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REPORT ON DIAMOND DRILLING

on the

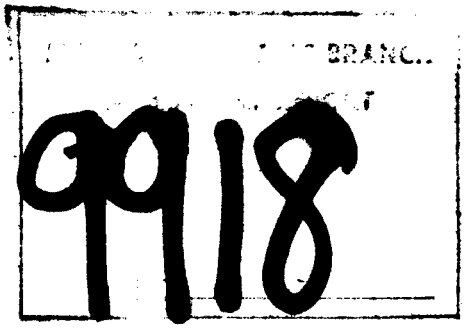
BEAR and SI CLAIM GROUP

OMINECA AND LIARD MINING DIVISION

NTS 94F/13W

Latitude: 57°58'N

Longitude: 125°48'W



by

R.C. Carne

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED,

for

GETTY CANADIAN METALS, LIMITED (Owner)

and

GATAGA JOINT VENTURE (Operator)

October 1, 1981

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LIST OF CLAIMS

Claim	Mining Division	Record Number	Number of Units	Record Date
Bear	Omineca	666	20	July 11, 1977
Si	Liard	1154	18	December 10, 1979

REPORT ON DIAMOND DRILLING

on the

BEAR AND SI CLAIM GROUP

Introduction

The Bear and Si claims were staked in 1977 and 1979, respectively, by Welcome North Mines Ltd. on behalf of Gataga Joint Venture. They were subsequently transferred to Getty Canadian Metals, Limited in April,1981. The claims cover part of a northwest-trending belt of upper Devonian black shales which host lead-zinc mineralization in the nearby Driftpile Creek area on the P, D and Goof claims. Gataga Joint Venture (GJV) was formed in 1977 to explore for lead-zinc in northeast British Columbia, and is a syndicate composed of Aquitaine Company of Canada Ltd., Chevron Canada Limited, Getty Canadian Metals, Limited, Welcome North Mines Ltd. and Castlemaine Exploration Ltd. The program was managed by Archer, Cathro & Associates Limited and was directed in the field for the fifth successive season by R.C. Carne.

The claims were mapped in 1980 at 1:5000 scale to provide a basis for diamond drilling. Topographic control for the survey was established with the aid of a contoured orthophoto map produced from aerial photography flown by GJV in 1979. The 1981 drilling program was carried out between May 26 and June 7, 1981.

Previous work has consisted of geological mapping, stream sediment sampling, grid soil sampling and diamond drilling. Results of this work are summarized in a report submitted for assessment in November, 1980. Diamond drill core is stored in core racks located at a permanent camp located 15 km northwest of the property at Driftpile Creek.

Location and Access

The Bear and Si mineral claims are located 6 km northwest of Gataga Lakes on NTS map sheet 94F/13W. The centre of the group is located at latitude 57°58'N and 125°48'W. Access is by float-equipped, fixed-wing aircraft from Watson Lake, Yukon Territory, about 290 km to the northwest, to Mayfield Lake, located about 25 km northeast of the property. Access to the claims from the lake is by helicopter. The nearest large town, 210 km to the east, is Fort Nelson which does not have a float plane base. Fuel and camp supplies used for the 1981 program were trucked 300 km from Watson Lake to Muncho Lake (km 747 on the Alaska Highway) and ferried 100 km during mid-April, 1981, by ski-equipped, single Otter aircraft to a winter airstrip located at the headwaters of Driftpile Creek. Field work was conducted with a helicopter-supported program based from a permanent field camp located on Driftpile Creek, about 15 km to the northwest (Figure 1). Drill moves were carried out with a Bell 204 helicopter based at Finbow Airstrip, 80 km south-southeast of the property.

Regional Geology

Regional and property geology, described in detail in a report submitted for assessment in 1980, is summarized in the following sections.

The Gataga Lakes area lies within Kechika Trough, a southeasterly extension of the much larger Selwyn Basin. Sedimentary rocks range in age from Cambrian to lower Mississippian. Prior to upper Devonian, easterly derived clastic sedimentary assemblages reflect normal sedimentation patterns while the westerly derivation of upper Devonian to Mississippian sedimentary rocks resulted from block faulting and uplift along the continental margin. Regional stratigraphic relationships are summaried on Figure 3.

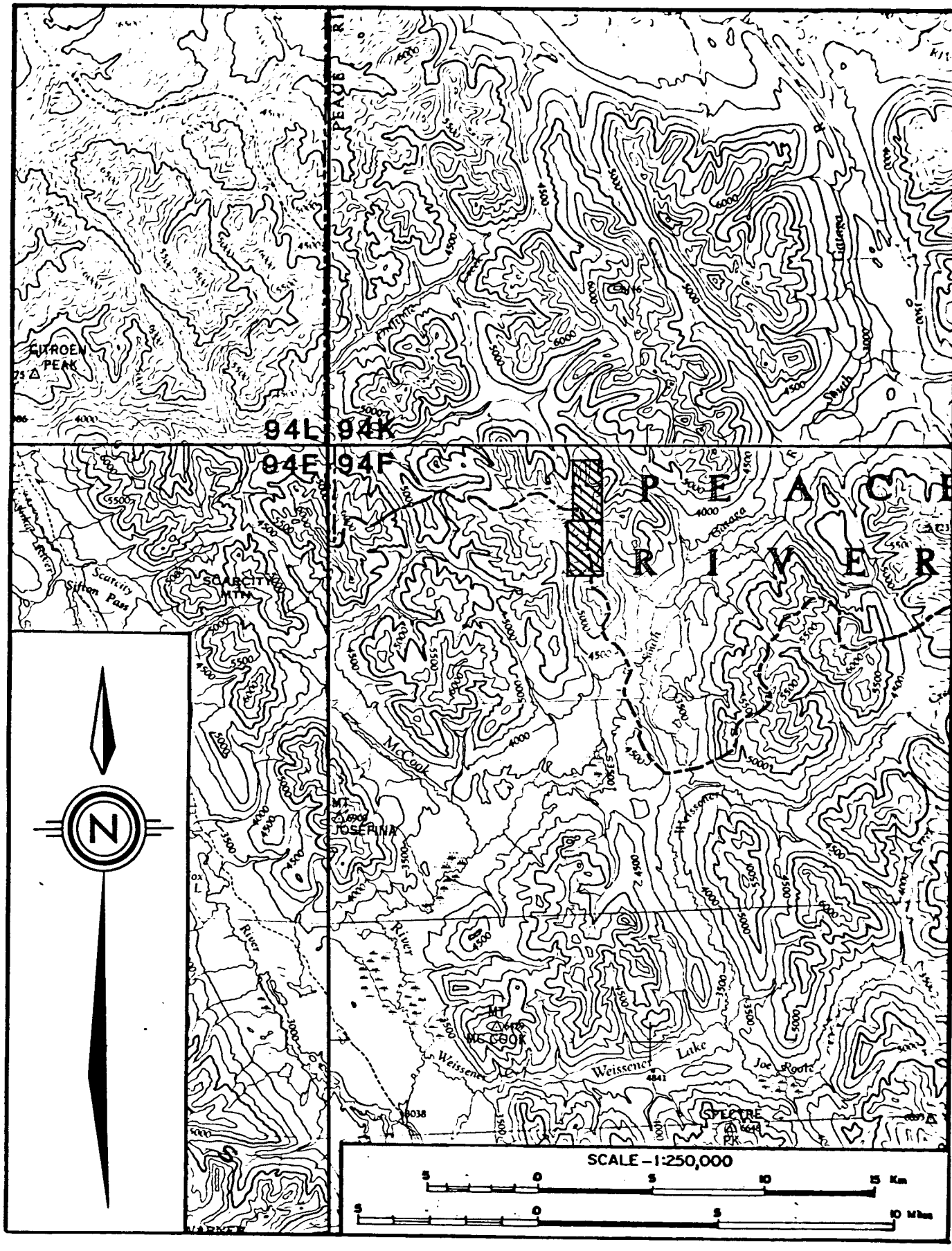


Figure 1: Location of the Bear and Si claim group

MAP UNITS

GJV CLAIMS

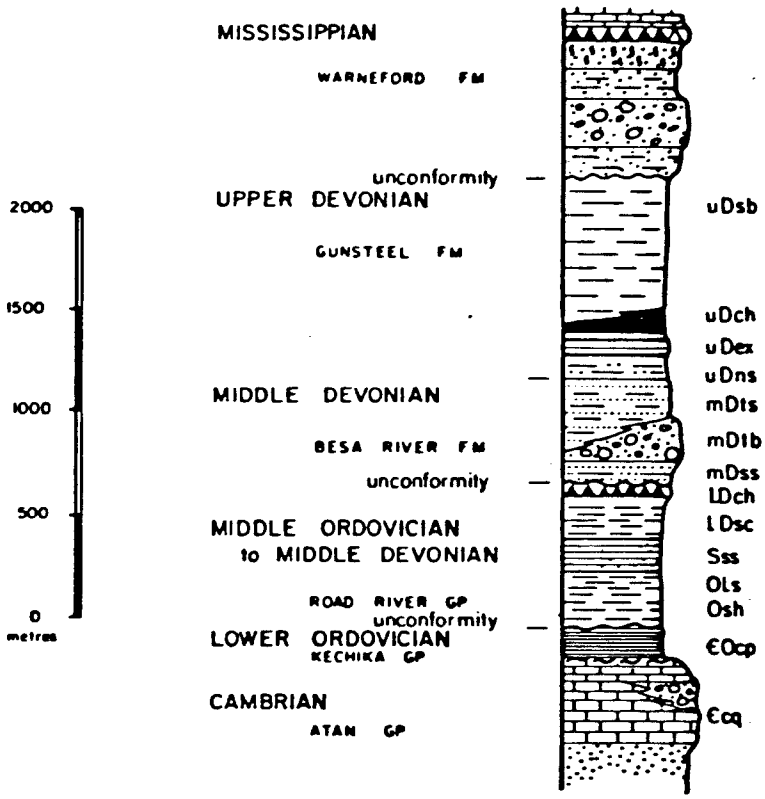


FIGURE 3

ARCHER, CATHRO & ASSOCIATES LTD

STRATIGRAPHY

GATAGA LAKES AREA

GATAGA JOINT VENTURE

Structural geology of the area is dominated by northwesterly-trending, easterly directed thrust faults. Pelitic sedimentary rocks within thrust sheets are complexly deformed into upright to slightly overturned isoclinal folds cut by numerous near-vertical shear zones. A penetrative axial plane foliation is commonly well developed. Structural geology is complicated by deformation initiated prior to deposition of middle Devonian clastic rocks above a pronounced unconformity.

Upper Devonian siliceous and pyritic black shales are host to numerous stratiform barite and barite-lead-zinc deposits in the area, notably those at Driftpile Creek some 15 km to the northwest and at Cyprus Anvil's Cirque claims, located about 110 km southeast of the area.

Property Geology

Geology of the Bear and Si claims and surrounding area is shown at 1:5000 scale on Figure 4.

Oldest lithologies exposed in the area are Ordovician to lower Devonian pelitic rocks of the Road River Group (Map Units Osh, Sss, lDsc and lDch). Medium to thick bedded calcareous black shale and mudstone of Map Unit Osh forms the basal part of the Road River section. An Ordovician age is assigned on the basis of poorly defined graptolite assemblages.

Orange-brown weathering, relatively resistant lithologies of Map Unit Sss form a distinctive marker horizon in the area. The Silurian age stratigraphic package is dominantly composed of dolomitic and ankeritic siltstone and silty mudstone with minor silty dolomite and cryptalgal laminated grey silty limestone.

Lower Devonian Map Unit lDsc occurs throughout the area although its thickness is extremely variable. The unit is primarily composed of carbonaceous, calcareous and non-siliceous black shale with lesser intervals of cherty black argillite with minor black chert successions.

Road River group is intermittently capped by a thin siliceous unit consisting of black and bluish black, thin to medium bedded chert with minor carbonaceous shale intervals (unit lDsc).

Middle Devonian lithologies of Besa River Formation (unit mDtb and mDss) unconformably overlie older rocks. Unit mDtb consists primarily of massive to thick bedded, very resistant chert pebble conglomerate and chert granule grit deposited as debris flows and proximal turbidites. Morphologies of channel deposits and paleocurrent indicators define an easterly direction of transport for the sediment. Coarse-grained proximal turbidites grade laterally very rapidly to thick bedded, gritty black mudstone and muddy siltstone (Map Unit mDss) probably deposited as terrace or levee deposits. Distal equivalents of proximal and lateral facies are represented by Map Unit mDts. Brown weathering, thick-bedded, gritty and fine grained mudstone and shale with thin interbeds of pyritic siltstone characterize the unit. Coarse, medium bedded intervals are scattered throughout the section.

Generally pyritic and fine grained, siliceous black shale of upper Devonian Gunsteel Formation conformably overlies coarser grained lithologies of Besa River Formation. Unlike older sedimentary units, facies changes within the formation are abrupt and bear no apparent relationship to regional trends. In simplest terms, the formation can be broken down into two members, Map Units uDns and uDsb, whose distribution is probably related to their physical environment of deposition. Discontinuous and irregular distribution of units uDch and uDex probably reflects their deposition as chemical sediments.

Medium bedded, non-siliceous, slightly gritty black shale of Map Unit uDns forms the basal part of Gunsteel Formation throughout the Gataga District. A diagnostic feature of the member is the presence of 2 mm to 1 cm diameter, spheroidal nodules composed of silica, calcite and clay materials. Cross-bedded laminae or thin beds of a similar composition are sometimes associated with the nodules. Origin of these features is, at present, unknown but their mineralogy suggests possible derivation from water-lain tuffs in the north part of the district. Thickness of unit uDns varies from areas where it appears to be absent to over 200 m on the Bear claims.

Bulk of the Gunsteel Formation consists of medium to thick-bedded, siliceous and non-siliceous, carbonaceous black shale (unit uDsb). Stratigraphy within this member is very poorly defined because of the absence of identifiable marker horizons coupled with its generally recessive nature.

Distinctive lithologies of Map Units uDch and uDex always appear in close proximity to each other but relative ages of the two appear to vary within the district. Unit uDch consists of cherty argillite and black chert with siliceous shale partings. Thin beds of galena and sphalerite were also observed in drill core from this unit. Map Unit uDex consists of bedded barite and interbedded chert, cherty argillite, pyrite and nodular or blebby barite. Massive, pyritic sulphide deposits occur within this unit on the D, P and Goof claims at Driftpile Creek and on the GJV Bear claims. Silica, iron and barium content of uDex and uDch is thought to be derived from submarine hot-spring or exhalite activity during early deposition of the upper Devonian Gunsteel Formation.

Diamond Drilling

Diamond drilling on the Bear and Si claim group during June and July 1980 consisted of 817 m of drilling in five holes. The four mineralized intersections (Holes 80B-1 to 80B-4) were reported in detail in the 1980 report and will only be summarized here.

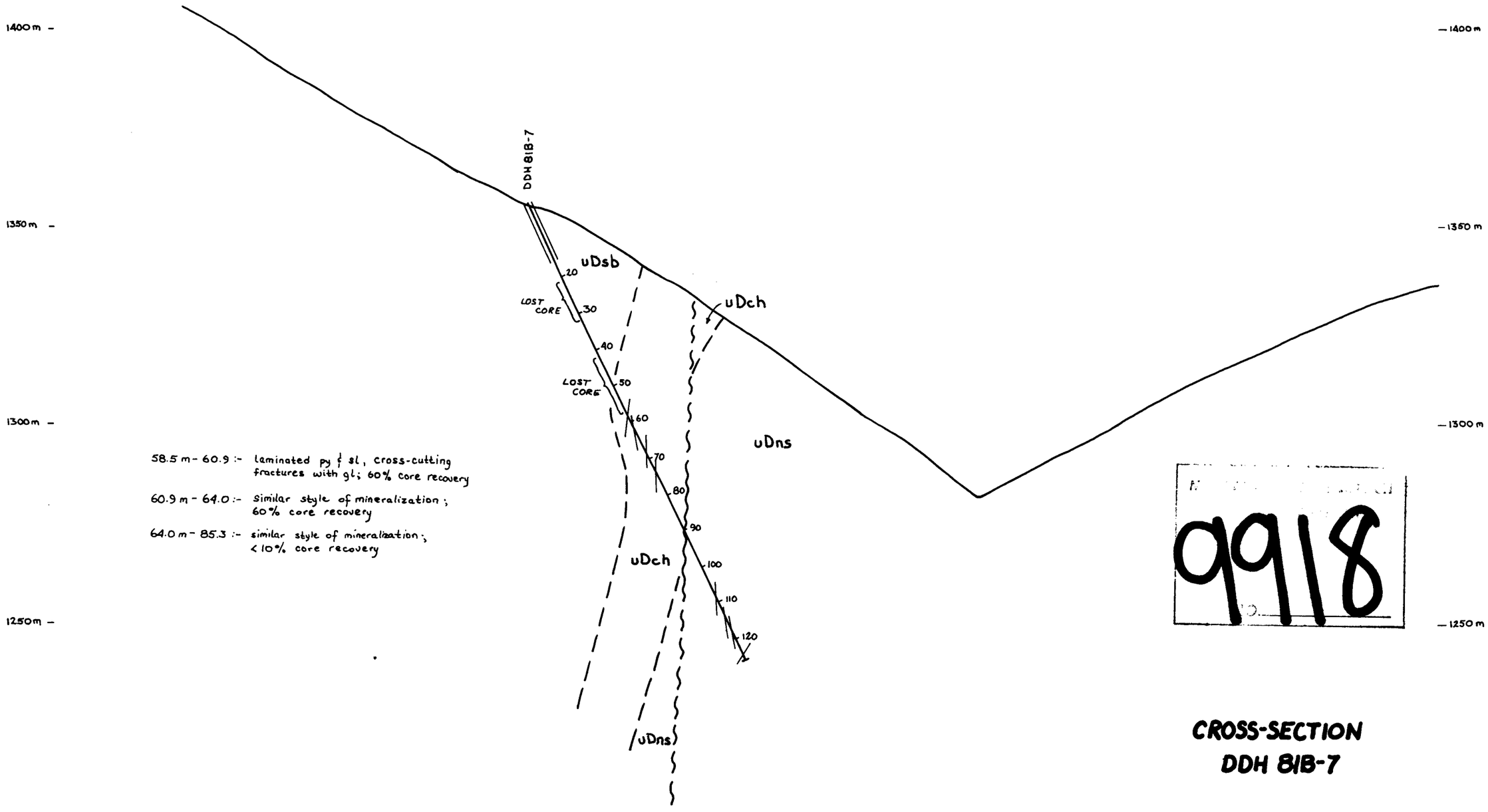
TABLE I

SUMMARY OF DIAMOND DRILLING

Hole	Depth	Size	Azimuth	Inclination	Elevation	Dip Tests	Date Collared	Date Completed
80B-1	128.5m	BQ	060°	-56.0°	1625m	-56.0°@119m	30/06/80	04/07/80
80B-2	152.5m	NQ	060°	-73.0°	1625m	-73.0°@122m	04/07/80	07/07/80
80B-3	130.8m	NQ	056°	-53.5°	1596m	-54.5°@129m	07/07/80	09/07/80
80B-4	212.9m	NQ	056°	-77.5°	1596m	-80.0°@152m	10/07/80	15/07/80
80B-5	197.9m	NQ	057°	-62.5°	1549m	----------	16/07/80	24/07/80
81B-6	199.6m	NQ	055°	-65.0°	1494m	-58.0°@199m	26/05/81	03/06/81
81B-7	125.9m	NQ	055°	-65.0°	1356m	-65.0°@125m	04/06/81	07/06/81

Detailed stratigraphy of holes 81B-6 and 81B-7 are given in the diamond drill logs (Appendix III). This information is summarized in diamond drill cross-sections given on Figures 5 and 6 on the following pages.

The main sulphide zone intersected in DDH 80B-1 and 80B-2 consists of an upper and lower body separated by an essentially barren two metre black shale interval. The upper part of the horizon consists of finely crystalline, bedded barite with interstitial sphalerite and galena overlying non-baritic massive bedded pyrite. This zone contains the best silver values (34.3 g/t over a 6.9 m true thickness) with combined lead and zinc grades between two and four percent. Silver values in the sulphide body decrease rapidly toward the base while overall lead and zinc grades do



58.5 m – 60.9 :- laminated py & sl, cross-cutting fractures with gl; 60% core recovery

60.9 m – 64.0 :- similar style of mineralization; 60% core recovery

64.0 m – 85.3 :- similar style of mineralization; < 10% core recovery

CROSS-SECTION DDH 81B-7

SCALE 1: 1000

metres 0 10 20 30 40 50 60 70 80

CROSS-SECTION LOOKING NORTH (325°)

not show appreciable change. True thickness of the mineralized interval decreases down dip from 35 m at a vertical depth of 60 m in DDH 80B-1 to 25 m at a vertical depth of 180 m in DDH 80B-2 drilled from the same site.

Diamond drill holes 80B-3 and 80B-4 were drilled to intersect the mineralized horizon along strike 180 m southeast of the first two holes. Again two distinct mineralized intervals are present, separated by a barren black shale interval. The upper part of the pyritic mineralization grades 2.5% Pb+Zn and 0.5 grams/tonne Ag over a 10 m true thickness at a vertical depth of 65 m, and decreases rapidly down dip to a 0.9 m thickness at a vertical depth of 115 m that grades 2% Pb+Zn and 12.7 grams/tonne Ag. The lower interbedded pyrite and shale horizon averages 1.7% Pb+Zn and 0.5 grams/tonne Ag over 12.7 m in DDH 80B-3, thinning down dip to 6.5 m grading 1.5% Pb+Zn and 7.7 grams/tonne Ag in DDH 80B-4. Copper values are uniformly low (less than 50 ppm).

All four holes cut a variable thickness of hanging wall black chert and cherty argillite which is weakly mineralized. Mineralization here is non-pyritic and consists of sporadic 1-2 cm interbeds, veins and breccia-fillings of galena, barite and sphalerite. Assay results were variable, ranging from 1.06% Pb+Zn and 5.4 g/t Ag over a 3.8 m true thickness to 3.79% Pb+Zn and 26.7 g/t Ag over a 4.2 m true thickness. Evaluation of this type of mineralization is difficult as core recoveries are generally less than 60% due to an extremely high fracture density in the rock.

DDH 80B-5 was collared to intersect the mineralized horizon a further 100 m along strike southeast of DDH 80B-4 and DDH 80B-3. The hole was abandoned short of the target when the rods jammed in a fault zone.

DDH 81B-6 and DDH 81B-7 were collared along strike to the southeast of the 1980 drilling to test for potential extensions of the earlier mineralized intersections (Figure 4). DDH 81B-6 cut a faulted section, intersecting unit uDex between 179.7 m and 193.5 m, giving a true width of 9.0 m to the horizon. The weakly mineralized zone consists of interbedded non-siliceous and moderately siliceous black shale and cherty black argillite. Sulphide mineralization is weakly developed with only minor pyrite beds and traces of disseminated sphalerite occurring at the top of the interval. Nodular or "blebby" barite occurs as scattered stratiform concentrations throughout the interval. The mineralized interval, visually estimated at less than 1% Zn, was not assayed.

DDH 81B-7 was collared 730 m southeast, along structural strike, of DDH 81B-6. The drilling was designed to test a weak lead-silver soil geochemical anomaly in a heavily forested area which lies along the strike projection of the mineralized horizon. Unit uDex was not intersected, either having been faulted off or not present originally. Unit uDch, intersected between 58.5 m and 85.3 m depth is mineralized in a style similar to that observed in DDH 80B-1 to 80B-4. Thin (less than 1 cm) beds of pyrite and disseminated sphalerite in very carbonaceous cherty

argillite and chert host rocks are cross cut by fracture and breccia fillings of sphalerite, quartz, barite, calcite, pyrite and galena. Only the interval from 58.5 m to 64.0 m was submitted for assay as core recovery in the interval 64.0 m to 85.3 m was less than 10%. Mineralization in the interval 58.5 m to 60.9 m assayed 1.48% Pb, 0.56% Zn, 33 ppm Cu and 7.0 ppm Ag (Figure6) while the interval 60.9 m to 64.0 m ran 1.30% Pb, 0.41% Zn, 35 ppm Cu and 5.8 ppm Ag.

Conclusions and Recommendations

Diamond drilling on the Bear claim was carried out during 1980 and 1981. Mineralization on the property in the form of massive bedded pyrite and barite with a weakly mineralized hangingwall chert was intersected at six locations over a strike length of 1.5 km. No economically significant grades of Cu, Pb, Zn and Ag were intersected. Mineralization intersected by diamond drilling satisfactorily explains geochemical anomalies discovered in the course of earlier surface surveys. No further work is recommended on the property.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

/jm

R.C. Carne.

APPENDIX I

STATEMENT OF QUALIFICATIONS

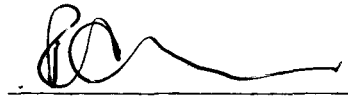
I, Robert C. Carne, geologist, with business and residential addresses in Vancouver, British Columbia, hereby certify that:

1) I graduated from the University of British Columbia in 1974 with a B.Sc. and in 1979 with an M.Sc. majoring in Geological Sciences.

2) I am a member of the Geological Association of Canada.

3) From 1974 to the present I have been actively engaged as a geologist in mineral exploration in British Columbia and Yukon Territory.

4) I have personally participated in or supervised the field work reported herein and have interpreted all data resulting from this work.



Robert C. Carne

SUMMARY OF COSTS

on work performed on the

BEAR AND SI CLAIMS

between May 26 and June 9, 1981

Salaries and Wages

R.C. Carne (Geologist)				
Drill site preparation	May 26	1 day @ $230/day	$230.00	
Logging drill core	June 3,4	2 days @ $230/day	460.00	
D. Billard (Sr. Assistant)				
Drill site preparation	May 26-28			
	May 30	4 days @ $110/day	440.00	
B. Riehl (Jr. Assistant)				
Drill site preparation	May 28-30	3 days @ $ 86/day	258.00	
L. Ramsay (Jr. Assistant)				
Drill site preparation	May 30	1 day @ $101/day	101.00	
				$ 1,489.00

Camp Maintenance

Includes fixed-wing aircraft costs	7 mandays @ $ 50/day		350.00

Diamond Drilling

D.J. Drilling Co. Ltd., Surrey, B.C.			
Direct costs	325.5 m NQ @ $67.25/m	$21,889.88	
Indirect costs (extra wages, drilling mud, camp support for drill crew, consumable drill supplies)	325.5 m @ $80.00/m (est)	26,040.00	
			$47,929.88

Helicopter (includes fuel costs on site)

Northern Mountain Helicopters Ltd., Prince George, B.C.			
Bell Jet Ranger 206B	@ $450/hr x 20.8 hrs	$9,360.00	
Shirley Helicopters Ltd., Edmonton, Alberta			
Bell 204B	2.3 @ $1200/hr	2,760.00	
			$12,120.00
			$61,888.88
Report Preparation and Administration			6,188.89
	TOTAL EXPENDITURES		$68,077.77

APPENDIX III

DIAMOND DRILL HOLE LOGS

GJV-DRIFTPILE CREEK PROJECT: LOG DDH 81B-6

COORD. 25855N 43986E (UTM) DIP -65° AZIM. 055° ELEV. 1494m SIZE NQ STARTED 26/05/81 COMPLETED 03/06/81 LOGGED BY RC Cavne

VISUAL LOG	FOOTAGE Inter-section	FOOTAGE metres	PRIMARY LITHOLOGY	SECONDARY INTERBEDS	%	CORE ANGLE Bedding W	CORE ANGLE Bedding E	CORE ANGLE Structure W	CORE ANGLE Structure E	PYRITE Lam. % Thickness	PYRITE Diss. % Size	BARITE Bed. % Thickness	BARITE Bleb. % Size	CO_3^- Type % Size	OTHER % Description	ANALYSES % ppm Pb	% ppm Zn	% ppm Cu	oz. ppm Ag	% ppm Ba
	0	0																		
			CASING OUT																	
	30.0	9.1	non-sil. gritty blk SHAL med bdd, non-calc	chert grav. 05 SLSN interbeds		45/W 47/W									TOPS UP 50% C.R.					
mDts	45.0	13.7	non sil slightly gritty med bdd SHAL	BART NOD EVERY 5-10cm IN BEDS		43/W		65/					NOD 02 RADIATING <.5cm		50% C.R.					
	49.0	14.9	slightly gritty v. carb, non-calc, non-sil blk SHAL med-blk bdd			40/NW		60/					NOD Tr " scattered conc.		60% C.R.					
	63.0	19.2	SOS	V. SHEARED & BROKEN											50% C.R.					
FAULT ZONE	77.0	23.5	FAULT GOUGE												05% C.R.					
	87.0	26.5	Fine grnd, mod sil. blk SHAL, non-calc.	scattered FAULT GOUGE											45% C.R.					
mDss(?)	100.0	30.5	SOS	Brn wx ankerite (?) sections.		34/W (< CA)		45			DISS Tr in Fe-rich sections				60% C.R.					
	106.0	32.3	SOS BADLY BROKEN	FLT GOUGE @ BASE		47/W									40% C.R.					
FAULT ZONE OR CAVE	117.0	35.7	SAND QZ & SHAL												10% C.R.					
	121.0	36.9	non-sil, non-calc, vfg, carb Black SHAL	chert (grey) intervals							DISS Tr in CHRT				50% C.R.					
	135.0	41.1																		

GJV-DRIFTPILE CREEK PROJECT: LOG DDH 81B-6

COORD. _____ DIP ____ AZIM. ____ ELEV. ____ SIZE ____ STARTED _____ COMPLETED _____ LOGGED BY _____

VISUAL LOG	FOOTAGE Intersection	FOOTAGE metres	PRIMARY LITHOLOGY	SECONDARY % INTERBEDS	CORE ANGLE Bedding W E	CORE ANGLE Structure W E	PYRITE Lam. % Thickness	PYRITE Diss. % Size	BARITE Bed. % Thickness	BARITE Bleb. % Size	CO_3^- Type % Size	OTHER % Description	ANALYSES % ppm Pb	% ppm Zn	% ppm Cu	oz. ppm Ag	% ppm Ba
			mod. gritty non-sil calc blk SHAL	FLT GOUGE @ BASE	44/W			Bleb Tr scattered in conc bds of PR		Bleb Tr w py		50% C.R.					
	143.0	43.5	SOS	pyritic SLSN interbds 05 MINOR FLT GG				DISS Tr in SLSN				TOPS UP 85% C.R.					
	151.0	46.0	SOS	SLSN interbds 02 scattered, < 0.5 cm	55/W E 83 > CA 11 CA	65/		DISS Tr in BRECC? NOD		NOD 02 scattered lam. conc							
uDns	160.0	48.7	SOS	SOS 10 DEC D/S	59/W E 86 > CA	65/		DISS Tr "		NOD 02 "							
	170.0	51.8	SOS	SOS 04	11 CA 65/VERT			DISS Tr "		NOD 05 "							
	180.0	54.9	SOS med-thk bdd	SOS Tr now scattered 2-3 cm. conc. MINOR FLT GG	66/ " 46/W			DISS Tr "		NOD 01 "		TOPS UP					
	190.0	57.9	SOS now fine grained	SOS Tr < 1 cm SCATTERED < 3cm	44/W 49/W			DISS Tr Dec'l D/S		NOD Tr Dec'l D/S		TOPS UP					
	200.0	61.0	SOS now ≈ " scattered 1cm slightly calc wisps beds	SOS Tr now v. thin < 4mm	53/W 47/W	60/											
	210.0	64.0	SOS as above	SOS 02 as above	48/W FLAT 37	67/											
	220.0	67.1	SOS "	SOS " Tr	20/W	64/		DISS Tr "		NOD Tr < 0.5cm scattered							
	230.0	70.1	SOS " MINOR FLT GOUGE @ BASE	SOS " Tr		65 50 63						BOT C.R.					
	241.0	73.5	SOS	SOS Tr	11 CA SE 83 > CA	53/						OVERTURNED					
	250.0	76.2															

GJV-DRIFTPILE CREEK PROJECT: LOG DDH 81B-6

COORD. _____ DIP ____ AZIM. ____ ELEV. _____ SIZE ____ STARTED _____ COMPLETED _____ LOGGED BY _____

VISUAL LOG	FOOTAGE Intersection	FOOTAGE metres	PRIMARY LITHOLOGY	SECONDARY INTERBEDS %	CORE ANGLE Bedding W E	CORE ANGLE Structure W E	PYRITE Lam. % Thickness	PYRITE Diss. % Size	BARITE Bed. % Thickness	BARITE Bleb. % Size	CO_3 Type % Size	OTHER % Description	ANALYSES % Pb	ppm	% Zn	ppm	% Cu	ppm	oz. Ag	ppm	% Ba	ppm
			slightly gritty, med-THK bdd carb. non-sil, non-calc blk SHALE	SLSN, <2cm 01 scattered, gray	ll CA 76/E >CA	54		DISS Tr IN SLSN														
	260.0	79.2	non-sil, v. carb fg to slightly gritty, med bdd blk SHALE	" Tr	80/E "	54	LAM Tr <4MM IRREG	DISS Tr IN SLSN & NOD		NOD Tr <6CM Bedded												
	270.0	82.3	"	" Tr	ll CA 50/FLAT	53		DISS Tr "		NOD Tr "												
	280.0	85.3	" MINOR FLT GOUGE @ BASE	" Tr	86/E <CA 74/E "	53		DISS Tr "		NOD Tr "	BED 05 288.0-288.9											
WDNS	294.0	89.6	SOS "	SOS " Tr	27/E FLAT 20/W	47		DISS Tr "		NOD Tr "												
	310.0	94.5	SOS "	SOS " Tr	19/W 05/W	48		DISS Tr "		NOD Tr "												
	320.0	97.5	SOS "	scattered THK (<4cm) SLSN 05	05/W 09/W	47		DISS Tr "		NOD Tr "		TOPS UP SAND (CAVE) 324.2-329.5										
	330.0	100.6	SOS "	SOS Tr	26/W 77/E <CA	STRENGTH OF SLN. INC. 51		DISS Tr "		NOD Tr "												
	340.0	103.6	SOS "	SOS Tr	ll CA	47		DISS Tr "		NOD Tr "												
	350.0	106.7	SOS "	SOS Tr	70/E <CA 47/E	54		DISS Tr "		NOD Tr V. MINOR												
	360.0	109.7	SOS "	MINOR THK (<4CM) SLSN Tr	13/W	49		DISS Tr "		NOD Tr as above	BED 02 360.5-367.1											
	370.0	112.8	SOS " MED-THICK BDD	SOS Tr MINOR THIN <4 MM SLSN	29/W 34/W	49																
	380.0	115.8																				

GJV-DRIFTPILE CREEK PROJECT: LOG DDH 81B-6

COORD. ____ DIP ____ AZIM. ____ ELEV. ____ SIZE ____ STARTED ____ COMPLETED ____ LOGGED BY R.C. Carne

VISUAL LOG	FOOTAGE Intersection	FOOTAGE metres	PRIMARY LITHOLOGY	SECONDARY INTERBEDS	%	CORE ANGLE Bedding W E	CORE ANGLE Structure W E	PYRITE Lam. Thickness	PYRITE %	PYRITE Diss. Size	PYRITE %	BARITE Bed. Thickness	BARITE %	BARITE Bleb. Size	BARITE %	CO_3 Type	CO_3 %	OTHER Description	OTHER %	ANALYSES % Pb	ppm	% Zn	ppm	% Cu	ppm	oz Ag	ppm	% Ba	ppm
			non-sil carb, slightly gritty, med-dk gy fg, non-calc, blk shale	thin (<1.5cm) graded, grey SLSW interbeds	Tr	39/W 48/W	52			DISS in NOD.	Tr			NOD <2.4cm bedded	Tr														
	390.0	118.9																											
			SOS "	SOS "	Tr	E TB/CA 27/FLAT	65			DISS "	Tr			NOD "	Tr														
	400.0	121.9																											
			SOS "	SOS SCATTERED <4cm Beds.	Tr	18/W 13/W	54			DISS "	Tr			NOD "	Tr														
	410.0	125.0																											
			SOS "	SOS as above	Tr	29/W 10/W	50			DISS "	Tr			NOD "	Tr														
	420.0	128.0																											
			SOS v. thin, v. carb, ofg interbeds	SOS "	Tr	16/W 39/W	61			DISS "	Tr			NOD "	Tr														
	430.0	131.0																											
			SOS as above	SOS "	Tr	39/W 31/W				DISS "	Tr			NOD "	Tr														
	440.0	134.1																											
			SOS as above	SOS "	Tr	36/W 37/SW	58			DISS "	Tr			NOD "	Tr														
	450.0	137.2																											
			SOS as above	SOS " FLT GOUGE @ BASE	Tr					DISS "	Tr			NOD "	Tr	BED 451.0-451.9	05												
	460.0	140.2																											
			SOS "	SOS "		44/W 35/W	55			DISS "	Tr			NOD "	tr														
	470.0	143.3																											
			SOS "	SOS "		53/VERT 62/vert	51			DISS "	Tr			NOD "	tr														
	480.0	146.3																											
			SOS "	SOS "		60/vert 63/vert				DISS "	tr			NOD "	tr														
	490.0	149.4																											
			SOS. "	SOS "		41/W.		BED 4mm @ 496'	Tr	DISS "	Tr			NOD "	tr														
	500.0	152.4																											

GJV-DRIFTPILE CREEK PROJECT: LOG DDH 81B-6.

COORD. _____ DIP ____ AZIM. ____ ELEV. ____ SIZE ____ STARTED _____ COMPLETED _____ LOGGED BY _____

VISUAL LOG	FOOTAGE Intersection	FOOTAGE metres	PRIMARY LITHOLOGY	SECONDARY INTERBEDS	%	CORE ANGLE Bedding W E	CORE ANGLE Structure W E	PYRITE Lam. Thickness	PYRITE %	PYRITE Diss. Size	PYRITE %	BARITE Bed. Thickness	BARITE %	BARITE Bleb. Size	BARITE %	CO_3^- Type Size	CO_3^- %	OTHER Description	%	ANALYSES %	ppm Pb	%	ppm Zn	%	ppm Cu	oz.	ppm Ag	%	ppm Ba
			non-sil, mod. carb mod to slightly gritty blk SHAL, minor ufg thin beds	SLSW beds, graded, < 5cm, scattered	05	48/W 43/W	70	LAM Tr scattered <3 MM		DISS Tr IN SLSW								TOPS up											
	510.0	155.5	SOS "	SOS "	05	46/W 55/W				DISS Tr "																		
FAULT ZONE	518.0	157.9	FAULT GOUGE & highly sheared rock				60																					
wDsb	528.0	160.9	ufg, v. carb, non-sil, non-calc blk SHAL, "eating" textures			54/VERT	60																					
	540.0	164.6	SOS, mod to thick bedded			43/SW 43/SW	62																					
	550.0	167.6	SOS, now massive				60																					
	560.0	170.7	as above SOS			44/W	61																					
	570.0	173.7	SOS as above				58																					
	581.0	177.1	SOS v. carb.	interbeds of mod sil to clayey blk ARGL 1-10cm	15	35/W 44/W	56	BED Tr scattered <6cm										Pyrobitumen "sweets"										
wDch	589.6	179.7	interbedded non-sil & mod sil blk SHAL, 2-6 cm	<1cm beds v. sil to clayey blk ARGL	15	46/W 47/W				DISS Tr W BART				Bleb 05 flattened		Bkb Tr W BART		minor SL in BART blebs										
wDch	600.0	182.9	SOS	SOS	10	43/W 60/W		BED Tr <3cm scattered		DISS Tr "				Bkb 05 "		Bleb Tr "		minor SL-rich <1cm beds										
	610.0	185.9	SOS	SOS SLIGHTLY CALC INTERVALS	05	46/W 40/W				DISS Tr "				Bleb 05 "		Bleb Tr "												
	620.0	189.0																										

GJV-DRIFTPILE CREEK PROJECT: LOG DDH 88-6

COORD. _____ DIP ____ AZIM. ____ ELEV. _____ SIZE ____ STARTED _____ COMPLETED _____ LOGGED BY _____

VISUAL LOG	FOOTAGE Intersection	FOOTAGE	PRIMARY LITHOLOGY	SECONDARY INTERBEDS %	CORE ANGLE Bedding W E	CORE ANGLE Structure W E	PYRITE Lam. % Thickness	PYRITE Diss. % Size	BARITE Bed. % Thickness	BARITE Bleb. % Size	CO_3 Type % Size	OTHER % Description	ANALYSES % ppm Pb	% ppm Zn	% ppm Cu	oz. ppm Ag	% ppm Ba
			interbedded non-sil to mod. sil. blk. SHAL, slightly calc. interbeds	interbeds of u.sil. to slightly blk. ARGW 01	50/W 65/W			Diss Tr w BART		Bleb 03 flattened	Bleb Tr w BART						
	630.0	192.0	SOS	SOS Tr	34/W			Diss Tr "		Bleb 01 "	Bleb Tr "						
	635.0	193.5	non-sil, v. emb. vfg to slightly gritty SLTST					Diss Tr "		Bleb Tr "	Bleb Tr "						
	645.0	196.6	SOS		47/W 35/W	50/		Diss Tr "		Bleb Tr "	Bleb Tr "						
	655.0	199.6	END														

GJV-DRIFTPILE CREEK PROJECT: LOG DDH 81B-7

COORD. 25UTM 6 13016 E (UTM) DIP -65° AZIM. 055° ELEV. 1356 m SIZE NQ STARTED 01/16/81 COMPLETED 07/04/81 LOGGED BY R.C. Carne

VISUAL LOG	FOOTAGE Inter-section	FOOTAGE metres	PRIMARY LITHOLOGY	SECONDARY % INTERBEDS	CORE ANGLE Bedding W	CORE ANGLE Bedding E	CORE ANGLE Structure W	CORE ANGLE Structure E	PYRITE Lam. % Thickness	PYRITE Diss. % Size	BARITE Bed. % Thickness	BARITE Bleb. % Size	CO_3 Type % Size	OTHER % Description	ANALYSES % ppm Pb	% ppm Zn	% ppm Cu	oz. ppm Ag	% ppm Ba
	0	0	CASING & BROKEN GROUND																
	50.0	15.2	U. SOFT, UFG, U. CARB, FRIABLE, BLK SHALE											20% C.R.					
LOST	67.0	20.4	LOST CORE											LOST CORE					
	107.0	32.6	Mod. sil, v. carb blk SHAL											20% C.R.					
	110.0	33.5	v. sil. blk SHAL thin-med. bdd	cherty blk ARGL & CHRT 30					LAM Tr <0.5 cm	DISS Tr scattered				10% C.R. Tr. SI PY					
LOST	137.0	41.8	LOST CORE											LOST CORE					
	192.0	58.5	Cherty blk ARGL & CHRT	Lam gl, sl. x-cutting gl & H(?) in QZ	56/W 75/W		75/		LAM Tr <0.5 cm	DES Tr scattered				60% C.R					
	200.0	60.9	SOS	SOS	11 CA.				LAM Tr "	DISS Tr "				60% C.R					
	210.0	64.0	SOS	SOS	75/W				LAM Tr "	DISS Tr "				<10% CR					
	280.0	85.3	SHEARED & BROKEN, FAULT GOUGE																
	300.0	91.4	mod-v. sil blk SHAL interbdd slo. gy blk ARGL							DISS Tr IRREG									
	318.0	96.9																	

GJV-DRIFTPILE CREEK PROJECT: LOG DDH 81B-7

COORD. _____ DIP ____ AZIM. ____ ELEV. ____ SIZE ____ STARTED _____ COMPLETED _____ LOGGED BY _____

VISUAL LOG	FOOTAGE Intersection	FOOTAGE metres	PRIMARY LITHOLOGY	SECONDARY % INTERBEDS	CORE ANGLE Bedding W E	CORE ANGLE Structure W E	PYRITE Lam. % Thickness	PYRITE Diss. % Size	BARITE Bed. % Thickness	BARITE Bleb. % Size	CO_3 Type % Size	OTHER % Description	ANALYSES % ppm Pb	% ppm Zn	% ppm Cu	oz. ppm Ag	% ppm Ba
			VERY FINE-GRND U.CARB, NON-SIL BLK SHAL		N/A		NOD 05 IPREG SIL NOD & DY DYE					SHEARED & QZ VEN'D 50% CR.					
	340.0	103.6															
			SOS.		N/A.			DISS Tr in irreg zones									
	360.0	109.7	NON-SIL, SLIGHTLY GRITTY, MOD CARB NON-CALC, BLK SHAL, MASSIVE		70/W 76/W					BEAD Tr <4 mm scattered							
	380.0	115.8	SOS	MINOR FLT GOUGE	80/W					BEAD Tr "							
	400.0	121.9	SOS	<1 cm graded SLSN	37/W	C5				BLEB Tr "							
	413.5	125.9															
			END														

GJV-DRIFTPILE CREEK PROJECT: LOG DDH 81B-6

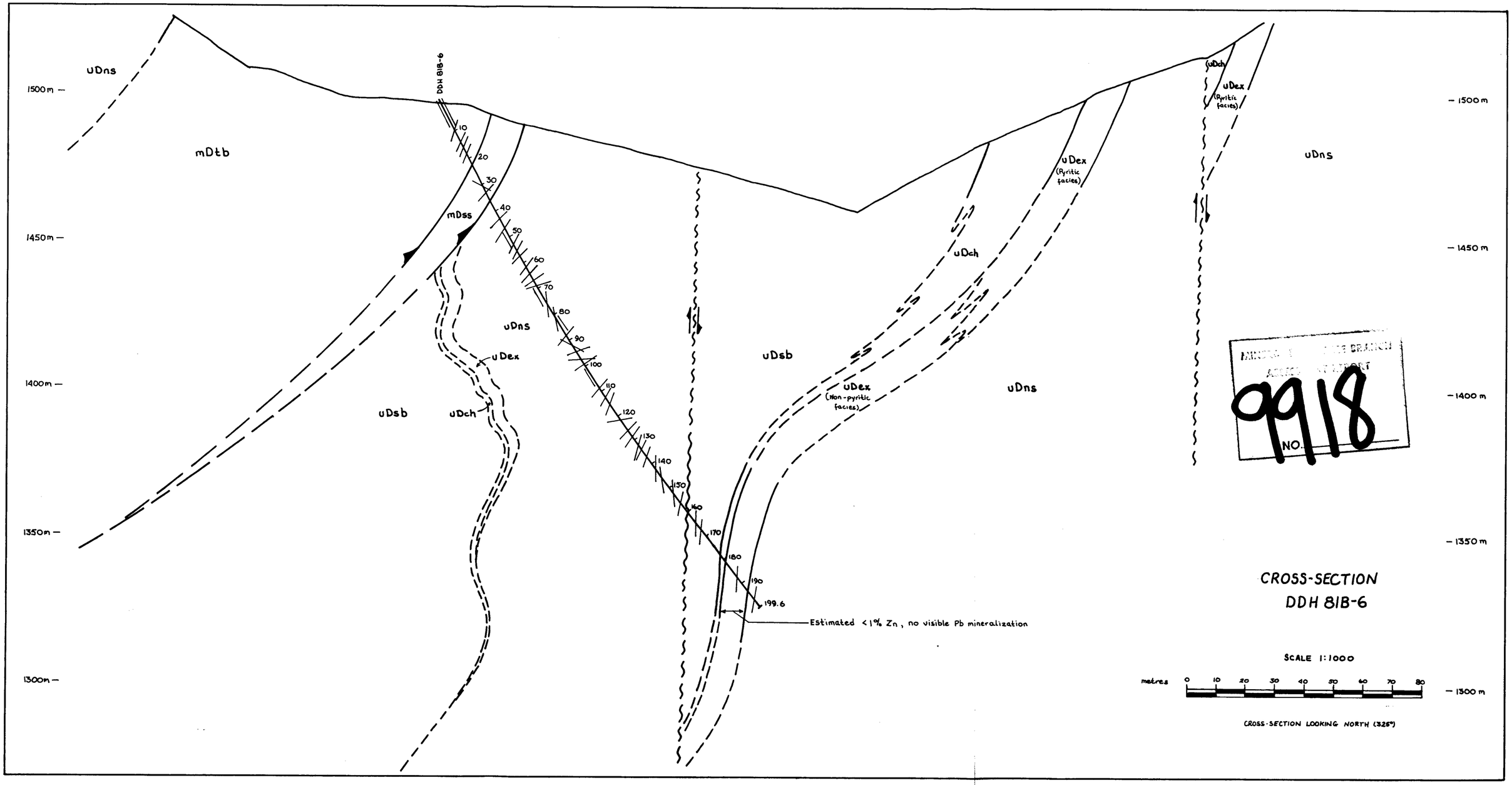
COORD. 25855N 43786E (utm) DIP -65° AZIM. 055° ELEV. 1494m SIZE NQ STARTED 26/05/81 COMPLETED 03/06/81 LOGGED BY RC Caine

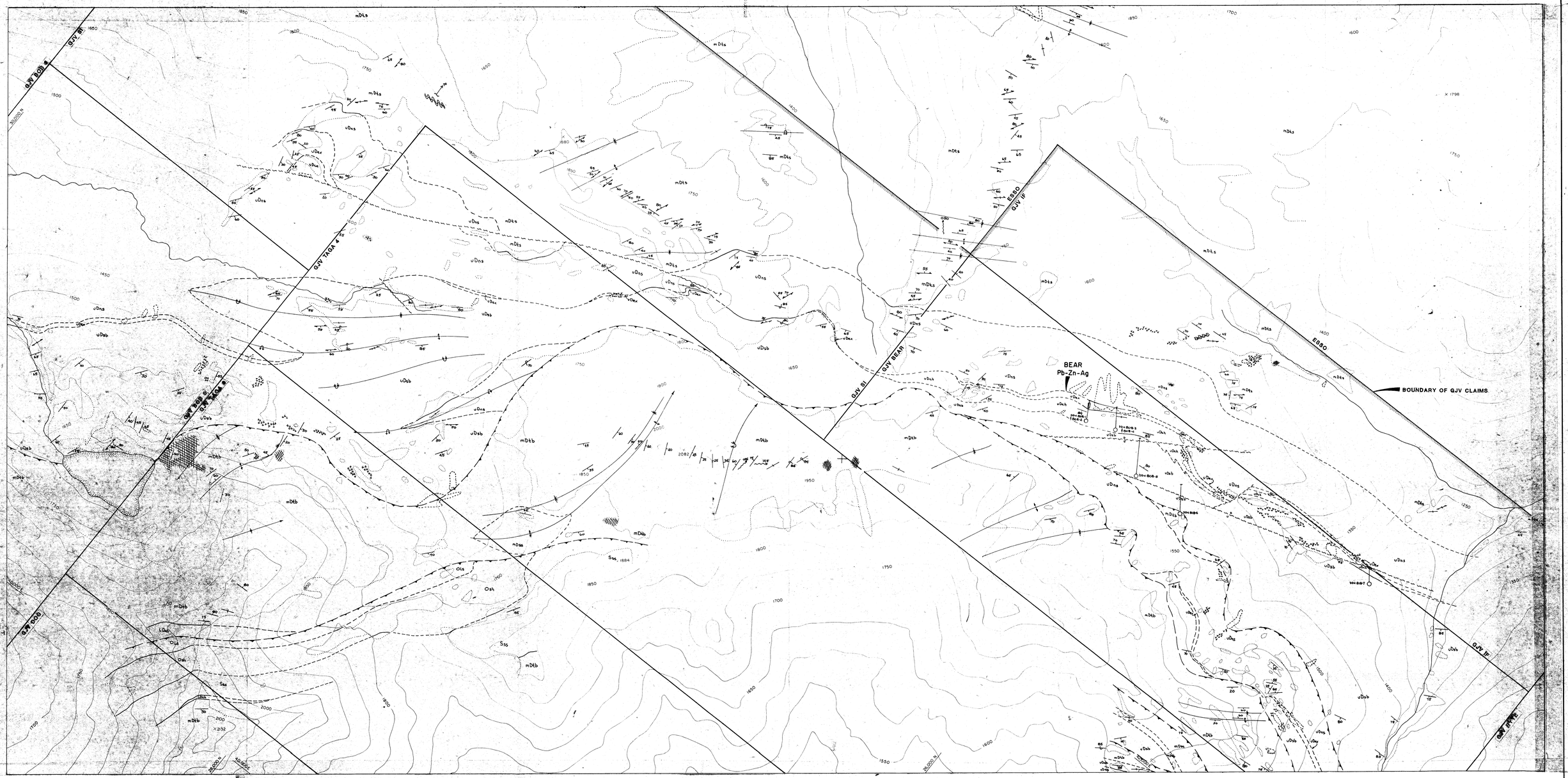
VISUAL LOG	FOOTAGE Inter-section	FOOTAGE metres	PRIMARY LITHOLOGY	SECONDARY % INTERBEDS	CORE ANGLE Bedding W E	CORE ANGLE Structure W E	PYRITE Lam. % Thickness	PYRITE Diss. % Size	BARITE Bed. % Thickness	BARITE Bleb. % Size	CO_3^- Type % Size	OTHER % Description	ANALYSES % ppm Pb	ANALYSES % ppm Zn	ANALYSES % ppm Cu	ANALYSES oz. ppm Ag	ANALYSES % ppm Ba
	0	0															
			CASING ONLY														
	30.0	9.1	non-sil, gritty blk SHAL med bdd, non-calc	chert gran. 05 SLSN interbeds	45/W 47/W							TOPS UP 50% C.R.					
mDtg	45.0	13.7	non sil slightly gritty med bdd blk SHAL	BART NOD EVERY 5-10CM IN BEDS	43/W	65/				NOD 02 RADIATING <.5CM		50% C.R.					
	49.0	14.9	slightly gritty, v. carb, non-calc non-sil blk SHAL med-tlk bdd		40/NW	60/				NOD Tr scattered conc.		60% C.R.					
	63.0	19.2	SOS	V. SHEARED & BROKEN								50% C.R.					
FAULT ZONE	77.0	23.5	FAULT GOUGE									05% C.R.					
	87.0	26.5	Fine grnd, mod sil. blk SHAL, non-calc.	scattered FAULT GOUGE								45% C.R.					
mDss(?)	100.0	30.5	SOS	Brn wx ankeritic (?) sections.	34/W (< CA)	/45		DISS Tr in Fe-rich sections				60% C.R.					
	106.0	32.3	SOS BADLY BROKEN	FLT GOUGE @ BASE	47/W							40% C.R.					
FAULT ZONE OR CAVE	117.0	35.7	SAND QZ & SHAL									10% C.R.					
	121.0	36.9	non-sil, non-calc, vfg, carb Black SHAL	chert (grey) intervals				DISS Tr in CHERT				50% C.R.					
	135.0	41.1															

GJV-DRIFTPILE CREEK PROJECT: LOG DDH 81B-6

COORD. _____ DIP _____ AZIM. _____ ELEV. _____ SIZE _____ STARTED _____ COMPLETED _____ LOGGED BY _____

VISUAL LOG	FOOTAGE Intersection	FOOTAGE metres	PRIMARY LITHOLOGY	SECONDARY % INTERBEDS	CORE ANGLE Bedding W E	CORE ANGLE Structure W E	PYRITE Lam. % Thickness	PYRITE Diss. % Size	BARITE Bed. % Thickness	BARITE Bleb. % Size	CO_3 Type % Size	OTHER % Description	ANALYSES % Pb	ppm Pb	% Zn	ppm Zn	% Cu	ppm Cu	oz Ag	ppm Ag	% Ba	ppm Ba
			mod. gnhy, non-sil calc blk SHALE	FLT GOUGE @ BASE	44/W			Bleb Tr scattered in conc Cdg PE		Bleb Tr w Py		50% C.R.										
	143.0	43.5	SOS	pyritic SLSN interbds 05 MINOR FLT GG				Diss Tr in SLSN				TOPS UP 85% C.R.										
	151.0	46.0	SOS	SLSN interbds 02 scattered, < 0.5 cm	55/W E/83 >CA 11 CA	65/		Diss Tr in Bleb(?) NOD		NOD 02 scattered lam. conc												
udns	160.0	48.7	SOS	SOS 10 DEC D/S	59/W E/86 >CA	65/		Diss Tr "		NOD 02 "												
	170.0	51.8	SOS	SOS 04	11 CA 65/VERT			Diss Tr "		NOD 05 "												
	180.0	54.9	SOS med-thk bdd	SOS 2-3 cm. conc. MINOR FLT GG Tr	60/ " 46/W			Diss Tr "		NOD 01 "		TOPS UP										
	190.0	57.9	SOS now fine grained	SOS < 1cm SCATTERED < 3cm Tr	44/W 49/W			Diss Tr Dec'l D/S		NOD Tr Dec'l D/S		TOPS UP										
	200.0	61.0	SOS " now ∋ scattered 1cm slightly calc w. carb beds	SOS now v. thin < 4mm Tr	53/W 47/W	60/																
	210.0	64.0	SOS as above	SOS as above 02	48/W FLAT/37	67/																
	220.0	67.1	SOS "	SOS " Tr	20/W	64/		Diss Tr "		NOD Tr < 0.5cm scattered												
	230.0	70.1	SOS " MINOR FLT GOUGE @ BASE	SOS " Tr		65/ 50/ 63						BOT C.R.										
	241.0	73.5	SOS	SOS Tr	11 CA SE/83 >CA	53/						OVERTURNED										
	250.0	76.2																				





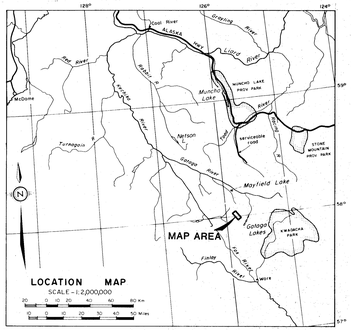


TABLE OF FORMATIONS

UPPER DEVONIAN

Gunsteel Formation

- uDsb — medium to thick bedded, siliceous and non-siliceous, carbonaceous black shale
- uDns — medium bedded, non-siliceous, slightly gritty, nodular black shale (may be locally absent)
- uDex — bedded barite, interbedded chert, pyrite and blebby barite, massive pyrite galena, sphalerite and barite deposits
- uDch — cherty argillite and black chert, minor silver-bearing galena-sphalerite beds on Bear claims (may be locally absent)

} uDsh — undivided Gunsteel Formation

MIDDLE DEVONIAN

Besa River Formation

- mDts — thick bedded distal turbidites (dominately black shale with minor siltstone intervals)
- mDss — medium to thick bedded intermediate turbidites (silty black shale with conglomerate and siltstone intervals)
- mDtb — thick bedded to massive proximal turbidites and debris flows (chert pebble conglomerate and chert granule grit)
- mDex — thin bedded and nodular grey to black barite and siliceous shale, very minor pyrite

MIDDLE ORDOVICIAN TO LOWER DEVONIAN

Road River Group

LOWER DEVONIAN

- LDch — black and bluish black, thin to medium bedded chert with minor carbonaceous shale intervals
- LDbc — interbedded carbonaceous black shale and cherty black argillite, minor black chert successions

SILURIAN

- Sss — orange weathering dolomitic and ankeritic siltstone, minor silty dolomite and cryptalgal laminated grey limestone

ORDOVICIAN

- Osh — medium to thick bedded calcareous black shale and mudstone
- Ols — grey and white limestone with black and green chert lenses

UPPER CAMBRIAN TO LOWER ORDOVICIAN

Kechika Group

- COkp — brown weathering calcareous phyllite and "wavy-banded" silty limestone

MIDDLE CAMBRIAN

Atan Group

- Cag — massive to thick bedded grey limestone and calcareous quartzite, minor green calcareous phyllite

SYMBOLS

- extent of outcrop
- geologic contact (known, assumed)
- bedding (inclined, vertical, overturned)
- cleavage (inclined, vertical)
- normal or strike slip fault
- thrust fault (known, assumed)
- anticline (upright, overturned)
- syncline upright, overturned)
- plunge of fold axis
- paleocurrent direction
- fossil locality (graptolite)
- quartz vein stockwork
- ferricrete deposit
- kill zone or gossan

MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES
ASSESSMENT REPORT
9918

FIGURE 4

ARCHER, CATHRO & ASSOCIATES LTD

GEOLOGY

BEAR AND SI CLAIMS

GATAGA JOINT VENTURE

SCALE – 1:5,000

100 50 0 50 100 200 300 400 500 Metres
100 50 0 50 100 200 300 400 500 Yards

To accompany report dated October 1, 1985

SI CLAIM

BEAR CLAIM

FIGURE 3

LCP

DDH 80B-1 & 80B-2

DDH 80B-5

DDH 80B-3 & 80B-4

DDH 81B-6

DDH 81B-7

GATAGA LAKES

LIARD M.D. OMINECA M.D.

917

149

150

148

48,000 E

46,000 E

28,000 N

38,000 E

25,000 N

24,000 N

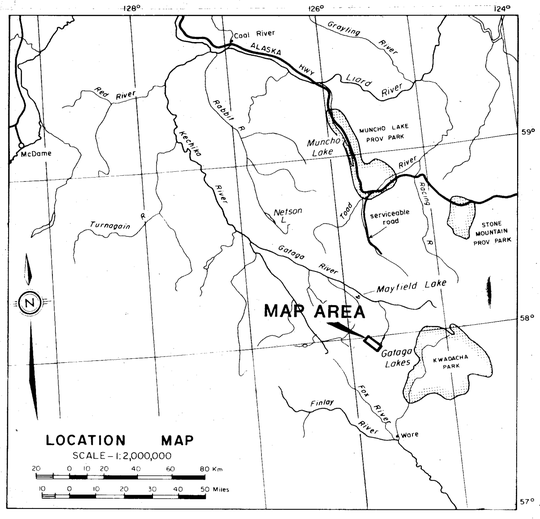
40,000 E

22,000 N

42,000 E

20,000 N

44,000 E



COMPILED FROM AERIAL PHOTOGRAPHY
TAKEN AUGUST 15, 1979 AT A SCALE OF 1:24,000

N.B – Legal Corner Posts were located in the field with the aid of a 1:5,000 scale orthophoto

FIGURE 2

ARCHER, CATHRO & ASSOCIATES LTD

LOCATION PLAN

BEAR AND SI CLAIMS

GATAGA JOINT VENTURE

SCALE 1:20,000

500 0 200 400 600 800 1000 2000 Metres

1/2 0 1/2 1 1½ Miles

To accompany report dated October 1, 1981