

DIAMOND DRILLING REPORT

ON THE

CIRQUE GROUP

Paul River Area  
Omineca Mining Division

N.T.S. 94-F-6, 11

Latitude: 57° 30' N

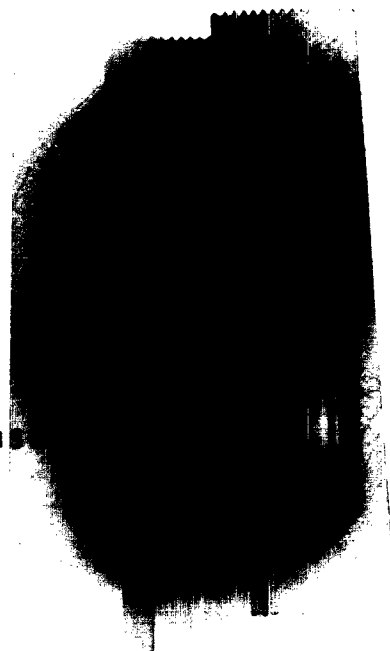
Longitude: 125° 09' W

By:

W. J. Roberts

CYPRUS ANVIL MINING CORPORATION

Field Work During Period July 31 to August



DIAMOND DRILLING REPORT

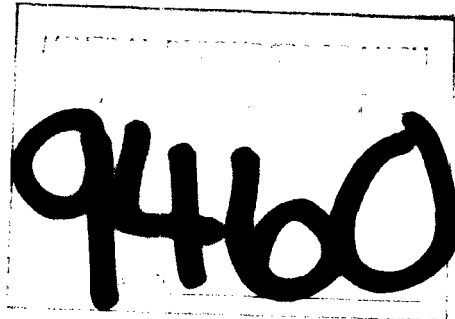
ON THE

CIRQUE GROUP

Paul River Area  
Omineca Mining Division

N.T.S. 94-F-6, 11

Latitude: 57° 30' N  
Longitude: 125° 09' W



9460

By:

W. J. Roberts

CYPRUS ANVIL MINING CORPORATION

Field Work During Period July 31 to August 17, 1981

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LIST OF CLAIMS

<u>Claim No.</u>	<u>Record No.</u>	<u>No. of Units</u>	<u>Recording Date</u>
1	685	20	July 20, 1977
2	679	20	July 25, 1977
3	680	20	July 25, 1977
4	686	18	July 20, 1977
5	681	12	July 25, 1977
6	682	18	July 25, 1977
7	683	12	July 25, 1977
8	684	20	July 25, 1977
11	791	4	Sept. 19, 1977
12	1246	9	July 18, 1978
13	1316	9	Aug. 10, 1978
14	1317	8	Aug. 10, 1978
15	2201	9	Oct. 24, 1979
16	2202	16	Oct. 24, 1979
17	2203	12	Oct. 24, 1979
18	2895	9	July 11, 1980
19	2896	20	July 11, 1980
20	2897	3	July 11, 1980
21	3827	18	June 17, 1981
22	3828	18	June 17, 1981
	TOTAL	<u>275 units</u>	

## INTRODUCTION

The CIRQUE GROUP, totalling 275 units, was staked to cover two gossans containing stratiform barite-pyrite-galena-sphalerite float mineralization near the head waters of the Paul River. Preliminary soil and silt sampling, prospecting and geological mapping during the 1977 field season indicated that the two showings were connected by over two kilometers of discontinuous anomalous lead-zinc soil values.

Work in 1978 included:

- 1) 1:5000 scale geological mapping of a preliminary nature
- 2) additional soil sampling
- 3) 41 kilometers of horizontal loop EM surveys
- 4) 882 meters of diamond drilling in six holes

Although electromagnetics was unsuccessful in distinguishing sulphide mineralization within the graphitic Gunsteel shales it did prove useful in distinguishing major lithologic units on the basis of electromagnetic signature. Three drill holes in the "R" showing area failed to intersect any mineralization (78-C-01, 02 and 03). Drill holes 78-C-04, 05 and 06 intersected stratiform barite-sulphide mineralization over widths of 3.6 to 5.1 meters with grades ranging from 6.0 to 8.7 percent combined lead and zinc with 25 to 37 grams per tonne silver in the K showing area. A 1500 m diamond drill program was proposed for 1979 to continue testing the barite sulphide horizon.

Results of the initial drill holes in 1979 led to expansion of the original program. During the period, June 1 to October 23, 1979, 24 diamond drill holes totalling 8,063 meters were completed. Sixteen of the twenty-four holes intersected stratiform mineralization over widths ranging from 1.0 m in 79-C to 70 m in 79-C-23. Approximately 18.0 million tonnes grading 2.25% lead, 7.93% zinc and 48.7 grams/tonne silver were drill indicated at the end of the 1979 field season. An additional 15.0 million tonnes of similar grade was calculated as geological reserve.

During 1980 the Cirque was geologically mapped at scales of 1:2000 and 1:5000. Twenty-seven (27) diamond drill holes totalling 10,055 meters were completed by October 23, 1980. By 1980, the drill indicated reserve was increased to 30,000,000 tonnes grading 2.2 percent lead, 7.8 percent zinc and 49 grams per tonne silver which contains a higher grade portion of 14.8 million tonnes grading 2.8 percent lead, 9.4 percent zinc and 55.4 grams per tonne silver. The drill indicated reserve is surrounded by a conservatively estimated geological reserve to the north and south along strike. The massive stratiform Cirque Deposit has been outlined over a 1,000 meter strike length, 300 meter width and 2 to 70 meter thickness.

The two drill holes documented in this report occur in "R" Creek, roughly 1.5 kilometers northwest of the Cirque Deposit. The source of large mineralized float boulders in "R" Creek is presently being sought.

### LOCATION and ACCESS

The CIRQUE GROUP is located near the head waters of the Paul River in northeastern British Columbia. The claims cover a northwest-trending ridge between the Paul River on the southeast and an unnamed creek informally called Cirque Creek on the northwest. The property is centered 30 km east of Ware, 27 km south of Chesterfield Lake and 27 km northeast of Grave Mountain at latitude  $57^{\circ} 30' N$  and longitude  $125^{\circ} 09' W$ .

Fieldwork and diamond drilling were supported by helicopters based at the Finbow airstrip constructed during the early spring and summer of 1980 (see Figure 1). Logistic support was provided by fixed wing aircraft based at Mackenzie, 250 km to the southeast. Fuel and bulk cargo were moved by barge from Mackenzie to the north end of Williston Lake and shuttled either by air or by river barge the remaining distance to Finbow.

### REGIONAL GEOLOGY

Lower Devonian to Mississippian rocks are preserved in a series of synformal fold keels and thrust plates that form four sinuous, semi-continuous, northwest-trending belts. This package overlies and is overthrust by Upper Cambrian to Silurian strata belonging to the Kechika and Road River Groups. The Devonian to Lower Mississippian section can be split into four main subdivisions. The Lower to Middle Devonian limestones and shales are characterized by massive, grey, fossiliferous limestone (Kwadacha and Pesika Reefs), limestone debris flows and chert breccias that interfinger laterally with graptolitic shales, cherts and distal calcareous turbidites (Paul River Formation).



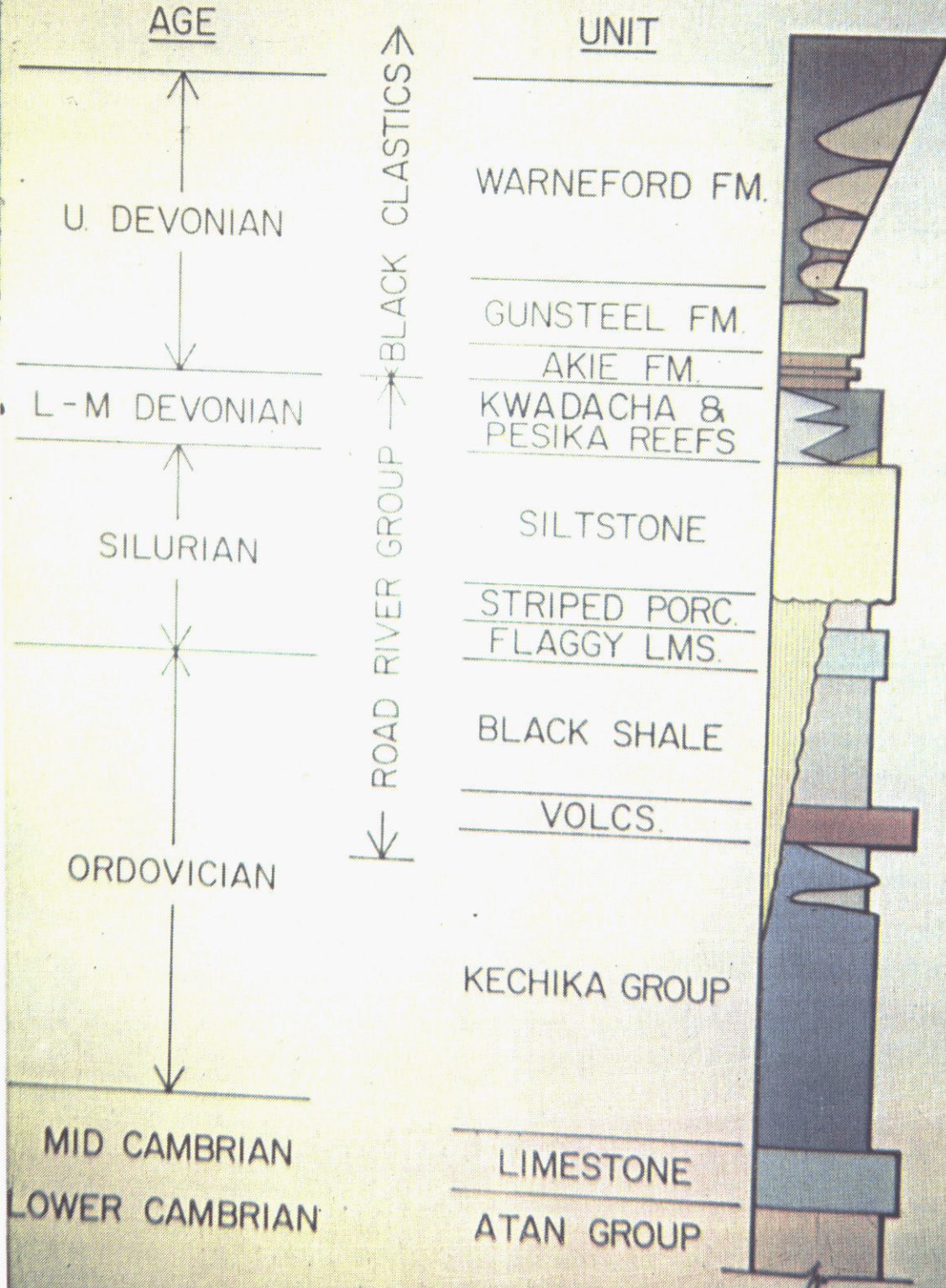


The Akie Formation comprises rusty brown and grey-weathering shale, silty shale and siliceous shale which unconformably overlie the Lower to Middle Devonian strata. Some shales which have been mapped as Akie Formation may be facies equivalents of the Lower to Middle Devonian units, or basal shales of the Gunsteel Formation. An unconformity between the top of the Silurian and the base of the Upper Devonian is indicated in drill core by the conglomeratic, reworked top of the Silurian Siltstone. The duration and regional nature of the unconformity are poorly understood. The problem is complicated by depositional thickness and facies changes in Lower to Middle Devonian strata and lack of paleontologic control.

The Gunsteel Formation consists of silvery-grey weathering, black, siliceous, carbonaceous shale and chert, and overlies the Lower to Middle Devonian package. The Gunsteel Formation is host for all known barite-sulphide mineralization and most of the known stratiform barite deposits in the region.

The Warneford Formation is Upper Devonian to lower Mississippian submarine fans of chert and shale conglomerates in the west interbedded to the east with silty distinctly laminated shales which have thin dolomitic siltstone interbeds. The Warneford Formation is interbedded with and overlies the Gunsteel Formation. It locally contains nodular and bedded barite that may be stratigraphically equivalent to the barite in the Gunsteel Formation.

# LITHOSTRATIGRAPHIC COLUMN AKIE DISTRICT



DIAMOND DRILLING

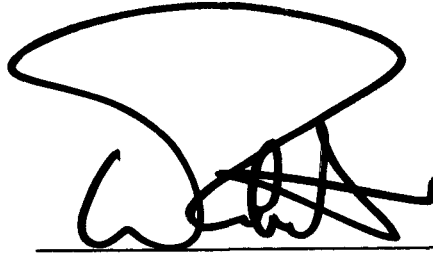
A Longyear 44 drill was contracted by J.T. Thomas of Smithers, British Columbia for all drilling in "R" Creek. All coring was done using NQ equipment except where drilling problems required reduction to BQ. Drill holes were surveyed at 100 to 300 foot intervals using Sperry-Sun, down hole magnetic surveying equipment.

So far, drilling in "R" Creek has been unsuccessful in locating any significant, potentially economic stratiform mineralization in the Gunsteel Formation (Unit 8). Both drill holes were collared in soft, light grey, foliated phyllitic shale with indistinct siltstone interbeds (Unit 8U) that gradationally trends into underlying Silurian Siltstone. Minor disseminated subhedral pyrite occurs sporadically throughout siltstone interbeds. Major stratiform mineralization and associated siliceous black host facies were notably absent in both drill holes. All core is presently stored in core racks on the property in a large alpine field in the northern portion of the claim group.

CONCLUSIONS AND RECOMMENDATIONS

The two drill holes collared in "R" Creek failed to locate any significant mineralization in the host Gunsteel Formation. Further drilling is recommended to the southwest to test for mineralization and associated facies structurally underlying a thrust slice of Silurian Siltstone.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'W. J. Roberts', written over a horizontal line.

W. J. Roberts  
Senior Geologist, Base Metal Projects

APPENDIX I

DIAMOND DRILL CORE LOG

Date: September 10, 1981

Hole Number: 81-C-16 Reference Fabric Orientation Diagram:

Project: Gataga

Location: Cirque Group

Claim: Cirque No. 1

UTM  
Co-ords.: \_\_\_\_\_ N  
(or Terr.Plane) \_\_\_\_\_ E

Grid  
Co-ords: L320N, 297+50E "R" Creek

Orientation: -60° @ 000° All symmetry determinations looking

Elevation: \_\_\_\_\_ NW with S<sub>1</sub> dipping

Total Depth: 523.0 m SW with dip azimuth 210.

Purpose: To test possible hanging wall rocks on west side of "R" Creek.

Reason hole  
Terminated: It was proved that the section was footwall.

Logged by: DBK, TJA, LCP, DON Date(s) Logged: 81-08-04 81-08-08

Drilling Contractor: J.T. Thomas

	CORE			Collar Cased and Capped:
	Size	From	To	
Hole	<u>NW</u>	<u>0</u>	<u>12.8</u>	_____
Cemented:	<u>NO</u>	<u>12.8</u>	<u>523.0</u>	_____

Steel down  
hole: \_\_\_\_\_ Started: July 31/81 Completed: Aug. 10/81

DDH E.G.B.1.C.1.6  
2 8

Diamond Drill Core Log

Date: Aug 10, 81 Logged By: R. Sco

checked by hwp

Code	Drillhole	Elevation	Northing	Easting	Units (feet/metres)	R.F.E
1	2	8 10	16 17	24 25	32 34 39	41 42
T	E.G.B.1.C.1.6				METRES	S'

Code	Drillhole	Depth	Zenith Angle	True Azimuth	Comments
1	2	8 10	14 22	26 28	32 34 56
R	E.G.B.1.C.1.6	100	150.0	000.0	A.T. COLLAR
R	E.G.B.1.C.1.6	118.47	146.0	0111.0	
R	E.G.B.1.C.1.6	115.18	144.0	0110.0	
R	E.G.B.1.C.1.6	124.32	143.0	0118.0	
R	E.G.B.1.C.1.6	133.47	139.0	015.0	
R	E.G.B.1.C.1.6	142.61	137.0	020.0	
R	E.G.B.1.C.1.6	151.76	131.0	030.0	

Code	Drillhole	Comments, Errant Remarks, Snivellings and / or Lewd Suggestions
1	2	8 10

Code	From	To	Recov.	No.	Unit	Description
	10 14 16 20 22 24 26 28 30 34 35					
L	100	1128		101	O.B.	Overburden casing
L		13160		102	DG, P, F	Light to medium grey phyllitic shale with minor gouge zones and pyrite nodules. Gouge zone 30.1 - 31.4
L	150	5183		103		Casing no core - possible fault zone
L		9175		104	DG, P, F	same as unit 02, gouge 78.3 - 78.9 note minor pyrite laminae and generally indistinctly laminated
L		110164		105	DG, P, F	med grey phyllitic shale; slightly darker grey than unit 02 and 02, some sections very broken
L		110170		106	FIU	clayey gouge to very sheared broken phyllite
L		11390		107	DG, P, F	med grey phyllitic shale, very broken, minor gouge zones, pyrite laminations
L		115140		108	DG, P, F	gradational contact into dark grey to black phyllitic shale, very broken; minor gouge zone, scattered thin pyrite laminae, 4 cm thick pyrite nodules at 141.8
L		115169		109	FIU	dark grey clayey gouge and breccia
L		115183		110	DG, S, F	med grey, slightly calcareous siltstone
L		116109		111	FI	very sheared to gougy dark grey phyllite, minor gtz veining, scattered blocks unit # 10
L		11662		112	DG, P, F, B	dark grey highly sheared phyllitic shale, scattered mega bank nodules
L		21264		113	DG, P, F	light to med grey phyllitic shale, not as sheared, broken as unit # 12, gtz vein 178.8 - 180.0, all incline finely laminated. Contains diffuse bands with disseminated pyrite laminae - these are up to 3cm thick. Soft - but not quite easily fingernail scratchable.
L		214136		114	DG, P, F	Same rock type as Unit # 13 (166.2 - 226.4m) - but contains much broken core with gouge intervals. Minor gtz-calcite veining. Gouge intervals 10-30cm thick and form 40% of interval. Gouge @ 226.4-226.5m, 228.5-228.6m, 229.5m, 231.8-231.9m, 235.0-235.1m, 235.6-236.3m, 240.1-240.5m, 241.2-241.3m,

to line 34 +



Code	From			To			Recov.			No.			Unit	Description
	10	14	16	20	22	24	26	28	30	34	35			
L	1214	136	1214	145						115			14	Tectonic breccia consisting of quartz (+ calcite) with angular shale clasts. Clasts are up to 2cm across. Contains minor pyrite and trace of fine-grained sphalerite. Lowermost part of interval is gouge.
L			215	161						116			DGPIEF	Same as Unit #14 (226.4-243.6m) - Dominantly gouge and broken core. Small intervals of quartz-calcite veins. Recovery about 70-80%.
L			216	161						117			DIGIFY	Black, noncalcareous, moderately hard shale. Much broken with development of extensive gouge. Minor quartz-calcite veining forming tectonic breccia. Shale contains thin laminae of pyrite enclosed by white calcite. These are irregular and discontinuous. Rock breaks dominantly along S <sub>1</sub> . A good 50-60% of interval is rubble and gouge. Qtz-calcite veins @ 256.1-256.3m, 258.0-258.1m. Dominantly gouge for last part of interval (264.9-266.1m)
L			217	188						118			DIGIFIN	Medium dark grey, noncalcareous, soft shale. Just hard enough to resist a fingernail scratch. Locally indistinctly laminated. Contains diffuse zones of disseminated pyrite laminae. These are up to 3cm thick. This contains irregular nodular pyrite aggregates partly to completely enclosed by white quartz. Nodular pyrite is up to 3cm across. Very minor quartz-calcite veining. Core breaks along both S <sub>0</sub> and S <sub>1</sub> .
L			218	05						119			IF	Rubble and broken core in phyllitic shale. Also abundant calcite-qtz vein material in the rubble.

Code	From				To				Recov.	No.	Unit	Description
	10	14	16	20	22	24	26	28				
L	12180	5	12181	3	8					1210	DIGIPFIN	Same as Unit # 18 (266.1-278.8m) lower contact arbitrary - in next unit core not as broken and no nodular pyrite aggregates noted. Core much broken - no gauge. Quartz-calcite veins present.
L			12187	5						1211	DIGIPFIY	Same as Unit # 13 (166.2-226.4m) locally indistinctly laminated. Common thin quartz-calcite veinlets.
L			1310	5	7					1212	DIGIPFIY	Similar to last Unit # 21 (283.8-287.5m). Pyrite as streaky discontinuous laminae as well as the diffuse zones of pyrite laminae. Core much broken. Becomes progressively more broken with rubble and some gauge as go towards bottom of interval. More broken core and rubble than gauge. Probably about 90% core recovery.
L			312	2	1					1213	DIGIPFLY	Medium to medium dark grey, competent casing, soft shale. Scratches with fingernail laminated indistinctly with shales of grey-beds range from 1m to 2cm thick. Minor pyrite occurs as very small nodular aggregates of fine-grained massive pyrite. Range from 2m to 3cm in length with a much thinner width. Minor gauge w/ broken core @ 318.5m, 319.2-319.5m, 320.8-320.9m, 322.0-322.1m
L			322	7	3					1214	SISIMK	Medium dark grey, finely laminated, shaly siltstone. Slightly calcareous looks to be conformable contact with above unit. Disseminated pyrite, streaky pyrite discontinuous laminae, small pyrite nodules all occur locally. Abundant quartz-calcite veining, Some tectonic breccia, Gauge @ 323.4m, 323.9m, 326.7m. Siltstone moderately hard to moderately soft.

Code	From	To	Recov.	No.	Unit	Description
	10 14 16 20 22 24 26 28 30 34 35					
L	3127.3	3128.8		1215		Dark grey to black, noncalcareous, moderately soft shale. Contains abundant streaky nodular pyrite. - commonly partly enclosed by quartz. Abundant quartz-calcite veining. Veining usually associated with broken core and disrupted S <sub>1</sub> and S <sub>2</sub> .
L	3130.3			1216	IF	Fault gouge and rubble in black shale. Abundant quartz-calcite veining. Lower contact marks competent coring siltstone
L	3136.1			1217	151511L	Similar to Unit = 24 (322.1-327.3m) locally massive without the development of fine laminations. Slightly calcareous. Moderately hard to moderately soft. Minor nodular pyrite up to 1cm across. Common quartz-calcite fractures w/ some tectonic breccia. Abundant fracture w/ veining. 333.3-336.1m.
L	3141.5			1218	151511W	Medium dark grey, slightly calcareous, shaly siltstone with laminae disrupted by bioturbation. Same as last unit only bioturbated. Gouge with broken core @ 336.3-336.5m, 337.7-337.8m, 342.5-342.9m. Contains intervals of medium-grey siltstone. These are up to 1.5m thick. This unit could be considered S <sub>55W</sub> + S <sub>55H</sub>
L	3149.1			1219	151511L + W	Medium grey, slightly calcareous to moderately calcareous siltstone. Intervals are massive. Local casts @ 348.0m indicates tops up DDH. Locally quartz-calcite filling fractures.
L	3154.1			1310	151511W	Bioturbated medium-grey to medium-dark grey Silurian siltstone. Noncalcareous. Competent-coring. Moderately hard with nail. Local casts @ 352.0m indicates tops up DDH. Locally contains discontinuous laminae of lighter siltstone in shaly matrix (disrupted by worms)

At 343.0m have thin band of black chert in siltstone - 2mm thick

C.A.M.C. 1981-E-3A  
locally contains discontinuous laminae of lighter siltstone in shaly matrix (disrupted by worms)

Code	From		To		Recov.		No.		Unit	Description
	10	14	16	20	22	24	26	28		
L	131514	1	131517	0			1311		151514W	+h Medium-dark to dark grey shaly siltstone. Commonly bioturbated. Locally finely laminated. Slightly calcareous to noncalcareous. Minor quartz-calcite veining.
L			131614	4			1312		151515W	+ SSSH Medium dark- to medium-grey bioturbated Silurian siltstone. Bioturbation delineated by disrupted ss. Slightly calcareous. Some medium grey intervals are very calcareous - these are still bioturbated. Thin intervals of medium-dark grey shaly siltstone.
L			131616	1			1313		151514W	+h Medium dark to dark grey shaly siltstone. Slightly calcareous. Competent owing. Moderately soft to nails. Contains thin light grey calcareous siltstone laminae. Unit is bioturbated. Locally finely laminated rather than bioturbated.
L			131810	2			1314		151513W	+ SSH + SSSH Interbedded medium-grey siltstone and dark grey silty shale. Siltstone bioturbated or finely laminated. Shale commonly has thin medium-grey siltstone laminae. Shale at 369.2 m has thin black chert nodules. Unit slightly calcareous to noncalcareous. Individual beds range from 0.5-1.5 m thick. Locally the siltstone is massive with minor psalitic (concretionary) texture.
L			131811	0			1315		1515161	Light grey, massive limestone. Contains thin discontinuous shaly partings. Upper and lower contacts are sharp. Massive appearance.
L			131812	5			1316		1515151	Medium-dark grey, massive siltstone. Moderately hard. Moderately calcareous.

Core	From		To		Recov.	No.	Unit	Description		
	10	14	16	20					22	24
L	313	25	318	32		1317	151514	Tectonic breccia of Unit # 36 ( - 384.0m) Upper part consists of extensive fractures with fragments only moving slightly along fractures. Lowest 0.2m consists of angular clast in a shaly matrix. Trace of sphalerite in the matrix. Clasts in lower part generally less than 1cm across.		
L			318	39		1318	151514	Same as Unit # 35 ( 380.2-381.0m)		
L			410	63		1319	151516	+ SSSH Medium-dark to dark grey siltstone. Extensively bioturbated. Locally develops a mottled texture. Slightly calcareous. Minor nodular pyrite. Interbedded with dark grey silty shale. Both shale and siltstone locally have diffuse zones of pyrite laminae. Shale commonly has medium-grey siltstone laminae. Minor thin black chert nodules. Shales up to 1m thick.		
L			411	60		1410	151514	+ SSSW Same as last Unit (= 39: 383.9-406.3m) only shale is dominant lithology. Gradational contact. Medium grey siltstone layers are locally highly calcareous. Minor quartz-calcite veining w/ tectonic breccia.		
L			411	11		1411	151514	Tectonic breccia. Angular clasts of siltstone in a quartz-vein matrix. Some vugs with quartz crystals growing inwards. Some rubble and gouge in lower part of the interval. Only minor calcite. Gouge @ 419.6-420.0m.		

Core	From			To			Recov.			No.			Unit			Description
	10	14	16	20	22	24	26	28	30	34	35					
L	141211	1	1412143							1412	15151516	+ U	Medium dark grey slightly calcareous, bioturbated siltstone. Competent casing. Contains extensive quartz-calcite veins - fractures with angular clasts of siltstone. This interval is gradational between tectonic breccias (i.e. mainly veins) and solid siltstone (only a few veins).			
L			1413124							1413	15151516	+ SS4+L	Medium to medium-dark grey, slightly calcareous, bioturbated siltstone with dark grey silty shale interbeds. Both siltstone and shale are locally finely indistinctly laminated. So disrupted into convolutions by strong development of S <sub>1</sub> cleage. Minor quartz-calcite veining. Shale interbeds are less than 1m thick and form ~30% of interval.			
L			1414114							1414	15151516	+ SS5W	Dark grey, noncalcareous shaly siltstone/silty shale with interbeds of medium-dark grey, bioturbated, calcareous siltstone. Shale is locally laminated with light to medium grey siltstone laminae. Minor nodular pyrite. Siltstone interbeds constitute ~30% of interval and are generally less than 1m thick.			
L			14501							1415	15151516		Medium to medium-dark grey, bioturbated, calcareous to slightly calcareous siltstone. locally laminated.			

stop at  
box 79

DDH EG81C16  
2 8

Cyprus Anvil Mining Corp.  
Lithologic Log

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Date: Aug 10/81 Logged By: WR

Code	From	To	Recov.	No.	Unit	Description
	10	14 16	20 22 24	26 28 30	34 35	
L	4501	4549		46	SSHW	med. grey shaly bioturbated siltstone. etc. 5-10% dark grey pelitic material along Sp+S <sub>1</sub> - with 2 intervals of light grey bioturbated siltstone.
L		4572		47	SSSW	good coning, 100% PPO, competent; light grey <sup>high</sup> bioturbated siltstone.
L		4688		48	SSHL(L)	dark grey, shaly, poorly laminated intervals of bioturbation 20-30 cm siltstone. 100% PPO, excellent coning
L		4738		49	SSSW	light grey, competent, excellent coning, highly bioturbated siltstone.
L		4968		50	SSHW	med - dark grey massive 'good coning' shaly but highly bioturbated siltstone with 0.5 - 2.0 m intervals of light grey, highly bioturbated siltstone with little to no pelitic material.
L		5052		51	SSSW(L)	light grey, 1-4 m well laminated siltstone, unbedded with 3-5 m intervals of highly bioturbated material. one < 1 m thick, where at 501 m of dark shale.

DDH EG81. C. 1. 6  
2 8

Cyprus Anvil Mining Corp.  
Lithologic Log

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Date: Aug 10/81 Logged By: [Signature]

Core	From		To		Recov.	No.	Unit	Description		
	10	14	16	20					22	24
L	505	2	511	32		52	SSSL	- light grey, well laminated, competent, excellent coreing siltstone with short intervals < 5m of heavy bioturbation		
L			514	0		53	SSSW	- light grey, highly bioturbated massive well coreing siltstone.		
L			516	2		54	SSHU (w)	- dark grey shaly siltstone with short lighter grey bioturbated intervals < 5m (20m fault gouge at 515 m)		
L			521	2		55	SSHU	- dark grey, shaly, bioturbated, massive, competent excellent coreing		
L			523	0		56	SSSL	- same to light grey - well laminated, slightly bioturbated siltstone - 100% R.P.D.		
<b>END OF HOLE</b>										



DIAMOND DRILL CORE LOG

Date: September 10, 1981

Hole Number: 81-C-22 Reference Fabric Orientation Diagram:

Project: Gataga

Location: Cirque Group

Claim: Cirque No. 1

UTM  
Co-ords.: \_\_\_\_\_ N  
(or Terr.Plane) \_\_\_\_\_ E

Grid  
Co-ords: L317+75N, 296+80E

Orientation: -70° @ 050° All symmetry determinations looking

Elevation: \_\_\_\_\_ NW with SW dipping

Total Depth: 372.8 m S<sub>1</sub> with dip azimuth 210 .

Purpose: Complete section through "R" Creek showing area.

Reason hole Terminated: Hole terminated in footwall Silurian Siltstone.

Logged by: DBK, CSW Date(s) Logged: August 15 and 17, 1981

Drilling Contractor: J.T. Thomas

	CORE			Collar Cased and Capped:
	Size	From	To	
Hole	<u>NW</u>	<u>0</u>	<u>39.6</u>	_____
Cemented:	<u>NO</u>	<u>39.6</u>	<u>372.8</u>	_____

Steel down hole: \_\_\_\_\_ Started: Aug. 11/81 Completed: Aug. 15/81



Code	From	To	Recov.	No.	Unit	Description
	10 14 16 20 22 24 26 28 30 34 35					
L		39.6		01		Casing - no core.
L		74.5		02	DGPF	Grey to med grey soft phyllitic shale - indistinctly laminated with minor pyrite nodules, occasional diffuse pyrite laminae and minor qtz carbonate veining. Some intensely fractured zones but no gouge.
L		84.9		03	F	Grey gouge with qtz-carbonate veining
L		83.3		04	DGPF	Med grey phyllitic shale with minor pyrite laminae and nodules similar to unit #02 except slightly darker grey.
L		85.3		05	DGGRIU	Heavily fractured possibly sheared phyllitic shale with minor graphitic gouge
L		117.5		06	DGPF	Indistinctly laminated poorly laminated grey phyllitic black shale with minor pyrite laminations and qtz veining. Competent reasonably good coring
L		120.4		07	DGPFU	Heavily fractured grey phyllitic shale with some tectonic breccia zones and minor pyrite beds
L		126.6		08	DGPF	Heavily fractured phyllitic shale with no breccia zones and minor rubble
						* 30 cm thick calcareous siltstone bed @ 125.2
L		131.3		09	DGPFU	Heavily sheared and fractured grey phyllitic shale with grey gouge and rubble sections. Some beds of calcareous siltstone are preserved.
L		176.7		10	DGPF	Grey phyllitic shale getting slightly more graphitic than previous sections - transition to possible graphitic phyllitic shale is so gradual that it is almost impossible to determine where it is. Note minor irregularly shaped pyrite nodules. Note some rubble zones at the base of the section

Code	From	To	Recov.	No.	Unit	Description
	10 14 18	20 22 24 26 28 30 34 35				
L	1767	1796		11	DG.P.F.A	Brecciated to strongly fractured section of phyllitic shale with interbeds of light grey calcareous siltstone. Note whole section is vuggy and has minor gouges and qtz veins.
L		1965		12	DG.P.F.	Med grey good coring competent phyllitic shale with indistinct laminations and minor large irregular blobby shaped pyrite nodules.
L		2265		13	DG.P.R.	Dark grey phyllitic shale with pyrite nodules as in unit #12 Again a shale appears to get gradually less carbonaceous towards the base of the section Very difficult to pin down transition
L		2338		14	D.A.S.L.	Graphitic black shale with strongly silicified grey siltstone interbeds and abundant qtz carbonate veining - Note saw rubble zones up to 30 cm wide
L		2400		15	DG.P.F.B	Grey phyllitic shale with large barite-qtz-pyrite nodules - with irregular blobby shapes - mega nodules
L		2918		16	DG.P.F.	Grey to medium grey indistinctly laminated phyllitic shale with diffuse nodules and laminae of pyrite
L		3027		17	D.A.S.L.O	Dark grey phyllitic shale (graphitic) with discontinuous pyrite laminae and beds of light grey calcareous siltstone up to 20 cm thick Note some qtz veining and minor diffuse pyrite nodules.
L		3079		18	DG.G.R.U	Same as unit #17 only brecciated tectonically note fragments of light grey calcareous siltstone up to 10 cm in diameter.
L		3105		19	F	Graphitic to grey fault gouge with some brecciated phyllitic shale and abundant qtz veining. contact @ 60° to core axis

DDH EGELC22  
2 8

Cyprus Anvil Mining Corp.  
Lithologic Log

Page 5 of 7

Date: 01-08-17 Logged By: DBK

Code	From				To				Recov.				No.				Unit	Description
	10	14	16	20	22	24	26	28	30	34	35	1	2	3	4			
L	31	05	31	01					20						DGPFU	Med good coring brecciated phyllitic shale with large competent qtz - pyrite nodules - one 30 cm dia light grey carbonate nodule and common qtz veining		
L			35	02					21						DGPF	Med gray indistinctly laminated phyllitic shale - competent good coring with some qtz veining. Some rubble coring material at the base of the section but no fault zone		
L			37	08					22						SSSM	Massive bedded non laminated dolomitic siltstone not obviously bioturbated		
																End of Hole.		

Appendix II

STATEMENT OF QUALIFICATIONS

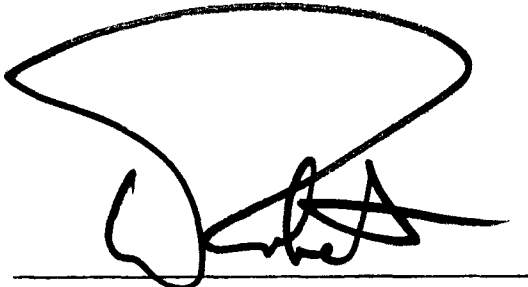
I, WAYNE J. ROBERTS, geologist, with business address in Vancouver, British Columbia, and residential address in Coquitlam, British Columbia, hereby certify that:

1) I graduated from the University of British Columbia in 1968 with a BSc majoring in Geology.

2) From 1968 to the present I have been actively engaged as a geologist in mineral exploration in British Columbia and the Yukon Territory.

3) I am a Fellow of the Geological Association of Canada.

4) I personally supervised the field work on the CIRQUE GROUP and have interpreted all data resulting from this work.

A large, stylized handwritten signature in black ink, appearing to read 'W. J. Roberts', is written over a horizontal line.

WAYNE J. ROBERTS

SUMMARY OF COSTSSalaries and Wages

Velma Sterenberg	- Aug. 1 - 3, 15 - 17		
	6 days @ 89/day	\$534.00	
Lee Pigage	- Aug. 1 - 3, 6 - 8, 13, 16, 17		
	9 days @ 100/day	900.00	
Darlene O'Neill	- Aug. 1 - 3, 15 - 17		
	6 days @ 50/day	<u>300.00</u>	
			\$
			1,734.00

Diamond Drilling

Drill Hole 81-C-16 (July 31 - August 10)	- 1716 feet		
Drill Hole 81-C-22 (Aug. 10 - Aug. 17)	- <u>1223 feet</u>		
Total of	2939 feet @ \$30/foot		88,170.00

Camp Maintenance

4 men for 18 day each @ \$19.50/man/day	-	1404.00	
3 men for total of 21 man days @ \$19.50/man/day	-	<u>409.50</u>	
			1,813.50

Rotary Wing

Viking Hughes 500D, Registration TZD	- 27 hours @ 315/hour	- 8505.00	
Viking Hughes 500D, Registration SZU	- 25 hours @ 315/hour	- 7875.00	
Shirley Bell 204B, Registration JME	- 18.3 hours @ 660/hour	<u>12078.00</u>	
			28,458.00

Fixed Wing

August 13, two Beech trips Mackenzie to Finbow	-		
	1320 miles @ \$1.85/mile		2,442.00

Fuel

500D helicopter, 52 hours @ 26 gallons/hour @ \$4.00/gallon 5408.00

204B helicopter, 18.3 hours @ 65 gallons/hour @ \$4.00/gallon - 4758.00

10,166

Supervision and Report Writing

W. J. Roberts, 4 days @ \$230/day

920.00

Drafting

C.L. Cory, 16 hours @ \$15.00/hour

\$240.00

TOTAL DIRECT COST

\$133,943.50



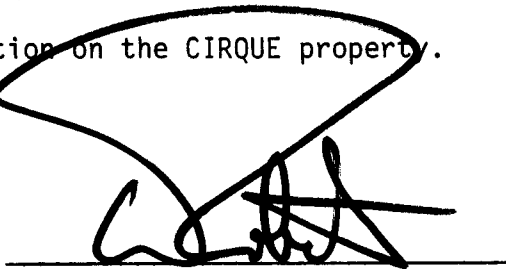
Cyprus Anvil Mining Corporation

300, 355 Burrard Street      Telex 04508594  
Vancouver, British Columbia  
V6C 2G8  
Telephone (604) 687-2586

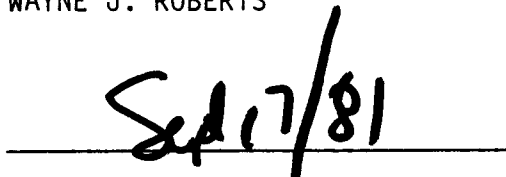
Appendix IV

Affidavit Supporting Summary of Costs

I, WAYNE J. ROBERTS, Geologist, Cyprus Anvil Mining Corporation, of Vancouver, British Columbia, do hereby state, that, to the best of my knowledge and belief the Statement of Costs in this report (Diamond Drilling Report on the CIRQUE GROUP) is a true account of expenditures incurred from exploration on the CIRQUE property.

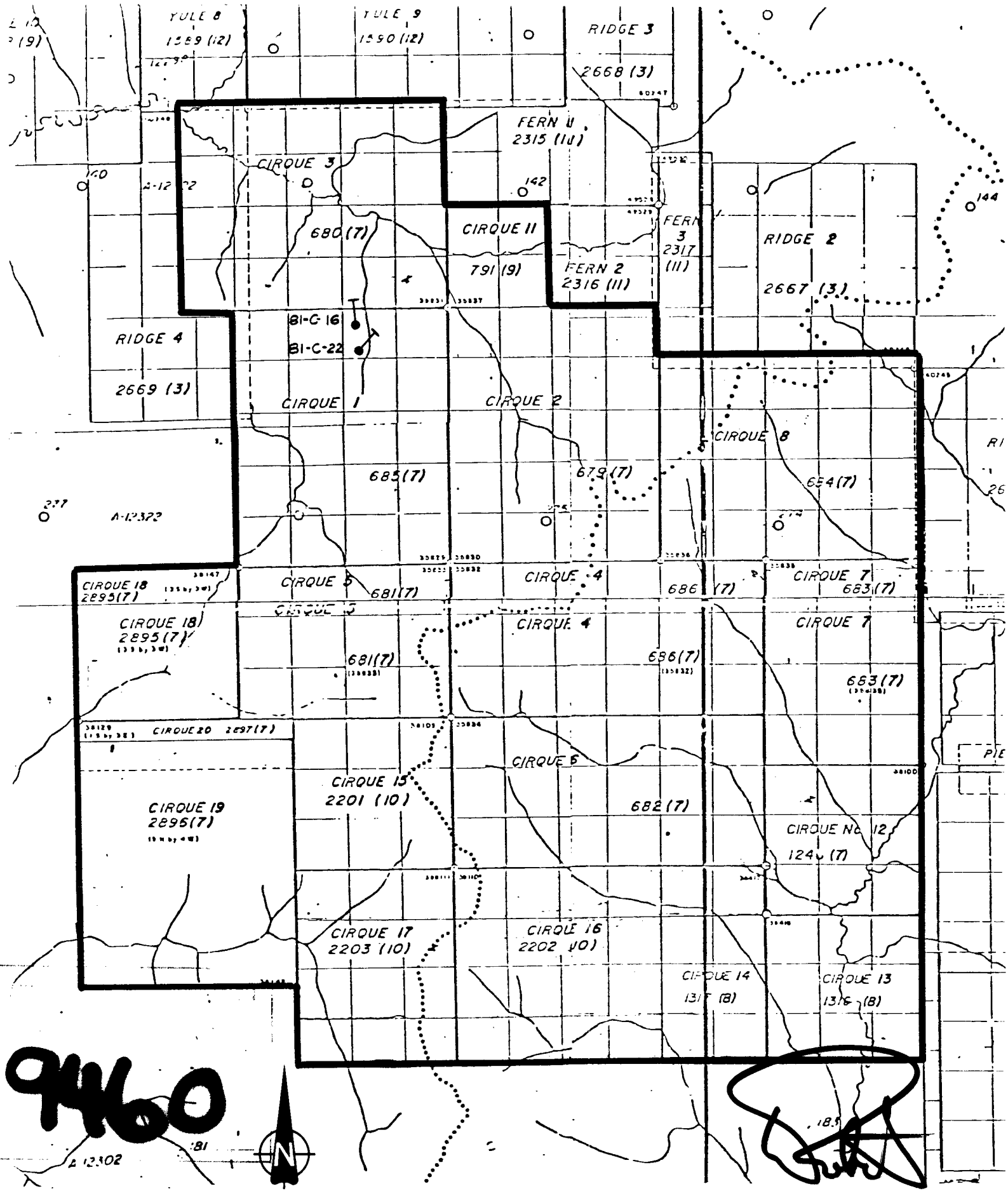


WAYNE J. ROBERTS



DATE

**CYPRUS ANVIL**



9460



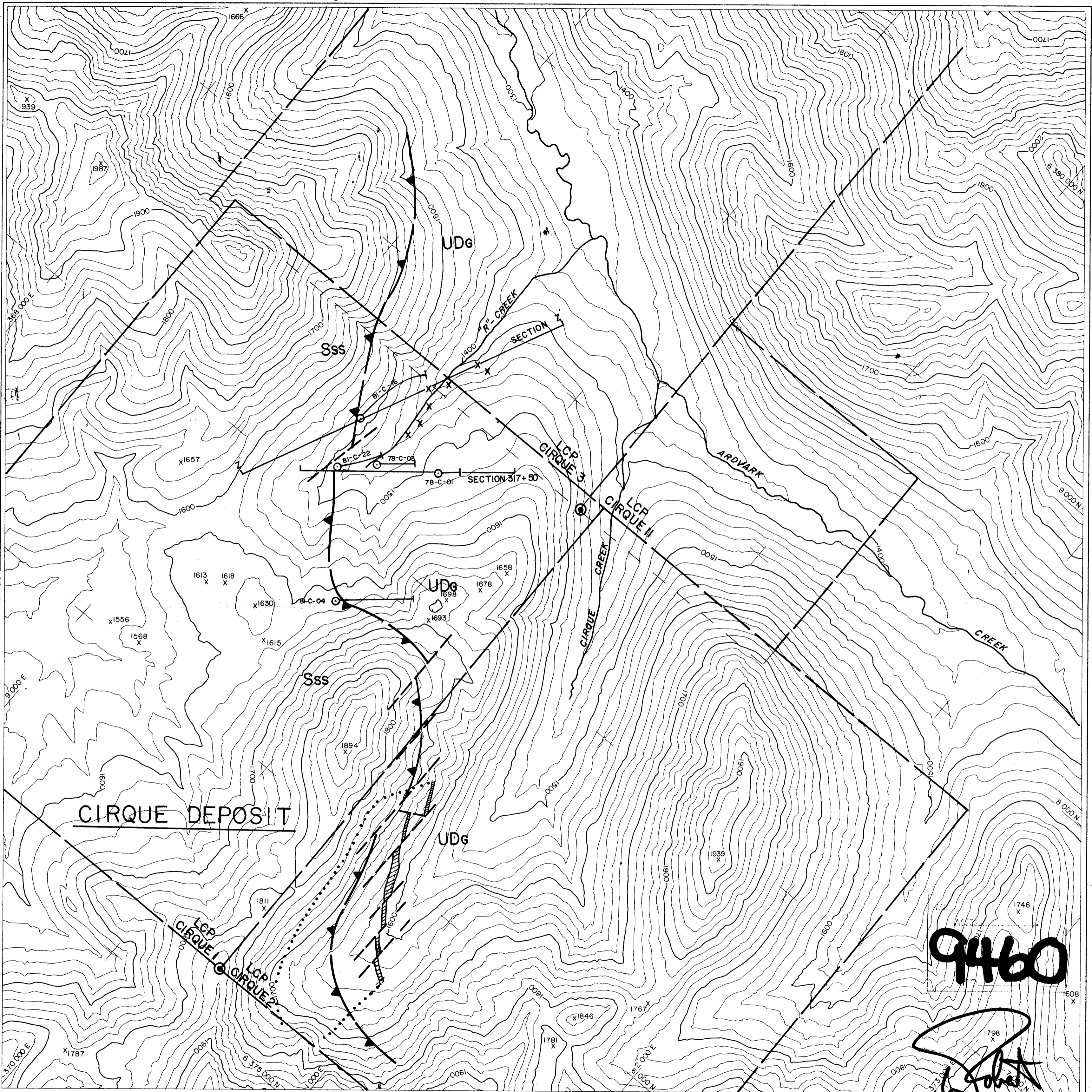
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CLAIM MAP

Legend

● 1981 Drill Hole Location

CIRQUE GROUP  
 OMINECA MINING DIVISION - B.C.  
 N.T.S. 94-F-6 September 8/81  
 MAP NO. 1



UDg

GUNSTEEL FORMATION  
SILVERY GREY WEATHERING  
BLACK SILICEOUS LAMINATED  
SHALE.

Sss

ORANGE WEATHERING VARIABLY  
CALCREOUS DOLOMITIC  
BIOTURBATED SILTSTONE.

LEGEND

--- FAULT

▲ THRUST FAULT

X X X X MINERALIZED FLOAT

scale 1:10000 N.T.S. 94-F-6

Contour Interval 10 meters

Date SEPT. 1980

Job No. 06573-8

Sheet No. A

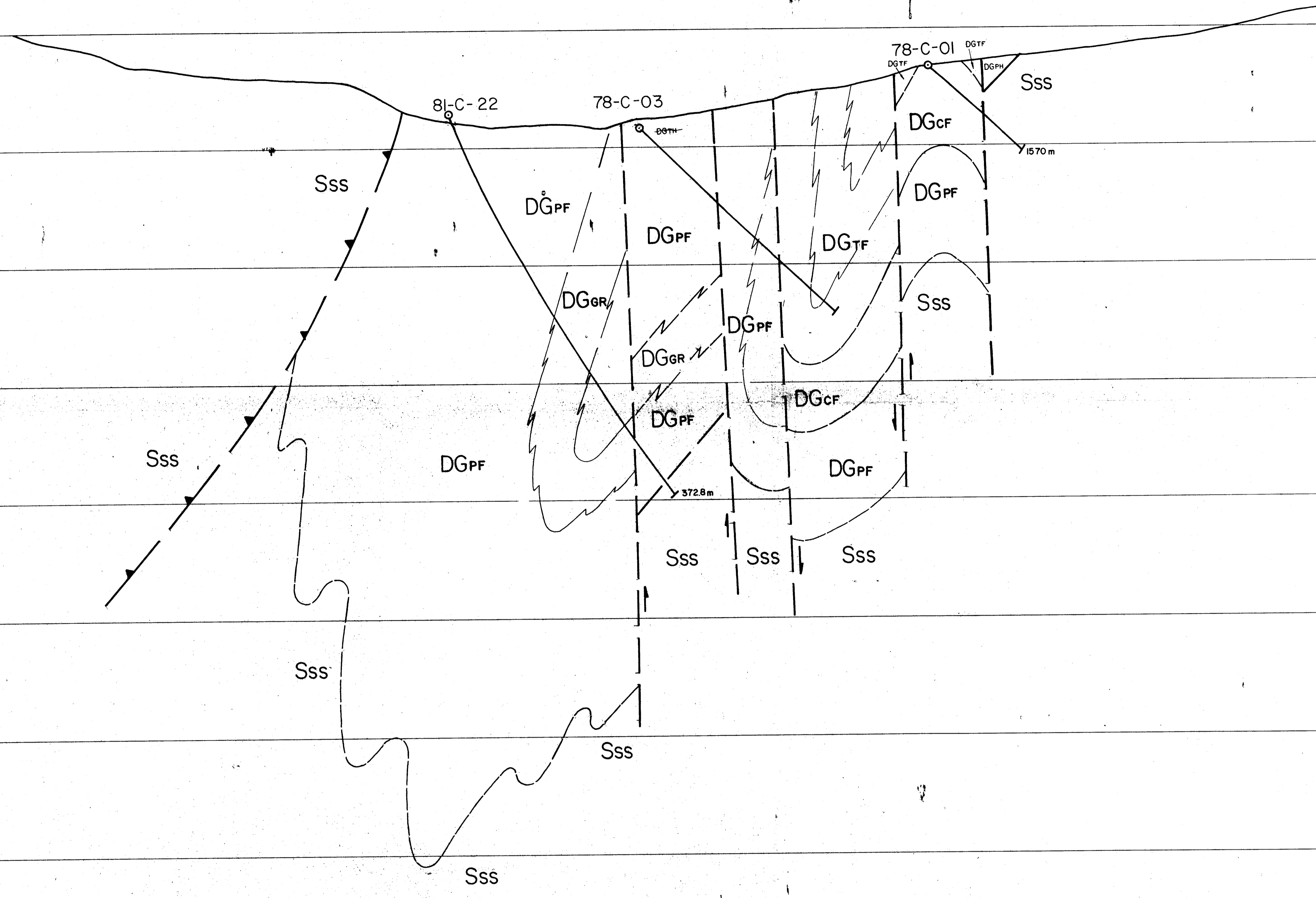
CYPRUS ANVIL MINING CORP.

GATAGA DISTRICT - CIRQUE CLAIMS

DRILL HOLE LOCATION MAP - "R" CREEK

MAP No 2

1700m  
1600m  
1500m  
1400m  
1300m  
1200m  
1100m  
1000m  
900m  
800m  
700m  
600m  
500m  
400m



9460

- LEGEND
- DGTF - Black, siliceous, "poker chip" shale
  - DGCF - Black, ribbon chert
  - DGCR - Dark grey, phyllitic shale
  - DGPF - Grey, phyllitic shale
  - SSS - Variably calcareous dolomitic siltstone

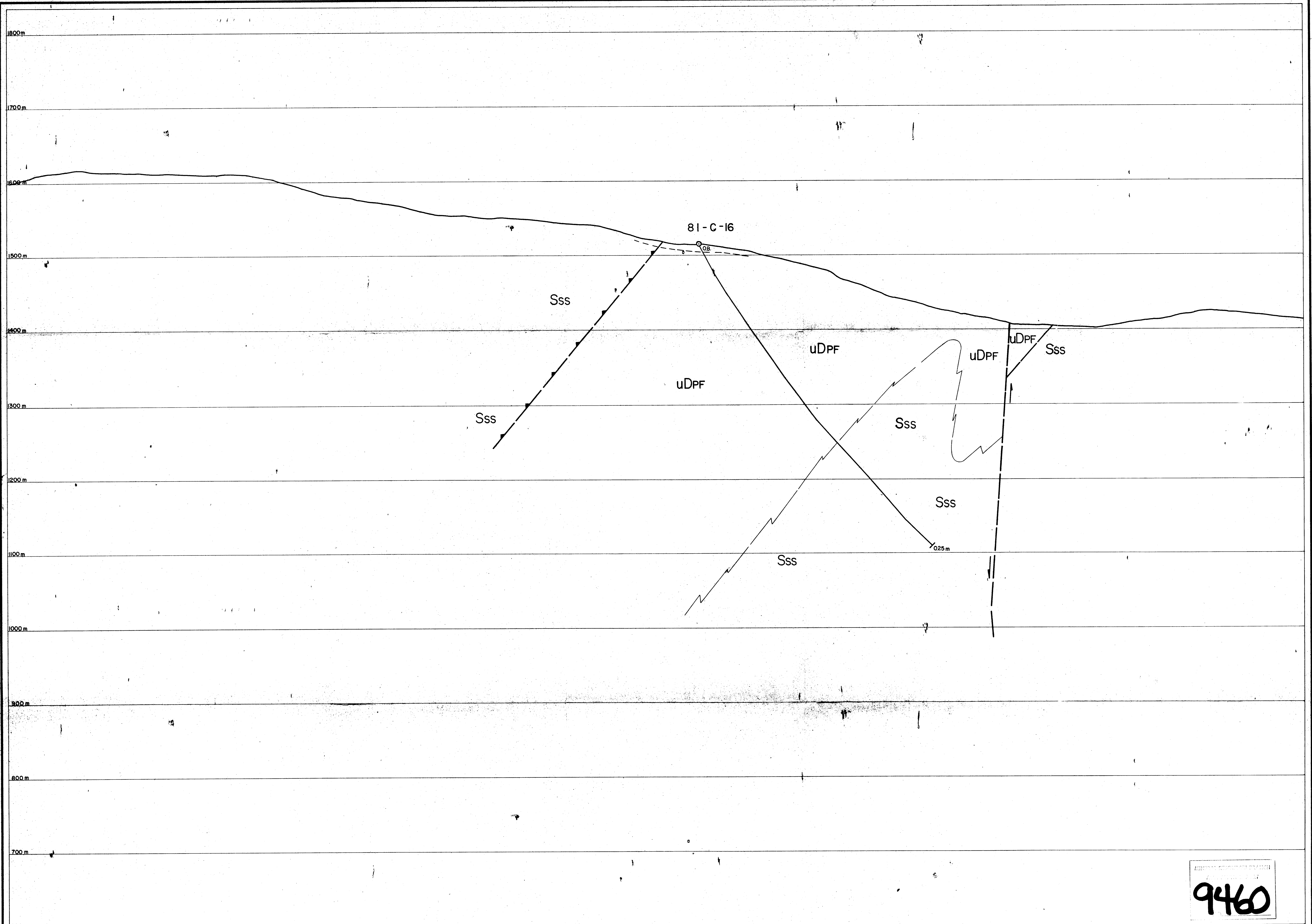
CYPRUS ANVIL MINING CORPORATION  
CIRQUE GROUP  
BRITISH COLUMBIA

CROSS SECTION 317+50N

0 100 200 300  
METRES

NTS. 94-F-6  
SURVEY BY: [Signature]  
DRAWN BY: [Signature]

DATE: SEPT. 4, 1981  
MAP No 3



9460

- LEGEND**
- DGTF - Black, siliceous, "poker chip" shale
  - DGCF - Black, ribbon chert
  - DGCN - Dark grey, phyllitic shale
  - DGPf - Grey, phyllitic shale
  - Sss - Variably calcareous dolomitic siltstone

CYPRUS ANVIL MINING CORPORATION	
CIRQUE GROUP	
BRITISH COLUMBIA	
CROSS SECTION Z-Z'	
NIS 94-F-6 SURVEY BY: DRAWN BY: T.N.	DATE: SEPT. 4, 1981 MAP No 4