.5	<0.01	10	0.02	<0.1	<0.1	<0.01	<0.01	30	1	0.01
122.5	123.0	<0.01	20	0.03	<0.1	<0.1	<0.01	<0.01	30	1	0.02
123.0	123.5	<0.01	20	0.02	<0.1	0.4	<0.01	<0.01	20	<1	0.01
123.5	124.0	<0.01	20	0.02	<0.1	0.2	<0.01	<0.01	30	<1	0.01
124.0	124.5	<0.01	<10	0.03	<0.1	<0.1	<0.01	<0.01	10	1	0.01

MAGNETIC SUSCEPTIBILITY ($\times 10^{-6}$ c.g.s units) :

	METRES:	READING		METRES:	READING
0 —	104.1	... < 100		133	... 3500
	104.4	... 1,000		134	... 3400
	104.7	... 500	134 —	135	... 2800
	105.3	... 700		136	... 1900
	105.6	... 500		137	... 1900
105.6 —	112.8	... < 100		138	... 2400
	113.1	... 600		139	... 2800
113.1 —	124.0	... < 100	139 —	140	... 2800
124 —	125.0	... 3100		141	... 3200
	126.0	... 2500		142	... 4800
	127.0	... 2200		143	... 3100
	128.0	... 2100		144	... 4200
	129.0	... 2800	144 —	145	... 5100
129 —	130.0	... 1500		146	... 4300
	131.0	... 2500		147	... 6000
	132.0	... 2600		148	... 2900

959109

DIAMOND DRILL RECORD

HOLE NUMBER : MH2

LOGGED BY : L.M.

104

NWPS

HCL / $KClO_3$ SULPHIDE SELECTIVE LEACH:

INTERVAL	Ni (PPM)
119·23 — 120·0 m	1260
120·0 — 121·0 m	NOT ENOUGH SAMPLE
121·0 — 121·5 m	1320
121·5 — 122·0 m	1160
122·0 — 122·5 m	800
122·5 — 123·0 m	760
123·0 — 123·5 m	1380
123·5 — 124·0 m	1300
124·0 — 124·6 m	1000

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORM.	FROM	TO	% Sn. TOTAL	% Sn. ACID SOL.	ACID SOLUBLE PPM Cr	PPM Ni	PPM Mo	PPM Sr	% Fe
						76·5	78·0			15	20	<10	100	26·9
						78·0	81·0			15	20	< 10	30	38·9
						* CORE	LOSS *							
						84·0	87·0			15	20	< 10	40	28·6
						87·0	88·0			30	40	< 10	60	9·0
						88·0	89·0			25	30	< 10	120	9·9
						89·0	90·0			25	30	< 10	360	15·0
						90·0	90·75			15	30	< 10	110	13·4
						90·75	91·75			0·01 %	30	< 10	80	<1
						91·75	92·75			<0·01 %	30	< 10	70	<1
						92·75	93·75			0·01 %	30	< 10	70	<1
						93·75	94·75			<0·01 %	40	< 10	70	<1
						94·75	95·75			<0·01 %	40	< 10	80	<1
						95·75	96·75			<0·01 %	40	< 10	70	<1
						96·75	97·75			<0·01 %	40	<10	70	<1
						97·75	98·75			0·01 %	40	< 10	70	<1
						98·75	99·75			0·01 %	40	< 10	70	<1
						99·75	100·75			0·01 %	40	< 10	80	<1
						100·75	101·53			0·01 %	40	<10	80	<1
						101·53	101·95			10	40	< 10	190	11·7
						101·95	102·95			0·01 %	40	<10	80	<1
						102·95	103·8			0·01 %	40	<10	80	<1
						103·8	104·1			20	30	10	30	8·9
						104·1	104·4			10	20	< 10	30	20·6
						104·4	104·7			10	30	< 10	30	21·9
						104·7	105·0			35	20	<10	40	34·6
						105·0	105·3			20	20	< 10	40	29·5
						105·3	105·6			25	30	< 10	300	28·4
						105·6	105·9			20	30	< 10	40	16·0
						105·9	106·2			25	30	< 10	40	9·7
						106·2	106·5			20	20	< 10	40	9·8
						106·5	106·8			20	40	< 10	40	14·7
						106·8	107·1			20	40	10	40	16·1
						107·1	107·4			25	30	<10	40	4·8
						107·4	107·7			30	60	<10	50	8·5
						107·7	108·0			25	30	<10	30	7·6
						108·0	109·0			0·01 %	40	<10	60	5·6
						109·0	110·0			0·01 %	30	<10	60	6·1
						110·0	111·0			0·03 %	60	<10	80	8·1
						111·0	112·0			0·03 %	70	<10	110	7·3
						112·0	112·8			0·04 %	60	<10	70	7·0
						112·8	113·18			30	150	<10	80	11·2
						113·18	114·0			0·20 %	110	<10	80	<1

950110

DIAMOND DRILL RECORD

HOLE NUMBER : M.H.2.

LOGGED BY : L. MARTIN

105

NWPS

INTERVAL (m) FROM	INTERVAL (m) TO	RECOVERY m	RECOVERY %	DESCRIPTION	FORM.	FROM	TO		FUSION METHOD % Cr	ACID SOLUABLE PPM Cr	PPM Ni	PPM Mo	PPM Sb	% Fe			
						114·0	115·0			0·24%	140	<10	60	5·4			
						115·0	116·0			0·03%	170	<10	30	7·5			
						116·0	117·0			0·03%	140	<10	20	7·8			
						117·0	118·0			0·03%	130	<10	20	6·5			
						118·0	118·75			0·03%	160	<10	20	8·1			
						118·75	119·23			0·03%	180	<10	30	7·0			
						119·23	120·0		0·19	65 PPM	1200	<10	120	3·4			
						120·0	121·0		NOT ENOUGH SAMPLE	60 PPM	1340	<10	560	3·7			
						121·0	121·5		0·19	65 PPM	1310	<10	220	3·5			
						121·5	122·0		0·14	80 PPM	1120	<10	170	3·6			
						122·0	122·5		0·09	85 PPM	80	<10	360	2·6			
						122·5	123·0		0·07	50 PPM	1420	<10	390	2·2			
						123·0	123·5		0·12	50 PPM	670	<10	500	3·8			
						123·5	124·0		0·14	60 PPM	1430	<10	300	1·9			
						124·0	126·5		0·36	65 PPM	2000	<10	20	3·8			

052114

RENISON LIMITED

SCALE :

DIAMOND DRILL HOLE PLOT

PETROLOGICAL DESCRIPTION

REPORT CMS 81/3/48

HOLE No. : MH 2

106

SAMPLE NO.	CLASSIFICATION - COMPOSITION	FABRIC	ACCESSORIES	COMMENTS
88.2m (T.S. 37022)	Dolomitised Calcarenite. Granular dolomite with relict sand-sized quartz, ankeritic carbonate clasts, carbonaceous films. Disseminated to semi-massive sphalerite (colour-zoned).	Faint relict bedding (gritty medium sand). Patchy, discordant sphalerite-dolomite veining.	Minor traces galena, thinly disseminated, extremely fine blades of ?jamesonite.	Primarily an ankeritic (or ankeritised) calcarenite, marked dolomitisation with associated disseminations, aggregates sphalerite.
90.7m	Ankeritic Marble. Granular to sparry ankerite marble with minor relict clastic silt-sized quartz. Irregular zones of dolomite with conspicuous sphalerite, subordinate galena.	Weakly banded, medium-grained marble with irregular to concordant dolomite-sulphide aggregates.	Minor chlorite, ultra-fine carbonaceous matter. Minor trace pyrite, late calcite veinlets.	Similar paragenesis to 88.2m. Sphalerite partly as distinctly zoned crystals (Fe-rich, dark red cores). Pyrite secondary after pyrrhotite.
101.7m (T.S. 37024)	Dolomitic Marble. Granular dolomite-ankerite with irregular replacements, veins siderite, disseminations, films of sphalerite, galena, minor pyrrhotite, spongy arsenopyrite, secondary pyrite.	Relict, poorly diagnostic (recrystallized) fossils, vague medium calcarenitic fabric.	Minor carbonaceous matter. Semi-pervasive late calcite films, disseminations.	Affinities with 88.2, 90.7m. Complex carbonate relationships tend to confirm ankerite-siderite as replacements predating late dolomite ± calcite.
103.9m (T.S. 37025)	Fossiliferous Limestone. Fine-grained, fossiliferous calcite marble with irregular replacements, sparry dolomite-ankerite, patchy to semi-pervasive late calcite. Locally conspicuous sphalerite, galena.	Complex. Relict, fossiliferous limestone breccia with at least two phases veining, replacement.	Carbonaceous, ?tuffaceous chloritic calc-pelite interlenses.	Affinities with 88.2, 90.7, 101.7m. Sulphides variously associated with texturally intermediate ankerite and late calcite.
105.0m	Ankeritic Marble. Medium-grained, granular to sparry ankerite marble with minor quartz. Disseminated spongy aggregates pyrrhotite. Late veinlets, irregular replacements, dolomite.	Relatively homogeneous marble. Rare relict fossiliferous features.	Carbonaceous matter. Minor trace sphalerite. No detectable cassiterite.	Very similar paragenesis to,90.7m. Carbonaceous matter, relict fossil features confirm this rock as ankeritised limestone rather than vein material.
105.6m	Ankeritic Marble. Relatively slightly chloritic carbonaceous, siliceous, ankeritic marble with spongy, pyrrhotite-rich, gradational contact with coarse-grained sparry ankerite vein.	Faint relict, sandy clastic fabric in marble (quartz grains, quartzite clasts).	Traces primary and secondary pyrite, minor trace chalcopyrite in pyrrhotite aggregates.	Relatively pale carbonate (dolomite-ankerite). Marble similar to 90.7, 105.0m, but devoid of relict fossils. Ankeritised, slightly sandy impure limestone. Featureless vein.
105.7m	Ankerite Marble/Vein. Medium-grained, slightly chloritic carbonaceous marble. Vein comprising semi-massive, sparry ankerite/ disseminated spongy pyrrhotite marginal zones, quartz core.	Faint relict fossiliferous, calcarenitic structures in marble. Mildly stressed.	Minor traces sphalerite (in vein-quartz).	Carbonate of consistent composition throughout, colour-variations reflect distribution of relict carbonaceous matter.
106.4m	Ankeritic Marble/Vein. Fine to medium-grained, weakly carbonaceous ankeritic marble/concordant vein, discordant veinlets, sparry ankerite with disseminated pyrrhotite.	Very faint relict pelitic, fine sandy calcarenitic structures. Extremely rare relict fossils. Incipient stress.	Minor traces primary pyrite, arsenopyrite, siderite in coarser vein. Minor traces quartz in marble.	Near-identical paragenesis to 105.7m; only real contrast in absence of vein-quartz.
106.8m	Ankeritic Breccia. Irregular zones, lenses, medium-grained ankerite with disseminated sphalerite, pyrrhotite, in ankerite-chlorite matrix. Sparse to locally conspicuous galena, minor secondary pyrite.	Poorly sorted, vaguely fossiliferous, calcirudite-like breccia with mildly sheared matrix.	Traces arsenopyrite, quartz.	Detail largely obliterated by alteration, mineralisation, semi-contemporaneous shearing. Evidently a "limestone breccia" with relatively impure (chloritic) matrix.

95172

RENISON LIMITED

SCALE :

DIAMOND DRILL HOLE PLOT

PETROLOGICAL DESCRIPTION

REPORT CMS 81/3/48

HOLE No. : MH 2 cont.

107

SAMPLE NO.	CLASSIFICATION - COMPOSITION	FABRIC	ACCESSORIES	COMMENTS
107.7m	Ankeritic Marble/Vein. Detached zones of fine-grained carbonaceous ankerite marble, ankeritised chloritic calc-pelite. Coarse sparry vein ankerite, siderite core zones with pyrrhotite aggregates.	Essentially a carbonate-healed tectonic breccia. Late stress phase with minor calcite veining.	Minor sphalerite, arsenopyrite, galena, patchy secondary pyrite in siderite-pyrrhotite aggregates.	Typical alteration/mineralisation pattern, but representing a localised concentration of siderite (similarly 106.4m).
112.84m	Ankeritic Calcarenite. Coarse, dolomitised limestone clasts in sandy matrix of quartz, carbonate, abundant clastic chromite, ooliths with dolomite matrix. Patchy vein/replacement ankerite.	Poorly sorted, sand-supported sedimentary breccia. Minor late calcite veinlets, vugs.	Minor pyrrhotite in ankerite veins. Carbonaceous matter.	Ooliths include carbonate, cherty and argillaceous types, partly nucleated on chromite grains. Relatively weakly ankeritised, mineralised.
112.95 (T.S. 37033)	Ankeritic Marble/Veins. Fine grained ankeritic marble with disseminated relict silt sized quartz, fine grained cassiterite. Sparry ankerite veins with disseminated pyrrhotite.	Mildly fractured, contorted wedges of ankeritised impure limestone between subparallel veins.	Minor carbonaceous matter. Sparse detrital chromite.	Ankeritised, mildly silicified, silty to fine sandy limestone. Cassiterite evenly distributed in host rock as 10-100 u, mean 30-40 u particles comprising approx. 5%.
121.0m (T.S. 37034)	Altered Serpentinite. Quartz and (dolomite-ankerite) carbonate in varying proportions, patchy talc, disseminated coarse relict chromite.	Late, crudely schistose stress overprint on extensively-veined/ replaced talc rock.	Minor traces extremely fine-grained ?Ni-sulphide.	General features consistent with a steatitised, subsequently carbonated/silicified and sheared serpentinite.
122.7m	Altered Serpentinite. Fine-grained dolomitic carbonate, subordinate to minor, closely intergrown quartz. Disseminated relict primary chromite.	Vague relict mesh-textures pervaded by carbonate films. Weak phyllitic overprint.	Minor traces extremely fine-grained sulphide (sim. 121.0m). Traces relict antigorite.	Similar paragenesis to 121.0m, but devoid of talc. Sulphide particles more or less evenly disseminated, unrelated (spatially) to chromite.

959113

RENISON LIMITED - DRILL CORE RECORD

108

HOLE NUMBER	MH3
PURPOSE	To intersect the mineralization encountered in MH2 and to investigate the stratigraphy of the area.
LOCATION	Merton Hill
COLLAR R.L.	2194.51m
CO-ORDINATES	5379789.6mN ; 367582.25mE
LENGTH	147.4m
HOLE SIZE	0 - 6 H.W. 6 - 147.4m H.Q.
DATE DRILLED	12.1.81 - 2.2.81
SIGNIFICANT CORE LOSS ZONES	———
ORE ZONE GROUND CONDITIONS	———
LOGGED BY	L. MARTIN
COMMENTS	

SURVEY			From - To	Distance D	VERTICAL		HORIZONTAL	
Depth	Bearing	Dip			D.Sin.Dip	R.L.	D.Cos.Dip	Prog. Total
COLLAR	211°MAG	-73.5°	0 - 11.5	11.5	11.03	2183.48	3.27	3.27
23m	212°MAG	-71.5°	- 39.0	27.5	26.08	2157.4	8.73	12.00
55m	209°MAG	-73.0°	- 80.5	41.5	39.69	2117.71	12.13	24.13
106m	202°MAG	-75.0°	-122.0	41.5	40.09	2077.62	10.74	34.87
138m	203°MAG	-75.0°	-147.4	25.4	24.53	2053.09	6.57	41.44

SUMMARY — ASSAY DATA

LODE NAME	FROM	TO	LENGTH (m)	AVERAGE WEIGHTED ASSAYS												B.C.A.
				Sn.	Acid Sol. Sn.	Cu.	As.	S.	Pb.	Zn.	Bi.	WO_3	Ag g/t	Fe		
MINERALIZED GORDON LIMESTONE	101.9m	102.9	1m	0.02%	90 ppm	0.05%	<0.1%	1.6%	0.37%	1.57%	50 ppm	20 ppm.	18	8.2%		

NWPS 27344

9511f

950115

RENISON LIMITED

DIAMOND DRILL HOLE PLOT

HOLE No **MH 3**

SCALE: 0 10 20 metres

5 cm

Magnetic Susceptibility K x 10⁻⁶ c.g.s. units
10,000 5000 1000 500 100

2194.51m R.L (Height above S.L + 2000m)

All readings x 100 c.g.s. units

Silurian amber shales

Ordovician Gerdan Limestone

Cambrian Ultra-Mafic

Cambrian Serpentine

Cambrian Dundas Group Basic Volcanic

Ordovician Gerdan Limestone

Silurian amber shales

147.4m

110.75m

107.5m

99.5m

99.5m

2053.1m

2088.0m

2091.0m

2093.0m

5379769.6N 367592.3E

5379768.3N 367564.5E
5379766.7N 367563.4E
5379766.1N 367563.0E

5379751.8N 367557.5E

PLAN

ASSAY DETAIL (1.250)

100 % core recovery

50 %

%Sn	%Pb	%Zn	g/t Ag
<0.01	<0.01	<0.01	4
0.02	0.37	1.57	18
<0.01	<0.01	0.01	4
<0.01	<0.01	0.02	4
<0.01	0.08	0.27	6
<0.01	0.01	<0.01	3
<0.01	0.41	0.94	33
<0.01	<0.01	<0.01	2
<0.01	<0.01	<0.01	2
<0.01	<0.01	<0.01	2

DIAMOND DRILL RECORD

HOLE NUMBER : MH3

LOGGED BY : L. MARTIN

110

NWPS

INTERVAL (m) FROM	INTERVAL (m) TO	RECOVERY m	RECOVERY %	DESCRIPTION	FORM.	% Sn. FROM	% Sn. TO	% Sn. TOTAL	% Sn. ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	ppm Bi.	g/t Ag	% WO_3
0	0.40	-	-	RUBBLE Mostly cream-coloured friable quartzite with minor grey shale and clay fragments.	-												
0.40	99.50	84.23	85	SHALE Light to medium grey, fine grained shale, with minor silty to fine sandy bands to 4cm width. Core is soft and very broken up and tends to break along bedding planes exposing a variety of fossil moulds; brachiopods ("Rhychonellids", "Leptostrophia"), crinoid ossicles (to 4mm diameter), "Tentaculities", Gastropods, corals and bryozoans. Minor specks of pyrite and sphalerite in fossil cavities or moulds. Core Loss: 90.0 - 96.4m 0.9m recovered 96.4 - 99.4m No core recovered BEDDING READINGS 1.0m 3° 32.0m 5° 6.0m 5° 37.0m 5° 8.4m 4° 38.0m 15° (sandy band) 13.0m 7° 42.0 - 64.0m 5° 15.5m 14° 65.0m 13° 16.0m 16°(sandy band) 70.0m 12° 21.0m 29° 78.0m 17° 22.0m 5° 83.0m 15° 22.0 - 29.0m 7° 90.0m 13° 30.0m 10° Lower boundary with limestone is obscured by core loss.	AMBER SHALE												
99.50	107.50	8.0	100	LIMESTONE BRECCIA Coarse breccia of dark grey to black carbonaceous silty fragments, light grey 'cleaner' limey fragments and calcareous fossil fragments (often coral pieces). Breccia fragments range from 2cm to 10cm. solution lamellae are developed between breccia fragments and have often removed parts of the fragments. There are white calcite veins, from 2-6cm wide cutting the core at 90-50°. Numerous irregular fine veins occur throughout. MINERALIZATION: 102.11 - 102.18: Zone of sphalerite and minor galena spots and bands, is disrupted by a large white calcite vein or patch with areas of yellow-cream secondary carbonate. 102.40 - 102.77m: Zone of sphalerite, galena and yellow secondary carbonate spots and bands oriented at 39° replacing the limestone. 105.1m: Thin vein (0.5cm wide) of secondary carbonate with minor spots of sphalerite and galena.	GORDON L'STONE	100.9	101.9	<0.01	70	0.03	<0.1	0.4	<0.01	<0.01	60	4	<20
						101.9	102.9	0.02	90	0.05	<0.1	1.6	0.37	1.57	50	18	20
						102.9	103.9	<0.01	<100	0.04	<0.1	0.3	<0.01	0.01	50	4	20
						103.9	104.9	<0.01	<100	0.03	<0.1	0.4	0.01	0.02	50	4	<20
						104.9	105.9	<0.01	<100	0.04	<0.1	0.5	0.08	0.27	50	6	<20
						105.9	106.9	<0.01	<100	0.03	<0.1	0.2	0.01	<0.01	50	3	<20
						106.9	107.4	<0.01	100	0.05	<0.1	0.7	0.41	0.94	50	33	20

95116

111

DIAMOND DRILL RECORD

HOLE NUMBER : MH3

LOGGED BY : L.MARTIN

NWTS

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORM.	% Sn. FROM	TO	TOTAL	ACID SOL.	% Cu.	% As.	% S.	% Pb.	% Zn.	ppm Bi.	g/t Ag	% WO_3
				105.3m: Thin slightly irregular vein at 45° filled with chalcopyrite, pyrite and minor galena and sphalerite. Minor specks of pyrite and sphalerite replacing limestone matrix for 4cm above and 10cm below.													
				107.04 - 107.11m: Zone of spots and bands of sphalerite, minor galena, chalcopyrite and yellow secondary carbonate, approx. 4cm wide, at 65°T.C.A. The zone is now brecciated and disrupted by solution lamellae.													
				107.11 - 107.50m: Fine grained sulphide in solution lamellae.													
107.5	110.75	3.25	100	BASIC VOLCANIC	DUNDAS												
				107.5 - 109.95m: Medium to dark greenish, fine grained brecciated volcanic rock with white calcite cement and fine irregular veining. Breccia fragments range from 1cm-8cm, have a slightly blotchy appearance and sometimes have vesicle-like structures, with light calcite rim and dark centre. Upper contact with limestone is irregular, sheared and slightly brecciated at approximately 40° T.C.A.	GROUP												
				109.95 - 110.75m: Above portion grades into zone where breccia fragments are very fine grained to amorphous, and are altered, brownish with very fine cream-coloured veins of silica increasing in abundance towards serpentine contact.													
110.75	147.40			SERPENTINE:		111.0	112.0	<0.01	<100	0.03	<0.1	<0.1	<0.01	<0.01	40	2	20
		0.20	56	110.75 - 111.10m: Dark brown altered fine grained serpentine with numerous fine cream-coloured silica veins; contact is obscured by silica veining and by core loss.		112.0	113.0	<0.01	<100	0.04	<0.1	<0.1	<0.01	<0.01	20	1	<20
						113.0	114.0	<0.01	<100	0.04	<0.1	<0.1	<0.01	<0.01	30	2	20
		35.50	98	111.10 - 147.40m: Grades into fresh green mottled serpentine with crystals of chromite sometimes in layers. From approx. 114m - 126m grains of black chromite appear to contain blebs of white to yellowish sulphide, and there are minor amounts of sulphide blebs in the serpentine matrix.		114.0	115.0	<0.01	<100	0.03	<0.1	<0.1	<0.01	<0.01	30	2	20
						115.0	116.0	<0.01	<100	0.04	<0.1	<0.1	<0.01	<0.01	30	1	20
						116.0	117.0	<0.01	<100	0.04	<0.1	<0.1	<0.01	<0.01	20	1	20
						117.0	118.0	<0.01	<100	0.04	<0.1	<0.1	<0.01	<0.01	20	1	20
						118.0	119.0	<0.01	<100	0.04	<0.1	<0.1	<0.01	<0.01	30	1	20
						119.0	120.0	<0.01	<100	0.04	<0.1	<0.1	<0.01	<0.01	20	1	20
				114.35 - 114.75: Zone of thin dark grey veins of sulphide, 3-4mm wide, offset in places by small faults. Between the veins, are blebs of silvery sulphide in apparently fresh unaltered serpentine.		120.0	121.0	<0.01	<100	0.04	<0.1	<0.1	<0.01	<0.01	20	1	20
						121.0	122.0	<0.01	<100	0.04	<0.1	<0.1	<0.01	<0.01	20	1	<20
						122.0	123.0	<0.01	<100	0.04	<0.1	<0.1	<0.01	<0.01	20	1	20
				118.2m: A dark grey vein, one cm wide, with spots of yellowish sulphide and some grains of brown sphalerite, at 40° T.C.A., occurs in an 8cm wide zone of fine yellowish sulphide blebs in apparently unaltered serpentine.		123.0	124.0	<0.01	<100	0.04	<0.1	<0.1	<0.01	<0.01	20	2	20
						124.0	125.0	<0.01	100	0.05	<0.1	<0.1	<0.01	<0.01	20	1	20
						125.0	126.0	<0.01	<100	0.03	<0.1	<0.1	<0.01	<0.01	20	<1	20
				MAGNETIC SUSCEPTIBILITY READINGS (x 10^{-6} c.g.s. units):													
				0 - 111m ... <100	130m 3500												
				112m 3400	131m 4000												
				113m ... 1400	132m 3800												
				114m 3100	133m 3000												

95911

DIAMOND DRILL RECORD

HOLE NUMBER : MH3

LOGGED BY : L. MARTIN

112

NWPS

INTERVAL (m) FROM	INTERVAL (m) TO	RECOVERY m	RECOVERY %	DESCRIPTION DEPTH M.S.	DESCRIPTION DEPTH M.S.	FORM.
				115m 1900	134m 2000	
				116m 1200	135m 2300	
				117m 4500	136m 14000	
				118m 2700	137m 7800	
				119m 3100	138m 3900	
				120m 5700	139m 2000	
				121m 1100	140m 3900	
				122m 2700	141m 5800	
				123m 2100	142m 5400	
				124m 2500	143m 3400	
				125m 4500	144m 4400	
				126m 2200	145m 4800	
				127m 3000	146m 3900	
				128m 2600	147m 3800	
				129m 3000	147.4m 5700	

FROM	TO	FUSION METHOD	% Cr	% Fe	ppm Ni	ppm Mo	ppm Sb
100·9	101·9			0·9	70	< 100	90
101·9	102·9			8·2	30	< 100	90
102·9	103·9			0·6	30	< 100	80
103·9	104·9			0·7	30	< 100	90
104·9	105·9			1·4	50	< 100	90
105·9	106·9			0·9	20	< 100	80
106·9	107·4			0·9	40	< 100	100
111·0	112·0		0·79	3·5	1600	< 100	50
112·0	113·0		0·72	5·1	1950	< 100	40
113·0	114·0		0·69	4·8	1950	< 100	40
114·0	115·0		0·68	5·0	2050	< 100	40
115·0	116·0		1·39	5·4	1900	< 100	40
116·0	117·0		1·44	5·1	1950	< 100	40
117·0	118·0		0·81	4·8	1850	< 100	40
118·0	119·0		1·18	5·0	1950	< 100	40
119·0	120·0		1·40	4·9	1970	< 100	30
120·0	121·0		0·76	4·9	2100	< 100	40
121·0	122·0		0·67	5·0	1900	< 100	30
122·0	123·0		0·79	4·9	2000	< 100	30
123·0	124·0		0·69	5·0	2000	< 100	40
124·0	125·0		0·80	4·6	2000	< 100	40
125·0	126·0		0·84	4·8	2050	< 100	40

95118

RENISON LIMITED

SCALE :

DIAMOND DRILL HOLE PLOT

PETROLOGICAL DESCRIPTION

REPORT CMS 81/3/48

HOLE No. : MH 3

113

SAMPLE NO.	CLASSIFICATION - COMPOSITION	FABRIC	ACCESSORIES	COMMENTS
102.6m (T.S. 37036)	Ankeritised Pelite/Impure Limestone. Fine-grained ankeritic carbonate with variable relict silty quartz, semi-sericitic muscovite, carbonaceous matter. Locally conspicuous sphalerite (banded).	Relict, locally graded, pelitic bedding. Sporadic ankerite and late cross-cutting calcite veinlets.	Minor traces galena.	Altered pelite, calc-pelite, limestone intercalation. Sphalerite largely as subhedral, zoned crystals (mean 100 u), impregnating mildly ankeritised carbonaceous pelite.
104.1m	Ankeritic Marble/Vein. Microcrystalline ankerite-dolomite with minor relict clastic silty quartz, patchy, closely intergrown secondary quartz, disseminated sphalerite. Vein ankerite with coarse sphalerite.	Faint, weakly brecciated, relict silty clastic fabric. Semi-concordant veins.	Patchy carbonaceous matter. Minor traces galena, cassiterite, late veinlet calcite.	Similar paragenesis to 102.6m, sphalerite similarly zoned/banded. Cassiterite as cloudy microscopic (mean 10 u) particles thinly disseminated through vein/host contact
107.0m	Ankeritic Marble/Calcite Veins. Fine-grained dolomite-ankerite marble (altered carbonaceous calc-pelite) with irregular aggregates sphalerite, galena, conspicuous late veins, veinlets calcite.	Relict, locally brecciated pelitic bedding, locally granulated/calcite-healed sulphide aggregates.	Minor chlorite, relict and secondary quartz. Minor trace pyritised pyrrhotite.	In common with 102.6, 104.1m, represents a relatively (altered) pelitic facies in comparison to the MH 2 zone.
107.9m	Altered Basalt. Felted, albitised plagioclase microlaths with chloritised mesostasis. Frequent irregular to straightwalled calcite veins.	Fine-grained "basaltic" with fine slaggy-microtextured mesostasis.	Minor traces very fine-grained chalcopyrite (marginal to calcite veins).	Close affinities with MH 1/154.2m, but not as distinctly chilled. Can also be correlated with basalt clasts in MH1/140.3m.
116.5m	Serpentinite. Antigorite with sparse veins, veinlets, of brucite. Disseminated relict primary chromite, extremely fine secondary ("exsolved") magnetite.	Mesh-textured, weakly sheared.	Extremely rare ultrafine sulphide particles, talc flakes.	Relict mesh-textures consistent with peridotite consisting of coarse poikilitic pyroxene, subordinate included olivine.
122.0m	Serpentinite. Antigorite with subordinate cross-fibre chrysotile, minor brucite. Disseminated relict primary chromite, secondary magnetite.	Mesh-textured, incipiently sheared.	Sparse, evenly disseminated very fine "metallic" opaques.	Similar to 116.5m, but with mesh-textures consistent with an even-grained granular dunite.
124.4m (T.S. 37042)	Serpentinite. Antigorite with subordinate chrysotile, minor brucite. Disseminated relict primary chromite, secondary magnetite.	Mesh-textured, incipiently sheared.	Opaques (sim. 122.0m).	Very similar to 122.0m. Primarily a pyroxene dunite (strictly a peridotite). Chromite in 116.5, 122.0, 124.4m relatively dark. Comp. with MH 2.

95919

APPENDIX VII

PETROLOGY REPORTS BY D. COWAN

(i) CMS 81/4/38 - Mt Lindsay Rock Chip Samples

(ii) CMS 81/3/48 - Merton Hill Drill Core Samples

115

REPORT CMS 81/3/48

Notes:

Thirty-six specimens were received for petrological examination and are briefly described in the attached tables. Descriptions incorporate data from stereobinocular and petrological microscopic examination of representative thin-sections and offcuts. Comments are included on alteration trends and specific queries, where applicable. This excludes a few finer points of opaque mineralogy which will be treated in a supplementary report to follow shortly.

Summary

Merton Hill specimens reflect a composite sequence with variably mineralised quartzites, pelites, acid tuffs/alteredbasalt/altered and mineralised carbonates and calc-psammopelites and serpentinised/variably altered ultramafics. This generalised sequence is confused by faulting, but appears consistent with the drilled sections as reflected in available samples.

Alteration effects are rather ubiquitous, with predominantly ankeritic, but complex carbonate assemblages and associated sulphides with analogies to the Zeehan-style of mineralisation. Cassiterite is developed locally, but exhibits a generally poor correlation with available assay data.

D. Cowan, B. Sc.

116

REPORT CMS 81/4/38

Notes:

Ten specimens were received for petrological examination and are briefly described in the accompanying tables. Descriptions incorporate data from stereobinocular and petrological microscopic examination of representative thin-sections and offcuts, and include interpretative comments.

Summary

The bulk of this suite comprises variably (typically extensively) metasomatically altered labile psammopelites with strong affinities to the Crimson Creek Formation. Individual specimens tend to be characterised by essentially monomineralic secondary assemblages (e.g. diopside, hastingsite, or actinolite), but may reflect a late retrograde alteration typified by chloritisation. A general paucity of strictly hornfelsic microtextures confirms the main alteration phase as contact-metasomatic.

Subordinate uralitised microgabbros are represented by ML 7/3100 and ML 11/3225N. Specimen ML 12/3275N is a (cordierite) spotted hornfels of meta-arkosic character and can thus be contrasted with the labile psammopelites comprising the bulk of this suite.

D. Cowan, B. Sc.

Central Mineralogical Services

Sample No.	Classification - Composition	Fabric	Accessories	Comments
ML 5/2925N (T.S. 36823)	Basic Tuff/Tuffaceous Pelite. Thoroughly chloritised (after tremolite-actinolite)-albitised basic vitric-crystal tuff in contact with sericite, chloritised phlogopite-stained vitroclastic pelite.	Graded, sandy-textured tuff. Graded, laminated pelite. Discordant chloritised contact.	Conspicuous clastic opaques, leucoxenic semi-opaques. Disseminated pyritised pyrrhotite in tuff.	Finer details obliterated, but relict clastic features indicate subaqueous turbiditic tuff younging into ?reworked vitroclastic pelite.
ML 7/3100N	Uralitised Microgabbro. Saussurite-stained/albitised plagioclase laths and thoroughly actinolitised pyroxene. Patchy corroded relict colourless augite. Disseminated magnetite.	Medium (trend coarse)-grained relict doleritic (subophitic). Sparse actinolite veinlets.	Traces partly pyritised pyrrhotite, uralitic hastingsite.	Weakly ?cognate xenolithic. Relict fabric consistent with "medium-scale" intrusive. Typical alteration pattern.
ML 7/3600N	Metasomatised Labile Pelite. Semi-pervasive cloudy poikilitic diopside, relict microcrystalline albitised feldspar, sparse relict clastic silt-sized quartz. Disseminated fine-grained spongy pyrrhotite.	RElict soft-pebble conglomerate-like lenticular pelitic bedding.	Pervasive ultrafine cloudy sphene. Semi-pervasive pyrite (after pyrrhotite).	Extremely fine-grained, hornfelsed feldspathic (tuffaceous) pelite with semi-banded diopside of metasomatic origin. Lithified slump-breccia-like fabric.
ML 8/3500N	Metasomatised Labile Pelite. Fine to ultrafine hastingsite with minor patchy relict quartzo-feldspathic material, abundant ultrafine magnetite, patchy chloritised biotite. Quartz-hastingsite and late chlorite-talc veins.	Contorted to brecciated quartz-hastingsite-healed pelitic bedding.	Traces chalcopyrite, pyritised pyrrhotite, secondary magnetite, ultrafine cloudy sphene	Deformed, thoroughly metasomatised opaque-rich labile pelite with weak late fracturing, chloritisation, pyritisation of pyrrhotite.
ML 8/3615N	Metasomatised Psammopelite. Variably tremolitised, phlogopite-stained labile pelite clasts, microcrystalline lava clasts, impure chert fragments in similarly altered labile pelite matrix.	Soft-pebble conglomerate-like with contorted pelitic laminated matrix.	Semi-pervasive fine-grained pyrrhotite, ultrafine cloudy sphene. Minor traces detrital quartz.	Slump-breccia-like fabric confused by minor late deformation with partial boudinagingof sparse tremolite-quartz(-phlogopite) veins.
ML 9/3520N	Metasomatised Labile Pelite. Pervasive granular to poikilitic diopside, subordinate relict microcrystalline feldspathic material. Conspicuous cloudy sphene (after clastic opaques).	Relict sub- to millimetric, variably graded, silty pelitic banding. Locally "placered" relict clastic opaques.	Minor traces extremely fine magnetite, rare pyritised pyrrhotite.	Alteration closely analogous to ML 7/3600N, but relatively marked with pervasive metasomatic diopside.
ML 10/3200N	Metasomatised Tuffaceous Greywacke. Variably actinolitised basaltic lava clasts, subordinate labile pelite clasts, minor feldspar, quartz, frequent magnetite. Thoroughly actinolitised matrix.	Faintly graded, fine to medium sand with pebbly interbeds of ?slumped pelite.	Sparsely disseminated, incipiently pyritised pyrrhotite, rare chalcopyrite.	Finer detail obliterated by marked actinolite metasomatism, but bulk of lava clasts are basalt-microtextured; only incipiently hornfelsed.
ML 11/3225N	Uralitised Microgabbro. Saussurite-stained/albitised plagioclase laths and actinolitised pyroxene, disseminated magnetite, minor fine-grained pyrrhotite.	Medium-grained, doleritic (subophitic).	Traces relict colourless augite, secondary pyrite (after pyrrhotite).	Similar and closely related to ML 7/3100N, but finer-grained.
ML 11/3375N (T.S. 36831)	Metasomatised Labile Psammopelite. Fine to extremely fine actinolite with disseminated to frequent actinolitised lithic clasts, poorly defined altered feldspar. Sporadic actinolite veins.	Relict poorly-sorted, silty to gritty clastic fabric, pelitic matrix. Includes basaltic, pelitic clasts.	Conspicuous ultrafine magnetite (?relict clastic), minor traces pyritised pyrrhotite in actinolite veins.	Random ?slumped relict sedimentary fabric confused by actinolite veining. Essentially a silty to gritty pelite, volcanomict or reworked tuffaceous.

96163

Central Mineralogical Services

Sample No.	Classification - Composition	Fabric	Accessories	Comments
ML 12/3275N (T.S. 36832)	Spotted Hornfels. Poikiloblastic cordierite, extremely fine phlogopite, microcrystalline quartz. Intercalated, mildly cordieritic siltstone with partly recrystallized clastic quartz ~~minor feldspar, phlogopite matrix.~~	Massive to faintly laminated, hornfelsed shale/laminated siltstone.	Conspicuous opaques, disseminated fine to ultrafine pyrrhotite.	Marginally hornfelsed pelite. Arkosic in contrast to the metasomatised labile psammopelites.

95124

REPORT CMS 81/3/48

Supplement

Notes:

Polished section examination reveals the fine-grained sulphide phase in MH 2/121.0 m and 122.7 m specimens as heazlewoodite. Grainsizing is variable with a maximum about 120μ x 400 μ and the bulk of the particles less than 20 μ diameter. Rare, similarly fine-grained millerite is associated. The even distribution of sulphide particles suggests these phases represent "hypogene" Ni, probably released from primary silicates during serpentinisation.

There is no detectable Sb-bearing phase. In view of the unusual association (i.e. Sb and Ni-serpentinite), it is likely that antimony was introduced with carbonate. This may be resolved by mineralogical examination of carbonate vein material.

In contrast, the MH 3 serpentinites (116.5, 122.0, 124.4 m) are virtually devoid of sulphide, with only extremely rare ultrafine specks (< 5 μ, presumably heazlewoodite, but too fine for positive optical identification). These rocks include evenly disseminated particles of awaruite which similarly represent "exsolved" Ni. Maximum sizing is about 80 μ with the bulk of particles less than 25 μ diameter. The majority are discrete (i.e. embedded in silicates), but there are rare loose intergrowths with magnetite and chromite.

D. Cowan, B. Sc.

4127

RENISON LTD.
E.L. 17/77

Harman River area

RENISON LTD.
E.L. 18/73

ABERFOYLE
E.L. 2/63

E.L. 17/77
area 2

RENISON LTD
E.L. 42/71

RENISON LTD
E.L. 42/71

RENISON LTD
E.L. 11/76

MT. LYELL MG. & RLY Co. Ltd.
S.P.L. 129

Federation area

Corinna
Granville Harbour
St. Dizier Leases
Trial Harbour
Remine
Zeehan
Tullah
Rosebery
Renison Bell Open Cut
Radison Mine Camp
Commonwealth Adit
Razorback
Mt. Heemskirk
Mt. Agnew
Mt. Zeehan
Mt. Dundas
Mt. Lindsay
Gumberland Lake
Queen Island
Meredith Creek
Harbour
Pieman River
Murchison River
Rosebery
Highway
Road
Creek
Granville
Little
Henty
Linda
Dialers
Bell Adit
Crown Adit
Meredith Granite
Meredith Syncline
Zeehan Syncline
Hercules Dolerite
Hercules Ore Lens
Hercules Ore Lens (Extension)
Hercules Ore Lens (Footwall)
Hercules Ore Lens (Hangingwall)
Hercules Ore Lens (Hangingwall Extension)
Hercules Ore Lens (Hangingwall Extension)
Hercules Ore Lens (Hangingwall Extension

PARSONS HOOD

Wilson

River

Harman

River

Wilson

River

Mt LINDSAY

Contamination

Contamination

Contamination

Contamination

Contamination

Salmon

Creek

South

Creek

Strong Anomaly (>100 p.p.m.)

Weak Anomaly (>50 p.p.m.)

KEY

Road & Walking Track

Grid Line & Sample Locality

Original Sample Value with Resampling Values at 0.3, 0.6, 0.9 m Depth respectively

Original Sample Value with Duplicate Sample

CORINNA D1/3	CORINNA D1/4
CORINNA D3/1	CORINNA D3/2
CORINNA D3/3	CORINNA D3/4

959127

RENISON LIMITED

CORINNA D3/2.

GEOCHEMICAL SAMPLING / Sn.

81-1568 (401 1 of 2)

SCALE: 1:5000 METRES

DRAWN	
TRACED	
DATE	28 5 81
SCALE	1:5000
DRAWING No.	

FIGURE 2(a)

4128

PARSONS HOOD

Wilson River

Harman River

Wilson

Upper River

Mt LINDSAY

South Creek

Contamination

Salmon Creek

River

33,000N

32,000N

31,000N

30,000N

12,000E

13,000E

14,000E

5 cm

KEY

Road & Walking Track

Grid Line & Sample Locality

Original Sample Value with Resampling Values at 0.3, 0.6, 0.9m Depth respectively

Original Sample Value with Duplicate Sample

Strong Anomaly (>100 p.p.m.)

Weak Anomaly (>50 p.p.m.)

CORINNA D1/3	CORINNA D1/4
CORINNA D3/1	CORINNA D3/2
CORINNA D3/3	CORINNA D3/4

RENISON LIMITED

CORINNA D3/2.

GEOCHEMICAL SAMPLING / As.

81-1568 (Vol 1 of 2)

SCALE. 1:5000 METRES

100 0 100 200 300

DRAWN	
TRACED	
DATE	28-5-81
SCALE	1:5000
DRAWING No.	

FIGURE 2(b)

4129

4129

PARSONS HOOD

LINE A

LINE B

MT LINDSAY

Wilson River

Harman River

Wilson

South Salmon Creek

Salmon Creek

Tullock Creek

"Contamination"

10,000E 11,000E 12,000E 13,000E 14,000E 15,000E 16,000E

33,000N 32,000N 31,000N 30,000N 29,000N

959129

5 cm

Strong Anomaly (>200 p.p.m.)

Weak Anomaly (>100 p.p.m.)

KEY

Road & Walking Track

Grid Line & Sample Locality

Original Sample Value with Re-sampling Values at 0 3, 0 6, 0 9m Depth respectively

Original Sample Value with Duplicate Sample

CORINNA D1/3	CORINNA *D1/4
CORINNA D3/1	CORINNA D3/2
CORINNA D3/3	CORINNA D3/4

RENISON LIMITED

CORINNA D3/2.

GEOCHEMICAL SAMPLING / Cu.

SI-1568 (Vol 1 of 2)

SCALE. 1:5000 METRES

100 0 100 200 300

DRAWN	
TRACED	
DATE	28-5-81
SCALE	1:5000
DRAWING No.	

FIGURE 2(c)

4130

PARSONS HOOD

Wilson River

Harman River

Wilson

River

Mt LINDSAY

Upper Creek

South Creek

Spitton Creek

Creek

Line 4

Line 5

Line 6

Line 7

Line 8

Line 9

Line 10

Line 11

Line 12

Line 13

Line 14

Line 15

Line 16

Line 17

Road

Track

Fence

Power line

Cliff

Swamp

Scrub

Cleared area

Sample missing

Sample missing

Sample missing

PARSONS HOOD

LINE 6

LINE 4

HARMAN River GRID

Wilson River

Harman River

Wilson River

Lindsay Creek

South Creek

Harmon Creek

10,000E

11,000E

12,000E

13,000E

14,000E

33,000N

32,000N

31,000N

30,000N

959131

5 cm

Strong Anomaly (>200 p.p.m.)
Weak Anomaly. (>100 p.p.m.)

KEY

Road & Walking Track

Grid Line & Sample Locality

Original Sample Value with Resampling Values at 0.3 0.6 0.9m Depth respectively

Original Sample Value with Duplicate Sample.

CORINNA D1/3	CORINNA D1/4
CORINNA D3/1	CORINNA D3/2
CORINNA D3/3	CORINNA D3/4

RENISON LIMITED

CORINNA D3/2.

GEOCHEMICAL SAMPLING / Zn.

81-1568 (Vol 10 f.2)

SCALE 1:5000 METRES

100 0 100 200 300

DRAWN	
TRACED	
DATE	28 5 81
SCALE	1:5000
DRAWING No.	

FIGURE 2(e)

4132

PARSONS HOOD

Wilson River

Harman River

Wilson

MT LINDSAY

Upper Keith

South Keith

Creek

Contamination

Salmon Creek

959172

KEY

Road & Walking Track

Grid Line & Sample Locality

Original Sample Value with Resampling Values at 0·3, 0·6, 0·9m Depth respectively

Original Sample Value with Duplicate Sample

Strong Anomaly (>50 p.p.m.)

Weak Anomaly (>30 p.p.m.)

5cm

CORINNA D1/3	CORINNA D1/4
CORINNA D3/1	CORINNA D3/2
CORINNA D3/3	CORINNA D3/4

RENISON LIMITED

CORINNA D3/2.

GEOCHEMICAL SAMPLING / WO_3

81-1568 (Sht 1 of 2)

SCALE 1:5000 METRES

100 0 100 200 300

DRAWN	
TRACED	
DATE	28·5·81
SCALE	1:5000
DRAWING No.	

FIGURE 2(4)

Geochemistry
ppm
200
180
160
140
120
100
80
60
40
20
0
0
1000N
2000N
2700N
3000N
3300N
3800N
As
Cu
Pb
Zn
Sn
Sn Cu As Anomaly
Tulloch CK
THREE ARRAY
1974 - 75
Survey
Pd APPARENT RESISTIVITY IN OHM-METRES
Mx CHARGEABILITY IN MILLIVOLT/VOLT
2000N
I.P Data
Resistivity in Ohm Metres (- - -)
Chargeability in Milliv's/Volt (——)
2000
1000
500
300
200
100
60
40
20
0
8005
1000N
2000N
2800N
Total Magnetic Field (γ)
Fine Scale (- - - -)
Coarse Scale (——)
63000 — 65000
800 — 64000
600 — 63000
400 — 62000
200 — 61000
62000 — 60000
66 000
65 000
64 000
63 000
62 000
61 000
60 000
8005
0
1000N
2000N
2 700 N
3 000 N
3 300 N
Topography & Geology.
(m)
2600
2400
2200
2000
1800
Creek
Lon Low Ck
Road
Access side track
Salmon CK
Walking track
Tulloch CK
South East Ck
As Anomaly
Baseline
Cu
PARKIN CREEK
Quartzites
Interbedded siltstones and quartzites
Interbedded siltstones & shales
Siltstones & tuffs
Argillic siltstones & tuffs
Crystal tuffs
Argillic siltstones & tuffs
Crystal tuffs
Hornfels
Crystal tuffs
Altered crystal tuffs & argillites
8005
6005
4005
2005
00
1000N
2000N
3000N
4000N
5000N
6000N
7000N
8000N
9000N
10000N
11000N
12000N
13000N
14000N
15000N
2000N
2200N
2400N
2600N
2 800 N
3 000 N
3 200 N
3 300 N
I P
MAGNETICS
GEOCHEMISTRY
GEOCHEMICAL ANOMALIES
SIGNIFICANT ANOMALIES DEFINED BY SURVEYS 1973 - 74 (after Mawarra-Reid)
Chargeability
Resistivity
5000 γ Scale
1000 γ Scale
Cu
Pb
Zn
As
W
Sn
Strong
Medium
Weak
(Element referred to shown beside symbol)
Strong
Moderate
Weak
M = Coincident Magnetic Response
Chargeability Anomalies
5 cm
81-1568
CV61 1 of 2)
RENISON LIMITED
E.L. 2/63.
MT. LINDSAY GRID.
LINE M.L. 5.
DRAWN
TRACED
DATE
SCALE
DRAWING No
A.R.S
Apr. 1974
1:5000
MLP 81
FIGURE 3(a)
SCALE. 1:5000 METRES
4134
959133

Geochemistry

ppm.

Cu ·····

Tullock Ck

As ----

Cu ·····

South East Creek.

I.P. Data

Resistivity in Ohm - Metres (----)

Chargeability in Millivolts/Volt (——)

1973-74 Survey a = 50m

1974-75 Survey a = 25m

Total Magnetic Field (δ)

Fine Scale (----) Coarse Scale (——)

Topography & Geology.

Height above Sea Level + 2000m (m)

HEC Road + ROAD

possible sink hole

Siltstones and shales

Brown siltstone

Quartz

Siltstones & tuff

Chert ?

Argillitic siltstones & shales

CREEK SALMON CREEK CREEK

WALKING TRACK

TULLOCK CREEK

Crystal tuff

Argillites, siltstones & shales

ML 45 Proj 50m W

ML 40 Proj 50m W

Nº 1 ANOMALY

MAIN LODE

Crystal tuff

SOUTH EAST CREEK BASELINE

Nº 2 ANOMALY

Crystal tuff

ANOMAK CREEK

IP

Chargeability

Resistivity

MAGNETICS

5000 δ Scale

1000 δ Scale

GEOCHEMISTRY

Sn Cu Pb Zn As W

GEOCHEMICAL ANOMALIES

Sn —— Strong

Sn - - - - Medium

Sn · · · Weak

(Element referred to shown beside symbol)

Chargeability Anomalies

SIGNIFICANT ANOMALIES DEFINED BY SCINTREX 1973-74 (after HOWLAND-ROSE)

Strong

Moderate M = Co-incident Magnetic Response.

Weak

SIGNIFICANT ANOMALIES DEFINED BY SCINTREX 1974-75 (after HOWLAND-ROSE)

Chargeability Anomalies

Strong

Moderate. M = Co-incident Magnetic Response

Weak

Conductivity (C) Strong; C Moderate; (c) Weak

5 cm

81-1568 (Vol 1 of 2)

RENISON LIMITED

E.L. 2/63.

MT. LINDSAY GRID

LINE ML 6

SCALE. 1:5,000 METRES.

100 0 100 200 300

DRAWN	R.R.S
TRACED	
DATE	APRIL '76
SCALE	1:5000
DRAWING No.	
MLP 81	
FIGURE 36(2)	

4135

959134

Geochemistry

ppm

Sn
Au
Cu
Possible contamination in Tullock Creek

As
Cu

1000N 2000N 3000N 3600N 3700N

I.P Data

Resistivity in Ohm Mtrs (- - -)
Chargeability in Milliseconds/Volt (——)

(M) M

1000N 2000N 2800N 3600N

Total Magnetic Field (δ)

Fine Scale (- - - -) Coarse Scale (——)

1000N 2000N 2800N 3000N 3600N

Topography & Geology

Height in Feet above Sea Level

Road
Salmon Ck
Salmon Ck
Walking Track
Tullock Ck
N° 1 Anomaly
Main Lode
South East Ck
Blandowe
N° 2 Anomaly
Hannah Creek
Grey siltstones & minor interbedded nodular chert beds near top.
Brown Siltstones
Lower Crystal tuff
Upper Crystal tuff
Sediments & tuffs.
Sediments & tuffs.
Crystal tuff.
Magnetic and non-magnetic reflectors sediments
Mineralised Shales
Mineralised Shales
Mineralised Shales

Geochemistry

ppm.

Sn —— As —— ····· As

I.P. Data

Resistivity in Ohm - Metres (----)

Chargeability in Milliwatts/Volt (——)

Total Magnetic Field (γ)

Fine Scale (----) Coarse Scale (——)

Topography & Geology

Height above Sea Level + 2000 ft (m)

Creek Road — Salmon Ck — Creek — Creek — Killock Ck — PASSMAN CREEK

Grey siltstones with minor chert beds near top. — Chert — Siltstones & tuffs — Chert — Grey siltstones — Crystal tuff — Sediment & tuffs — Crystal tuff. — Siltstones & tuffs. — Siltstones & shales. — Hornfels

No 1 ANOMALY — MAIN LODE — No 2 ANOMALY

ML 49 — ML 41 — South East Ck — Baseline

Magnetic zone

892 0m — 574 2m

SIGNIFICANT ANOMALIES DEFINED BY SCINTREX 1973-74 (after HOWLAND - ROSE)

IP — Chargeability — Resistivity

MAGNETICS — 5000 γ Scale — 1000 γ Scale

GEOCHEMISTRY — Sn, Cu, Pb, Zn, As, W.

GEOCHEMICAL ANOMALIES — Sn —— Strong; Sn - - - - Medium; Sn. Weak (Element referred to shown beside symbol)

Chargeability Anomalies: Strong; Moderate; Weak. M = Co-incident Magnetic Response

Zz — Anomalies defined by J. Irvine (July 1974) as having a high geophysical priority because of coincident magnetic, I.P. and conductivity response. All zones are near vertical and come near to surface.

5 cm

81-1568 CVol 1 of 2

RENISON LIMITED

E.L. 2/63

MT. LINDSAY GRID.

LINE ML 8

SCALE. 1:5000 METRES

DRAWN	R R S
TRACED	
DATE	April '76
SCALE	1 5000
DRAWING No.	MLP 16
FIGURE	3(d)

4137

959136

Geochemistry

Licence Boundary

Licence Boundary

I.P. Data

Resistivity in Ohm Metres (——)

Chargeability in Milliseconds (- - -)

Total Magnetic Field (δ)

Fine Scale (——) Coarse Scale (- - -)

Topography & Geology.

E.L. 18/73

E.L. 2/63

Twin Creek

Road

Salmon Creek

Creek

Walking Track

Tullock Creek

No. 1 Anomaly

Main Lode

Baseline

South East Creek

Grey siltstones with black cherty chert near top.

Siltstones

Tuffs & siltstones

Crystal tuff.

Tuffs.

Possible contamination in Tullock Creek

IP

Chargeability.

Resistivity.

MAGNETICS

Scale δ Scale

Scale δ Scale

GEOCHEMICAL ANOMALIES

Sn —— Strong.

Pb - - - - Medium.

Zn ..... Weak.

(Element referred to known base symbol.)

SIGNIFICANT ANOMALIES DEFINED BY SCINTREX 1373-74 (AFTER HOWLAND-ROSE)

Chargeability Anomalies

Strong

Moderate

Weak.

M = Coincident Magnetic Response

5 cm

BT-1568 (Vol 1 of 2)

RENISON LIMITED

E.L. 2/63

MT. LINDSAY GRID

LINE M.L.9

DRAWN	
TRACED	
DATE	
SCALE	1:5000
DRAWING No.	MLP 90

SCALE. 1:5000 METRES.

FIGURE 3(c)

4138

959137

Geochemistry
ppm.

LICENCE BOUNDARY

I.P. Data
Resistivity in Ohm-Metres (----)
Chargeability in Milliseconds/Volt (——)
1973-74 Survey
1974-75 Survey

Total Magnetic Field (γ)
Fine Scale (----)
Coarse Scale (——)

LICENCE BOUNDARY

E.L. 18/73
E.L. 2/63

Topography & Geology
Height above sea level x (1000 m)

SALMON CREEK
CREEK
TWIN CREEKS ROAD
SALMON CREEK
CREEK
WALKING TRACK
ROAD
ROAD
CREEK
TULLOCK CREEK
LOWER ROAD
No. 1 Anomaly
MAIN LODE
BASELINE
No. 2 Anomaly
HARMAN ROAD
ML 5A
21.0m@1% Sn
200-2m

Quartzites & siltstones
Siltstones & shales
Crystal tuff
Hornfels
Chert
Siltstones & shales
Pyritic siltstone & shale
Fine grained tuff
Siltstones & shales
Crystal tuff
Hornfels
Crystal tuff
Hornfels
Chert
Hornfels
Pyritic shale
Pyritic shale
Pyritic shale

I.P.
Chargeability
Resistivity

MAGNETICS
5000 γ Scale
1000 γ Scale

GEOCHEMISTRY
Sn
Cu
Pb
Zn
As
W

GEOCHEMICAL ANOMALIES.
Sn. —— Strong.
Sn. - - - - Medium. (Element referred to shown beside symbol.)
Sn. ..... Weak.

SIGNIFICANT ANOMALIES DEFINED BY SCINTREX 1973-74 (after HOWLAND-ROSE)
Chargeability Anomalies.
Strong.
Moderate.
Weak.
M = Coincident Magnetic Response.

SIGNIFICANT ANOMALIES DEFINED BY SCINTREX 1974-75 (after HOWLAND-ROSE).
Chargeability Anomalies.
Strong.
Moderate.
Weak.
M = Coincident Magnetic Response.
Conductivity { C Strong; c Moderate; (c) Weak

5 cm

BENISON LIMITED	
DRAWN	R.R.S.
TRACED	
DATE	APRIL '74
SCALE	1:5000
DRAWING No.	MLP 83
FIGURE 3(5)	

E.L. 18/73.
MT. LINDSAY GRID
LINE M.L. 10

SCALE. 1:5000 METRES

81-1568 (Vol 1 of 3)

4139

959138

Geochemistry

p.p.m.

Cu

Cu

Cu

Cu

As

Sn

Sn

Cu

As

1000S

0

1000N

2000N

3000N

3500N

LICENCE BOUNDARY

M.I.P. & E.I.P. Data

Resistivity in Ohm. Metres (---)

Chargeability in Milliamps/Volt (—)

M

M

M

M

1000S

0

I.P. Data

Resistivity in Ohm. Metres (---)

Chargeability in Milliamps/Volt (—)

G

G

1000S

0

1000N

2000N

3000N

Total Magnetic Field (γ)

Fine Scale (----)

Coarse Scale (—)

F1

E3

M

M

M

1400S

1200S

1000S

0

1000N

2000N

3000N

3500N

Kenny Fault

E.L. 18/73

E.L. 2/63

Topography & Geology

Height above Sea Level in Feet (---)

Height above Sea Level in Metres (—)

SALMON CREEK

CREEK

CREEK

CREEK

ROAD

ROAD

SALMON CREEK

WALKING TRACK

CREEK

ROAD

ROAD

Nº 4 ANOMALY

CREEK

Nº 3 ANOMALY

ROAD

ROAD

TULLOCK CREEK

MAIN LODE

BASELINE

Nº 2 ANOMALY

TULLOCK CREEK

Meredith Granite

Siltstones & quartzites

Siltstones & shales

Crystal Tuff

Crystal tuff

granite

1600S

1400S

1200S

1000S

800S

600S

400S

200S

0

200N

400N

600N

800N

1000N

1200N

1400N

1600N

1800N

2000N

2200N

2400N

2600N

2800N

3000N

3200N

3400N

I.P.

Chargeability

Resistivity

MAGNETICS

5000 Scale

1000 Scale

GEOCHEMICAL ANOMALIES.

Sn —— Strong.

Sn – – – – Medium.

Sn ..... Weak.

(Element referred to shown beside symbol.)

SIGNIFICANT ANOMALIES DEFINED BY SCINTREX 1973-74 (after Hawkins - Bost).

Chargeability Anomalies.

Strong.

Moderate. M = Co-incident Magnetic Response.

Weak.

5 cm

Z1

Anomalies defined by J Irvine (July 1974) as having a high geophysical priority because of coincident magnetic, I.P. and conductivity response. All holes are near vertical and come near to surface.

G - Gradient

M - Moving Source.

81-1568

CVol 1 of (2)

RENISON LIMITED

E.L. 18/73

MT. LINDSAY GRID

LINE ML 11

SCALE. 1:5000 METRES.

DRAWN	R.R.S.
TRACED	
DATE	APRIL '76
SCALE	1:5000
DRAWING No.	
	MLP 15
FIGURE	3(a)

4140

959139

Geochemistry

M.I.P. & E.I.P. Data

Resistivity in Ohm Metres (----)
Chargeability in Milliradians/Volt (——)

I.P. Data

Resistivity in Ohm Metres (----)
Chargeability in Milliradians/Volt (——)

Total Magnetic Field (γ)

Fine Scale (----)
Coarse Scale (——)

Topography & Geology

Height above Sea Level x 1000 m. (m)

LICENCE BOUNDARY

E.L. 2/63
E.L. 18/73

Sn
As
Cu
Pb
Zn
W
Sb

M.I.P.

	n1	n2	n3	n4	n5	n6
2125	-36	-50	-59	-100+	-100+	
2100	-16	-25	-29	-35	-40	-45
2075	-6	-11	-185	-16.5	-19	-21
2050	-3	-7.5	-9.0	-10.0	-10.0+	-10.0+

1973-74 Survey
1974-75 Survey

Salmon Ck. Creek Road Salmon Ck. Creek Road Creek Creek Road
Quartzites & siltstones
Siltstones & shales with minor black oolitic chert beds towards top.
Mafic
Crystal tuff
Hornfels
Hornfels
Hornfels
Granite
No 4 Anomaly
No 3 Anomaly
No 2 Anomaly
Main Lode
Baseline
ML 39
ML 35
Projected 70m NW. onto section.
9m 0.26% Sn
p.p.m. Sn
Trace/nil at collar
Angle hole 45°/N
Trace at collar
+ppm from 56m N.

81-1568 (Vol 1 of 2)

RENISON LIMITED
E.L. 18/73
MT. LINDSAY GRID.
LINE ML 12

SCALE. 1:5,000 METRES.

DRAWN	A.R.S.
TRACED	
DATE	APRIL '76
SCALE	1:5,000
DRAWING No.	MLP 14
FIGURE 3 (A)	

I.P.
Chargeability.
Resistivity
G = Gradient.
M = Moving Source.

Magnetics.
5000 γ Scale
1000 γ Scale

Geochemistry.
Sn
Cu
Pb
Zn
As
W

Geochemical Anomalies
Sn. ——— Strong.
Sn. – – – – Medium. (Element referred to shown beside symbol.)
Sn. ..... Weak.

Significant Anomalies defined by Scintrex 1973-74 (after Howland-Rose)
Chargeability Anomalies: Strong. Moderate. Mx Co-incident Magnetic Response. Weak.
5 cm

Significant Anomalies defined by Scintrex 1974-75 (after Howland-Rose)
Chargeability Anomalies: Strong. Moderate. Mx Co-incident Magnetic Response. Weak.
Conductivity: (C) Strong; C Moderate; (c) Weak

Zs Anomalies defined by J. Irvine (July 1976) as having a high geophysical priority because of coincident magnetic, I.P. and conductivity response. All zones are near vertical and tend to surface.

4141 959140

PARSONS HOOD

Wilson River

Harman River

Wilson River

MT LINDSAY

Creek

Creek

Creek

959111

5 cm

KEY

- Road & Walking Track
- Grid Line & Magnetometer Stations
- 42000 Magnetometer Station Reading (Gammas)
- 41111 Duplicate Reading

CORINNA D1/3	CORINNA D1/4
CORINNA D3/1	CORINNA D3/2
CORINNA D3/3	CORINNA D3/4

81-1566 (Vol 3/3)

RENISON LIMITED

CORINNA D3/2.

GROUND MAGNETICS

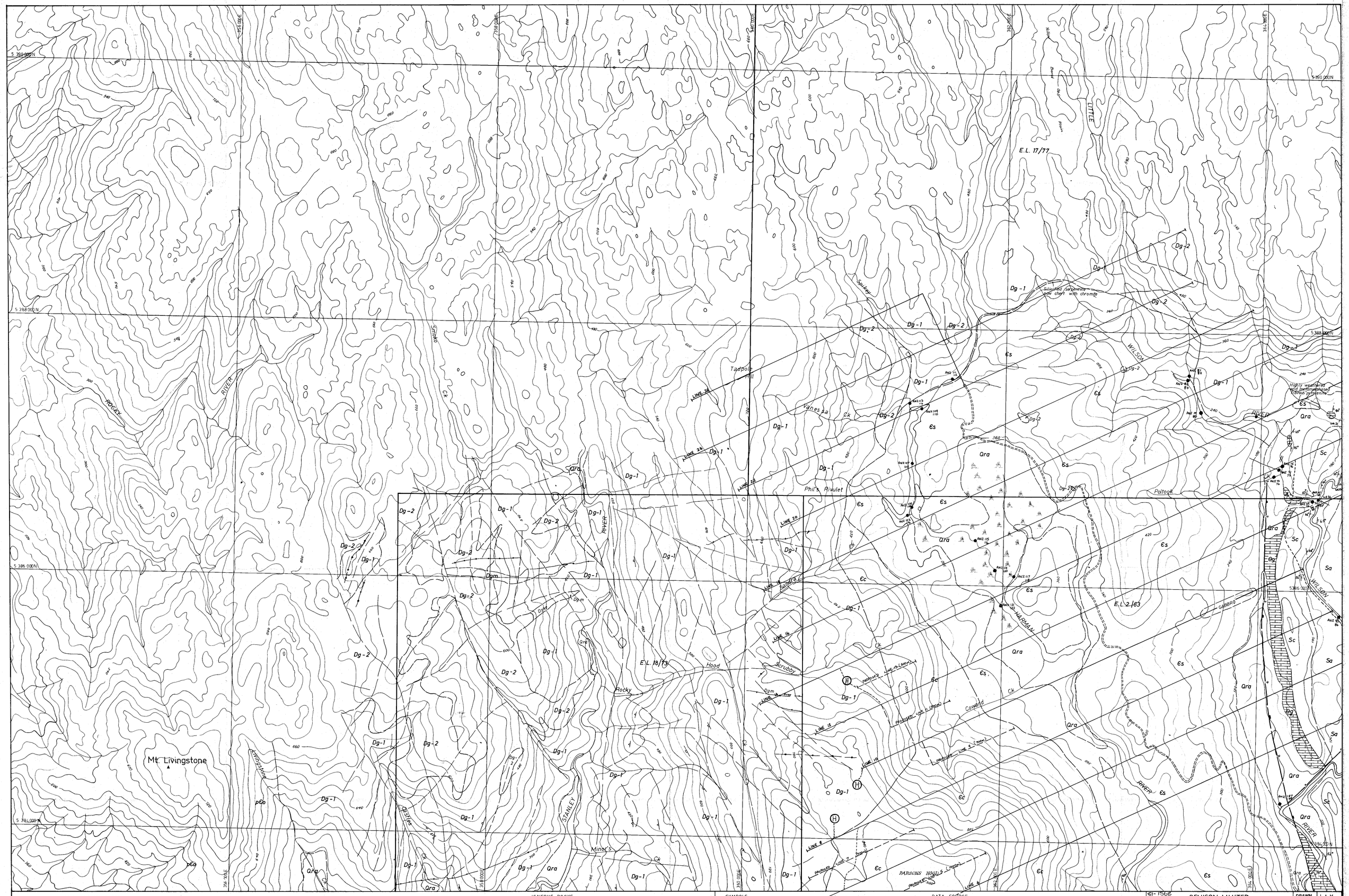
SCALE. 1:5000 METRES

100 0 100 200 300

DRAWN	
TRACED	
DATE	
SCALE	1:5000
DRAWING No.	

FIGURE 4.

4142



SEDIMENTARY ROCKS

Quaternary
- Qra — Recent Alluvium
- Tg — Tertiary Gravels

Devonian
- Db — Bell Shale
- Df — Florence Quartzite

Silurian
- Undiff. Amber Shale: Sos — Siliceous Sandstone member; Sol — Limestone member
- Sc — Crotty Quartzite

Ordovician
- Eg — Gordon Limestone
- Gm? — Moina ? Sandstone

Cambrian
- Upper Cambrian: Dundas Group (Undiff.) Conglomerates; Edn — Black Fossiliferous Pyritic Shale; Eds — Dundas Group (undiff.) Conglomerates
- Middle Cambrian: Ec — Crimson Creek Formation

Pre – Cambrian
- pEo — Oonah Quartzite and Schist

IGNEOUS ROCKS

- Tb — Tertiary Basalt
- Dg-1, Dg-2, Dgm — Coarse to very coarse Adamellite Porphyritic Granophyre and fine grained Porphyritic Granite with wide spread Quartz Tourmaline Alteration Microgranite; Microgranite Dykes
- D?a — Devonian ? Acid Intrusives
- Es — Upper Cambrian Serpentinites, and Mafic-ultra-mafic complexes
- Eg — Cambrian Basic or Gabbroic Rocks

SYMBOLS

- Dip and Strike of Bedding (Facing known)
- Dip and Strike of Bedding (Facing unknown)
- Dip and Strike of Composition Banding
- Dip and Strike of Cleavage, undifferentiated
- Axial Plane of small anticline
- Anticlinal, Synclinal Axis
- Dip and Strike of jointing
- Dip and Strike of Foliation
- Observed outcrop
- Fossil locality
- Interpreted Boundary
- Fault, approximate position
- Compositional layering Ultra-mafic
- Cleavage; parting; shear
- Dyke

DATA SOURCE

Data presented is a compilation of:
- Renison Mapping
- A.V. Brown (1980's) - Mines Department
- Photogeological interpretation by P.R. Bosshier

5cm

CORINNA D/1	CORINNA D/2
CORINNA D/3	CORINNA D/4

EL 1506 CVol 2/3

RENISON LIMITED

CORINNA D/1.

INTERPRETATIVE AND FACTUAL GEOLOGY PLAN

SCALE. 1: 10,000 METRES

0 200 400 600

DRAWN	L.A.M.
TRACED	T.G.D.S
DATE	21·5·'81
SCALE	1:10,000
DRAWING No.	

COMPILED BY L. A. MARTIN

FIGURE 5(a)

5391/4

4143

E.L. 18/73

E.L. 2/63

Mt. LINDSAY

PARSONS HEAD

PROPOSED DRILL HOLE No.

Mt. LINDSAY No. 1

Mt. LINDSAY No. 2

C.S.A. GRID

Scarlet River

H.E.C. Road

Waterfall Creek

Gully

Qra

Dg-1

Dg-1 (tourmalinised)

Pq

Ps

Psh

Pm

€l

€m

€h

€g

€s

€lb

5 392 000 N

5 390 000 N

5 378 000 N

358 000 E

360 000 E

362 000 E

364 000 E

366 000 E

T9

KEY

QUATERNARY

- Qra — Alluvials, gravels

SUCCESS CREEK GROUP

- €l — Undifferentiated
- €lb — Renison Bell Memb. shales, gravels

ORDOVICIAN

- Og — Gordon Limestone

CRIMSON CREEK FORMATION.

- €m — Fine Clastic sediments, some tuffs.
- €g — Mainly tuffs, some fine clastic sediments.
- € — Cambrian Undifferentiated.
- €h — Hornfels.

INTRUSIVES.

- Dg — Devonian granite.
- Cambrian, gabbro.
- Cambrian, Ultramafic.

DOWAH FORMATION

- Pq — Massive Quartzite.
- Ps — Siltstones.
- Psh — Shales, often graphitic & slumped
- Pm — Mudstones, siltstones, minor carbonates and volcanics

CRIMSON CREEK FORMATION.

- €c — Chert.
- €cl — Lower Chert.
- €s — Siltstones.
- €cu — Upper Chert.

- Strike & dip of beds.
- Anticline Syncline showing plunge.
- Inferred fault.
- Mt. Lindsay Mine Anomalies (After Aberfoyle).
- Aberfoyle D.D.H.
- Traverse lines.
- 5 cm

Note: Mapping mainly by R.R. Schellekens 1972 – 1974. and Hunting Airphoto interpretation of Meridith Granite Region, June 1979 A.V. Brown, Dept. of Mines, 1980-81

CORINNA 124 | CORINNA 125 | ZEEHAN 81 | ZEEHAN 82

RENISON LIMITED

CORINNA D/3
INTERPRETATIVE GEOLOGY.

SCALE. 1:10,000 METRES

200 0 200 400 600

DRAWN	L.A.N.
TRACED	J.M.M.
DATE	77-4-80
SCALE	1:10000.
DRAWING No.	
FIGURE	5(c)

959143 4144

CORINNA D/4
INTERPRETATIVE AND FACTUAL GEOLOGY PLAN.

SCALE. 1:10,000 METRES.

31-1569 (Vol 2 f2) RENISON LIMITED

DRAWN	L.A.M.
TRACED	T.G.D.S.
DATE	21·5·'81
SCALE	1:10,000
DRAWING No.	
COMPILED BY	L.A. MARTIN
FIGURE 5(c)	

CORINNA D/3 | CORINNA D/4
ZEEHAN B/1 | ZEEHAN B/2

SEDIMENTARY ROCKS

Quaternary
- Qra — Recent Alluvium

Tertiary
- Tg — Tertiary Gravels

Devonian
- Db — Bell Shale
- Df — Florence Quartzite

Silurian
- Sas — Undiff. Amber Shale — Siliceous Sandstone member. / Limestone member.
- Sa — Sc — Crotty Quartzite

Ordovician
- Og — Gordon Limestone
- Om ? — Molina ? Sandstone

Cambrian
- Upper Dundas Group + Huskisson Formation, Upper Cambrian: €d — Dundas Group (undiff.) Conglomerates; €dh — Black Fossiliferous Pyritic Shale; €ds — Sandstone
- Middle Cambrian: €c — Crimson Creek Formation

Pre-Cambrian
- p€o — Oonah Quartzite and Schist.

IGNEOUS ROCKS
- Tb — Tertiary Basalt
- Dm ? — Devonian Meredith Granite
- D?g — Devonian ? Acid Intrusives
- €s — Upper Cambrian Serpentinites, and Mafic-ultra-mafic complexes.
- €g — Cambrian Basic or Gabbroic Rocks.

SYMBOLS
- Dip and Strike of Bedding (Facing known)
- Dip and Strike of Bedding (Facing unknown)
- Dip and Strike of Composition Banding.
- Dip and Strike of Cleavage, undifferentiated.
- Axial Plane of small anticline.
- Anticlinal, Synclinal Axis.
- Observed outcrop.
- Fossil locality.
- Interpreted Boundary.
- Fault, approximate position.
- Compositional layering in Ultra-mafic.
- Cleavage; parting; shear.
- Merton Hill Grid Lines
- Merton Hill proposed Grid Lines

DATA SOURCE:
Data presented is a compilation of:
- Renison Mapping
- A.V. Brown (1980's) - Mines Department
- Phytogeological interpretation by P.R. Boshier.

5 cm

959144

4145

4146

MH SS48
MH SS49
MH SS54
MH SS31
MH SS30
MH SS15
MH SS13
MH SS14
MH SS11
MH SS12
MH SS29
MH SS28
MH SS27
MH SS26
MH SS25
MH SS24
MH SS23
MH SS22
MH SS58
MH SS59
MH1
MH2
MH3
ADIT 1
ADIT 2 collapsed adit portal
ADIT 3
PROPOSED DRILL HOLE MH 4
PROPOSED DRILL HOLE MH 5
MERTON HILL
Merton Creek
(Orange Algae Stained Spring Water)
H.E.C. Pieman Road

SEDIMENTARY ROCKS

Quaternary
- Swamp, transported alluvium.

Tertiary
- Tg — Tertiary Gravels
- Df — Florence Quartzite

Devonian
- Db — Bell Shale

Silurian
- Sa — Undiff. Amber Shale
- Sas — Siliceous Sandstone member
- Sal — Limestone member
- Sc — Crotty Quartzite

Ordovician
- Og — Gordon Limestone
- Om ? — Moina ? Sandstone

Cambrian
- Upper Dundas Group = Huskisson Formation, Upper Cambrian — €dh, €dc, €ds — Conglomerates; Black Fossiliferous Pyritic Shale
- Middle Cambrian — €c — Crimson Creek Formation

Pre-Cambrian
- p€o — Oonah Quartzite and Schist.

IGNEOUS ROCKS
- Tb — Tertiary Basalt
- Dm + — Devonian Meredith Granite
- D?a — Devonian ? Acid Intrusives
- €s — Upper Cambrian Serpentinites, and Mafic-ultra-mafic complexes.
- €g — Cambrian Basic or Gabbroic Rocks.

NOTE: For Diamond Drill Hole Geology, refer to sections.

5 cm

SYMBOLS
- Dip and Strike of Bedding (Facing known)
- Dip and Strike of Bedding (Facing unknown)
- Dip and Strike of Composition banding.
- Dip and Strike of Cleavage, undifferentiated.
- Axial Plane of small anticline.
- Anticlinial, Synclinial Axis.
- Observed outcrop
- Fossil locality.
- Interpreted Boundary.
- Fault, approximate position.
- Compositional layering in Ultra-mafic.
- Cleavage; parting; shear.

GN MN 14°

959145

81-1368 (Vol 2 of 2)

RENISON LIMITED

E.L.2/63 - MERTON HILL AREA
INTERPRETATIVE AND FACTUAL GEOLOGY PLAN (A)

GEOLOGIST	: L.A. MARTIN	SCALE 1:1000 METRES (20 10 0 10 20 30 40)
DRAUGHTSMAN	: T.G.D.S.	
DATE	: JUNE '81	
REVISIONS	:	DRAWING No. FIGURE 6(A)

4146

4147

MH SS50
MH SS51
MH SS52
MH SS53
MH SS55
MH SS56
MH SS57
PROPOSED DRILL HOLE MH 6
MERTON CREEK
H.E.C. PIEMAN ROAD
Acid Intrusive Dykes

959146

SEDIMENTARY ROCKS

Quaternary
- Qra — Recent Alluvium

Tertiary
- Tg — Tertiary Gravels

Devonian
- Db — Bell Shale
- Df — Florence Quartzite

Silurian
- Undiff. Amber Shale
- Sas — Siliceous Sandstone member.
- Sal — Limestone member
- Sc — Crotty Quartzite

Ordovician
- Om? — Moina ? Sandstone
- Og — Gordon Limestone

Cambrian
- Upper Dundas Group #Huskisson Formation Upper Cambrian
- €dh, €d, €dc, €ds — Conglomerates; Black Fossiliferous Pyritic Shale
- Middle Cambrian
- €c — Crimson Creek Formation

Pre-Cambrian
- p€o — Oonah Quartzite and Schist.

IGNEOUS ROCKS
- Tb — Tertiary Basalt
- Dm — Devonian Meredith Granite
- DPa — Devonian ? Acid Intrusives
- €s — Upper Cambrian Serpentinites, and Mafic-ultra-mafic complexes.
- €g — Cambrian Basic or Gabbroic Rocks.

NOTE: For Diamond Drill Hole Geology, refer to sections.

SYMBOLS
- Dip and Strike of Bedding (Facing known)
- Dip and Strike of Bedding (Facing unknown)
- Dip and Strike of Composition banding.
- Dip and Strike of Cleavage, undifferentiated.
- Axial Plane of small anticline.
- Anticlinial, Synclinial Axis.
- Observed outcrop
- Fossil locality.
- Interpreted Boundary.
- Fault, approximate position.
- Compositional layering in Ultra-mafic.
- Cleavage; parting; shear.

GN MN 14·2°

91-1568
CV01 213

RENISON LIMITED

E.L.2/63 - MERTON HILL AREA INTERPRETATIVE AND FACTUAL GEOLOGY PLAN (B)

GEOLOGIST	L.A. MARTIN
DRAUGHTSMAN	T.G.D.S.
DATE	JUNE '81
REVISIONS	

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

DRAWING No. FIGURE 66)

4148

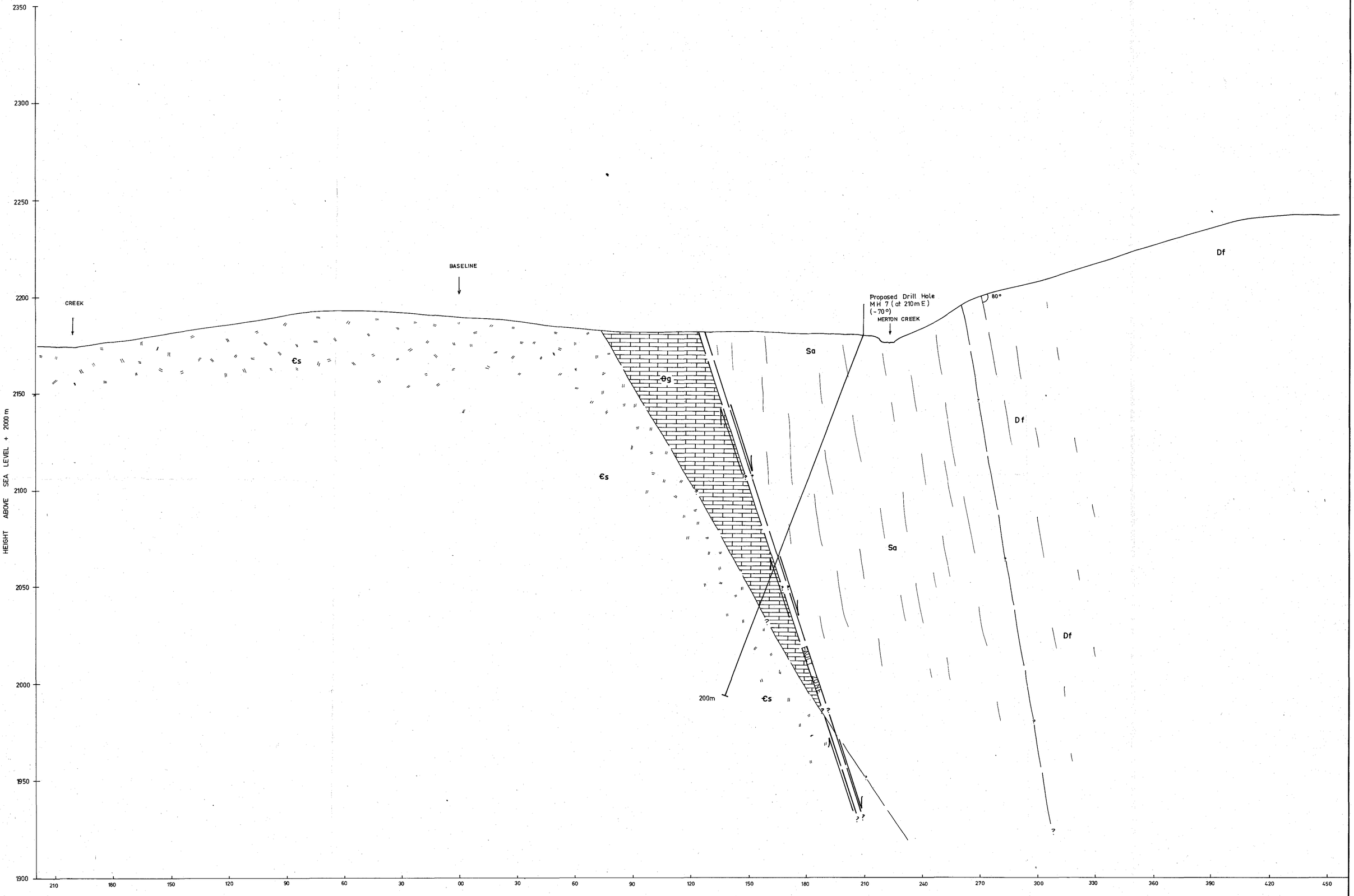
Geochemistry
P.P.M.

M.I.P. & E.I.P. Data
RESISTIVITY IN Ohm METRES (- - -)
100 200 300 500 1000 2000
CHARGEABILITY IN MILLIVOLTS/VOLT (——)
0 20 40 60

I.P. Data
RESISTIVITY IN Ohm METRES (- - -)
100 200 300 500 1000 2000
CHARGEABILITY IN MILLIVOLTS/VOLT (——)
0 20 40 60

Total Magnetic Field (γ)
FINE SCALE (- - -)
COARSE SCALE (——)
60,000 61,000 62,000 63,000 64,000 65,000

Topography & Geology
HEIGHT ABOVE SEA LEVEL + 2000 m
2350 2300 2250 2200 2150 2100 2050 2000 1950 1900


CREEK
BASELINE
Proposed Drill Hole
MH 7 (at 210m E)
(-70°)
MERTON CREEK
80°
Df
Sa
Df
Sa
Df
Df
Df
Df
Sa
Df
Df
Df
Df

Geochemistry

P.P.M.

(Ni 5200)(Ni 2700) (Ni 3600) (Ni 4290) (Ni 3390)

600 200 100 50 40 30 20 10

0 30 60 90 120 150 180 210 240 270 300 330 360 390 420 450 480 510

All Cu values ≤ 10 ppm

I.P. Data

RESISTIVITY IN Ohm METRES (– – –)

CHARGEABILITY IN MILLIVOLTS/VOLT (——)

10 000 5000 2000 1000 500 200 100 50 20 10

40 32 24 16 8 0

A B C

NR NR

$\frac{\Delta M \times 100}{M3}$ 8 4 0 -4 -8

Total Magnetic Field (δ)

64 500 300 100 900 700 63 500

65.000 64,000 63,000 62,000 61,000 60,000

(– – –) FINE SCALE (——) COARSE SCALE

Coarse Scale

Fine Scale

Topography & Geology

HEIGHT ABOVE SEA LEVEL + 2000 m

2 2950 2300 2250 2200 2150 2050 2000 1950 1900

H.E.C. BASELINE

Ferruginous Laterite on surface + serpentinite outcrop.

CREEK

UB UB

Sc ?

Hard sandstone and quartzite with diss. py and low grade Sn.

ADIT 2 (Proj. 11m. W) Collapse at portal

MH3 Proj. 14m. W

Fossiliferous slate and shale.

Sas Sa Sa

Eg ?

Edh

E.O.H. 147.4m.

MERTON CREEK

Df

0 30 60 90 120 150 180 210 240 270 300 330 360 390 420 450 480 510

959148

81-1568 C(61 2 (2)

RENISON LIMITED

E.L. 2/63 MT. LINDSAY AREA
MERTON HILL GRID
LINE M.H. 1100m E

GEOLOGIST : R. Schellekens	SCALE 1:1000 METRES (20 0 20 40)
DRAUGHTSMAN : J. Matthews	
DATE : Oct. 1979	
REVISIONS : Geology revised by L.A. Martin - June 1981	DRAWING No. MH 301

I.P
- CHARGEABILITY
- RESISTIVITY

MAGNETICS
- 5000 δ SCALE
- 1000 δ SCALE

GEOCHEMISTRY
- Sn
- Cu
- Pb
- Zn
- As
- Ni

LEGEND
- Swamp, transported alluvium ?
- Quartzites sandstone, minor siltstone, shales.
- Ultrabasic rocks, massive serpentinite.
- Limestone
- Basic volcanic. Δ brecciated
- Shale.
- Ash Tuff.
- Tuffaceous sandstone.
- Sedimentary Breccia
- Fault Breccia.
- Siltstone

5 cm

FIGURE 7(b)

4149

Geochemistry

P.P.M.

(Ni 7500) (Ni 3210) (Ni 3100) (Ni 2060) (Ni 2560)

600 200 100 50 40 30 20 10

0 30 60 90 120 150 180 210 240 270 300 330 360 390 420 450 480 510

I.P. Data

RESISTIVITY IN Ohm METRES (- - -)

CHARGEABILITY IN MILLIVOLTS/VOLT (——)

10 000 5000 2000 1000 500 200 100 50 20 10

32 24 18 8 0

A B C

$\frac{\Delta M}{M3 \times 100}$ 8 4 0 -4 -8

Total Magnetic Field (γ)

(- - -) SCALE FINE 64500 300 100 900 700 63500

(——) SCALE COARSE 65.000 64,000 63,000 62,000 61,000 60,000

Coarse Scale

Fine Scale

Topography & Geology

HEIGHT ABOVE SEA LEVEL + 2000 m

2350 2300 2250 2200 2150 2050 2000 1950 1900

H.E.C. BASELINE

CREEK

Sc ?

UB

Sc ?

Eg ?

Edh ?

Sa

Sa

Sas

Sa

Sa

Df

85°

Proposed Drill Hole
MH 4
(-65°)
(at 480m N)

290m

0 30 60 90 120 150 180 210 240 270 300 330 360 390 420 450 480 510

959149

5 cm

I.P

CHARGEABILITY

RESISTIVITY

MAGNETICS

5000 γ SCALE

1000 γ SCALE

GEOCHEMISTRY

Sn Cu Pb Zn As Ni

LEGEND

- Swamp, transported alluvium ?
- Quartzite, sandstone, minor siltstone, shales.
- Ultrabasic rocks, massive serpentinite.
- Limestone
- Basic volcanic. Δ brecciated
- Shale.
- Ash Tuff.
- Tuffaceous sandstone.
- Sedimentary Breccia.
- Fault Breccia.
- Siltstone

81-1568
(Vol 2 of 2)

RENISON LIMITED

E. L. 2/63 MT. LINDSAY AREA
MERTON HILL GRID
LINE M.H. 1200mE

GEOLOGIST : R. Schellekens	SCALE 1:1000 METRES (20 0 20 40)
DRAUGHTSMAN : J. Matthews	
DATE : Oct. 1979	
REVISIONS : Geology revised by L.A. Martin June 1981	DRAWING No. MH 302

4150

FIGURE 7(c)

Geochemistry

P.P.M.

(Ni 4200) (Ni 4000) (Ni 8800) (Ni 6200) (Ni 1310) (Ni 2670) (Ni 4030)

600 200 100 50 40 30 20 10

0 30 60 90 120 150 180 210 240 270 300 330 360 390 420 450 510

I.P. Data

RESISTIVITY IN Ohm METRES (– – –)

CHARGEABILITY IN MILLIVOLTS/VOLT (——)

10000 5000 2000 1000 500 200 100 50 20 10

40 32 24 16 8 0

A B C

ΔM / M3 × 100: 4 0 -4 -8

Total Magnetic Field (γ)

FINE SCALE (– – –) 64 500 900 700 63 500

COARSE SCALE (——) 65.000 64,000 63,000 62,000 61,000 60,000

Topography & Geology

HEIGHT ABOVE SEA LEVEL + 2000 m

2350 2300 2250 2200 2150 2100 2050 2000 1950 1900

CREEK H.E.C. BASELINE CREEK

Sc ?

Proj. 15mE

ADIT 1

MH 1
Proj. 2m E.

Weathered siltstones sandstones and shales

Shales 60°

UB

Cg ?

Cdh

173·4 m.

Cdh

Sa

Sas

Sa

Sa

Sa

Df

FAULT ZONE

0 30 60 90 120 150 180 210 240 270 300 330 360 390 420 450 510

5 cm

959150

81-1568 (Vol 2 of 2) RENISON LIMITED

E.L. 2/63 MT. LINDSAY AREA
MERTON HILL GRID
LINE M.H. 1300mE

GEOLOGIST : R. Schellekens	SCALE 1:1000 METRES (20 0 20 40)
DRAUGHTSMAN : J. Matthews	
DATE : Oct. 1979	
REVISIONS : Geology revised by L.A. Martin June 1981	DRAWING No. MH 303

I.P.
CHARGEABILITY
RESISTIVITY

MAGNETICS
5000 γ SCALE
1000 γ SCALE

GEOCHEMISTRY
Sn
Cu
Pb
Zn
As
Ni

LEGEND
Swamp, transported alluvium ?
Quartzite, sandstone, minor siltstones, shales.
Ultrabasic rocks, massive serpentinite.
Limestone
Basic volcanic. Δ brecciated
Shale.
Ash Tuff.
Tuffaceous sandstone.
Sedimentary Breccia.
Fault Breccia.
Siltstone

4151

FIGURE 7(d)

Geochemistry

P.P.M.

(Ni 3920) (Ni 4180) (Ni 3260) (Ni 3280) (Ni 5500) (Ni 5000) (Ni 5900) (Ni 1620) (Ni 5200) (Sn 1500) (Sn 1800) (Sn 1850) (Sn 2050) (Sn 2550) (Sn 2050) (Sn 2050) (Sn 3350) (Sn 2250) (Sn 1300)

600, 200, 100, 50, 40, 30, 20, 10

0 30 60 90 120 150 180 210 240 270 300 330 360 390 420 450 480 510

I.P. Data

RESISTIVITY IN Ohm METRES (– – –)

CHARGEABILITY IN MILLIVOLTS/VOLT (——)

10000, 5000, 2000, 1000, 500, 200, 100, 50, 20, 10

40, 32, 24, 16, 8, 0

A B C

$\frac{\Delta M}{M3 \times 100}$ 4, 0, -4, -8

Total Magnetic Field (δ)

FINE SCALE (– – –) 64 500, 300, 100, 900, 700, 63 500

COARSE SCALE (——) 65.000, 64,000, 63,000, 62,000, 61,000, 60000

Coarse Scale

Fine Scale

Topography & Geology

HEIGHT ABOVE SEA LEVEL + 2000 m

2350, 2300, 2250, 2200, 2150, 2050, 2000, 1950, 1900

HEC BASELINE

CREEK

CREEK

U B

Track

Mullock Dump from Adit 3 (20m. to west)

MH2
Proj. 2m. W

Proposed Drill Hole
MH 5
(-50°)

Swamp

85°

Sa

Sa

Sa

Df

Θg?

Θg?

148.5m

€dh?

FAULT ZONE

260m

0 30 60 90 120 150 180 210 240 270 300 330 360 390 420 450 480 510

959151

81-1568 (Vol 2/2) RENISON LIMITED

E.L. 2/63 MT. LINDSAY AREA
MERTON HILL GRID
LINE M.H. 1400mE

GEOLOGIST : R.Schellekens	SCALE 1:1000 METRES
DRAUGHTSMAN : J. Matthews	20 0 20 40
DATE : Oct. 1979	
REVISIONS : Geology revised by L.A. Martin June 1981	DRAWING No. MH 304

I P
- CHARGEABILITY
- RESISTIVITY

MAGNETICS
- 5000 δ SCALE
- 1000 δ SCALE

GEOCHEMISTRY
- Sn
- Cu
- Pb
- Zn
- As
- Ni

5 cm

LEGEND
- Swamp, transported alluvium ?
- Quartzite, sandstone, minor siltstones, shales.
- Ultrabasic rocks, massive serpentinite.
- Limestone
- Basic volcanic. Δ brecciated
- Shale.
- Ash Tuff
- Tuffaceous sandstone.
- Sedimentary Breccia.
- Fault Breccia.
- Siltstone

FIGURE 7(8)

4152

Geochemistry
P.P.M.

M.I.P. & E.I.P. Data
RESISTIVITY IN Ohm METRES (- - -)
100 200 300 500 1000 2000
CHARGEABILITY IN MILIVOLTS/VOLT (——)
0 20 40 60

I.P. Data
RESISTIVITY IN Ohm METRES (- - -)
100 200 300 500 1000 2000
CHARGEABILITY IN MILLIVOLTS/VOLT (——)
0 20 40 60

Total Magnetic Field (ϒ)
FINE SCALE (- - -)
COARSE SCALE (——)
60,000 61,000 62,000 63,000 64,000 65,000

Topography & Geology
HEIGHT ABOVE SEA LEVEL + 2000 m

2350 2300 2250 2200 2150 2100 2050 2000 1950 1900

H.E.C. BASELINE
CREEK
Tg
70°
60°
Proposed Drill Hole MH6 (proj. 20m E) -50° (at 400m E)
65°
80°
CREEK
Tg
60°
Tg
Ɛs
Ɛdh
Θg
Ɛs
Sc ?
Sa
Df
Sc
Sc
250m
Ɛs
Sc ?
FAULT ZONE
FAULT ZONE

30 E 60 90 120 150 180 210 240 270 300 E 330 360 390 420 450 480 510 540 570 600 E

I.P. DATA
Chargeability
Resistivity

MAGNETICS
5000 ϒ Scale
1000 ϒ Scale

SOIL GEOCHEMISTRY
Sn
Cu
Pb
Zn
As
W

LEGEND
- Swamp, transported alluvium ?
- Quartzite, sandstone, minor siltstones, shales
- Ultrabasic rocks, massive serpentinite
- Limestone
- Basic volcanic. & brecciated
- Shale
- Ash Tuff
- Tuffaceous sandstone
- Sedimentary Breccia
- Fault Breccia
- Siltstone

5 cm

959152

81-1568 (Vol 2 of 2) RENISON LIMITED

E.L. 2/63 MT. LINDSAY AREA
MERTON HILL GRID
LINE M.H. 1800mE

GEOLOGIST : L. Martin	SCALE 1:1000 METRES (20 0 20 40)
DRAUGHTSMAN : J. Matthews	
DATE : June 1981	
REVISIONS :	DRAWING No. M.H. 311 FIGURE 7(4)

4153

E.L. 17/77

E.L. 2/63

E.L. 17/77

WILSON RIVER

Alfred Ck

Limestone Ck

Sandstone Ck

Ck 2

SERPENTINE Ck

Christina Ck

Jones Ck

Aheams Ck

Berkery Ck

RIDGE

Roberts Ck

Kershaw Ck

WILSON RIVER

Sweeneys Ck

Osmiridium Ck

H.E.C. Road

Tm Ck

RIVER

HUSKISSON Ck

Con Ck

Lynch Ck

Higgins Ck

Hill Ck

Barnes Ck

Carpenter Ck

Bealey Ck

King Ck

Charlie Ck

Consbart Track

H.E.C. Road

5 382 000 N

5 380 000 N

5 378 000 N

959153

4154

LEGEND

- > p.p.m.
- MH — Merton Hill Orientation Survey - Renison Ltd (1980)
- Wilson River - Stream Sediment Sampling - Renison Ltd (1981)
- ANZ — A.N.Z. Exploration Pty. Ltd. - Stream Sediment Sampling (1976)
  - x - Pulverised sample
  - y - Stream sediment sieved sample

5 cm

CORINNA 3/1	CORINNA 3/2
CORINNA D/3	CORINNA D/4
ZEEHAN B/1	ZEEHAN B/2
ZEEHAN B/3	ZEEHAN B/4

True N — Mag N

81-156 (Vol 2)(2)

RENISON LIMITED

CORINNA D/4.

STREAM SEDIMENT SAMPLE LOCATIONS

SCALE. 1: 10,000 METRES

200 0 200 400 600

DRAWN	L. MARTIN
TRACED	
DATE	
SCALE	1:10,000
DRAWING No.	

FIGURE 8(a)

E.L. 17/77

E.L. 2/63

E.L. 17/77

WILSON RIVER

Limestone Ck

Alfred Ck

Sandstone Ck

Ck 2

Serpentine Ck

Christina Ck

Merton

Jones Ck

Ahearns Ck

Berkery Ridge

Roberts Ck

Kershaw Ck

Wilson River

Osmiridium Ck

Sweetboys Ck

H.E.C. Road

Tin Ck

Chrysolite Ck

Hill Ck

Barnes Ck

Carpenter Ck

Beasley Ck

King Ck

Huskeson Ck

Con Ck

Lynch Ck

Higgins Ck

Consall Track

H.E.C. Road

RIVER

E 368 000

E 369 000

E 370 000

E 371 000

E 372 000

E 373 000

E 374 000

N 382 000

N 381 000

N 380 000

N 379 000

N 378 000

959154

LEGEND

>30 p.p.m

MH — Merton Hill Orientation Survey - Renison Ltd. (1980)

Wilson River - Stream Sediment Sampling - Renison Ltd. (1981)

A.N.Z. Exploration Pty. Ltd. - Stream Sediment Sampling (1976)

ANZ x - B.B. sieved sample; y - Stream sediment sieved sample

5 cm

CORINNA 3/1	CORINNA 3/2
CORINNA 2/3	CORINNA D/4
ZEEHAN 8/1	ZEEHAN 8/2
ZEEHAN 8/5	ZEEHAN 8/4

True N

Mag N

81-1568 (Vol 2/2)

RENISON LIMITED

CORINNA D/4

STREAM SEDIMENT GEOCHEMISTRY - TIN p.p.m.

SCALE. 1: 10,000 METRES

200 0 200 400 600

DRAWN	L.MARTIN
TRACED	
DATE	20-5-81
SCALE	1:10,000
DRAWING No.	
FIGURE 8(b)	

4155

E.L. 17/77

E.L. 2/63

E.L. 17/77

WILSON RIVER

Limestone Ck

Allred Ck

Sandstone Ck

Ck 2

Ck

SERPENTINE

Chromite

Jones Ck

Ahearns Ck

Berkery RIDGE

RIVER

Ck

Roberts Ck

WILSON

Kershaw Ck

Merton

Ck

Ck

Tin Ck

Chromite Ck

Sweeneys Ck

Osmiridium Ck

H.E.C. Road

RIVER

Hill Ck

Barnes Ck

Ck

Carpenter Ck

Beasley Ck

King Ck

HUSKISSON Ck

Con

Lynch Ck

Higgins Ck

Consiaff Track

H.E.C. Road

E 368 000 m

E 370 000 m

E 372 000 m

E 374 000 m

S 382 000 N

S 380 000 N

S 378 000 N

959155

LEGEND

30 p.p.m.

MH — Merton Hill Orientation Survey - Renison Ltd. (1980)

Wilson River - Stream Sediment Sampling - Renison Ltd (1981)

A.N.Z. Exploration Pty. Ltd. - Stream Sediment Sampling (1976)

ANZ x - Panned sample
y - Stream sediment sieved sample

5 cm

CORINNA D/5	CORINNA D/6
CORINNA D/9	CORINNA D/10
ZEEHAN B/11	ZEEHAN B/12
ZEEHAN B/15	ZEEHAN B/16

True N

Mag N

81-1568 (Vol 2)

RENISON LIMITED

CORINNA D/4

STREAM SEDIMENT GEOCHEMISTRY - ARSENIC p.p.m.

SCALE. 1: 10000 METRES

0 200 400 600

DRAWN	L MARTIN
TRACED	
DATE	20 · 5 · 81
SCALE	1:10000
DRAWING No.	
FIGURE 8(c)	

4156

E.L. 17/77

E.L. 2/63

E.L. 17/77

WILSON RIVER

Limestone Ck

Alfred Ck

Sandstone Ck

Ck 2

Merton

SERPENTINE

Christina

Jones Ck

Ahearns Ck

Berkery RIDGE

Roberts Ck

Kershaw Ck

WILSON RIVER

HUSKISSON Ck

Con

Lynch Ck

Chargrille Ck

Trn Ck

RIVER

Osmiridium Ck

Sweetmans Ck

H.E.C. Road

Hill Ck

Barnes Ck

Carpenter Ck

Beasley Ck

King Ck

Higgins Ck

Consist Track

H.E.C. Road

E 384 000

E 378 000

E 372 000

E 366 000

E 360 000

E 354 000

E 348 000

N 382 000

N 380 000

N 378 000

LEGEND

≥15 p.p.m.

MH — Merton Hill Orientation Survey - Renison Ltd. (1980)

— Wilson River - Stream Sediment Sampling - Renison Ltd (1981)

— A.N.Z. Exploration Pty. Ltd. - Stream Sediment Sampling (1976)

ANZ x - B"ored sample
y - Stream sediment sieved sample

5 cm

CORINNA 2/1	CORINNA D/3
CORINNA D/2	CORINNA D/4
ZEEHAN 8/1	ZEEHAN 8/2
ZEEHAN 8/3	ZEEHAN 8/4

True N
Mag N

81-1568 (Vol 2)

RENISON LIMITED

CORINNA D/4

STREAM SEDIMENT GEOCHEMISTRY — COPPER p.p.m.

SCALE. 1: 10 000 METRES

200 0 200 400 600

DRAWN	L. MARTIN
TRACED	
DATE	20 5 81
SCALE	1:10000
DRAWING No.	

FIGURE 8(c)

959156

4157

4157

E.L. 17/77

E.L. 2/63

E.L. 17/77

WILSON RIVER

Limestone Ck

Alfred Ck

Sandstone Ck

Ck 2

Merton

Christina

SERPENTINE Ck

Jones Ck

Abearns Ck

Berkery RIDGE

Ck

WILSON RIVER

Roberts Ck

Kershaw Ck

HUSKESSON Ck

Lynch Ck

Con

Ck

Chirolite

Tim Ck

RIVER

Osmiridium Ck

Swamps Ck

H.E.C. Road

HIN Ck

Barnes Ck

Carpenter Ck

Bealey Ck

King Ck

Higgins Ck

Consrail Track

H.E.C. Road

Ck

3 866 000 E

3 866 000 E

3 870 000 E

3 874 000 E

5 382 000 N

5 380 000 N

5 378 000 N

959157

4158

LEGEND

- >20 p.p.m.
- MH — Merton Hill Orientation Survey - Renison Ltd. (1980)
- Wilson River - Stream Sediment Sampling - Renison Ltd. (1981)
- ANZ — A.N.Z. Exploration Pty Ltd. - Stream Sediment Sampling (1976)
  - x - Panned sample
  - y - Stream sediment sieved sample

5 cm

CORINNA D/1	CORINNA D/2
CORINNA D/3	CORINNA D/4
ZEEHAN B/1	ZEEHAN B/2
ZEEHAN B/3	ZEEHAN B/4

True N / Mag N

81-1568 C(Vol 3/2)

RENISON LIMITED

CORINNA D/4

STREAM SEDIMENT GEOCHEMISTRY - LEAD p.p.m.

SCALE. 1: 10,000 METRES

200 0 200 400 600

DRAWN	L.MARTIN
TRACED	
DATE	20-5-81
SCALE	1:10,000
DRAWING No.	

FIGURE 8(a)

4158

E.L. 17/77

E.L. 2/63

E.L. 17/77

WILSON RIVER

Limestone Ck

Alfred Ck

Sandstone Ck

Ck 2

Merton

SERPENTINE

Chromite Ck

Jones Ck

Ahearns Ck

Berkery RIDGE

RIVER

Sweetboys Ck

Osmiridium Ck

H.E.C. Road

Tin Ck

Chromite

RIVER

HUSKISSON

Con

Lynch Ck

Higgins Ck

Consall Track

H.E.C. Road

Hill Ck

Barnes Ck

Carpenter Ck

Bealey Ck

King Ck

Roberts Ck

Kershaw Ck

WILSON RIVER

LEGEND

>60 p.p.m.

MH — Merton Hill Orientation Survey - Renison Ltd. (1980)

— Wilson River - Stream Sediment Sampling - Renison Ltd (1981)

ANZ — A.N.Z. Exploration Pty. Ltd. - Stream Sediment Sampling (1976)

x - Panned sample

y - Stream sediment sieved sample

5 cm

CORINNA 2/5	CORINNA 2/12
CORINNA 2/8	CORINNA 2/14
ZEEHAN 8/1	ZEEHAN 8/2
ZEEHAN 8/3	ZEEHAN 8/4

91-1568 (V61 2/12) RENISON LIMITED

CORINNA D/4

STREAM SEDIMENT GEOCHEMISTRY - ZINC p.p.m.

SCALE 1:10,000 METRES

DRAWN	L.MARTIN
TRACED	
DATE	20-5-81
SCALE	1:2000
DRAWING No.	
FIGURE 8(5)	

95915S

4159

E.L. 17/77

E.L. 2/63

E.L. 17/77

959159

WILSON RIVER

Alfred Ck

Limestone Ck

Sandstone Ck

Ck

SERPENTINE

Christina

Merton

Jones Ck

Ahearns Ck

Berkery RIDGE

RIVER

Roberts Ck

WILSON

Kershaw Ck

Sweeneys Ck

Osmiridium Ck

H.E.C. Road

HUSKISSON

Lynch Ck

Higgins Ck

Consiglio Track

Chrystie Ck

Tim Ck

RIVER

HILL Ck

Barnes Ck

Carpenter Ck

Bealey Ck

King Ck

H.E.C. Road

E 366 000 N

E 368 000 N

E 370 000 N

E 372 000 N

E 374 000 N

S 382 000 N

S 380 000 N

S 378 000 N

LEGEND

- ≥60 p.p.m
- MH — Merton Hill Orientation Survey - Renison Ltd. (1980)
- Wilson River - Stream Sediment Sampling - Renison Ltd (1981)
- ANZ — A.N.Z. Exploration Pty. Ltd. - Stream Sediment Sampling (1976)
  - x - Planned sample
  - y - Stream sediment sieved sample

5 cm

CORINNA D/1 | CORINNA D/2
CORINNA D/3 | CORINNA D/4
ZEEHAN B/1 | ZEEHAN B/2
ZEEHAN B/3 | ZEEHAN B/4

81-1568
C/61 3(2)

RENISON LIMITED

CORINNA D/4

STREAM SEDIMENT GEOCHEMISTRY - TUNGSTEN p.p.m.

SCALE. 1: 10000 METRES

200 0 200 400 600

DRAWN	L. MARTIN
TRACED	
DATE	20 5 81
SCALE	1:10000
DRAWING No.	

FIGURE 8(a)

4160

E.L. 17/77

E.L. 2/63

E.L. 17/77

WILSON RIVER

Limestone Ck

Allied Ck

Sandstone Ck

Ck 2

SERPENTINE Ck

Jones Ck

Ahearns Ck

Berkery RIDGE

RIVER

Roberts Ck

Kershaw Ck

WILSON RIVER

Swamps Ck

Osmiridium Ck

H.E.C. Road

HUSKISSON Ck

Lynch Ck

Con Ck

Chromite Ck

Tin Ck

HIN Ck

Barnes Ck

Carpenter Ck

Bealey Ck

King Ck

Higgins Ck

Coastal Track

H.E.C. Road

E 376 000

E 378 000

E 380 000

E 382 000

S 381 000 N

S 380 000 N

S 379 000 N

959160

LEGEND

- 250 p.p.m.
- MH — Merton Hill Orientation Survey - Renison Ltd. (1980)
- Wilson River - Stream Sediment Sampling - Renison Ltd. (1981)
- ANZ — A.N.Z. Exploration Pty. Ltd. - Stream Sediment Sampling (1976)
- x - Panned sample
- y - Stream sediment sieved sample

5 cm

CORINNA 2/1	CORINNA 2/2
CORINNA D/3	CORINNA D/4
ZEEHAN 8/1	ZEEHAN 8/2
ZEEHAN 8/3	ZEEHAN 8/4

True N / Mag N

81-1568 (Vol 1 a/2)

RENISON LIMITED

CORINNA D/4

STREAM SEDIMENT GEOCHEMISTRY - NICKEL p.p.m.

SCALE. 1:10,000 METRES

200 0 200 400 600

DRAWN	L.MARTIN
TRACED	
DATE	20-5-81
SCALE	1:10,000
DRAWING No.	
FIGURE 8(d)	

4161

NUMEROUS OLD MINE WORKINGS COLLECTIVELY KNOWN AS THE MT LINDSAY TIN MINE

Very strong mag. response
Weak I.P. anomaly
Strong Sn, mod. Cu anomalies

Strong magnetic, Sn, As, Cu anomalies.
No I.P. coverage.

Strong magnetic and I.P. anomalies.
Weak Sn anomaly.

Very strong magnetic, Sn, As anomalies.
No I.P. coverage.

On south flank of strong mag. I.P. and geochem.
? Missplot of outcrop.

Very strong mag. response
No I.P. coverage.
Strong Sn, As, Cu anomalies.

Very strong magnetic
I.P. conductivity,
Sn, Cu, As, WO_3 anomalies

Very strong magnetic
No I.P. coverage
Sn, Cu, As anomalies

Strong magnetic anomaly.
Conductive but not chargeable. Weak Sn response.

No sig. mag. anomaly
No I.P. coverage.
Small Sn anomaly

No sig. mag. response
Very strong I.P. cond. anomaly.
Strong Sn, As anomalies.

No magnet
No I.P. co
Mod. Sn, C

ML 5
12 m 0·06
Skarn 16 m wide

ML 8
15m "Lode Beds"
6m 0·19 Sn
Full assays not available

ML 9
28m "Lode Beds"
Higher grades on F.W. & H.W.

ML 11
18 m "Lode Beds" >7m 1·72
Incl. 9m 0·44 Sn

ML 13
10m trace

ML 14
12m 0·12 Sn

ML 15
No logs available
Drilled with dip

ML 16
20 m 0·26 Sn
0·12 Sol Sn
0·11 Cu
< 0·01 WO_3

ML 17
19m "Lode Beds"
4·5m 0·12 Sn

ML 30
2m 0·32 Sn
4m 0·15 Sn
Lode Beds about 35m wide

ML 18
18 m 0·24 Sn
0·15 Cu
0·01 WO
<0·01 Sol Sn

ML 4
Collar in lode where 2m 1·24 Sn
Full lode about 30m 0·20 Sn
incl. 7·6m 0·24 Sn

ML 1

ML 2
26m 0·49 Sn
Incl. two high grade zones (+2% Sn)
Skarn 8m 0·50 Sn

20m 0·52 Sn
Incl. H/W zone of 13m 0·77

ML 3
13m 1·55 Sn
May contain a wide tin rich fault zone. Complete lode about 15m 1·40 Sn

ML 52
Horizon 34·3m thick
H/W 29·8m weathered clay.
4·5 m calc-silicate × 0·03% Sn

ML 31
Hole drilled down lode and stopped in minxl.
Lode prob. +15m thick containing some tin.
0·29 Sn, 0·25 Sol. Sn
0·05 Cu, 0·01 WO_3

UPPER

LOWER

ML 32
15m 0·40 Sn
0·27 Sol. Sn
0·09 Cu
<0·01 WO_3

ML 33
12m 0·30 Sn
0·13 Sol. Sn
0·10 Cu
0·27 WO_3

ML 54
Horizon 14·5m thick.
Skarn with minor sulphides
0·11% Sn, 0·09% Sol. Sn.

ML 35
9m 0·26 Sn
0·086 Cu
0·23 As
0·03 WO_3
With 32m of mineralised shales and trace carbonates
Significant (0·18) Acid sol. Sn

ML 43
Intersected granite

SKARN ZONE

Granite

ML 36
9·0m 0·27 Sn
<0·05 Cu
0·04 As
0·04 WO_3
Containing a zone
2·7m 0·70 Sn and sig. WO_3 over several metres
Horizon 35m thick

E.L. 2/63
E.L. 18/73

4162

5 cm

1100 1120 1140

2700 2600 2500 2400 2300 2200 2100 2000 1900 1800 1700 1600 1500 1400

ic response.
verage.
u, As anomalies.

Poor magnetic, I.P. geochem. responses
9

Strong magnetic anomaly.
No I.P. coverage.
Mod. As, Cu, Zn response
8·5

Poor magnetic, I.P. geochem responses
8

Very strong mag. anomaly
Resistive zone
Mod. As, Cu anomaly.
7

Poor mag. correlation.
No I.P. coverage
Strong As anomaly
6·5

Strong mag anomaly
Weak I.P. response
No geochem. response
6

Strong mag. anomaly
No I.P. response
Weak Cu, Zn anomaly
5

No sig. mag. anomaly
No I.P. coverage
Mod. As anomaly
4·5

ML 37
Chert and carbonate
21m thick

ML 38
16m Carbonates and cherts. Sig. pyrrhotite.

ML 49
Barren carbonate
Cherty near base
38m thick

BARREN CARBONATE

CASSITERITE BEARING SKARN ZONE

LOWER MAIN ZONE

UPPER MAIN ZONE

ML 40
8m Cherts, calc-silicate; trace sulphides

ML 42
8m Thin cherty sequence
minor pyrrhotite

ML 46
Calc-silicate and carbonate
32m thick Minor scheelite
1·0m - 0·11 WO_3

ML 45
Thin poorly developed cherty/shale sequence

Proposed Drill Hole
M.L. 58

UPPER

LOWER

1. Surface shown is projected outcrop position of main ore zone.
2. Positions where traverse lines cross outcrop are shown thus: (9)

   Geophysical and geochemical responses obtained on traverse lines across the outcrop position are also shown.
3. ML 33
   Centre of ore zone diamond drill hole intersection point.

   Thicknesses shown are estimated true thicknesses.
4. ML 1 to ML 33 were drilled by Aberfoyle between 1962-69 and all data relating to these holes should be regarded as approximate only.

FOR AN OREBODY 10 m WIDE
A SQUARE THIS BIG ON THIS
PROJECTION WOULD REPRESENT
1,000,000 tonnes

TONNAGE POTENTIAL GUIDE

5 cm

1. Projection plane runs grid N.W.-S.E. and looks N.E.
2. Grid and R.L. systems used are Renison Mine systems.
3. Projection limits and section lines correspond to those of the Mt. Lindsay 1:2000 base plan M 16.

959161

81-1568
CVol 3(2)

RENISON LIMITED

MT LINDSAY PROJECT
MAIN ORE ZONE
LONGITUDINAL PROJECTION

GEOLOGIST	:R.R.Schellekens
DRAUGHTSMAN	:J.M. Matthews
DATE	: July 1979
REVISIONS	: Geology revised by L.A. Martin June 1981

SCALE 1:2000 METRES
40 0 40 80

DRAWING No.
M.L.P. 141
FIGURE 9(2)

4162

1000 1020 1040 1060 1080

2700

15 — Very strong magnetic anomaly. No I.P. or geochem coverage.

14

Strong neg. mag., Cu., Sn., As., responses., No I.P. coverage

13.5

Weak geophysical and geochemical responses

13

Strong mag. anomaly Poor geochem responses No I.P. coverage

12.5

Extremely strong mag. responses. Strong I.P. Cond. As., Sn., Cu. anomalies

12

Strong mag. responses Strong As, Sn, Cu anomalies No I.P. coverage.

11.5

Extremely high magnetic anomaly Very high Sn., As. mod. Cu anomalies Mod. conductive. No I.P. response

11

Very strong mag. response Strong Sn, As, Cu anomalies No I.P. coverage.

10.5

Very strong mag. response Highly chargeable + conductive Strong Sn., As, mod. Cu responses.

10

Strong mag. re
Weak Sn anom
No I.P. covera

9.5

2600

ML 2/6

ML 2/7
Both holes intersected granite before reaching No 2 Anomaly zone

2500

ML 2/1
40m <0·10 Sn
Including 10m 0·20 Sn

ML 2/2
Faulted off after 10m
Including 5m 0·165 Sn

ML 2/3
27m <0·10 Sn
Including 4m 0·14 Sn

ML 2/4
10m <0·10 Sn

2400

ML 2/5
20m Stopped in middle of zone
Including 7m 0·11 Sn

2300

E.L. 2/63
E.L. 18/73

2200

Approximate No. 2 Anomaly — Granite

2100

2000

1900

1800

1700

1600

1500

1400

1000 1020 1040 1060 1080

4163

5 cm

1100 1120 1140

2700 2600 2500 2400 2300 2200 2100 2000 1900 1800 1700 1600 1500 1400

sponses
ity
ge

Strongly magnetic, not chargeable, weak conductivity, geochem. responses.

9

On flank of large magnetic anomaly Very poor I.P. and geochem responses.

8

On south flank of large mag. anomaly. Poor I.P. and geochem responses.

7

Flank of mag. anomaly No geochem anomalies No I.P. coverage

6·5

Mod. magnetic responses No geochem. or I.P. anomalies.

6

Mod. magnetic responses Poor geochem. and I.P. responses.

5

Strong mag. responses Weak Cu anomaly. No I.P. coverage

4·5

Proposed Drill Hole M.L. 58

ML 37 SKARN
Horizon 35m thick
30m replaced by skarn
30m <0·10 Sn containing
6m 0·13 Sn and another interval
4·5m 0·21 WO_3
Total Fe 38%

CASSITERITE BEARING SKARN ZONE

ML 55 UPPER
Horizon 49m thick.
Clay, barren carbonate
Calc - silicate on F/W
Nil tin

ML 44
Barren carbonate
50m thick
Minor calc-silicate alteration.
Trace sulphide.
Nil tin

BARREN CARBONATE ZONE

(MINOR CALC - SILICATES)

ML 55 LOWER
Horizon 27·7m thick.
Calc-Silicate, minor sulphide + scheelite
Interbedded charts and minor shale
17·6m × 0·01% Sn
2 zones 2m × 0·27% WO_3
1m × 1·04% WO_3

ML 38 UPPER
Barren carbonate
50m thick
Minor calc-silicate alteration.
Trace sulphide.

SKARN ZONE

ML 47 SKARN
Horizon 20m thick
Calc-silicates with magnetic skarn - 10m thick in centre of intersection, including
10·8m of 0·13 Sn
0·07 Sol Sn
Minor scheelite.

ML 41 SKARN
Horizon 44m thick.
Completely replaced by skarn.
44m 0·17 Sn containing
5m 0·36 Sn
0·02 Sol Sn
0·01 WO_3
Total Fe 35%
Sig. Sn assays in 1m lengths throughout interval.

ML 38 SKARN
Horizon 48m thick
23m replaced by magnetite - carbonate - cassiterite - sulphide skarn.
23m 0·79 Sn, 0·16 Cu containing 14·5m 1·10 Sn, 0·12 Cu, <0·01 WO_3
Total Fe 23m of 28% of which 11% reports as magnetite.

ML 42
Barren carbonate
52m thick
Minor calc-silicate alteration
Trace sulphide

ML 40
Barren carbonate
50m thick
Minor calc - silicate alteration
Trace sulphide

Contact

Line

?

ML 49 SKARN
Horizon 31m thick
Chlorite - sulphides - minor magnetite
Consisting of three zones
3·5m 0·12 Sn 0·08 Sol. Sn
5·5m 0·12 Sn 0·08 Sol. Sn
7·7m 0·15 Sn 0·08 Sol. Sn
Minor Sn, Cu, WO_3

ML 51
Horizon 30m thick
Calc - silicates and minor sulphides with some shale bands.
7m on H/W
0·13% Sn, 0·05% Sol. Sn

ML 46
Barren carbonate and calc-silicate
32m thick
Trace sulphide
Nil tin.

ML 45
Barren carbonate with some calc-silicates chert band below.
81m thick.

1. Surface shown is projected outcrop position of N° 2 Anomaly zone.
2. Positions where traverse lines cross outcrop are shown thus: (9)
   Geophysical and geochemical responses obtained on traverse lines across the outcrop position are also shown.
3. ○ ML 33
   Centre of ore zone diamond drill hole intersection point
   Thicknesses shown are estimated true thicknesses.
4. Holes ML 2/1 to 2/7 were drilled by Aberfoyle in 1968-69.
   Complete assays are not available.

FOR AN OREBODY 30 m WIDE
A SQUARE THIS BIG ON THIS PROJECTION WOULD REPRESENT
2,000,000 tonnes

TONNAGE POTENTIAL GUIDE

959162

5 cm

1. Projection plane runs grid N.W.-S.E. and looks N.E.
2. Grid and R.L. systems used are Renison Mine systems.
3. Projection limits and section lines correspond to those of the Mt. Lindsay 1:2000 base plan M 16.

81-1568
C161 2(2)

RENISON LIMITED

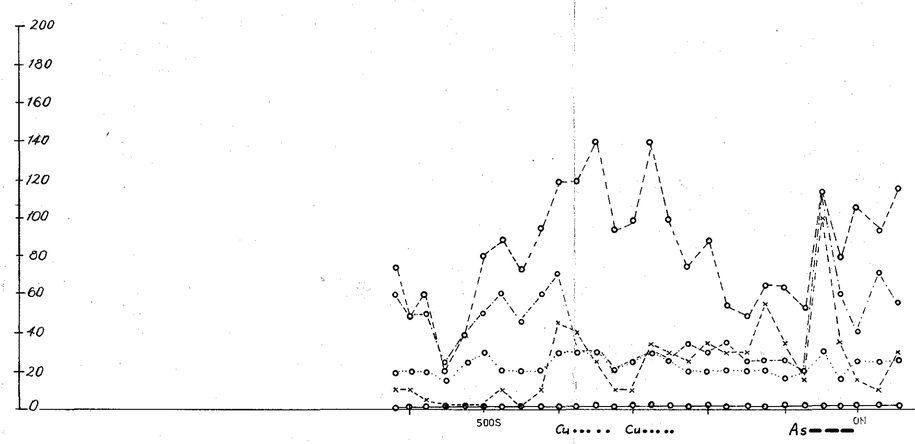
MT. LINDSAY PROJECT
N° 2 ANOMALY
LONGITUDINAL PROJECTION

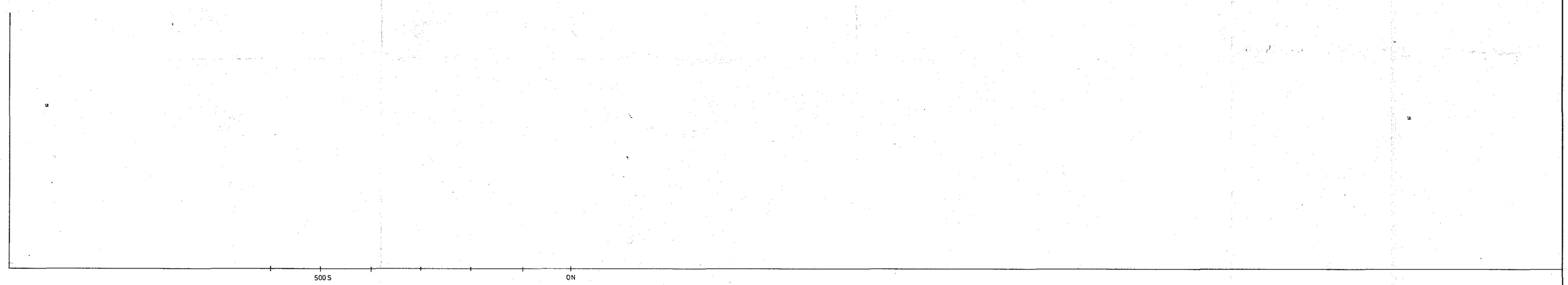
GEOLOGIST	: R.R. Schellekens	SCALE 1: 2000 METRES 40 0 40 80
DRAUGHTSMAN	: J.M. Matthews	
DATE	: July 1979	
REVISIONS	: Geology revised by L.A. Martin June 1981	DRAWING No. MLP 140 FIGURE 4(a)

4163

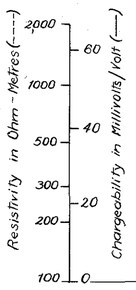
Geochemistry

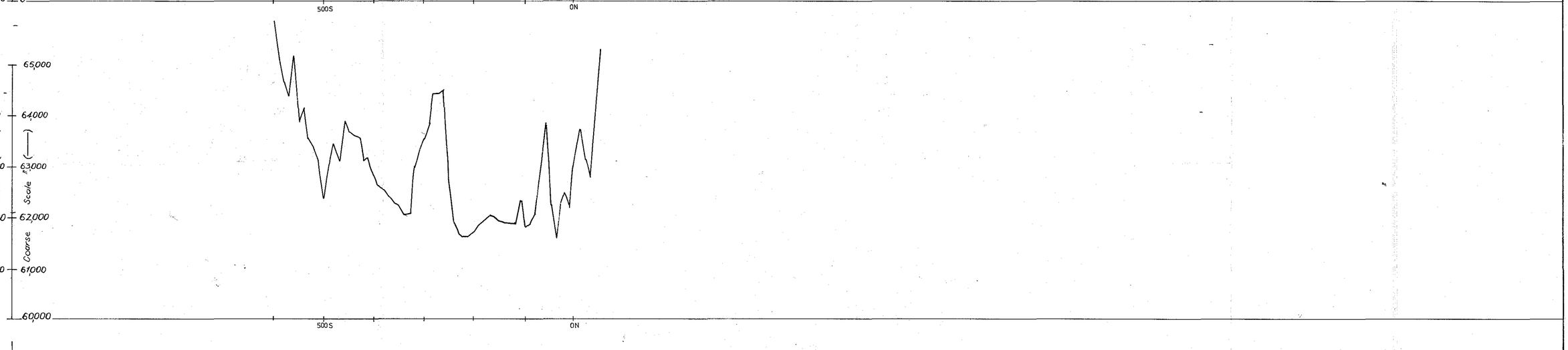
p.p.m.



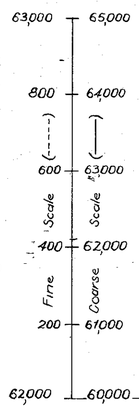


I.P. Data

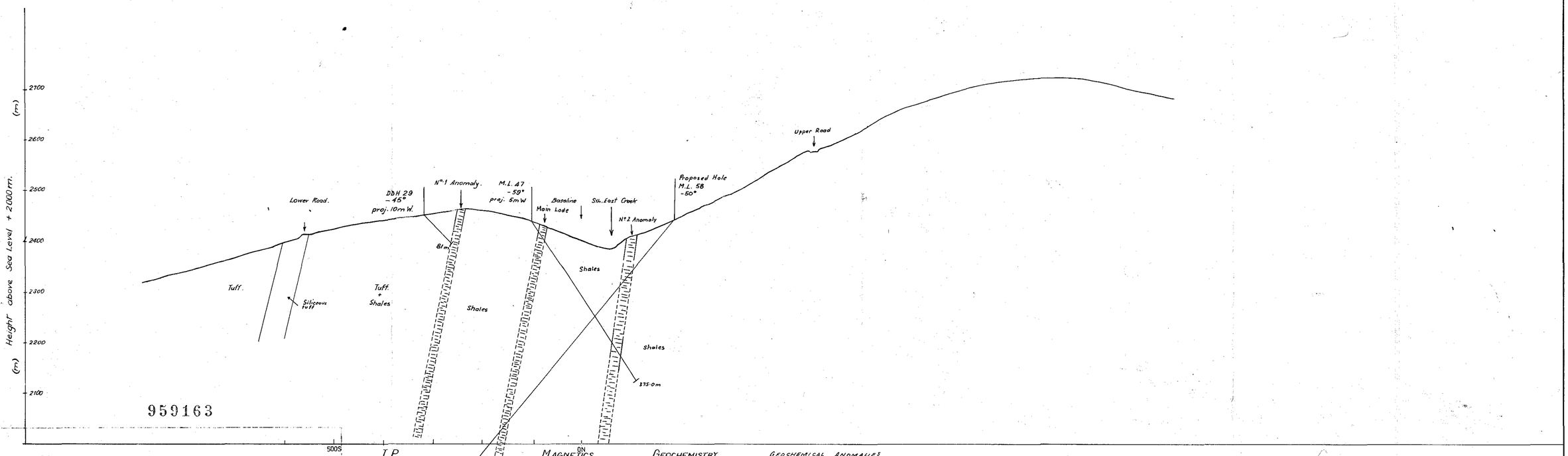




Total Magnetic Field (δ)



Topography & Geology.



IP

Chargeability.

Resistivity.

MAGNETICS.

5000 γ Scale.

1000 γ Scale.

GEOCHEMISTRY.

Sn.
Cu.
Pb.
Zn.
As.
W.

GEOCHEMICAL ANOMALIES

Sn. ——— Strong.

Sn. – – – – Medium.

Sn. ..... Weak.

(Element referred to shown beside symbol.)

5 cm

81-1568
CV01 2/2

RENISON LIMITED

E.L. 2/63.

MT. LINDSAY GRID.

Proposed Drill Hole M.L.58 – Line ML 8·5

SCALE. 1:5000 METRES.

100 0 100 200 300

DRAWN	L.A.M.
TRACED	J.M.M.
DATE	June '81
SCALE	1:5000
DRAWING No.	
MLP 89	
FIGURE 10.	

4164