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76-1177

RENISON LIMITED

EL 42/71

RENISON BELL AREA

1975-76

ANNUAL REPORT

Copies to:

Renison (3)

Mines Dept.(1)

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Geologist

Contributions from
A. ROSS, Section 3.

June, 1976

AMG REFERENCE POINTS ADDED

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1 SUMMARY

E.L. 42/71 was increased in size to 535 km. in May 1976 with the amalgamation of S.P.L. 131. Expenditure in 1975-76, including S.P.L. 131, amounted to $70504 and total expenditure since 1973 has reached $140883

Exploration during the year included: two diamond drill holes to further test the Owen Meredith shear, the cutting of the Argent Grid, an electrically induced polarization survey, a magnetometer survey and geological mapping. A proposed diamond drill hole access road was also completed near Pine Hill.

The exploration programme to date has outlined several geologically interesting areas, in particular the Argent Grid where the Renison mine sequence equivalent has been outlined. Several anomalies were outlined on this grid and will be further evaluated in 1976-77.

$59,000 has been budgetted for exploration in 1976-77, and will include:

i) One diamond drill hole to test an anomaly south of Pine Hill.

ii) Road construction over the Argent Grid area.

iii) Detailed exploration of the anomalies already outlined in the Argent Grid involving: the cutting of intermediate lines, geochemical soil sampling, detailed geophysical surveying and geological mapping.

iv) Reconnaissance exploration of the Dunkley Grid area

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including: geological mapping, ground magnetics, geochemical soil sampling, and additional line cutting.

2 AREA WEST OF MURCHISON HIGHWAY

2.1. Introduction

Late in 1975, two diamond drill holes (S386, S388) were drilled into the Owen Meredith Shear to test the mineralization previously intersected in S370.

The Argent Grid was cut to look for possible extensions of the Renison Mine Sequence with the object of locating replacement and/or fault infilled massive sulphide tin bearing deposits.

A grid of approximately 35 line kilometres was cut using a line spacing of 400 metres. A detailed geological mapping programme was undertaken over the grid, together with a proton magnetometer survey and an electrical induced polarization survey.

2.2. Previous Work

Previous work completed over E.L.42/71 and S.P.L. 131 (excluding the Argent Grid) has been described in previous Annual Reports for years 1972-1975. (Bib 18-21)

In the Cuni area, the E.Z. Coy. carried out an extensive exploration programme from 1968 to 1973 involving line cutting, soil sampling and fluxgate magnetometer surveys. The North Cuni Grid overlaps into the area now covered by the Argent Grid.

E.Z. Coy. drilled two diamond drill holes (MFP124, MFP125) into a magnetic anomaly with disappointing results. The approximate locations of the two holes are shown on the geology plan. (Map 3)
The holes have been re-logged by the author. (Appendix 5)

Regional reconnaissance geological mapping along roads and creeks in the area of the Argent Grid has been intermittently carried out since 1973 by Renison Ltd. geologists (Schellekens (Bib.21), Lees (Bib 18) and Bassett).

2.3. Crimson Creek Grid

High grade Ag mineralization previously intersected in diamond drill hole S370 in the Owen Meredith Shear was further tested during the year by diamond drill holes S386 (243.0m) and S388 (252.5m). Locations of these holes are shown on the geological map. (Map 3)

No significant mineralization was intersected in the Owen Meredith Shear and no further drilling has been planned.

On the footwall of the Owen Meredith Shear, a sequence of carbonaceous shales with interbedded chert and dolomite was

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interesected. This sequence outcrops along the Dunkley Tram, and further south and west over the Argent Grid. It is considered by the author to be stratigraphically equivalent to the Renison Mine Sequence. A more detailed description of these rocks is given in Section 2.4.

2.4. Argent Grid

2.4.1. Introduction

The area covered by the Argent Grid is extensively covered by thick vegetation consisting mainly of horizontal scrub, bauera, ti-tree and myrtle.

Outcrop is restricted to logging tracks in the area of the Argent Dam and numerous creeks. Occasional outcrops of more resistant quartzite occur along ridges in the north of the grid.

The topography is controlled by the underlying geology. The higher hills to the north are underlain by resistant siliceous rocks (quartzites, siliceous siltstones) whereas the softer shales and siltstones tend to occupy the creek valleys in the central area. Soft, easily weathered pyroclastics and greywackes cover the southern area where the hills are fairly broad with shallower valleys. These rocks extend further south into the Cuni area, where low flood plains and marshes prevail. Overall there is a reduction in relief from north to south.

2.4.2. Geology (Re Map 3)

2.4.2.1. Stratigraphy

In general, the rocks consist of a series of Lower to Middle Cambrian sediments and pyroclastics within which the equivalent of the Renison Mine Sequence occurs. Fig. 1 details the stratigraphic sequence over the Argent Grid, and gives a comparison with the Renison Mine Sequence.

U. Proterozoic? to L. Cambrian

The oldest rocks consist of a series of massive, hard grey quartzites which grade up into thinly laminated siliceous shales and siltstones. This group of rocks appears to be equivalent to the Success Creek Group of Taylor (1954).

The quartzites are massive, hard and pale grey towards the base and grade up into a saccharoidal coarse grained variety, which weathers to a soft friable sandstone. Higher, in the sequence, the succession becomes less siliceous and more argillaceous with the development of well laminated dark grey to black shales and siltstones. A thin flat lying dolomite occurs within this sequence in the area of the Poseidon Mine (Lees and Newnham, 1974 P3).

Approximately 100-150 m. below the top of this Group, a fine grained argillaceous red and green siltstone occurs. This unit is approximately 10 to 30m. thick and is characterised by its bright crimson red colour. The rock was first recorded by Lees and Newnham (1974, P2).

W. Fander describes the rock as an argillaceous hematitic siltstone or shale, composed of fine flakes of muscovite and

clay, usually randomly orientated, throughout a hematitic argillaceous matrix. The rock often shows poor bedding and sorting suggesting rapid deposition in an unstable environment. Deformed shreds of ferruginous shale, apparently still plastic at the time of incorporation into the rock, are quite common. The best outcrops occur along a walking track/creek draining south into the Argent Dam.

The unit is stratigraphically significant in that it is fairly widespread throughout the grid, and is easily recognised in hand specimen. On the data available at the present time, the unit appears to occupy a constant stratigraphic position, and could thus be a useful marker horizon.

Lower to Middle Cambrian

Lower Crimson Creek Formation

This group of rocks represents a succession of interbedded black carbonaceous shales, dolomites, cherts and tuffs with a thickness of approximately 150-250m. It is stratigraphically equivalent to that part of the Renison Mine Sequence occurring above the Renison Bell Member and below the Crimson Creek Formation pyroclastics. The stratigraphic column (Fig. 1) outlines this relationship.

This unit probably equates with the thinly bedded black shales and pyroclastics of Taylor (1954) which he considered to constitute the lowest part of the Crimson Creek Formation. For convenience this succession is referred to as the Lower Crimson Creek Formation.

Diamond drill holes S370, S386 and S388 all penetrated part of this group in the footwall of the Owen Meredith Shear. W. Fander's descriptions of the rocks are given in the relevant diamond drilling

logs. (Appendix 5)

In general the sequence consists of an interbedded series of soft carbonaceous shales and siltstones, impure styolitic dolomites and dolomitic, carbonaceous siltstones, hematitic and carbonaceous cherts and breccias together with fine grained, often iron-rich pyroclastic material.

The carbonaceous shales and siltstones are usually thinly laminated and pyritic (usually syngenetic) with a well developed NW-SE cleavage. They are composed of ultrafine carbonaceous material, fine argillaceous clay, sericite and pyrite. The sulphides mainly consist of pyrite with minor pyrrhotite and can range up to 50% of the volume of the rock, although they average less than 5%. Dolomitic material often occurs within the shales, and they often seem to grade into carbonaceous dolomites along strike. Slump structures are common.

The dolomites range up to 25m. thick and are invariably impure. They generally consist of microcrystalline dolomite, often brecciated and fractured, with carbonaceous styolites well developed. Often associated with these dolomites are carbonaceous and hematitic cherts.

The carbonaceous cherts are pyritic and impure, consisting of ultrafine silica often intergrown with chlorite. Dolomite rhombs are often present. They are regarded as having a chemical origin (Fander).

The hematitic cherts often form chert breccias interbedded with fine pyroclastics. They usually consist of angular fragments (up to 2cm.) of chert, pyroclastic material and dolomite welded into a fine grained groundmass of hematitic, intermediate to acid pyroclastic and argillaceous material. The cherts could be equivalent to the Red Rock, although it is difficult to correlate them at this early stage in the exploration programme.

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This whole succession of Lower Crimson Creek Formation rocks suggests an environment quite different to that developed in the Renison Mine area during the L-M. Cambrian.

Lees, in Lees and Newnham (1974) postulated a possibly disconformity between the Oonah Formation and the Crimson Creek Formation, from the Renison Mine boundary to just north of Dunkley Town. Lees mentioned the increase in grainsize of the "Pebble Beds" in a north westerly direction away from the Mine, suggests a shallowing of the sedimentary basin with a possible shoreline development.

The environment of deposition certainly seems to have changed west of a line running southwards from Dunkley Town to the eastern edge of the Argent Dam. The basin of deposition appears to have been shallow with fine grained sediments being deposited in a reducing, quiet environment. Fine ash flow tuffs associated with vulcanism were probably waterlain and interbedded with carbonaceous shales. The waters appear to have been silica and calcium-rich resulting in chemical precipitation of impure chert and carbonate.

The basin appears to have been a sheltered bay or lagoon possibly developed between a narrow peninsula to the east and the Success Creek Group landmass to the west. The Renison Mine Sequence was deposited east of the peninsula on the ocean side in a slightly deeper and more oxidising environment, but apparently still on the continental shelf.

Upper Crimson Creek Formation

The Upper Crimson Creek Formation is approximately 2000m. thick and outcrops over the southern part of the grid where the

underlying Lower Cambrian rocks plunge south. The formation consists of vitric and lithic tuffs of intermediate to basic composition, greywackes composed of pyroclastic and argillaceous material and fine grained siltstones.

The tuffs are usually fine grained and often banded with alternating ash and vitric-lithic layering. They are often magnetite-rich which makes their magnetic expression distinctive from the underlying Lower Cambrian rocks.

Two diamond drill holes (MFP124, 125) drilled by the E.Z. Coy. in 1967, (Bib 10,11) intersected the lower part of the Upper Crimson Creek Formation and are described in Appendix 5.

Quaternary

Recent alluvium is mainly restricted to low lying swampy areas, around the Argent Dam, further south near the Cuni area and along the northern end of the base line. The alluvium is usually a fine grained, grey silt and can easily be confused with soils developed over the dark coloured shales in the L-M Cambrian.

Pleistocene gravels and fluvioglacial scree covers an extensive area east of Dunkley Town to the Pieman River.

2.4.2.2. IGNEOUS INTRUSIVES

Minor outcrops of altered gabbro of M-U. Cambrian age intrude the Crimson Creek Formation in the south western part of the grid. These gabbros are probably the northern limit of the Cu-Ni bearing gabbroic intrusives occurring in the Cuni area.

A small quartz porphyry dyke outcrops on the Argent Dam road. This appears to form part of the Pine Hill granitic intrusive.

A sill-like hematitic trachyte was intersected in S370 and S386. The rock consists virtually entirely of sodic feldspar and ultrafine hematite (Fander), and intrudes the carbonaceous shales and dolomites of the Lower Crimson Creek Formation.

2.4.2.3. Structural Setting

The rocks in the Renison Bell area have been anticlinally folded between the Zeehan and Huskisson Synclines probably during the Tabberabberan Orogony. This has resulted in a broad south plunging anticlinorium forming with a NW-SE axis along the eastern margin of the Argent Grid. The Renison mine sequence occurs on the eastern flank of this anticlinorium with the Lower Crimson Creek Formation ("Mine Sequence Equivalent") occurring on the western flank over the Argent Grid.

A south plunging syncline developed on the western margin of this main anticlinorium and appears to have been later truncated to the north by a NE-SW fault. It was probably during this period of folding that the NW-SE cleavage developed within the Lower Crimson Creek Formation carbonaceous shales. Additional faulting also occurred in a NW-SE direction.

2.4.2.4. Mineralization

Ag, Pb, Zn mineralization associated with the Owen Meredith Shear has already been discussed in Annual Reports for years 1972-1975 (Bib.18, 21). Little can be said about the intersections in S386 and S388 as only minor mineralization was encountered.

The Poseidon-Murchison mineralization was outlined by Schellekens and Newnham (1973).

Similar Ag, Pb, Zn mineralization occurs along a creek bed draining south into the Argent Dam. Three adits and several trenches have been uncovered, all of which are flooded. The mineralization consists of sphalerite and galena occurring within a siderite-dolomite gangue. As carbonates of the Lower Crimson Creek Formation outcrop along the creek, the mineralization could be a carbonate replacement, but further work will need to be done in the area to confirm this.

Mine workings have also been uncovered on the base line between lines 19 and 17, and along line 19, west of the base line. Although no mineralization or dumps could be found, the workings occur close to gabbroic intrusives and appear to be the northern extension of the Cuni Cu-Ni mineralization.

Several gossans, pseudogossans and ironstones have been sampled with the results appearing in Appendix 1.

2.4.3. Proton Magnetometer Survey: Argent Grid

From August to December 1975, a proton magnetometer survey was carried out over the Argent Grid using a hand held Geometrics Portable Proton Magnetometer Model G-816, giving a sensitivity of one gamma.

All readings were taken using the sensor staff at 10m intervals. Diurnal variations within the magnetic field during the survey were usually less than 10 gammas and in most cases zero. Refer to Map 4 and Line Profiles 1 to 21 for results of the survey.

General Comments

1. The Success Creek Group has a very uniform magnetic response with adjacent 10m readings rarely varying by more than 5-10 gammas. Background ranges between 62400 gammas and 62600 gammas. The background decreases northwards as stratigraphically lower rocks are exposed. No magnetic anomalies were encountered.

2. The Lower Crimson Creek Formation (Mine Sequence Equivalent) also has a very uniform magnetic response with background ranging between 62400 gammas and 62600 gammas. Several low order anomalies were encountered most of which have a magnitude of 100 gammas or less.

3. The Upper Crimson Creek Formation has a background of about 62500 gammas, but is much more variable than the two previous units. Adjacent 10m readings often vary up to 100 gammas or more. Anomalies are common and range up to 600 gammas above background.

4. Diamond drill holes MFP124 and MFP125 (E.Z. Coy.) were designed to test the magnetic anomaly occurring on line 11 at 2500m and line 13 at 2420m. Both holes are shown on the line 13 profile. They intersected a magnetite-bearing tuff which was considered to be the source of the anomaly (Bib 10,11).

2.4.4. Induced Polarization Survey: Argent Grid

From January 5th to February 7th 1976, Scintrex Pty.Ltd. carried out an electrical induced polarization survey over the Argent Grid. The results are recorded in the report entitled:

"A Report on the Electrical Induced Polarization Survey in the Argent Dam area near Renison Bell, West Coast Tasmania on behalf of Renison Ltd." by A.W. Howland-Rose, 1976.

Gradient Array was the main technique used, but Pole-Dipole set ups were employed in areas where the geology was thought to be flat-dipping and on the ends of some lines. The results are presented on the line profiles accompanying this report.

Unlike the magnetic data, a proliferation of anomalies was obtained, most of which were attributable to disseminated sulphides and/or graphite. (Howland-Rose, 1976)

Of the 220 anomalies defined, Howland-Rose outlined 18 which may, in part, be due to more massive sulphides or graphite sources. None of these I.P. anomalies had a direct associated magnetic response.

Table 1 summarizes the characteristics of these 18 anomalies.

After examining the Scintrex report, an attempt was made to correlate known outcropping dolomite horizons with favourable I P responses. Eight anomalies were defined, two of which (138-140 and 170) occur in Howland-Rose's list of 18 anomalies.

Table 2 summarizes the characteristics of these 8 anomalies.

It is clear from the information available to date that the IP anomalies will have to be screened using geochemical soil sampling and selective costeaning.

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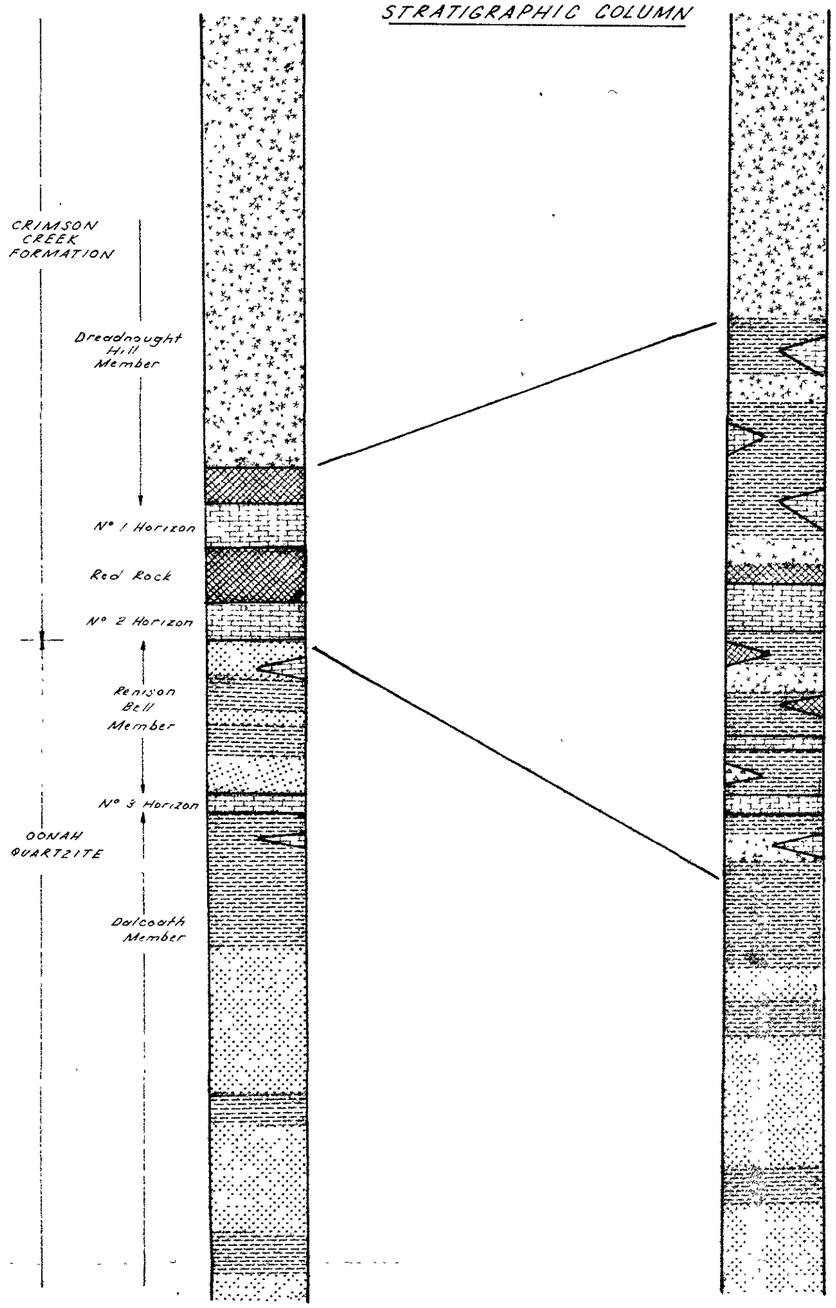
RENISON MINE

ARGENT GRID

STRATIGRAPHIC COLUMN



CLASSIFICATION	THICKNESS ON ARGENT GRID	AGE	LITHOLOGY
UPPER CRIMSON CREEK FORMATION	1500+ m	L-M CAMBRIAN	Dominantly intermediate to basic tuffs, greywackes, siltstones, minor chert with gabbroic intrusives
LOWER CRIMSON CREEK FORMATION	150-250 m ?	L-M CAMBRIAN	Interbedded soft carbonaceous shales & siltstones, impure stylolitic dolomites & dolomitic carbonaceous siltstones, hematitic and carbonaceous cherts & breccias with fine grained pyroclastic material (tuffs, greywackes)
SUCCESS CREEK GROUP	500+ m	UPPER PROTEROZOIC ? to L CAMBRIAN	Thinly laminated shales, siltstones with massive quartzites towards the base

FIG. 1

NOT TO SCALE

ANOMALY	LINE	CENTRE	A/B	R.C.	M.	D.	GEOLOGY
18/19	1	1710 1765	8/14 11/14	0 25%	0 0	20m 20m	Quaternary cover underlain by SCG Anomalies appear to be deep into SCG
21	1	1890	28/14	35%	0	33m	As for 18/19
55	3	2820	16/23	45%	0	25m	As for 18/19
66	5	990	36/20	15%	0	40-60m	S.C.G. White quartz float Possible fault in vicinity
78	7	50	30/10	5%	0	>10m	S.C.G. Quartz brecciation Possible fault
81	7	610	50/10	0.5%	0	20m	Flat dipping shales. S.C.G. Poseidon mineralization
93	7	2390	35/16	0.5%	0	25m	Top S.C.G. - quartzites outcrop
95	7	3090	32/8	90%	0	15m	Near top S.C.G.
99	9	1050	20/10	0	0	20m	Flat dipping S.C.G. shales Dolomite along strike.

Upper CCF Upper Crimson Creek Formation
Lower CCF Lower Crimson Creek Formation (Mine Sequence Equivalent)
S.C.G. Success Creek Group
A/B Anomaly (in milliseconds) above background (in milliseconds)
RC Resistivity contrast against background in % of background (0 = no change)
M Magnetic correlation in gammas with respect to background
D Interpreted maximum depth in metres

TABLE 1 SCINTREX 18 MAJOR ANOMALIES

ANOMALY	LINE	CENTRE	A/B	R.C.	M	D	GEOLOGY
100	9	1190	60/10	0.6%	0	5-10m	S.C.G. shales. Near top of sequence.
115	9	2775	22/12	60%	0	20m	As for 100
127/8	11	750 810	36/14 18/14	15% 70%	0 0	20m 20m	As for 100
125	11	610	48/14	20%	0	40m	As for 100
138/140	11	2030 2070 2110	100/26 40/16 80/20	15% 15% 15%	0 0 0	30m 30m 30m	Lower CCF dolomite along strike.
155	13	1210	15/20	50%	0	20m	Lower CCF carbonaceous shales and siltstones
170	15	80	70/30	60%	0	20m	Lower CCF carbonaceous shales
211	21	40	11/24			40m	Upper CCF pyroclastics. Possible gabbro.
212	21	130	6/24		0	30m	Upper CCF pyroclastics.

TABLE 1 CONT.

ANOMALY	LINE	CENTRES	A/B	R.C.	M	D	GEOLOGY AND COMMENTS
152,153	13	935 980	12/18 46/18	50% 35%		20m 20m	Associated magnetic disturbance with surface sulphides and carbonate gossans. Minor trenching.
129-131	11	1095 1130 1190	12/18 20/18 25/18	0 0 35%	0	20m 25m 40m	Associated Pb-Zn mineralization with outcropping carbonate. Several adits
161-163	13	1850 1910 1950	27/10 25/10 25/10	0	0	20m 25m 25m	Adjacent outcropping dolomite and gossan
138-140	11	2030 2070 2110	-100/26 40/16 80/20	15% 15% 15%	0	30m 30m 30m	Dolomite outcropping along strike. Probably equivalent to No.'s.161-163
146	11	2780	33/26	0	0	40m	Dolomite outcropping along strike
167	13	2690	30/24	0	0	20m	Equivalent to No.146 on line 11
168	13	2765	18/20		0	20m	Could be equivalent to No.'s 161-163 on line 13.
169	13	2950	34/16	15%	+100	30m	Red hematitic chert and dolomite along strike. Small magnetic anomaly.
99	9	1050	20/10	0	0	20m	Flat Dipping SCG shales. Dolomite along strike.
170	15	80	70/30	60%	0	20m	Could be equivalent to No.'s 152, 153.

TABLE 2. I P ANOMALIES ASSOCIATED WITH DOLOMITE HORIZONS

3. AREA SOUTH OF COMMONWEALTH HILL

3.1. Diamond Drilling

An access track was constructed on the southern slopes of Commonwealth Hill to enable the collaring of a diamond drill hole at 16000N 15972E (Renison Mine Co-ordinates).

This hole, originally planned for completion during 1975-76, was postponed due to inclement weather, and will be completed during 1976-77. It is designed to test the strike extent of a stanniferous zone within Crimson Creek sediments adjacent to the Pine Hill granite.

3.2. Proton Magnetometer Survey

A detailed traverse was completed along the North East Dundas Tram (NEDT), starting from a point 120m from the Murchison Highway and finishing at 15900N 16776E (Renison Mine Co-ordinates) at Silver Saddle (a distance of 9.2 km.).

Readings were taken every 10m along the N.E.D.T. and are presented as Appendix 4. A Geometrics Proton Magnetometer G816 was used with the sensor head 3m above ground level.

Low order anomalies were detected in the areas of the Grand Prize and Kapi Faults, and over basic-ultrabasic rock types.

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4. RECOMMENDATIONS

4.1. Area West of Murchison Highway

1) A road should be constructed from behind the Argent Dam north as far as the Dunkley Tram, from which better access could be gained to the anomalies mentioned in 2.4.4.

The old logging track from which MFP 124 and MFP 125 were drilled could also be cleared, and possibly extended to the south west.

2) Several anomalies mentioned in 2.6.should be costeaned.

3) Additional lines should be cut between existing lines over the area underlain by the Lower Crimson Creek Formation. This would amount to an additional 12 line kilometres.

4) A geochemical soil sampling programme should be undertaken, concentrating at first on those lines cut in 1975-76.

5) Induced polarization and magnetometer surveying, and geological mapping should be completed over the additional intermediate lines.

6) Line 15 should be extended west to link up the ends of the Dunkley Grid lines.

7) The Dunkley Grid has not yet been adequately explored. The grid together with the additional line mentioned in point 6 should be geologically mapped and surveyed with a proton magnetometer using a 10m. reading interval.

Additional geochemical and geophysical surveys will be carried out at a later date if warranted.

4.2. Area South of Commonwealth Hill

A comprehensive geological map is required of the area, and data compilations and mapping will be undertaken during the winter, 1976.

The diamond drill hole South of Pine Hill, mentioned in Section 3.1 will be drilled during the summer of 1976-77.

4.3. Budget

A budget of $59000 has been recommended for 1976-77 to undertake the above work.

Table 3 outlines this expenditure.

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ARGENT AREA E.L. 42/71

BUDGET 1976-77

PERIODS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
SALARIES	1000	1000	1500	2000	2500	2500	2500	2500	2000	1500	1500	1500	22000
D. DRILLING									12500				12500
L.U. DOZER					7000	8000							15000
TRACK CUTTING					3000								3000
I.P.								3000					3000
VEHICLES	100	100	100	200	200	100	200	100	100	100	100	100	1500
CONSULTANT		100					200				200		500
CONSUMABLES	100	100	100	200	200	100	100	200	100	100	100	100	1500
TOTALS	1200	1300	1700	2400	12900	10700	3000	5800	14700	1700	1900	1700	59000

TABLE 3

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APPENDIX 1.

ASSAY DATA OF ROCK SAMPLES

447030

ASSAY NO.	LOCATION	C.M.S. REPORT OR DESCRIPTION	ASSAY P.P.M.								
			Sn	Cu	S	As	Pb	Zn	Ag	WO_3	Bi
15415	19560N/13470E	76/3/20	25			35	80	160	5	45	
15416	19950N/13240E	76/3/20	15		1400	15	240	20	2	30	
15417	18945E/13240E	76/3/20	40		700	60	150	40	1	25	
15418	17240N/13400E	76/3/20	75		1400	25	10800	300	41	40	
15419	19560N/13460E	76/3/20	< 5		700	65	160	70	1	30	
15420	19260N/14530E	76/3/20	20	1100	36200	2000	780	140	20	25	160
15421	19210N/14580E	76/3/20	40	40	15800	180	60	70	1	25	50
15422	19260N/13720E	76/3/20	60	25		320	225	75	20	20	70
15423	19950N/13240E	76/3/20	90	270		80	195	670	15	10	55
15424	20280N/13035E	76/3/20	100	270		15	45	395	35	20	70
15425	20280N/13035E	76/3/20	45	130		< 5	70	560	80	10	20
15426	19105N/14755E	Pyritic shale	80	175		< 5	160	15	15	< 10	35
15427	17135N/12890E	Gossan	80	170		850	11800	5800	85	50	40
15428	18850N/14500E	76/6/4	70	20		80	120	350	2	< 50	125
15429	18955N/14835E	76/6/4	30	20		140	90	580	2	< 50	125
15430	18770N/13730E	76/6/4	50	10		240	120	2650	2	< 50	120

APPENDIX 2

PETROLOGICAL DESCRIPTIONS OF ROCK SAMPLES,

ARGENT GRID AREA

CONSULTANTS:

CENTRAL MINERALOGICAL SERVICES PTY. LTD.

Samples from E.L.42/71 1973 Annual Report by Schellekens and Newnham.

Rock Sample 361 Location 21445N/12630E Crimson Creek.
H.Sp. Dark grey-black fine grained rock with clay pellets.
TS 11722. This is a black silty shale, with carbonaceous fragments and clay pellets. It is composed of silt sized grains of quartz and fine muscovite flakes embedded in a carbonaceous clay matrix. Lense shaped clay pellets differing very little from the enclosing rock except for the orientation of the muscovite flakes, are fairly common and there are angular fragments of carbonaceous matter. Some earthy limonite was introduced probably during diagenesis.

Rock Sample 299 Location 21300N/12780E Dunkleytown.
H.Sp. Dark, fine grained argillaceous rock.
TS 11715. This is a massive argillite cut by irregular veins of goethite, staining the adjacent rock. It consists of recrystallised clay, as very fine flakes with subparallel orientation. Fine carbonaceous streaks give the rock its dark colour. The rock is quite featureless.

Rock Sample 247 Location 21440N/14430E Dunkleytown.
H.Sp. Folded, fine grained ferruginous rock.
TS 11711. This laminated sediment is of unusual composition, and is extensively altered and leached. Evidently it was mainly of chemical origin, consisting of alternating layers of chert, carbonate and pelletal clay. The carbonate has been completely leached, leaving small rhomb-shaped ferruginous pseudomorphs; the carbonate must have formed as formed as crystals within the sediment. Some of the layers are black and manganiferous; the manganese is syngenetic/ diagenetic. The chert layers are homogeneous in some cases,

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and pelletal or nodular, with an argillaceous matrix, in others. The clay in this rock could well be of chemical origin. The rock may be related to volcanism (exhalative-sedimentary).

Rock Sample 118 Location 21710N/13470E Crimson Creek.
H.Sp. Fine-grained grey sediment with slump structures.
TS 11661. A fine grained tuffaceous sediment, showing intra-formational slumping and folding, fine lamination, and some graded bedding in sections. The rock is believed to consist of non-pyroclastic as well as pyroclastic components, with occasional fragments of extrusive igneous rocks and coarser cleavage-fragments of oligoclase, in a very fine, semi-opaque and semi-isotropic matrix (mainly altered fine ash). Leucoxene and fine carbonaceous matter provides colouring. Carbonaceous matter also line veinlets of quartz cutting the rock; these veinlets are themselves cut by later quartz-chalcopyrite-? halloysite veins. This rock could well be correlated with the Argillite Unit at Renison.

Rock Sample 123 Location 21540N/12900E Crimson Creek.
H.Sp. Dark brown red fine grained rock with ? xenoliths.
TS 11700. This rock is best regarded as an indurated argillite with included clastic fragments of carbonate rock. The carbonate occurs as small rhombs, cleavage fragments and occasional larger (up to small pebble or grit size) fragments of crystalline carbonate rock (ie. marble). These, and small grains of chert, are embedded in a very fine, lithified ferruginous clay matrix. Carbonate is quite abundant throughout; it originated from the bedded carbonates in the Argillite, then this rock must be younger, perhaps part of the Dundas group.

REPORT CMS 75/9/29 - PART 1

Hand Specimens

1. 17150N/13730E (TS 17538)

This is a fairly fine grained tuff, probably with a non pyroclastic content (especially of quartz). The tuff is of broadly trachytic-andesitic composition, and is very similar to the andesitic water-laid tuffs at Renison.

The framework consists of small grains and splinters of chloritised lithic (andesitic) and ferromagnesian components, altered feldspar, and quartz, in a matrix/cement which is ferruginous and almost opaque. This is probably altered glassy ash. Occasional coarser grains of ferruginous material occur and may have been "melaphyre".

Chlorite veinlets cut the rock. Bedding is quite well defined and the rock is closely sized.

2. 15220N/14250E

This rock may be termed a carbonaceous argillaceous siltstone grading into shale. It consists of silt sized angular quartz grains in an argillaceous (illite) matrix with carbonaceous pigmentation; small grains and streaks of pyrite occur and are almost certainly of syngenetic origin though possibly reorganised.

The rock is fractured, deformed and folded, due to pre-consolidation movements. There is evidence of slumping and turbidity currents. Such structures are common in the finer grained lithologies at Renison.

3. 18470N/14760E
4. 18565N/14710E
5. 18850N/14500E

These rocks are all closely similar and in that sense could be correlated; however, they are not particularly distinctive and thus their similarieties are not very specific.

The rocks are regarded as gossans, but are transported, not indigenous. In other words, the goethite, derived from sulphides, was not formed in situ but was removed and re-deposited. The rocks thus consist of nodular, colloform, earthy and compact goethite with embedded fragments of vein quartz. No boxworks were detected except for one doubtful patch possibly representing pyrrhotite. These gossans could, of course, be carrying anomalous metal values and should be assayed for base metals.

6. 18825N/14760E

A conspicuously laminated silty carbonaceous shale. The rock consists of alternating fine laninae of shale and silty shale with intercalated films of carbonaceous matter. The main constituents are angular quartz grains and clay flakes (illite). Some syngenetic pyrite occurs sporadically. Small scale slump structures and microfractures/faults are fairly common and indicate pre-consolidation movements. The rock closely resembles the one at 15220N/14250E, to the extent of being correlatable.

7. 19000N/1400E

A silty shale, mostly brown and oxidised but originally pyritic and carbonaceous. As such it is very similar to, and correlatable with, 15220N/14250E and 18825N/14760E. The rock consists of fairly well layered shale grading into

Report CMS 75/9/29 - Part 1 Cont.

silty shale and argillaceous siltstone. The constituents are angular quartz, iron stained clay, and small goethite grains representing oxidised syngenetic pyrite. Darker, less oxidised, carbonaceous rock occurs in the centre of the speciment.

Some intermingling of silt and shale occurs in places, with evidence of turbidity and slumping. Grading bedding is sufficiently well developed to be used for facing if necessary.

8. 18975N/14740E

This rock is severely altered; virtually the only primary component preserved is magnetite (the rock is appreciably magnetic, which may be a useful field criterion). However, relict textures and the nature of the alteration strongly suggests that the rock was a microgabbro (andesine-microgabbro).

The rock consists of quartz pseudomorphs after random andesine laths (occasional laths have been preserved) set in rather shapeless chlorite pathces; some of these are recognisable as pseudomorphs after ferro-magnesian minerals. Primary euhedral magnetite, and secondary fine magnetite (from alteration of ferromagnesian), is relatively abundant.

On the assumption that the fresh rock was an andesine micro-gabbro, it could well correlate with the intrusions in the mine, at least in a general petrogenetic way.

Report CMS 75/9/29 - Part 1 Cont.

9. 18930N/14740E (TS 17546

No definite evidence of a pyroclastic origin was found, but since fine tuffs are very prone to severe alteration, the rock may well have been tuffaceous originally. It is a fine siltstone, not particularly well bedded, composed of poorly defined fine quartz and clay flakes, with faint laminations. The rock is fractured, and veined by chlorite veinlets which also carried minor pyrite (now oxidised).

Clastic textures are not well defined; this could suggest a partly pyroclastic origin, but shard textures were not detected either, and the question of origin must remain open until more information is available. The chlorite-pyrite veining may be significant.

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REPORT CMS 75/12/8

19620N/14620E (A)

A ferruginous, argillaceous siltstone. It is distinctive in that it shows poor bedding and sorting for this type of rock, suggesting rapid deposition and unstable conditions. This is confirmed by the presence of deforded shreds of ferruginous shale, evidently still plastic at the time of incorporation in the siltstone.

The rock consists of small angular quartz grains and random muscovite flakes, embedded in an ultrafine, ferruginous, argillaceous matrix.

20550N/12540E

A ferruginous, argillaceous siltstone, almost identical to 19620N/14620E (A) in all respects, though slightly more ferruginous; the two rocks are certainly correlatable.

20850N/11400E

This is an "Ironstone" or goethite rock; there is no evidence that it is a gossan, and it does not contain recognisable boxworks.

The rock consists of earthy, mostly structureless goethite, with more compact, colloform and nodular material included. Small quartz fragments are scattered through the goethite. A few small cellular patches occur, and are thought to be of organic origin. The goethite is exotic or transported, but may have originated from a gossan.

Report CMS 75/12/8 Cont.

19670N/15200E

A faintly laminated micaceous siltstone. The laminations are due to grainsize and compositional variations, with alterations of more micaceous/argillaceous and quartzose layers; some graded bedding also occurs.

Quartz grains are generally angular, mica flakes are sub-parallel and are buckled; they are probably hydromuscovite. The matrix/cement is ultrafine kaolinite-illite. Some secondary pale chlorite has formed throughout. Detrital heavy-mineral grains include zircon, green tourmaline, leucoxene and opaques.

20440N/14590E

This goethite rock is apparently a thoroughly oxidised carbonate rock. Relict rhombohedral cleavage-traces are quite well preserved in places, indicating the former presence of coarse carbonate, quite possibly an Fe-bearing variety. Other goethite areas are colloform-banded and are devoid of diagnostic boxwork structures. Small quartz crystals occur sporadically.

19670N/15220E

This is a fairly friable and porous kaolinitic orthoquartzite; it may well have been feldspathic originally. It gives the impression of being relatively young, perhaps mesozoic, (or even younger) derived from a granitic source in part.

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Report CMS 75/12/8 Cont.

The framework consists of subangular to well-rounded (ie. a wide range of grainshapes) quartz and chert grains averaging 0.1 - 0.2mm with coarser intercalations. The cement is sparse, and consists of quartz overgrowths.

This rock consists of sand- and silt-sized quartz grains, and mica flakes, randomly distributed through a ferruginous, argillaceous matrix. Small shreds and pellets of ferruginous shale are very common, of penecontemporaneous formation. The rock is very inhomogeneous, making classification difficult; it should perhaps be termed a ferruginous, sandy, shaly silstone.

20550N/14620E

An impure hematitic chert, extremely fine-grained and uniform. It consists of crypto/microcrystalline SiO_2 (probably now quartz) with embedded clay flakes and pigmented by ultrafine hematite. There are numerous small, clear patches of chalcedony, representing pseudomorphs after small, individual carbonate rhombs. Veinlets of quartz and chlorite cut the rock.

There may be a correlation between this rock and the hematitic cherts in the Red Rock unit at Renison, but features are not sufficiently specific to have much validity.

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Report CMS 75/12/8 Cont.

19620N/14620E (B)

This contrasts with speciment (A) mainly in its oxidation state (i.e. colour); this rock is pale green, rock (A) is red. Apart from this the two are lithologically very similar. Thus one rock is oxidised, the other reduced (or unoxidised).

The rock is a micaceous, argillaceous siltstone, composed of small, randomly orientated flakes of sericite/muscovite and pale-green chlorite, angular quartz grains, and shreds and pellets of shale, in a matrix of fine clay.

The colour is thought to reflect the oxidation state of the environment of deposition, rather than being a later (i.e. post-depositional) phenomenon, but this is not certain.

18400N/15390E

This rock consists of colloform-banded manganese and iron oxides, in the form of pyrolusite, ? psilomelane, wad and goethite. The rock is cavernous; mammilated surfaces have developed in the cavities. The oxides are clearly transported from another source, and precipitated into their present position. Minor interstitial quartz is present, and there are films of chalcedony-opal.

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Report CMS 75/12/8 Cont.

20020N/14220E

This is an extensively dolomitised (?) micaceous siltstone; before dolomitisation, it must have resembled 19620N/14620E (B) quite closely and is perhaps correlatable with that rock.

The rock is laminated, with thin argillaceous layers separating silty layers of quartz, white mica flakes and interstitial clay.

The rock is brecciated, and extensively veined by coarse carbonate (dolomite or ankerite/sideroplesite). Carbonate has also developed as small granular crystals along bedding-planes. Traces of carbonaceous matter occur. The emplacement of carbonate was metasomatic and apparently occurred after lithification; it may be related to mineralisation (or pre-mineralisation) phases as at Renison.

19670N/15200E

This pale-green sandy siltstone is very similar to 19620N/14620E (B), especially in its mode of formation and environment of deposition. It consists of angular, silt- and sand-size quartz grains set in a recrystallised clay matrix, with randomly orientated flakes of white mica and chlorite. Texturally it most nearly resembles 19700N/15200E, and may be regarded as its unoxidised equivalent.

This rock may be correlatable with such intersections as S.375/272m, possibly equivalent to the Oonah Quartzite.

CMS 76/3/20

19950N/13240E (TS 18586)

This is a ferruginous breccia or impure ironstone. Thus it is a sediment rather than a gossanous or residual rock. It consists of angular fragments of quartz (coarse and fine), chalcedony veins, siltstone, and ooliths of goethite, in a matrix/cement of fine quartz and Fe-Mn oxides. The rock is poorly sorted, and most grains are angular.

18885N/13050E (A)

A pale green shale or indurated mudstone. It is composed virtually entirely of greenish illite, representing re-crystallised primary clay, and small, diffuse spots of goethite. These could well represent ultrafine syngenetic pyrite, now oxidised. Very occasional small rhomb-shaped cavities after ? dolomite occur. The rock is very uniform and rather featureless, making correlation difficult, but there are similarities with the green shale in MFP124/140m.

17240N/13400E

This is a pseudogossan, composed of massive goethite with clearly developed carbonate boxworks. The original rock was a coarsely-crystalline carbonate, but it is not known whether it was a vein or perhaps an ankeritic marble; the field occurrence should indicate this. If the speciment is from a continuous, conformable unit, then the original rock could perhaps have been related to the Renison carbonate units. It could also correlate with 20440N/14590E.

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Report CMS 76/3/20 Cont.

20280N/13035E

A manganiferous, ferruginous rock, composed of intergrown goethite and "wad", with fine interstitial quartz in places. The constituents are earthy to colloform, and are devoid of recognisable boxworks. The presence of "wad" would be responsible for geochemical anomalies, because of the scavenging action of manganese minerals. Thus geochemical anomalies would not necessarily signify that the rock is a gossan.

19945N/13240E

Somewhat altered and iron-stained, but believed to be a welded lithic tuff (ignimbrite) with occasional xenoliths. The constituents are fragments of felsic to intermediate lavas with varying fabrics ranging from devitrified glass to scoriaceous material, large crystals (phenocrysts) of sericitised feldspar, porphyritic rhyolites, microgranophyres, trachytes, and occasional fragments of orthoquartzite. The matrix is fine-grained, altered and finely flow-banded. Many of the apparently rounded outlines of the constituents are thought to be due to resorption/corrosion and welding.

Whilst this rock is different from other tuffs seen from this area, it could possibly fit into the tuff sequence as seen in MFP125 or MFP 124.

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Report CMS 76/3/20 Cont.

19950N/13240E

This rock consists virtually entirely of earthy to compact goethite. It shows some, fairly fine, relict textures and is believed to have been a carbonate rock which was medium crystalline. Oxidation and replacement by iron oxide was thorough. Subhedral small quartz crystals have formed randomly throughout.

19560N/13460E

This is an ironstone, consisting almost entirely of earthy and colloform goethite, with embedded fine quartz grains. There are many large, shapeless volds; boxworks were not detected. The rock is probably not a gossan, but consists of transported or exotic iron oxides. Minor MnO_2 is also present.

18870N/12750E

An indurated, micaceous, argillaceous siltstone, with fine ferruginous pigmentation. It consists of fine clay/mica flakes, silt-sized quartz fragments, and an argillaceous matrix. A certain amount of small-scale deformation/intra-formational brecciation has taken place; it probably occurred during or shortly after deposition. The rock could possibly be correlated with 19620N/14620E (A) and 20550N/12540E.

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Report CMS 76/3/20 Cont.

19260N/13720E

This is a quartzose ironstone, containing many irregular cavities. It consists of large and small, generally angular fragments of quartz, mosaic quartz, chert, and shale/siltstone. These are embedded in fine-grained compact goethite which is fairly structureless. There are no recognisable boxworks, and no suggestion of a gossanous origin. Rocks of this type are difficult to correlate, because of the absence of distinctive characteristics, but it resembles 19560N/13460E except for increased quartz fragments.

19260N/14530E

This pseudogossan is a completely oxidised, ferruginised medium-grained carbonate rock. Relict rhombohedral textures are well-preserved; the original rock must have been medium-crystalline, with more coarsely crystalline patches. It resembles 19950N/13240E, though coarser. It consists of goethite cells and infillings, with occasional small quartz crystals and patches of MnO_2.

18885N/13050E

This is a hematitic shale or siltstone. It is composed of fine, subparallel flakes of muscovite and clay, with embedded small, angular quartz grains, with abundant ultrafine hematite pigmentation. Small parallel streaks of micro-crystalline quartz with chlorite are conspicuous; they are generally rimmed with hematite and thus appear darker in hand specimen than the host rock. Paler argillaceous lenses also occur. The rock may well be correlatable with 19620N/14620E.

Report CMS 76/3/20 Cont.

19250N/14580E

This is a dark, impure, pyritic chert. It consists of ultra-fine silica, intimately intergrown with brownish-green chlorite; both minerals were chemically formed. There are occasional detrital, angular quartz grains, and evidence of the former presence of small dolomite rhombs, replaced by diagenetic quartz. Occasional, rather contorted chlorite-rich layers occur, and there is evidence of some pre-consolidation movement. The pyrite formed diagenetically, as euhedral crystals with a quartz armour. Diagenetic quartz veins, containing minor carbonate, cut the rock. Stylolitic carbon films are also present.

19180N/13510E

A dark, carbonaceous siltstone. The rock consists of angular silt-sized and minor sand-sized, quartz grains and subparallel to random mica and clay flakes. There are numerous films and shreds of carbonaceous matter, as well as small grains of pyrite of syngenetic origin. Occasional small clay galls or lenses occur, and show parallel (bedding) orientation. Conditions of sedimentation appear to have been reasonably stable. The rock quite closely resembles 18220N/14250E, 18825N/14760E and others of this lithology.

19500N/12230E

This is a ferruginous siltstone; in many respects it resembles 19180N/13510E, but the environment of deposition was oxidising rather than reducing. The main components are angular, silt-sized quartz grains, and small, random to sub-parallel mica and clay flakes, with an ultrafine, hematite-pigmented clay matric. Small, subparallel clay streaks are present.

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Report CMS 76/3/20 Cont.

The rock resembles 19620N/14670E (A), 19700N/15200E and others of similar lithology; this does not necessarily mean that they are strictly correlatable, but many details of composition and deposition are comparable; naturally much would depend on field evidence and mapping.

19230N/12650E

This is a ferruginous siltstone grading into fine shale. The coarser, silty layers consist of quartz grains, mica flakes, and small spherical bodies of microcrystalline chalcedony; these are thought to be fossils (?radiolaria) but lack diagnostic features. Ultrafine hematite pigmentation is present throughout, and in addition there are thin parallel streaks of fine, earthy hematite, especially in the relatively coarser sections. The rock is traversed by quartz veins of late diagenetic or even post-lithification age, suggesting mild tectonism. The rock is similar to 19540N/12230E and others.

19980N/13300E

This is a greenish/impure chert. It consists of microcrystalline quartz, with ultrafine pale-green clay throughout. Small rhombohedral cavities, which now contain quartz, goethite and clay, indicate the former presence of carbonate, of diagenetic formation. This rock could be the unoxidised equivalent of 20550N/14620E.

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Report CMS 76/3/20 Cont.

18870N/12750E

A very uniform, virtually featureless chert, consisting of micro-crystalline quartz and evenly distributed fine clay; occasional carbonate rhombs were present, now replaced by quartz. The rock lacks distinctive features which would be of use in correlation.

CMS 76/6/4

18955N/14835E, 18850N/14500E, 13730N/18790E

a. Hand Specimen:
Porous, ferruginous, manganiferous rocks.

b. Microscopic:
All three rocks are very similar and may be described as a group. They are oolitic-pisolitic ironstones, with subordinate MnO_2. They resemble laterites and are quite possibly of similar origin.

The concentric layering of ferruginous matter (goethite) varies in its development from poor to well-defined. 18955N/14835E in particular is more earthy, with nodules of ferruginous clay and clastic quartz cemented by colloform goethite and MnO_2. The other two specimens contain less detrital material (mostly small, angular quartz grains) and show a clearer development of concentrically layered oolites and pisolites, the outer layers acting as cement.

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CMS 76/6/4 Cont.

There are many voids, and this tends to support a lateritic origin for the rocks. There is no evidence of former sulphides. The MnO_2 (most probably "wad") may, however, be carrying anomalous base metal values of unknown derivation.

APPENDIX 3

MAGNETOMETER FIELD READINGS:

ARGENT GRID

051

447052

RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: October '75. LOCATION: Angel Grid LINE NO. 1

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
0	62,221	430	62451	70	62460	1310	62438
10	2404	40	2432	80	2450	20	2439
20	2401	50	2422	90	2450	30	2437
30	2413	60	2425	900	2451	40	2439
40	2444	70	2414	10	2449	50	2439
50	2442	80	2410	20	2449	60	2435
60	4242	90	2415	30	2445	70	2437
70	2407	500	2421	40	2447	80	2439
80	2404	10	2427	50	2446	90	2442
90	2407	20	2430	60	2435	1400	2443
100	2410	30	2424	70	2430	10	2439
10	2407	40	2441	80	2431	20	2440
20	2405	50	2460	90	2429	30	2441
30	2408	60	2469	1000	2428	40	2444
40	2410	70	2435	10	2433	50	2442
50	2415	80	2436	20	2433	60	2442
60	2406	90	2428	30	2429	70	2442
70	2424	600	2436	40	2428	80	2444
80	2428	10	2433	50	2430	90	2442
90	2425	20	2426	60	2430	1500	2445
200	2430	30	2429	70	2434	10	2447
10	2410	40	2428	80	2435	20	2447
20	2416	50	2425	90	2465	30	2445
30	2444	60	2428	1100	2431	40	2447
40	2412	70	2424	10	2433	50	2447
50	2437	80	2426	20	2434	60	2444
60	2422	90	2430	30	2433	70	2439
70	2440	700	2432	40	2437	80	2442
80	2421	10	2430	50	2432	90	2445
90	2423	20	2432	60	2435	1600	2444
300	2420	30	2428	70	2437	10	2443
10	2422	40	2444	80	2442	20	2442
20	2411	50	2433	90	2435	30	2440
30	2415	60	2441	1200	2438	40	2440
40	2411	70	2442	10	2438	50	2445
50	2406	80	2435	20	2435	60	2449
60	2405	90	2436	30	2434	70	2448
70	2429	800	2445	40	2435	80	2450
80	2422	10	2440	50	2433	90	2446
90	2402	20	2450	60	2443	1700	2445
400	2419	30	2448	70	2433	10	2444
10	2411	40	2443	80	2436	20	2443
		50	2444	90	2437	30	2444

052

447053

RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: October '75 LOCATION: Argent Grid LINE NO. 1

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
1750	62,444	60	62460	80	62461	3080	62481
60	2444	90	2457	90	2464	20	2482
70	2447	80	2460	2600	2463	30	2482
80	2450	90	2460	10	2466	40	2479
90	2446	2200	2461	20	2465	50	2479
1800	2446	10	2461	30	2467		
10	2446	20	2459	90	2463		
20	2446	30	2462	50	2467		
30	2446	90	2462	60	2470		
40	2446	50	2460	70	2471		
50	2450	60	2464	80	2470		
60	2446	70	2462	90	2470		
70	2470	80	2461	2700	2469		
80	2445	90	2454	10	2469		
90	2445	2300	2455	20	2469		
1900	2443	10	2458	30	2474		
10	2449	20	2463	40	2479		
20	2447	30	2464	50	2483		
30	2448	40	2467	60	2489		
40	2448	50	2466	70	2488		
50	2445	60	2468	80	2490		
60	2447	70	2470	90	2495		
70	2445	80	2470	2800	2485		
80	2445	90	2469	10	2478		
90	2445	2400	2469	20	2477		
2000	2448	10	2469	30	2485		
10	2443	20	2469	40	2484		
20	2445	30	2472	50	2483		
30	2445	40	2472	60	2484		
40	2450	50	2470	70	2481		
50	2450	60	2471	80	2480		
60	2447	70	2471	90	2484		
70	2446	80	2470	2900	2494		
80	2448	90	2469	10	2495		
90	2451	2500	2472	20	2487		
2100	2451	10	2469	30	2490		
10	2456	20	2469	40	2485		
20	2456	30	2469	50	2487		
30	2450	40	2471	60	2485		
40	2456	50	2471	70	2484		
50	2454	60	2465	80	2485		
		70	2461	90	2483		
				3000	2477		

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RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: Nov. '75. LOCATION: Argent Grid LINE NO. 3.

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
0	62,318	400	62,383	30	62,411	60	62,425
10	2328	10	2389	40	2419	70	2427
20	2328	20	2388	50	2419	80	2428
30	2330	30	2397	60	2422	90	2427
40	2332	40	2393	70	2410	1300	2428
50	2327	50	2345	80	2415	10	2425
60	2334	60	2398	90	2417	20	2425
70	2338	70	2398	900	2417	30	2427
80	2338	80	2395	10	2419	40	2421
90	2344	90	2398	20	2418	50	2421
100	2345	500	2392	30	2415	60	2419
10	2346	10	2399	40	2419	70	2414
20	2345	20	2399	50	2417	80	2416
30	2348	30	2403	60	2418	90	2418
40	2351	40	2402	70	2419	1400	2421
60	2354	50	2403	80	2426	10	2421
60	2357	60	2401	90	2425	20	2420
70	2361	70	2402	1000	2420	30	2420
80	2358	80	2404	10	2420	40	2422
90	2368	90	2411	20	2420	50	2424
200	2365	600	2408	30	2423	60	2425
10	2367	10	2411	40	2427	70	2428
20	2371	20	2408	50	2425	80	2427
30	2365	30	2407	60	2427	90	2426
40	2369	40	2408	70	2427	1500	2429
50	2369	50	2412	80	2429	10	2429
60	2374	60	2412	90	2429	20	2428
70	2371	70	2412	1100	2429	30	2434
80	2377	80	2414	10	2425	40	2432
90	2375	90	2412	20	2424	50	2434
300	2378	700	2416	30	2422	60	2436
10	2378	10	2415	40	2424	70	2434
20	2376	20	2422	50	2423	80	2434
30	2378	30	2418	60	2424	90	2432
40	2378	40	2414	70	2424	1600	2434
50	2380	50	2413	80	2426	10	2436
60	2387	60	2417	90	2426	20	2440
70	2383	70	2413	1200	2426	30	2441
80	2381	80	2413	10	2427	40	2436
90	2383	90	2413	20	2427	50	2439
		800	2412	30	2426	60	2436
		10	2417	40	2427	70	2438
		20	2412	50	2426		

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RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: Nov '75 LOCATION: Argent Grid LINE NO. 3.

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
1680	62,457	80	62,429	2500	62,446	60	62,453
90	2444	90	2433	10	2452	70	2450
1700	2436	2100	2436	20	2452	80	2452
10	2434	10	2446	30	2450	90	2454
20	2433	20	2440	40	2446	3000	2453
30	2435	30	2444	50	2452	10	2453
40	2438	40	2438	60	2450	20	2456
50	2432	50	2436	70	2451	30	2458
60	2432	60	2430	80	2451	40	2457
10	2430	70	2430	90	2451	50	2453
80	2430	80	2436	2600	2450	60	2460
90	2434	90	2435	10	2452	70	2456
1800	2431	2200	2438	20	2453	80	2457
10	2432	10	2438	30	2452	90	2468
20	2432	20	2440	40	2451	3100	2460
30	2432	30	2443	50	2451	10	2464
40	2431	40	2440	60	2454	20	2469
50	2432	50	2442	70	2450	30	2458
60	2441	60	2444	80	2452	40	2453
70	2439	70	2443	90	2454	50	2464
80	2439	80	2445	2700	2456	60	2465
90	2437	90	2448	10	2454	70	2464
1900	2437	2300	2448	20	2452	80	2466
10	2430	10	2449	30	2453	90	2460
20	2437	20	2450	40	2453	3200	2463
30	2435	30	2452	50	2451	10	2464
40	2438	40	2452	60	2452	20	2467
50	2430	50	2450	70	2452		
60	2430	60	2445	80	2458		
70	2430	70	2444	90	2450		
80	2431	80	2445	2800	2451		
90	2428	90	2444	10	2455		
2000	2429	2400	2440	20	2453		
10	2432	10	2450	30	2453		
20	2429	20	2435	40	2456		
30	2427	30	2446	50	2454		
40	2430	40	2449	60	2455		
50	2430	50	2447	70	2453		
60	2431	60	2455	80	2457		
70	2430	70	2447	90	2457		
		80	2444	2900	2455		
		90	2450	10	2451		
				20	2450		
				30	2458		
				40	2455		
				50	2453		

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447056

RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: Nov '75. LOCATION: Argent Grid LINE NO. 5

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
0	62 146	400	62,379	30	62,416	70	62434
10	2158	10	2377	40	2416	80	2439
20	2199	20	2380	50	2421	90	2434
30	2168	30	2384	60	2420	1300	2435
40	2210	40	2383	70	2425	10	2437
50	2228	50	2387	80	2425	20	2438
60	2214	60	2390	90	2424	30	2439
70	2209	70	2392	900	2425	40	2439
80	2191	80	2390	10	2423	50	2439
90	2208	90	2389	20	2420	60	2442
100	2230	500	2389	30	2420	70	2437
10	2243	10	2391	40	2422	80	2438
20	2234	20	2391	50	2422	90	2442
30	2268	30	2393	60	2421	1400	2438
40	2277	40	2392	70	2424	10	2442
50	2283	50	2393	80	2426	20	2441
60	2283	60	2400	90	2423	30	2440
70	2295	70	2396	1000	2423	40	2441
80	2303	80	2399	10	2422	50	2443
90	2308	90	2400	20	2424	60	2441
200	2312	600	2402	30	2421	70	2443
10	2318	10	2403	40	2426	80	2443
20	2328	20	2405	50	2423	90	2446
30	2336	30	2408	60	2426	1500	2454
40	2335	40	2406	70	2425	10	2443
50	2337	50	2404	80	2426	20	2440
60	2345	60	2405	90	2429	30	2442
70	2350	70	2406	1100	2428	40	2444
80	2349	80	2408	10	2428	50	2443
90	2353	90	2406	20	2430	60	2443
300	2358	700	2407	30	2427	70	2445
10	2354	10	2408	40	2432	80	2445
20	2360	20	2412	50	2429	90	2442
30	2362	30	2415	60	2431	1600	2442
40	2367	40	2411	70	2430	10	2446
50	2368	50	2415	80	2430	20	2446
60	2370	60	2413	90	2430	30	2444
70	2372	70	2415	1200	2431	40	2447
80	2371	80	2416	10	2431	50	2444
90	2375	90	2416	20	2436	60	2448
		800	2414	30	2433	70	2449
		10	2416	40	2433	80	2448
		20	2416	50	2435	90	2449
				60	2434	1700	2450

RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: Nov '75 LOCATION: Algert Grid LINE NO. 5.

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
1710	62,446	20	62,443	40	62454	3000	62,461
20	2444	30	2440	50	2453	10	2461
30	2444	40	2443	60	2453	20	2460
40	2449	50	2443	70	2451	30	2460
50	2447	60	2443	80	2449	40	2464
60	2444	70	2445	90	2447	50	2464
70	2447	80	2445	2600	2446	60	2463
80	2444	90	2445	10	2445	70	2465
90	2442	2200	2444	20	2447	80	2468
1800	2444	10	2446	30	2450	90	2465
10	2448	20	2447	40	2453	3100	2464
20	2443	30	2447	50	2452	10	2466
30	2444	40	2448	60	2456	20	2464
40	2443	50	2448	70	2452	30	2464
50	2446	60	2448	80	2454	40	2463
60	2441	70	2448	90	2456	50	2463
70	2443	80	2447	2700	2452	60	2464
80	2446	90	2446	10	2454	70	2462
90	2442	2300	2446	20	2454	80	2464
1900	2443	10	2451	30	2456	90	2465
10	2442	20	2449	40	2456	3200	2464
20	2441	30	2449	50	2455	10	2462
30	2444	40	2449	60	2455	20	2463
40	2442	50	2451	70	2456	30	2463
50	2447	60	2453	80	2460	40	2461
60	2446	70	2451	90	2455	50	2463
70	2442	80	2455	2800	2454	60	2461
80	2442	90	2456	10	2456	70	2467
90	2439	2400	2458	20	2458	80	2463
2000	2439	10	2456	30	2460	90	2466
10	2446	20	2456	40	2459	3300	2467
20	2444	30	2455	50	2461	10	2465
30	2444	40	2451	60	2462	20	2465
40	2450	50	2451	70	2462	30	2463
50	2448	60	2453	80	2463	40	2468
60	2448	70	2451	90	2462	50	2464
70	2445	80	2450	2900	2461	60	2465
80	2453	90	2452	10	2463	70	2466
90	2452	2500	2449	20	2463	80	2465
2100	2443	10	2452	30	2461	90	2465
10	2440	20	2452	40	2464	3400	2467
		30	2455	50	2464	10	2467
				60	2464	20	2468
				70	2464		
				80	2463		
				90	2467		

KENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: Dec '75 LOCATION: Argent Grid LINE NO. 7

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
0	62,315	20	62406	80	62433	30	62470
10	2318	30	2402	90	2435	90	2467
20	2311	40	2404	900	2436	50	2468
30	2324	50	2403	10	2426	60	2465
40	2325	60	2402	20	2429	70	2467
50	2324	70	2399	30	2430	80	2468
60	2327	80	2400	40	2435	90	2470
70	2340	90	2431	50	2429	1400	2466
80	2342	500	2428	60	2427	10	2470
90	2343	10	2433	70	2428	20	2471
100	2344	20	2439	80	2427	30	2468
10	2340	30	2406	90	2428	40	2465
20	2347	40	2406	1000	2430	50	2467
30	2345	50	2405	10	2430	60	2467
40	2359	60	2407	20	2426	70	2464
50	2349	70	2405	30	2458	80	2465
60	2353	80	2409	90	2463	90	2464
70	2356	90	2410	50	2461	1500	2463
80	2363	600	2410	60	2461	10	2466
90	2375	10	2413	70	2458	20	2464
200	2366	20	2419	80	2463	30	2463
10	2371	30	2421	90	2463	40	2460
20	2366	40	2417	1100	2462	50	2469
30	2368	50	2415	10	2461	60	2465
40	2369	60	2416	20	2463	70	2467
50	2375	70	2417	30	2463	80	2462
60	2375	80	2416	40	2464	90	2459
70	2373	90	2413	50	2462	1600	2461
80	2370	700	2415	60	2464	10	2461
90	2380	10	2418	70	2465	20	2463
300	2379	20	2423	80	2466	30	2460
10	2379	30	2420	90	2466	40	2458
20	2378	40	2424	1200	2465	50	2460
30	2388	50	2426	10	2464	60	2461
40	2394	60	2427	20	2464	70	2458
50	2382	70	2425	30	2461	80	2457
60	2386	80	2420	40	2463	90	2456
70	2400	90	2424	50	2463	1700	2455
80	2394	800	2423	60	2464	10	2460
90	2398	10	2422	70	2468	20	2456
400	2399	20	2426	80	2468	30	2457
10	2409	30	2426	90	2469	40	2458
		40	2428	1300	2463	50	2456
		50	2428	10	2464	60	2455
		60	2424	20	2467	70	2455
		70	2427			80	

RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: Dec '75 LOCATION: Argent Grid LINE NO. 7

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
1790	62,454	2200	6 2465	20	6 2475	40	62485
1880	2452	10	2464	30	2469	50	2484
10	2452	20	2460	40	2469	60	2488
20	2456	30	2461	50	2473	70	2494
30	2455	40	2460	60	2470	80	2485
40	2458	50	2463	70	2466	90	2486
50	2464	60	2465	80	2473	3100	2484
60	2464	70	2464	90	2471	10	2486
70	2467	80	2461	2700	2474	20	2486
80	2467	90	2464	10	2472	30	2487
90	2472	2300	2472	20	2472	40	2493
1900	2466	10	2473	30	2475	50	2487
10	2461	20	2466	40	2477	60	2484
20	2461	30	2467	50	2478	70	2486
30	2465	40	2467	60	2479	80	2489
40	2455	50	2473	70	2477	90	2486
50	2450	60	2471	80	2479	3200	2487
60	2455	70	2469	90	2478	10	2487
70	2457	80	2464	2800	2481	20	2490
80	2458	90	2468	10	2478	30	2489
90	2467	2400	2470	20	2480	40	2490
2000	2455	10	2471	30	2479	50	2488
10	2446	20	2474	40	2483	60	2496
20	2495	30	2467	50	2483	70	2485
30	2457	40	2468	60	2485	80	2493
40	2433	50	2470	70	2491	90	2488
50	2500	60	2469	80	2486	3300	2489
60	2447	70	2470	90	2483	10	2491
70	2470	80	2470	2900	2477	20	2494
80	2460	90	2468	10	2481	30	2486
90	2459	2500	2466	20	2482	40	2497
2100	2458	10	2464	30	2478		
10	2479	20	2468	90	2479		
20	2455	30	2465	50	2481		
30	2462	40	2471	60	2483		
40	2468	50	2468	70	2481		
50	2466	60	2475	80	2479		
60	2467	70	2470	90	2478		
70	2460	80	2471	3000	2485		
80	2465	90	2467	10	2481		
		2600	2472	20	2481		
		10	2470	30	2481		

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447060

RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: Dec 175 LOCATION: Argent Grid LINE NO. 9

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
0	62385	30	62457	80	62465	10	62470
10	2422	40	2455	90	2463	20	2472
20	2420	50	2460	900	2467	30	2467
30	2429	60	2457	10	2464	40	2464
40	2428	70	2459	20	2464	50	2461
50	2429	80	2459	30	2466	60	2465
60	2427	90	2459	40	2462	70	2463
70	2427	500	2455	50	2462	80	2467
80	2439	10	2455	60	2462	90	2461
90	2441	20	2460	70	2467	1400	2461
100	2440	30	2461	80	2467	10	2462
10	2445	40	2458	90	2461	20	2464
20	2438	50	2459	1000	2463	30	2468
30	2442	60	2459	10	2467	40	2466
40	2446	70	2459	20	2473	50	2467
50	2443	80	2462	30	2465	60	2469
60	2443	90	2459	90	2470	70	2467
70	2441	600	2463	50	2471	80	2470
80	2444	10	2458	60	2470	90	2467
90	2447	20	2459	70	2469	1500	2469
200	2446	30	2460	80	2467	10	2467
10	2447	40	2461	90	2467	20	2466
20	2449	50	2462	1100	2469	30	2463
30	2442	60	2464	10	2469	40	2465
40	2447	70	2461	20	2467	50	2468
50	2448	80	2459	30	2470	60	2468
60	2448	90	2459	40	2470	70	2470
70	2450	700	2460	50	2469	80	2478
80	2445	10	2462	60	2469	90	2488
90	2460	20	2462	70	2468	1600	2478
300	2454	30	2464	80	2472	10	2478
10	2455	40	2463	90	2468	20	2476
20	2456	50	2465	1200	2469	30	2478
30	2453	60	2466	10	2468	40	2477
40	2455	70	2464	20	2467	50	2467
60	2456	80	2467	30	2468	60	2467
60	2457	90	2466	90	2466	70	2468
70	2455	800	2466	50	2468	80	2470
80	2457	10	2464	60	2465	90	2474
90	2455	20	2467	70	2466	1700	2471
400	2456	30	2467	80	2465	10	2479
10	2456	40	2468	90	2462	20	2470
20	2457	50	2462	1800	2466		
		60	2468				
		70					

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447061

REMISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: Dec '75 LOCATION: Argem Grid LINE NO. 9.

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
1730	62475	60	62480	70	62480	3000	62497
40	2482	70	2468	80	2485	10	2492
50	2480	80	2474	90	2485	20	2492
60	2485	90	2477	2600	2487	30	2495
70	2485	2200	2476	10	2484	40	2493
80	2482	10	2482	20	2482	50	2494
90	2483	20	2481	30	2490	60	2494
1800	2480	30	2482	40	2488	70	2497
10	2484	40	2482	50	2487	80	2499
20	2480	50	2485	60	2488	90	2498
30	2483	60	2480	70	2485	3100	2501
40	2480	70	2486	80	2483	10	2501
50	2482	80	2484	90	2490	20	2501
60	2485	90	2483	2700	2493	30	2502
70	2485	2300	2486	10	2497	40	2505
80	2485	10	2485	20	2496	50	2503
90	2483	20	2483	30	2487	60	2501
1900	2485	30	2483	40	2492	70	2499
10	2483	40	2485	50	2494	80	2497
20	2484	50	2480	60	2493	90	2499
30	2482	60	2479	70	2493	3200	2499
40	2487	70	2487	80	2492	10	2497
50	2488	80	2483	90	2491	20	2499
60	2489	90	2483	2800	2495	30	2502
70	2480	2400	2482	10	2498	40	2502
80	2476	10	2483	20	2494	50	2502
90	2486	20	2486	30	2496	60	2506
2000	2484	30	2485	40	2495	70	2505
10	2479	40	2485	50	2495	80	2506
20	2482	50	2490	60	2495	90	2506
30	2487	60	2488	70	2503	3300	2510
90	2480	70	2484	80	2498	10	2509
50	2477	80	2485	90	2497	20	2503
60	2475	90	2485	2900	2497		
70	2459	2500	2486	10	2497		
80	2466	10	2480	20	2496		
90	2465	20	2485	30	2499		
2100	2470	30	2500	40	2493		
10	2471	40	2482	50	2494		
20	2467	50	2481	60	2489		
30	2478	60	2477	70	2493		
40	2473			80	2494		
50	2482			90	2495		

RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: Dec '75 LOCATION: Argent Grid LINE NO. 11

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
0	62474	10	62490	30	62488	50	62492
10	2451	20	2491	40	2484	60	2488
20	2464	30	2488	50	2482	70	2490
30	2475	40	2490	60	2484	80	2491
40	2475	50	2489	70	2489	90	2496
50	2476	60	2490	80	2489	1300	2492
60	2474	70	2489	90	2484	10	2505
70	2474	80	2487	900	2495	20	2495
80	2477	90	2489	10	2490	30	2489
90	2480	500	2490	20	2491	40	2499
100	2481	10	2489	30	2488	50	2501
10	2482	20	2488	40	2482	60	2499
20	2478	30	2489	50	2486	70	2495
30	2480	40	2483	60	2489	80	2494
40	2484	50	2490	70	2487	90	2498
50	2480	60	2489	80	2492	1400	2494
60	2484	70	2488	90	2484	10	2497
70	2485	80	2487	1000	2488	20	2502
80	2484	90	2490	10	2489	30	2501
90	2484	600	2487	20	2493	90	2500
200	2484	10	2489	30	2481	50	2497
10	2484	20	2491	40	2483	60	2497
20	2483	30	2492	50	2474	70	2498
30	2484	40	2490	60	2475	80	2495
40	2483	50	2488	70	2479	90	2499
50	2483	60	2486	80	2497	1500	2495
60	2484	70	2483	90	2486	10	2499
70	2481	80	2494	1100	2487	20	2495
80	2483	90	2495	10	2482	30	2499
90	2482	700	2491	20	2485	90	2500
300	2486	10	2489	30	2490	50	2499
10	2486	20	2492	40	2488	60	2503
20	2484	30	2495	50	2492	70	2504
30	2487	40	2493	60	2490	80	2504
40	2486	50	2493	70	2488	90	2516
50	2487	60	2496	80	2491	1600	2519
60	2484	70	2493	90	2497	10	2513
70	2486	80	2490	1200	2497	20	2512
80	*	90	2494	10	2494	30	2517
90	2485	800	2491	20	2494	40	2519
400	2492	10	2486	30	2494	50	2526
		20	2486	40	2487	60	2522
						70	2527

062

447063

RENTSON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: Dec '75 LOCATION: Argent Grid LINE NO. 11

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
1680	62529	90	62496	60	62668	40	62534
90	2530	2100	2506	20	2788	60	2527
1700	2535	10	2503	30	2853	60	2491
10	2535	20	2505	90	2811	70	2437
20	2534	30	2502	50	2219	80	2439
30	2535	90	2499	60	2215	90	2450
90	2533	50	2499	70	2290	3000	2464
50	2537	60	2499	80	2319	10	2476
60	2538	70	2497	90	2350	20	2480
70	2539	80	2499	2600	2350	30	2487
80	2540	90	2493	10	2369	90	2488
90	2642	2200	2498	20	2394	50	2492
1800	2537	10	2505	30	2429	60	2495
10	2534	20	2507	90	2436	70	2496
20	2529	30	2519	50	2438	80	2499
30	2518	90	2528	60	2444	90	2499
90	2516	50	2543	70	2450	3100	2507
50	2509	60	2550	80	2458	10	2498
60	2483	70	2571	90	2463	20	2497
70	2478	80	2542	2700	2469	30	2499
80	2496	90	2531	10	2474	40	2496
90	2501	2300	2523	20	2473	50	2499
1900	2495	10	2523	30	2473	60	2504
10	2485	20	2515	90	2473	70	2507
20	2480	30	2507	50	2474	80	2511
30	2484	90	2502	60	2483	90	2504
90	2493	50	2500	70	2484	3200	2502
50	2515	60	2502	80	2480	10	2508
60	2492	70	2496	90	2486	20	2506
70	2487	80	2493	2800	2487	30	2507
80	2492	90	2489	10	2489		
90	2487	2400	2488	20	2489		
2000	2487	10	2501	30	2489		
10	2485	20	2504	90	2493		
20	2486	30	2517	50	2498		
30	2481	90	2527	60	2500		
90	2490	50	2544	70	2501		
50	2493	60	2604	80	2506		
60	2497	70	63002	90	2509		
70	2495	80	63037	2900	2521		
80	2496	90	62850	10	2517		
		2500	62722	20	2522		
				30	2531		

063

447064

RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: October 1,75 LOCATION: Algem Grid LINE NO. 13

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
0	62576	400	6 2575	40	6 2513	80	62500
10	2581	10	2572	50	2522	90	2499
20	2581	20	2573	60	2564	1500	2499
30	2578	30	2562	70	2454	10	2500
40	2580	40	2570	80	2505	20	2495
50	2577	50	2581	90	2561	30	2494
60	2580	60	2564	900	2567	40	2490
70	2580	70	2562	10	2536	50	2486
80	2581	80	2562	20	2475	60	2493
90	2583	90	2560	30	2435	70	2494
100	2586	500	2558	40	2428	80	2502
10	2590	10	2560	50	2428	90	2494
20	2583	20	2563	60	2433	1400	2492
30	2585	30	2562	70	2454	10	2489
40	2581	40	2554	80	2469	20	2493
50	2578	50	2551	90	2575	30	2493
60	2585	60	2553	1000	2488	40	2493
70	2585	70	2551	10	2484	50	2497
80	2586	80	2555	20	2486	60	2505
90	2579	90	2953	30	2497	70	2507
200	2587	600	2551	40	2512	80	2504
10	2582	10	2547	50	2501	90	2513
20	2586	20	2539	60	2501	1500	2513
30	2581	30	2535	70	2501	10	2516
40	2577	40	2530	80	2502	20	2524
50	2580	50	2530	90	2496	30	2517
60	2577	60	2534	1100	2501	40	2510
70	2577	70	2528	10	2499	50	2509
80	2573	80	2528	20	2498	60	2515
90	2575	90	2517	30	2497	70	2520
300	2581	700	2523	40	2497	80	2524
10	2575	10	2521	50	2497	90	2521
20	2576	20	2520	60	2498	1600	2520
30	2576	30	2510	70	2500	10	2537
40	2580	40	2504	80	2493	20	2533
50	2577	50	2940	90	2495	30	2531
60	2573	60	6 1964	1200	2497	40	2554
70	2576	70	2497	10	2507	50	2532
80	2584	80	2512	20	2503	60	2535
90	2571	90	2530	30	2500	70	2535
		500	2533	40	2507	80	2541
		10	2588	50	2513	90	2538
		20	2389	60	2509		
		30	2437	70	2616	1700	2551

RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: October '75 LOCATION: Argent Grid LINE NO. 13

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
1710	62554	30	62490	90	62430		
20	2560	90	2490	2600	2441		
30	2569	50	2497	10	2448		
90	2587	60	2501	20	2453		
50	2595	70	2505	30	2466		
60	2589	80	2508	90	2477		
70	2682	90	2505	50	2481		
80	2580	2200	2528	60	2486		
90	2551	10	2531	70	2490		
1800	2498	20	2537	80	2493		
10	2471	30	2549	90	2495		
20	2466	40	2556	2700	2506		
30	2453	50	2560	10	2505		
40	2455	60	2459	20	2511		
50		70	2563	30	2513		
60	2482	80	2544	40	2518		
70	2485	90	2564	50	2520		
80	2492	2300	2602	60	2513		
90	2485	10	2622	70	2575		
1900	2484	20	2661	80	2521		
10	2486	30	2718	90	2525		
20	2483	40	2788	2800	2528		
30	2487	50	2908	10	2539		
40	2488	60	3002	20	2539		
50	2482	70	3124	30	2537		
60	2482	80	3528	40	2547		
70	2476	90	3612	50	2525		
80	2481	2400	3091	60	2531		
90	2515	10	2939	70	2526		
2000	2485	20	2927	80	2525		
10	2479	30	2579	90	2632		
20	2486	40	2333	2900	2681		
30	2481	50	2044	10	2493		
40	2478	60	2061	20	2450		
50	2469	70	2159	30	2490		
60	2470	80	2242	40	2489		
70	2465	90	2275	50	2492		
80	2467	2500	2312	60	2492		
90	2466	10	2315	70	2500		
2100	2469	20	2326	80	2493		
10	2476	30	2357	90	2503		
20	2486	40	2378	3000	2516		
		50	2398	10	2509		
		60	2401	20	2507		
		70	2433				
		80	2431				

065

447066

RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: Nov '75 LOCATION: Argent Grid LINE NO. 15.

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
0	62567	10	62487	30	62486	60	62975
10	2591	20	2493	90	2476	70	2862
20	2569	30	2490	50	2481	80	2562
30	2566	40	2487	60	2483	90	2517
90	2532	50	2494	70	2476	1300	2557
50	2526	60	2498	80	2457	10	2578
60	2527	70	2496	90	2451	20	2593
70	2531	80	2500	900	2441	30	2611
80	2538	90	2512	10	2418	40	2610
90	2536	500	2501	20	2438	50	2619
100	2540	10	2495	30	2456	60	2619
10	2545	20	2495	40	2466	70	2640
20	2542	30	2496	50	2500	80	2646
30	2547	40	2486	60	2543	90	2664
40	2565	50	2489	70	2694	1400	2679
50	2551	60	2489	80	2694	10	2700
60	2552	70	2487	90	2631	20	2721
70	2560	80	2485	1000	2632	30	2729
80	2562	90	2488	10	2625	40	2741
90	2570	600	2483	20	2636	50	2762
200	2571	10	2482	30	2652	60	2779
10	2582	20	2486	40	2675	70	2791
20	2585	30	2486	50	2684	80	2815
30	2579	40	2487	60	2704	90	2830
40	2575	50	2490	70	2749	1500	2831
50	2579	60	2486	80	2784	10	2850
60	2556	70	2487	90	2810	20	2875
70	2551	80	2482	1100	2878	30	2828
80	2534	90	2480	10	2992	40	2814
90	2531	700	2480	20	2899	50	2756
300	2525	10	2482	30	2814	60	2704
10	2521	20	2479	40	2690	70	2648
20	2520	30	2482	50	2736	80	2584
30	2509	40	2485	60	2865	90	2542
40	2503	50	2481	70	2917	1600	2495
50	2496	60	2477	80	2643	10	2506
60	2493	70	2491	90	2550	20	2479
70	2491	80	2487	1200	2578	30	2463
80	2490	90	2493	10	2615	40	2458
90	2490	800	2492	20	2656	50	2455
400	2494	10	2488	30	2720	60	2444
		20	2486	40	2757	70	2417
				50	2807	80	2406
						90	2397
						1700	2340

U66

447067

RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: Nov '75 1700 - 2100 / Feb '76 2100 - 3500 LOCATION: Argent Grid LINE NO. 15.

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
1710	62350	30	62501	60	62580	90	62585
20	2375	40	2500	70	2583	3000	2586
30	2385	50	2499	80	2578	10	2573
90	2409	60	2507	90	2581	20	2577
50	2417	70	2507	2600	2576	30	2585
60	2432	80	2511	10	2577	40	2583
70	2439	90	2509	20	2588	50	2596
80	2455	2200	2511	30	2588	60	2600
90	2465	10	2508	40	2583	70	2634
1800	2474	20	2510	50	2586	80	2621
10	2482	30	2516	60	2577	90	2621
20	2489	40	2516	70	2564	3100	2619
30	2497	50	2514	80	2569	10	2613
40	2508	60	2510	90	2567	20	2626
50	2520	70	2508	2700	2564	30	2626
60	2534	80	2517	10	2550	40	2633
70	2538	90	2506	20	2547	50	2639
80	2532	2300	2513	30	2542	60	2646
90	2522	10	2514	40	2548	70	2638
1900	2520	20	2515	50	2550	80	2650
10	2512	30	2518	60	2558	90	2655
20	2538	40	2520	70	2549	3200	2655
30	2557	50	2521	80	2544	10	2668
40	2573	60	2522	90	2566	20	2669
50	2586	70	2531	2800	2554	30	2669
60	2643	80	2528	10	2558	40	2637
70	2607	90	2534	20	2559	50	2637
80	2585	2400	2537	30	2559	60	2633
90	2572	10	2540	40	2560	70	2627
2000	2534	20	2556	50	2563	80	2628
10	2534	30	2563	60	2566	90	2633
20	2511	40	2560	70	2564	3300	2635
30	2493	50	2565	80	2568	10	2643
40	2483	60	2567	90	2566	20	2644
50	2490	70	2580	2900	2564	30	2653
60	2480	80	2586	10	2564	40	2647
70	2478	90	2585	20	2571	50	2649
80	2474	2500	2584	30	2572	60	2655
90	2488	10	2493	40	2575	70	2658
2100	2488	20	2594	50	2575	80	2656
10	2496	30	2588	60	2580	90	2656
20	2498	40	2590	70	2568	3400	2658
		50	2586	80	2571	10	2650
						20	2640
						30	2640
						40	2647
						50	2640

067

447068

RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: Feb '76 LOCATION: Argent Grid LINE NO. 15

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
3460	62640						
70	2641						
80	2645						
90	2638						
3500	2647						

068

447069

REMTSON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: Nov '75 LOCATION: Aigent Grid. LINE NO. 17

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
0	62497	20	62467	80	62785	30	62757
10	2510	30	2475	90	2810	40	2752
20	2503	40	2463	900	2844	50	2740
30	2483	50	2461	10	2916	60	2743
40	2515	60	2463	20	3014	70	2733
50	2515	70	2469	30	3060	80	2729
60	2509	80	2465	40	2986	90	2734
70	2500	90	2465	50	2832	1400	2759
80	2480	500	2460	60	2905	10	2766
90	2468	10	2460	70	2957	20	2759
100	2472	20	2461	80	2607	30	2784
10	2462	30	2457	90	2516	40	2790
20	2452	40	2458	1000	2522	50	2796
30	2446	50	2452	10	2697	60	2787
40	2453	60	2438	20	2708	70	2768
50	2438	70	2449	30	2801	80	2727
60	2445	80	2439	90	2956	90	2507
70	2437	90	2445	50	2622	1500	2355
80	2442	600	2450	60	2491	10	2143
90	2438	10	2460	70	2456	20	2182
200	2451	20	2464	80	2461	30	2187
10	2461	30	2485	90	2485	40	2204
20	2454	40	2495	1100	2513	50	2227
30	2458	50	2501	10	2548	60	2260
40	2449	60	2531	20	2587	70	2290
60	2462	70	2552	30	2637	80	2318
60	2459	80	2567	40	2690	90	2339
70	2460	90	2600	50	2744	1600	2354
80	2463	700	2619	60	2880	10	2371
90	2487	10	2642	70	2921	20	2385
500	2486	20	2654	80	2978	30	2397
10	2527	30	2696	90	2868	40	2409
20	2500	40	2722	1200	2749	50	2417
30	2459	50	2723	10	2515	60	2426
40	2486	60	2720	20	2536	70	2426
50	2493	70	2723	30	2567	80	2436
60	2487	80	2719	40	2629	90	2441
70	2493	90	2722	50	2615	1700	2434
80	2487	800	2715	60	2626	10	2454
90	2484	10	2721	70	2661	20	2451
400	2522	20	2729	80	2682	30	2452
10	2488	30	2746	90	2690	40	2462
		40	2758	1300	2701	50	2460
		50	2761	10	2721	60	2464
		60	2769	20	2730	70	2469
		70	2771			80	2470
						90	2468
						1800	2473
						10	2478
						20	2476
						30	2479
						40	2476

069

447070

RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: Nov '75 LOCATION: Argent Grid LINE NO. 19

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
0	62962	40	62670	70	62613	90	62684
10	2507	50	2687	80	2880	1300	2700
20	2483	60	2696	90	2955	10	2726
30	2456	70	2709	900	3090	20	2932
40	2482	80	2775	10	3075	30	2748
50	2491	90	2856	20	3068	40	2739
60	2489	500	2829	30	2895	50	2804
70	2480	10	2829	40	2764	60	2827
80	2504	20	2860	50	2714	70	2870
90	2484	30	2829	60	2743	80	2895
100	2480	40	2847	70	2550	90	2943
10	2485	50	2821	80	2520	1400	2978
20	2490	60	2751	90	256	10	3029
30	2503	70	2765	1000	2908	20	3105
40	2496	80	2823	10	2704	30	3212
50	2482	90	2902	20	2739	40	3290
60	2476	600	2948	30	2491	50	3370
70	2493	10	2927	40	2545	60	3473
80	2605	20	2940	50	2590	70	3543
90	2607	30	2957	60	2574	LINE 19 EXTENSION WEST OF BASELINE	
200	2663	40	2973	70	2603	80	62803
10	2584	50	3030	80	2625	90	2761
20	2499	60	3064	90	2635	1500	2721
30	2492	70	3086	1100	2674	10	2676
40	2545	80	3112	10	2724	20	2629
50	2631	90	3120	20	2780	30	2567
60	2510	700	3058	30	2951	40	2477
70	2500	10	3012	40	2763	50	2446
80	2519	20	2824	50	2568	60	2456
90	2533	30	2855	60	2430	70	2476
300	2543	40	2939	70	2524	80	2417
10	2550	50	2549	80	2549	90	2465
20	2540	60	2920	90	2562	1600	2343
30	2587	70	2858	1200	2576	10	2407
40	2525	80	2728	10	2584	20	2470
50	2581	90	2784	20	2594	30	2575
60	2586	800	2784	30	2602	40	2402
70	2595	10	2754	40	2615	50	2408
80	2611	20	2593	50	2621	60	2466
90	2622	30	2503	60	2624	70	2464
400	2620	90	2652	70	2666	80	2472
10	2638	50	2580	80	2664	90	2507
20	2628	60	2581			1700	2526
30	2642					10	2522
						20	2544

070

447071

RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: Feb '76 LOCATION: Argent Grid LINE NO. 19

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
1730	62648	60	62570				
40	2644	70	2574				
50	2552	80	2576				
60	2586	90	2584				
70	2801	2200	2588				
80	2812						
90	2822						
1800	2780						
10	2695						
20	2579						
30	2610						
40	2602						
50	2657						
60	2550						
70	2506						
80	2515						
90	2507						
1900	2507						
10	2503						
20	2498						
30	2494						
40	2501						
50	2504						
60	2505						
70	2514						
80	2500						
90	2505						
2000	2511						
10	2508						
20	2530						
30	2523						
40	2552						
50	2533						
60	2536						
70	2541						
80	2543						
90	2549						
2100	2557						
10	2553						
20	2555						
30	2605						
40	2565						
50	2570						

RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: October '75 LOCATION: Argent Grid LINE NO. 21

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
0	62609	900	2734	30	62586		
10	2616	10	2741	40	2569		
20	2480	20	2741	50	2602		
30	2435	30	2737	60	2626		
40	2485	40	2754	70	2636		
50	2535	50	2765	80	2647		
60	2490	60	2793	90	2661		
70	2494	70	2802	900	2673		
80	2500	80	2805	10	2673		
90	2516	90	2807	20	2674		
100	2505	500	2802	30	2661		
10	2530	10	2809	40	2646		
20	2516	20	2793	50	2635		
30	2535	30	2791	60	2622		
40	2528	40	2781	70	2608		
50	2530	50	2786	80	2569		
60	2533	60	2783	90	2563		
70	2541	70	2779	1000	2557		
80	2561	80	2771	10	2541		
90	2568	90	2771	20	2540		
200	2578	600	2775	30	2538		
10	2582	10	2784	40	2534		
20	2587	20	2797	50	2532		
30	2617	30	2798	60	2535		
40	2627	40	2797	70	2540		
50	2623	50	2790	80	2533		
60	2617	60	2776	90	2540		
70	2630	70	2775	1100	2535		
80	2675	80	2775	10	2539		
90	2640	90	2746	20	2537		
300	2639	700	2712				
10	2856	10	2716				
20	2670	20	2733				
30	2682	30	2777				
40	2692	90	2843				
50	2692	80	2801				
60	2709	60	2814				
70	2704	70	2734				
80	2714	80	2652				
90	2724	90	2651				
		800	2594				
		10	2607				
		20	2587				

072

447073

RENTSON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: Aug-Dec '75 LOCATION: Argent Grid LINE NO. BASE LINE.

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
0	62462	90	62554	10	62959	60	62469
10	2435	400	2551	20	63043	70	2405
20	2465	10	2542	30	3851	80	2474
30	2441	20	2545	40	3297	90	2473
40	2451	30	2543	50	3685	1300	2470
50	2468	40	2542	60	4096	10	2465
60	2483	50	2538	70	3931	20	2467
70	2580	60	2540	80	3405	30	2476
80	2517	70	2541	90	3320	40	2486
90	2515	80	2539	900	3286	50	2500
100	2509	90	2541	10	3157	60	2486
10	2503	500	2541	20	3035	70	2488
20	2509	10	2556	30	2784	80	2494
30	2510	20	2561	40	2668	90	2498
40	2515	30	2569	50	2542	1400	2500
50	2525	40	2582	60	2396	10	2503
60		50	2585	70	2395	20	2508
70	2556	60	2587	80	1854	30	2518
80	2597	70	2592	90	2940	40	2524
90	2582	80	2596	1000	2948	50	2528
200	2557	90	2544	10	3291	60	2536
10	2561	600	2621	20	2593	70	2539
20	2520	10	2624	30	2368	80	2589
30	2519	20	2625	40	2357	90	2589
40	2508	30	2627	50	2370	1500	2565
50	2522	90	2627	60	2375	10	2571
60	2521	50	2630	70	2373	20	2601
70	2523	60	2635	80	2375	30	2603
80	2527	70	2626	90	2375	40	2603
90	2529	80	2643	1100	2375	50	2614
300	2527	90	2648	10	2375	60	2635
10	2527	700	2643	20	2388	70	2665
20	2537	10	2631	30	2409	80	2741
30	2550	20	2665	40	2406	90	2807
40	2545	30	2667	50	2407	1600	2979
50	2557	40	2714	60	2415	10	3368
60	2559	50	2716	70	2434	20	2881
70	2556	60	2712	80	2437	30	2697
80	2554	70	2749	90	2423	40	2632
		80	2847	1200	2443	50	2604
		90	2869	10	2452	60	2574
		800	2922	20	2454	70	2580
				30	2461	80	2487
				40	2459		
				50	2464		

073

447074

RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: Aug- Dec '75 LOCATION: Argent Grid LINE NO. BASE LINE

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
1690	62487	30	62520	80	62503	90	62496
1700	2484	90	2511	90	2505	3000	2498
10	2476	50	2516	2600	2509	10	2498
20	2487	60	2508	10	2509	20	2497
30	2489	70	2504	20	2502	30	2496
40	2485	80	2504	30	2506	40	2497
50	2480	90	2505	40	2503	50	2498
60	2486	2200	2505	50	2501	60	2494
70	2482	10	2502	60	2492	70	2497
80	2493	20	2505	70	2503	80	2498
90	2496	30	2506	80	2507	90	2499
1800	2491	40	2505	90	2505	3100	2497
10	2494	50	2506	2700	2499	10	2493
20	2499	60	2501	10	2497	20	2492
30	2498	70	2506	20	2500	30	2492
40	2497	80	2505	30	2502	40	9447
50	2501	90	2505	40	2498	50	2496
60	2506	2300	2508	50	2502	60	2496
70	2502	10	2508	60	2496	70	2499
80	2506	20	2505	70	2496	80	2501
90	2493	30	2503	80	2499	90	2502
1900	2501	40	2506	90	2501	3200	2502
10	2506	50	2502	2800	2500	10	2501
20	2498	60	2505	10	2493	20	2496
30	2498	70	2505	20	2493	30	2496
40	2503	80	2504	30	2494	40	2498
50	2505	90	2500	40	2495	50	2494
60	2507	2400	2504	50	2498	60	2495
70	2511	10	2507	60	2496	70	2492
80	2812	20	2505	70	2499	80	2496
90	2520	30	2501	80	2500	90	2494
2000	2507	40	2500	90	2501	3300	2493
10	2506	50	2499	2900	2497	10	2495
20	2509	60	2500	10	2502	20	2496
30	2510	70	2500	20	2498	30	2496
40	2509	80	2500	30	2500	40	2494
50	2508	90	2499	40	2500	50	2492
60	2506	2500	2500	50	2499	60	2493
70	2506	10	2500	60	2500	70	2490
80	2508	20	2499	70	2501	80	2493
90	2506	30	2505	80	2498	90	2489
2100	2517	40	2505			3400	2492
10	2525	50	2502			10	
20	2515	60	2508				
		70	2505				

447075

RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: Aug- Dec '75 LOCATION: Argent Grid LINE NO. BASE LINE

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
34 20	62559	20	62497	40	62483	80	62464
30	2513	30	2497	50	2483	90	2463
40	2513	40	2495	60	2487	4700	2467
50	2516	50	2497	70	2488	10	2472
60	2515	60	2499	80	2484	20	2476
70	2509	70	2497	90	2487	30	2479
80	2508	80	2486	4300	2485	40	2488
90	2511	90	2485	10	2480	80	2491
3500	2512	3900	2487	20	2480	60	2499
10	2508	10	2486	30	2480	70	2491
20	2506	20	2488	40	2479	80	2488
30	2506	30	2484	50	2478	90	2482
40	2507	40	2486	60	2477	4800	2479
50	2506	50	2485	70	2476	10	2482
60	2509	60	2486	80	2479	20	2486
70	2507	70	2487	90	2479	30	2481
80	2506	80	2487	4400	2476	40	2467
90	2505	90	2490	10	2469	50	2499
3600	2503	4000	2491	20	2457	60	2492
10	2506	10	2487	30	2484	70	2499
20	2500	20	2488	40	2456	80	2496
30	2501	30	2491	50	2463	90	2499
90	2500	40	2494	60	2467	4900	2491
50	2506	50	2488	70	2466	10	2499
60	2499	60	2487	80	2462	20	2499
70	2492	70	2495	90	2459	30	2458
80	2498	80	2495	4500	2459	40	2457
90	2500	90	2491	10	2468	50	2461
3700	2499	4100	2484	20	2455	60	2469
10	2497	10	2489	30	2455	70	2483
20	2497	20	2487	40	2458	80	2468
30	2500	30	2484	50	2459	90	2465
90	2499	40	2487	60	2459	5000	2458
50	2500	50	2485	70	2458	10	2459
60	2498	60	2485	80	2457	20	2455
70	2499	70	2484	90	2462	30	2451
80	2497	80	2485	4600	2460	40	2448
90	2499	90	2487	10	2460	50	2439
3800	2500	4200	2486	20	2460	60	2464
10	2497	10	2486	30	2498	70	2446
		20	2484	40	2460	80	2444
		30	2485	50	2454	90	2446
				60	2460	5100	2455
				70	2462	10	2425

APPENDIX 4

MAGNETOMETER FIELD READINGS:

NORTH EAST DUNDAS TRAM

076

447077

RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: SEPTEMBER 1975.

LOCATION: E.L. 42/71 NORTH EAST DUNDAS TRAM. LINE 3

Readings every 10m. along track.

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
-om from rchison Hiway	62465		62750		63147		63383
	62470		62748		63012		63376
	62468		62731		63073		63400
	62463		62714		63075		63416
	62464		62713		63128		63423
	62490		62707		63078		63419
	62490		62695		63046	Creek.	63410
	62475		62685		63035		63397
	62464		62682		63027		63432
	62447		62679		63013		63424
	62463		62713		62993		63406
	62491		62740		63004		63470
	62525		62793		63023		63444
	62563		62825		63043		63416
	62604		62899		63088		63415
	62599		62884		63122		63424
	62590		62873	Creek.	63148		63422
	62601		62880		63170		63396
	62615		62907		63206		63349
	62633		62905		63261		63320
	62645		62957		63289		63312
	62694		63001		63263		63277
	62704		63019		63280	Creek	63227
	62720		63027		63298		63210
	62719		63041		63332		63199
	62720		63055		63354		63173
	62732		63075		63329		63186
	62740		63094		63351		63156
	62755		63098		63367		63139
	62750		63110		63382		63134

077

447078

RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE:

LOCATION: E.L. 421-11 NORTH EAST DUNDAS TRAM LINE 0. Readings every 10m along track

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
	63095		62834		62778		62634
	63065		62814		62730		62725
	63065		62755		62650		62674
	63081		62702		62612		62632
	63090		62648		62558		62628
	63062		62606		62545		62617
	63012		62566		62535		62638
	63057		62537		62537		62675
	63048		62485		62503		62543
	62996		62409		62490		62450
	63099		62419		62458		62392
	63180		62458		62443	Creek.	62358
	63141		62678		62475		62389
	63126		62836		62465		62380
	63152		62700		62439		62355
	63244		62712		62438		62375
	63381		62792	Creek.	62447		62375
Creek.	63355		62890		62475		62398
	63294	Creek.	62907		62515		62420
	63201		62910		62552		62439
	63222		62952		62559		62432
	63197		62852		62491		62442
Creek.	62993		62846		62471		62465
	63002		63131		62450		62472
	62949		62979		62439		62469
	62961		62806		62429		62483
	62894		62749		62433		62452
	62857		62698		62439		62432
	62838		62651		62465		62407
	62901		62707		62491		62393

078

447079

RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE:

LOCATION: E.L. 42/71 NORTH EAST DUNDAS TRAM LINE 0 along track.

Readings every 10m

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
	62379		62222		62163		62168
	62349		62218		62152		62153
	62332		62207		62194		62165
	62306		62196	Creek	62189		62179
	62288		62192		62178		62188
	62260		62177		62180		62191
	62239		62186		62154		62158
	62226		62189	Junction - Track to Melba Mine	62146		62132
Creek.	62238		62180		62151		62128
	62232		62179		62149		62137
	62224		62183		62158		62148
	62259		62179		62158		62147
	62197	Creek.	62178		62151		62151
	62139		62199		62131		62156
	62110		62220		62134		62160
	62152		62275		62134		62157
	62169		62278		62135		62168
	62228		62270		62138		62227
	62251		62304		62146		62271
	62228		62318	Creek	62134		62276
	62187		62281		62121		62277
	62200		62213		62124		62294
	62196		62215		62148		62297
	62202		62183		62149		62293
	62211		62172		62114		62283
	62213		62189		62139		62296
	62228		62185		62150	Creek	62312
	62226		62196		62149		62296
	62221		62201		62189		62299
	62221		62178	Creek	62171		62314

4.

079

447080

RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: E.L. 42/71

LOCATION: NORTH EAST DUNDAS TRAM LINE 0° Readings every 10m along track.

Page 4 of 8.

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
	62267		62533		62340		62131
	62295		62528		62641		62102
	62338		62546		62512		62080
	62401		62564		62377		62063
	62439		62586		62281		62076
	62415		62556		62234		62094
	62411		62532		62175		62146
	62421		62516		62143		62088
	62423		62498		62091		62083
	62472		62510		62072		62042
	62464		62573		62048		~~6280~~ 62010
	62462		62600		62029		61942
	62454		62607		62102		62079
	62457		62590		62211		62038
	62458		62581		62208		62065
	62509		62551		62182		62031
	62539		62584		62154		61918
	62497		62557		62156		61861
	62542		62578		62180		62213
	62550		62571		62187		61977
	62556	Track to left. Drill access.	62709		62405		62054
	62569		62688		62347		62090
Commonwealth II-II Base Line crosses Track.	62564		62641		62288		62114
	62538		62714		62391		62187
	62555		62777		62243		62088
	62596		62880		62182		62042
	62598		62989		62203		62026
	62565		62998		62300		62018
	62585		63052		62256		62008
	62550		63037	Creek	62131		61990

080

447081

RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE:

LOCATION: E.L. 42/71
NORTH EAST DUNDAS TRAM

LINE 0 along track.

Readings every 10m

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
	61996		62141		62385		62740
	62005		62185		62437		62788
	62030		62201		62419		62803
	62037		62214		62490		62800
	62037		62252		62585		62778
	62054		62215		62739		62742
●	62040		62189		62779		62695
Creek.	62038		62235		62694		62645
	62029		62253		62705		62595
	62017		62226		62745		62559
	62022		62256		62398		62554
	62018		62344		62480		62591
	62018		62285		62592		62719
	62018		62307		62869		62775
	62019		62326		62768		62724
●	62031		62278		62555		62753
	62066		62300		62386		62737
	62123		62364		62390		62741
	62125		62450		62378		62941
	62129		62555		62420		62985
	62131		62581		62518		62937
	62148		62539		62459		62901
	62158		62394		62458		62928
	62153		62326		62495		63063
	62146		62240		62550		63207
	62110		62262		62636		63289
	62088		62227		62704		63224
	62103		62232		62728		63243
	62129		62317		62713		63276
	62098		62334		62707		63276

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081

447082

RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE:

LOCATION: E.L. 42/71 NORTH EAST DUNDAS TRAM LINE Readings every 10m along track.

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
	63289		62497		62486	Kapi Creek	62516
	63298		62503		62490		62523
	63343		62490		62502		62512
	63344		62495		62526		62503
	63414		62506		62530		62499
	63577		62511		62517		62527
	63582		62496		62484		62506
	63178		62495		62463		62504
	62858		62507		62454		62505
	62691		62509		62446		62507
	62643		62497		62466		62506
	62622		62500		62462		62504
	62568		62491		62459		62506
	62570		62487		62458		62502
	62575		62487		62458		62501
	62589		62495		62464		62493
	62607		62484		62457		62491
	62596		62493		62455		62482
	62577		62491		62459		62472
	62564		62505		62457		62470
	62571		62493		62460		62466
	62578		62505		62460		62457
	62584		62505		62458		62460
	62605		62474		62454		62453
	62634		62478		62461		62460
	62639		62456		62465		62453
	62566		62496		62462		62460
	62529		62525		62461		62454
	62626		62525		62458		62450
					62512		

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447083

RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE:

LOCATION: E.L. 42/71 NORTH EAST DUNDAS TRAM LINE 0 Readings every 10m along track

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
	62436		62472		62405		62399
	62426		62462		62404		62393
	62425		62451		62366		62388
	62421		62447		62364		62384
	62408		62441		62376		62393
	62415		62439		62377		62362
	62406		62434		62383		62358
	62395		62424		62370		62353
	62398		62423		62369		62350
	62405		62417		62377		62346
	62414		62416		62374		62339
	62410		62420		62369		62333
	62405		62411		62378		62333
	62424		62411		62369		62316
	62423		62405		62365		62332
	62426		62409		62371		62383
	62420		62405		62383		62355
	62425		62401		62383		62335
	62427		62404		62385		62330
	62435		62395		62385		62330
	62434		62381		62396		62320
	62435		62386		62390		62331
	62442		62383		62389		62344
	62442		62391		62395		62343
	62445		62382		62387		62355
	62453		62381		62399		62370
	62460		62383		62402		62381
	62465		62392		62397		62403
	62475		62391		62406		62433
	62486		62405		62394		62600

8

083

447084

RENISON LIMITED

PROTON MAGNETOMETER FIELD READINGS

DATE: E.L. 42/71 LOCATION: NORTH EAST DUNDAS TRAM LINE 0

Readings every 10m along track.

Page 8 of 8.

Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading	Location	Corrected Reading
	62625		62257		62186		
	62375		62244		62232		
	62517		62240		62298		
	62443		62229		62452		
Track to Silver Saddle	62401		62222		62572		
	62365		62220		62609		
	62326		62216		62484		
	62297		62200		62377		
	62278		62186		62331		
	62270		62176		62304		
	62274		62172		62289		
	62219		62168		62283		
	62344		62159		62274		
	62403		62148		62257		
	62382		62136		62306		
	62402		62131		62315		
	62428		62130		62328		
	62438		62128		62334		
	62463		62128		62366		
	62458		62116		62391		
	62443		62106		62412		
	62432		62100		62427		
	62413		62093		62421		
	62386		62092	Renison Line 1590oN 00m.	62443.		
	62370		62084		END.		
	62399		62135				
	62348		62119				
	62342		62107				
	62334		62143				
	62275		62152				

APPENDIX 5

DIAMOND DRILL HOLE LOGS:

S 386, S 388,

MFP124, MFP125 (E.Z.COY.)

085

RENISON LIMITED – DIAMOND DRILL RECORD

447086

HOLE NUMBER	S386	SURVEY Depth	SURVEY Bearing	SURVEY Dip	From – To	Distance D	VERTICAL D. Sin Dip	VERTICAL R.L.	HORIZONTAL D. Cos Dip	HORIZONTAL Prog. Total
PURPOSE	To test the Owen Meredith shear zone 200m N. of S370.	Collar	242°14'	-79°26'	0-37.5	37.5	36.86	2114.15	6.88	6.88
		75	244.5°	-76°	-100.3	62.8	60.93	2053.22	15.19	22.07
		125.5	243°	-74.7°	-157.8	57.5	55.46	1997.76	15.17	37.24
LOCATION	N. bank of Crimson Creek off the Pieman Road.	190	244°	-71°	-216.5	58.7	55.50	1942.26	19.11	56.35
		243	246°	-67°	-243	26.5	24.39	1917.87	10.35	66.70
COLLAR R.L.	2151.01m.									
CO-ORDINATES	21820.08 N. 14518.52 E.									
LENGTH	243.0m.									
HOLE SIZE	0.0 - 3.2m. HX 3.2 - 18.3m HQ 18.3 - 155.5 NQ	155.5	- 243.0	- BQ						
COMMENCED	17.9.75									
COMPLETED	8.10.75									
SIGNIFICANT CORE LOSS ZONES	10m HQ casing left in the hole.									
ORE ZONE GROUND CONDITIONS										
LOGGED BY	P.R. Stephenson									
COMMENTS	The sequence intersected is similar to that in S370. The lithologies and thicknesses below the haematite trachyte are comparable to the mine sequence, but structural evidence suggest a more disturbed (?shallower water) depositional environment.									

clines Dep.

SUMMARY – ASSAY DATA

LODE NAME	FROM	TO	LENGTH (m.)	AVERAGE WEIGHTED ASSAYS Sn. %	Cu.	As.	S.	Pb	Zn	Bi	Ag g/t
Owen Meredith	72.1	73.2	1.1	0.06	0.06	<0.10	3.30	0.11	0.25	0.003	10

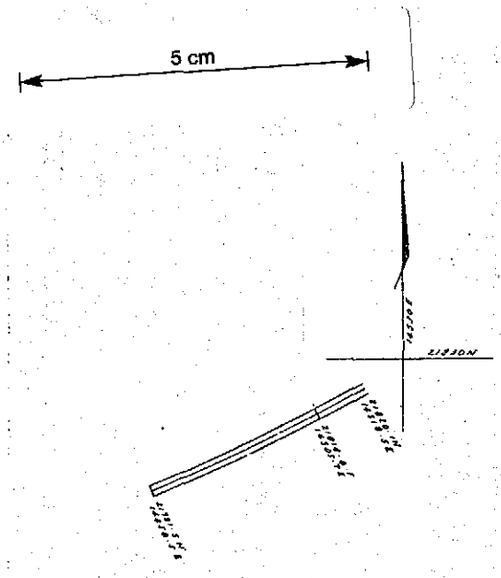
SUMMARY METALLURGICAL DATA COMPOSITE SAMPLE

LODE NAME	FROM	TO	Sn.	Cu.	As.	S	Ca F_2	Ag.	Bi		Sn - Rec.	Cu - Rec.	Carb.	Silic.	S.G.

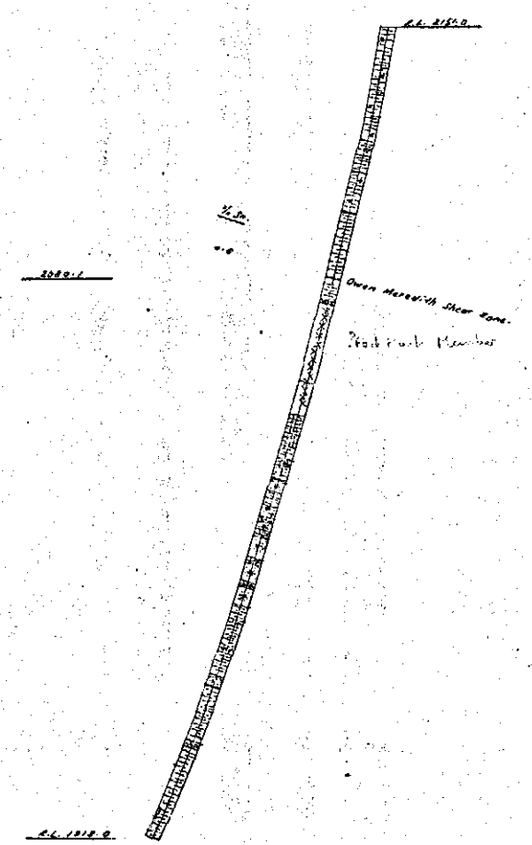
HOLE No.: S 386

SCALE:

DIAMOND DRILL HOLE PLOT



PLAN



086

RENISON LIMITED

PAGE 1

DIAMOND DRILL RECORD

447088

HOLE NUMBER S366

LOGS DBY P.R. Stephenson

INTERVAL (m) FROM	TO	RECOVERY m	%		DESCRIPTION	FORMATION
0.0	3.2	0.6	19	OXIDISED ? SILTSTONE	Well bedded orange - brown soft argillaceous rock. Very broken and poor recovery. B.C.A. 65°.	Crimson Creek Formation
3.2	36.7	25.9	77	SILTSTONE AND TUFFS	Interbedded grey siltstones and fine-grained dark grey tuffs; occasional fine-grained sandstone bands. Well bedded. B.C.A. 45-65°. Very broken core to 17m; approx. 50% recovery. At least 2 generations of late stage calcite veining, strongly developed in places. Tuff content decreases with depth.	
36.7	41.7	4.7	94	DARK GREY SILTSTONE	Dark grey very fine grained siltstone. Gradational contact with preceding unit. Darker bands of higher carbon content occur. B.C.A. - 30°. Several bedding planes show slickensliding. Thin veins and patches of calcite.	
41.7	53.3	11.5	99	SILTSTONES, MINOR TUFFS.	Light grey medium grained siltstone with bands of fine-grained siltstone, and occasionally grading into the previous unit. B.C.A. 45-70°. Very minor tuff bands. Thin calcite veinlets occur, concordant with and discordant to bedding.	
53.3	62.4	9.1	100	SILTSTONES WITH PYRITE	Fawn and light grey siltstones, *calcareous in part*, with dark grey carbonaceous siltstones. Well bedded. B.C.A. = 30-50°. Some sedimentary slumping. Pyrite is ubiquitous - occurring as thin lenses and pods along bedding planes and in coarser crystals associated with calcite veining. Calcite veins fairly common.	
62.4	78.9	15.0	91	SHEARED CARBONACEOUS *SILTSTONES*	Dark grey carbonaceous siltstone. *Bedded.* B.C.A. 40-50°. Shearing along bedding planes very common, with thinning and squeezing out of beds. This contortion reaches a maximum between 71.3 and 73.0m, where the core is brecciated.	

ASSAYS

FROM	TO	Sn	S	As	Cu	Pb	Zn	Bi	Ag g/t	Au g/t
53.3	54.3	0.06	1.75	<0.10	0.07	0.003	0.016	0.003	1	10
54.3	55.3	0.05	4.31	"	0.07	0.003	0.011	0.003	1	5
55.3	56.3	0.05	4.13	"	0.05	0.003	0.010	0.002	2	5
56.3	57.3	0.05	4.40	"	0.07	0.002	0.010	0.002	1	10
57.3	58.3	0.06	4.26	"	0.07	0.002	0.020	0.002	2	10
58.3	59.3	0.05	3.69	"	0.07	0.003	0.014	0.003	2	10
59.3	60.3	0.04	3.49	"	0.06	0.003	0.013	0.003	1	5
60.3	61.3	0.05	3.20	"	0.06	0.002	0.014	0.002	2	10
61.3	62.4	0.05	3.98	"	0.07	0.003	0.015	0.002	1	15
62.4	63.4	0.05	2.33	"	0.06	0.002	0.013	0.002	1	15
63.4	64.4	0.06	2.84	"	0.06	0.003	0.015	0.002	1	10
64.4	65.4	0.05	2.98	"	0.06	0.003	0.016	0.002	1	<5
65.4	66.4	0.05	2.16	"	0.05	0.002	0.013	0.003	2	10
66.4	67.4	0.04	1.79	"	0.06	0.004	0.014	0.002	1	5
67.4	68.4	0.06	2.45	"	0.07	0.004	0.015	0.003	<1	5
68.4	69.4	0.05	2.81	"	0.06	0.003	0.015	0.003	1	5
69.4	70.4	0.05	2.95	"	0.06	0.007	0.050	0.002	2	5
70.4	71.1	0.05	3.33	"	0.05	0.016	0.032	0.003	3	10
71.1	72.1	0.05	2.41	"	0.06	0.052	0.060	0.002	5	5
72.1	72.2	0.06	3.73	"	0.06	0.096	0.20	0.002	11	10
72.2	73.2	0.05	3.26	"	0.06	0.110	0.25	0.003	10	20
73.2	74.2	0.08	1.48	"	0.05	0.041	0.050	0.002	5	5
74.2	75.2	0.06	2.52	"	0.06	0.024	0.032	0.001	8	10

DIAMOND DRILL RECORD

HOLE NUMBER S366

447089

LOGGED BY P.R. Stephenson

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORMATION
				Muddy shear zone between 72.1 and 72.2m may represent the Owen Meredith shear zone. Calcite occurs concordant and discordant with bedding and in breccia interstices. Pyrite occurs throughout as in the previous unit and also as ? syngenetic bands conformable with bedding. C.A. of shear at 72.1m = 50o	Owen Meredith Shear Zone
78.9	79.8	0.9	100	CHERT	Light grey ~~featured~~ fractured chert, weakly banded at first, with greenish bands occuring further down. B.C.A. =40°. Strongly fractured with infillings of calcite, a dark greenish matter, and minor pyrite. Becoming sheared and brecciated with depth.
79.8	82.4	2.5	96	SHEARED ? IGNEOUS ROCK	Strongly sheared soft green rock with large fragments of chert included in the first metre. Shearing most strongly developed at 80.7m and 81.0m, where carbonaceous shear zones occur. Shear C/A = 35-40°. Minor pyrite in small tight fractures.
82.4	84.6	2.1	98	GREEN IGNEOUS ROCK	Fine to medium grained rock, with abundant sinuous calcite veins. ? Xenolith of grey chert at 83.6m.
84.6	104.8	19.6	97	RED-BROWN IGNEOUS ROCK	Fine grained red-brown igneous rock with abundant calcite veins, differing little from the previous unit except in colour. Lumps of a grey-pink fine-grained cherty rock are common, up to 20cm in diameter, and are always bounded by green ? tremolite alteration zones. Zones of the green igneous rock between 101.2 and 102.8m, with water hit at 102.4m.
104.8	113.4	8.6	100	GREEN IGNEOUS ROCK	Light green igneous rock with calcite veining. Zoned ? cherts also occur as in the previous unit. Last metre is a black colour.
At 113.4				QUARTZ ZONE	Quartz filled shear zone. ? fault.

ASSAYS FROM	TO	Sn	S	As	Cu	Pb	Zn	B	Ag g/t	Au g/t
75.2	76.2	0.06	2.05	<0.10	0.07	0.011	0.014	0.002	5	10
76.2	77.2	0.07	1.59	"	0.06	0.015	0.027	0.001	3	5
77.2	78.2	0.07	0.91	<0.10	0.06	0.005	0.016	0.002	2	10
78.2	78.9	0.06	0.24	"	0.06	0.005	0.014	0.001	1	< 5
78.9	79.9	0.07	0.44	"	0.05	0.004	0.010	0.001	1	<5

DIAMOND DRILL RECORD

HOLE NUMBER: S 356

447090

LOGGED BY: P.R. Stephenson.

INTERVAL (m) FROM	TO	m	RECOVERY %	DESCRIPTION		FORMATION
113.4	124.8	9.4	88	DOLOMITE	Light grey siliceous dolomite in brecciated and interlocking rounded fragments (stylolitic boundaries), the interestices being filled with a fine black carbonaceous matter. Strongly fractured and tectonically brecciated with quartz filled interstices and fractures. Core strongly broken and fragmented. Band (4cm) of red cherty rock at 124.1m.	?No.1 Horizon
124.1	133.2	8.4	92	DOLOMITE & SILTSTONE	Interbedded cherty dolomite and dark grey siltstone. B.C.A. = 70°. Except as described below, generally weakly veined with quartz, although fairly broken. 126.0 – 126.4m Strongly brecciated. 131.9 – 133.2m Strongly brecciated core with abundant quartz filling interstices.	?No.1 Horizon
133.2	135.6	1.9	79	TUFFS	Finely banded coarse tuffaceous and fragmental sediments. The fragments are generally less than 5mm long, with some of a ? porphyritic igneous rock up to 6cm. B.C.A. = 40°. Pyrite is common as accumulations up to 1cm in diameter occurring within certain bands. Quartz veining is common. The first part of the unit is very broken.	thinned out blobs and
135.6	140.2	4.5	98	BLACK SHALE	Black carbonaceous shale. Very weakly bedded. B.C.A. =?50-60°. Some pyrite occurs in bands ? parallel to bedding. A few angular fragments of siltstone occur in places. Both upper and lower contacts are sheared and brecciated with abundant quartz.	
140.2	142.6	2.4	100	TUFFS	Light grey finely banded tuffs with some rock fragments up to 5cm. Slumping very common and B.C.A. very variable, 0° – 60°. Pyrite very common up to 3cm as lumps within bands distorting bedding, and disseminated along bedding planes.	

ASSAYS

FROM	TO	Sn	S	As	Cu	Pb	Zn	Bi	Ag	W033A
113.4	114.4	0.05	0.38	<0.10	0.05	0.003	0.007	0.001	3	10
114.4	115.4	0.06	0.06	"	"	0.002	0.008	0.001	3	5
115.4	116.4	0.05	0.08	"	"	0.002	0.007	0.001	2	<5
116.4	117.4	0.07	0.07	"	"	0.002	0.005	0.001	2	5
117.4	118.4	0.06	0.11	"	"	0.002	0.007	0.003	2	<5
118.4	119.4	0.06	0.03	"	"	0.002	0.005	0.001	3	<5
119.4	120.4	0.05	0.08	"	"	0.002	0.010	0.001	2	<5
120.4	121.4	0.06	0.07	"	"	0.003	0.009	0.004	3	5
121.4	122.4	0.05	0.11	"	"	0.003	0.003	0.001	4	<5
122.4	123.4	0.07	0.04	"	"	0.002	0.016	0.003	2	<5
123.4	124.4	0.06	0.30	"	"	0.002	0.007	0.003	2	10
124.4	125.4	0.06	0.07	"	"	0.002	0.005	0.004	2	5
125.4	126.4	0.07	0.03	<0.10	0.05	0.002	0.004	0.003	2	10
126.4	127.4	0.07	<0.03	"	"	0.05	0.001	0.003	"	2	15
127.4	128.4	0.06	"	"	"	0.05	0.001	0.004	0.004	2	5
128.4	129.4	0.06	"	"	"	0.06	0.001	0.005	0.003	2	5
129.4	130.4	0.05	0.06	"	"	0.05	0.001	0.005	"	2	5
130.4	131.4	0.06	0.03	"	"	0.05	0.002	0.007	"	2	10
131.4	132.4	0.05	0.10	"	"	0.05	0.002	0.005	0.004	2	10
132.4	133.2	0.05	0.10	"	"	0.06	0.002	0.004	"	3	5
133.2	134.2	0.04	0.13	"	"	0.05	0.002	0.008	0.002	<1	5
134.2	135.6	0.04	4.78	"	"	0.05	0.004	0.012	0.003	1	15
135.6	136.6	0.06	4.60	"	"	0.07	0.033	0.10	0.001	4	<5
136.6	137.6	0.07	5.78	"	"	0.07	0.013	0.012	0.002	1	5
137.6	138.6	0.06	5.65	"	"	0.07	0.016	0.007	0.001	<1	5
138.6	139.6	0.06	5.49	"	"	0.06	0.013	0.014	<0.001	<1	5
139.6	140.2	0.05	5.97	"	"	0.06	0.008	0.015	0.001	1	<5
140.2	141.2	0.05	7.94	"	"	0.06	0.003	0.006	"	1	5
141.2	142.2	0.05	4.60	"	"	0.06	"	"	0.003	1	5
142.2	143.2	0.06	1.73	"	"	0.06	0.004	"	0.002	1	<5
143.2	144.2	0.05	1.52	"	"	0.05	0.004	0.005	0.003	1	<5
144.2	145.2	0.04	0.17	"	"	0.06	0.001	0.004	0.002	1	<5
145.2	146.2	0.06	1.04	"	"	0.06	0.002	0.005	0.003	1	<5
146.2	147.2	0.06	0.91	"	"	0.06	0.003	0.004	0.003	2	10
147.2	148.2	0.05	3.02	"	"	0.06	0.004	0.010	0.003	2	10
148.2	149.2	0.05	5.25	"	"	0.06	0.005	0.009	0.002	2	5
149.2	150.2	0.06	1.68	"	"	0.05	0.006	0.034	"	2	10
150.2	151.2	0.05	4.53	"	"	0.06	0.007	0.008	"	2	10
151.2	152.2	0.06	0.63	"	"	0.05	0.001	0.004	"	<1	20
152.2	153.2	0.05	3.00	"	"	0.06	0.004	0.017	"	2	5
153.2	154.2	0.05	0.65	"	"	0.05	0.002	0.006	"	2	10
154.2	155.2	0.06	2.73	"	"	0.06	<0.01	0.01	<0.01	<1	<5
155.2	156.2	0.05	2.16	"	"	0.05	"	<0.01	"	"	"
156.2	157.2	0.06	0.34	"	"	0.05	"	0.01	"	"	"
157.2	158.2	0.04	4.42	"	"	0.06	"	0.04	0.01	"	"
158.2	159.2	0.05	2.21	"	"	0.06	"	0.01	<0.01	"	"
159.2	160.2	0.06	1.58	"	"	0.05	"	0.012	"	"	"
160.2	161.2	0.06	2.76	"	"	0.05	"	0.010	"	"	"
161.2	162.2	0.07	0.76	"	"	0.06	"	<0.01	"	<1	"
162.2	163.2	0.07	2.54	"	"	0.06	"	0.011	"	<2	"
163.2	164.2	0.06	2.93	"	"	0.06	"	<0.01	"	<1	"
164.2	165.2	0.05	1.48	"	"	0.06	"	0.019	"	<2	"

DIAMOND DRILL RECORD

HOLE NUMBER S 386

447091

LOGGED BY P.R. Stephenson

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORMATION
				Tectonic features confined to weak fracturing - most disturbance appears to be sedimentary.	
142.6	143.9	1.3	100	COARSE ROCKS & TUFFS — Light to dark grey coarse fragments and tuffaceous rock. More fragments than previous unit. Fragments are sub-angular to sub rounded, up to 4cm, of siltstone and ? tuff. Slumped and in places brecciated with quartz veining common. B.C.A. = 45-70°. Pyrite is less abundant than previous unit and occurs round rock fragments and along bedding planes.	
143.9	145.3	1.4	100	RED CHERTS, TUFFS, SHALES. — Interbanded dark grey tuffs dark shales and pink - red cherts. Unusual rounded fragments of chert and rocks up to 2cm, with altered rims are common. B.C.A. = 50° Bedding is wrapped round the fragments. Pyrite occurs in thin bands often rimming the fragments.	? RED ROCK
145.3	170.1	24.1	97	TUFFS & CALCAREOUS BEDS — Well bedded light grey fine grained ? tuff, interbedded with calcareous siltstone, black shale, bands of pyrite and some dolomite, and interrupted by several slumped fragmental zones. The largest of these zones occurs in the first 5m, where sub-rounded fragments of dolomite, calcareous siltstone, tuff and black shale up to 6cm across occur in a black fine grained groundmass. Bedding is highly contorted. Pyrite is common as conformable bands and in fragments. Bedded zones of calcareous siltstone or dolomite with some stylolites occur within this zone. Below this zone the rocks are well bedded, the B.C.A. increasing with depth from 45° to 70°. Tuff is the most abundant and bands of pyrite, black shale, dolomite and calcareous siltstone occur regularly, with occasional slumped zones similar to the first one.	NO.2.HORIZON?

ASSAYS

FROM	TO	Sn	S	As	Cu	Pb	Zn	Ba	Ag g/t	Au g/t
165.2	166.2	0.05	4.41	<0.10	0.06	0.01	0.013	<0.01 0.003	<1	<0.01
166.2	167.2	0.05	15.1	"	0.05	"	0.002	"	= 2	<0.01
167.2	168.2	0.05	2.82	"	0.06					0.03 <0.01
168.2	169.2	0.05	1.95	"	0.06					
169.2	170.1	0.06	3.81	"	0.06					
170.1	171.1	0.06	2.21	"	0.06	0.004	0.003	0.002	1	5
171.1	172.1	0.05	0.13	"	0.06	0.001	0.007	"	2	10
172.1	173.1	0.07	1.74	"	0.05	0.002	0.008	0.001	1	<5
173.1	174.1	0.06	2.53	"	0.06	0.006	0.012	0.004	2	5
174.1	175.1	0.05	0.65	"	0.05	0.003	0.004	0.003	2	<5
175.1	176.1	0.05	2.24	"	0.05	0.005	0.006	0.002	2	5
176.1	177.1	0.05	1.50	"	0.05	0.002	0.004	"	1	5
177.1	178.1	0.06	2.19	<0.10	0.06	0.003	0.005	0.002	<1	5
178.1	179.1	0.06	2.09	"	0.06	0.002	0.005	"	<1	5
179.1	180.1	0.06	0.94	"	0.06	"	0.009	0.003	1	5
180.1	181.1	0.06	2.54	"	0.05	0.003	0.006	<0.001	<1	15
181.1	182.1	0.07	1.93	"	0.06	0.002	0.007	0.001	<1	10
182.1	183.1	0.07	1.25	"	0.06	"	0.005	<0.001	<1	5
183.1	184.1	0.06	1.89	"	0.06	"	0.005	0.002	1	<5
184.1	185.1	0.06	2.17	"	0.05	"	0.005	0.003	1	10
185.1	186.1	0.07	1.49	"	0.06	0.003	0.005	0.002	1	<5
186.1	187.1	0.07	1.66	"	0.06	"	0.006	"	1	15
187.1	188.1	0.07	0.63	"	0.05	0.006	0.052	0.004	1	15
188.1	189.1	0.06	1.52	"	"	0.003	0.007	0.002	<1	5
189.1	190.1	0.07	1.73	"	"	0.004	0.008	"	1	5
190.1	191.1	0.07	1.55	"	0.06	0.011	0.024	0.001	2	5
191.1	191.8	0.06	2.34	"	0.05	0.017	0.038	<0.001	1	<5
191.8	192.8	0.06	0.83	"	"	<0.01	<0.01	<0.01	<3	<5
192.8	193.8	0.06	0.27	"	"	"	0.01	"	<3	
193.8	194.7	0.06	0.57	"	"	"	"	"	<1	
194.7	195.7	0.07	0.76	"	"	"	<0.01	"	<1	
195.7	196.7	0.07	0.28	"	0.04	"	0.01	"	<1	
196.7	197.7	0.06	0.17	"	0.05	"	"	"	<2	
197.7	198.7	0.06	0.34	"	"	"	<0.01	"	<2	
198.7	199.7	0.06	0.21	"	"	"	0.01	"	<1	
199.7	200.7	0.06	0.11	"	"	"	0.01	"	<2	
200.7	201.7	0.06	0.41	"	"	"	0.01	"	<1	
201.7	202.7	0.06	0.23	"	"	"	<0.01	"	<1	
202.7	203.7	0.05	0.11	"	"	"	<0.01	"	<1	
203.7	204.7	0.06	0.11	"	"	"	<0.01	"	<1	
204.7	205.7	0.06	0.19	"	"	"	<0.01	"	<1	
205.7	206.7	0.06	0.27	"	"	"	<0.01	"	<1	<1
206.7	207.7	0.06	0.11	"	0.06	"	<0.01	"	<1	
207.7	208.7	0.06	0.36	"	0.05	"	"	"	<1	
208.7	209.7	0.06	0.38	"	0.06	"	0.01	"	<1	
209.7	210.7	0.06	0.25	"	0.06	"	0.012	"	<1	
210.7	211.7	0.06	0.19	"	0.05	"	0.010	"	<1	
211.7	212.7	0.06	0.82	"	0.06	"	<0.01	"	<1	
212.7	213.7	0.06	0.42	"	0.05	"	"	"	<1	
213.7	214.7	0.06	0.28	"	0.04	"	"	"	<1	
214.7	215.7	0.06	0.44	"	0.05	"	"	"	<1	
215.7	216.7	0.07	0.84	"	0.06	"	"	"	<1	

DIAMOND DRILL RECORD

HOLE NUMBER: S 386.

LOGGED BY: P.R. Stephenson

447092

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORMATION
170.1	191.8	21.5	99	**CARBONACEOUS SILTSTONE WITH CALCAREOUS BANDS** Laminated dark grey carbonaceous siltstone, with light grey bands of calcareous siltstone and dolomite. Syngenetic bedded pyrite is very common, and tends to associate with the calcareous beds. Well bedded. B.C.A. = 65°. Minor slumping and micro-faulting. Pyrite also forms blebs within beds. 174.2-175.3m impure dolomite horizon with interbedded carbonaceous siltstone. Pre-consolidation quartz veins occur.	RENISON BELL MEMBER
191.8	194.7	2.9	100	**DOLOMITE** Light grey stylotic dolomite. Fine carbonaceous silty bands form 10% of the rock down to 193.8m below which it forms 40% of the rock. B.C.A.=65° Fine bands of sygenetic pyrite occur especially in association with the silty bands.	? No.3 Horizon
194.7	211.0	16.3	100	**CARBONACEOUS SILTSTONE WITH CALCAREOUS BEDS** Light to dark grey laminated carbonaceous siltstone with interbeds of calcareous (or dolomitic) beds. Very similar to 170.1 - 191.8m except that the calcareous bands now form 40% of the rock. Well bedded. B.C.A. = 70°. Pyrite again very common as lenses, disseminations and blebs along bedding planes. Some sedimentary slumping.	? DALCOATH MEMBER
211.0	243.0	32.0	100	**CARBONACEOUS AND SILICEOUS SILTSTONE** Dark grey laminated carbonaceous siltstone interbedded with light grey siliceous siltstone. The main difference from the previous unit is the absence of carbonate in the light grey bands. Well bedded. B.C.A. = 65-75°. Sedimentary slumping fairly common increasing with depth. Occasional quartz and dolomite filled breccia zones. Pyrite very common as disseminations, blebs and lenses along bedding planes.	
				END OF HOLE	

ASSAYS

FROM	TO	Sn	S	As	Cu	Pb	Zn	Bi	Ag	Au
216.7	217.7	0.06	0.54	<0.10	0.05	<0.01	<0.01	<0.01	< 1	<0.05
217.7	218.7	0.06	0.31	"	"	"	"	"	< 1	-
218.7	219.7	0.06	0.30	"	"	"	"	"	< 1	-
219.7	220.7	0.06	1.06	"	"	"	"	"	< 1	-
220.7	221.7	0.06	0.72	"	"	"	"	"	< 1	-
221.7	222.7	0.06	2.07	"	"	"	"	"	< 1	-
222.7	223.7	0.06	1.30	"	"	"	0.01	"	< 1	-
223.7	224.7	0.06	0.87	"	"	"	<0.01	"	< 1	-
224.7	225.7	0.06	0.77	"	"	"	<0.01	"	< 1	-
225.7	226.7	0.06	0.42	"	"	"	"	"	< 1	-
226.7	227.7	0.06	0.52	"	"	0.004	0.002	"	< 1	-
227.7	228.7	0.06	0.99	"	"	0.002	"	"	< 1	-
228.7	229.7	0.06	0.38	<0.10	0.04	0.003	0.001	<0.001	<1	-
229.7	230.7	0.06	0.46	"	0.05	0.004	0.002	"	< 1	-
230.7	231.7	0.05	0.80	"	"	0.003	"	"	<1	-
231.7	232.7	0.05	1.36	"	"	0.005	0.003	"	"	-
232.7	233.7	0.06	1.49	"	"	0.003	"	"	"	-
233.7	234.7	0.06	0.89	"	"	0.004	0.005	"	"	-
234.7	235.7	0.07	0.45	"	0.06	0.005	0.003	"	"	-
235.7	236.7	0.07	0.64	"	0.06	0.004	0.003	"	"	-
236.7	237.7	0.07	1.14	"	0.05	0.003	0.002	"	"	-
237.7	238.7	0.07	0.82	"	0.06	0.005	0.012	"	"	-
238.7	239.7	0.07	0.85	"	0.06	0.007	0.003	"	"	-
239.7	240.7	0.07	1.34	"	0.06	0.004	0.005	"	"	-
240.7	241.7	0.06	2.15	"	0.05	0.005	0.004	"	"	-
241.7	243.0	0.07	1.34	"	0.05	0.006	0.003	"	"	-

091

RENISON LIMITED – DIAMOND DRILL RECORD

447093

HOLE NUMBER	9386	SURVEY Depth	SURVEY Bearing	SURVEY Dip	From – To	Distance D	VERTICAL D. Sin Dip	VERTICAL R.L.	HORIZONTAL D. Cos Dip	HORIZONTAL Prog. Total
PURPOSE	To test the Owen Meredith shear zone 200m N of 9370	for details of survey and assay results, see Stephenson's log.								
LOCATION	N bank of Crimson Creek off Pieman Rd.									
COLLAR R.L.	2151.01m									
CO-ORDINATES	21820.08N 14518.32E									
LENGTH	243.0m									
HOLE SIZE	0.0 – 3.2m Hx 3.2 –18.3m HQ 18.3 –155.5m NQ									
COMMENCED	17.9.75									
COMPLETED	8.10.75									
SIGNIFICANT CORE LOSS ZONES	10m HQ coring left in hole.									
ORE ZONE GROUND CONDITIONS										
LOGGED BY	J.P. KELLEHER									
COMMENTS	This log is a reinterpretation of Stephenson's log using the stratigraphic nomenclature employed on the Argent Grid to aid correlation. It serves only to give the broad rock type lithologies. For more detailed information, refer to Stephesons log.									

SUMMARY – ASSAY DATA

LODE NAME	FROM	TO	LENGTH (m.)	AVERAGE WEIGHTED ASSAYS Sn.	Cu.	As.	S.	Pb	Zn	Bi	Ag g/t
Owen Meredith	72.1	73.2	1.1	0.06	0.06	<0.10	3.30	0.11	0.29	0.003	10

SUMMARY METALLURGICAL DATA COMPOSITE SAMPLE

LODE NAME	FROM	TO	Sn.	Cu.	As.	S	Cs F_2	Ag.	Bi		Sn - Rec.	Cu - Rec.	Carb.	Shic.	U.G.

DIAMOND DRILL RECORD

HOLE NUMBER : S386

LOGGED BY : J.P.K.

447094

INTERVAL (m) FROM	TO	RECOVERY (m)	%	DESCRIPTION	FORM.
0	12			Very broken and altered pale yellow to dark green-grey tuffaceous siltstone.	U.C.C.F.
12	62.2			Pale grey-green fine grained, siltstone with minor pyroclastic lenses. Carbonaceous shale lenses and pelets common. From 38m interbedded black fine grained shale becomes more common. BCA's average 50°.	
62.2	70.0			Dark grey to black impure dolomite. Rock is highly calcareous with a high carbonaceous content. Carbonaceous and calcareous material appears to have been deposited contemporaneously. BCA's average 60° - 70°.	L.C.C.F.
70.0	72.1			Dark grey to black very altered and contorted carbonaceous shale with minor calcareous zones. BCA's average 50°.	
72.1	72.2			Pug zone of carbonaceous mud. Fault?	Owen Meredith Shear.
72.2	78.3			Black contorted carbonaceous shale that appears to have been silicified. Rock could be described as a carbonaceous chert.	
78.3	82.5			Pale grey to green very hard chert. Rock grades into an altered pyroclastic with minor dolomitic zones.	
82.5	87.5			Pale green very altered fine grained igneous rock. Calcite veining very common. Rock similar to that intersected in 5370 at 105m - 106m, and 132.4m - 133.8m. Appears to be an alteration halo around the following rock.	
87.5	104.8			Dark hematitic red fine grained igneous? rock. Probably equivalent to hematitic trachyte in 5370. Calcite veining very common.	
104.8	108.6			Same as 82.5 - 87.5	
108.6	132.7			Pale grey very hard siliceous impure dolomite. Second generation calcite veining common. Stylolites common. BCA's average 70° - 80°. Core brecciated and quartzose from 116.3m to 118.1m. Possible fault? Fragments of dolomite occur within a carbonaceous gangue.	
132.7	134.8			Broken core of quartz and carbonaceous siliceous shale and chert in a breccia. Fault?	Fault?
134.8	140.5			Black hard carbonaceous chert or carbonaceous siliceous siltstone. Syngenetic pyrite common. BCA's average 65° - 70°.	LCCF

% Sn. FROM	TO	TOTAL	As STAN.	% Cu.	% As	% S.	% Pb.	% Zn.	% Bi.	g/t Ag.	g/t WO3

GENERAL ROCK TYPES

Pyroclastics.

Pyroclastics/carbonaceous shale.

Dolomite.

Shear.

Carbonaceous chert.

Chert & pyroclastic

Hematitic trachyte

Dolomite.

Fault?

Carbonaceous chert.

093

RENISON LIMITED

PAGE

DIAMOND DRILL RECORD

HOLE NUMBER : S3E6

LOGGED BY : J.P.K.

447095

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORM.	% Sn. FROM	TO	TOTAL	As STAN.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag.	g/t WO$_3$
										GENERAL ROCK TYPES							
140.5	148.9			Hard siliceous impure dolomite interbedded with carbonaceous shale and chert. Syngenetic pyrite very common. Rock grades into an impure oolitic chert with syngenetic pyrite to 145.5m.													
				From 145.5m cherts grade into impure tuff-breccia - chert with large angular fragments to 3cm common. Gangue material is a fine, hard, black, silica.						Dolomite/tuff/breccia							
148.9	168			Pale grey, very fine grained calcareous siliceous siltstone and chert interbedded rock is very impure with carbonaceous material along bedding planes. Brecciation is common with angular fragmentation of dolomite at 160.4m.						Chert/carbonate/siltstone.							
				Interbedded chert and carbonate continue to 168m.													
168	191.8			Dark grey to black well laminated fine grained carbonaceous shale. Syngenetic pyrite common along bedding planes. Bedded patches of carbonate also common. Rock is much softer than the preceding units.						Carbonaceous shale.							
191.8	194.6			Massive grey stycilitic dolomite.. Second generation calcite, veinlets very common. BCA's average 70°-80°.						Dolomite							
194.6	209			Dark grey interbedded carbonaceous siltstone and dolomite BCA's average 80° - 90°.													
209	243.0			Dark grey to black fine grained sequence of well laminated siltstone. Sequence resembles a turbidite with minor slumping. Rock remarkably uniform in grain size and texture. Carbonate common along bedding planes. BCA's average 80° - 90°.						Siltstones/shales							
				End of Hole.													

034

RENISON LIMITED – DIAMOND DRILL RECORD

447096

HOLE NUMBER	S388	SURVEY Depth	SURVEY Bearing	SURVEY Dip	From – To	Distance D	VERTICAL D. Sin Dip	VERTICAL R.L.	HORIZONTAL D. Cos Dip	HORIZONTAL Prog. Total
PURPOSE	To test the Owen Meredith shear zone 200m south of S370.	Collar	234°11'	-79°59'	0-24	24.0	23.6	2156.0	4.2	4.2
		48	245°	-79°	-61.5	37.5	36.8	2119.2	7.2	11.4
		75	248°	-78°	-107	45.5	44.5	2074.7	9.5	20.9
LOCATION	Off the Pieman road	139	251°	-75.8°	-167	60.0	58.2	2016.5	14.7	35.6
		195	239°	-74.9°	-223.8	56.8	54.7	1961.8	15.4	51.0
COLLAR R.L.	2179.6m	252.5	246°	-74°	-252.5	28.7	27.6	1934.2	7.9	58.9
CO-ORDINATES	21417.92 N 14593.55 E									
LENGTH	252.5m									
HOLE SIZE	0.0 - 15.0m Hq 15.0 - 171.3m Nq 171.3 - 252.5m Bq									
COMMENCED	10-10-75									
COMPLETED	30-10-75									
SIGNIFICANT CORE LOSS ZONES										
ORE ZONE GROUND CONDITIONS										
LOGGED BY	P.R.STEPHENSON									
COMMENTS	The Owen Meredith Lode was barren. The sequence intersected can be compared with the mine sequence, but differs slightly from the intersections in S370 and S386.									

SUMMARY – ASSAY DATA

LODE NAME	FROM	TO	LENGTH (m.)	AVERAGE WEIGHTED ASSAYS Sn.	Cu.	As.	S.	% Pb	% Zn	% Bi	g/t Ag
Owen-Meredith Lode	80.2	83.1	2.9	0.04	0.06	< 0.10	1.41	0.0343	0.0293	0.0053	15

SUMMARY METALLURGICAL DATA COMPOSITE SAMPLE

LODE NAME	FROM	TO	Sn.	Cu.	As.	S	$Ca F_2$	Ag.	Bi		Sn - Rec.	Cu - Rec.	Carb.	Silic.	S.G.

096

RENISON LIMITED

DIAMOND DRILL RECORD

HOLE NUMBER : S388

LOGGED BY : P.STEPHENSON

4470971

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORM.	% Sn. FROM	TO	TOTAL	As STAN.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag.	g/t WO₃
0.0	28.8	24.8	86	SILTSTONES/TUFFS Grey, green and red-brown interbedded siltstones and tuffs. Well bedded BCA = 40-50°. Very broken core with poor recovery down to 29m. Weak brecciation and shearing in places. Base of oxidation 1.5m. Contact with following unit is a thin leached, vuggy sheer zone making a core angle of 20° possibly a fault.	Crimson Creek Formation												
28.8	32.9	4.1	100	CALCAREOUS SILTSTONES AND TUFFS Green fine grained calcareous siltstones and green calcareous medium grained tuffs, in alternating beds. BCA = 40-50°. Minor calcite veins with traces of pyrrhotite.													
32.9	33.3	0.4	100	? LIMESTONE Dark grey green, compact, highly calcareous rock - ? limestone.													
33.3	47.8	13.5	93	CALCAREOUS SILTSTONES AND TUFFS Calcareous green siltstones and tuffs, similar to 28.8 - 32.9. Well bedded, with fine bedding and sharply defined and frequent colour changes. BCA = 40-50°. Occasional cross bedding. Calcite veins are common and frequent micro - faults are infilled with calcite. Carbonaceous tuff band with? syngenetic pyrite at 42.6m. 43.3 - 44.4m. Very broken carbonaceous zone with quartz veining and leaching - probable fault. Rocks below 44.4m are the same lithologies as before but more disturbed.													
47.8	49.8	2.0	100	CALCAREOUS AND CARBONACEOUS TUFFS AND SILTSTONES Light grey calcareous tuffs and siltstones intermixed with dark grey carbonaceous silty rocks with very common ? syngenetic pyrite as blebs and broken bands parallel to bedding. Rocks slumped and brecciated - BCA approx. 50°. Frequent calcite veining occasionally carrying pyrite.		47.8 48.8	48.8 49.8	0.03 0.03		0.06 0.06	<0.10 <0.10	2.42 2.38					
49.8	49.9	0.1	100	BRECCIA Calcite filled breccia zone, possible fault.		49.8	50.8	0.03		0.06	<0.10	3.04					
49.9	53.9	3.9	98	CALCAREOUS TUFFS Very calcareous light grey - dark grey tuffs. BCA decreases steadily from 70° to 40° at the end. Pyrite common at first in bands parallel to bedding and in cross-cutting veins; decreases with depth. Calcite veining frequent.		50.8 51.8 52.8	51.8 52.8 53.8	0.03 0.04 0.03		0.06 0.06 0.06	<0.10 <0.10 <0.10	3.51 0.55 0.45					
53.9	57.2	3.3	100	SHEARED CARBONACEOUS SILTSTONE Sheared and brecciated carbonaceous siltstone with calcareous bands. Strongest shearing in the last 0.5m - C.A. ~ 25°. Blebs and broken bands of pyrite are common. Calcite and dolomite veining is common, increasing in amount with depth.		53.8 54.8 55.8	54.8 55.8 57.2	0.04 0.05 0.04		0.06 0.03 0.06	<0.10 <" <0.10	1.77 0.92 2.76					

DIAMOND DRILL RECORD

HOLE NUMBER : S388

LOGGED BY : P.R. STEPHENSON

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORM.	% Sn. FROM	TO	TOTAL	As STAN	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag.	g/t WO_3
57.2	57.45	0.25	100	BRECCIA WITH PYRITE Brecciated light grey rock with frequent blebs and patches of pyrite. Zone completely shot through with small calcite veins making the whole rock appear calcareous. At least some of the pyrite appears to occur as bands broken with the beds.	Crimson Creek Form.	57.2	57.45	0.03		0.06	<0.10	0.62					
57.45	80.2	22.75	100	SHEARED SILTSTONES & ? TUFFS Sheared, fragmented and occasionally brecciated dark grey carbonaceous siltstone, light grey siltstones or tuffs, and grey calcareous beds. Beds are very strongly deformed and intermixed. Calcareous beds decrease with depth. Carbonaceous content decreases in amount below 63m, but becomes dominant again below 74m. Some blebs of pyrite occur mainly associated with carbonaceous beds. Calcite veining frequent. Broken shear zone at 70.0m. Star shaped calcite nodules up to 1cm in diameter occur in some of the carbonaceous beds.		57.45 58.45 59.45	58.45 59.45 60.45	0.04 0.04 0.05		0.06 0.05 0.05	<0.10 " "	0.42 1.48 1.37					
80.2	82.3	2.1	100	BRECCIATED SILTSTONES & TUFFS Black carbonaceous siltstone and lighter grey siltstones and tuffs. Strongly brecciated with abundant quartz veins and fragments and dolomite veins; much of the carbonate has been leached. Trace amounts of pyrite.	Owen Meredith Shear Zone	80.2 81.2	81.2 82.3	0.04 0.04		0.06 0.06	<0.10 "	0.32 2.35	0.0205 0.0195	0.0070 0.0315	0.0055 0.0045	12 10	
82.3	83.1	0.8	100	SHEAR ZONE Strongly sheared graphitic siltstone. Shear C.A. = 30°. Carbonate and quartz abundant. Minor blebs of pyrite.		82.3	83.1	0.03		0.06	<0.10	1.48	0.0530	0.0075	0.0060	23	
83.1	99.0	15.9	100	DEFORMED SILTSTONES Light grey siltstones and dark grey carbonaceous siltstones with occasional calcareous zones. Well banded and in undisturbed zones, BCA = 40°. Very strongly slumped and fragmented (? diagenetic slumping). Dolomite veins varying from early to late stage are very common and often leached. Occasional tectonic shearing with a more strongly developed dolomite - filled shear zone at 91m. Pyrite is common as fragmented bands concordant with bedding and as blebs which are possibly replacing calcareous fragments or small calcite nodules.	Crimson Creek Form.	94.2	95.2	0.02		0.06	<0.10	0.78	0.006	0.005	<0.001	1	<100
99.0	103.8	4.8	100	DOLOMITE & CARBONACEOUS SILTSTONE Pale grey dolomite inter slumped with carbonaceous siltstone. Stylolites containing residual carbon are very common. BCA varies from 45-60°. Fine fracturing and micro faulting well developed in the dolomite. Very minor blebs of pyrite in the dolomite.	"												

DIAMOND DRILL RECORD

HOLE NUMBER : S388

LOGGED BY : P.R. STEPHENSON

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORM.	% Sn. FROM	TO	TOTAL	As STAN	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag.	g/t WO$_3$
103.8	105.2	1.4	100	SILTSTONES WITH DOLOMITE Light grey siltstone with dark grey siltstone and dolomite bands and fragments. Very variable bedding. BCA = 0-60°. Less competent bands strongly streaked out, and more competent bands fragmented. Pyrite very common as fragmented bands and as blebs ? replacing calcareous fragments. Similar to 83.1 - 99.0 but with more dolomite.	CCF	103.8	104.8	0.01		0.06	<0.10	1.27	0.008	0.007	<0.001	1	<100
105.2	106.5	1.3	100	DOLOMITE Light grey dolomite with minor black siltstone. BCA not visible. Carbonaceous stylolites common, and a faint but pervasive fracture system developed. Late stage carbonate/quartz veins developed.													
106.5	110.2	3.7	100	BLACK SILTSTONE Black carbonaceous siltstones with light grey siltstone and dolomitic fragments. BCA varies from 10-45°. The dolomitic bands have been fragmented while the incompetent siltstones have been strongly streaked out. Pyrite blebs occur throughout ranging up to 5cm. They again appear to be associated with dolomitic fragments.	"	109.2	110.2	0.01		0.06	<0.10	0.39	0.004	0.007	<0.001	1	<100
110.2	112.3	2.1	100	DOLOMITE Light grey dolomite interbedded with a darker grey weakly calcareous siltstone. Bedding evident - BCA = 40° Stylolites developed. Tectonically brecciated and recemented. Late stage dolomite and quartz veins common. Last 0.2m is more coarsely crystalline dolomite with several blebs of galena.	"												
112.3	114.4	2.1	100	SILTSTONES Light grey siltstone with dark grey carbonaceous siltstone. Streaked out and slumped. BCA = 70°. Pyrite is common as fragmented bands, blebs and disseminations.	"												
114.4	124.6	10.2	100	SILTSTONES WITH TUFFS Light grey and green siltstones with more competent tuffaceous beds and minor amounts of carbonaceous siltstones. Siltstones are strongly streaked out, slumped and contorted and BCA varies from 0-90°. Tuff bands are fractured. Late stage dolomite and quartz veins are fairly common. Very minor pyrite. Occasional star-shaped calcite nodules. Contortion increases with depth.	"												

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RENISON LIMITED

DIAMOND DRILL RECORD

HOLE NUMBER : S388

LOGGED BY : P.R. STEPHENSON.

447100

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORM.	% Sn. FROM	TO	TOTAL	As STAN.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag.	g/t WO_3
124.6	142.8	18.2	100	DARK GREY SILTSTONES Dark grey siltstones; minor grey-green siltstones and minor tuff bands. Very strongly streaked out and contorted with very variable BCA. Differs from the previous unit only in being carbonaceous. Rare blebs of pyrite. Dolomite/quartz veins fairly common. 130.3 - 131.6m Grey-green siltstone as in previous unit. Large (3cm) ovoid radiating calcite growths at 139.7m.	C.C.F												
142.8	147.8	5.0	100	GREEN-GREY SILTSTONES Light green, grey and fawn siltstones. Very similar to 114.4 - 124.6m. Streaked out ? parallel to bedding. BCA variable but generally 70°. Small radiating calcite nodules common. Occasional dolomite/quartz veins.													
147.8	177.7	29.5	99	SILTSTONES Banded light grey and dark grey siltstones with minor ? tuffs. BCA varies from 45 to 70° but generally steepens with depth; much more uniformly banded than previous units. Microfaulting and intraformational slumping common. Occasional thin dolomitic bands with numerous dolomite veins cutting at right angles to the bedding. Late stage quartz and dolomite veins common. Pyrite is common in the darker siltstones as bands and blebs parallel to bedding. Strong quartz veining in the last half metre with a 1m core loss around the contact with the unit - possibly faulted.												
177.2	180.5	2.8	100	CHERT, SILTSTONE Grey, hard, fine grained chert, interbedded with light grey soft siltstone. BCA varies from 25 to 80°, generally steepening with depth. Strongly developed fine fracture system with infillings of quartz calcite and a fine black matter. Towards the end, the cherts become pinkish.													
180.5	180.7	0.2	100	BRECCIATED CHERT Brecciated bedded pink chert. BCA = 60°. Brecciation healed with abundant quartz, and quartz veining frequent. Grades into next unit - possibly some rock but silicified.													
180.7	181.7	1.0	100	RED SILTSTONE Red homogeneous siltstone. Some bands of a deeper red. BCA = 50° (Fander - 181.3m).													

100

DIAMOND DRILL RECORD

HOLE NUMBER : S388

LOGGED BY : P R STEPHENSEN

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORM.	% Sn. FROM	TO	TOTAL	As STAN.	% Cu.	% As.	% S.	% Pb	% Zn.	% Bi.	g/t Ag.	g/t WO₃
181.7	185.7	4.0	100	BRECCIATED RED ? TRACHYTE Brecciated red siltstone or haematite trachyte with dolomite fragments and tuffaceous zones. (Fander 184.4m) The red rock forms 80% of the unit and is a fine grained, soft, red, homogeneous rock without any apparent bedding. The fragments are angular to ~~abunded~~ Subrounded and many have a darker, more haematitic rim - the rock appears to have been "haematised" subsequent to brecciation. The dolomitic fragments are pale grey and range in size up to 5mm. They are noticeably better rounded than the red rock. Occasional non-brecciated bands of green siltstone occur BCA = 70°. In the lower half of the unit, the breccia interstices are filled by a fine red ? tuff which appears to have flowed round the fragments. 1.5m dolomite fragment marks the end of the unit.												
185.7	187.6	1.9	100	BRECCIATED GREEN ? TRACHYTE Brecciated green rock with dolomite fragments and tuffaceous. (Fander - 186.9m). Almost identical with previous unit, but green instead of red. Calcite veining common. 186.2 - 186.5m Fairly hard, grey - pink, fine grained cherty rock with coarse dolomite veins. Contact with following unit is sharp and strongly sheared with dolomite veins. Shear C.A. = 40°. Probable fault.													
187.6	201.2	13.6	100	VARIOUS SILTSTONES & TUFFS Grey siltstones, light grey calcareous siltstones and black carbonaceous siltstones, with tuffaceous fragmentary sediments. (Fander - 199.6m). Well bedded in some areas but mainly strongly slumped and brecciated. BCA = 80 - 90°. The calcareous siltstones merge into dolomites occasionally with stylolitic fractures. The rock becomes increasingly fragmented with depth. Pyrite is very common throughout, as conformable bands, and large aggregations within the fragmented rocks. Quartz and dolomite veining is strongly developed, especially towards the end.	~~No 2~~ or No.1	187.6 188.6 189.6 190.6 191.6 192.6 193.6 194.6 195.6 196.6 197.6 198.6 199.6 200.6	188.6 189.6 190.6 191.6 192.6 193.6 194.6 195.6 196.6 197.6 198.6 199.6 200.6 201.6	0.01 0.01 0.01 0.01 0.01 0.01 0.02 0.02 0.01 0.01 0.01 0.01 0.02 0.02		0.08 0.07 " 0.07 0.06 " " 0.07 " 0.06 " 0.07 0.06 0.07 0.06	<0.10 " " " " " " " " " " " " " "	3.43 3.19 0.89 1.35 0.93 0.27 0.80 0.94 0.89 0.20 6.47 3.88 1.75 1.30	0.007 0.006 0.006 0.005 0.006 0.004 0.004 0.005 0.004 0.003 0.020 0.012 0.008 0.005	0.006 0.005 0.004 0.006 0.007 0.005 0.006 0.008 0.007 0.007 0.017 0.012 0.008 "	<0.001 " " " " " " " " " " <0.001 " "	1 " " " " " " " " " 2 2 <1 "	<100 " " 100 " " " " 200 100 200 200 10 "
201.2	204.1	2.9	100	CHERT Fine grained very hard pink and grey chert - conglomeratic in places, with minor grey siltstone. Well bedded. BCA = 75-90°. One section contains a mass of small (<2mm) round black pebbles. Dolomite and quartz veining abundant. (Fander 202.8m).	(Looks like Red Rock)	201.6 202.6 203.6	202.6 203.6 204.6	0.02 0.01 0.01		0.07 " "	<0.10 " "	0.08 0.08 3.84	0.004 0.006 0.004	0.005 " 0.004	<0.001 " "	<1 " "	10 5 <5

447101

DIAMOND DRILL RECORD

HOLE NUMBER : S388

LOGGED BY :

447102

NWPS

INTERVAL (m) FROM	INTERVAL (m) TO	RECOVERY m	RECOVERY %	DESCRIPTION	FORM.	% Sn. FROM	% Sn. TO	% Sn. TOTAL	% Sn. As STAN	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag	g/t WO3
204.1	206.0	1.9	100	FRAGMENTAL SILTSTONES Grey interbedded non-calcareous, and calcareous siltstone also form variously sized fragments in a dark grey carbonaceous groundmass. The fragmental rock makes up the bulk of the unit. BCA = 80°. Pyrite is very common as large accretions fragmented with the sediments. Dolomite veining throughout. Contact with succeeding unit is a graphite and carbonate filled shear, - possible fault.	? ≡ No. 2	204.6 205.6	205.6 206.6	0.01 0.02		0.07 0.08	<0.10 "	5.85 4.29	0.009 0.040	0.004 0.038	<0.001 "	<1 1	15 5
206.0	227.1	21.1	100	SILTSTONES Very well bedded dark grey (carbonaceous) and light grey (calcareous and non calcareous) siltstones. Some minor folding. BCA = 80°.	? RSM	210.0	211.0	0.02		0.06	<0.10	1.55	0.060	0.25	<0.001	<1	40
				Pyrite occurs as blebs and conformable bands, increasing in amount with depth. It appears to be replacing calcareous bands.		217.0	218.0	0.03		0.06	<0.10	2.33	0.006	0.004	<0.001	<1	5
				Dolomite veining common throughout.													
227.1	231.2	3.9	95	DOLOMITE Light grey dolomite interbedded with darker grey less calcareous siltstones and patches of almost pure carbon. BCA varies from 40 to 70°. Carbonaceous stylolites common. Brecciated in the first metre with patches of carbon and associated pyrite blebs. A broken zone of pure carbon between 230.4 and 230.8m may be the result of the dissolving of the carbonate from a carbon - carbonate rock. Pyrite occurs as veins through the dolomite.	? ≡ No. 3	224.0	225.0	0.02		0.06	<0.10	0.27	0.007	0.024	<0.001	<1	<5
231.2	252.5	21.3	100	SILTSTONES Well bedded light and dark grey siltstones virtually identical to 206.0 - 227.1m. BCA = 75-90°.	? R.M.	234.0	235.0	0.03		0.06	<0.10	0.43	0.003	0.001	<0.001	<1	<5
				Calcareous bands occur throughout, and conformable bands of pyrite are common. Dolomite veining throughout.		245.0	246.0	0.02		0.05	<0.10	1.55	0.007	0.008	<0.001	<1	<5

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RENISON LIMITED – DIAMOND DRILL RECORD

447103

HOLE NUMBER	5388	SURVEY Depth	Bearing	Dip	From – To	Distance D	VERTICAL D. Sin Dip	R.L.	HORIZONTAL D. Cos Dip	Prog. Total
PURPOSE	To test the Owen Meredith shear zone 200m south of 5370	For details of survey and assay results, see Stephenson's log.								
LOCATION	OFF PIEMAN ROAD									
COLLAR R.L.	2179.6m									
CO-ORDINATES	21417.92N 14593.55E									
LENGTH	252.5m									
HOLE SIZE	0.0 – 15.0m – HQ 15.0 – 171.3m NQ 171.3–252.5m BQ									
COMMENCED	10/10/75									
COMPLETED	30/10/75.									
SIGNIFICANT CORE LOSS ZONES										
ORE ZONE GROUND CONDITIONS										
LOGGED BY	J.P. KELLEHER									
COMMENTS	This log is a reinterpretation of Stephenson's log using the statigraphic nomenclature employed on the Argent Grid to aid correlation. It serves only to give the broad rock type lithologies. For more detailed information, refer to Stephenson's log.									

SUMMARY – ASSAY DATA

LODE NAME	FROM	TO	LENGTH (m.)	AVERAGE WEIGHTED ASSAYS Sn.	Cu.	As.	S.	Pb	Zn	Bi	Ag/ g/t
Owen Meredith	80.2	83.1	2.9	0.04	0.06	<0.10	1.41	0.0343	0.0293	0.0053	15

SUMMARY METALLURGICAL DATA COMPOSITE SAMPLE

LODE NAME	FROM	TO	Sn.	Cu.	As.	$	Ca F_2	Ag.	Bi		Sn - Rec.	Cu - Rec.	Carb.	Silic.	S.G.

RENISON LIMITED

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DIAMOND DRILL RECORD

HOLE NUMBER : 55388

LOGGED BY : J.P.K.

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORM.	% Sn. FROM	TO	TOTAL	As STAN	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag.	g/t WO.
0	48			Pale gray-green fine grained tuffaceous siltstone and greywacke. BCA's average 60°-70°. Thin zones of black carbonaceous shale increase with depth. Intraformational faulting common.	U.C.C.F.			GENERAL ROCK TYPES: Shales, greywackes, tuffs.									
48	80.2			Dark grey to black highly contorted carbonaceous shale. Fragments of shale and tuff very common in a carbonaceous groundmass. Slumping evident. Calcite veinlets common. Syngenetic pyrite common. No recognisable BCA.	L.C.C.F.			Carbonaceous shale.									
80.2	83.2			Possible shear zone from 80.2m to 83.2m. Core highly sheared with quartz veining in a carbonaceous shale gangue.	Owen Meredith shear.			Shear.									
83.2	99			Black contorted slumped carbonaceous shale. Rocks similar to 48m to 80.2m, but calcite veining seems to be increasing. BCA's average 60-70°.	L.C.C.F.			Carbonaceous shale.									
99	106.3			Massive, impure styolitic dolomite. Zone of carbonaceous matter very common. Brecciation evident. Pyrite replaces dolomite fragments in carbonaceous groundmass.				Dolomite									
106.3	114.1			Carbonaceous, black, slumped, contorted shale with interbedded dolomite zones. Syngenetic pyrite common.				Carbonaceous shale.									
114.1	124.3			Pale green, highly contorted and warped fine grained pyroclastic breccia. Angular fragments of chert and shale in a fine grained contorted groundmass of tuffaceous? material. Lenses of contorted black shale common.				Pyroclastic breccia.									
124.3	139.8			Black contorted carbonaceous shale. Dolomitic zones very common. Rocks similar to 83.2 - 99m. Syrgenetic pyrite common.				Carbonaceous shale.									
139.8	147.6			Dark greyish-green slumped and brecciated shale and pyroclastic breccia. Rocks similar to 114.1m - 124.3m. Large angular fragments common. Carbonate common within the groundmass.				Pyroclastic breccia.									
147.6	177.4			Dark grey fine grained thinly laminated shale and siltstone. SCC Rocks harder, more siliceous and less contorted than the previous rocks. BCA's average 75°-85°. With depth rocks grade into siliceous siltstones and minor interbedded quartzite.				Shales & Siltstones.									
177.4	179.6			Fault zone with major core loss of 1.3m	Fault?			Fault?									
179.6	187.7			Pale green to bright crimson red hematitic tuff with large chert fragments up to 5cm. BCA's average 45°. contd.	L.C.C.F.												

RENISON LIMITED

PAGE

DIAMOND DRILL RECORD

HOLE NUMBER : 5385

LOGGED BY : J.P.K.

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORM.	% Sn. FROM	TO	TOTAL	AS STAN.	% Cu.	% As.	% S.	% Pb.	% Zn.	% Bi.	g/t Ag.	g/t WO
									GENERAL ROCK TYPES								
				contd.													
				Groundmass of hematitic material is fairly soft, but the large fragments are hard chert. Rock has a pale green appearance on the footwall and hanging wall. This appears to be the same rock but without the hematite.. The rock also appears to contain bands of tuffaceous material. The rock could be termed a hematitic breccia .					Pyroclastic breccia.								
187.7	201.4			Dark grey to black dolomitic carbonaceous shale-breccia. Pyroclastic material common within a fine grained black carbonaceous groundmass.					Carbonaceous shale/breccia.								
201.4	213			Dark brown to black carbonaceous chert. BCA's average $70^{\circ} - 80^{\circ}$. Fine hard chert bands interbedded with pyroclastic and carbonaceous material. Syngenetic pyrite very common.					Carbonaceous chert.								
213	227			From about 213m rock grades into a laminated shale with a fairly high carbonaceous content. Rock becomes more siliceous with depth. BCA's average $70^{\circ} - 90^{\circ}$.					Carbonaceous laminated shale.								
227	231.2			Dark grey stylolitic dolomite. Thin zones of carbonaceous material common.					Dolomite								
231.2	252.5			Dark grey slightly siliceous siltstone. Thinly laminated with pyrite and calcareous material along bedding planes.	S.C.C.				Shales and Siltstones								
				END OF HOLE.													

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RENISON LIMITED

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DIAMOND DRILL RECORD

HOLE NUMBER: 447106

LOGGED BY:

INTERVAL (m) FROM	TO	RECOVERY m	%	DDH/538B DESCRIPTION	FORMATION
				183.3m A ferruginous weakly laminated silty shale with a dominant angular to splintery quartz/white mica clastic component and carrying disseminated siliceous microfossils (simple spineless radiolaria, fragmented ? sponge spicules). The pervasive ultrafine hematite-goethite is primary. The rock has been finely microfractured and chlorite veined. It carries occasional diagenetic fe-carbonate rhombs.	
				184.4m This is a somewhat altered intermediate to acid pyroclastic rock with fragments of limestone and the general apperance of a composite slump breccia.	
				Pyroclastic components comprise frequent variably sized angular/cuspate devitrified sericit sed and carbonated clasts (originally holohyaline), quartz splinters (shattered phenocrysts) and sericited-chloritised sub-trachytic-textured lava clasts. These are set in a fe-stained argillaceous matrix, or elsewhere microcrystalline carbonate (calcite-dolomite). Some portions of the tuff were finely layered and these are disharmonically deformed along with sporadic carbonate clasts.	
				The rock has the general appearance of a subaqueous ash slumped along with an adjacent carbonate horizon. It carries irregular diagenetic quartz-carbonate-chlorite veinlets and a little pyrite.	
				186.9m A composite breccia essentially similar and closely related to 184.4m. It consists of randomly sized and shaped clasts of devitrified/altered lava (similar to 184.4m) tuffaceous material, limestone and silty shale with a semi-pervasive shaley matrix. Diagenetic veins and aggregates of quartz, chlorite and carbonate are fairly frequent. Fine-grained pyrite occurs in places and is similarly diagenetic in origin.	
				199.6m An incipiently sheared carbonaceous slump breccia developed in a fine-grained sedimentary sequence ranging from limestone through carbonaceous shale, siltstone and fine to medium-grained siliceous argillaceous sandstone with a sandy silty carbonaceous shale matrix. Occasional altered lava clasts (similar to 184.4m and 186.9m) are seen partly included in carbonate fragments. Diagenetic alteration is similar to that in the previous examples, but less marked although pyrite is relatively abundant.	
				202.8m A closely quartz-carbonate-chlorite veined laminated argillite, evidently chemical in origin and with myriads of diagenetic carbonate rhombs.	

ASSAYS FROM	TO	Sn	S	As	Cu	Pb	Zn	Bi	Ag

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RENISON LIMITED

PAGE

DIAMOND DRILL RECORD

HOLE NUMBER: 447107

LOGGED BY:

INTERVAL (m) FROM	INTERVAL (m) TO	RECOVERY m	RECOVERY %	DESCRIPTION	FORMATION
				The veins, many of which displace the host rock, appear related to those in the slump breccias and are weakly strained with partical recrystallisation of included cherty quartz. The rock carries rare pyrite grains, is pervasively fe-stained and would be correlated with "red rock" along with the associated breccias.	

ASSAYS FROM	TO	Sn	S	As	Cu	Pb	Zn	Bi	Ag

107

RENISON LIMITED – DIAMOND DRILL RECORD

447108

HOLE NUMBER	MFP 124	SURVEY Depth	SURVEY Bearing	SURVEY Dip	From – To	Distance D	VERTICAL D. Sin Dip	VERTICAL R.L.	HORIZONTAL D. Cos Dip	HORIZONTAL Prog. Total
PURPOSE	To locate the source of the western magnetic anomaly.	0	262° mine	-60°						
		30.5		-60°30'						
		61.0		-59°						
LOCATION	West of Argent Dam SPL 131.	76.2		-57°15'						
COLLAR R.L.										
CO-ORDINATES	13115 E 18845 N Approx.	Re: Report on Magnetic Anomaly "A" at Melba Flats.								
LENGTH	155.5m	EL 2/62								
HOLE SIZE	Bx	D. O'N Hackett								
COMMENCED	8-4-67	Report No. 100								
COMPLETED	27-5-67	July, 1968								
SIGNIFICANT CORE LOSS ZONES										
ORE ZONE GROUND CONDITIONS										
LOGGED BY	J.P. KELLEHER									
COMMENTS	Hole drilled by E.Z. Company to test a magnetic anomaly. Rock over the first 60m is highly magnetic and represent the source of the anomaly. Possible unconformity or fault intersected at 67.4m. Hole probably stopped in black shales at the bottom of the Crimson Creek Fm.									

SUMMARY – ASSAY DATA

LODE NAME	FROM	TO	LENGTH (m.)	AVERAGE WEIGHTED ASSAYS Sn.	Cu.	As.	S.				

SUMMARY METALLURGICAL DATA COMPOSITE SAMPLE

LODE NAME	FROM	TO	Sn.	Cu.	As.	S	Ce F_2	Ag.	Bi		Sn - Rec.	Cu - Rec.	Carb.	Silic.	S.G.

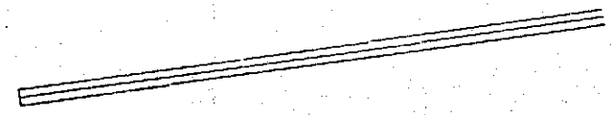
116

HOLE No.: MFP 124 SCALE: 0 10 2

DIAMOND DRILL HOLE PLOT

447109

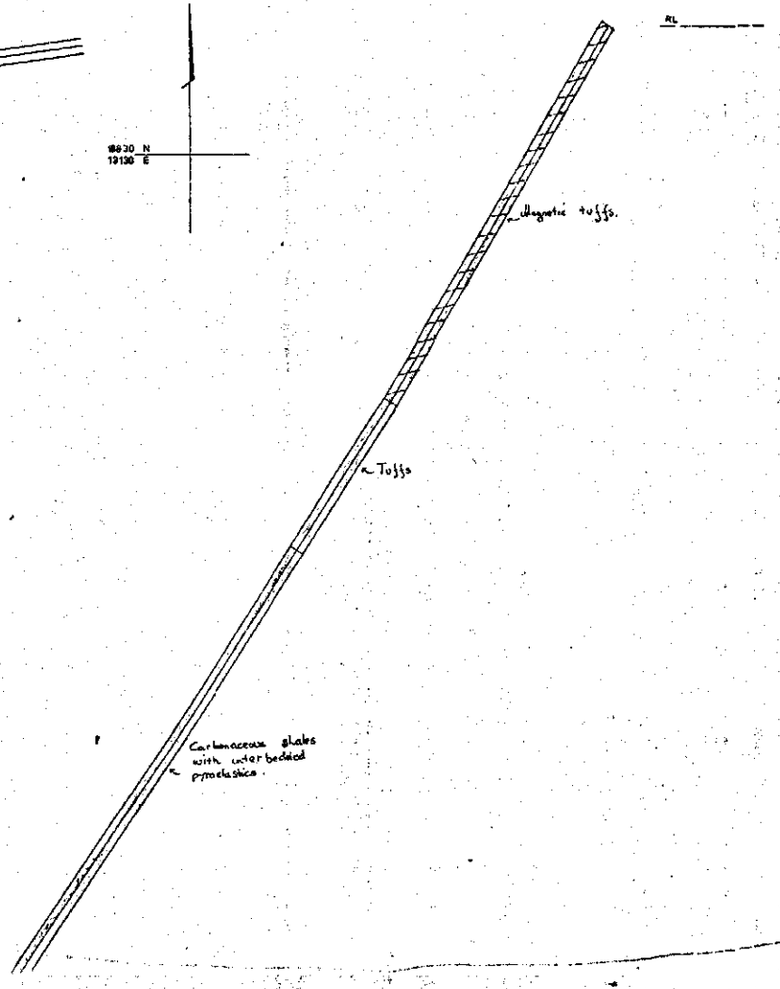
PLAN



18834·0 N
13033·5 E

18830 N
19130 E

5 cm



DIP PROFILE

109

RENISON LIMITED

447110

DIAMOND DRILL RECORD

HOLE NUMBER: MFP 124

LOGGED BY J.P.KELLEHER

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORMATION
0	42.6			Pale green, fine grained tuffaceous siltstone and tuff. BCA's approx. 45° at 6.1m. Minor thin purple chert banding with intraformational faulting. From 9.1m grades into a medium grained, fairly hard acid? tuff which appears to be strongly magnetic. Samples at 10.4m, 13.4m. Tuff varies in colour from a pale, yellow (altered) to a greyish -blue (fresh). Rock has a basaltic texture when fresh. Beyond 27.5m core becomes softer and grades into a fine - medium grained sandstone - tuff. Rock still magnetic. BCA's not apparent. Sample at 32m. At 33.5m, black-purple magnetite? staining very apparent on joint planes. BCA at 41.2m = 45°. With depth rock alternate hard and soft tuffaceous sandstone, acid tuff. Rocks still magnetic.	Crimson Creek Formation
42.6	49.4			Fine grained, dark green to rust brown well, bedded, laminated acid tuff. BCA's average 50°. Purple pink banding common. Sample at 45.4m.	
49.4	67.4			Dark blue-grey, fairly hard, fine grained, basalt like acid tuff. Highly magnetic. Similar rock to that intersected between 0 and 42.6m. At 59.8m grades into a massive acid tuff (or micro-gabbro?) with lenticular fragments along a preferred orientation 70-80° to the core axis. Fragments appear to be tuff or chert up to one cm long. Sample at 60.3m. Core appears to become less magnetic with depth.	
67.4	72.9			Fault? Very broken ground with very weathered crumbly oxidised core. Some core loss. Minor pyrite mineralisation. This zone seems to represent a lithology change from pyroclastic at top to shales siltstones below. Could be an unconformity? Beyond 67.4m, core no longer magnetic.	
72.9	82.9			Pale green-grey, very porous and altered tuffaceous sandstone which has been severely leached. Thin interbedded lenses of black carbonaceous shale very common. BCA's average 60°. Sample at 74.4m.	

ASSAYS FROM	TO	Sn	S	As	Cu	Pb	Zn	Bi	Ag

DIAMOND DRILL RECORD

HOLE NUMBER: MFP 124

LOGGED BY:

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORMATION	ASSAYS FROM	TO	Sn	S	As	Cu	Pb	Zn	Bi	Ag
82.9	101.5			Dark grey to black fine grained carbonaceous siltstone with minor interbedded tuffaceous material. Cavity with core loss from 82.3m to 83.5m.											
				BCA's average 55-60°. Minor thin cross-bedded structures common. Carbonaceous material seems to decrease with depth.											
101.5	150.3			Pale green, well bedded, very fine grained cherty tuff? Cross bedding common.											
				Minor thin carbonaceous lenses. BCA's average 60-65°. Sample at 102.4m.											
				Beyond 122m, carbonaceous shales begins to appear again.											
				BCA's average 50-60° with minor cross bedding. Samples at 130.5m, 140.0m.											
				Between 140.3m and 143.2m minor bedded pyrrhotite begins to appear.											
				From 147.2m to 150.6m have a medium grained sandstone tuff. Carbonate veining very common. Sample at 149.4m.											
150.3	155.5			Medium to dark grey, slumped siltstone shale large fragmental pieces common. Rocks appears to have been severely disturbed. Sample at 151.8m, 155.1m. Pyrite mineralisation very common.											
				END OF HOLE AT 155.5m											

REPORT CMS 75/9/29 - PART III

DRILL HOLE MFP 124

10.4m An andesitic tuff, almost identical with N17130/E13770; the two rocks are certainly correlatable. This rock is less ferruginous but otherwise of the same composition. It consists mainly of crystal fragments of andesine and pyroxene, with minor quartz, in a semi-opaque, dark, fine-grained matrix. Occasional lithic fragments occur, of andesitic-basaltic material. The rock is fine-grained (0.05 - 0.1mm) and bedded, and probably subsequeously deposited.

DIAMOND DRILL RECORD

HOLE NUMBER: MFP 124

LOGGED BY:

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORMATION
				13.4m A basaltic crystal tuff, very similar to 10.4m, but more "basic" in composition. It is distinctly magnetic, due to detrital magnetite and magnetite-rich lithic fragments ("meta basalt", possibly metatrachyte). The rock is composed of crystal fragments of andesine, abundant augite, magnetite, duritrified glass, and extrusive, intermediate to basic rocks. The particles are closely-packed and matrix is sparse.	
				18.9m A basaltic crystal tuff, virtually identical with 13.4m; its composition differs only in that it contains a slightly greater amount of glass. It is appreciably magnetic.	
				32m This is an altered tuff, very similar to 10.4m, and 13.4m, and of basaltic to andesitic composition. The ferromagnesian and glassy components are chloritised, and magnetite is oxidised in part (although the rock is still magnetic). In fact, this characteristic feature (i.e. the magnetism) may be useful in the field as a guide to such pyroclastic rocks.	
				45.4m A? fine-grained, intermediate vitric crystal tuff; the rock is noticeably magnetic. It is part of the same series of pyroclastic rocks, probably water-laid, but quickly buried and not subjected to oxidation, which constitute part of the Crimson Creek formation. This particular rock had a greater vitric component (now devitrified, cloudy and semi-opaque). Its lower pyroxene content suggests an andesitic rather than basaltic composition. The rock is very evenly sized (0.05mm average) and homogeneous.	
				60.3m An intermediate tuff, composed of lithic, crystal and vitric constituents. Its composition closely resembles the others in this drill hole. It is appreciably magnetic. Secondary chlorite and carbonate is common throughout.	
				74.4m A dominantly vitric tuff, altered and devitrified, but probably of intermediate composition. Apart from pale-green devitrified glass fragments, there are grains of fresh andesine and minor magnetite. There seems to be a trend towards more vitric material downwards in this hole. The sequence however, is remarkably uniform considering its pyroclastic origin.	

ASSAYS FROM	TO	Sn	S	As	Cu	Pb	Zn	Bi	Ag

DIAMOND DRILL RECORD

HOLE NUMBER MFP 124

LOGGED BY

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORMATION	ASSAYS FROM	TO	Sn	S	As	Cu	Pb	Zn	Bi	Ag
				93.3m A banded or laminated fine intermediate to basic tuff. Harder, darker layers of fine vitric tuff alternate with coarser, softer vitric-crystal tuff; these grade into coarser lithic tuffs. Some vitric layers are permeated by carbonate, and carbonate-albite veins cut the rock.											
				102.4m An extremely fine-grained sediment, believed to be an argillite grading into a fine ash. The components are very fine and are recognisable only in the relatively coarser layers (grains up to 0.02mm). The rock is notably laminated. Microfaulting is conspicuous, with calcite-chlorite-quartz veins; traces of pyrrhotite have been introduced.											
				125m This is a tuff, or possibly a reworked tuffaceous siltstone, intercalated with a finely laminated shale. The tuff is fine grained and dominantly vitric, with occasional lithic fragments of andesitic/basaltic types. The shale has been contorted and squeezed by movement during deposition (or at any rate before lithification). Disrupted calcite-chlorite veins cut the rock.											
				This rock marks the end of the main tuffaceous sequence, though some tuffaceous rocks occur lower down in this hole but not in such massive form. The main contrast between these tuffs and those at Renison is the relative absence of metasomatism; apart from this, the lithologies are essentially the same. Variations in thickness are to be expected, but the compositional similarities are very significant.											
				140m This is a laminated sequence of pyritic and carbonaceous shales, grading into carbonaceous dolomitic shales. They are typical of the black shales at Renison, and are also correlatable with hand specimen (e.g. N18815/E14720) at least on a lithological basis as determined by petrography. This rock consists of layers of uniform greenish shale and black carbonaceous shale (argillic and dolomitic). It contains strongly pyritic layers as well as small streaks and lenses; the material is of syngenetic origin, though now recrystallised. Pyrite-carbonate veins cut the rock and are probably diagenetic. This intersection may also correlate with S.375/157.5m in particular; the other black shales (in the broad sense) are mostly tectonically disturbed.											

DIAMOND DRILL RECORD

HOLE NUMBER MFP 124

LOGGED BY:

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORMATION
				149.4m An ultrabasic tuff, highly altered but thought to have consisted originally of ultrabasic glassy lava fragments, with occasional chert and carbonate grains.	
				The rock consists mainly of irregular, elongate, generally angular/splintery grains of pale green serpentinous chlorite, representing devitrified, altered ultrabasic glass; the grains were quite possible welded, and appear to have been plastically deformed. Secondary carbonate is common interstitially.	
				This rock provides evidence of early ultrabasic activity, at least on a limited scale, as has been proposed before; other tuffs (andesitic varieties) occasionally contain altered ultrabasic material.	
				151.8m This intraformational breccia is composed of pyritic, carbonaceous siltstone.	
				Essentially the rock is a laminated carbonaceous shale/siltstone with thin layers of quartzose fine-sand material. Penecontemporaneous erosion and reworking has occurred, as well as deformation and brecciation, accompanied by some redistribution of the pyrite and carbonaceous matter.	
				This rock could be correlated with the series of similar rocks in S.375 (e.g. 347m, 374m etc.), as well as sample N18220/E14270.	
				155.1m A brecciated carbonaceous, pyritic silty shale, very similar to 151.8m though not as carbonaceous or pyritic. It shows intraformational brecciation, but less plastic deformation. Thus lithology and genesis are essentially the same as in the overlying rocks.	
				130.5m A tuffaceous sequence, heavily calcitised in parts.	
				The tuff is very fine-grained (<0.02mm grain size), of "intermediate" composition, with vitric and crystal components. Ultrafine secondary carbonate occurs interstitially, and some tuff layers are very extensively calcitised. The introduction of calcite as a replacive mineral was evidently governed by the permeability and composition of the layers affected.	

ASSAYS FROM	TO	Sn	S	As	Cu	Pb	Zn	Bi	Ag

DIAMOND DRILL RECORD

HOLE NUMBER: MFP 124

LOGGED BY:

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORMATION
				Calcite veins cut the rock, and poikiloblastic pyrite has developed.	
				Summary	
				Individual correlations have been made in the text. The drill hole consists of a thick, apparently continuous sequence of tuffs down to 130.5m, followed by a black shale lithology down to 155m with an intercalation of ultrabasic tuff at 149.4m.	
				Metasomatic effects are minimal, compared with the lithology at Renison.	
				H.W. Fander M.Sc.	

ASSAYS FROM	TO	Sn	S	As	Cu	Pb	Zn	Bi	Ag

115

RENISON LIMITED – DIAMOND DRILL RECORD

447116

HOLE NUMBER	MFP 125	SURVEY Depth	SURVEY Bearing	SURVEY Dip	From – To	Distance D	VERTICAL D. Sin Dip	VERTICAL R.L.	HORIZONTAL D. Cos Dip	HORIZONTAL Prog. Total
PURPOSE	To test the western magnetic anomaly (comments).	0	252 mine	-45°						
LOCATION	West of Argent Dam SPL 131.									
COLLAR R.L.										
CO-ORDINATES	18785 N 13225 E Approx.									
LENGTH	172.6m									
HOLE SIZE	Bx									
COMMENCED	Drilled in July - August ? 1967.									
COMPLETED										
SIGNIFICANT CORE LOSS ZONES										
ORE ZONE GROUND CONDITIONS										
LOGGED BY	J.P. KELLEHER									
COMMENTS	Hole drilled by E.Z. Company to test a magnetic anomaly. Anomaly due to magnetite - bearing tuff from 40m to 88m. Hole probably passed into black shale sequence at the base of the Crimson Creek Fm.									

SUMMARY – ASSAY DATA

LODE NAME	FROM	TO	LENGTH (m.)	AVERAGE WEIGHTED ASSAYS Sn.	Cu.	As.	S.				

SUMMARY METALLURGICAL DATA COMPOSITE SAMPLE

LODE NAME	FROM	TO	Sn.	Cu.	As.	S	CeF_2	Ag.	Bi		Sn - Rec.	Cu - Rec.	Carb.	Silic.	S.G.

108

HOLE No.: MFP 125 SCALE: 0 10 20

DIAMOND DRILL HOLE PLOT

447117

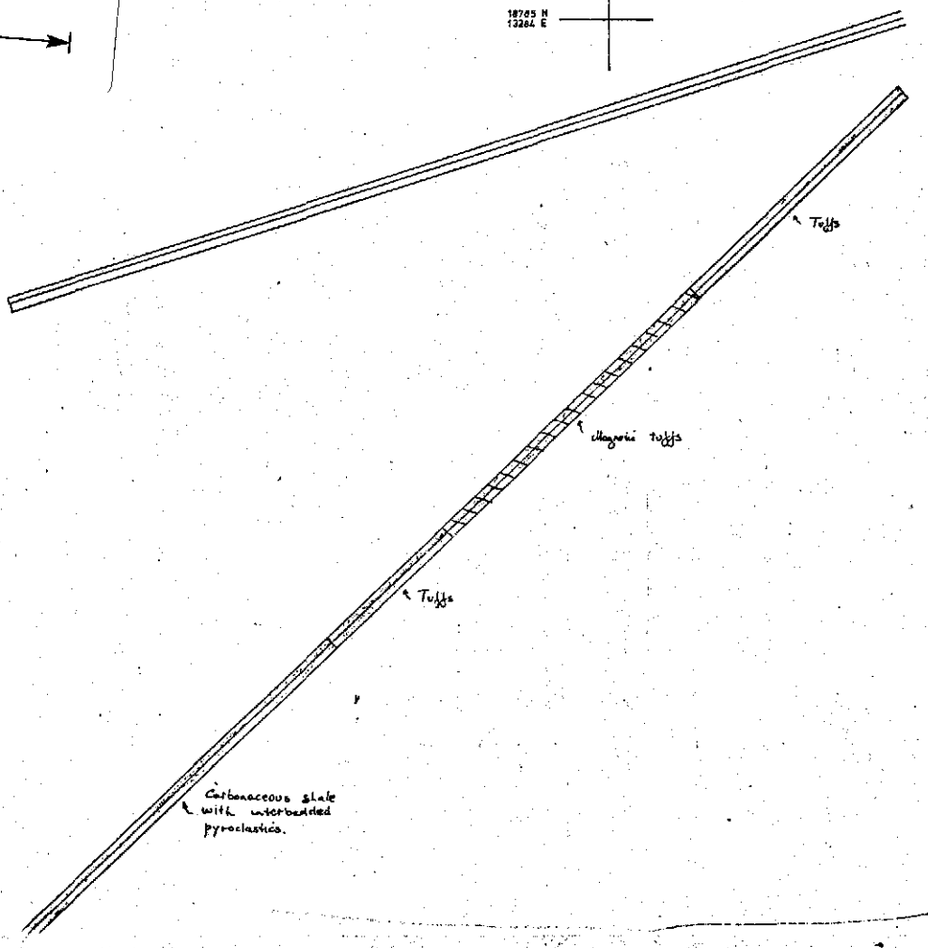
5 cm

18765 N
13284 E

RL

PLAN

18745 N
13209 E



DIP PROFILE

117

RENISON LIMITED

DIAMOND DRILL RECORD

HOLE NUMBER: MFP 125

LOGGED BY: J.P.Kelleher

47/118

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORMATION
0	17.4			Bright rust-brown very altered banded fine grained tuff. BCA's average 50-60°. Small lithic fragments common. Core very broken. Sample at 11.5m, 13.1m.	Crimson Creek Formation
17.4	28.0			Yellow, very altered medium to fine grained tuff. Core very broken. BCA's average 60-65°. Core appears to become coarser grained with depth - approaches an altered sandstone tuff. Sample at 23.2m.	
28.0	45.7			Crimson - purple pale green, fresher looking tuffaceous sediments. Slightly finer grained than from 17.4m to 28.0m. Magnetite staining evident on joint planes. Core still very common. Rocks become more purple and fine grained with depth. BCA's average 50°. Sample at 41.8m.	
45.7	79.3			Dark bluish - grey fine grained very hard acid tuff. (re MFP 124 49.4m - 67.4MO. BCA's average 60-65°. Sample at 48.2m. At 57.9m minor brecciation with elongated lithic fragments along a preferred orientation 50° to the core axis. Appear to be cherty fragments up to 2cm long, some of which are angular. Minor cross bedded structures evident at 53.1m. BCA's average 50-60°. From about 50.3m - 57.9m colour varies from a dark bluish-grey to a crimson - red. At 63.7m, small blebs of pyrite appear. Sample at 63.7m. At 67.4m, cherty veining has been severely disturbed with brecciation and faulting. BCA's average 60°. Sample at 67.4m. Groundmass resembles a microgabbro with black phenocrysts of pyroxene? evident. From about 64.0m to 79.3m colour remains a dark blue-grey.	

ASSAYS FROM	TO	Sn	S	As	Cu	Pb	Zn	Bi	Ag

118

RENISON LIMITED

447119

DIAMOND DRILL RECORD

HOLE NUMBER: MFP 125

LOGGED BY:

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORMATION
79.3	80.2			Very oxidised and leached, broken and crumbly tuff. Possible fault or erosion surface. Leached quartz veins common.	Fault ?
				Sample at 79.7m.	
80.2	89.3			Pale green, fine grained altered lithic tuff. Core appears to have been severely altered. Pug zone from 84.8m to 85.1m.	
				Sample at 84.5m.	
89.3	94.9			Rusty brown fine grained very pourous and altered sandstone or sandstone. Core soaks up water readily.	
				BCA's average 50-60°. (Re MFP 124 72.9m to 82.9m).	
				Sample at 92.1m.	
94.9	110.0			Dark grey to pale green fine grained carbonaceous shale with interbedded tuffaceous siltstone. BCA's average 50-55°.	
				Bedded pyrrhotite and pyrite common. Calcite veining also common.	
				Sample at 103.0m.	
110.0	137.0			Dark grey well bedded medium to fine grained lithic tuff. Fragments up to 3cm occur. Calcite veining common. Minor slumping evident.	
				Small pyrite blebs common as phenocrysts. Carbonate appears to be common within the groundmass. Pale green calcareous material increases with depth.	
				Samples at 114.0m, 131.1m.	
137.2	149.4			Dark green-grey sandstone interbedded with dark grey siltstone.	
				Sample at 137.2m.	
				Lithic fragmental material has disappeared. Sandstone predominates. Rocks very soft with black micaceous flakes.	
				BCA's average 70°.	
149.4	172.6			Dark green-grey fine grained shale/siltstone. Minor chert and calcite veining common.	
				Sample at 154.9m.	
				More carbonaceous shale appears with depth, occasionally with large lithic fragments.	
				Bedded pyrrhotite and pyrite common with depth. Samples at 166.5m, 170.1m.	
				END OF HOLE	

ASSAYS FROM	TO	Sn	S	As	Cu	Pb	Zn	Bi	Ag

DIAMOND DRILL RECORD

447120

HOLE NUMBER:

LOGGED BY:

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORMATION
				REPORT CMS 75/9/79	
				Part IV	
				DRILL HOLE MFP 125	
				11.5m This rock is regarded as an altered ferruginous vitric tuff, of "acid" composition; this contrasts with the great majority of pyroclastics in the region, which are intermediate to basic. This more acid phase of igneous activity may be a link with the Primrose Pyroclastics and similar types.	
				This rock consists of small, completely kaolinised shards, fragments of albite-muscovite flakes, quartz splinters, and fine, earthy hematite lenses, grains and interstitial films.	
				13.1m A calcitised tuff; because of very extensive replacement of primary components by calcite, the original composition is not certain. The rock was probably an acid crystal-vitric tuff with occasional lithic grains.	
				The main components were glass shards, with cleavage-fragments and small crystals of albite-oligoclase and quartz. Although most of the rock has been replaced by calcite, some patches are reasonably well-preserved. Some pyrite formed with the calcite, and the whole alteration phase occurred prior to consolidation of the rock.	
				23.2m This is a very extensively altered lithic tuff, thought to be of intermediate composition originally. It may be a reworked tuff, composed of eroded extrusive and pyroclastic material; the lithic grains are mostly rounded. If this is the case then strictly this rock should be classified as a "volcanomict sandstone" (Russian scheme of classification).	
				After deposition the rock was thoroughly and intensively phlogopitised; the phlogopite itself has very largely been converted to vermiculite and clay. Iron oxides are common; some are obviously derived from primary magnetite, and the original rock may well have been similar to the magnetite-rich intermediate/basic tuffs in MFP124 (e.g. at 45m and 60m).	
				41.8m A fresh intermediate to basic tuff composed mainly of lithic and crystal constituents.	

ASSAYS FROM	TO	Sn	S	As	Cu	Pb	Zn	Bi	Ag

DIAMOND DRILL RECORD

HOLE NUMBER:

LOGGED BY:

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORMATION	ASSAYS FROM	TO	Sn	S	As	Cu	Pb	Zn	Bi	Ag
				It is fairly fine-grained, with irregular grains of intermediate extrusive rocks and cleavage fragments of fresh andesine and augite. Magnetite is fairly common throughout. Occasional shreds of devitrified glass occur.											
				This rock correlates with those in MFP 124, at 60.3m in particular; differences are very minor compared with the similarities.										
				48.2m A lithic-crystal tuff of intermediate/basic composition, closely similar to 41.8m, though slightly finer-grained and containing more magnetite. The abundance of magnetite and augite suggests a more basic source than that of most of the tuffs. It is closely correlatable with MFP 124/60.3m										
				63.7m This intersection shows an intercalation of intermediate vitric-crystal tuff with a very fine ? ash.										
				The tuff is virtually identical with MFP 124/45.4m; the ? ash is too fine-grained for specific identification, but it contains abundant ultrafine magnetite and is probably devitrified glassy material. It shows fold-like structures which are thought to be false-bedding of some sort.										
				67.4m This banded tuff is an outstanding example of its type. It is similar to the intersection at 63.7m, consisting of layers of fine, altered ash alternating with vitric-lithic tuffs. Occasional layers of coarse material occur, and consist of large (up to 2.5mm) single crystals of augite and irregular fragments of basalt, melaphyre, and vesicular basic lavas in an ashy matrix.										
				78.3m An intermediate/basic tuff, with vitric, crystal and lithic components, and strictly comparable with the other tuffs. The vitric fragments have been altered to greenish serpentinous chlorite ("palagonite"); the lithic grains are basic lavas ranging into intermediate extrusives (perhaps even trachytes). Magnetite is common throughout.										
				79.7m A lithic-vitric tuff of andesitic composition, consisting of green devitrified glass (palagonite) and andesite grains. Fine interstitial carbonate and chlorite occurs, and quartz veins cut the rock. Sporadic iron-staining is present. The rock is comparable with the other tuffs in the sequence.										

121

RENISON LIMITED

PAGE 5

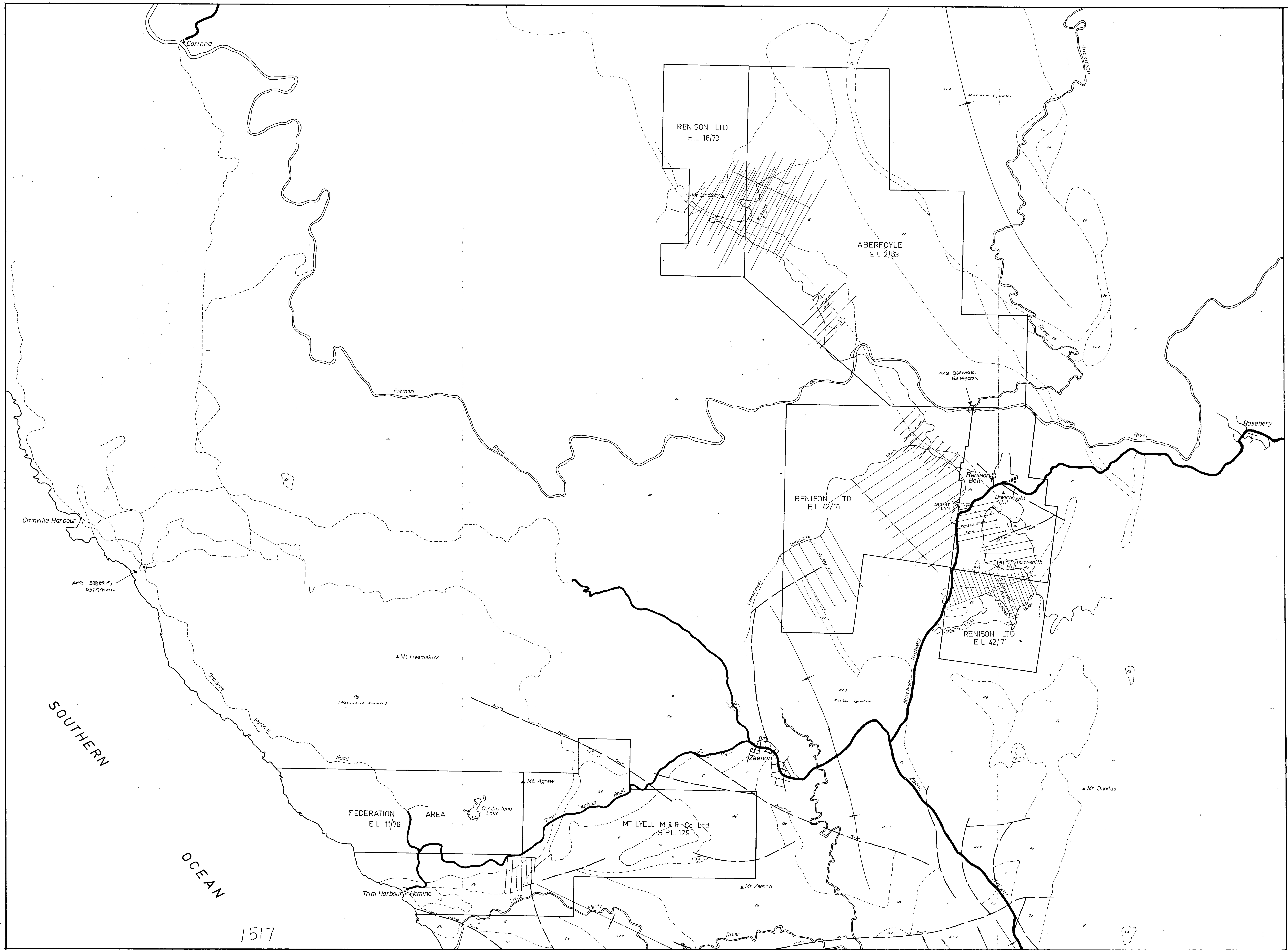
DIAMOND DRILL RECORD

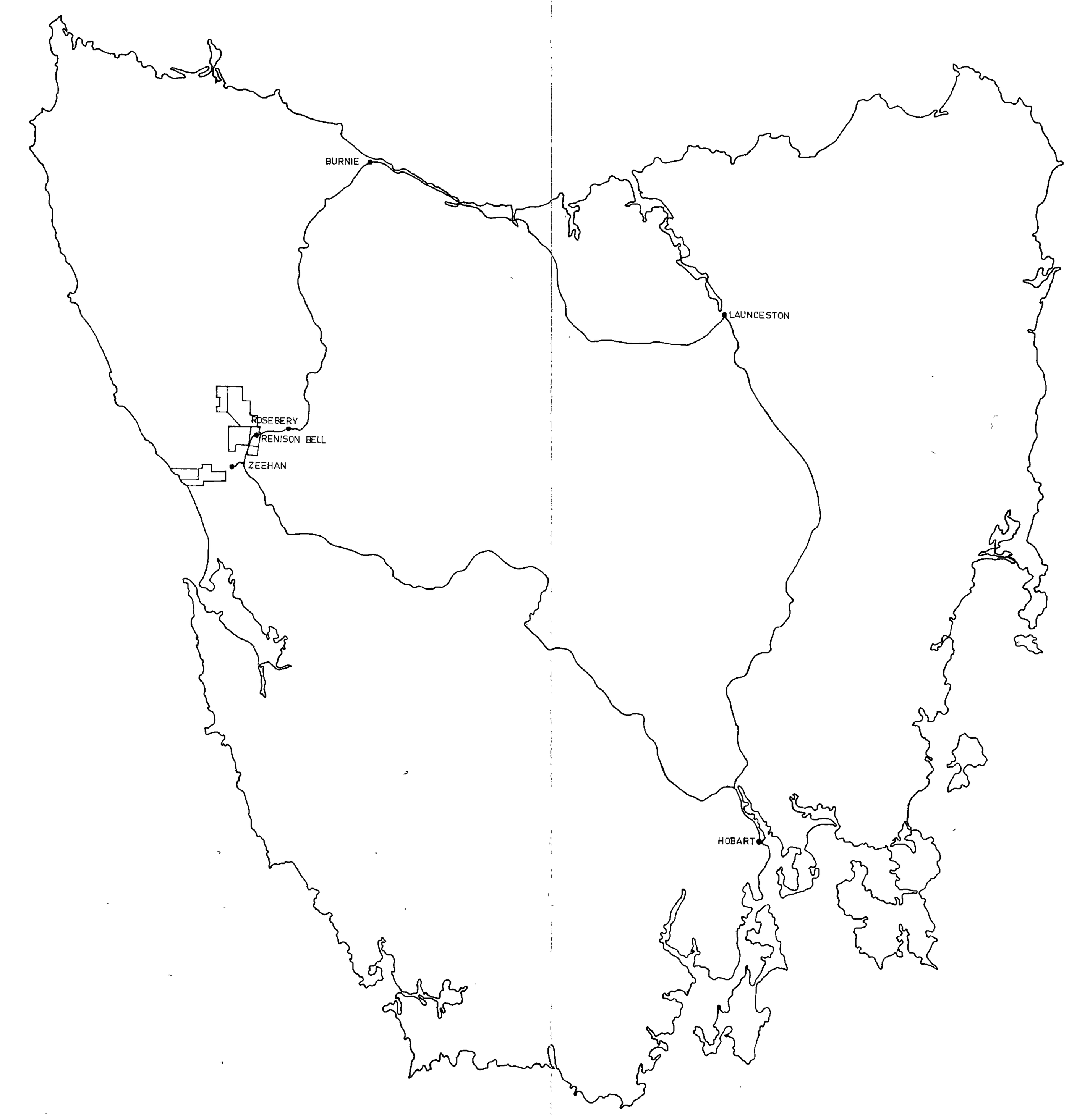
HOLE NUMBER: 447122

LOGGED BY:

INTERVAL (m) FROM	TO	RECOVERY m	%	DESCRIPTION	FORMATION
				84.5m An intermediate/basic tuff, and part of the lithological sequence. All these tuffs are variants with essentially similar characteristics and components. All are fine-grained (generally 0.05 - 0.15mm), fairly well-bedded and sorted and are composed of glass (mostly devitrified), grains of lavas, crystal-fragments of plagioclase (andesine range), and augite, with magnetite, in varying proportions. On the whole the tuffs were probably water-laid and were derived from the same source; some reworking may have occurred.	
				92.1 - 170.1m The whole of the remainder of this core consists of tuffs, calcitised tuffs, carbonaceous-tuffaceous shales, and interbedded tuffs and shales. Grain sizes are fine to very fine, and the rocks are generally well-bedded, often laminated, with minor intraformational brecciation and microfaulting.	
				Compositionally, the tuffs and tuffaceous components are intermediate to felsic (feldspathic) rather than andesitic/basic, and the shales (and tuffs) are carbonaceous. Calcitisation is fairly widespread and occurred soon after deposition. Calcite-pyrite veins cut many of the rocks, and pyrite was introduced as disseminated grains and as thin bands; some of these have the appearance of being folded but this is a depositional feature. The curved and "folded" bands (e.g. at 170.1m) are unrelated to bedding (which shows no sign of folding) and are post-depositional.	
				Probably the lowest intersection (170.1m) is correlatable (roughly) with MFP 124 at about 130 - 140m (transition from tuffs to black shales).	
				H.W. Fander, M.Sc.	

ASSAYS FROM	TO	Sn	S	As	Cu	Pb	Zn	Bi	Ag





447123

5 cm

KEY

	Permian & Younger
D & S	Devonian & Silurian Sediments
Os	Ordovician Sediments.
Є	Cambrian Sediments & Volcanics
Pє	Precambrian Units
Єb	Cambrian Basic & Ultrabasic Intrusives
Dg	Devonian Granite Intrusives
┼┼┼┼	Traverse Line Systems

AMG REFERENCE POINTS ADDED

RENISON LIMITED	
LOCALITY MAP	
GEOLOGIST :	SCALE 1:50,000 METRES
DRAUGHTSMAN :	MAP 1 1,000 000 METRES
DATE :	
REVISIONS : 1517	DRAWING No. 1

76-1177

1518

LEGEND

QUATERNARY
- Qha — Alluvium
- Qhc — Conglomerate Talus
- Qhg — Gravels

TERTIARY
- Tpf — Fluvioglacials

PERMIAN
- Pc — Zeehan Tillite

DEVONIAN
- Db — Bell Shale
- Df — Florence Quartzite

SILURIAN
- Sac — Austrel Creek Siltstones
- Sk — Keel Quartzite
- Sa — Amber Slate
- Sc — Crotty Quartzite

ORDOVICIAN
- Og — Gordon Limestone
- Oz — Mt. Zeehan Conglomerate

CAMBRIAN

UPPER CAMBRIAN
- Ed — Undifferentiated
- Edd — Dundas Group, Undifferentiated
- Edda — Fernflow Formation
- Eddb — Comet Formation
- Eddc — Fernfields Formation
- Edb — Brewery Junction Formation

MID. CAMBRIAN
- Er — Razorback Conglomerate
- Eh — Hodge Slate
- Er — Red Lead Conglomerate
- Ec — Crimson Creek Formation Undifferentiated

LOWER CAMBRIAN
- Eo — Oonah Formation
- Ecd — Breezinought Hill.
- No. 1 Carbonate.
- Red Rock Member.
- No. 2 carbonate
- Ecb — Renison Bell Member
- No. 3 Carbonate
- Ecq — Balcooth Member

PRE-CAMBRIAN
- Pc — INTRUSIVES

DEVONIAN
- Dqp — Quartz - Porphyry
- Du — Ultramafics ;
- Dm — Mafics(Gabbro, Dolerites etc).
- Dms — Melba Spilites.

5 cm

RENISON LIMITED

ZEEHAN B/4

GEOLOGY

447124 1518

SCALE 1: 10,000 METRES

0 200 400 600

DRAWN	R.J.P.
TRACED	
DATE	
SCALE	1 10,000
DRAWING No.	2

76-1177

NOTE

The grid shown on this plan is a reduction from the 1:2000 plans and thus does not correspond to the present 1:5000 grid on Zeehan B2/3. B1/4 which are slightly inaccurate

5 cm

MAPPING NOMENCLATURE

QUATERNARY

- Qra — Alluvium.
- Qpf — Pleistocene fluvioglacials.

LOWER TO MIDDLE CAMBRIAN

- UCc — UPPER CRIMSON CREEK FORMATION — Pyroclastics, greywackes, siltstones
- LCc — LOWER CRIMSON CREEK FORMATION (MINE SEQUENCE EQUIVALENT) — Carbonaceous shale, chert, breccia, dolomite

UPPER PROTEROZOIC ? TO LOWER CAMBRIAN

- Esc — SUCCESS CREEK GROUP — Quartzite, siliceous siltstone and shale
- Dolomite, dolomitic shale
- Gossan, pseudogossan, ironstone
- Chert, chert breccia.
- Hematitic argillaceous siltstone & mudstone.

INTRUSIVES

- Quartz, porphyry dyke
- Basic dyke

GEOLOGICAL SYMBOLS

- Definite
- Approximate
- Inferred

(Approximate, Inferred: GEOLOGICAL BOUNDARIES)

- Strike and dip of bedding
- Vertical bedding
- Horizontal bedding
- Strike and dip of jointing
- Strike and dip of shearing.
- Fault (dip and downthrow)
- Fault, position approximate.
- Fault, position inferred
- Syncline with plunge
- Anticline with plunge
- Old mine workings, (shafts trenches adits)
- Sample location.
- Py Pyrite, Po Pyrrhotite — Mineralization
- Driveable road
- Undriveable road, (logging or walking track)
- Diamond drill hole

RENISON LIMITED

ARGENT GRID AREA

INTERPRETATIVE GEOLOGY

GEOLOGIST	J KELLEHER	SCALE 1:2000	METRES
DRAUGHTSMAN	J MATTHEWS		
DATE	MAY, 1976		
REVISIONS		DRAWING No	
		1519	3

1519

76-1177

ORMSON CREEK GRID

RENISON MINE GRID

ARGENT DAM

1520

LEGEND

- < 62,250 ₰
- 62,250 - 62,500 ₰
- 62,500 - 62,750 ₰
- 62,750 - 63,000 ₰
- > 63,000 ₰

5 cm

NOTE

The grid shown on this plan is a reduction from the 1:2000 plans and thus does not correspond to the present 1:5000 grid on Zeehan B2/3, B1/4 which are slightly inaccurate

60,000 ₰ TO BE ADDED TO MAGNETIC READINGS

RENISON LIMITED

ARGENT GRID AREA

PROTON GROUND MAGNETICS

GEOLOGIST J. KELLEHER	SCALE 1:5000 METRES
DRAUGHTSMAN F. OLSSON	100 0 100 200
DATE MAY, 1975	
REVISIONS	DRAWING No.
447126 1520	4

76-1177

E.L. 42/71

R.M.L.

ARGENT GAP

ARGENT GRID

RENISON MINE GRID

RENISON MINE

MINE COMPLEX

PROPOSED D.D.H.

Diamond drill hole access road. (completed 1975-76).

Proposed additional lines.

Proposed roads.

1521

5 cm

RENISON LIMITED

E.L. 42/71

WORK PROGRAMME — COMPLETED & PROPOSED

GEOLOGIST : J.P. Kenehan	SCALE 1: METRES 1:10,000
DRAUGHTSMAN : F.A. Colson	
DATE : June '76	
REVISIONS : 447127 1521	DRAWING No. 5

76-1177

Geochemistry

PPM

50 — 200
180
40 — 160
140
30 — 120
100
20 — 80
60
10 — 40
20
0 — 0

I. P. Data

CHARGEABILITY IN MILLIVOLTS/VOLT (——)

60
40
20
0

21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

1500 1000 500 0

RESISTIVITY IN Ohm - METRES (- - - -)

5000
3000
2000
1000
500
300
200
100

1500 1000 500 0

Total Magnetic Field (δ)

63000 — 65000
800 — 64000 (——)
600 — 63000 (- - - -)
400 — 62000 COARSE SCALE
200 — 61000 FINE SCALE
62000 — 60000

1500 1000 500 0

Topography & Geology

HEIGHT ABOVE SEA LEVEL - (METRES)

500
400
300
200
100
0

CREEK CREEK CREEK CREEK CREEK CREEK ROAD (PAR TO LINE)

Qra

UEc

Esc

LEc

Esc

1500 1000 500 0

447128

I.P. DATA

CHARGEABILITY & RESISTIVITY

——— GRADIENT ARAY

—X— X — POLE – DIPOLE

MAGNETICS

5000 γ SCALE

1000 γ SCALE

GEOCHEMISTRY

Sn
Cu
Pb
Zn
As
W

GEOLOGY

Qra Quaternary alluvium, fluvioglacials

UEc Upper Crimson Creek Formation

LEc Lower Crimson Creek Formation (Mine sequence equivalent)

Esc Success Creek Group

5 cm

RENISON LIMITED	
ARGENT GRID	
LINE 1	
SECTION LOOKING N.W. 1522	
SCALE. 1:5000 METRES 200 100 0 100 200	
DRAWN	J P K
TRACED	J M M
DATE	MAY, 76
SCALE	1:5000
DRAWING No.	6a

76-1177

Geochemistry
PPM

I. P. Data
CHARGEABILITY IN MILLIVOLTS/VOLT (——)
RESISTIVITY IN Ohm - METRES (- - - -)

Total Magnetic Field (δ)
FINE SCALE (- - - -) COARSE SCALE (——)

Topography & Geology
HEIGHT ABOVE SEA LEVEL - (METRES)

CREEK
CREEK
CREEKS
CREEK
ROAD
Qra
UEc
LEc
Esc
Esc
LEc

447129

RENISON LIMITED

ARGENT GRID

LINE 3 1523

SECTION LOOKING N.W.

SCALE. 1:5000 METRES

DRAWN	J.P.K
TRACED	J.M.M
DATE	MAY, 76
SCALE	1: 5000
DRAWING No.	6b

I P DATA
CHARGEABILITY & RESISTIVITY
GRADIENT ARAY
—X— X — POLE - DIPOLE

MAGNETICS
5000γ SCALE
1000γ SCALE

GEOCHEMISTRY
Sn
Cu
Pb
Zn
As
W

GEOLOGY
Qra Quaternary alluvium, fluvioglacials
UEc Upper Crimson Creek Formation
LEc Lower Crimson Creek Formation (Mine sequence equivalent)
Esc Success Creek Group

5 cm

76-1177

Geochemistry
PPM

I. P. Data
CHARGEABILITY IN MILLIVOLTS/VOLT (——)
RESISTIVITY IN Ohm-METRES (- - - -)

Total Magnetic Field (δ)
FINE SCALE (- - - -)
COARSE SCALE

Topography & Geology
HEIGHT ABOVE SEA LEVEL - (METRES)

CREEK
TRACK
ROAD
Lεc
Esc
UEc

447130

RENISON LIMITED	
ARGENT GRID	
LINE 5	1524
SECTION: LOOKING N.W.	
SCALE. 1:5000 METRES	
DRAWN	J P K
TRACED	J M H
DATE	MAY, 76
SCALE	1 5000
DRAWING No.	δc

I.P DATA
CHARGEABILITY & RESISTIVITY
——— GRADIENT ARAY
—X— X — POLE – DIPOLE

MAGNETICS
5000 f SCALE
1000 f SCALE

GEOCHEMISTRY
Sn
Cu
Pb
Zn
As
W

GEOLOGY
Qra Quaternary alluvium, fluvioglacials
UEc Upper Crimson Creek Formation
LEc Lower Crimson Creek Formation (Mine sequence equivalent)
Esc Success Creek Group

5 cm

76-1177

Geochemistry
PPM

I. P. Data
CHARGEABILITY IN MILLIVOLTS/VOLT (——)
RESISTIVITY IN Ohm - METRES (– – –)

Total Magnetic Field (δ)
FINE SCALE (– – – –)
COARSE SCALE (——)

Topography & Geology
HEIGHT ABOVE SEA LEVEL - (METRES)

447131

RENISON LIMITED

ARGENT GRID

LINE 7 1525

SECTION LOOKING N.W.

SCALE. 1:5000 METRES

DRAWN	J P K
TRACED	J M M
DATE	MAY. 76
SCALE	1 5000
DRAWING No.	5d

I P DATA
CHARGEABILITY & RESISTIVITY
GRADIENT ARAY
—X— X— POLE – DIPOLE

MAGNETICS
5000γ SCALE
1000γ SCALE

GEOCHEMISTRY
Sn
Cu
Pb
Zn
As
W

GEOLOGY
Qra Quaternary alluvium, fluvioglacials
UEc Upper Crimson Creek Formation
LEc Lower Crimson Creek Formation (Mine sequence equivalent)
Esc Success Creek Group

5 cm

76-1177

Geochemistry
PPM

I. P. Data
CHARGEABILITY IN MILLIVOLTS/VOLT (——)
RESISTIVITY IN Ohm - METRES (- - -)

Total Magnetic Field (δ)
FINE SCALE (- - - -)
COARSE SCALE (——)

Topography & Geology
HEIGHT ABOVE SEA LEVEL - (METRES)

447132

CREEK
CREEK
CREEK
CREEK
TRACK
CREEK
CREEK
CREEK
CREEK
TRACKS
TRACK
ROAD

LEc
Esc
Esc
Esc

RENISON LIMITED	
ARGENT GRID	
LINE 9	1526
SECTION LOOKING N.W.	
SCALE. 1:5000 METRES	
DRAWN	J.P.K.
TRACED	J.M.M.
DATE	MAY., 76
SCALE	1:5000
DRAWING No.	6e

I P DATA
CHARGEABILITY & RESISTIVITY
GRADIENT ARAY
POLE - DIPOLE

MAGNETICS
5000 γ SCALE
1000 γ SCALE

GEOCHEMISTRY
Sn
Cu
Pb
Zn
As
W

GEOLOGY
Qra Quaternary alluvium, fluvioglacials
UEc Upper Crimson Creek Formation
LEc Lower Crimson Creek Formation (Mine sequence equivalent)
Esc Success Creek Group

5 cm

76-1177

Geochemistry
PPM

I. P. Data
CHARGEABILITY IN MILLIVOLTS/VOLT (——)
RESISTIVITY IN Ohm - METRES (- - - -)

Total Magnetic Field (γ)
FINE SCALE (- - - -)
COARSE SCALE

Topography & Geology
HEIGHT ABOVE SEA LEVEL - (METRES)

447133

CREEK
CREEK
TRACK
TRACK
CREEK
TRACK CREEK
CREEK
ROAD

UEc
Esc
LEc
Esc
Esc

RENISON LIMITED	
ARGENT GRID	
LINE 11	1527
SECTION LOOKING N.W.	
SCALE 1:5000 METRES	
DRAWN	J P K
TRACED	J M M
DATE	MAY. 76
SCALE	1:5000
DRAWING No.	6f

I P DATA
CHARGEABILITY & RESISTIVITY
GRADIENT ARAY
POLE - DIPOLE

MAGNETICS
5000γ SCALE
1000γ SCALE

GEOCHEMISTRY
Sn
Cu
Pb
Zn
As
W

GEOLOGY
Qra Quaternary alluvium, fluvioglacials
UEc Upper Crimson Creek Formation
LEc Lower Crimson Creek Formation (Mine sequence equivalent)
Esc Success Creek Group

5 cm

76-1177

Geochemistry
PPM

I. P. Data
CHARGEABILITY IN MILLIVOLTS/VOLT (——)
RESISTIVITY IN Ohm - METRES (- - - -)

Total Magnetic Field (δ)
FINE SCALE (- - - -)
COARSE SCALE

Topography & Geology
HEIGHT ABOVE SEA LEVEL - (METRES)

447134

CREEK
ROAD
MFP 62K
MFP 125
UEc
LEc
Esc

RENISON LIMITED

ARGENT GRID

LINE 13

SECTION LOOKING N.W. 1528

SCALE. 1:5000 METRES

DRAWN	J P K
TRACED	J M M
DATE	MAY, 76
SCALE	1 5000
DRAWING No.	5g

I P DATA
CHARGEABILITY & RESISTIVITY
GRADIENT ARAY
—X— X — POLE – DIPOLE

MAGNETICS
5000γ SCALE
1000γ SCALE

GEOCHEMISTRY
Sn
Cu
Pb
Zn
As
W

GEOLOGY
Qra Quaternary alluvium, fluvioglacials
UEc Upper Crimson Creek Formation
LEc Lower Crimson Creek Formation (Mine sequence equivalent)
Esc Success Creek Group

5 cm

76-1177

Geochemistry
PPM

I. P. Data
CHARGEABILITY IN MILLIVOLTS/VOLT (——)

REISTIVITY IN Ohm - METRES (- - - -)

Total Magnetic Field (δ)
FINE SCALE (- - - -)
COARSE SCALE

Topography & Geology
HEIGHT ABOVE SEA LEVEL - (METRES)

447135

CREEK
TRACK
ROAD
UEc
LEc
Esc

RENISON LIMITED

ARGENT GRID

LINE 15

SECTION LOOKING N.W. 1529

SCALE. 1:5000 METRES

DRAWN	J P K
TRACED	J N M
DATE	MAY, 76
SCALE	1: 5000
DRAWING No.	6h

I P DATA
CHARGEABILITY & RESISTIVITY
GRADIENT ARAY
—X— X — POLE – DIPOLE

MAGNETICS
5000 γ SCALE
1000 γ SCALE

GEOCHEMISTRY
Sn
Cu
Pb
Zn
As
W

GEOLOGY
Qra Quaternary alluvium, fluvioglacials
UEc Upper Crimson Creek Formation
LEc Lower Crimson Creek Formation (Mine sequence equivalent)
Esc Success Creek Group

5 cm

76-1177

Geochemistry
PPM

I. P. Data
CHARGEABILITY IN MILLIVOLTS/VOLT (——)
RESISTIVITY IN Ohm - METRES (- - - -)

Total Magnetic Field (γ)
FINE SCALE (- - - -)
COARSE SCALE (——)

Topography & Geology
HEIGHT ABOVE SEA LEVEL - (METRES)

CREEK
CREEK
CREEK
CREEK
CREEK
CREEK
ROAD
UEc
LEc
LEc
UEc
LEc

447136

RENISON LIMITED	
ARGENT GRID	
LINE 17	
SECTION LOOKING N.W. 1530	
SCALE 1:5000 METRES	
DRAWN	J P K
TRACED	J M N
DATE	MAY, 76
SCALE	1 5000
DRAWING No.	6i

I P DATA
CHARGEABILITY & RESISTIVITY
GRADIENT ARAY
—X— X — POLE – DIPOLE

MAGNETICS
5000 γ SCALE
1000 γ SCALE

GEOCHEMISTRY
Sn
Cu
Pb
Zn
As
W

GEOLOGY
Qra Quaternary alluvium, fluvioglacials
UEc Upper Crimson Creek Formation
LEc Lower Crimson Creek Formation (Mine sequence equivalent)
Esc Success Creek Group

5 cm

76-1177

Geochemistry
PPM

I. P. Data
CHARGEABILITY IN MILLIVOLTS/VOLT (——)
RESISTIVITY IN Ohm - METRES (- - - -)

Total Magnetic Field (δ)
FINE SCALE (- - - -)
COARSE SCALE (——)

Topography & Geology
HEIGHT ABOVE SEA LEVEL - (METRES)

CREEK
CREEK
CREEK
ROAD
UEc

447137

RENISON LIMITED	
ARGENT GRID	
LINE 19	1531
SECTION LOOKING N.W.	
SCALE 1:5000 METRES	

DRAWN	J P K
TRACED	J M M
DATE	MAY. 76
SCALE	1 5000
DRAWING No.	
	6j

I P DATA
CHARGEABILITY & RESISTIVITY
GRADIENT ARRAY
—X— X— POLE - DIPOLE

MAGNETICS
5000 γ SCALE
1000 γ SCALE

GEOCHEMISTRY
Sn
Cu
Pb
Zn
As
W

GEOLOGY
Qra Quaternary alluvium, fluvioglacials
UEc Upper Crimson Creek Formation
LEc Lower Crimson Creek Formation (Mine sequence equivalent)
ESc Success Creek Group

5 cm

76-1177

Geochemistry
PPM

50 — 200
40 — 160
30 — 120
20 — 80
10 — 40
0 — 0

I. P. Data

CHARGEABILITY IN MILLIVOLTS/VOLT (——)

60
40
20
0

220 219 218 217 216 215 214 213 212 211

1000 500 0

RESISTIVITY IN Ohm - METRES (- - - -)

5000
3000
2000
1000
500
300
200
100

1000 500 0

Total Magnetic Field (δ)

FINE SCALE (- - - -) — COARSE SCALE (——)

63000 — 65000
800 — 64000
600 — 63000
400 — 62000
200 — 61000
62000 — 60000

1000 500 0

Topography & Geology

HEIGHT ABOVE SEA LEVEL - (METRES)

500
400
300
200
100
0

UEc

1000 500 0

447138

RENISON LIMITED

ARGENT GRID

LINE 21

SECTION LOOKING N.W. 1532

SCALE. 1:5000 METRES

200 100 0 100 200

DRAWN	J P K
TRACED	J M N
DATE	MAY, 76
SCALE	1:5000
DRAWING No.	6k

I P DATA

CHARGEABILITY & RESISTIVITY

——— GRADIENT ARAY

—X— X— POLE – DIPOLE

MAGNETICS

5000 γ SCALE

1000 γ SCALE

GEOCHEMISTRY

Sn
Cu
Pb
Zn
As
W

GEOLOGY

Qra Quaternary alluvium, fluvioglacials

UEc Upper Crimson Creek Formation

LEc Lower Crimson Creek Formation (Mine sequence equivalent)

Esc Success Creek Group

5 cm

76-1177