ARCHER, CATHRO
AND ASSOCIATES LTD.
CONSULTING GEOLOGICAL ENGINEERS

BOX 4127, WHITEHORSE, Y.T. Y1A 3S9 667-4415 STANDARD BUILDING, VANCOUVER, B.C. 688-2568

1016 STANDARD BUILDING
510 WEST HASTINGS STREET
VANCOUVER, B.C.
V6B 1L8

DRILL REPORT

IGOR 1-26 CLAIMS

CLAIM SHEET 106E/2

Latitude 65°03'N; Longitude 134°38'W

Work Done May 25 to June 20, 1979

JANUARY 15, 1980

A.R. Archer, B.A.Sc., P.Eng. Consulting Engineer

090562

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of

$ 10,400.00

Resident Geologist or
Resident Mining Engineer

Considered as representation work under Section 58 (4) Yukon Quartz Mining Act.

Commissioner of Yukon Territory

TABLE OF CONTENTS

APPENDICES

LIST OF ILLUSTRATIONS

INTRODUCTION

During 1979, Wernecke Joint Venture (WJV) drilled 1,602 feet in five holes on the Igor property. Work was conducted under the direction of geologist Uwe Schmidt during the period May 25 to June 20, 1979. Overall supervision was provided by the writer.

PROPERTY, LOCATION AND ACCESS

The Igor property consists of 26 contiguous Igor claims registered at the Mayo Recording Office as follows:

Claim Name	Grant Numbers	Expiry Date
Igor 1-16	Y96124-Y97139	20 April, 1980
Igor 17-22	Y98050-Y98055	20 April, 1980
Igor 23-24	YA1194-YA1195	20 April, 1980
Igor 25F, 26F	YA1196-YA1197	20 April, 1980

The claims are recorded in the name of Archer, Cathro and Associates Ltd. on behalf of Wernecke Joint Venture (Chevron Canada Ltd. and Aquitaine Co. of Can. Ltd.).

The claims are located on claim sheet 106E/2 at approximately latitude 65°03'N and longitude 134°38'W. Access during 1979 was by helicopter from Kiwi Lake, some 19 km to the north or from a bush airstrip in the Bear River valley, 24 km to the southeast. Kiwi Lake lies some 190 km northeast of Mayo.

GEOLOGY

The Igor claims overlie an area of Quartet Group (Unit Hs) shales, phyllites, quartzites and siltstones cut by a subcircular, pipe-like breccia body some 500 m wide and 850 m long. Its regional position is illustrated on Figure R1 in the pocket, a 1978 WJV report figure updated to 1979.

The breccia is the main feature of interest since it hosts all mineralization on the claims. It outcrops about one km east of the unconformably-overlying Paleozoic carbonates that mark the western boundary of the Wernecke Supergroup exposure in this district. A small slice of Paleozoic carbonate is faulted to within 200 m of the breccia, as illustrated on Figure I-1 in the pocket. Most of the mapping on this figure was done during the 1975 OJV program and has been reinterpreted to fit present stratigraphic terminology. This figure illustrates the extent of peripheral bleaching imparted to Unit Hs by the breccia and subdivides the breccia according to mineral content and colour, both of which may represent various degrees of alteration. Since frost-shattering has reduced most outcrop to talus, bedrock geology in any one location has to be mapped by identifying the predominant type of float.

At least two directions of faulting are present. A north-trending fault has been recognized along the northeast breccia contact and another is postulated to occur along a weak surface linear that lies immediately west of the baseline. A cluster of west-trending faults, with associated barite, hematite and minor pitchblende, occur near the centre of the breccia at 25N and 2W. Although these form surface linears up to several metres wide and deep, they apparently represent merely discontinuous jointing rather than strong shears.

MINERALIZATION

The Igor claims were staked in 1974 for their copper potential, several weeks before the presence of uranium mineralization was recognized. Work that year and in 1975 consisted of grid soil sampling, hand trenching, chip sampling mineralized exposures, grab sampling of mineralized float trains and ground and airborne radiometric surveys. Figure I-1 to I-3 in the pocket illustrate the results of this work which is well described in the OJV final report for 1975. The only data added to these maps in 1979 is the position of the drill hole collars and the location of two additional chalcopyrite occurrences (Zones D & E).

Mineralization consists of hematite-magnetite, barite, pyrite, chalcopyrite and pitchblende, all confined to the breccia body. Most of the hematite appears to be pseudomorph after magnetite and its occurrence ranges from the occasional coarse crystal up to 10 mm in diameter within breccia matrix to fine grained massive zones up to 20 m wide that totally replace matrix and breccia fragments. Barite, chalcopyrite and pyrite are common accessories. Barite also occurs as fine disseminations within the breccia matrix and as vein-like lenses or pods up to 3 m wide and 15 m long. Barite usually exhibits a pink to brick red colouration in the vicinity of pitchblende.

Chalcopyrite and pyrite occur as disseminations within the matrix and, to a lesser extent, as distinct sharply bounded vein-like zones in which mineralization has completely replaced the breccia matrix as well as portions of individual breccia fragments. Soil sampling (see Figure I-3 in the pocket) indicates that the entire breccia body contains over 200 ppm copper and that a small area some 480 m long and 150 m wide along the northwestern side exceeds 2000 ppm copper.

An outcrop within this area sampled in 1974 yielded an assay of 2.5% copper across a width of 3 m. Two additional areas of outcropping copper mineralization, called Zones D and E, were partially exposed by hand trenching in 1979. Chip sampling at Zone E returned assays in the range of 0.76% to 3.84% copper over a series of 1 m by 1/2 m panels within a 6 m by 1.5 m exposure of breccia containing minor hematite and barite. Uranium assays were low, ranging from 5.5 ppm to 29 ppm. Zone D is a group of four small exposures of chalcopyrite-rich zones in breccia immediately downhill from the collar of drill hole 79I-3. These exposures are not radiometrically anomalous and no sampling was done.

Two types of uranium mineralization have been recognized. The first is pitchblende in association with barite and minor chalcopyrite discontinuously filling northeasterly and northwesterly trending, steep dipping, joint-like fractures. Three such zones (called A, B and C) have been previously exposed by hand trenching and similar mineralized float nearby indicates that additional zones and/or extensions are present. Zones A and B were further hand trenched in 1979 and the results of mapping and sampling are illustrated as an insert on Figure I-1 in the pocket. Chip samples over 10 cm width across six joints in Zone A returned assays in the range of 0.042% to 0.76% U_3O_8, 0.1 to 6.6 ppm Ag and 10 to 120 ppb Au. Zone B is pitchblende in a barite vein with minor chalcopyrite that occurs as a mineralized pod some 1.5 m long and 45 cm wide. A chip sample across the most radioactive portion of the pod assayed 3.65% U_3O_8, 8.6 ppm Ag and 106 ppb Au. The pitchblende occurs in a shiny, black, fairly hard mode that was described by H.R. Steacy of the GSC in late 1975 as follows:

"The radioactivity of this specimen is due principally to pitchblende which, on a sawn specimen surface, is seen to occur as veinlets, as rims on breccia fragments and disseminated forms in the matrix. Some yellow secondary vandendries-

scheite is also present. Disseminated grains of sulphide were observed, including chalcopyrite, the alteration of which gives rise to a little of a green secondary copper mineral. A partial x-ray fluorescence scan on a sawn portion detected uranium, thorium, lead; major copper and iron; and traces of cobalt and nickel. Thorium is a very minor constituent, the uranium to thorium ratio being about 47 to 1."

A sample of this pitchblende was dated at 1249 my by Teledyne Isotopes in 1976.

The second type of uranium mineralization is associated with chalcopyrite-rich material found in linear float trains on the lower slopes of the western side of Igor Ridge, as illustrated on Figure I-2 in the pocket. A specimen examined by Steacy of the GSC in 1975 was described as follows:

"An autoradiograph of this pyrite-rich specimen is attached, showing the distribution of the radioactive constituents as exposed on a sawn surface. An x-ray mount made of a black mineral observed in the area of most intense activity yielded a UO_2 pattern, with lines of quartz. A partial x-ray fluorescence scan of a sawn section detected major iron and copper, minor manganese and traces of uranium and lead."

This same specimen was assayed by UJV in 1975 and returned 0.2% U_3O_8, 5.91% Cu 0.35% REE and 10 ppm thorium while a spectrographic analysis indicated a content of about 100 ppm As, 5000 ppm Ba, 20 ppm Bi, 100 ppm Cu, 500 ppm Co, 500 ppm Pb, 5000 ppm Mn, 200 ppm Mo, 100 ppm Ni and 100 ppm Zn. Although the uranium mineral is finely disseminated and cannot be visually identified, it is believed to be pitchblende because of its low thorium content.

DIAMOND DRILLING

General

The WJV drilling was contracted from E. Caron Diamond Drilling Ltd., Whitehorse, Yukon using a BBS-1 model drill powered by a 4 cylinder Lycoming diesel engine and equipped with hydraulic head and wireline attachments. All holes were drilled using BQ rods and water circulation. No sludges were collected because core recovery exceeded 95 per cent.

Drilling proved to be relatively trouble free. Permafrost was present in all of the holes but did not require the addition of calcium chloride to the water except during radiometric probing. The core was logged in British rather than metric units to conform with the lengths of drill rod used. Field drill logs with assays and radiometric logs are enclosed in the pocket and the location of the drill collars is shown on Figure I-1 in the pocket. Drill core is stored at the H.S. Bostock core library in Whitehorse, except for the mineralized section of Hole 79I-3, which is being held at the Archer, Cathro field equipment shed, 405 Alexander Street, Whitehorse, to ensure security.

Assays and Radiometric Logging

Radioactive and chalcopyrite-rich sections of drill core were split and geochemically assayed at Chemex Labs Ltd., North Vancouver, B.C. for uranium and copper in part-per-million (ppm). Some of the samples were also geochemically analyzed for silver in ppm and for gold in ppb. Samples with assay values in excess of 400 ppm uranium or copper were reanalyzed in per cent using standard assay procedures. Selected samples were also spectrographically analyzed and composites of the radioactive section in Hole 79I-3 were assayed in per cent for barium, phosphate, and niobium and geochemically analyzed in ppb for the platinum group metals.

Each hole was radiometrically logged using a Model 1000-C Portable Borehole Logger, manufactured by Mount Sopris Instrument Company, Delta, Colorado, on loan from Chevron Canada Ltd. The Mount Sopris logger is equipped with a 4.82 cc thallium-activated, sodium iodide crystal housed in a 3.18 cm diameter probe 1.1 m long that is attached to a 304 m cable. It records total-count gamma radiation in counts-per-second (cps) on metric chart paper moving at a speed of 1 cm per metre of hole probe. Available scales range from 0-50 cps up to 0-50,000 cps. Most WJV logs were run at a 200 cps chart width. The holes were probed at a speed of approximately 2 m per minute, about twice the recommended speed, because of the permafrost hazard. Also, the core barrel was removed prior to probing to allow easier extraction of the drill rods in case the hole began to freeze. Radiometric charts are attached to the right hand margin of the drill logs, which have been given a scale that converts the metric chart directly to hole footage.

Results

All holes were drilled in breccia, which has been logged according to colour variation and mineral content. The colour variation is caused by varying degrees of alteration, including bleaching, hematization, and chloritization. Individual breccia fragments range up to 15 cm in size and average about 3 cm.

Strong faulting was observed at the bottom of Hole 79I-3 and from 143.5 feet to 170.0 feet in Hole 79I-5. Otherwise, the holes exhibit only weakly developed joint-like fracturing. Core angles of all structures, as well as contacts of mineralized zones, usually range between 20° and 40° to the core axis, indicating either a vertical or horizontal orientation. A vertical orientation is assumed on the drill sections as this agrees best with attitudes measured in surface outcrop.

Figures I-4 to I-6 following page 10 illustrate geology, assays and radiometric response in section for each hole. Copies of the drill sections are also included with the detailed drill logs in the pocket. Spectrographic analysis of mineralized sections are included in Appendix I. A summary of the purpose and results for each hole follows.

Hole 79I-1 - was drilled to explore the projection of Zones A and B about 200 feet below surface. Low uranium assays associated with thin hematized and chlorite filled joints were obtained from 70.0 to 70.5 feet (235 ppm U), 207 feet to 212 feet (155 ppm U) and 414.0 feet to 414.75 feet (0.078% U_3O_8). Although no specific radioactive mineral can be identified, the uranium is thought to be present as sooty pitchblende near the fractures. The radiometric log for the three intervals returned 174 cps, 255 cps, and 172 cps respectively over a background of 40 cps. Additional radiometric anomalies, with no associated radioactivity in core, include 290 cps at 90 feet and 220 cps at 365 feet which are the approximate projected locations for the A and B zones, assuming a steep dip.

Numerous sections of hematite and/or pyrite-rich core with minor associated chalcopyrite were intersected throughout the upper 300 feet of the hole. Assays of these returned values ranging from 1.5 ppm to 37.0 ppm U, 70 ppm to 8600 ppm Cu, 0.1 ppm to 2.6 ppm Ag and <10 ppb to 50 ppb Au.

Hole 79I-2 - was drilled on the same section as Hole 79I-1 to intersect the A and B zones about 50 feet below surface. Two intersections containing uranium mineralization were obtained. The first, from 71 feet to 76 feet, assayed 56 ppm U and gave a response of 290 to 340 cps on the radiometric log. The second is a series of narrow copper-uranium zones vertically below Zone B between 155 feet and 176.5 feet. Uranium assays in this 21.5 foot interval ranged from 23 ppm U to 0.136%

U_3O_8 and averaged 0.022% U_3O_8 while copper assays ranged from 0.62% to 3.39% with an average of 1.33%. Spectrographic analysis indicates anomalous quantities of cobalt (1000 ppm), titanium (5000 ppm) and arsenic (500 ppm). Response on the radiometric log through this section ranged from 75 cps to 2250 cps with an average of about 500 cps. Both sections are in a zone of weakly bleached hematitic breccia with a carbonate matrix.

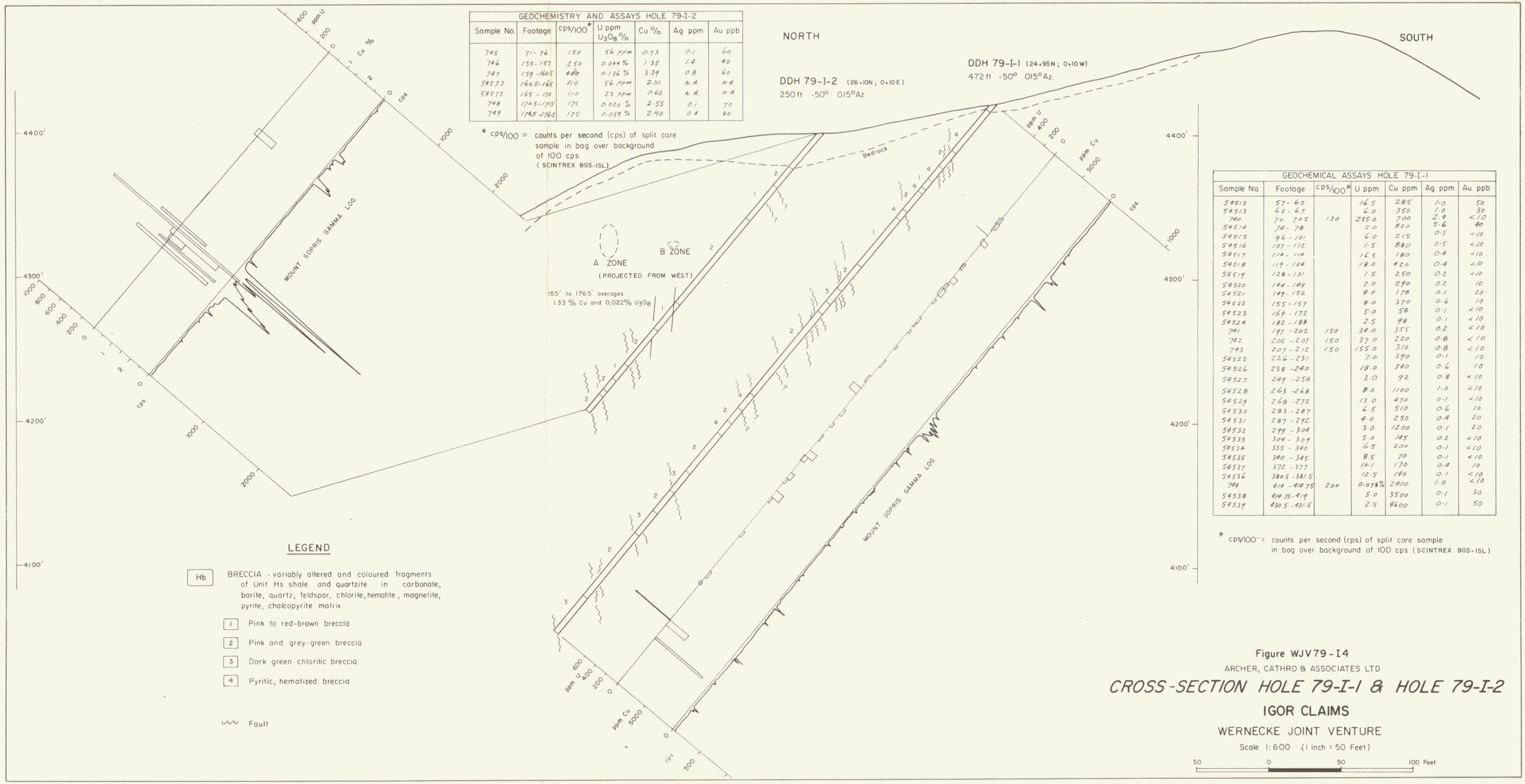
Hole 79I-3 - was drilled to explore a postulated, north-trending fault zone. Two copper-uranium zones were unexpectedly intersected, one from 32 feet to 57 feet and the other from 106 feet to 171 feet. The first averaged 2.0% Cu and 0.044% U_3O_8 and the second averaged 4.74% Cu and 0.089% U_3O_8. Individual five foot sections assayed as high as 8.70% Cu and 0.241% U_3O_8. Response on the radiometric log ranged from 250 cps to 3900 cps (about 1000 cps average) from the upper zone and from 500 cps to 7500 cps (about 2000 cps average) from the lower zone. Background for the remainder of the hole was 40 cps.

The uranium mineralization is directly related to the chalcopyrite and is seen as wispy zones of a disseminated, fine grained, dull black mineral which is thought to be pitchblende. Spectrograph analyses indicate anomalous quantities of cobalt (up to 500 ppm), lead (to 500 ppm), manganese (to over 1%), strontium (to 5000 ppm) and titanium (to 5000 ppm). Gold and silver are present in low quantities with assays ranging up to 160 ppb and 4.5 ppm (0.14 oz/ton) respectively. A composite sample from the first zone assayed 7.54% Ba, 0.62% P_2O_5, 183 ppb platinum group metals and less than 100 ppm Nb_2O_5 while two composite samples from the second zone averaged 3.25% Ba, 0.2% P_2O_5, 21 ppb platinum group metals and less than 100 ppm Nb_2O_5.

Both zones resemble radioactive copper-rich float that occurs lower on the hill (see Figure 1-2). In core, the mineralization generally cements breccia fragments but occasionally replaces breccia as well. Associated minerals include hematite, magnetite, barite and chlorite. The mineralized sections exhibit a pervasive, dark, brick red colouration whereas breccia peripheral to them is strongly bleached and weakly pyritized. The contacts of the lower zone are abrupt with an angle of 35° to the axis of the core, indicating either a vertical or horizontal orientation. There is no faulting associated with the mineralization. Core recovery was 100 per cent.

Hole 79I-4 - was drilled to explore beneath an area of copper-uranium surface float. Although copper-rich sections were cut from 78.0 feet to 132.0 feet and 236.0 feet to 247.0 feet, uranium assays were 16.5 ppm or less and the radiometric log returned a low background response averaging 30 cps. The mineralized sections appear similar to those in Hole 79I-3 except they contain more pyrite and have a red-brown, rather than brick red, colouration. They have sharp contacts at some 30° to the core axis and breccia peripheral to them is strongly bleached. Assays of the upper copper zone ranged from 2.0 ppm U to 9.0 ppm U and 0.05% Cu to 1.74% Cu with an average of 3.9 ppm U and 0.71% Cu while the lower zone averaged 11 ppm U and 0.82% Cu.

Hole 79I-5 - was drilled along section from Hole 79I-4 to continue exploration beneath copper-uranium surface float zones and to explore the strike extension of mineralization cut in Hole 79I-3. A copper zone with a bleached contact was cut from 138.5 feet to 143.5 feet immediately before the hole intersected a strong chloritic shear zone from 143.5 feet to 170.0 feet. The copper zone assayed 24 ppm U and 0.79% Cu while assays from the fault zone ranged from 5 ppm U to 13 ppm U and 30 ppm Cu to 210 ppm Cu. Recovery in the fault averaged about 60%.



GEOCHEMISTRY AND ASSAYS HOLE 79-I-2

Sample No.	Footage	cps/100*	U ppm U_3O_8 %	Cu %	Ag ppm	Au ppb
745	71 - 76	150	56 ppm	0.73	0.1	60
746	155 - 157	250	0.044 %	1.35	1.4	40
747	159 - 160.5	400	0.136 %	3.39	0.8	60
585 73	160.5 - 165	110	56 ppm	2.30	N.A.	N.A.
585 75	165 - 170	110	23 ppm	0.62	N.A.	N.A.
748	170.5 - 175	175	0.020 %	2.55	0.1	70
749	174.5 - 176.5	175	0.059 %	2.40	0.4	80

* cps/100 = counts per second (cps) of split core sample in bag over background of 100 cps (SCINTREX BGS-ISL)

GEOCHEMICAL ASSAYS HOLE 79-I-1

Sample No.	Footage	cps/100*	U ppm	Cu ppm	Ag ppm	Au ppb
54512	57 - 62		16.5	285	1.0	50
54513	62 - 67		6.0	350	1.0	30
740	70. 705	130	235.0	700	2.4	< 10
54514	74 - 78		2.0	820	2.6	40
54515	96 - 101		6.0	215	0.5	< 10
54516	107 - 112		1.5	880	0.5	< 10
54517	114 - 119		16.5	180	0.4	< 10
54518	119 - 124		18.0	420	0.4	< 10
54519	128 - 131		1.5	250	0.2	< 10
54520	144 - 149		7.0	290	0.2	10
54521	149 - 152		8.0	178	0.1	20
54522	155 - 157		8.0	370	0.6	10
54523	169 - 172		5.0	54	0.1	< 10
54524	182 - 188		2.5	98	0.1	< 10
741	197 - 202	150	34.0	355	0.2	< 10
742	202 - 207	150	37.0	220	0.8	< 10
743	207 - 212	150	155.0	310	0.8	< 10
54525	226 - 231		7.0	390	0.1	10
54526	238 - 240		18.0	340	0.6	10
54527	249 - 254		3.0	92	0.8	< 10
54528	263 - 268		8.0	1100	1.0	< 10
54529	268 - 272		13.0	470	0.1	< 10
54530	283 - 287		6.5	510	0.6	10
54531	287 - 292		4.0	250	0.4	20
54532	299 - 304		3.0	1200	0.1	20
54533	304 - 309		5.0	145	0.2	< 10
54534	335 - 340		6.5	200	0.1	< 10
54535	340 - 345		8.5	70	0.1	< 10
54537	372 - 377		10.1	170	0.4	10
54536	380.5 - 381.5		12.5	190	0.1	< 10
744	414 - 414.75	200	0.078%	2400	1.0	< 10
54538	414.75 - 419		5.0	3500	0.1	30
54539	430.5 - 431.5		2.5	8600	0.1	50

* cps/100* = counts per second (cps) of split core sample in bag over background of 100 cps (SCINTREX BGS-ISL)

LEGEND

Hb — BRECCIA - variably altered and coloured fragments of Unit Hs shale and quartzite in carbonate, barite, quartz, feldspar, chlorite, hematite, magnetite, pyrite, chalcopyrite matrix

1 — Pink to red-brown breccia

2 — Pink and grey-green breccia

3 — Dark green chloritic breccia

4 — Pyritic, hematized breccia

Fault

Figure WJV79 - I4

ARCHER, CATHRO & ASSOCIATES LTD

CROSS-SECTION HOLE 79-I-1 & HOLE 79-I-2

IGOR CLAIMS

WERNECKE JOINT VENTURE

Scale 1:600 (1 Inch = 50 Feet)

50 0 50 100 Feet

GEOCHEMISTRY AND ASSAYS HOLE 79-I-3						
Sample No.	Footage	cps/100 *	U_3O_8 %	Cu %	Ag ppm	Au ppb
115	32 - 37	550	0.084	5.91	1.6	160
116	37 - 42	300	0.029	1.56	0.1	60
117	42 - 47	150	145 ppm	0.60	0.1	20
118	47 - 52	300	0.029	0.96	0.1	20
119	52 - 57	300	0.059	1.51	0.1	60
120	68 - 70	150	67 ppm	0.01	0.1	10
121	106 - 111	400	0.055	6.01	3.2	40
122	111 - 116	500	0.058	2.44	1.4	40
123	116 - 121	1000	0.126	2.36	1.8	50
124	121 - 126	700	0.140	2.11	2.0	20
125	126 - 131	650	0.117	5.83	4.6	90
54502	131 - 136	300	0.032	1.86	0.8	40
54503	136 - 141	300	0.046	2.15	0.8	20
54504	141 - 146	550	0.090	4.14	1.4	40
54505	146 - 151	700	0.106	4.22	1.2	40
54506	151 - 156	1300	0.241	7.10	1.6	90
54507	156 - 161	500	0.072	6.89	2.0	70
54508	161 - 166	300	0.057	7.80	4.0	60
54509	166 - 171	200	150 ppm	8.70	3.4	80
54510	171 - 176	190	25 ppm	1.00	0.1	10
54511	176 - 181	130	29 ppm	0.84	0.1	30

* cps/100 = counts per second (cps) of split core sample in bag over background of 100 cps (SCINTREX BGS-ISL)

LEGEND

- Hb — BRECCIA - variably altered and coloured fragments of Unit Hs shale and quartzite in a carbonate, barite, quartz, feldspar, chlorite, hematite, magnetite, pyrite, chalcopyrite matrix
- 1 — Pink to red-brown breccia
- 2 — Pink and grey-green breccia
- 3 — Dark green chloritic breccia
- 4 — Pyritic, hematized breccia
- Fault

Figure WJV79-I5

ARCHER, CATHRO & ASSOCIATES LTD

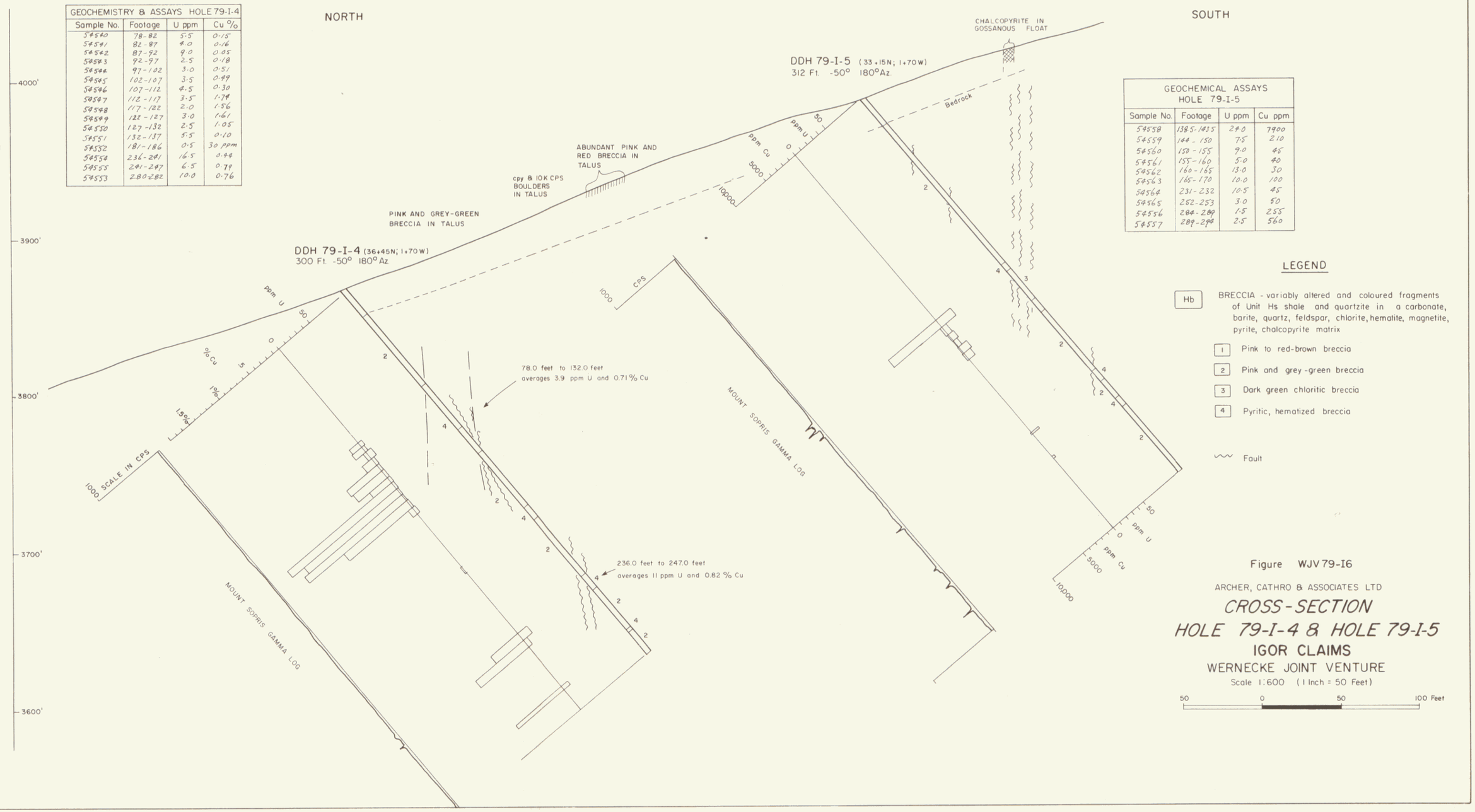
CROSS-SECTION HOLE 79-I-3

IGOR CLAIMS

WERNECKE JOINT VENTURE

Scale 1:600 (1 Inch = 50 Feet)

50 0 50 100 Feet



GEOCHEMISTRY & ASSAYS HOLE 79-I-4			
Sample No.	Footage	U ppm	Cu %
54540	78-82	5.5	0.15
54541	82-87	4.0	0.16
54542	87-92	9.0	0.05
54543	92-97	2.5	0.18
54544	97-102	3.0	0.51
54545	102-107	3.5	0.99
54546	107-112	4.5	0.30
54547	112-117	3.5	1.79
54548	117-122	2.0	1.56
54549	122-127	3.0	1.61
54550	127-132	2.5	1.05
54551	132-137	5.5	0.10
54552	181-186	0.5	30 ppm
54554	236-241	16.5	0.44
54555	241-247	6.5	0.79
54553	280-282	10.0	0.76

GEOCHEMICAL ASSAYS HOLE 79-I-5			
Sample No.	Footage	U ppm	Cu ppm
54558	138.5-143.5	24.0	7900
54559	144 - 150	7.5	210
54560	150 - 155	9.0	45
54561	155 - 160	5.0	40
54562	160 - 165	13.0	30
54563	165 - 170	10.0	100
54564	231 - 232	10.5	45
54565	252 - 253	3.0	50
54556	284 - 289	1.5	255
54557	289 - 294	2.5	560

LEGEND

Hb — BRECCIA - variably altered and coloured fragments of Unit Hs shale and quartzite in a carbonate, barite, quartz, feldspar, chlorite, hematite, magnetite, pyrite, chalcopyrite matrix

1 — Pink to red-brown breccia

2 — Pink and grey-green breccia

3 — Dark green chloritic breccia

4 — Pyritic, hematized breccia

Fault

Figure WJV 79-I6

ARCHER, CATHRO & ASSOCIATES LTD

CROSS-SECTION
HOLE 79-I-4 & HOLE 79-I-5
IGOR CLAIMS
WERNECKE JOINT VENTURE

Scale 1:600 (1 Inch = 50 Feet)

50 0 50 100 Feet

Pyritic, hematized sections with traces of chalcopyrite were also cut at 231 feet, 252 feet and from 284 feet to 294 feet. Assays from these ranged from 1.5 ppm U to 10.5 ppm U and 45 ppm Cu to 500 ppm Cu.

Radiometric logging returned only weak anomalies of 190 cps at 141 feet and 192 feet, over a background of 40 cps.

CONCLUSIONS AND RECOMMENDATIONS

The surface indication that both primary and secondary (or remobilized) uranium mineralization occurs on the property seems to have been confirmed in drilling.

Holes 79I-1 and 79I-2 were drilled beneath pitchblende filled fractures found high on the Igor ridge in Zones A and B. This mineralization occurs in open, joint-like fractures and is associated with lenses of barite and minor chalcopyrite. Only traces of similar fracture-related pitchblende were cut in these two holes and none of the intersections project back to the surface zones. If this type of mineralization is related to an unconformity, the better concentrations have probably been eroded with the unconformity.

Of more interest is the apparently primary uranium mineralization occurring in association with chalcopyrite rich zones within the breccia. Geochemical, radiometric and geological work in 1975 outlined a 200 m by 500 m area with potential for this type of occurrence although float mapping suggested individual zones within it were probably narrow. Holes 79I-4 and 79I-5 were drilled in the area of most abundant copper-uranium float but only copper mineralization, with no associated uranium, was intersected. On the other hand, holes 79I-2 and 79I-3, which are uphill from the mineralized float, both intersected copper-uranium zones. Core angles indicate these zones could have either a steep or flat orientation. A steep orientation has been assumed in the drill sections because most surface structures have steep dips. If this is correct, these zones have poor vertical continuity

because there is no evidence of mineralization at their surface projection. However, a flat orientation has a better fit with the observed location of mineralized material. The mineralized zone cut in Hole 79I-2 projects horizontally to the best zone of radioactivity cut in Hole 79I-1 and this zone, plus the two zones cut in Hole 79I-3, project horizontally to the general vicinity of the mineralized surface float.

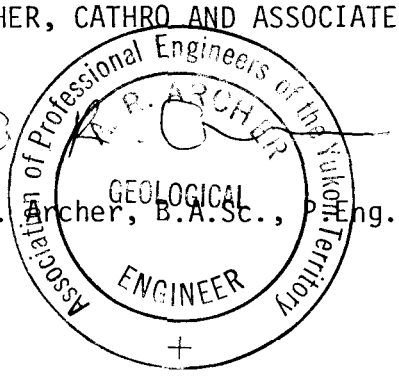
The copper-uranium type of mineralization is particularly interesting because it appears to represent a late stage of breccia emplacement and has such encouraging copper and uranium grades. This type of mineralization could extend to considerable depth within the breccia similar to the famous Tsumeb Mine in South Africa.

The Igor copper-uranium mineralization has many similarities to the Olympic Dam Copper Prospect in Australia, which is being explored by Western Mining Corporation. This prospect consists of copper-uranium zones within a Proterozoic granitic breccia and has similar mineralogy, an identical copper-to-uranium ratio, and a similar association with hematite and barite. The uranium minerals have been identified as uraninite and minor brannerite. The mineralized area has been traced over an area of 1500 m by 2500 m and to a depth of 1200 m. A total of 11% of the first 20 holes consisted of copper-uranium zones ranging from 1% to 4% Cu over widths ranging from 26 feet to 560 feet. As a comparison, copper-uranium zones make up 7% of the five holes drilled by WJV at Igor.

Further drilling is recommended.

Respectfully submitted,

ARCHER, CATHRO AND ASSOCIATES LTD.



A.R. Archer, B.A.Sc., P.Eng.

/mc

WJV 1979 IGOR DIAMOND DRILL LEGEND

GEOLOGY

HELIKIAN

Hb — Breccia

Heterolithic breccia containing grey, green and pink fragments of variably bleached, carbonatized, heteratized and fenitized Quartet Group (Hs) shale, phyllite, quartzite and siltstone in a variable matrix of carbonate, feldspar, barite, quartz, chlorite, hematite – magnetite, pyrite and chalcopyrite

Hb_1 — Pink and Red-Brown Breccia

Pink, red and red-brown rock fragments in carbonate rich matrix with disseminted hematite

Hb_2 — Pink and Grey-Green Breccia

Silver-grey to brown weathering breccia with recessive weathering carbonate matrix, pinkish matrix with light green fragments in fresh rock and variable hematite content

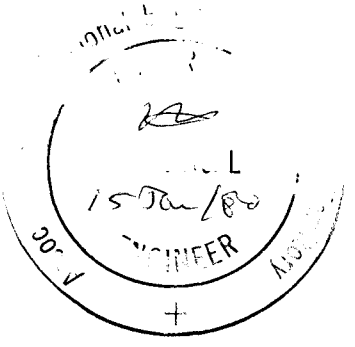
Hb_3 — Dark Green Chloritic Breccia

Dark green chloritic matrix and fragments, often with massive hematite sections

Hb_4 — Pyritic, Hematized Breccia

High but variable concentrations of euhedral to massive magnetite-hematite with associated barite, pyrite and chalcopyrite, both in matrix and replacing breccia fragments

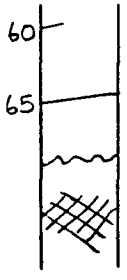
SYMBOLS



——————— major geological boundary

— — — — minor subdivision

STRUCTURE



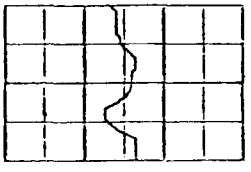
joint with angle to core axis

vein or mineralized fracture with angle to core axis

fault indicated by gouge

core broken into small fragments

RADIOMETRIC LOG



total count radiometric log with cps indicated on major peaks and on reruns at higher scales

DIAMOND DRILL LOGS

CLAIM SHEET 106 E-2 YEAR 1979

AREA Quartet Lake Area

COMPANY Archer Cathro & Assoc. Ltd.

No. OF HOLES 5 FOOTAGE 1602'

CLAIM DRILLED Igor #5 Y96128

CORE STARAGE D.I.N.A. Bostock Library, Whse. Y.T.

GOOD TO: 20th April, 1984

DRILL HOLE LOG

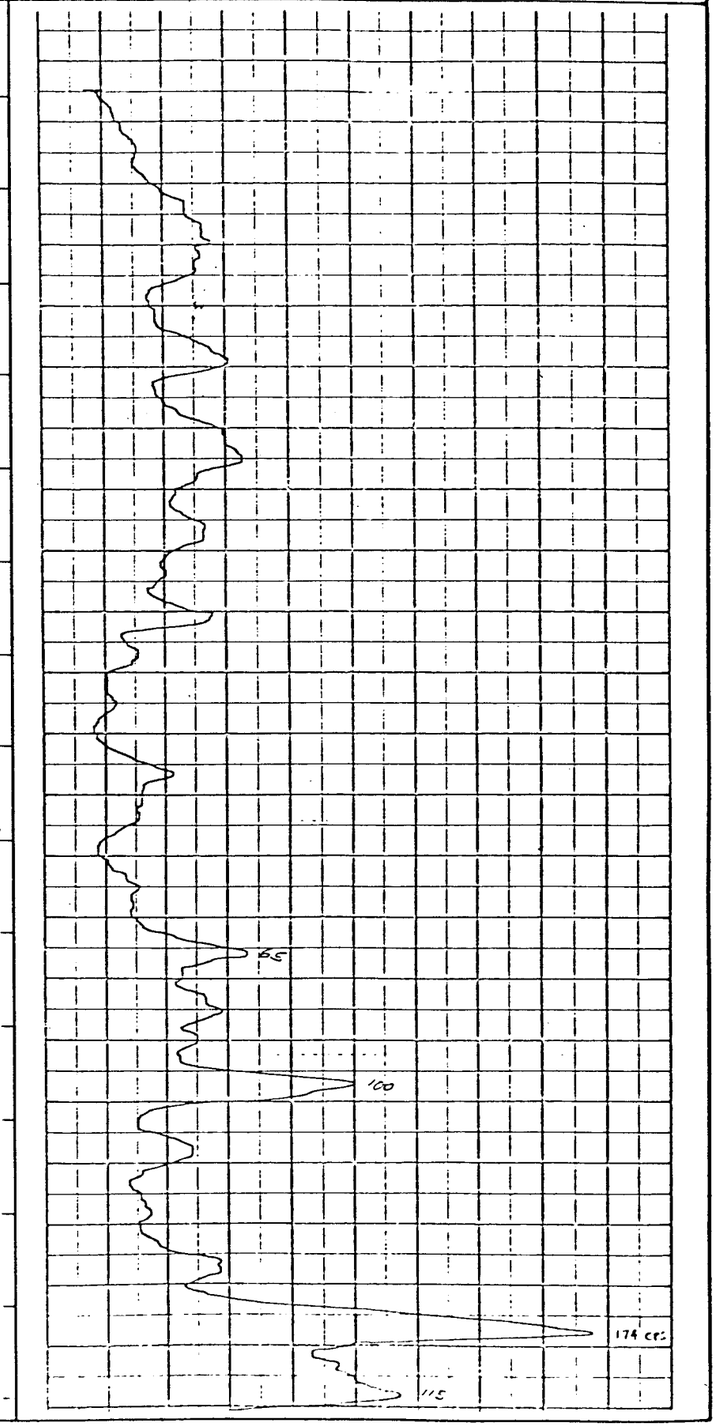
PROJECT WJV HOLE 791-1 LOCATION 24+95N-0+10W CORE SIZE BQ STARTED 03/06/79 FINISHED 06/06/79 PAGE 1 OF 7

CLAIM GROUP IGOR LENGTH 472' DIP -50° AZIMUTH 015° COLLAR ELEVATION 4422' DRILLED BY CARON LOGGED BY U. SCHMIDT

GEOLOGICAL DESCRIPTION	SAMPLE NUMBER	RADIO-ACTIVITY IN CPS BGS-ISL	GEOCHEMISTRY AND ASSAY (%U_3O_8) ppm U	ppm Cu	ppb Au	ppm Ag	% RECOV	GEOLOGY	STRUCTURE ∠ to core	HOLE DEPTH (FEET)
								Hb		
PYRITIC, HEMATIZED BRECCIA: dark brown, weathered, coarsely crystalline hematite with minor magnetite in pink and beige matrix containing quartz, feldspar, barite, carbonate and pyrite.										5
										10
										15
										20
								Hb4		25
Pink pyritic, hematite rich mottled breccia.							10		00	30
Euhedral and massive hematite in chloritic carbonate and barite rich matrix; weakly magnetic euhedral hematite crystals up to 1/2" in diameter.		100							20 40 20 10 40 00 10	35 40
PINK AND GREY-GREEN BRECCIA: pink and grey-green mottled breccia with indistinct fragment boundaries and disseminated euhedral hematite.								Hb2	20 50 40 30 20 30 10 20 30 20 20/40	45 50 55
PYRITIC, HEMATIZED BRECCIA: coarse, crystalline, euhedral hematite rimmed by pyrite in carbonate; barite matrix containing a few altered rock fragments.	H54512		16.5	285	50	1.0		Hb4	20 50 40/30 30	60
	H54513		6.0	350	30	1.0	100			65
PINK TO RED-BROWN BRECCIA: highly altered breccia with isolated euhedral hematite in matrix; chloritic hairline fractures.	A00240	130/100	2.35	702	<10	2.4		Hb1	30 30 20	70
	H54514	100	2.0	820	2.6	40			15	75

MOUNT SOPRIS GAMMA PROBE LOG

Scale 1cm=20cps



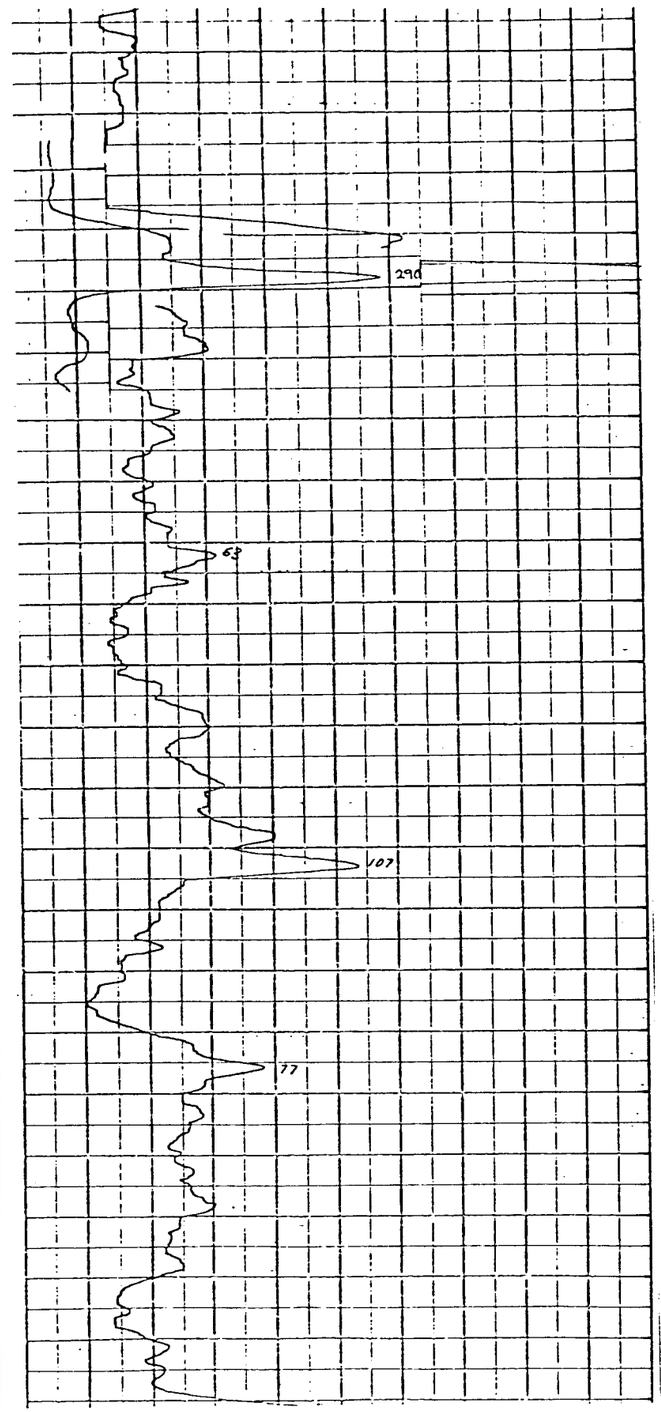
DRILL HOLE LOG

PROJECT WJV HOLE 791-L LOCATION 24+75N-01+10W CORE SIZE BQ STARTED 03/06/91 FINISHED 03/08/91 PAGE 2 OF 7

CLAIM GROUP IGOR LENGTH 472' DIP -52° AZIMUTH 015° COLLAR ELEVATION 4422' DRILLED BY CANON LOGGED BY DEHART

GEOLOGICAL DESCRIPTION	SAMPLE NUMBER	RADIO-ACTIVITY IN CPS BGS-ISL	GEOCHEMISTRY AND ASSAY (%U_3O_8 ppm U)	ppm Cu	ppb Au	ppm Ag	% RECOV	GEOLOGY	STRUCTURE ∠ to core	HOLE DEPTH (FEET)
PYRITIC, HEMATIZED BRECCIA: hematite crystals up to 1/2" in diameter rimmed by pyrite.								Hb4		
PINK AND GREY-GREEN BRECCIA: mottled texture, indistinct highly altered rock fragments in beige carbonate matrix with isolated euhedral hematite crystals; breccia cut by chloritic fractures.								Hb2	20 40 20 40	80 85 90 95
HEMATIZED BRECCIA: massive to coarsely crystalline hematite in chloritic carbonate matrix.	H54515		6.0	215	<10	0.5		Hb4	50 40	100
PINK TO RED-BROWN BRECCIA: pink and red mottled breccia with medium to coarse, isolated hematite crystal aggregates rimmed by pyrite, also minor chalcopyrite in carbonate veins. Chlorite rims altered rock fragments and occurs in hairline fractures.	H54516	100	1.5	880	<10	0.5	100	Barite chalcopyrite calcite veining.	00 60	105 110
	H54517		16.5	180	<10	0.4		Hb1	30 10	115 120
	H54518		18.0	420	<10	0.4			30 30	125 130
Pink to red breccia low in hematite and sulphides; pink, red and maroon coloured fragments in a beige to blue-grey coloured matrix; minor chalcopyrite in carbonate vein.	H54519		1.5	250	<10	0.2			05 00 50	135 140
PINK AND GREY GREEN BRECCIA: coarse, weakly magnetic hematite crystals rimmed by pyrite in pink and grey-green mottled breccia.	H54520		7.0	290	10	0.2		Hb2	30	145 150

MOUNT SOPRIS
GAMMA PROBE LOG



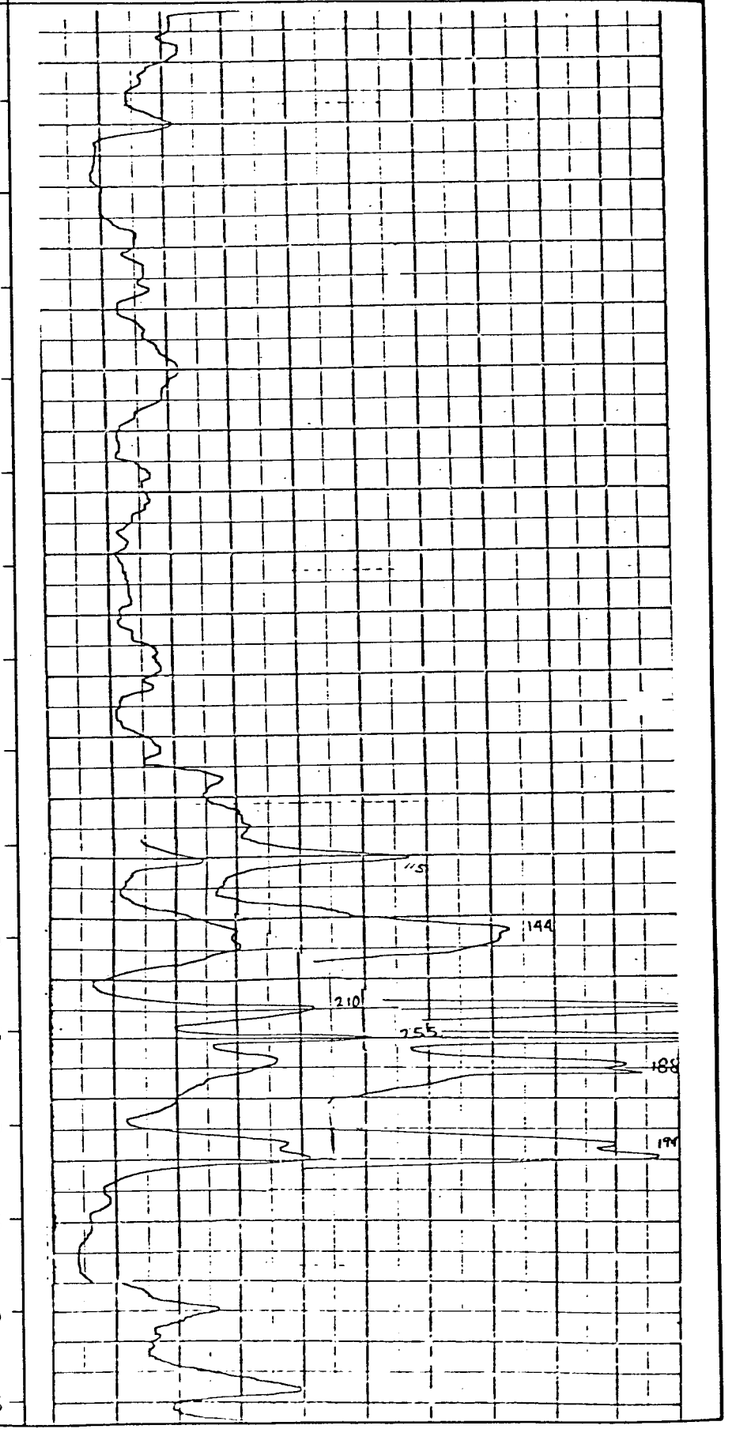
DRILL HOLE LOG

PROJECT WJV HOLE 79 I-1 LOCATION 24+95N-0+10W CORE SIZE BQ STARTED 03/06/79 FINISHED 06/06/79

CLAIM GROUP IGOR LENGTH 472' DIP -50° AZIMUTH 015° COLLAR ELEVATION ~~1422~~ 1422' DRILLED BY CARON LOGGED BY V. SCHMIDT

GEOLOGICAL DESCRIPTION	SAMPLE NUMBER	RADIO-ACTIVITY IN CPS BGS-ISL	GEOCHEMISTRY AND ASSAY ($\%U_3O_8$) ppm U	ppm Cu	ppb Au	ppm Ag	% RECOV	GEOLOGY	STRUCTURE ∠ to core	HOLE DEPTH (FEET)
Pink and grey-green breccia continued	H54521		8.0	178	20	0.1			40	
Pink and red brown breccia low in hematite and sulphides.										155
	H54522		8.0	370	10	0.6		Hb_2	50	
Pink and grey-green mottled breccia with hematite and pyrite in matrix.									40	
									50	160
									50	165
DARK GREEN CHLORITIC BRECCIA: chloritic breccia with hematite and pyrite in matrix; epidote occurs in highly fractured areas.	H54523		5.0	54	<10	0.1		Hb_3	20	170
									30	
		100								175
									30	
PINK AND GREY-GREEN BRECCIA: pink altered rock fragments and fragments rimmed by pink alteration.									30	180
									10	
	H54524		2.5	98	<10	0.1	100		40	185
Grey and grey-green chloritic breccia with intermittent concentrations of hematite, carbonate and chlorite in matrix; abundant altered rock fragments in chloritic, pyritic, carbonate matrix.									60	190
									30	
									50	195
								Hb_2		
	A00741	150/100	34	355	<10	0.2			30	200
		100								
	A00742	150/100	37	220	<10	0.8				205
									50	
	A00743	150/100	155	310	<10	0.8			25	
									00	210
									30	215
		100								
									20	220
Gradational to pink and grey-green breccia with few fragments visible.									00	225

MOUNT SOPRIS
GAMMA PROBE LOG



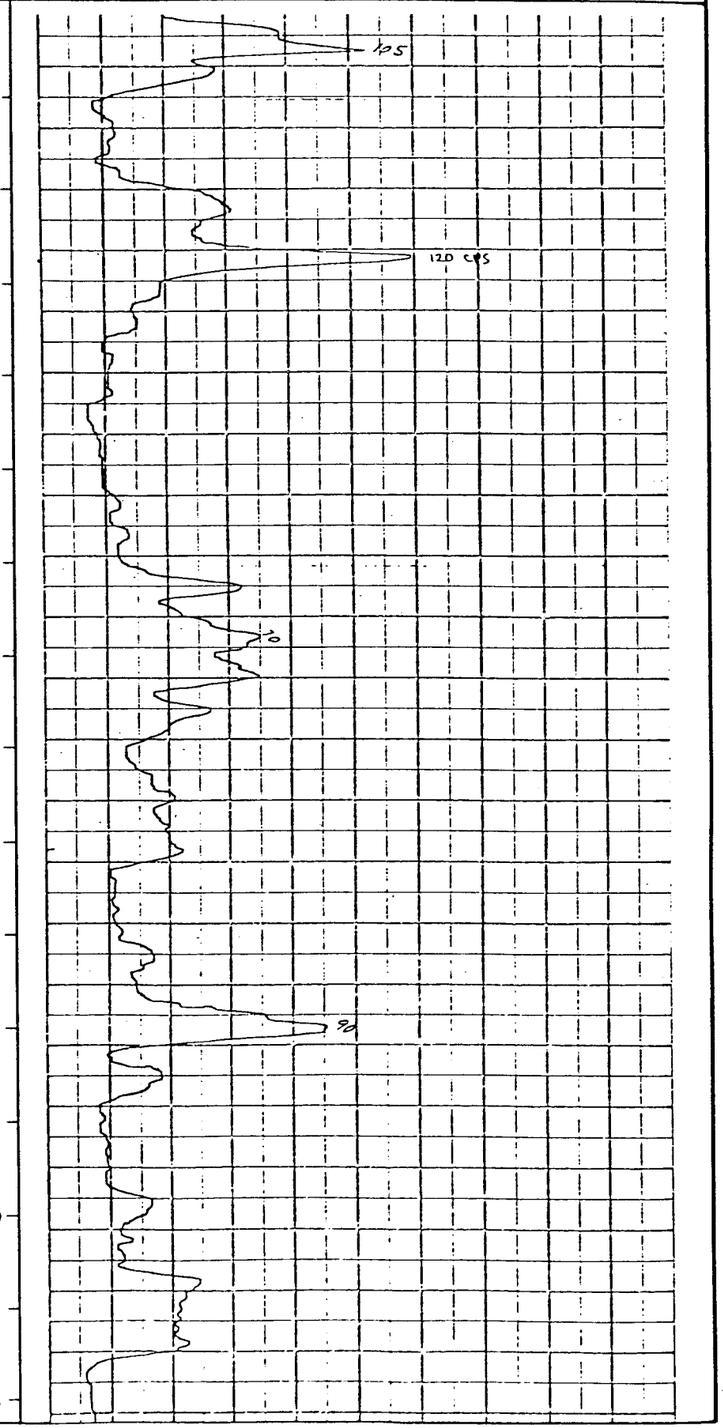
DRILL HOLE LOG

PROJECT WJV HOLE 79 I-L LOCATION 2+195N - 0+10W CORE SIZE BQ STARTED 03/06/79 FINISHED 06/06/79 PAGE 4 OF 7

CLAIM GROUP IGOR LENGTH 472' DIP -50° AZIMUTH 015° COLLAR ELEVATION 4422' DRILLED BY CARON LOGGED BY U. SCHMIDT

GEOLOGICAL DESCRIPTION	SAMPLE NUMBER	RADIO-ACTIVITY IN CPS BGS-ISL	GEOCHEMISTRY AND ASSAY (%U_3O_8) ppm U	ppm Cu	ppb Au	ppm Ag	% RECOV	GEOLOGY	STRUCTURE ∠ to core	HOLE DEPTH (FEET)
Chloritic grey-green breccia with coarse pyrite rimmed hematite in matrix.	H54525		7.0	390	10	0.1			60	
Pink and grey-green breccia continued									60	230
									10	
									50	235
									30	
chloritic breccia	H54526		18.0	340	10	0.6		Hb_2		240
									30	
									40	245
									20	
	H54527		3.0	92	<10	0.8			40	250
										255
PYRITIC, HEMATIZED BRECCIA: coarse hematite rimmed by pyrite in chloritic matrix.		100					100		40	260
	H54528		8.0	1100	<10	1.0		Hb_4		265
	H54529		13.0	470	<10	0.1			15	270
PINK AND GREY-GREEN BRECCIA: grey-green rock fragments in chloritic, beige, pyritic matrix; pink alteration in matrix; chlorite along fractures.									10	
								Hb_2	60	275
									40	
									50	280
PYRITIC, HEMATIZED BRECCIA: coarse to medium euhedral hematite rimmed by pyrite in carbonate matrix.	H54530		6.5	510	10	0.6			40	285
	H54531		4.0	250	20	0.4		Hb_4		290
									30	
PINK AND GREY-GREEN BRECCIA: grey-green breccia fragments in with fine grained hematite and magnetite in matrix.									30/30	295
								Hb_2	20	300

MOUNT SOPRIS GAMMA PROBE LOG



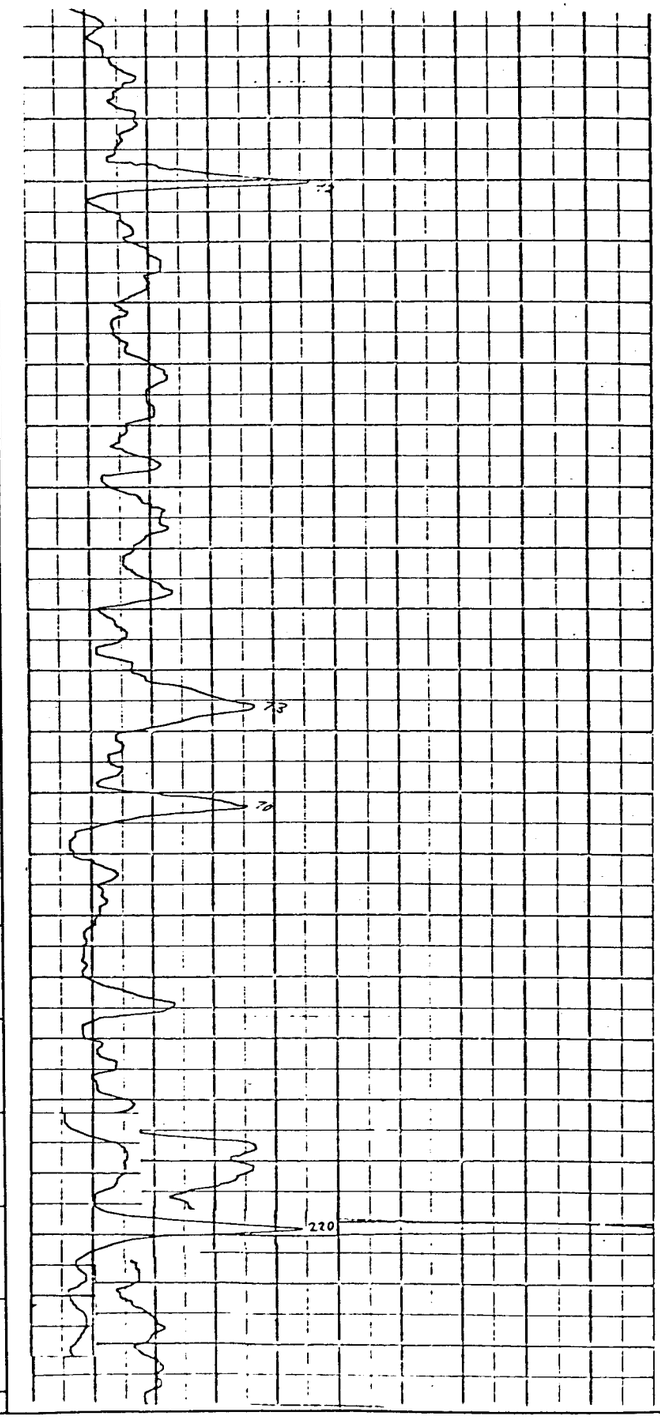
DRILL HOLE LOG

PROJECT WJV HOLE 79I-1 LOCATION 21+95N-0+10W CORE SIZE BQ STARTED 03/06/79 FINISHED 06/06/79 PAGE 5 OF 7

CLAIM GROUP IGOR LENGTH 472' DIP -50° AZIMUTH 015° COLLAR ELEVATION 4422' DRILLED BY CARON LOGGED BY U. SCHMIDT

GEOLOGICAL DESCRIPTION	SAMPLE NUMBER	RADIO-ACTIVITY IN CPS BGS-ISL	GEOCHEMISTRY AND ASSAY ($\%U_3O_8$) ppm U	ppm Cu	ppb Au	ppm Ag	% RECOV	GEOLOGY	STRUCTURE ∠ to core	HOLE DEPTH (FEET)
Grey and grey-green mottled breccia with coarse euhedral hematite in pyritic carbonate matrix with minor chalcopyrite.	H54532		3.0	1200	20	0.1			30	305
Pink and grey-green mottled breccia with grey-green rock fragments in pink matrix; intermittent concentrations of hematite occur in matrix.	H54533		5.0	145	<10	0.2			50 10	310
								Hb_2		315
									30	320
									30	325
DARK GREEN CHLORITIC BRECCIA: irregular, chloritic, pyritic breccia with intermittent euhedral to massive specular hematite.									30 60 30/40	330
	H54534	100	6.5	200	<10	0.1	100	Hb_3	50 30	335
	H54535		8.5	70	<10	0.1			00 10	340
PINK AND GREY-GREEN BRECCIA: pink and grey-green mottled breccia with beige and pinkish fragments in blue-grey and green matrix; traces of hematite-magnetite in matrix.									50 30 40	345
								Hb_2		350
										355
									40 20	360
DARK GREEN CHLORITIC BRECCIA: specular hematite rimmed by pyrite in chloritic carbonate matrix.									30 00 60	365
								Hb_3		370
	H54537		10.1	170	10	0.4			50 20	375

MOUNT SOPRIS GAMMA PROBE LOG



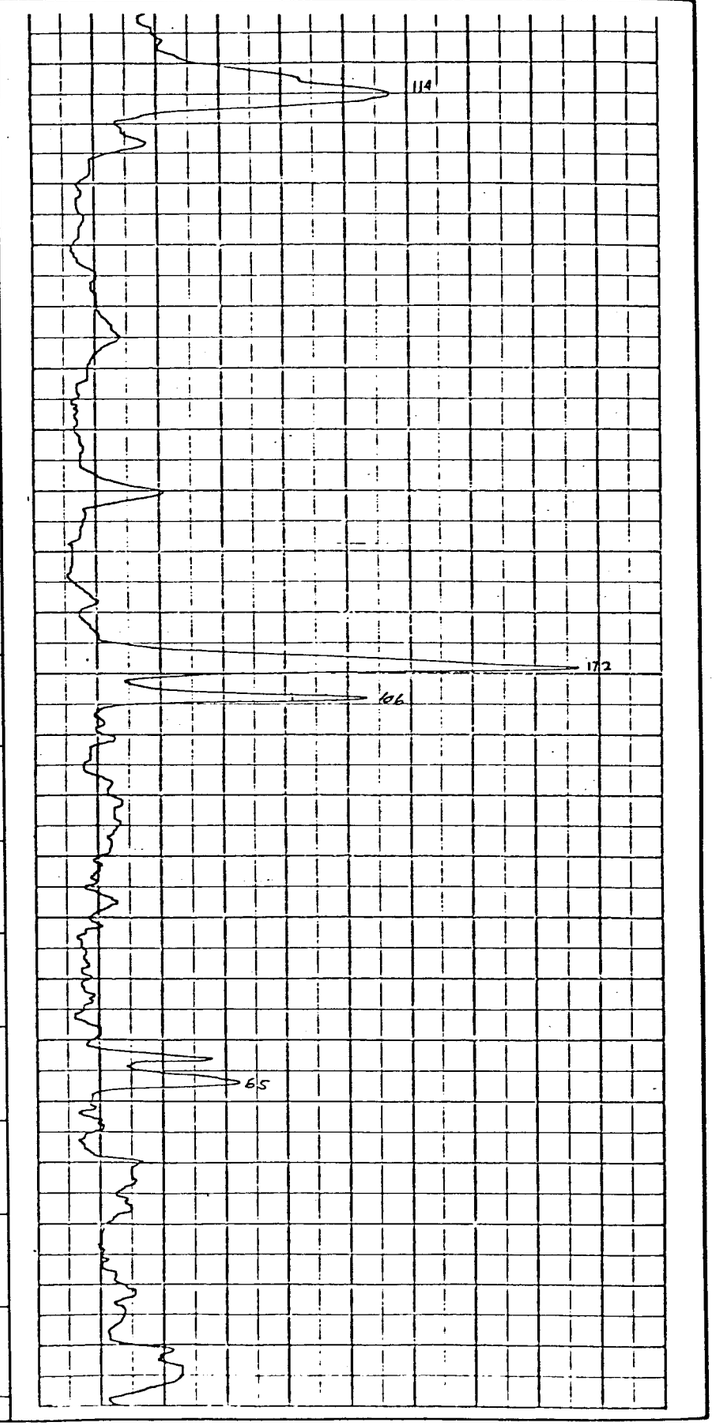
DRILL HOLE LOG

PROJECT WJV HOLE 79I-1 LOCATION 24+95N-0+10W CORE SIZE BQ STARTED 03/06/79 FINISHED 06/06/79 PAGE 6 OF 7

CLAIM GROUP IGOR LENGTH 472' DIP -50° AZIMUTH 015° COLLAR ELEVATION 4422' DRILLED BY CARON LOGGED BY D. SCHMIDT

GEOLOGICAL DESCRIPTION	SAMPLE NUMBER	RADIO-ACTIVITY IN CPS BGS-ISL	GEOCHEMISTRY AND ASSAY (%U_3O_8) ppm U	ppm Cu (%)	ppb Au	ppm Ag	% RECOV	GEOLOGY	STRUCTURE ∠ to core	HOLE DEPTH (FEET)
Dark green chloritic breccia continued								Hb_3	20 20	380
	H54536		12.5	140	<10	0.1			20 00	385
PINK AND GREY-GREEN BRECCIA: pink and grey-green mottled breccia; highly altered pinkish fragments in beige and green chloritic carbonate matrix containing euhedral hematite and minor pyrite; chlorite and carbonate bearing fractures cut breccia.		100							50	390
									20	395
									20	400
							100		30/20	405
									30	
									10	410
		200-510/100	(0.078)	2400	<10	0.1		Hb_2	30	
	A00744								20	415
chloritic section	H54538		5.0	3500	30	0.1			50 40	
									40/45	
									20	420
									30	425
									50	
pink and red-brown breccia fragments rimmed by carbonate; hematite with included pyrite.	H54539	100	2.5	(0.86)	50	0.1			30	430
									20	435
										440
DARK GREEN CHLORITIC BRECCIA: few fragments are visible and pyrite and hematite are common.							20	Hb_3		445
									30	450

MOUNT SOPRIS GAMMA PROBE LOG



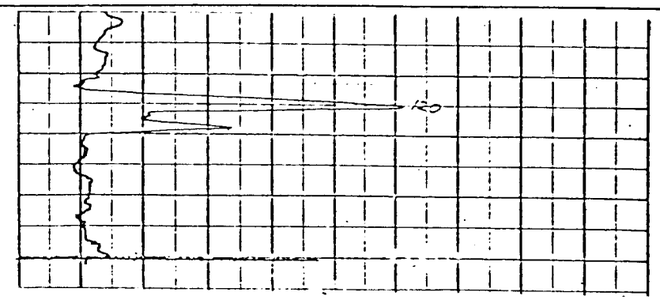
DRILL HOLE LOG

PROJECT WJV HOLE 79I-1 LOCATION 24+95N - 0+10W CORE SIZE BQ STARTED 02/06/79 FINISHED 02/06/79

CLAIM GROUP IGOR LENGTH 472' DIP -50° AZIMUTH 015° COLLAR ELEVATION 4422' DRILLED BY CARON LOGGED BY U. SCHMIDT

GEOLOGICAL DESCRIPTION	SAMPLE NUMBER	RADIO-ACTIVITY IN CPS BGS-ISL	GEOCHEMISTRY AND ASSAY (%U3O8) ppm U	GEOCHEMISTRY AND ASSAY ppm Cu	% RECOV	GEOLOGY	STRUCTURE ∠ to core	HOLE DEPTH (FEET)
Dark green chloritic breccia continued Chloritized rock fragments in chloritic matrix with euhedral hematite in matrix.		100			100	Hb_3	50	455 460 465 470
End of Hole								472

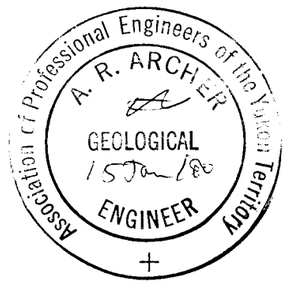
MOUNT SOPRIS
GAMMA PROBE LOG



DRILL HOLE LOG

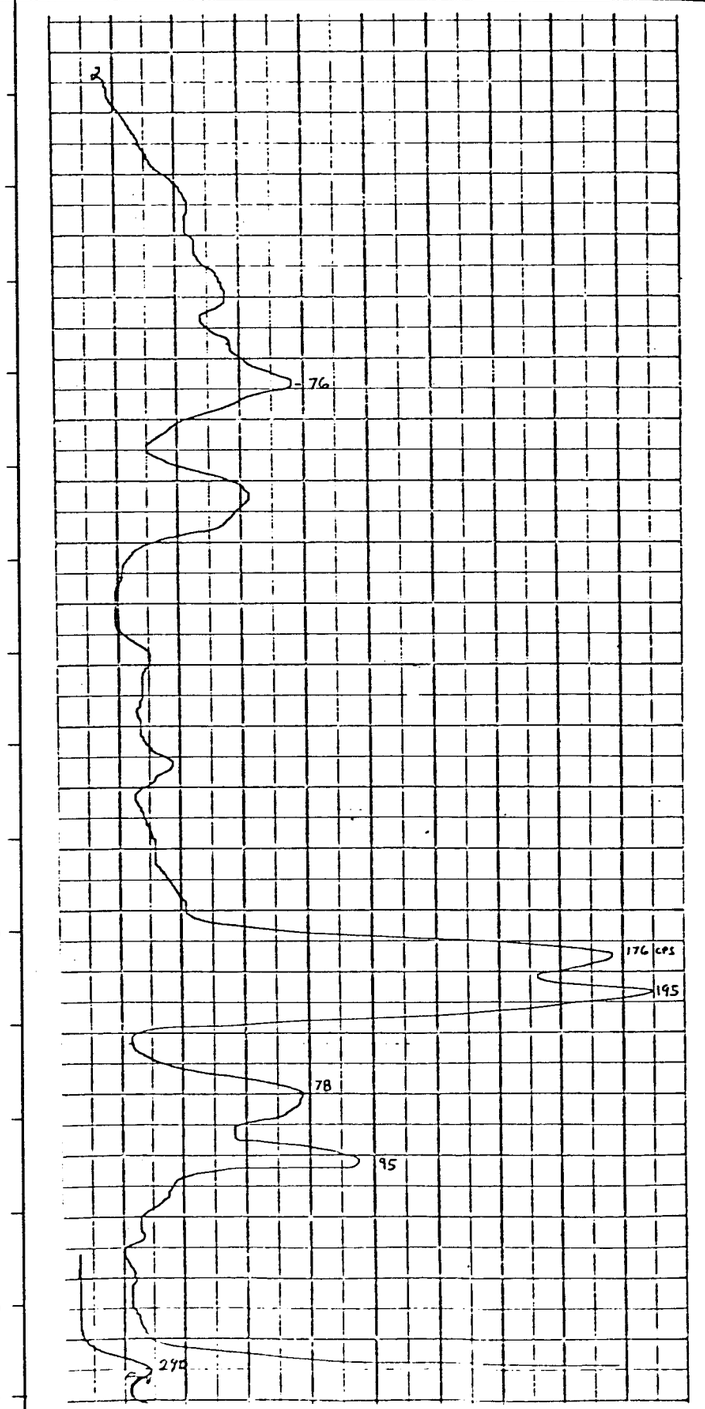
PROJECT WJV HOLE 79I-2 LOCATION 26+10N-0+10E CORE SIZE BQ STARTED 08/06/79 FINISHED 10/06/79 PAGE 1 OF 4

CLAIM GROUP IGOR LENGTH 250' DIP -50° AZIMUTH 015° COLLAR ELEVATION 4404' DRILLED BY CARON LOGGED BY W.SCHMIDT



GEOLOGICAL DESCRIPTION	SAMPLE NUMBER	RADIO-ACTIVITY IN CPS BGS-ISL	GEOCHEMISTRY AND ASSAY (%U_3O_8) ppm U	ppm Cu (%)	ppb Au	ppm Ag	% RECOV	GEOLOGY	STRUCTURE ∠ to core	HOLE DEPTH (FEET)
PINK AND GREY-GREEN BRECCIA: pink, beige, brown and grey breccia fragments in light brown to grey matrix. Rock fragments mostly smaller than core diameter.		100 (background)							20	35
								Hb_2	30 50 20 20 40 30 00	40 45
							20			50
PINK TO RED-BROWN BRECCIA: light to dark brown altered carbonate rock fragments occur in a pink to beige and maroon matrix with disseminated hematite. Most fragments have dark brown altered rims with beige coloured interiors. Fragment size varies from 1/4" to larger than core diameter. Dark red-brown weathering observed on some fractures or faults.									40 50 50	55
								Hb_1		60
							100		10	65
									30 00	70
	A.00745	180/100	56	(0.13)	60	0.1				75

MOUNT SOPRIS
GAMMA PROBE LOG
Scale 1cm = 20cps



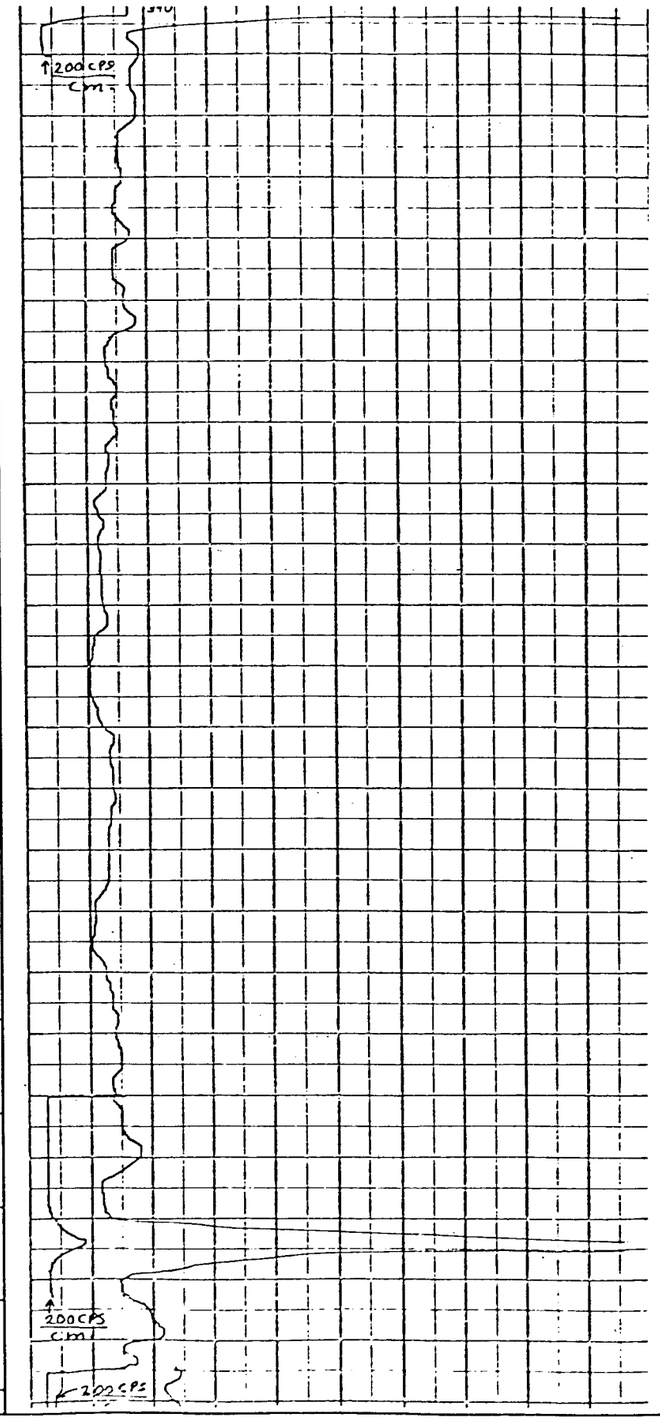
DRILL HOLE LOG

PROJECT WJV HOLE 191-2 LOCATION _____ CORE SIZE _____ STARTED _____ FINISHED _____ PAGE 2 OF 4

CLAIM GROUP _____ LENGTH _____ DIP ____ AZIMUTH ____ COLLAR ELEVATION ____ DRILLED BY _____ LOGGED BY _____

GEOLOGICAL DESCRIPTION	SAMPLE NUMBER	RADIO-ACTIVITY IN CPS BGS-ISL	GEOCHEMISTRY AND ASSAY ($\%U_3O_8$)	GEOCHEMISTRY AND ASSAY ppm U	GEOCHEMISTRY AND ASSAY ppm Cu	% RECOV	GEOLOGY	STRUCTURE ∠ to core	HOLE DEPTH (FEET)
Pink to red-brown breccia continued							Hb_1		
PINK AND GREY-GREEN BRECCIA: light brown and grey-green fragments are suspended in a beige to grey carbonate matrix. Fragments and matrix with pinkish colour increase with depth. Most fragments are less than core diameter in size. 10-20% disseminated hematite in matrix. Core is cut by pink carbonate filled fractures.		100				100	Hb_2	40 / 40 / 25 / 00 / 25 / 15 / 19/30 / 40 / 25	80 85 90 95 100 105 110 115 120 125 130 135 140 145 150
Red-brown and pink fragments have increased and breccia matrix turns light brown. Hematite-magnetite and chlorite are common in some fragments.									

MOUNT SOPRIS GAMMA PROBE LOG



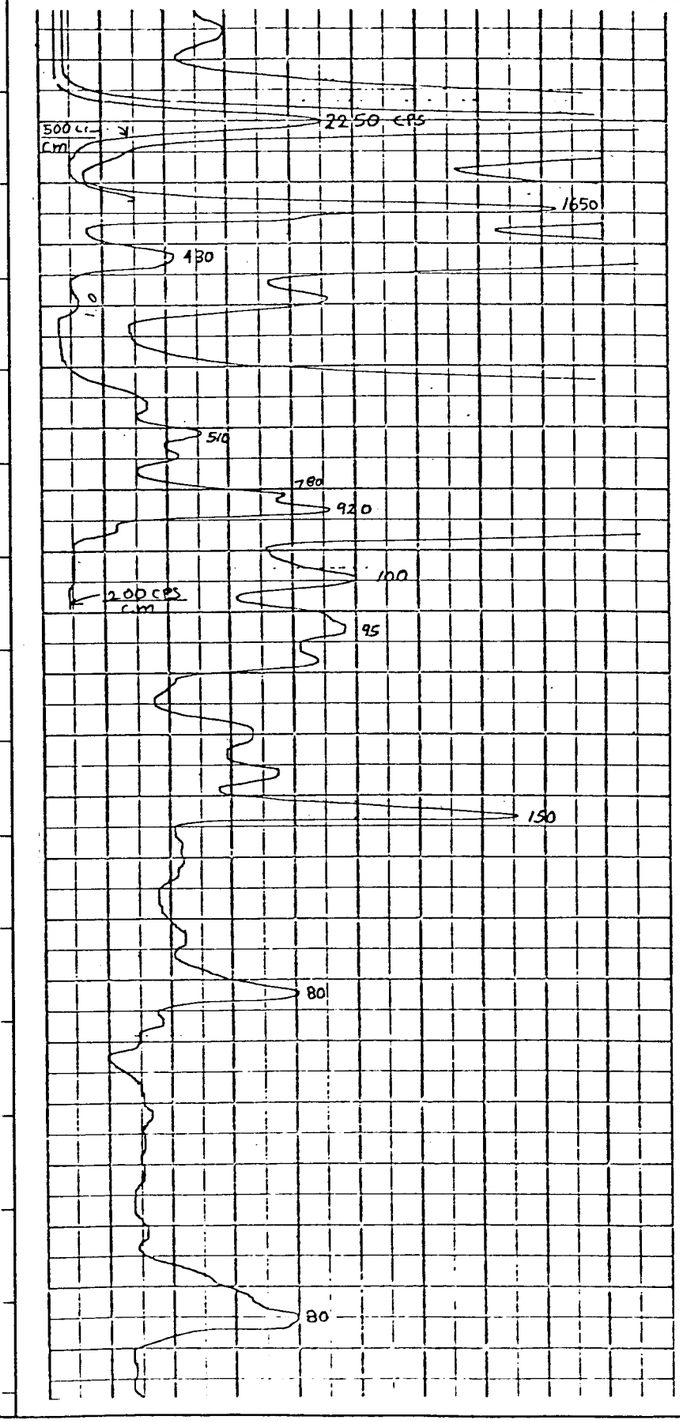
DRILL HOLE LOG

PROJECT WJV HOLE 191-2 LOCATION _____ CORE SIZE _____ STARTED _____ FINISHED _____

CLAIM GROUP _____ LENGTH _____ DIP ____ AZIMUTH ____ COLLAR ELEVATION ____ DRILLED BY _____ LOGGED BY _____

GEOLOGICAL DESCRIPTION	SAMPLE NUMBER	RADIO-ACTIVITY IN CPS BGS-ISL	GEOCHEMISTRY AND ASSAY (%U_3O_8) ppm U	ppm Cu (%)	ppb Au	ppm Ag	% RECOV	GEOLOGY	STRUCTURE ∠ to core	HOLE DEPTH (FEET)
Pink and grey-green breccia continued		100						Hb_2		
PINK TO RED-BROWN BRECCIA: pink, beige and grey breccia fragments in pink, red and beige carbonate matrix. Matrix and late fractures are mineralized with hematite, magnetite and chalcopyrite. No obvious uranium minerals or mineral associations with the radioactivity. Probably sooty pitchblende along joints.	A00746	700/100	(0.044)	(1.35)	40	1.4			30	155
	A00747	650/100	(0.136)	(3.39)	60	0.8			20 30	160
	H54573	110/100	56	(2.30)				Hb_1		165
	H54575		23	(0.62)					40	170
	A00748	400/120 180/120 180/120	(0.020)	(2.55)	70	0.1			50	175
	A00749	340/120	(0.059)	(2.40)	80	0.4				
PINK AND GREY-GREEN BRECCIA: large altered fragments in pinkish and grey-green mottled breccia; fragments and matrix are gradational in some areas; both are cut by late maroon to red-brown weathering fractures. Variable chlorite and hematite content.		100					100	Hb_2	20 30 40 40 50 50	180 185 190 195 200 205
PINK AND RED-BROWN BRECCIA: grey and pinkish altered rock fragments are suspended in a salmon to red coloured and yellow brown mottled matrix; medium grained hematite disseminated throughout; some fragments have red alteration rims.								Hb_1	20 20	210 215
PINK AND GREY-GREEN BRECCIA: pink and grey breccia fragments in grey to pinkish mottled matrix containing up to 20% hematite.								Hb_2	30	220 225

MOUNT SOPRIS GAMMA PROBE LOG

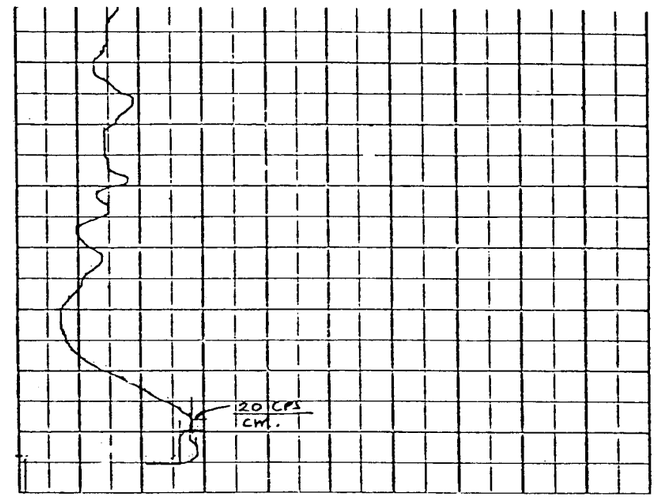


DRILL HOLE LOG

PROJECT WJV HOLE 79I-2 LOCATION _____ CORE SIZE _____ STARTED _____ FINISHED _____ PAGE 4 OF 4

CLAIM GROUP _____ LENGTH _____ DIP ____ AZIMUTH ____ COLLAR ELEVATION ____ DRILLED BY _____ LOGGED BY _____

GEOLOGICAL DESCRIPTION	SAMPLE NUMBER	RADIO-ACTIVITY IN CPS BGS-ISL	GEOCHEMISTRY AND ASSAY ($\%U_3O_8$) ppm U	ppm Cu			% RECOV	GEOLOGY	STRUCTURE ∠ to core	HOLE DEPTH (FEET)	MOUNT SOPRIS GAMMA PROBE LOG
Pink and grey-green breccia continued Hematite concentrations are variable and have weak magnetism.								Hb_2		230	
PINK TO RED-BROWN BRECCIA								Hb_1	20		
PINK AND GREY-GREEN BRECCIA: pinkish and grey fragments in beige chloritic carbonate matrix.		100						Hb_2	50	235	
									30	240	
										245	
									50	250	
End of Hole											



DRILL HOLE LOG

PROJECT WJV HOLE 791-3 LOCATION 31+30N:0+38E CORE SIZE BQ STARTED 12/06/79 FINISHED 13/06/79 PAGE 1 OF 4

CLAIM GROUP IGOR LENGTH 268' DIP -60° AZIMUTH 330° COLLAR ELEVATION 4210' DRILLED BY CARON LOGGED BY W. SCHMIDT

GEOLOGICAL DESCRIPTION	SAMPLE NUMBER	RADIO-ACTIVITY IN CPS BGS-ISL	GEOCHEMISTRY AND ASSAY (%U_3O_8) ppm U	ppm Cu (%)	ppb Au	ppm Ag	% RECOV	GEOLOGY	STRUCTURE ∠ to core	HOLE DEPTH (FEET)
PINK TO RED-BROWN BRECCIA: pink and red-brown breccia with magnetite, hematite, chalcopyrite in the matrix and in carbonate barite veins.		100 (Background)					30	Hb		5
							20			10
							50	Hb_1		15
							30			20
							60			25
PINK AND GREY-GREEN BRECCIA: chloritized rock fragments.							80			30
							50	Hb_2	40 05 40 30 30 40	35
HEMATITE, CHALCOPYRITE MINERALIZED BRECCIA: pervasively altered pink and red breccia containing coarse crystalline magnetite and hematite up to 1cm in diameter, often rimmed by chalcopyrite. Few breccia fragments are visible in carbonate barite matrix.	A00115	230/100 250/100 200/100 400/100 600/100	(0.084)	(5.91)	160	1.6				
	A00116	330/100 300/100 150/100	(0.029)	(1.56)	60	0.1			20 40 50 50	40
	A00117	140/100	(0.017)	(0.60)	20	0.1	100	Hb_4	50	45
	A00118	600/100	(0.029)	(0.46)	20	0.1			50 05 60 30 50	50 55
	A00119	140/100 290/100 900/100 500/100	(0.059)	(1.51)	60	0.1			30/15 40 30 20 50	60
PINK AND GREY-GREEN BRECCIA: crystalline magnetite 1-2mm in size in chloritic barite carbonate matrix. Magnetite and chlorite content increase with depth. Zoned carbonate, barite, pyrite, hematite vein cuts core at 60', at 10° to core axis. Few rock fragments are visible.		150/100						Hb_2		
	A00120	140/100 300/100	67	(0.01)	10	0.1			60 20 10	70 75
		160/100								

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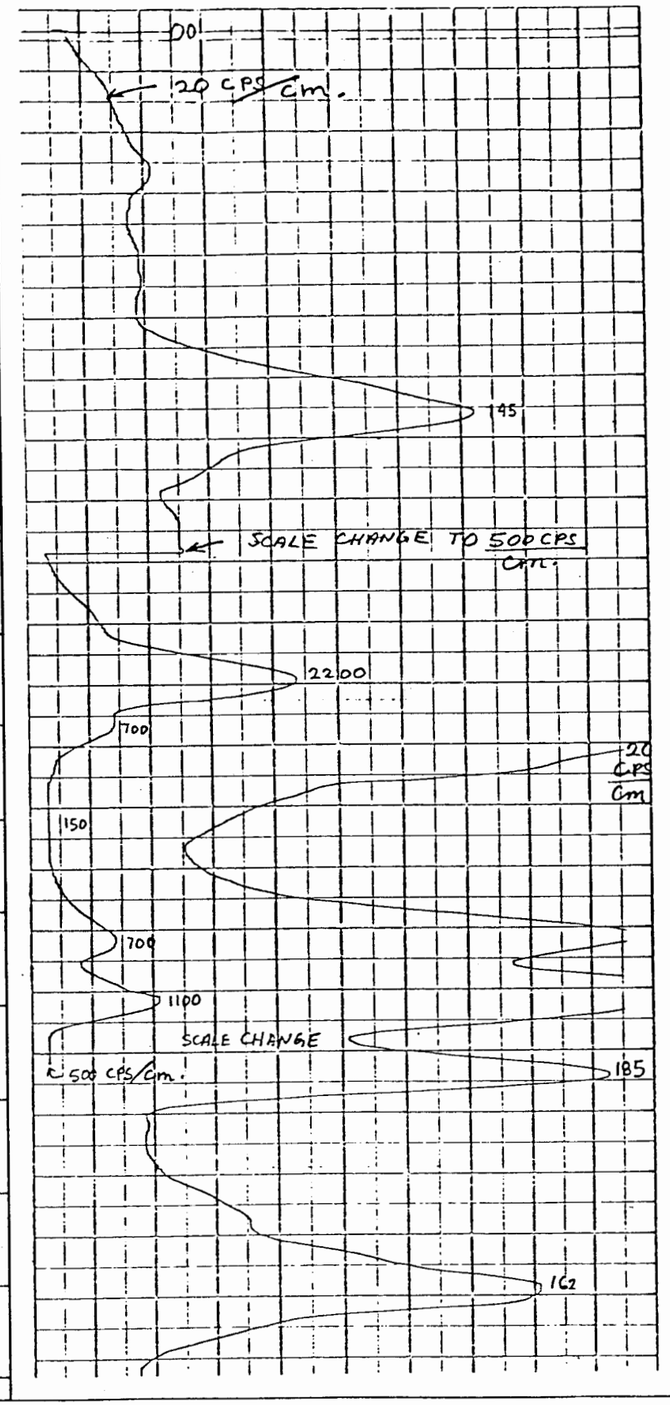
MOUNT SOPRIS
GAMMA PROBE LOG

Scale 1cm = 20cps



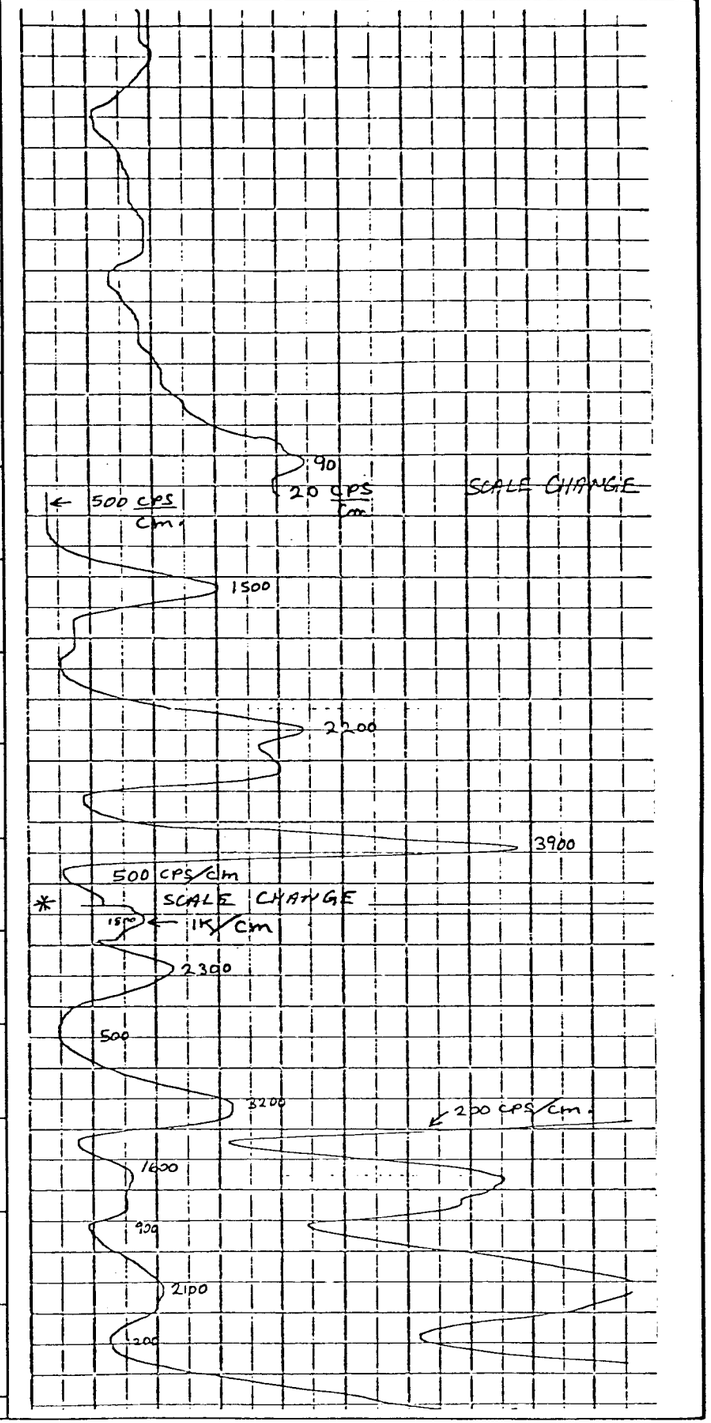
DRILL HOLE LOG

PROJECT WJV HOLE 791-3 LOCATION _____ CORE SIZE _____ STARTED _____ FINISHED _____ PAGE 2 OF 4

CLAIM GROUP _____ LENGTH _____ DIP ____ AZIMUTH ____ COLLAR ELEVATION ____ DRILLED BY _____ LOGGED BY _____

GEOLOGICAL DESCRIPTION	SAMPLE NUMBER	RADIO-ACTIVITY IN CPS BGS-ISL	GEOCHEMISTRY AND ASSAY (%U_3O_8) ppm U	ppm Cu (%)	ppb Au	ppm Ag	% RECOV	GEOLOGY	STRUCTURE ∠ to core	HOLE DEPTH (FEET)
Pink and grey-green breccia continued		160/100							50 20/50 30 20 40	80
Chlorite and clay altered rock fragments between 81'-91'.									50 10 20	85
Tightly healed breccia with euhedral hematite-magnetite and carbonate blebs.		120/100						Hb_2	40	90
									20	95
		140/100							40 50 30	100
		900/100 300/100 150/100							30	105
CHALCOPYRITE, HEMATITE MINERALIZED BRECCIA: coarse, euhedral hematite-magnetite in chalcopyrite matrix. Chalcopyrite rims rock fragments and euhedral hematite and occurs as inclusions in the hematite. Chlorite and pink potassic alteration in rock fragments and along fractures. Pink carbonate veins cut core at 30°-50° at 1 to 5 foot spacing. Chalcopyrite hematite mineralization shows weak "foliation" or flow texture at 35° to core axis. Radioactivity is directly related to copper mineralization. High radioactivity occurs in dark matrix areas which may contain pitchblende.	A00121	600/100 140/100 170/100 300/100	(0.056)	(6.01)	40	3.2	100		40 50 30	110
	A00122	250/100 200/100 600/100 600/100 1200/100	(0.058)	(2.44)	40	1.4		carbonate vein carbonate vein	60 40	115
	A00123	1800/100 200/100 170/100 400/100 1100/100	(0.126)	(2.36)	50	1.8			20	120
	A00124	200/100 210/100 250/100	(0.140)	(2.11)	20	2.0		Hb_4	20	125
	A00125	500/100 1500/100 1000/100	(0.117)	(5.83)	90	4.6		vein	20 50	130
	H54502	500/100 400/100 320/100	(0.032)	(1.86)	40	0.8			40 40	135
	H54503	400/100	(0.046)	(2.15)	20	0.8			40 20 40	140
	H54504	300/100 550/100	(0.090)	(4.14)	40	1.4				145
	H54505	450/100 250/100 300/100 550/100 1000/100	(0.106)	(4.22)	40	1.2		barite carbonate hematite	30 50 10	150

MOUNT SOPRIS
GAMMA PROBE LOG



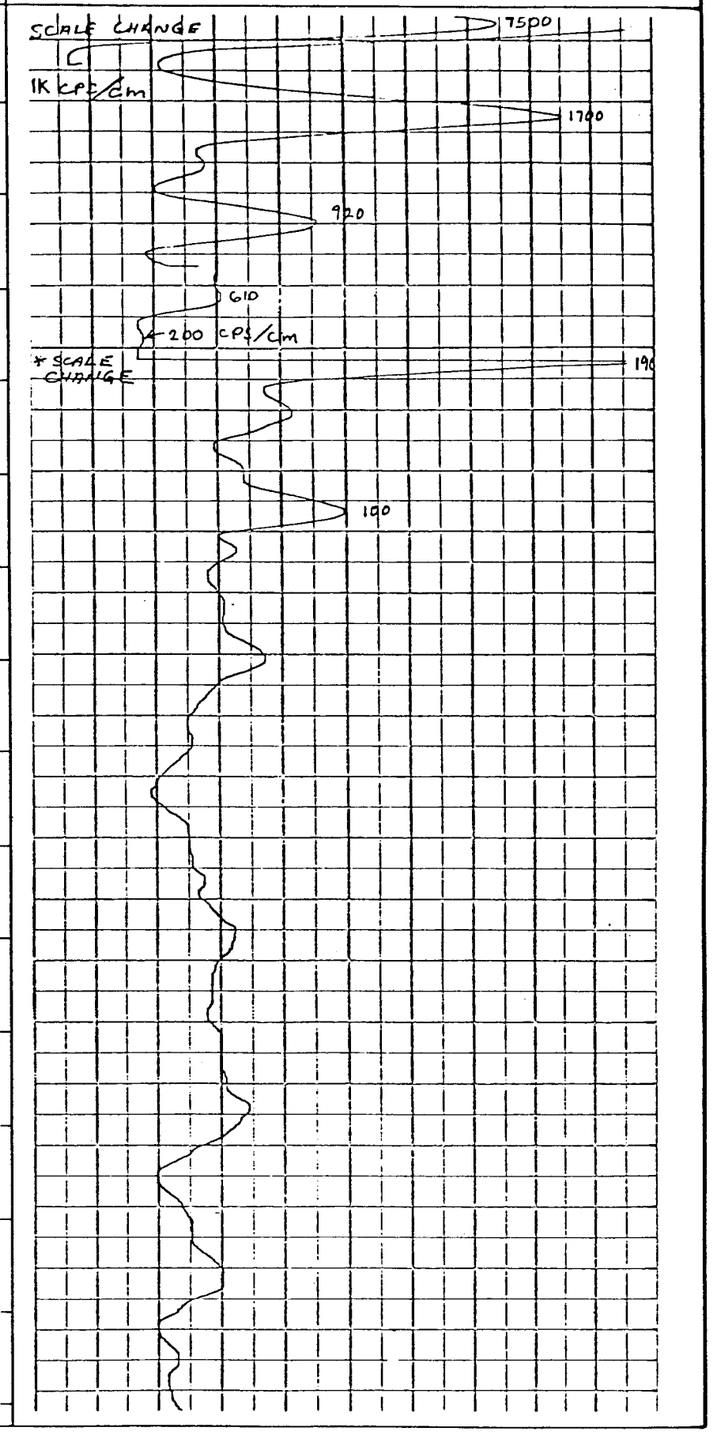
DRILL HOLE LOG

PROJECT WJV HOLE 791-3 LOCATION _____ CORE SIZE _____ STARTED _____ FINISHED _____ PAGE 2 OF 7

CLAIM GROUP _____ LENGTH _____ DIP ____ AZIMUTH ____ COLLAR ELEVATION ____ DRILLED BY _____ LOGGED BY _____

GEOLOGICAL DESCRIPTION	SAMPLE NUMBER	RADIO-ACTIVITY IN CPS BGS-ISL	GEOCHEMISTRY AND ASSAY [%U_3O_8] ppm U	ppm Cu (%)	ppb Au	ppm Ag	% RECOV	GEOLOGY	STRUCTURE ∠ to core	HOLE DEPTH (FEET)
Chalcopyrite, hematite mineralized breccia continued Highly altered rock fragments in hematite chalcopyrite matrix; dull black matrix is mainly hematite which makes it impossible to see uranium minerals. Carbonate veins 1/4"-1/2" wide cut copper rich sections.	H54506	1800/100 1000/100 500/100 400/100 300/100	(0.241)	(7.10)	90	1.6		pink carbonate	50 10 60	155
	H54507		(0.072)	(6.89)	70	2.0		carbonate barite hematite carbonate	40 20 20	160
purple fluorite	H54508		(0.057)	(7.80)	60	4.0			40	165
Beige and brown breccia fragments with bleaching and clay alteration.	H54509		(0.09)	(8.70)	80	3.4		carbonate	40	170
	H54510		25	(1.00)	10	0.1		Hb_4	30 40 20	175
	H54511		29	(0.84)	30	0.1			30	180
PINK AND GREY-GREEN BRECCIA: tightly healed breccias with rounded beige coloured chlorite rimmed fragments in a pinkish toned matrix, minor chlorite along fractures. Low in iron oxides and sulphides.		100					100		20 10 00 30	185
chlorite rims fragments								Carbonate Hb_2	20 40 20 20 00 08 10 30 50 80 30 20 30 15 30 30 50 50 20 10 30 20 40 40 40 30	190 195 200 205 210 215 220 225

MOUNT SOPRIS
GAMMA PROBE LOG



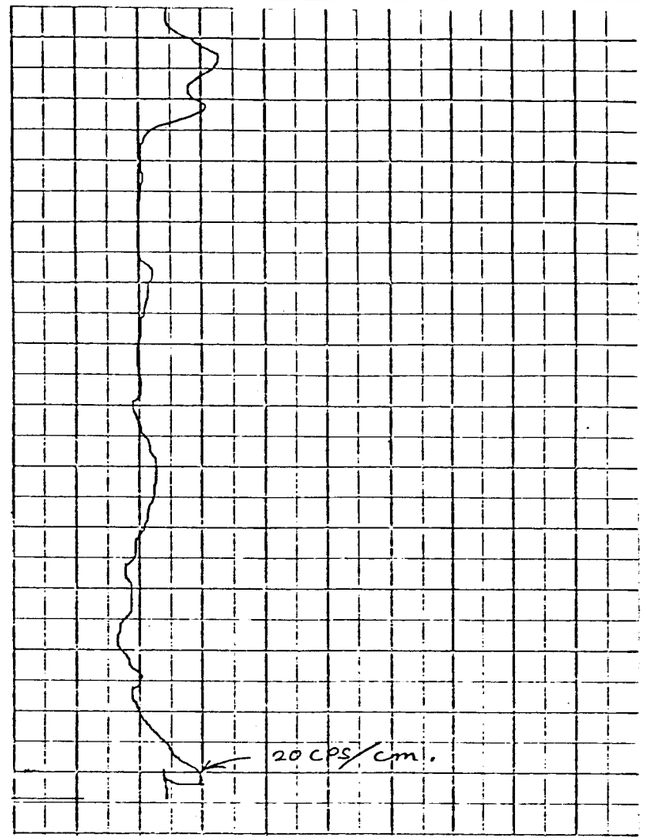
DRILL HOLE LOG

PROJECT WJV HOLE 791-2 LOCATION _____ CORE SIZE _____ STARTED _____ FINISHED _____ PAGE 1 OF 1

CLAIM GROUP _____ LENGTH _____ DIP ____ AZIMUTH ____ COLLAR ELEVATION ____ DRILLED BY _____ LOGGED BY _____

GEOLOGICAL DESCRIPTION	SAMPLE NUMBER	RADIO-ACTIVITY IN CPS BGS-ISL	GEOCHEMISTRY AND ASSAY ($\%U_3O_8$ / ppm U)	GEOCHEMISTRY AND ASSAY (ppm Cu)	% RECOV	GEOLOGY	STRUCTURE & to core	HOLE DEPTH (FEET)
Pink and grey-green breccia.							10 40 60 50 10 30 20 20 80 60 00 30 40 20 50 30 10	230 235 240 245 250 255 260 265 268
Grey-green rounded fragments rimmed by chlorite.		100			100	Hb_2		
FAULT ZONE: high fracture density on either side of fault zone; 2 feet of chloritic gouge. Chlorite content greater in fractures.								
End of Hole								

MOUNT SOPRIS GAMMA PROBE LOG



DRILL HOLE LOG

PROJECT WJV HOLE 79I-4 LOCATION 36+45N:11+70W CORE SIZE BQ STARTED 15/06/79 FINISHED 17/06/79 PAGE 1 OF 4

CLAIM GROUP IGOR LENGTH 300' DIP -50° AZIMUTH 180° COLLAR ELEVATION 3865' DRILLED BY CARON LOGGED BY V. SCHMIDT

GEOLOGICAL DESCRIPTION	SAMPLE NUMBER	RADIO-ACTIVITY IN CPS BGS-ISL	GEOCHEMISTRY AND ASSAY				% RECOV	GEOLOGY	STRUCTURE ∠ to core	HOLE DEPTH (FEET)	MOUNT SOPRIS GAMMA PROBE LOG
			%U_3O_8 ppm U	ppm Cu							Scale 1cm = 20 cps

Bedrock

PINK AND GREY-GREEN BRECCIA: pink, red-brown and grey-green altered rock fragments in weakly "foliated" or flow banded, chloritic carbonate matrix; flow texture at 30° to core axis.
Tightly healed breccia is low in sulphides and iron oxides compared to other breccias.
Late chloritized fractures cut the core.
Fine to medium grained euhedral magnetite-hematite <10% throughout matrix; carbonate ≈20% and chlorite 10%.
Pervasive clay alteration of rock fragments.

100 (Background) Fluctuations of 10-15 cps

100 | Hb_2

20 / 10 | 00/10 | 40 / 10 | 30/20 | 40 / 30

5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

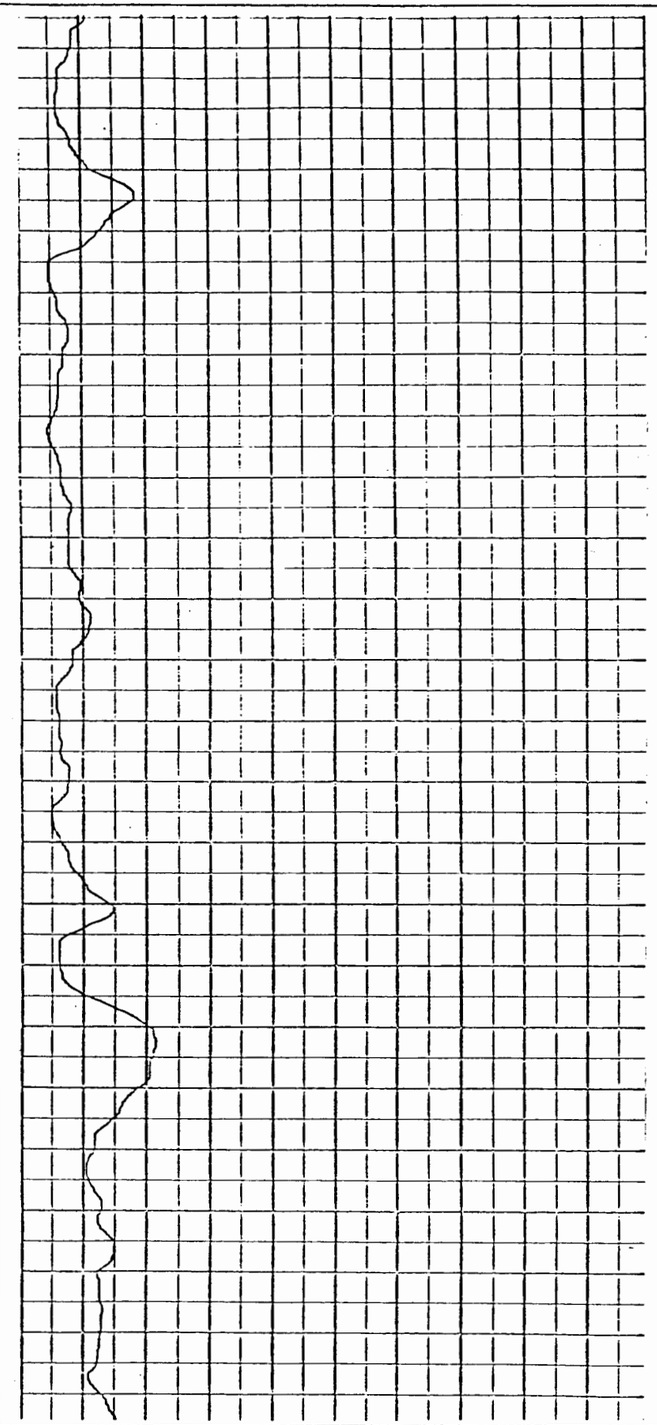
DRILL HOLE LOG

PROJECT WJV HOLE 791-4 LOCATION _____ CORE SIZE _____ STARTED _____ FINISHED _____

CLAIM GROUP _____ LENGTH _____ DIP ____ AZIMUTH ____ COLLAR ELEVATION ____ DRILLED BY _____ LOGGED BY _____

GEOLOGICAL DESCRIPTION	SAMPLE NUMBER	RADIO-ACTIVITY IN CPS BGS-ISL	GEOCHEMISTRY AND ASSAY (%U_3O_8) ppm U	GEOCHEMISTRY AND ASSAY ppm Cu (%)	% RECOV	GEOLOGY	STRUCTURE ∠ to core	HOLE DEPTH (FEET)
Pink and grey-green breccia continued						Barite carbonate	30	
PYRITIC, HEMATIZED BRECCIA: pyritic, crystalline to massive hematite mineralization with chalcopyrite in beige crystalline carbonate matrix. Pyrite-chalcopyrite rims and replaces corroded hematite crystals. 20 to 30% sulphides. Weak sulphide-oxide "flow banding" at 20° to core axis. Core is heavy and probably contains abundant barite. There is no detectable radioactivity associated with this mineralization.	H54540		5.5	(0.15)			30	80
	H54541		4.0	(0.16)				85
	H54542		9.0	(0.05)			15	90
	H54543		2.5	(0.18)				95
	H54544		3.0	(0.51)				100
	H54545		3.5	(0.49)		Hb4		105
	H54546	100 Fluctuations of 10-15cps	4.5	(0.30)	100		40	110
Euhedral to massive hematite rimmed by pyrite and chalcopyrite; sulphides partly replace hematite. Abundant chlorite in a few areas defines weak foliation at 50° to core axis. Hematite 50-60% of core, 10-20% sulphides with pyrite > chalcopyrite, remaining matrix is carbonate, barite, chlorite. Late carbonate veins cut core at 20-30°.	H54547		3.5	(1.74)		Barite carbonate chakopyrite calcite	40 20	115
	H54548		2.0	(1.56)				120
	H54549		3.0	(1.61)				125
	H54550		2.5	(1.05)		calcite carbonate	20 20 10	130
PINK AND GREY-GREEN BRECCIA: pinkish to light brown to grey and also minor maroon coloured, differentially altered, small rock fragmetns rimmed by chlorite in grey-green matrix with blebs of beige carbonate and chlorite; chlorite ≈ 10%, finely disseminated hematite-magnetite < 10%. Tightly healed breccia low in oxides and sulphides.	H54551		5.5	970			25	135
						Hb2	20	140
							40	145
							30	150

MOUNT SOPRIS GAMMA PROBE LOG



DRILL HOLE LOG

PROJECT WJV HOLE JJI-4 LOCATION _____ CORE SIZE _____ STARTED _____ FINISHED _____ PAGE 3 OF 4

CLAIM GROUP _____ LENGTH _____ DIP _____ AZIMUTH _____ COLLAR ELEVATION _____ DRILLED BY _____ LOGGED BY _____

GEOLOGICAL DESCRIPTION	SAMPLE NUMBER	RADIO-ACTIVITY IN CPS BGS-ISL	GEOCHEMISTRY AND ASSAY ($\%U_3O_8$) ppm U	ppm Cu			% RECOV	GEOLOGY	STRUCTURE / to core	HOLE DEPTH (FEET)
Pink and grey-green breccia continued								Hb_2	30 40 15 15 40 00 40	155 160 165 170 175
PYRITIC, HEMATIZED BRECCIA: coarse crystalline aggregates to massive specular hematite with minor magnetite. 60-80% hematite with minor pyrite in chloritic carbonate matrix; late carbonate veins cut hematite.	H54552	100 Fluctuations of 10-15cps	0.5	30			100	Hb_4		180 185
PINK AND GREY-GREEN BRECCIA: pinkish, brown, grey-green and minor maroon coloured fragments in grey-green chloritic carbonate matrix. Rock fragments are both larger and smaller than core diameter. Minor hematite and trace sulphides occur in the matrix with minor exceptions. Chlorite content 10-20%. Euhedral hematite-magnetite 10% overall.								Hb_2	20 40 30 50 30 20	190 195 200 205 210 215 220 225

MOUNT SOPRIS GAMMA PROBE LOG

DRILL HOLE LOG

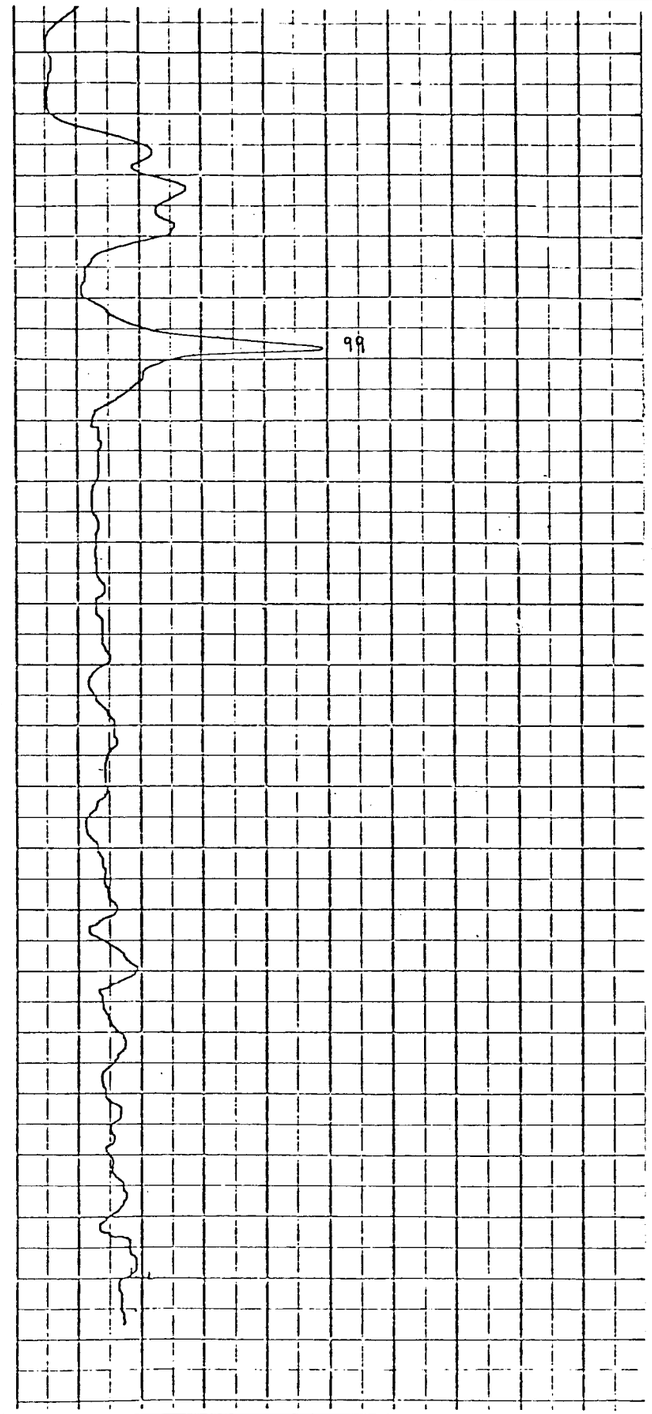
PROJECT WJV HOLE JH-4 LOCATION _____ CORE SIZE _____ STARTED _____ FINISHED _____ PAGE 4 OF 4

CLAIM GROUP _____ LENGTH _____ DIP ____ AZIMUTH ____ COLLAR ELEVATION ____ DRILLED BY _____ LOGGED BY _____

GEOLOGICAL DESCRIPTION	SAMPLE NUMBER	RADIO-ACTIVITY IN CPS BGS–ISL	GEOCHEMISTRY AND ASSAY ($\%U_3O_8$) ppm U	ppm Cu (%)	% RECOV	GEOLOGY	STRUCTURE ∠ to core	HOLE DEPTH (FEET)
Pink and grey-green breccia continued						Hb_2	30	230
PYRITIC, HEMATIZED BRECCIA: hematized grey-green breccia rimmed by pyrite-chalcopyrite. Hematite 30%, pyrite-chalcopyrite 10-20%, chlorite 10%.	H54554		16.5	(0.44)				235
						Hb_4		240
	H54555		6.5	(0.79)			30	245
PINK AND GREY-GREEN BRECCIA: same as pink and grey-green breccia above. Tightly healed breccia, relatively low in oxides and sulphides.		100 Fluctuations 10-15 cps					20	250
								255
							50	260
								265
						Hb_2	40	270
								275
Abundant hematite, pyrite in chloritic matrix	H54553		10.0	(0.76)			10/60	280
								285
chalcopyrite in carbonate vein							40	290
								295
Late carbonate and chlorite in fractures in bottom 3' of core.							00	300

End of Hole

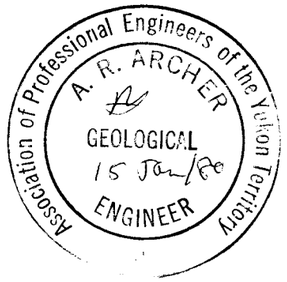
MOUNT SOPRIS GAMMA PROBE LOG



DRILL HOLE LOG

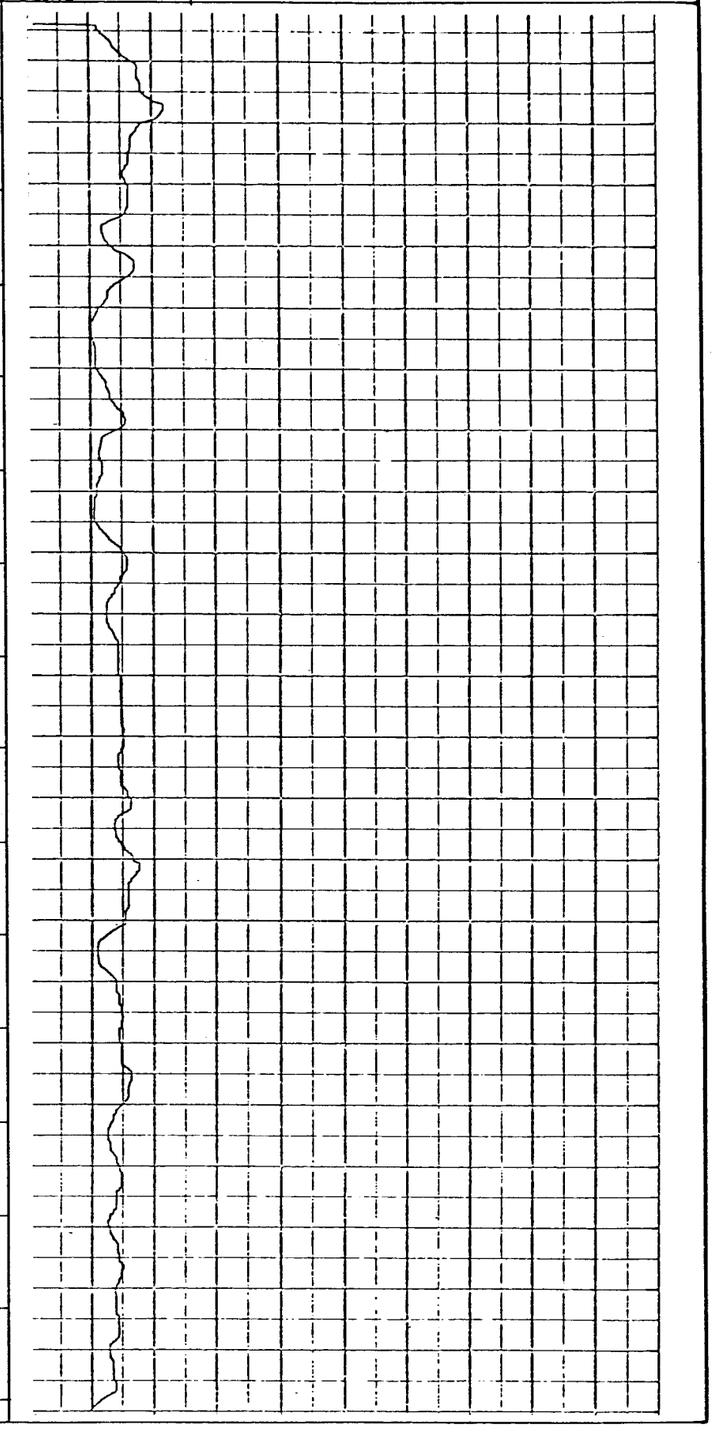
PROJECT WJV HOLE 791-5 LOCATION 23+15N-11+70W CORE SIZE BQ STARTED 18/06/79 FINISHED 20/06/79 PAGE 1 OF 5

CLAIM GROUP IGOR LENGTH 312' DIP -50° AZIMUTH 180° COLLAR ELEVATION 2990' DRILLED BY CARON LOGGED BY V. SCHMIDT



GEOLOGICAL DESCRIPTION	SAMPLE NUMBER	RADIO-ACTIVITY IN CPS BGS-ISL	GEOCHEMISTRY AND ASSAY (%U3O8) ppm U	ppm Cu			% RECOV	GEOLOGY	STRUCTURE ∠ to core	HOLE DEPTH (FEET)
Bedrock PINK AND GREY-GREEN BRECCIA: pink and grey-green altered rock fragments in grey-green chloritic carbonate matrix. Rock fragments are selectively altered in some cases, often with corroded edges and are less than core diameter in size. Minor hematite occurs throughout the carbonate rich matrix. Late fractures filled with carbonate and chlorite cut fragments and matrix. Higher hematite concentrations occur in some sections. Chlorite ≈10%. Hematite-magnetite <10%. Pinkish feldspathic alteration ≈10-20%.		130/100					100	Hb_2	30/30 30 50 30 20 30 20 40	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75
		100 Minor fluctuations								

MOUNT SOPRIS
GAMMA PROBE LOG
Scale 1cm = 20cps



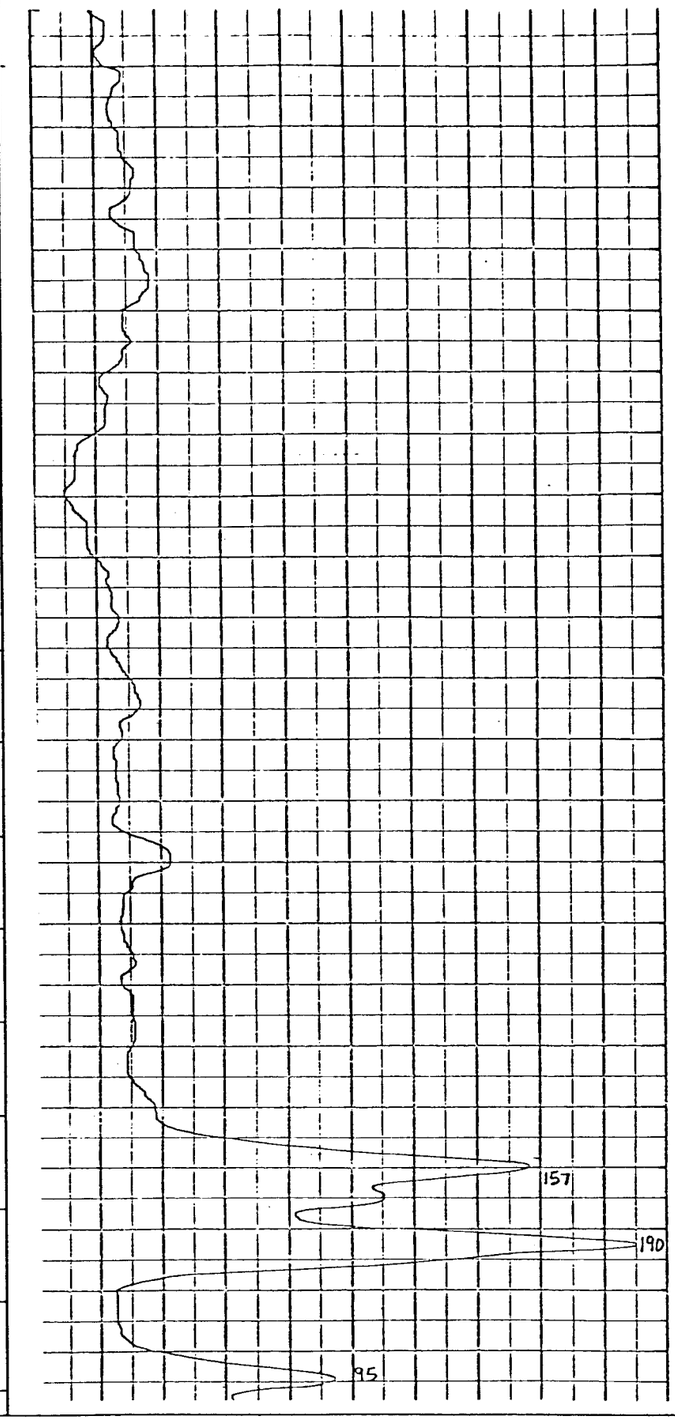
DRILL HOLE LOG

PROJECT WJV HOLE 71-5 LOCATION _____ CORE SIZE _____ STARTED _____ FINISHED _____

CLAIM GROUP _____ LENGTH _____ DIP ____ AZIMUTH ____ COLLAR ELEVATION ____ DRILLED BY _____ LOGGED BY _____

GEOLOGICAL DESCRIPTION	SAMPLE NUMBER	RADIO-ACTIVITY IN CPS BGS-ISL	GEOCHEMISTRY AND ASSAY (%U3O8 / ppm U)	GEOCHEMISTRY AND ASSAY (ppm Cu (%))	% RECOV	GEOLOGY	STRUCTURE ∠ to core	HOLE DEPTH (FEET)
Pink and grey-green breccia continued							20	80
								85
							30	90
							00 30	95
								100
20-30% euhedral hematite-magnetite in breccia matrix.		100 Background Minor fluctuations			100	Hb_2		105
							40	110
								115
								120
								125
							30	130
								135
PYRITIC BRECCIA: pink rock fragments in pyritic matrix with chalcopyrite, chlorite and minor hematite. ≈ 60% pyrite.	H54558		24	(0.79)		Hb_4		140
Pink and grey-green breccia.						Hb_2		
DARK GREEN CHLORITIC BRECCIA	H54559	130/100	7.5	210	80	Hb_3		145
					90			150

MOUNT SOPRIS GAMMA PROBE LOG



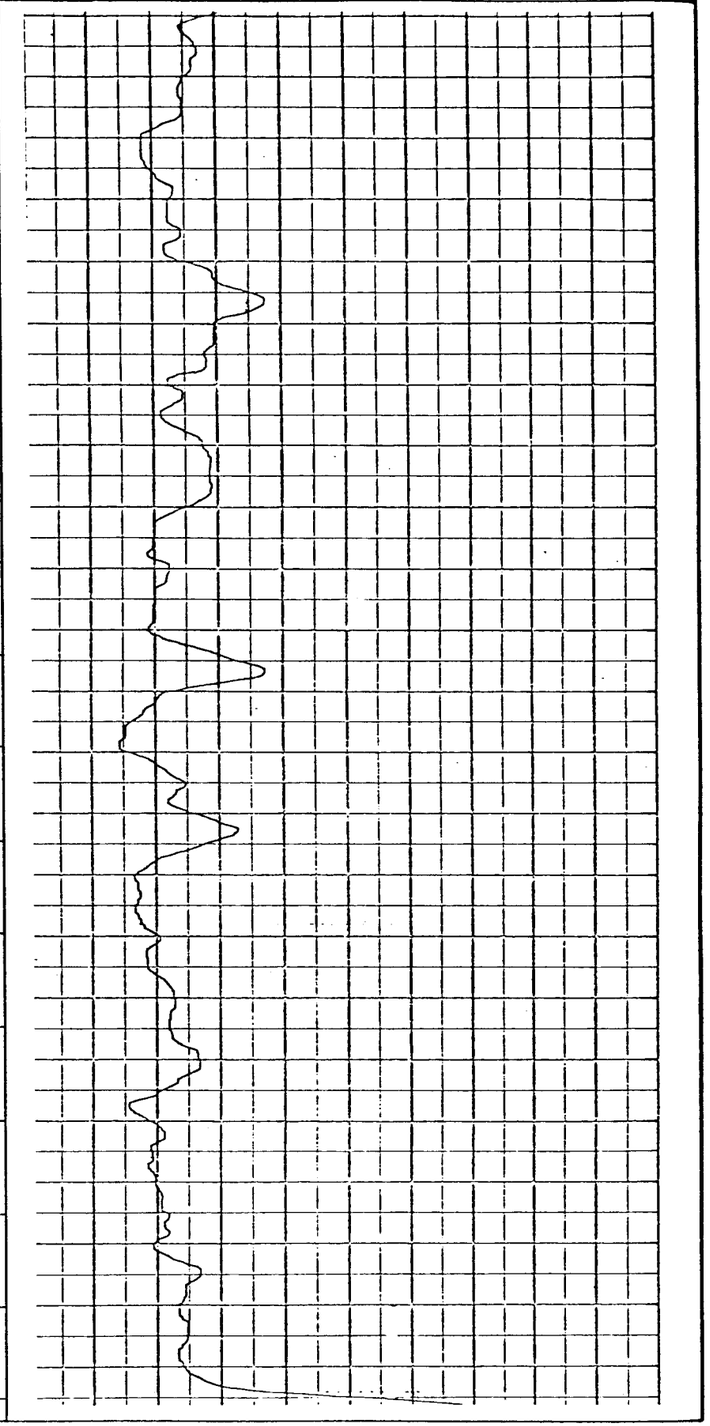
DRILL HOLE LOG

PROJECT WJV HOLE 791-5 LOCATION _____ CORE SIZE _____ STARTED _____ FINISHED _____ PAGE 3 OF 5

CLAIM GROUP _____ LENGTH _____ DIP _____ AZIMUTH _____ COLLAR ELEVATION _____ DRILLED BY _____ LOGGED BY _____

GEOLOGICAL DESCRIPTION	SAMPLE NUMBER	RADIO-ACTIVITY IN CPS BGS-ISL	GEOCHEMISTRY AND ASSAY (%U_3O_8) ppm U	ppm Cu			% RECOV	GEOLOGY	STRUCTURE ∠ to core	HOLE DEPTH (FEET)
FAULT ZONE: strong faulting from 150'-166' with no associated mineralization.	H54560	130/100	9.0	45			50			155
	H54561		5.0	40			80			160
	H54562		13.0	30			15			165
	H54563		10.0	100			60			
PINK TO RED-BROWN BRECCIA: tightly healed pink breccia fragments in chloritic carbonate matrix. Most fragments are larger than core diameter.								Hb1		170
										175
GREY AND GREY-GREEN BRECCIA: tightly healed grey and grey-green fragments in carbonate rich matrix. Late carbonate-barite veinlets cut core. Fragments are larger than core diameter but get smaller and proportion of matrix increases down the hole. Hematite content is approximately 10% overall but increases from fine disseminated specular hematite to coarse euhedral crystals and crystal aggregates with increasing depth. Chlorite content varies from 30-40%.										180
		110/100 Fluctuations 10-15 cps					100		40	185
									20 30	190
								3" wide chalcopyrite vein	15	195
								Hb2		200
									2950	
									30	205
										210
										215
									00	220
									20	
										225

MOUNT SOPRIS GAMMA PROBE LOG

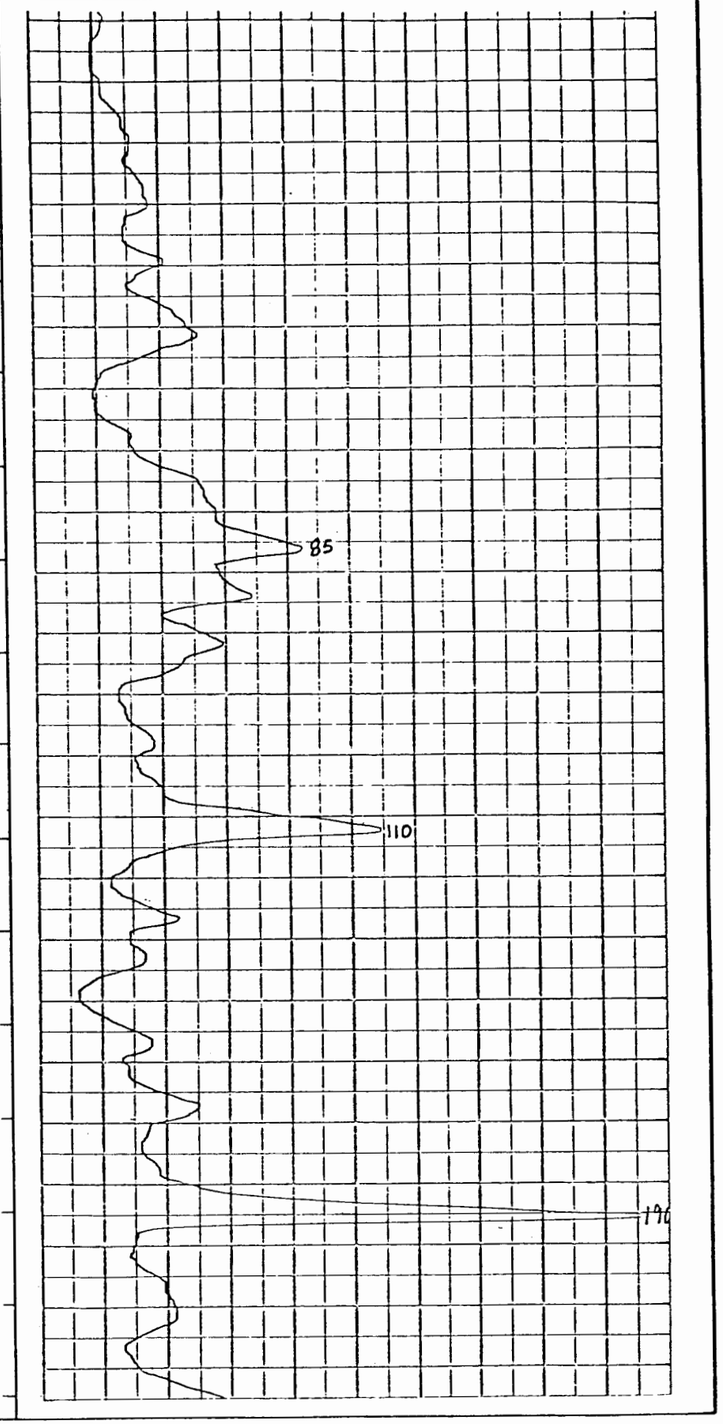


DRILL HOLE LOG PROJECT WJV HOLE 7915 LOCATION _____ CORE SIZE _____ STARTED _____ FINISHED _____

CLAIM GROUP _____ LENGTH _____ DIP ___ AZIMUTH ___ COLLAR ELEVATION ___ DRILLED BY _____ LOGGED BY _____

GEOLOGICAL DESCRIPTION	SAMPLE NUMBER	RADIO-ACTIVITY IN CPS BGS-ISL	GEOCHEMISTRY AND ASSAY (%U3O8 / ppm U)	GEOCHEMISTRY AND ASSAY (ppm Cu)	% RECOV	GEOLOGY	STRUCTURE ∠ to core	HOLE DEPTH (FEET)
Grey and grey-green breccia continued								
HEMATIZED BRECCIA: massive specular hematite (70-80%) with chlorite, containing a few small breccia fragments.	H54564		10.5	45		Hb4	30	230
GREY AND GREY-GREEN BRECCIA: grey and grey-green rock fragments in chloritic carbonate matrix containing specular hematite and minor interstitial pyrite. A few larger fragments contain secondary disseminated specular hematite. Late fractures are filled with carbonate, barite and chlorite.						Hb2	20	235 / 240 / 245
PYRITIC, HEMATIZED BRECCIA: massive specular hematite (≈ 80%) with chlorite and minor pyrite.	H54565		3.0	50		Hb4	30	250
PINK AND GREY-GREEN BRECCIA: grey and grey-green rounded fragments in chloritic carbonate matrix with specular hematite, pyrite and chalcopyrite. Hematite 10-20%, pyrite and chalcopyrite <10%, chlorite 20-30%.		110/100			100		20 / 20 / 30	255 / 260
Pink and grey-green rounded breccia fragments in dark green chloritic matrix. Breccia is tightly healed with most fragments smaller than core diameter; matrix contains hematite, pyrite and isolated chalcopyrite blebs. Larger fragments show differential alteration and hematite replacement. Hematite 10-15%, pyrite > chalcopyrite < 10%, chlorite 10-30%.						Hb2	30/30 / 30 / 40	265 / 270 / 275 / 280 / 285 / 290 / 295 / 300
	H54556		1.5	255				
	H54557		2.5	560				

MOUNT SOPRIS GAMMA PROBE LOG



DRILL HOLE LOG

PROJECT WJV HOLE J91-5 LOCATION _____ CORE SIZE _____ STARTED _____ FINISHED _____

CLAIM GROUP _____ LENGTH _____ DIP _____ AZIMUTH _____ COLLAR ELEVATION _____ DRILLED BY _____ LOGGED BY _____

GEOLOGICAL DESCRIPTION	SAMPLE NUMBER	RADIO-ACTIVITY IN CPS BGS-ISL	GEOCHEMISTRY AND ASSAY ($\%U_3O_8$) ppm U	ppm Cu			% RECOV	GEOLOGY	STRUCTURE ∠ to core	HOLE DEPTH (FEET)	MOUNT SOPRIS GAMMA PROBE LOG
Grey and grey-green breccia continued											
		110/100						Hb_2	15	305	
≈ 5% pyrite content in matrix with intermittent chalcopyrite.											
									20	310	
chalcopyrite →										312	
End of Hole											

Pan Ocean — Mountaineer
Loon, Mosquito, Clam, Deer, Frog, Owl, Pool (800 claims)

BOUNDARY OF COAL EXPLORATION LICENCE AREA HELD BY PAN OCEAN

Illtyd cls
Pole I-40
MST I-40
Flunk I-140
Tar I-24
Pass I-24
Gremlin I-12
A I-48
B I-38
Ms I-14
Riox I-30
Kid I-14
Rin I-34
Tet I-48
Wernecke (42 claims)
Igor I-26
Thor 7-32
Otis I-20
Orion
Pike 8-14
Rad I-24
Arcos I-16
Pitch

DARNEY YMI 106E (31)
CHLOE YMI-106E (6)
FORSTER YMI 106E (8)
FLUNK YMI 106E (7)
YOSI YMI 106E(11)
PANOCEAN CAMP
W.J.V. CAMP
IKONA YMI 106 E(29)
QUARTET YMI-106E NW(27)
SLATS YMI-106D(53)
OTIS YMI 106 E (1)
BREAK YMI 106 E(24)
MAGIC YMI 106E(10)

Kiwi Lake
Quartet Lakes
Creek
RIVER
BONNET PLUME RIVER
WIND
ROSCOE
WHITE
Slats

Ord-Sil shale

Hart River Shale

KIWI LAKE
Figure WJV79-RI
Eldorado Agreement Area
LOCATION MAP
1:1,000,000

LEGEND

PALEOZOIC (unnamed)

ORDOVICIAN-SILURIAN

€Db **Massive Dolomite**
grey, massive and thick bedded carbonates

CAMBRIAN

€ta **Recessive Carbonate**
thin bedded recessive weathering carbonate

- angular unconformity -

MIDDLE CAMBRIAN

€wr **Cherty Carbonate**
light grey, thick bedded, cherty carbonates and clastics

€wr1a **Upper Dolomite**
grey, thin bedded, cherty breccia, carbonate debris flow, abundant black chert nodules, beds and fragments (karst breccia)

€wr1b **Lower Dolomite**
mottled, light grey brown to pinkish crystalline limy dolomite and dolomite breccia

€wr2 **Red Clastic**
brick-red, thick bedded to massive sandstone and conglomerate

LOWER CAMBRIAN

€l **Massive Limestone**
light grey, thick bedded to massive limestone and dolomite, dolomitic sandstone and conglomerate at base

Flunk Shale
maroon dolomitic siltstone and shale, has a high radioactive background caused by potassium content

€la **Bioherms**

- angular unconformity -

PROTEROZOIC

HADRYNIAN AND/OR HELIKIAN

H4 **Brown Dolomite**
buff to brown weathering stromotolitic dolomite, argillite and clastics

- relationship unknown -

Hla **Orange and Grey Dolomite**
possible equivalent to Hc

- relationship unknown -

HELIKIAN, POSSIBLY APHEBIAN

Hb **Breccia**
heterolithic breccia composed of dark grey to pink, angular to rounded fragments in a dark matrix commonly rich in carbonate, hematite, chlorite and minor barite and magnetite; intruded units are usually altered at contacts

- intrusive relationship -

Hc **GILLESPIE LAKE GROUP**
orange and brown weathering, stromatolitic dolomites with cherty horizons, carbonate debris flows

Hs **QUARTET GROUP**
interbedded black slates, argillites, quartzites, less commonly green slates and quartzites, cross and graded bedding seen in quartzites and siltstones

Hsa **Altered Quartet**
undifferentiated bleached and altered equivalents of Hs, apple green to light beige, cherty, occasionally limy

Hsp **Spotted Phyllite**
dark green banded chloritic phyllite, locally schistose, may contain porphroblasts minor basic dykes

Hspa **Altered Phyllite**
alternating beds of black slate and green phyllite partly spotted and bleached, usually peripheral to Hb, cut with many quartz-carbonate veins with rare brannerite

Hsh **Green Schist**
tightly kinked grey green to grey blue chlorite schist

Hsc **Dolomite**
dark brown weathering, coarse crystalline, creamy dolomite with magnetite, possibly an alteration product of breccia

Hsca **Alteration Dolomite**
A brown weathering carbonate rich layered rock usually close to Hb, often contains well developed (.5-1 cm) cordierite crystals, probably an alteration product of breccia

FAIRCHILD LAKE GROUP

Hcs undifferentiated; grey to green limy siltstones and quartzites, green slates, phyllites, locally schistose, pelitic dolomite, limestone and minor basic volcanics

Hcs2 **Green Slate**
green slate with generally less than 20% interbedded limy rocks; massive dark brittle argillites low in section

Hcsa **Altered Fairchild**
altered equivalents of Hcs; medium grained banded green to brown diopside, garnet, calc-silicates and limy chloritic banded hornfels

Bedding: inclined, vertical; G-gentle, M-moderate, S-steep

Foliation: inclined, vertical

Geological boundary: defined, approximate, assumed

Fault: defined, approximate

▲ 1 to 3 occurrences
▲ > 3 occurrences
Radioactive mineral occurrence with assay or radiometric reading in counts per second taken with Scintrex BGS-1S broadband scintillometer (1" x 1" thallium activated sodium iodide crystal) P indicates primarily pitchblende

○ Water
× Silt
• Soil
■ Rock
U geochemistry in PPM (water in ppb)
- analyzed by Chemex Labs Ltd. in North Vancouver

T indicates <0.5 ppm

Pagisteel YMC-106D(49)
Mineral occurrences described in the Northern Cordillera Mineral Inventory - Archer, Cathro and Associates Ltd.

Figure WJV79-RI

ARCHER, CATHRO & ASSOCIATES LTD

PROPERTY LOCATION, REGIONAL GEOLOGY AND GEOCHEMISTRY

KIWI LAKE AREA

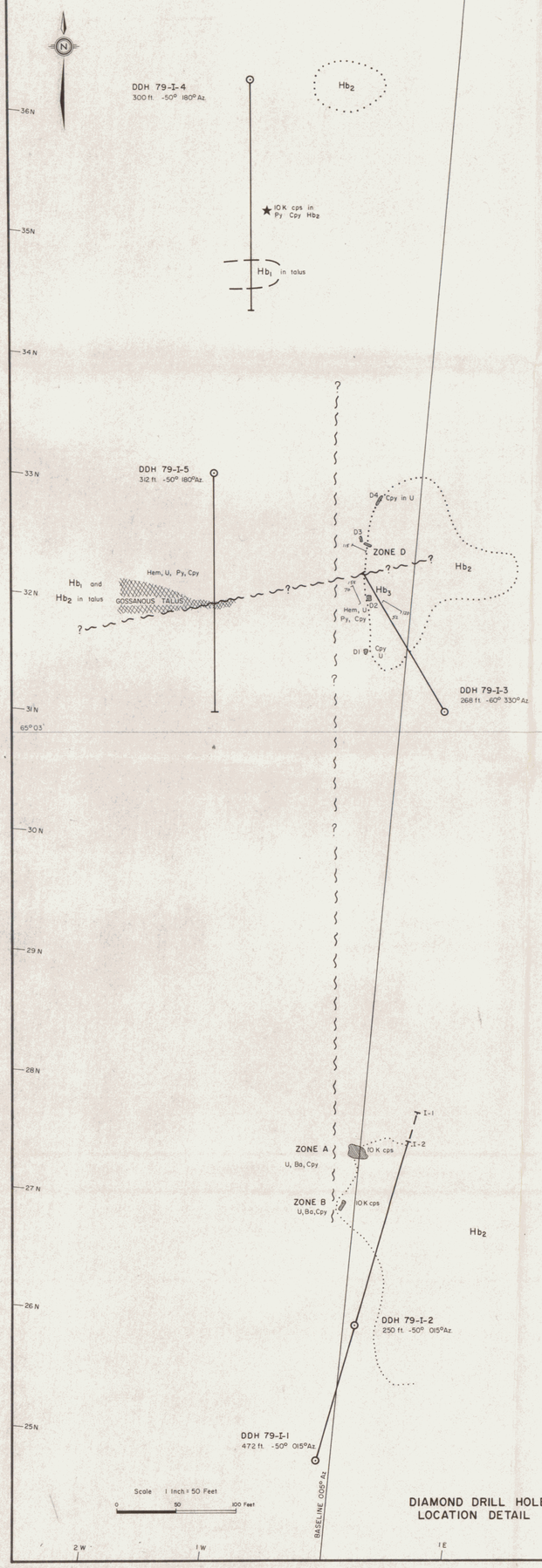
WERNECKE JOINT VENTURE

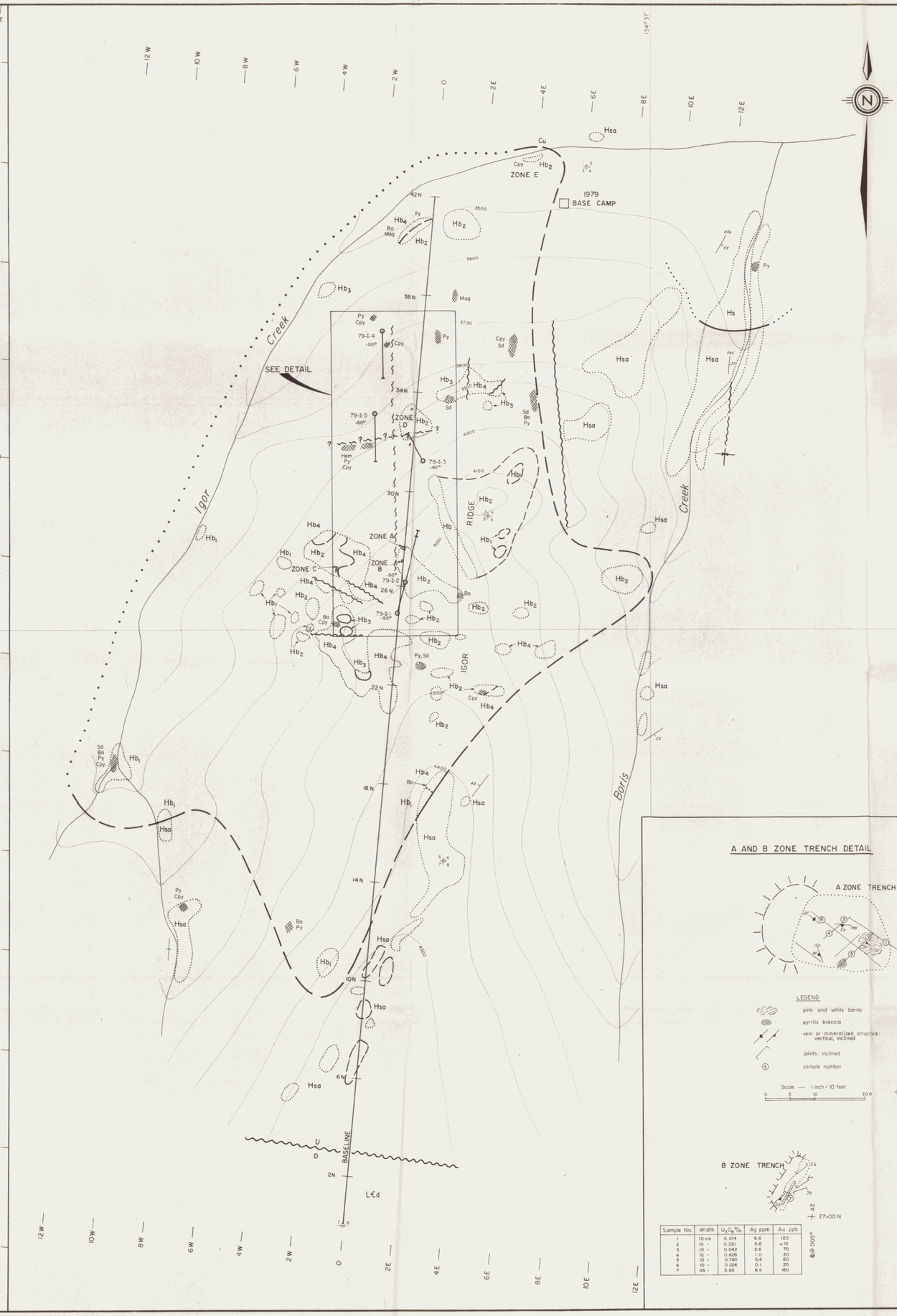
SCALE - 1 in = 1 Mile

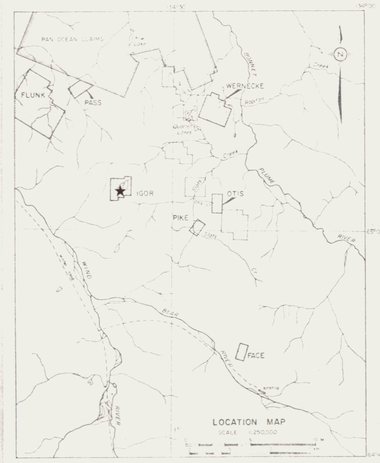
Association of Professional Engineers of the Yukon Territory
A. R. ARCHER
GEOLOGICAL
15 Jan 80
ENGINEER

090562

To accompany report dated Jan. 15, 1980







GEOLOGY

PALEOZOIC

L€d — Lower Cambrian Dolomite
Red brown weathering grey siliceous limy dolomite

HELIKIAN

Hb — Breccia
Heterolithic breccia containing grey, green and pink fragments of variably bleached, carbonatized, hematized and fenitized Quartet Group (Hs) shale, phyllite, quartzite and siltstone in a variable matrix of carbonate, feldspar, barite, quartz, chlorite, hematite – magnetite, pyrite and chalcopyrite

Hb1 — Pink and Red-Brown Breccia
Pink, red and red-brown rock fragments in carbonate rich matrix with disseminted hematite

Hb2 — Pink and Grey-Green Breccia
Silver-grey to brown weathering breccia with recessive weathering carbonate matrix, pinkish matrix with light green fragments in fresh rock and variable hematite content

Hb3 — Dark Green Chloritic Breccia
Dark green chloritic matrix and fragments, often with massive hematite sections

Hb4 — Pyritic, Hematized Breccia
High but variable concentrations of euhedral to massive magnetite-hematite with associated barite, pyrite and chalcopyrite, both in matrix and replacing breccia fragments

HELIKIAN, APHEBIAN (?)

Hs — Quartet Group
Grey to black shale, slate, phyllite interbedded with graded quartzite and siltstone exhibiting turbidite structures

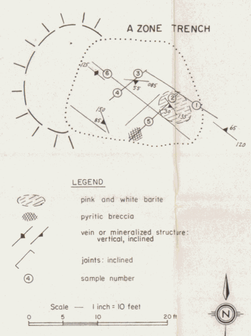
Hsa — Altered Quartet Group
Bleached and carbonatized equivalents of Hs; olive to apple green phyllites, brown weathering grey siltstones, white quartzites, often with cherty texture and occasionally limy

SYMBOLS

- Outcrop
- Talus of bedrock composition
- Geological boundary: defined, approximate, assumed
- Joint: vertical, inclined
- Bedding: vertical, inclined
- Foliation: vertical, inclined
- Fault: defined, approximate, assumed
- Claim posts
- Gossan
- Py Pyrite
- Cpy Chalcopyrite
- Ba Barite
- Hem Hematite
- Mag Magnetite
- Sd Siderite
- 79-I-1 -50° Diamond Drill Hole collar with dip angle
- Hand trench

Note: outcrop locations from 1975 survey with 1975 and 1979 mapping

A AND B ZONE TRENCH DETAIL



Sample No.	Width	U_3O_8 %	Ag ppm	Au ppb
1	10 cm	0.104	6.6	120
2	10 "	0.221	0.6	<10
3	10 "	0.042	2.6	70
4	10 "	0.609	1.0	20
5	10 "	0.760	0.4	60
6	20 "	0.026	0.1	20
7	45 "	3.65	8.6	160

FIGURE WJV 79-I1

ARCHER, CATHRO & ASSOCIATES LTD

GEOLOGY AND DRILL HOLE LOCATIONS

IGOR CLAIMS

WERNECKE JOINT VENTURE

SCALE 1 Inch = 200 Feet

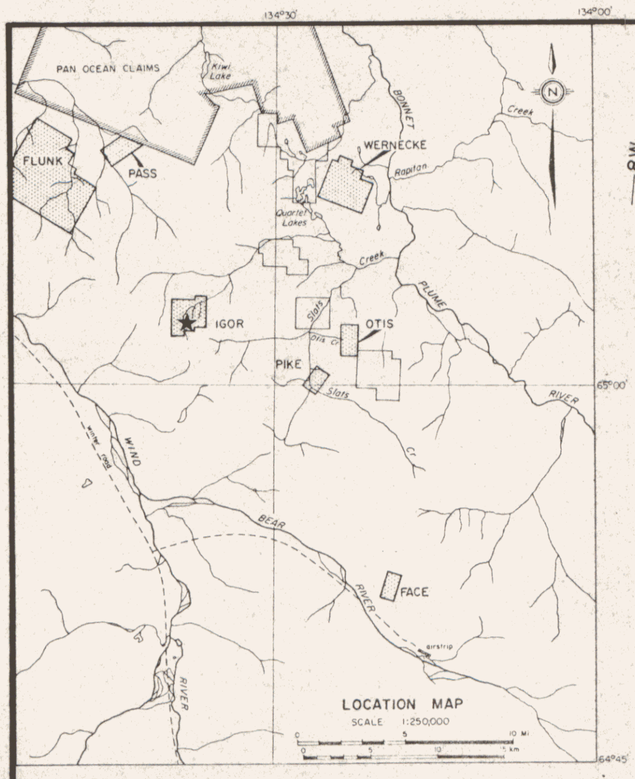
200 0 200 400 600 Feet

Association of Professional Engineers of the Yukon Territory
A. R. ARCHER
GEOLOGICAL ENGINEER
15 Jan 80

090562

Jan. 15 1980

To accompany report dated Dec. 1979



LEGEND

- .48 — Radiometric survey point with reading taken with a Scintrex BGS-1S broadband scintillometer (1" by 1" thallium activated sodium iodide crystal) in counts per second (cps)
- x 2000 — Float (talus)
- 2000 — Talus area with ± 1% radioactive float fragments which individually count 2000 cps. or more
- ■ 0.274% U_3O_8 rock (grab) sample
- 75 cps contour
- Area greater than 1000 ppm copper

Breccia contact

- defined
- approximate
- assumed

HOLE 79-I-1 — drill hole collar with dip angle

Note: Radiometric and assay data from surveys conducted in 1975

Figure WJV 79-I2

ARCHER, CATHRO & ASSOCIATES LTD.

RADIOMETRIC SURVEY

IGOR CLAIMS

WERNECKE JOINT VENTURE

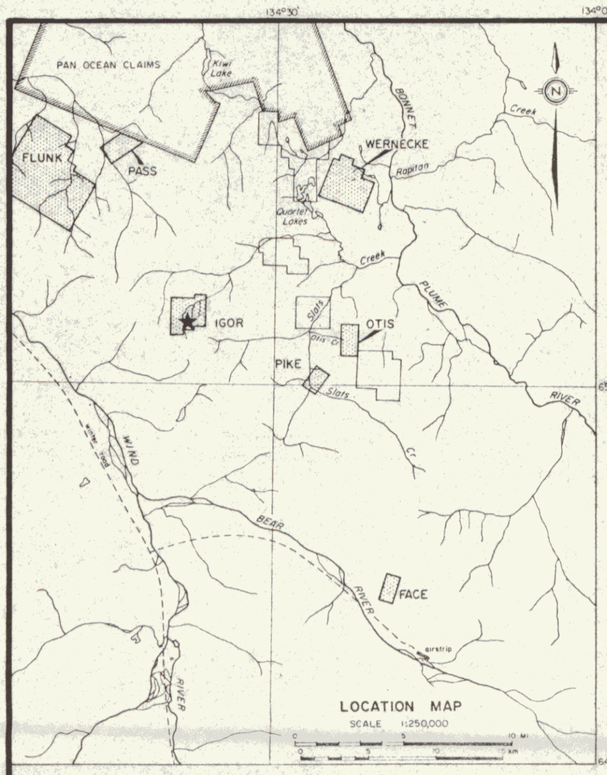
SCALE IN FEET

200 0 200 400 600

090562

Jan. 15, 1980

To accompany report dated ~~Dec. 1979~~



LEGEND

- Soil sample with U, Cu, Mo assays in ppm by Chemex Labs Ltd.
- Rock (grab) sample with U_3O_8 and Cu in % by Chemex Labs Ltd.
- 1974 OJV rock (grab) sample (N.A. – not analysed)
- SP 151-432 — Reference to spectrographic analysis certificate number and sample number included in appendix of the 1975 OJV report
- Claim post
- 1000 — Copper geochemical value contour
- Breccia contact: defined / approximate / assumed
- HOLE 79-I-1 — 1979 drill hole

Note: Assay and geochemical data from surveys conducted in 1975

090562

Figure WJV 79-13

ARCHER, CATHRO & ASSOCIATES LTD.

URANIUM, COPPER, MOLYBDENUM GEOCHEMISTRY

IGOR CLAIMS

WERNECKE JOINT VENTURE

SCALE IN FEET

200 0 200 400 600

Jan. 15, 1980

To accompany report dated ~~Dec. 1979~~

APPENDIX I

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 985-0648
AREA CODE: 604
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. SP 0877

TO: Archer Cathro & Assoc. Ltd.,
Box 4127
Whitehorse, Y.T.
Y1A 3S9

INVOICE NO. 30543

RECEIVED June 12/79

ATTN: WJV - IGOR HOLE 79-I-1

ANALYSED June 15/79

SAMPLE NO. :	Lower Concentration Limit (PPM)	0740A, 70-70.5'	0741, 197'-202'	0742, 202'-207'	0743, 207'-212'	0744A, 414.0' to 414.75'
Antimony	50	< 500	< 500	< 500	< 500	< 500
Arsenic	50	< 200	< 200	< 200	200	< 200
Barium	5	7000	7000	1500	700	> 10,000
Beryllium	5	< 10	< 10	< 10	< 10	< 10
Bismuth	5	bcl	bcl	bcl	bcl	bcl
Boron	20	bcl	50	< 50	< 50	bcl
Cadmium	20	bcl	bcl	bcl	bcl	bcl
Calcium	0.05%	1.5%	0.7%	0.7%	0.3%	3%
Chromium	10	100	100	200	150	70
Cobalt	10	500	200	1000	700	70
Copper	1	1000	700	500	500	5000
Gallium	2	10	10	15	10	5
Germanium	20	bcl	bcl	bcl	bcl	bcl
Indium	50	bcl	bcl	bcl	bcl	bcl
Iron	0.05%	10%	10%	20%	15%	7%
Lead	5	15	5	5	5	5
Magnesium	0.02%	1%	2%	1%	1%	1%
Manganese	5	500	10,000	1000	5000	1500
Molybdenum	10	< 100	<100	< 100	< 100	< 100
Nickel	5	50	70	150	70	20
Niobium	50	bcl	bcl	bcl	bcl	bcl
Silver	1	bcl	bcl	bcl	bcl	bcl
Strontium	2	20	100	50	10	7000
Tellurium	200	bcl	bcl	bcl	bcl	bcl
Thorium	100	< 200	< 200	< 200	< 200	< 200
Tin	10	bcl	bcl	bcl	bcl	bcl
Titanium	5	3000	7000	2000	5000	5000
Vanadium	10	70	100	150	100	100
Zinc	50	bcl	bcl	50	50	bcl
Zirconium	20	100	100	70	70	50

SEMI QUANTITATIVE SPECTROGRAPHIC ANALYSES

>5000 ppm => 5000 ppm	50 ppm = 25–100 ppm
5000 ppm = 2500–10000 ppm	20 ppm = 10–50 ppm
2000 ppm = 1000–4000 ppm	10 ppm = 5–20 ppm
1000 ppm = 500–2000 ppm	5 ppm = 2–10 ppm
500 ppm = 250–1000 ppm	2 ppm = 1–4 ppm
200 ppm = 100–400 ppm	1 ppm = 0.5–2 ppm
100 ppm = 50–200 ppm	bcl = below concentration limit

Ranges for Iron, Calcium & Magnesium are reported in %

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: .....

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: [redacted] 984-0221
AREA CODE: 604
TELEX: 043-52597

CHEMEX LABS LTD.

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. SP0884
INVOICE NO. 30653
RECEIVED June 19/79
ANALYSED June 25/79

TO: Archer Cathro
Box 4127
Whitehorse, Y.T. Y1A 3S9

WJV - IGOR
HOLE 79-I-2

ATTN:

SAMPLE NO. :	Lower Concentration Limit (PPM)	155'-157' 00746	170.5'-171.5' 00748
Antimony	50	bcl	bcl
Arsenic	50	500	50
Barium	5	>10,000	5000
Beryllium	5	bcl	bcl
Bismuth	5	bcl	bcl
Boron	20	70	200
Cadmium	20	bcl	bcl
Calcium	0.05%	1.0%	3.0%
Chromium	10	50	50
Cobalt	10	1000	700
Copper	1	>10,000	>10,000
Gallium	5	15	10
Germanium	20	bcl	bcl
Indium	50	bcl	bcl
Iron	0.05%	10%	10%
Lead	5	10	5
Magnesium	0.02%	0.5%	1.5%
Manganese	5	300	10,000
Molybdenum	10	bcl	bcl
Nickel	5	15	15
Niobium	50	bcl	bcl
Silver	1	bcl	bcl
Strontium	2	300	100
Tellurium	200	bcl	bcl
Thorium	200	<200	<200
Tin	10	bcl	bcl
Titanium	5	5000	5000
Vanadium	20	<20	<20
Zinc	50	bcl	bcl
Zirconium	20	100	100

SEMI QUANTITATIVE SPECTROGRAPHIC ANALYSES

>5000 ppm => 5000 ppm	50 ppm = 25–100 ppm
5000 ppm = 2500–10000 ppm	20 ppm = 10–50 ppm
2000 ppm = 1000–4000 ppm	10 ppm = 5–20 ppm
1000 ppm = 500–2000 ppm	5 ppm = 2–10 ppm
500 ppm = 250–1000 ppm	2 ppm = 1–4 ppm
200 ppm = 100–400 ppm	1 ppm = 0.5–2 ppm
100 ppm = 50–200 ppm	bcl = below concentration limit

Ranges for Iron, Calcium & Magnesium are reported in %

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: .....

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: [redacted] 984-0221
AREA CODE: 604
TELEX: 043-52597

CHEMEX LABS LTD.

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. SP0884A
INVOICE NO. 30653
RECEIVED June 19/79
ANALYSED June 25/79

TO: Archer Cathro & Assoc. Ltd.,
Box 4127
Whitehorse, Y. T. Y1A 3S9

WJV-IGOR
HOLE 79-I-3

ATTN:

SAMPLE NO. :	Lower Concentration Limit (PPM)	37'-42' 00116	47'-52' 00118	68'-70' 00120	111'-116' 00122
Antimony	50	bcl	bcl	bcl	bcl
Arsenic	50	bcl	bcl	bcl	bcl
Barium	5	>10,000	>10,000	>10,000	>10,000
Beryllium	5	bcl	bcl	bcl	bcl
Bismuth	5	bcl	bcl	Bcl	70
Boron	20	bcl	bcl	bcl	bcl
Cadmium	20	bcl	bcl	bcl	bcl
Calcium	0.05%	3%	1%	3%	3%
Chromium	10	50	50	<100	<100
Cobalt	10	50	70	100	200
Copper	1	>10,000	>10,000	300	>10,000
Gallium	5	bcl	5	<10	<10
Germanium	20	bcl	bcl	bcl	bcl
Indium	50	bcl	bcl	bcl	bcl
Iron	0.05%	15%	20%	10%	20%
Lead	5	20	5	7	20
Magnesium	0.02%	3.0%	1.5%	2%	5%
Manganese	5	>10,000	>10,000	5000	10,000
Molybdenum	10	bcl	bcl	bcl	bcl
Nickel	5	15	15	15	15
Niobium	50	bcl	bcl	bcl	bcl
Silver	1	bcl	bcl	bcl	1
Strontium	2	500	2000	5000	1000
Tellurium	200	bcl	bcl	bcl	bcl
Thorium	200	<200	<200	<200	<200
Tin	10	bcl	bcl	bcl	bcl
Titanium	5	5000	2000	1500	1000
Vanadium	20	50	70	50	70
Zinc	50	bcl	bcl	bcl	bcl
Zirconium	20	70	50	20	20

SEMI QUANTITATIVE SPECTROGRAPHIC ANALYSES

>5000 ppm = > 5000 ppm		50 ppm	= 25–100 ppm
5000 ppm = 2500–10000 ppm		20 ppm	= 10–50 ppm
2000 ppm = 1000–4000 ppm		10 ppm	= 5–20 ppm
1000 ppm = 500–2000 ppm		5 ppm	= 2–10 ppm
500 ppm = 250–1000 ppm		2 ppm	= 1–4 ppm
200 ppm = 100–400 ppm		1 ppm	= 0.5–2 ppm
100 ppm = 50–200 ppm		bcl	= below concentration limit

Ranges for Iron, Calcium & Magnesium are reported in %

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: .....

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: [redacted] 984-0221
AREA CODE: 604
TELEX: 043-52597

CHEMEX LABS LTD.

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. SP0885
INVOICE NO. 30653
RECEIVED June 19/79
ANALYSED June 25/79

TO: Archer Cathro
Box 4127
Whitehorse, Y. T. Y1A 3S9

WJV - IGOR
HOLE-I-3 CON'T.

ATTN:

SAMPLE NO. :	Lower Concentration Limit (PPM)	121'-126' 00124	131'-136' 54502	141'-146' 54504	151'-156' 54506	161'-166' 54508	171'-176' 54510
Antimony	50	bcl	bcl	bcl	bcl	bcl	bcl
Arsenic	50	50	bcl	bcl	bcl	bcl	bcl
Barium	5	>10,000	>10,000	>10,000	>10,000	>10,000	10,000
Beryllium	5	bcl	bcl	bcl	bcl	bcl	bcl
Bismuth	5	70	bcl	200	70	bcl	bcl
Boron	20	bcl	bcl	bcl	bcl	bcl	bcl
Cadmium	20	bcl	bcl	bcl	bcl	bcl	bcl
Calcium	0.05%	3%	2%	2%	3%	2%	3%
Chromium	10	<100	<100	<100	<100	<100	<100
Cobalt	10	500	300	300	100	200	50
Copper	1	>10,000	>10,000	>10,000	>10,000	>10,000	>10,000
Gallium	5	<10	<10	<10	<10	<10	<10
Germanium	20	bcl	bcl	bcl	bcl	bcl	bcl
Indium	50	bcl	bcl	bcl	bcl	bcl	bcl
Iron	0.05%	20%	15%	20%	15%	15%	7%
Lead	5	100	5	70	100	7	bcl
Magnesium	0.02%	3%	2%	2%	3%	2%	2%
Manganese	5	10,000	10,000	10,000	10,000	10,000	10,000
Molybdenum	10	bcl	bcl	bcl	bcl	bcl	bcl
Nickel	5	15	15	20	15	15	10
Niobium	50	bcl	bcl	bcl	bcl	bcl	bcl
Silver	1	1	bcl	1	1	2	bcl
Strontium	2	1500	200	300	300	300	200
Tellurium	200	bcl	bcl	bcl	bcl	bcl	bcl
Thorium	200	<200	<200	<200	<200	<200	<200
Tin	10	bcl	bcl	bcl	bcl	bcl	bcl
Titanium	5	1500	1000	700	1500	700	3000
Vanadium	20	70	70	50	50	50	20
Zinc	50	bcl	bcl	bcl	bcl	bcl	bcl
Zirconium	20	50	20	20	20	bcl	50

SEMI QUANTITATIVE SPECTROGRAPHIC ANALYSES

>5000 ppm	=> 5000 ppm	50 ppm	= 25–100 ppm
5000 ppm	= 2500–10000 ppm	20 ppm	= 10–50 ppm
2000 ppm	= 1000–4000 ppm	10 ppm	= 5–20 ppm
1000 ppm	= 500–2000 ppm	5 ppm	= 2–10 ppm
500 ppm	= 250–1000 ppm	2 ppm	= 1–4 ppm
200 ppm	= 100–400 ppm	1 ppm	= 0.5–2 ppm
100 ppm	= 50–200 ppm	bcl	= below concentration limit

Ranges for Iron, Calcium & Magnesium are reported in %

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: .....

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J2C1
TELEPHONE: 984-0221
AREA CODE: 604
TELEX: 04-352597

CHEMEX LABS LTD.

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. SP 0981

TO: Archer Cathro & Assoc. Ltd.,
Box 4127,
Whitehorse, Y.T. Y1A 3S9

INVOICE NO. 32609

RECEIVED Aug. 20/79

ATTN: PROJECT: WJV - IGOR

ANALYSED Sept. 14/79

SAMPLE NO. :	Compo 745-749 HOLE I-2	Compo 115-119 HOLE I-3	Compo 121-125 HOLE I-3	Compo 54502-54511	Also on #49914
Cerium	<500	<500	<500	<500	
Dysprosium	<50	<50	<50	<50	
Erbium	<20	<20	<20	<20	
Europium	<10	<10	<10	<10	
Gadolinium	<200	<200	<200	<200	
Holmium	<50	<50	<50	<50	
Lanthnum	<50	<50	<50	<50	
Lutetium	<20	20	50	30	
Neodymium	<200	<200	<200	<200	
Praseodymium	<500	<500	<500	<500	
Samarium	<50	<50	<50	<50	
Terbium	<20	<20	<20	<20	
Thulium	<10	<10	<10	<10	
Ytterbium	<2	<2	<2	<2	
Scandium	<10	<10	<10	<10	
Yttrium	<10	<10	<10	<10	
Potassium	5%	<0.5%	<0.5%	<0.5%	

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: Hart Biddle

Indian and Northern Affairs

MEMORANDUM

File No. _____ (Originator)

File No. _____ (Addressee)

FROM: MINING RECORDER _____

TO: SUPERVISING MINING RECORDER _____

Office of the Supervising Mining Recorder
FEB 18 1980
WHITEHORSE
Yukon Territory

ATTACHED FOR APPROVAL
Placer

_____ Application for Lease to Prospect - NAME: _____

_____ Renewal of Lease to Prospect - LEASE NO.: _____

_____ Affidavit of Expenditure - LEASE NO.: _____

_____ Assignment - OWNER (S): _____

_____ Grouping Applications - OWNER (S): _____

ASSESSMENT REPORT (COPY FOR YOUR FILES)
Quartz

Type of Report	Claims	Submitted by	Claim Sheet Number	Claim Work Performed on
DD	IGOR 1-26	ARCHER CATHRO AND ASSOC LTD.	106 E-2	IGOR 5 14,564 FT

Requires $10,400.00 To support renewal of above claims

APPROVED.

Signature J.F. Gallagher Date 8/FEB/80

Reply

Signature _____ Date _____

090567

ARCHER, CATHRO
AND ASSOCIATES LTD.
CONSULTING GEOLOGICAL ENGINEERS

BOX 4127, WHITEHORSE, Y.T. Y1A 3S9 667-4415 STANDARD BUILDING, VANCOUVER, B.C. 688-2568

1016 STANDARD BUILDING
510 WEST HASTINGS STREET
VANCOUVER, B.C.
V6B 1L8

AFFIDAVIT

I, Joan Mariacher, of Vancouver, BC make oath and say:

That to the best of my knowledge the attached Statement of Expenditures for exploration work on the IGOR 1-96 mineral claims on Claim Sheet 106 E/W is accurate.

Joan Mariacher

Sworn before me at Vancouver, BC
this 17 day of
January, 1980.

C. R. C.

Notary, Yukon Territory

Statement of Expenditures
Igor 1-26 Claims
January 10, 1980

Diamond Drilling

E. Caron Diamond Drilling Limited	$36,641.21

E. Caron Diamond Drilling Limited

HEAD OFFICE:
7 ROUNDEL ROAD
WHITEHORSE, Y.T. Y1A-3H3
PHONE 668-2424 – 668-2425
TELEX 036-8-337

CONTRACT DIAMOND DRILLING

VANCOUVER OFFICE
[illegible]
VANCOUVER, B.C. V6C 1A5
PHONE 687-4634

June 15, 1979

Invoice #-547

IN ACCOUNT WITH:

Archer Cathro & Associates Ltd.,
1016 Standard Building,
510 W. Hastings Street,
Vancouver, B. C.

Drilling Charges May 28 to June 15, 1979: (Kiwi Lake)

Hole: J-1/50/BQ				
Moving				
187 man hrs.	@ $16.00 per hr.	=	$2,992.00	
Waterline				
20 man hrs.	@ $16.00 per hr.	=	$ 320.00	
Travelling Mayo-Property				
6 man hrs.	@ $16.00 per hr.	=	$ 96.00	
Reaming Ice				
38 man hrs.	@ $16.00 per hr.	= $ 608.00		
19 machine hrs,	@ $11.00 per hr.	= $ 209.00	$ 817.00	
Testing				
4 man hrs.	@ $16.00 per hr.	= $ 64.00		
2 machine hrs.	@ $11.00 per hr.	= $ 22.00	$ 86.00	
Casing				
0 - 51 = 51 ft.	@ $20.00 per ft.	=	$1,020.00	
Coring				
27 - 472 = 445 ft.	@ $20.75 per ft.	=	$9,233.75	$14,564.75
Hole: I-2/50/BQ				
Moving				
74 man hrs.	@ $16.00 per hr.	=	$1,184.00	
Reaming Ice				
4 man hrs.	@ $16.00 per hr.	= $ 64.00		
2 machine hrs.	@ $11.00 per hr.	= $ 22.00	$ 86.00	
Testing				
2 man hrs.	@ $16.00 per hr.	= $ 32.00		
1 machine hrs.	@ $11.00 per hr.	= $ 11.00	$ 43.00	
Standby Time				
4 man hrs.	@ $16.00 per hr.	= $ 64.00		
2 machine hrs.	@ $11.00 per hr.	= $ 22.00	$ 86.00	
Casing				
0 - 38 = 38 ft.	@ $20.00 per ft.	=	$ 760.00	
Coring				
19 - 250 = 231 ft.	@ $20.75 per ft.	=	$4,793.25	$ 6,952.25

E. Caron Diamond Drilling Limited

HEAD OFFICE:
7 ROUNDEL ROAD
WHITEHORSE, Y.T. Y1A-3H3
PHONE 668-2424 – 668-2425
TELEX 036-8-337

CONTRACT DIAMOND DRILLING

VANCOUVER OFFICE:
[illegible]
PHONE [illegible]

Hole: I-3/60/BQ				
Moving				
98 man hrs.	@ $16.00 per hr.	=	$1,568.00	
Waterline				
6 man hrs.	@ $16.00 per hr.	=	$ 96.00	
Testing				
2 man hrs.	@ $16.00 per hr.	= $ 32.00		
1 machine hr.	@ $11.00 per hr.	= $ 11.00	$ 43.00	
Casing				
0 - 40 = 40 ft.	@ $20.00 per ft.	=	$ 800.00	
Coring				
40 - 268 = 228 ft.	@ $20.75 per ft.	=	$4,731.00	$ 7,238.00
Hole: I-4/50/BQ				
Moving				
62 man hrs.	@ $16.00 per hr.	=	$ 992.00	
Casing				
0 - 35 = 35 ft.	@ $20.00 per ft.	=	$ 700.00	
Coring				
0 - 156 = 156 ft.	@ $20.75 per ft.	=	$3,237.00	$ 4,929.00
Items Consumed & Chargeable				
Hole: #-1				
34 BQ rods	@ $52.25/10' length	= $1,776.50		
1 5 ft. BQ outter tube	@ $132.45 each	= $ 132.45		
1 BQ shell	@ $290.75 each	= $ 290.75		
1 BQ bit	@ $371.79 each	= $ 371.79	$2,571.49	
	+ 15%	=	$ 385.72	$ 2,957.21
		Total Invoice		$36,641.21