[redacted]

ASSESSMENT REPORT ON A DIAMOND DRILL PROGRAM

CRUZ PROPERTY

on Cruz DePlata 3 and 5 claims
(Holes C95-1, 2 and 4 on Cruz DePlata 5 and Hole C95-3 on Cruz DePlata 3)

FORT STEELE MINING DIVISION

N.T.S. 82 G/4W AND 82 G/5W

Latitude: 49° 33'N

Longitude: 115° 50' 30"W

OWNER

CHAPLEAU RESOURCES LTD.
SUITE 202
135 - 10TH AVENUE SOUTH
CRANBROOK, B.C. V1C 2N1

BY

RICHARD T. WALKER
DYNAMIC EXPLORATION LTD.
1916 - 5TH STREET SOUTH
CRANBROOK, B.C. V1C 1K4

Work performed from September 24 to April 15, 1996

DATE: APRIL 24, 1996

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF APPENDICES

SUMMARY

An exposure of fragmental was identified at surface and subsequently drilled on the CRUZ property in 1995. Compilation of past work in the area, together with surface and sub-surface information, confirmed the presence of the fragmental and associated mineralization. The fragmental occurrence is hosted by the middle Aldridge Formation and lies approximately 2100 metres stratigraphically above the lower-middle Aldridge contact. Recent evaluation of the Fors property, west-northwest of Moyie Lake, demonstrated the importance of fragmentals as exploration targets. The discordant fragmental on the Fors property,

> "... is a near-blind discovery that resulted from drill testing a geological model in the vicinity of low-grade mineralization found at surface.
>
> It provides a new exploration target in the Sullivan camp, having some similarities with the Sullivan deposit and some important differences. Similarities include the presence of such "Sullivan indicators" as bedded sulphides, fragmental units that locally carry sulphide-bearing and tourmalinized clasts, garnet porphyroblasts, and tourmaline and albite alteration. Differences are that it is located outside the Sullivan corridor, is stratigraphically higher, has unusual alteration assemblages, and has elevated silver, gold, tungsten and arsenic" (Britton and Pighin 1994).

By analogy with the Fors fragmental, the fragmental occurrence on the CRUZ property is similarly interpreted as the upper level of a vent complex. The fragmental has extensive sericite and talc altered tourmalinite and sedimentary clasts, both at surface and in the sub-surface core. Proprietary Aldridge marker control indicates that similar surface exposures of fragmental occur approximately 2100 metres above the lower - middle Aldridge contact. A disseminated lead-zinc horizon documented at surface on competitors claims was intersected in the sub-surface and is interpreted to be related to the fragmental. A tourmalinite horizon identified slightly below the mineralized horizon is similarly interpreted to be genetically linked to the fragmental and associated with episodic pulses of vent activity in and around the fragmental. Additional work is strongly recommended to further understanding of the property and the potential for identification of an orebody in the newly identified Moyie sub-basin. Anticipated results of the proposed program are:

1) to gain a better understanding of the stratigraphy of the property through mapping,

2) to test lead-zinc mineralization and a tourmalinite horizon by soil sampling at a specific stratigraphic interval associated with an Aldridge marker along Sundown Creek,

3) Undertake mapping, soil geochemistry and geophysics in an attempt to determine the source of a gossan in the west central portion of the claims,

4) two diamond drill holes are proposed. One hole in the Sundown Creek area to test mineralization associated with a marker bed, and one hole to test a geophysical anomaly.

INTRODUCTION

The CRUZ property comprises a total of 340 claim units lying immediately south of the St. Eugene leases and extends east and south east of Moyie Lake (Fig. 1). The claims cover exposures of the middle Aldridge Formation (Fig. 2), confirmed by Aldridge marker control on surface and in the sub-surface. Upper Aldridge to Kitchener Formation strata has been identified west, north and east of the property, wrapped around the north plunging Moyie Anticline.

Limited prospecting and geological mapping on the CRUZ property has resulted in identification of three separate fragmental occurrences, two lying at the same stratigraphic horizon along Sundown Creek and the third exposed at a lower stratigraphic level. These fragmentals are interpreted to be associated with episodic venting evidenced in the drill core. Furthermore, they are interpreted to be equivalent to a dewatering structure (fragmental) mapped along Highway 3 / 95 to the north and two fragmentals mapped in the vicinity of the St. Eugene Mine.

Possible vented sands, calcareous intervals, a tourmalinite horizon and lead-zinc mineralization are interpreted as evidence of episodic vent activity associated with the fragmental. The mineralized horizon identified in sub-surface is correlative to that identified on surface to the south. The same horizon, with associated mineralization is present approximately 20 kilometres to the south in the Mt. Mahon area and in a deep oil well drilled immediately southeast of Moyie Lake. Finally, anomalous thicknesses of argillite and interbedded silty argillite were documented in drill core and at surface to the south along Sundown Creek. On the basis of these observations, a local sub-basin (Moyie sub-basin) within the Purcell Basin has been proposed.

The minimum extent of the proposed sub-basin is thought to be constrained by the presence of anomalous thicknesses of argillite (indicating a distal location relative to the sub-basin margins and associated turbidites typical of the middle Aldridge. The northern and southern boundaries are interpreted to be constrained by two fragmental occurrences in the vicinity of the St. Eugene Mine and the Mt. Mahon tourmalinite occurrences, respectively. Finally, vent activity is documented throughout the lower to middle middle Aldridge on the basis of the 1995 drill core of Chapleau and from the upper lower Aldridge to the middle Aldridge in the deep oil well. Therefore, the possibility is considered high for identification of additional mineralization, both at surface and in the sub-surface as a result of additional work on the property.

Additional work has been proposed on the CRUZ property to evaluate the mineral potential of the middle Aldridge Formation. Prospecting and geological mapping of the property is recommended to identify additional exposures of middle Aldridge strata and determine the stratigraphy of the southeast portion of the claims. An integrated geochemical and geophysical program is proposed, together with prospecting and mapping, to determine the source of a gossan occurring along a fault on the western margin of the property. Finally, a 1000 foot (300 metre) drill program consisting of a single hole along Sundown Creek is proposed to test the presence and associated mineralization of a mineralized horizon identified at depth during the 1995 drill program and outcropping to the west on competitors claims.

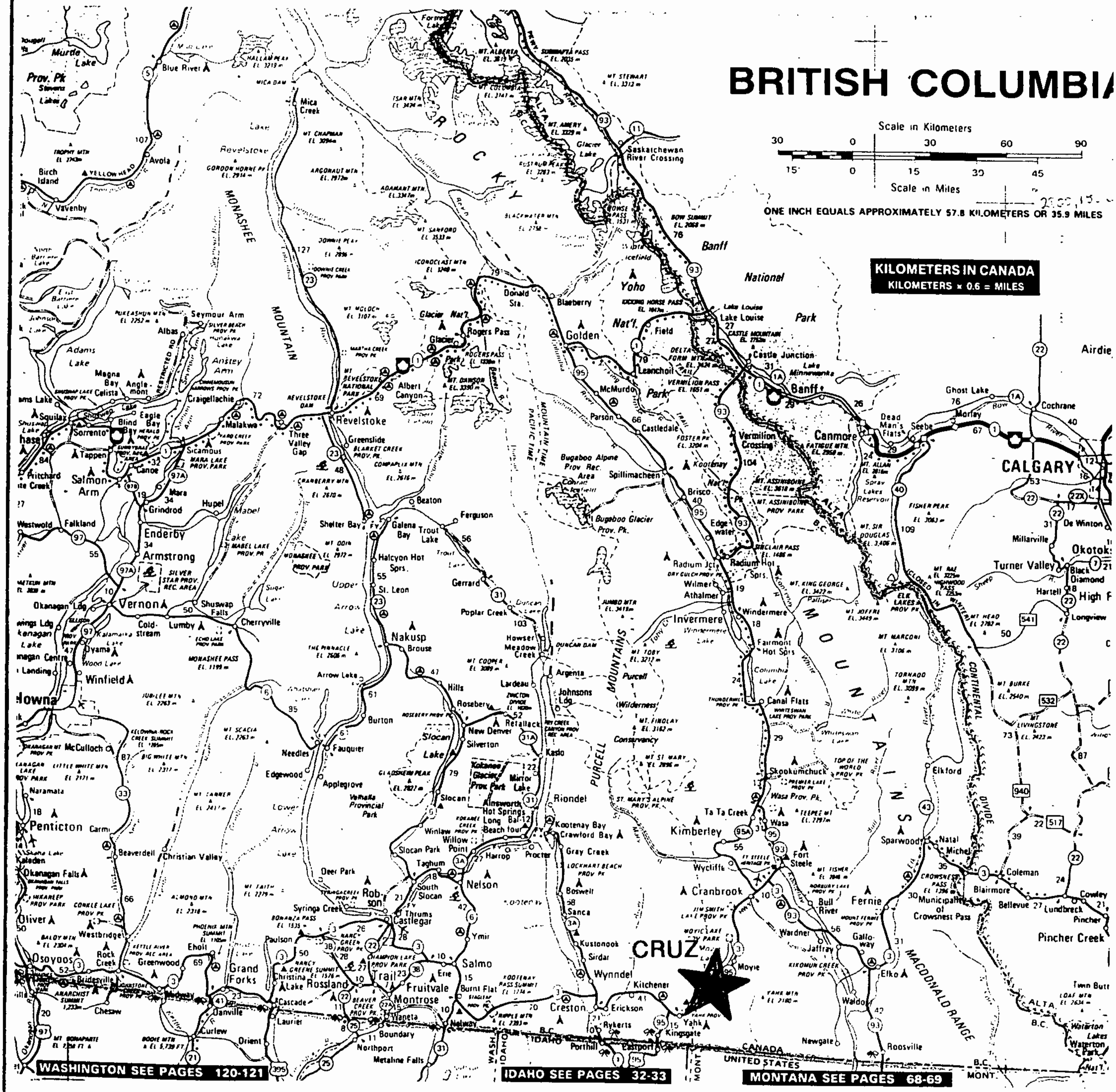
LOCATION AND ACCESS

The CRUZ property is located approximately 40 kilometres south of Cranbrook in the southern Purcell Mountains (Fig. 1). The claim group is centred at approximate UTM coordinates 585000E, 5454000N. The claims are immediately south of the St. Eugene leases and extend south and east from the southeast shore of Moyie Lake (Fig. 3). The property can be easily accessed by two wheel drive vehicle from Highway 3 / 95 along the well maintained Sundown Creek Road. There is good road access along the Highway on the northwest edge of the claims and along the Sundown Creek Road to the southwest edge of the property. Truck access is available to the south-southeast portion of the property along the Sunrise Creek road and limited access (all terrain vehicles) is available along the pipeline right-of-way through the centre of the claims to the east-central portion of the claims.

PHYSIOGRAPHY AND CLIMATE

The CRUZ property is located in the eastern Purcell Mountains, west of the Rocky Mountain Trench (Fig. 1). The property is characterized by moderate relief, with elevation ranging between 940 metres (3085 feet) along Moyie Lake to 1670 metres (5480 feet) on an unnamed peak east of Sunrise Creek. The area is available for exploration from early May (at lower elevations) to late October.

Vegetation in the area consists predominantly of predominantly coniferous trees with lesser deciduous and sparse undergrowth consisting of slide alder. Thicker growth is present in the north facing portions of the creek valleys. The lower elevations of the property are underlain by glacial till and are comprised largely of lodgepole pine. Logging activity has resulted in several relatively large open areas, particularly adjacent to the intersection of Sundown Creek Road and the Sunrise Creek road.

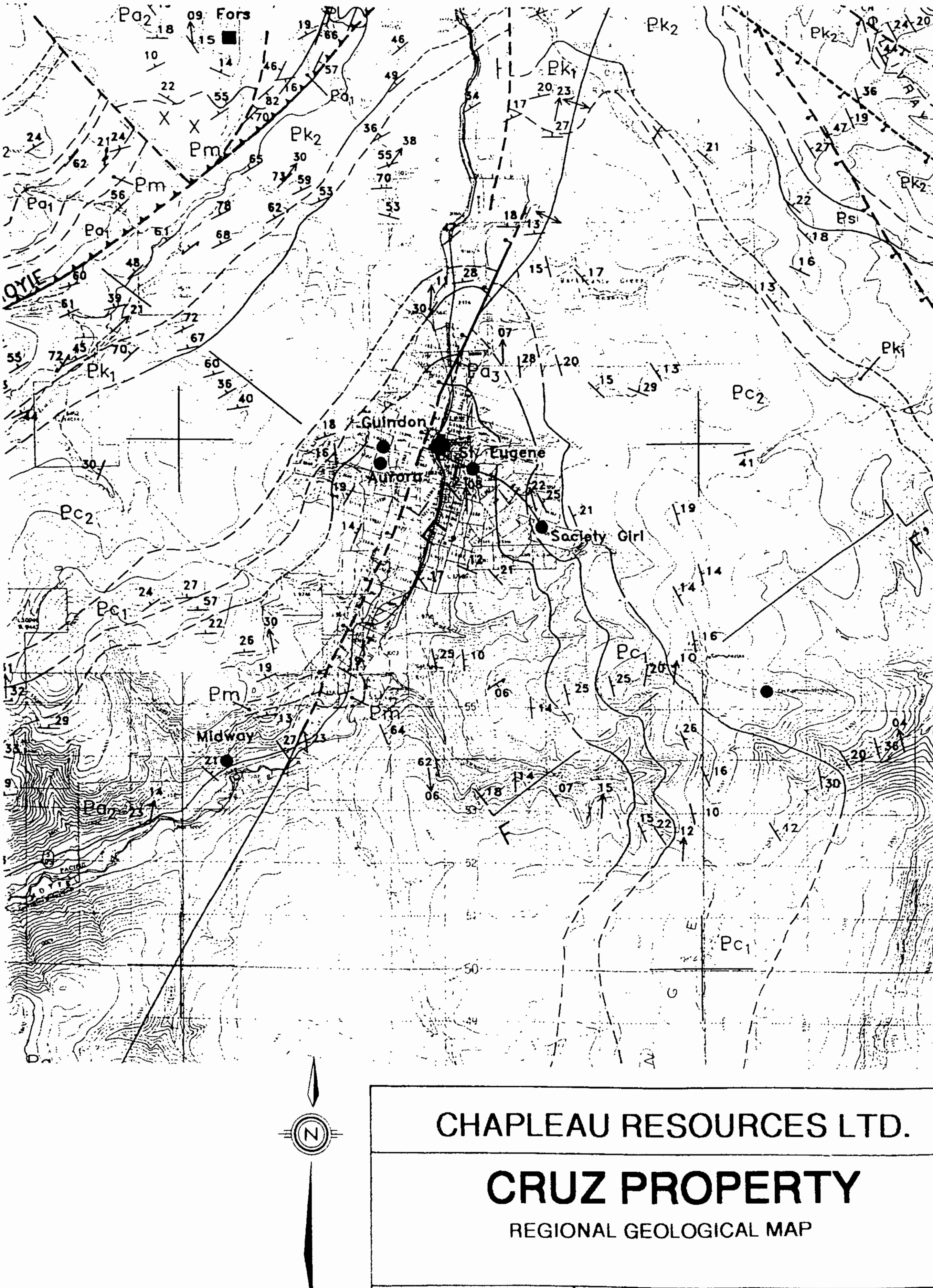


CHAPLEAU RESOURCES LTD.

CRUZ PROPERTY

PROPERTY LOCATION MAP

Scale: as shown	Date: April 1996	Figure 1



CHAPLEAU RESOURCES LTD.

CRUZ PROPERTY

REGIONAL GEOLOGICAL MAP

Scale: 1:100,000	Date: April 1996	Figure 2

CLAIM STATUS

The CRUZ property is located approximately 40 kilometres south of Cranbrook (see Fig. 1). The property consists of 340 claim units (Fig. 3), staked in accordance with existing claim location regulations. Claim information has been supplied by Consolidated Ramrod Gold Corporation and is believed correct as of March 13, 1996. Pertinent claim data is tabulated below:

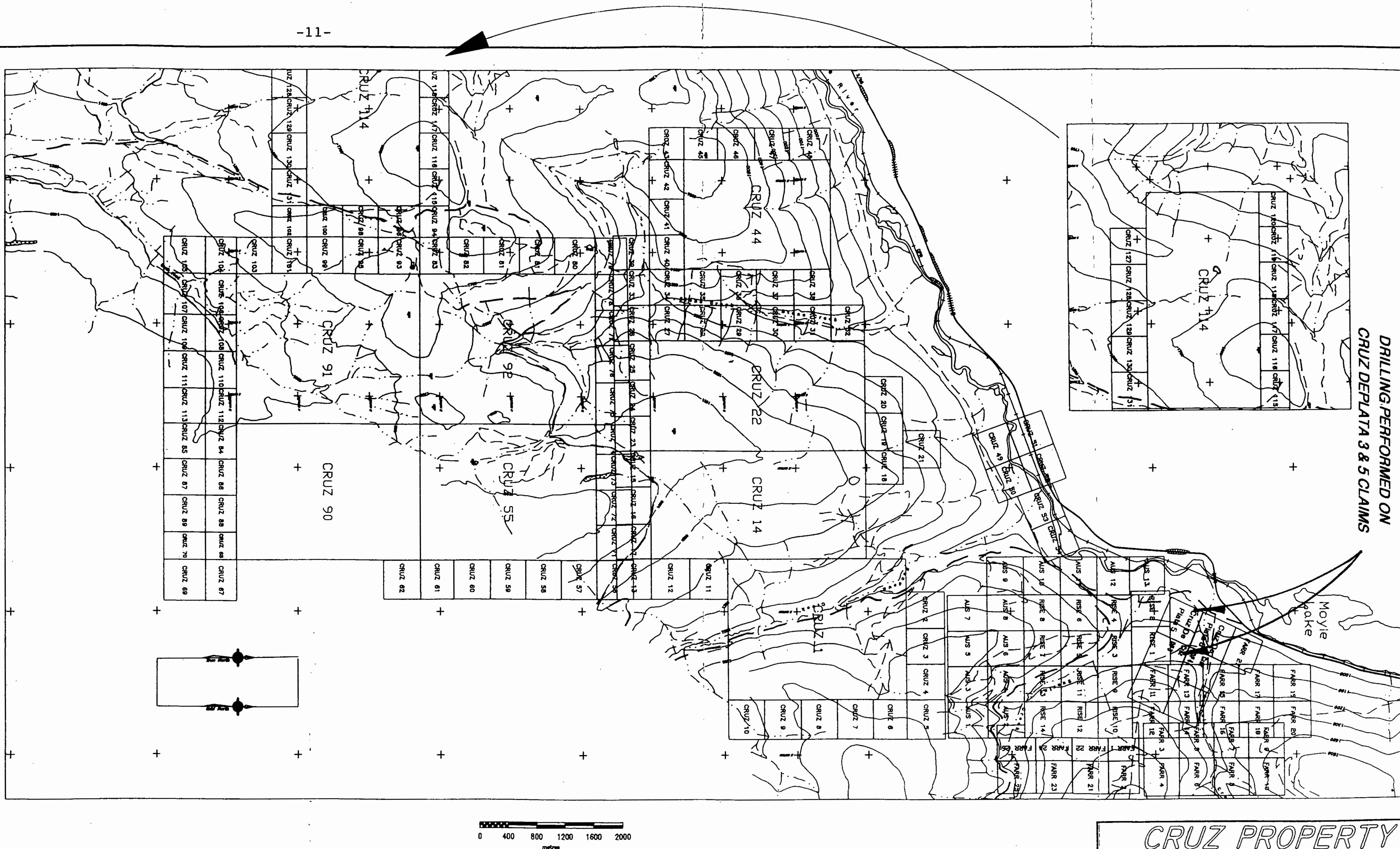
CLAIM	TENURE NUMBER	UNITS	ANNIVERSARY DATE
Cruz De Plata 1	336446	1	June 5, 1996
Cruz De Plata 2	336447	1	June 5, 1996
Cruz De Plata 3	336448	1	June 5, 1996
Cruz De Plata 4	336449	1	June 5, 1996
Cruz De Plata 5	336450	1	June 5, 1996
Cruz De Plata 6	336451	1	June 5, 1996
Cruz De Plata 7	338889	1	August 16, 1996
Cruz De Plata 8	338890	1	August 16, 1996
Farr 1	337886	1	July 20, 1996
Farr 2	337887	1	July 20, 1996
Farr 3	337914	1	July 20, 1996
Farr 4	337915	1	July 20, 1996
Farr 5	337916	1	July 20, 1996
Farr 6	337917	1	July 20, 1996
Farr 7	337918	1	July 20, 1996
Farr 8	337932	1	July 20, 1996
Farr 9	337933	1	July 20, 1996
Farr 10	337934	1	July 20, 1996
Farr 11	337935	1	July 21, 1996
Farr 12	337936	1	July 21, 1996
Farr 13	337937	1	July 21, 1996
Farr 14	337938	1	July 21, 1996
Farr 15	337939	1	July 21, 1996
Farr 16	337940	1	July 21, 1996
Farr 17	337941	1	July 21, 1996
Farr 18	337942	1	July 21, 1996
Farr 19	337943	1	July 21, 1996
Farr 20	337944	1	July 21, 1996
Farr 21	337888	1	July 24, 1996
Farr 22	337889	1	July 24, 1996
Farr 23	337890	1	July 24, 1996
Farr 24	337891	1	July 24, 1996
Farr 25	337892	1	July 24, 1996

CLAIM	TENURE NUMBER	UNITS	ANNIVERSARY DATE
Farr 26	337893	1	July 24, 1996
Farr 27	337903	1	July 24, 1996
Rise #1	337979	1	July 7, 1996
Rise #2	337980	1	July 7, 1996
Rise #3	337981	1	July 7, 1996
Rise #4	337982	1	July 7, 1996
Rise #5	337983	1	July 7, 1996
Rise #6	337984	1	July 7, 1996
Rise #7	337985	1	July 7, 1996
Rise #8	337986	1	July 7, 1996
Rise #9	337987	1	July 7, 1996
Rise #10	337988	1	July 7, 1996
Rise #11	337989	1	July 7, 1996
Rise #12	337990	1	July 7, 1996
Rise #13	337991	1	July 7, 1996
Rise #14	337992	1	July 7, 1996
AUS 1	339656	1	August 24, 1996
AUS 2	339657	1	August 24, 1996
AUS 3	339658	1	August 24, 1996
AUS 4	339659	1	August 24, 1996
AUS 5	339660	1	August 24, 1996
AUS 6	339661	1	August 24, 1996
AUS 7	339662	1	August 24, 1996
AUS 8	339663	1	August 24, 1996
AUS 9	339664	1	August 24, 1996
AUS 10	339665	1	August 24, 1996
AUS 11	339666	1	August 24, 1996
AUS 12	339667	1	August 25, 1996
AUS 13	339668	1	August 25, 1996
Cruz 1	341867	20	November 2. 1996
Cruz 2	341870	1	October 31, 1996
Cruz 3	341871	1	October 31, 1996
Cruz 4	341872	1	October 31, 1996
Cruz 5	341873	1	October 31, 1996
Cruz 6	341874	1	October 31, 1996
Cruz 7	341875	1	October 31, 1996
Cruz 8	341876	1	October 31, 1996
Cruz 9	341877	1	October 31, 1996
Cruz 10	341878	1	October 31, 1996
Cruz 11	341879	1	October 31, 1996
Cruz 12	341880	1	October 31, 1996

CLAIM	TENURE NUMBER	UNITS	ANNIVERSARY DATE
Cruz 13	341881	1	October 31, 1996
Cruz 14	341868	18	November 2, 1996
Cruz 15	341882	1	October 31, 1996
Cruz 16	341883	1	October 31, 1996
Cruz 17	341884	1	October 31, 1996
Cruz 18	341885	1	November 1, 1996
Cruz 19	341886	1	November 1, 1996
Cruz 20	341887	1	November 2, 1996
Cruz 21	341888	1	November 1, 1996
Cruz 22	341869	18	November 2, 1996
Cruz 23	341889	1	November 1, 1996
Cruz 24	341890	1	November 1, 1996
Cruz 25	341891	1	November 1, 1996
Cruz 26	341892	1	November 1, 1996
Cruz 27	341893	1	November 1, 1996
Cruz 28	341894	1	November 2, 1996
Cruz 29	341895	1	November 2, 1996
Cruz 30	341896	1	November 2, 1996
Cruz 31	341897	1	November 2, 1996
Cruz 32	341898	1	November 2, 1996
Cruz 33	341899	1	November 1, 1996
Cruz 34	341900	1	November 1, 1996
Cruz 35	341901	1	November 2, 1996
Cruz 36	341902	1	November 2, 1996
Cruz 37	341903	1	November 2, 1996
Cruz 38	341904	1	November 2, 1996
Cruz 39	341905	1	November 1, 1996
Cruz 40	341906	1	November 1, 1996
Cruz 41	341907	1	November 1, 1996
Cruz 42	341908	1	November 1, 1996
Cruz 43	341909	1	November 1, 1996
Cruz 44	341921	12	November 2, 1996
Cruz 45	341910	1	November 2, 1996
Cruz 46	341911	1	November 2, 1996
Cruz 47	341912	1	November 2, 1996
Cruz 48	341913	1	November 2, 1996
Cruz 49	341914	1	November 2, 1996
Cruz 50	341915	1	November 2, 1996
Cruz 51	341916	1	November 2, 1996
Cruz 52	341917	1	November 2, 1996
Cruz 53	341918	1	November 2, 1996

CLAIM	TENURE NUMBER	UNITS	ANNIVERSARY DATE
Cruz 54	341920	1	November 2, 1996
Cruz 55	342706	20	December 14, 1996
Cruz 56	342586	1	December 1, 1996
Cruz 57	342587	1	December 14, 1996
Cruz 58	342588	1	December 14, 1996
Cruz 59	342589	1	December 14, 1996
Cruz 60	342636	1	December 14, 1996
Cruz 67	342639	1	December 16, 1996
Cruz 68	342640	1	December 16, 1996
Cruz 69	342641	1	December 16, 1996
Cruz 70	342642	1	December 16, 1996
Cruz 71	342643	1	December 1, 1996
Cruz 72	342644	1	December 1, 1996
Cruz 73	342645	1	December 1, 1996
Cruz 74	342646	1	December 1, 1996
Cruz 75	342647	1	December 4, 1996
Cruz 76	342648	1	December 4, 1996
Cruz 77	342649	1	December 4, 1996
Cruz 78	342650	1	December 5, 1996
Cruz 79	342651	1	December 5, 1996
Cruz 80	342652	1	December 5, 1996
Cruz 81	342653	1	December 6, 1996
Cruz 82	342654	1	December 6, 1996
Cruz 83	342655	1	December 6, 1996
Cruz 84	342656	1	December 12, 1996
Cruz 85	342657	1	December 12 1996
Cruz 86	342658	1	December 12, 1996
Cruz 87	342659	1	December 12, 1996
Cruz 88	342660	1	December 12, 1996
Cruz 89	342661	1	December 12, 1996
Cruz 90	342707	20	December 16, 1996
Cruz 91	342708	20	December 16, 1996
Cruz 92	342709	20	December 14, 1996
Cruz 93	342662	1	December 6, 1996
Cruz 94	342663	1	December 5, 1996
Cruz 95	342664	1	December 8, 1996
Cruz 96	342665	1	December 6, 1996
Cruz 97	342666	1	December 8, 1996
Cruz 98	342667	1	December 6, 1996
Cruz 99	342668	1	December 8, 1996
Cruz 100	342669	1	December 8, 1996

CLAIM	TENURE NUMBER	UNITS	ANNIVERSARY DATE
Cruz 101	342670	1	December 11, 1996
Cruz 102	342671	1	December 8, 1996
Cruz 103	342672	1	December 11, 1996
Cruz 104	342673	1	December 11, 1996
Cruz 105	342674	1	December 11, 1996
Cruz 106	342675	1	December 11, 1996
Cruz 107	342676	1	December 11, 1996
Cruz 108	342677	1	December 12, 1996
Cruz 109	342678	1	December 16, 1996
Cruz 110	342679	1	December 12, 1996
Cruz 111	342680	1	December 16, 1996
Cruz 112	342681	1	December 12, 1996
Cruz 113	342682	1	December 16, 1996
Cruz 114	342710	18	December 11, 1996
Cruz 115	342683	1	December 6, 1996
Cruz 116	342684	1	December 6, 1996
Cruz 117	342685	1	December 6, 1996
Cruz 118	342698	1	December 8, 1996
Cruz 119	342699	1	December 8, 1996
Cruz 120	342700	1	December 8, 1996
Cruz 127	342701	1	December 11, 1996
Cruz 128	342702	1	December 11, 1996
Cruz 129	342703	1	December 11, 1996
Cruz 130	342704	1	December 8, 1996
Cruz 131	342705	1	December 8, 1996
	Total:	340	



CHAPLEAU RESOURCES LTD.

CRUZ PROPERTY

Claim Location Map
Moyie, B.C. Area
Figure 3

This Plot: 96/04/29 am	Date:
Map Ref.: 82G.021 82G.011	Scale: 1:50,000

Last Update (Y/M/D): 96/04/29 am

CAD Filename: d:\chapleau\cruz\CZ-CLM-P.dwg

REGIONAL GEOLOGY

Recently, a map of the Fernie west-half map sheet was published by Höy (1993) and subsequently a geological compilation of Ministry of Energy, Mines and Petroleum Resources field work (Höy 1993). The stratigraphy of the CRUZ property is comprised predominantly of the middle Aldridge Formation and overlain to the east by the upper Aldridge and Creston formations (Fig. 2). There is limited exposure of the upper Aldridge Formation in the northeast corner of the property .

Stratigraphy

Aldridge Formation

The Aldridge Formation has been sub-divided into three informal units, the lower, middle and upper Aldridge Formations. Regionally, the lower Aldridge Formation is comprised of grey weathering quartz wacke and siltstone interbedded with silty argillite. The middle Aldridge Formation is comprised of "... thick-bedded, massive to graded quartz arenite and wacke beds, thin-bedded siltstone and, minor argillite" (Höy 1993). In the Moyie area, the middle Aldridge unit is in excess of 2800 metres thick.

The basal part of the middle Aldridge generally consists of grey weathering, interbedded quartz wacke and arenite with minor intervals of silty argillite. In the upper middle Aldridge succession, competent quartz arenite and quartz wacke intervals are thinner with a corresponding increase in the proportion of more recessive, interbedded siltstone and argillite. The upper part of the middle Aldridge "... comprises a number of distinct cycles of massive, grey quartz arenite beds that grade upward into an interlayered sequence of quartz wacke, siltstone and argillite, and are capped by siltstone and argillite ... The contact with the upper Aldridge is placed above the last bed of massive grey quartz arenite" (Höy 1993).

Distinctive sets of laminated dark and light siltstone ("markers"), ranging from several centimetres to several metres in thickness, can be traced over hundreds of kilometres and provide an accurate method of determining stratigraphic position within the middle Aldridge. At least 14 separate and distinct markers have been identified by Cominco geologists in the middle Aldridge, from immediately above the lower-middle contact to the upper middle Aldridge.

Intraformational conglomerates have also been described at varying stratigraphic levels in the Aldridge Formation, from the upper portion of the lower Aldridge, at the lower-middle contact and in the lower portion of the middle Aldridge. They range from conformable to crosscutting zones of intraformational conglomerate to massive zones of siltstone or wacke.

The intraformational conglomerates (fragmental) layers are generally massive to poorly bedded, occasionally with a crude fining upward texture. Clasts and/or fragments range from a few millimetres to many centimetres in diameter and are clast to matrix supported in a silty matrix. Both conglomerate clasts and the matrix are compositionally identical with the host Aldridge Formation.

"Crosscutting zones of conglomerate or massive sandstone are less common. A zone of massive sandstone several tens of metres wide and containing abundant lithic fragments is exposed ... just south of Moyie. It is vertical, cutting across essentially flat-lying middle Aldridge turbidite beds. Its contact is irregular and a poorly developed vertical banding is apparent in the first few metres of the edge of the zone. The zone dies out upsection, and is overlain by flat-lying turbidite beds"

Other crosscutting zones occur beneath the Sullivan orebody, North Star Hill and at the St. Joe prospect. In contrast with the Moyie structures, these are associated with tourmaline alteration and sulphide mineralization. On North Star Hill, irregular crosscutting zones and concordant layers of conglomerate are conspicuous in the upper part of the lower Aldridge. Clasts of argillite, quartzite and tourmalinite up to 5 centimetres across occur in a dark grey quartzite or siltstone matrix. Both stratabound conglomerate and a large crosscutting conglomerate breccia occur in the footwall of the Sullivan deposit. At the St. Joe prospect, a crosscutting fragmental unit several metres thick is overlain by an intraformational conglomerate unit suggesting fragmentals were extruded onto the seafloor" (Höy 1993).

The upper Aldridge Formation consists mainly of rusty weathering, thin-bedded, dark to medium grey argillite, and thinly parallel-laminated light and dark grey siltite laminae. Strata of the Aldridge Formation "... grade into those of the overlying Creston Formation over a few hundred metres ... characterized by the increasing abundance of a very thin-bedded, medium-grained siltite ... The top of the Aldridge Formation was defined at the top of the last thick (greater than 10 metres) interval of grey argillite and thinly parallel-laminated siltite" (McMechan 1979). Alternatively, Höy (1993) described the contact between the upper Aldridge and Creston Formations as usually gradational and placed the contact where either green-tinged lenticular bedding or syneresis cracks become noticeable.

Moyie Intrusives

The following has been paraphrased from Höy (1993):

"Moyie sills are restricted to the lower Aldridge, the lower part of the middle Aldridge, and to correlative rocks in the northern Hughes Range. Moyie Intrusions generally form laterally extensive sills ... (and) commonly comprise up to 30 per cent of lower and middle Aldridge successions. Their abundance decreases up-section in the middle Aldridge, as the abundance of thick-bedded A-E turbidites decreases.

Moyie sills comprise dominantly gabbro and diorite. ... (consisting of) dominantly hornblende and plagioclase phenocrysts, typically up to 5 millimetres in diameter, in a finer grained groundmass of plagioclase, quartz, hornblende, chlorite and epidote. Hornblende phenocrysts, commonly partially altered to chlorite and epidote, are generally subhedral to anhedral with irregular ragged terminations. Plagioclase ... is generally clouded by a fine mixture of epidote and albite (?), particularly in the more calcic cores of zoned crystals. Accessory minerals include leucoxene, commonly intergrown with magnetite, as well as tourmaline, apatite, calcite and zircon."

Structure

Rocks of the Purcell Supergroup have been affected by several separate phases of deformation, ranging from Middle Proterozoic through to Paleocene. The North American craton underwent two phases of extension, a compressional orogeny and subsequently continental rifting followed by development of a miogeocline. Thrusting and folding associated with development of the Foreland Fold and Thrust belt took place from Cretaceous to Paleocene time and was followed by Eocene extension.

The earliest deformation was associated with extension in the Middle Proterozoic which resulted in block faulting along the margin of the Purcell Basin, coincident with deposition of the Fort Steele and Aldridge formations. Distinct changes in the character of lower Purcell strata of the Hughes Range indicate that the Boulder Creek fault and the segment of the Rocky Mountain Trench fault north of Boulder Creek represent the northern and eastern edge of the local Purcell Basin. Dramatic southward increases in coarse-grained sediments in the Northern Hughes Range suggest proximity to growth faults near the margin of the basin. Movement along these growth faults is interpreted to have ceased by upper middle to upper Aldridge time.

Voluminous extrusion of basaltic lava (Nicol Creek Formation) in the upper Purcell Supergroup has been interpreted to indicate renewed extension in the Purcell Basin. In addition, dramatic changes in the thickness of the Sheppard and Gateway formations were interpreted to reflect growth faults active during deposition of these strata. A tectonic high has been proposed in the Larchwood Lake area north of Skookumchuck. Variations in the thickness and character of the strata document facies changes which resulted "... from block faulting ..., with erosion and deposition of coarse conglomerates on and at margins of tectonic highs and shallow-water, turbulent carbonate facies deposited in adjacent small basins (Höy 1993).

A late Middle to early Upper Proterozoic (1300 to 1350 Ma) compressional event, the East Kootenay orogeny, has been interpreted based upon evidence for deformation and metamorphism prior to deposition of lower Paleozoic miogeoclinal strata. This event was associated with folding with the development of a regional cleavage and granitic intrusions (i.e. 1305±52 Ma Hellroaring Creek stock). Localized high grade metamorphic areas (i.e. Mathew Creek) are related to this tectonic event which is interpreted to have terminated Belt Purcell sedimentation.

The extensional Goat River orogeny occurred during deposition of the Windermere Supergroup (800 to 900 Ma) and is characterized by large-scale block faulting during and perhaps immediately prior to deposition of strata. The Windermere Supergroup is comprised of a basal conglomerate (Toby Formation) overlain by immature clastic and carbonate sediments of the Horsethief Creek Group. The Toby Formation consists of "... predominantly conglomerates and breccias, interpreted to have been deposited in fan sequences adjacent to active fault scarps in large structural basins. Locally, up to 2000 metres of underlying Belt-Purcell rocks have been eroded from uplifted blocks, providing a sediment source ... in adjacent basins" (Höy 1993).

The earlier tectonic events may record incipient rifting, with development of block-faulted, intracratonic structural basins, whereas by early Paleozoic time continental separation had occurred as platformal and miogeoclinal sediments were deposited on a western continental margin. The Laramide orogeny (Late Jurassic to Paleocene) resulted in the horizontal, northeast directed compression of Proterozoic strata and the overlying Paleozoic miogeoclinal prism onto the North American craton. Easterly verging thrust faults and folds developed with normal faults and westerly verging back thrusts and normal faults, resulting in locally complex structural relationships. Two major faults, the Boulder Creek - St. Mary and Dibble Creek - Moyie faults, have had a significant role in the structural history and fabric of the region, controlling facies and thickness changes in Proterozoic and Paleozoic strata.

> "The Boulder Creek fault, one of the more prominent structural features that crosses the generally north-trending structural grain, coincides approximately with a pronounced change in Purcell rocks. The St. Mary fault, the southwestern extension of the Boulder Creek fault, follows the southern edge of a late Proterozoic (Windermere) structural basin. To the south, the northeast-trending Moyie - Dibble Creek fault system coincides with the northwestern flank of Montania, a lower Paleozoic tectonic high" (Höy 1993).

A final episode of north-trending, west dipping normal faulting took place in the Late Tertiary. The Rocky Mountain Trench is the most prominent and is a listric normal fault having dip-slip separation of at least 5 to 10 kilometres. However, strike slip separation is interpreted to be minimal due to stratigraphic correlations across the trench.

Mineralization

There are two main deposit types hosted by Purcell Supergroup strata in southern British Columbia, namely:

1) stratabound clastic-hosted deposits such as the Sullivan and Kootenay King, which are syngenetic or formed immediately following deposition of the host sediments, or

2) vein deposits, which have been sub-divided by Höy (1993) into three separate types:
    a) copper veins (i.e. Bull River and Dibble)
    b) lead - zinc veins (i.e. Estella and St. Eugene), and
    c) gold veins (Perry Creek and Midway).

Stratabound Clastic-hosted Deposits

Stratabound clastic-hosted deposits are "... concordant bodies of massive or laminated lead, zinc and iron sulphides in fine to, less commonly, medium-grained sedimentary rocks" (Höy 1993). Some deposits may have cross-cutting footwall stockworks, disseminated or vein mineralization interpreted as conduits for mineralized solutions which were subsequently deposited as the overlying stratiform deposit.

Many stratiform lead-zinc deposits have associated zoning, either vertically (commonly copper-lead-zinc-(barium)) or lateral (commonly copper-lead-zinc). Stratiform lead-zinc deposits in the Purcell Supergroup are restricted to deep water facies of the lower and middle Aldridge Formation.

Sullivan

The following has been taken from Höy (1993). :

> "The Sullivan deposit is one of the largest base metal massive sulphide deposits in the world. ... The deposit has produced in excess of 125 million tonnes of ore from an original reserve of more than 160 million tonnes that contained 6 per cent lead, 6 per cent zinc, 28 per cent iron and 67 grams per tonne silver.
>
> The western part of the orebody is approximately 1000 metres in diameter and up to 100 metres thick. It comprises massive pyrrhotite with occasional wispy layers of galena, overlain by layered galena, pyrrhotite and sphalerite, which in turn is overlain by pyrrhotite, sphalerite, galena and minor pyrite that is intercalated with clastic layers. Its eastern part, separated from the more massive western part by an irregular transition zone, includes five distinct conformable layers of generally well-laminated sulphides separated by clastic rocks. The sulphide layers thin to the east away from the transition zone. Sub-ore-grade sulphide layers of pyrite and pyrrhotite with subordinate sphalerite and galena persist beyond the eastern limits of the ore-grade sulphides.
>
> An extensive brecciated and altered zone underlies the massive western part of the orebody. Linear north-trending breccia zones, disseminated and vein sulphides, and extensive alteration to a dark, dense chert-like tourmaline-rich rock are conspicuous features of the altered footwall. Albite-chlorite-pyrite alteration is also restricted to the western part of the orebody, occurring in crosscutting zones in the footwall tourmalinite, in the orebody itself and up to 100 metres into the hangingwall.
>
> The deposit is zoned, with lead, zinc and silver values decreasing toward the margin in the eastern part. Tin is concentrated in the western part. In general, metal distribution patterns are directly related to proximal chaotic breccia; higher absolute values and higher Pb/Zn and Ag/Pb ratios overlie the breccia zones.

Sullivan is interpreted to be a hydrothermal synsedimentary deposit (sedex deposit) that formed in a small submarine basin. The western part lies directly above the conduit zone, the brecciated and altered footwall of the deposit."

Kootenay King (from Höy 1993)

The Kootenay King mine is a stratiform clastic-hosted deposit which produced approximately 13 260 tonnes of ore with documented recovery of 715 grams of gold, 882 kilograms of silver, 710 866 kilograms of lead and 881 383 kilograms of zinc. The deposit was a small orebody comprised of a massive lead-zinc sulphide layer strata correlated to the lower middle Aldridge Formation. The deposit was contained within the "Kootenay King" quartzite, a prominent thick-bedded quartzite interval within dominantly buff-coloured dolomitic siltstone, dolomitic argillite and dark grey argillite. The quartzite interval is up to 250 metres thick and consists of a sequence of interbedded wacke, arenite and minor argillite which becomes thicker and coarser grained to the south. An impure, fine-grained dolomitic facies near the top of the Kootenay King quartzite hosted the orebody. Mineralization included fine-grained, laminated pyrite, galena and an unusual pale grey to green sphalerite.

"The lack of either a footwall stringer zone or hangingwall alteration, and the finely laminated nature of the mineralization suggests either that the deposit is distal, well-removed from its vent source or that much of it is eroded, including evidence of a conduit in the footwall" (Höy 1993).

Vein Deposits and Occurrences

The Aldridge and Creston formations are important for vein type deposits in southern British Columbia. The Aldridge Formation is host to copper veins (adjacent to Moyie sills), lead-zinc veins (in late structures or adjacent to late felsic intrusions) and gold veins. Copper veins are most commonly hosted by the Creston Formation. Gold veins are also documented in sheared Creston Formation in Perry Creek. Metals recovered from vein deposits (primarily the Bull River, Estella, St. Eugene and Stemwinder mines) total approximately 219 400 grams gold, 198 418 kilograms silver, 7270 tonnes copper, 119 962 tonnes lead and 28 850 tonnes zinc. "Most veins carry pyrite, pyrrhotite, chalcopyrite, galena or sphalerite in a quartz-carbonate gangue. Veins hosted by Purcell Supergroup rocks are subdivided into three main types, those with copper, those with silver, lead and zinc, and those with gold as their primary commodities" (Höy 1993).

Lead-Zinc Veins

Lead-zinc veins carry lead and zinc with variable amounts of copper, silver and gold with galena, sphalerite, pyrite and pyrrhotite as the main sulphide minerals. Minor chalcopyrite, arsenopyrite and tetrahedrite may also be present. The gangue mineral is predominantly quartz, but may include quartz-calcite or less commonly quartz siderite.

"Nearly all lead-zinc vein occurrences are within the Aldridge Formation, most commonly in the middle Aldridge or in rocks correlative with the middle Aldridge rocks (Unit A1d) ... Middle Aldridge rocks are deep-water clastic facies with relatively high background metal values that provide a source for metals in the veins. They are commonly thick-bedded and competent, and hence fracture readily. In contrast with copper veins, only a few lead-zinc veins appear to be associated with the Moyie sills. ...

Despite the variety of lead-zinc deposits in Aldridge rocks, most have very similar lead isotopic ratios. These ratios are similar to those of stratiform deposits such as Sullivan and Kootenay King, indicating a common lead source, presumably the host Aldridge succession. Metals were initially deposited together with Aldridge sediments, remobilized during intrusive or later tectonic events and deposited as lead-zinc veins" (Höy 1993).

St Eugene (paraphrased from Höy (1993))

The St. Eugene deposit was located in a vein system which extended from the east side of Moyie Lake (St. Eugene deposit and Society Girl) to the west side (Guindon and Aurora). It is the largest vein deposit in the Purcell Supergroup, having produced approximately 78 846 grams gold, 182 692 kilograms silver, 113 034 tonnes lead and 14 483 tonnes zinc from 1.47 million tonnes of ore. Mineralization was controlled by a large east-west trending fracture system (3300 metres in strike length and over 1300 metres in vertical extent) oriented almost perpendicular to the axis of the Moyie Anticline. At deeper levels, the vein system crosscuts middle Aldridge strata whereas at higher levels it crosscuts strata of the Creston Formation.

The St. Eugene deposit was controlled by two bounding fractures, the North and South fractures. The North fracture, or Main vein, was the most productive of the orebodies. Mineralization in the North fracture decreased to the west with a corresponding increase in mineralization of the South fracture. The deposits occurred as tabular ore shoots up to 10 metres in thickness, with one or more bands of near massive galena up to 1.3 metres thick. A significant secondary control on mineralization was the host lithology. Thick-bedded, more competent quartzite produced steeper, clean fractures that favoured mineralization. Thin-bedded quartzite-siltite interbeds higher in the succession were less favourable with the argillites and siltites of the upper Aldridge generally devoid of mineralization. The more competent quartzite of the overlying Creston Formation hosted the Society Girl deposit. The dominant vein minerals were galena and sphalerite, associated with pyrite, pyrrhotite, and minor magnetite, chalcopyrite and tetrahedrite.

LOCAL GEOLOGY

Compilation of data from available Assessment Reports in the area and regional mapping (Höy 1993) has resulted in a more detailed map and allowed projection of stratigraphy onto the Chapleau claims. Therefore, with the exception of the southeast portion of the claims, the CRUZ property is underlain by strata of the middle Aldridge Formation (Fig. 4). The strata consist of north-striking, gently to shallowly east-dipping strata of the middle Aldridge Formation, comprised predominantly of argillite, sub-wacke and wacke. The structure of the claims consists of elongate northeast-southwest panels of middle Aldridge strata separated by (normal?) faults having northeast-southwest trends. These panels are further separated into fault bounded blocks by west-northwest - east-southeast trending (normal?) faults. As a result of fault repetition and shallow dips, the middle Aldridge Formation is exposed over a large area on the eastern limb and nose of the moyie Anticline. The overlying upper Aldridge, Creston and Kitchener formations have been mapped to the east and west of the claims, similarly folded by the Moyie Anticline and subsequently faulted (Höy 1993).

Bedding measurements in, and around, the property are consistent with a location on the nose and eastern limb of an anticlinal closure. Most bedding measurements have a north-northwest striking, east dipping orientation with dips ranging between 10° and 45°. Several fracture measurements have been taken on the western portion of the property and record steeply east-west striking fractures and moderately steeply dipping, northwest - southeast striking fractures.

Recent logging activity in the area has resulted in new exposures of outcrop along road cuts and in clear-cuts. Exposures of fragmentals have been identified as a result of limited mapping to date. Three separate fragmental exposures have been mapped, all of which lie north of Sundown Creek and startigraphically above the upper gabbro (Fig. 4). Samples of fragmental float have been recovered from farther east along Sunrise Creek, suggesting additional fragmental occurrences may be present.

Only one of the fragmental occurrences was examined by the author during a visit to the property in September, 1995. The fragmental is well exposed and easily accessible in a clear-cut approximately 2 kilometres up the pipeline access road, south of Farrell Creek. Locally extensive albite alteration and minor tourmalinization comprise the exposed fragmental, exposed on the crest of a small knoll immediately east of the road. The dimensions of the knoll are approximately 100 metres north-south and 50 metres east-west. The fragmental is reasonably well exposed along the crest and western margin of the knoll. The crest of the knoll consists of dirty white weathering albite alteration. Bedding is locally completely disrupted and individual fragments are difficult to identify due to the extent of alteration. Local occurrences of less altered fragmental are present in which angular clasts can be identified. On the western margin of the knoll, tourmalinization of bedding can be seen in thick laminae to thin beds of argillite. Tourmaline is present as very fine-grained, brown weathering tourmalinization along bedding. In addition, speckled brown weathering (dolomitic?) sand fragments were noted in the fragmental. These sandy dolomitic fragments also contain a high proportion of (secondary) fine-grained white micas.

Along the southern portion of the crest of the knoll, the fragmental is in contact with dark grey to black weathering argillites. The contact between the fragmental and the argillites was covered but it is possible that the fragmental may grade southward into the argillites or stratigraphically underlie the argillites.

A small, rounded boulder of massive sulphides was located adjacent to the Sunrise Creek road (Fig. 4). It is approximately 40 centimetres in diameter. There has been no proximal source identified to date on the property but its preservation during extensive glacial transport is unlikely. It is most likely derived from a proximal source and may represent an in situ boulder weathered from a proximal vein, which has been subsequently covered or eroded (Pighin 1995). Additional massive sulphide boulders have apparently been reported from farther east and upstream of this boulder, along Sunrise Creek (Kennedy 1995), supporting the possibility of a massive sulphide occurrence in the area. In addition, a large boulder of fragmental is present approximately 30 metres to the south, across the Sunrise Creek road. It is broadly similar to the fragmental exposed on the western margin of the knoll to the northwest. However, it is more likely derived from a fragmental occurrence in the hillslope to the north or from an upstream source. Therefore, there are probably additional occurrences of fragmental and/or massive sulphides exposed along Sunrise Creek.

Finally, there are disseminated sulphides mapped on the Rogers claims (Fig. 4), located between the Sundown Creek Road and Sundown Creek. The showing consists of disseminated sulphides (with lead and zinc values indicated on the map) in a dirty white weathering occurrence of massive sands, interpreted as a possible distal equivalent of the fragmental, projected to underlie the exposed fragmental at depth (Kennedy, pers. comm. 1995). This disseminated mineral horizon is projected to extend both north and south of Rogers claims onto Chapleau claims.

1995 PROGRAM

Limited structural data in the immediate area suggest the exposed fragmental should be vertically oriented to inclined steeply west (if originally vertical). Two drill holes were proposed, one collared on the southwest flank of the exposed fragmental and the second collared approximately 150 metres east, to test the possibility of mineralization proximal to the fragmental (i.e. a mineralized apron or disseminated mineralization in favourable stratigraphic horizons).

The presence of a vent complex was confirmed as a result of diamond drilling. Based on preliminary results, two additional holes were drilled. A total of four holes, comprising a total of 2018.5 metres (6622 feet), were drilled from three set-ups as part of the 1995 program. The drill core was logged (see Appendix A) and additional sub-surface control was gained from intersections identified in the core. Although some mineralized horizons were identified, none were sampled for geochemical analysis. Visual estimation of the grade of mineralization ranged from trace amounts to a maximum of 0.1% Zn and 0.1% Pb (Pighin, pers. comm. 1996). A disseminated lead - zinc horizon was identified in the core, which is interpreted to be correlative to a similar horizon identified in outcrop on immediately adjacent ground to the south-southwest. Although the outcrop is on competitor's ground, it is interpreted to continue to the southeast onto Chapleau claims and subsequently to the south. In addition, a bedding parallel, brown tourmalinite horizon was identified in the sub-surface, approximately 20 metres stratigraphically below the mineralized horizon. This tourmalinite horizon may be laterally extensive and extend to surface along Sundown Creek.

A review of available Assessment Reports for the area, together with the sub-surface drill intersections, was utilized to compile a more detailed geological map (Figure 4) and, subsequently, a series of cross - sections (Figures 5a and 5b). These data have been used to extrapolate stratigraphic units over the extent of the Chapleau claims, assuming relatively simple structural deformation and northeast trending faults (projected based on mapping by Höy (1993)). Finally, 278 additional claims were staked to secure ground on which the mineralized horizon is interpreted to be exposed.

CORE STORED AT QUEST INT. FIELD OFFICE.

DISCUSSION

As a working model, it has been proposed that the Moyie Lake area (including the Fors and the CRUZ occurrences) may constitute a separate sub-basin in the Purcell Basin which developed later in the Proterozoic (middle Aldridge time), after the Sullivan deposit (Kennedy, pers. comm. 1995). There is supporting evidence for a number smaller sub-basins located throughout the Purcell basin of southeastern British Columbia.

It has been proposed that the Moyie - Dibble Creek and the St. Mary - Boulder Creek fault systems were episodically active from the Proterozoic (lower Aldridge time) to the Mesozoic Laramide orogeny. The Kootenay King deposit in the Hughes Range of the western Rocky Mountains is located in a massive quartzite correlated to the middle portion of the middle Aldridge Formation. The quartzite thickens and coarsens to the south, interpreted as supporting evidence for a growth fault active during deposition of the lower middle Aldridge Formation at Kootenay King time. An isopach map of the thickness of basalts of the Nicol Creek Formation (restored for movements on the Moyie and St. Mary faults) define a north trending basin extending from Mt. Baker to the northern Hughes Range. In addition, facies and thickness changes in the overlying Sheppard Formation were interpreted as evidence for growth faults active during upper Purcell time (Höy 1993). Finally, tectonic highs have been interpreted for the area around Lookout Mountain and the southern Hughes Range (northern extent of Montania in early Paleozoic time) (Höy 1993).

"In summary, the northeastern edge of the Belt - Purcell basin was tectonically active throughout much of Purcell time. Deep crustal structures influenced a pattern of growth faults along the basin margin and perhaps in the floor of the basin, which in turn modified the depositional pattern of the Purcell Supergroup rocks" (Höy 1993).

On the Fors property, west-northwest of Moyie Lake, previous work by Consolidated Ramrod Gold Corp. identified a discordant fragmental and a sequence of nearly massive, fine grained sediments 30 to 60 metres thick (comprised of intermixed quartzitic and argillitic material with no apparent bedding and a zone of abundant pyrrhotite) (Britton and Pighin 1994). These occurrences were interpreted "... as products of dewatering ... that channeled fluids upwards in response to increasing hydrostatic and lithostatic loads. Fluid pathways may have been localized by growth faults which could have provided the initial permeability. The clastic or massive fabrics result from either hydraulic milling of poorly consolidated sediments by upwelling fluids or venting a slurry of mud and sand onto the sea floor ..." (Britton and Pighin 1994). Mineralization associated with the Fors vent complex includes rare zones of semi-massive to massive stratiform sulphides and widespread, low-grade zones of sulphides comprised of "... disseminations, stringers, veins, small semi-massive to massive stratiform lenses and irregular patches of pyrrhotite, with subordinate amounts of sphalerite, galena, pyrite, and rare arsenopyrite, chalcopyrite and bismuthite" (Britton and Pighin 1994).

A regional cross-section (Figure 5b), has been compiled based upon structural and stratigraphic information provided by Consolidated Ramrod Gold Corp. (acting as consultant to Chapleau Resources Ltd.and hereafter referred to as "Ramrod"). The cross-section incorporates information from:

1) a series of diamond drill holes in the Mt. Mahon area, subsequently re-logged and re-interpreted by Ramrod personnel,
2) stratigraphic and structural control resulting from the proprietary Aldridge marker information of Ramrod,
3) a deep (3,476 metres) oil well drilled southeast of Moyie Lake, and
4) mapped and projected surface geological information from Ramrod field personnel and Höy (1993).

The stratigraphic intersections interpreted from the deep oil well are subject to some uncertainty as the drill was a rotary drill, however surface mapping (and subsequent depth projections) constrain the amount of uncertainty. Therefore, a regional cross-section has been compiled along a northeast - southwest trend, sub-parallel to the axis of the Moyie Anticline and extending from the St. Eugene Mine to Mt. Mahon. The resulting cross-section demonstrates a very simple, weakly folded geology at a regional scale. An interesting result of the cross-section is the fact that the relatively extensive tourmalinite documented at Mt. Mahon occurs at a much deeper level than the exposed fragmentals farther north. Marker control indicates that the tourmalinite actually occurs very close to Sullivan time at the lower - middle Aldridge contact.

The available surface data compiled for Figure 4, confirms generally north striking, gently east dipping strata of the middle Aldridge Formation, specifically from lower to upper middle Aldridge, with upper Aldridge to Kitchener formation strata exposed northwest and northeast of the property. This generally simple geology has been complicated by northeast - southwest and west-northwest - east-southeast (normal?) faults, resulting in fault bounded blocks of middle Aldridge strata.

On the CRUZ property, the mapped strata consists entirely of middle Aldridge. At present, the identity of strata to the east across the easternmost fault is not known but has been mapped at a regional scale as upper Aldridge Formation (Höy 1993). There may be additional exposures of middle Aldridge on the southeast portion of the property and , therefore, additional mapping is recommended for this area.

The strata of the CRUZ property consists of gently dipping middle Aldridge strata on the eastern limb or nose of the Moyie Anticline. This strata has been faulted into a series of elongate fault bounded blocks which repeats the middle Aldridge Formation at surface. A number of fragmental occurrences have been mapped on the property, all north of Sundown Creek and east of the Moyie River valley. The mapped occurrences occur stratigraphically and structurally above the uppermost gabbro. It is not known how high these fragmentals extended into the stratigraphy, however, they are currently exposed within the middle Aldridge. A large fragmental has been mapped in the vicinity of the St. Eugene Mine within the upper Aldridge and so, by analogy, the fragmentals exposed on the CRUZ property were probably also active to upper Aldridge time.

Four drill holes were completed as part of the 1995 program to test the sub-surface extent and mineralization of the fragmental. Drill information is as follows:

Drill Hole Number	Inclination	Depth (Metres)	Azimuth
C95-1	-41°	232.9	096°
C95-2	-55°	553.9	276°
C95-3	-75°	758.2	276°
C95-4	-50°	473.5	276°

Core resulting from the drill program was described (Appendix A) and is graphically represented in Figure 5a. Proprietary Aldridge marker data allowed:

1) accurate correlation of units between drill holes (and regionally, as discussed previously),
2) identification of sub-surface faults and determination of dip offset,
3) identification of the gabbro dyke in sub-surface (DDH C95-2 and correlated to dyke mapped at surface), and
4) confirmation the presence of middle Aldridge strata.

Another result of the drill program was identification of anomalously thick sequences of thin bedded dark grey to black argillite, present in all four drill holes (see Appendix A). This had been previously noted at surface, immediately north of the exposed fragmental and farther south along Sundown Creek. However, identification of such thicknesses over and extensive stratigraphic interval and in all four holes suggests it is more than a local facies change and may have more regional implications (discussed later). Furthermore, the high proportion of argillite relative to more competent, turbiditic sediments (i.e. wackes and quartz wackes) characteristic of the middle Aldridge Formation elsewhere is striking. In addition, the relatively high abundance of thin calcareous intervals is also anomalous with respect to the Aldridge Formation studied elsewhere in the Purcell Basin, except within the Sullivan Corridor (Pighin, pers. comm. 1996).

Diamond drilling of the fragmental exposed at surface confirmed its sub-surface continuation to a depth of at least 70 metres (DDH C95-1). The fragmental, both at surface and in sub-surface (DDH C95-1) is extensively altered, consisting of white sericite and talc, with minor relict brown tourmalinite and completely altered (ghost) clasts. Immediately underlying the fragmental (DDH C95-1) is a disrupted interval of sedimentary strata (slumped, mixed argillite and siltstone), interpreted to reflect the effects of tectonism in the basin, possibly associated with activity on the vent represented by the fragmental.

As the fragmental has roughly the same dimensions east-west at a depth of 70 metres as at surface, the fragmental is interpreted to have the configuration of a fracture plane or dyke. Furthermore, it is interpreted to have a north-south orientation roughly parallel to the gabbro dyke mapped at surface (Figure 4) and in the drill core (DDH C95-2, see Figure 5b). Finally, the fragmental occurrence is interpreted to represent a "blow" or local widening along a plane of weakness. Therefore, the plane of weakness may be expressed as both a fracture and, locally, a fragmental dyke or blow. This interpretation is supported by evidence of faulting noted on the east margin of the fragmental on DDH C95-1.

In addition to the discordant fragmental, there are also intervals of bedding parallel, concordant fragmentals or clean, coarse-grained quartz sands. The thickest interval (DDH C95-3) consists of unsorted, mature coarse sands to grits which are interpreted as vented sands (Pighin, pers. comm. 1996). It was intersected on the east margin of the fragmental and, although no holes were deep enough to intersect the unit west of the fragmental, it is interpreted to comprise an apron surrounding the vent. The unit immediately underlies a gabbro and was vented during deposition of a marker, allowing relatively precise determination of its age of deposition. Similar, although thinner vented sands were identified in the drill core, interpreted to represent episodic venting of sands from the fragmental vent complex.

A mineralized horizon was noted in the core, intersected on three holes (DDH C95-2 to C95-4). The mineralized immediately underlies an Aldridge marker west of the fragmental and immediately overlies a marker east of the fragmental. It is interpreted that the mineralized horizon was deposited during deposition of the marker, either obscuring or obliterating portions of the marker unit. The close association of the mineralized horizon with the marker allowed confident correlation of the horizon with the identical horizon exposed and documented in Sundown Creek, on Rogers claims. Furthermore, the marker is projected to occur between the two gabbros and along the south side of Sundown Creek. The same horizon is projected to occur on the southern portion of the claims, at the headwaters and south of Stone Creek.

Finally, a tourmalinite bed was also noted in core (DDH C95-2 and C95-4). The tourmalinite is parallel to bedding and lies between 20 and 26 metres below the mineralized horizon described above. The tourmalinite thickens toward the fragmental, from approximately 1 metres thick in DDH C95-4 to approximately 3 metres thick in DDH C95-2. No analogous tourmalinite was identified in DDH C95-3, east of the fragmental.

Two gabbro sills (Moyie Sills) have been mapped throughout the CRUZ claims; one above, one below and both approximately equidistant relative to the mineralized horizon identified in surface exposures on immediately adjacent competitor's claims (i.e. Rogers claims) and in drill core. Therefore, a stratigraphic succession comprised of two gabbro sills bounding a mineralized horizon associated with a marker and a tourmalinite should allow precise location of the mineralized horizon in subsequent mapping.

Observation of intervals of fragmental or coarse, clean and mature sands to grits together with tourmalinite and calcareous intervals are interpreted to represent episodic activity of a vent complex represented by the discordant, vertically oriented fragmental. These interpretations have significant implications regarding exploration for a possible massive sulphide (SEDEX) deposit similar to the Sullivan. Presence of a massive sulphide interval (3 metres of massive pyrrhotite and chalcopyrite) in the deep oil well at a depth of approximately 2,480 metres below surface, or 940 metres below the lower-middle contact at Sullivan time, indicates the possibility of venting activity in the lower Aldridge (Figure 5a). Additional intersections of highly anomalous lead and zinc higher in the stratigraphy suggest episodic vent activity continued into the middle Aldridge. Finally, the presence of fragmental material in the upper Aldridge in the vicinity of the St. Eugene Mine are interpreted to indicate venting activity continued at least until the upper Aldridge in this portion of the Purcell Basin.

Anomalously thick sequences of thin bedded argillite and interbedded silty argillite were noted prior to drilling on the CRUZ claims and subsequently confirmed in drill core. This argillitic sequence was documented over approximately 800 metres east-west and 700 metres vertically in drill core. A thick sequence of argillite was noted 2 kilometres to the south along Sundown Creek. Therefore, the sub-basin proposed in an earlier report (Walker 1995), based on discussions with Ramrod personnel (Kennedy / Pighin, pers. comm. 1996), appears to be substantiated by drill results to date. In order for the proportion of argillite relative to turbiditic sediments to be so high, the postulated sub-basin must be substantially larger than the dimensions documented above. Therefore, a sub-basin (hereafter referred to as the Moyie sub-basin) of similar size to the Sullivan Corridor is proposed, several kilometres wide and at least 5 kilometres in length. Furthermore, due to the documented episodic activity of the Moyie fault throughout the history of the Purcell Basin, the Moyie sub-basin is probably oriented and elongated in a north-south direction. It is possible that the present structural configuration of the area is similar to that of the Proterozoic due to reactivated Proterozoic faults during Eocene extension. However, this hypothesis is highly speculative and unsubstantiated.

That the Moyie sub-basin was episodically active during and throughout the middle Aldridge is evidenced by the fragmentals, discussed previously with regard to fragmental intervals documented in drill core, mineralized horizons within the drill cuttings of the deep oil well and tourmalinite horizons at surface and in the sub-surface. However, these same features also provide evidence of the possible size of the Moyie sub-basin. As stated previously, there are two documented fragmental occurrences in the vicinity of the St. Eugene Mine and a thick tourmalinite succession exposed in the Mt. Mahon area (Figure 4), interpreted to **suggest** proximity to the northern and southern boundaries of the Moyie sub-basin. The fragmental occurrences along Sundown Creek are related to the same vent complex or zone of crustal weakness and/or coeval. Furthermore, they are probably related to the fragmentals in the St. Eugene area, thus constraining these areas to the same sub-basin. The tourmalinite horizon identified in the sub-surface drill holes are closely associated with an Aldridge marker horizon. That same marker horizon occurs some distance south of the southern boundary of the Chapleau claims, yet occurs at precisely the same stratigraphic horizon, strongly suggesting that these two widely separate areas were subject to the same mineralizing event within the Moyie sub-basin.

Therefore, the Moyie sub-basin is interpreted to extend southward from at least the St. Eugene Mine to the Mt. Mahon area, having a width of at least the current fault boundaries (4.5 kilometres). This width is interpreted to be a minimum as there are few indications of normal Aldridge sediments, and therefore proximity to the sub-basin boundary, in the northeast portion of the property.

In summary, a sub-basin within the Purcell Basin, which hosts the world-class Sullivan mine in a similar sub-basin (Sullivan Corridor), with indications of active venting and associated mineralization suggests the possibility of a deposit. Mineralization documented to date includes tourmalinite and both anomalous lead and zinc values within the middle Aldridge. However, the deep oil well at the south end of Moyie Lake documents the occurrence of mineralized horizons from the upper lower Aldridge, through the lower-middle contact at Sullivan time and the middle Aldridge to the upper Aldridge Formation. In addition, there is evidence of episodic pulses of venting and/or mineralization throughout the stratigraphy; as fragmentals, vented sands to grits and both mineralized horizons and anomalous enrichments of major (i.e. calcareous intervals) and trace elements (i.e. tourmalinite horizons). All of this activity occurred in a separate sub-basin, the Moyie sub-basin, locally characterized by anomalous thicknesses of thin bedded argillite and interbedded silty argillite, indicating quieter conditions in a distal location,
affected by only the farthest reaching turbidites.

There are three essential questions to be addressed in exploration of the Moyie sub-basin:

1) Which of the vents (and associated fragmentals) located within the Moyie sub-basin was the most prominent and active, acting as the source of mineralized fluids,
2) Was the mineralization associated with the vent sufficient to produce an orebody within the Moyie sub-basin, and, if so,
3) Where would the orebody be located?

Two questions: 1) where was the vent, acting as the source of mineralized fluids, located within the Moyie sub-basin and 2) did the vent produce an orebody and 3) if so, where?

CONCLUSIONS

Following identification of high grade base and precious metal mineralization with Sullivan type indicators associated with a fragmental on the Fors property (Britton and Pighin 1994), fragmentals have become important exploration targets in the East Kootenays. The discordant fragmental on the Fors property,

> "... is a near-blind discovery that resulted from drill testing a geological model in the vicinity of low-grade mineralization found at surface.
>
> It provides a new exploration target in the Sullivan camp, having some similarities with the Sullivan deposit and some important differences. Similarities include the presence of such "Sullivan indicators" as bedded sulphides, fragmental units that locally carry sulphide-bearing and tourmalinized clasts, garnet porphyroblasts, and tourmaline and albite alteration. Differences are that it is located outside the Sullivan corridor, is stratigraphically higher, has unusual alteration assemblages, and has elevated silver, gold, tungsten and arsenic" (Britton and Pighin 1994).

By analogy with the Fors fragmental, the fragmental occurrence on the CRUZ property has similarly been interpreted as the upper level of a possible vent complex (Pighin, pers. comm. 1995). The fragmental has tourmalinized clasts, albite and localized tourmaline alteration, and occurs approximately 2100 metres above the lower - middle Aldridge contact.

However, the fragmental may represent the surface exposure of a vent complex, a structure having potential for Sullivan type mineralization. The recent exploration program on the Fors property demonstrated the potential and importance of a fragmental to host a stratiform deposit. "The Fors prospect is a well preserved example of a small, high-grade Pb-Zn-Ag sedimentary exhalative and vein deposit hosted in Middle Proterozoic Aldridge Formation" (Britton and Pighin 1994), spatially and genetically associated with a discordant fragmental.

The 1995 program demonstrated that the fragmental is, most likely, a vent complex developed along a fault or fracture. Furthermore, the vent was active from at least the lower middle Aldridge to the upper middle Aldridge and resulted in episodic deposits of vented sands, tourmalinite and several calcium enriched horizons. Furthermore, outcrops of anomalously thick argillite and interbeds of silty argillite noted at surface are substantially thicker than previously thought, indicating the existence of a sub-basin (Moyie sub-basin) within the Purcell Basin. Exposures of fragmentals and tourmalinite, together with a mineralized horizon intimately associated with an Aldridge marker can be utilized to estimate the minimum two dimensional area of the basin. The Moyie sub-basin is interpreted to extend southward from the St. Eugene Mine to the Mt. Mahon area, a distance of 20 kilometres. The width of the Moyie sub-basin cannot be determined with the available information.

Additional work on the CRUZ property is strongly recommended to better define the local character of the Moyie sub-basin and associated vent activity, including mineralization. A work program is briefly outlined in the following section with a proposed budget. The work program includes additional prospecting, mapping, soil and rock sampling and geophysics. Finally, a single hole drill program has been proposed to confirm the presence of a mineralized horizon along Sundown Creek and test its potential with depth. The projected depth for the drill hole is approximately 300 metres (1000 feet), for an estimated cost of approximately $20,000 (1000 feet at $20 / foot).

RECOMMENDATIONS

1) Undertake mapping of the southeast portion of the claim block in the upper portion of the Sundown Creek drainage and east of the proposed northeast trending fault;

2) Undertake prospecting and mapping along the mineralized horizon lying stratigraphically between the two gabbro sills on the south side of Sundown Creek;

3) Take contour soil samples along the north and south valley margins of Sundown Creek;

4) Evaluate the mineral potential across the fault proximal to the mapped gossan immediately east of the Highway, south of the Midway Mine. The program should consist of prospecting, mapping, soil geochemistry and geophysics (pulse EM) to determine, if possible, whether the gossan is associated with the fault or a blind, sub-surface mineral occurrence;

5) Undertake a limited drill program to test the sub-surface mineralized horizon identified in the 1995 drill program. The hole should be collared on the north side of Sundown Creek, inclined approximately -55° to the south and extend approximately 300 metres (1000 feet).

PROFESSIONAL GEOSCIENTIST
PROVINCE OF BRITISH COLUMBIA
R. T. WALKER

Richard T. Walker, P.Geo, P.Geol., F.G.A.C.

REFERENCES

Britton, J.M. and Pighin, D.L. 1994. Fors: a Proterozoic Sedex Deposit, SE British Columbia, in The Gangue - GAC - Mineral Deposits Division Newsletter, edited by Brian Grant, Issue Number 46, September 1994, pp. 1-4.

Höy, T. 1993. Geology of the Purcell Supergroup in the Fernie west-half map area, southeastern British Columbia, BC Ministry of Energy, Mines and Petroleum Resources Bulletin 84, 157p. with maps.

McMechan, M.E. 1979. Geology of the Mount Fisher - Sand Creek Area, B.C. Ministry of Energy, Mines and Petroleum Resources, Preliminary Map 34.

Walker, R.T. 1995. Geological Report on the CRUZ Property, Fort Steele Mining Division. Internal report for Chapleau Resources Ltd, dated September 20, 1996

STATEMENT OF EXPENDITURES #1

CRUZ PROPERTY
Diamond Drill Program
September 24 to April 15, 1996
on Cruz DePlata 5 claim
(Holes C95-1, 2 and 4)

DIRECT

Britton Bros. Diamond Drilling Ltd.	
P.O. Box 32	
Smithers, BC	
3 holes totalling 1260.3m	$ 68,000.40

INDIRECT

Wages	
D. Pighin - Geologist - core logging	
20 days at $225/day	4,500.00
Rick Walker - Geologist - property inspection, interpretation, report writing	
3.0 days at $400/day	1,200.00
Rick Anselmo - CAD operator - drill sections and geology map	
16 hours at $20.00/hour	320.00
Rene Pighin - CAD operator - claim map and geology map	
25 hours at $8.00/hour	200.00
Equipment - Computer and plotter rental	
41 hours at $25/hour	1,025.00
Assays - Rossbacher Laboratory Ltd.	
11 samples at $16.50/sample	181.50
Transportation - 1 4x4 truck	
18 days at $100/day	1,800.00
TOTAL DIRECT AND INDIRECT COSTS	$ 77,226.90

STATEMENT OF EXPENDITURES #2

CRUZ PROPERTY
Diamond Drill Program
September 30, 1995 to April 15, 1996
on Cruz DePlata 3 claim
(Hole C95-3)

DIRECT

Britton Bros. Diamond Drilling Ltd.
P.O. Box 32
Smithers, BC

1 hole totalling 758.2m	$ 43,890.00

INDIRECT

Wages

D. Pighin - Geologist - core logging	
8 days at $225/day	1,800.00
Rick Walker - Geologist - property inspection, interpretation, report writing	
2.75 days at $400/day	1,100.00
Rick Anselmo - CAD operator - drill sections and geology map	
12 hours at $20.00/hour	240.00
Rene Pighin - CAD operator - claim map and geology map	
11 hours at $8.00/hour	88.00
Equipment - Computer and plotter rental	
23 hours at $25/hour	575.00
Assays - Rossbacher Laboratory Ltd.	
3 samples at $16.50/sample	49.50
Transportation - 1 4x4 truck	
7 days at $100/day	700.00
TOTAL DIRECT AND INDIRECT COSTS	$ 48,442.50

STATEMENT OF QUALIFICATIONS

I, Richard T. Walker, of 1916 - 5th Street South, Cranbrook, B.C., hereby certify that:

1) I am a graduate of the University of Calgary of Calgary, Alberta, having obtained a Bachelors of Science in 1986;

2) I obtained a Masters of Geology at the University of Calgary of Calgary, Alberta in 1989;

3) I am a member in good standing with the Association of Professional Engineers and Geoscientists of the Province of British Columbia;

4) I am a member in good standing with the Association of Professional Engineers, Geologists and Geophysicists of Alberta;

5) I am a Fellow of the Geological Association of Canada;

6) I am a consulting geologist and Principle of Dynamic Exploration Ltd. with offices at 1916 - 5th Street South, Cranbrook, British Columbia;

7) I am the author of this report which is based on a property tour on September 8, 1995 and maps, core descriptions and other information supplied by Chapleau Resources Ltd.;

8) I have no interest, direct or indirect, in Chapleau Resources Ltd.; in any of their projects or properties nor do I expect to receive any such interest.

9) I hereby grant my permission to Chapleau Resources Ltd. to use this report, or any portion of it, for any legal purposes normal to the business of the firm, provided the excerpts used do not materially deviate from the intent of this report as set out in the whole.

Dated at Cranbrook, British Columbia this 24th day of April, 1996.

PROFESSIONAL PROVINCE OF R. T. WALKER BRITISH COLUMBIA GEOSCIENTIST

Richard T. Walker, P.Geo, P.Geol., F.G.A.C.

Appendix A

Drill logs C95-1 to C95-4

CHAPLEAU RESOURCES LTD. PROPERTY: CRUZ

Property: CRUZ	**Location:** Cruz DePlata 5	**Hor. Comp.:** 182.26m	**Corr. Dip:** ---	**Hole No.:** C95-1
Commenced: 09/25/95	**District:** Fort Steele	**Vert. Comp.:** 144.98m	**True Brg.:** 096°	**Length:** 232.9m
Completed: 09/27/95	**Core Size:** NQ	**Logged By:** D.L. Pighin	**% Recovery:** ---	**Elevation:** 995m
Co-Ordinates:	**Tests:** yes	**Date:** September 1995	**Objective:** Ore Test	**Collar Dip:** -41°
Longitude:	**Latitude:**			

METERS	*LITHOLOGY*	*COLOUR*	*PRIMARY STRUCTURE & TEXTURE*	*TECTONIC STRUCTURE*	*GENERAL ALTERATION*	*MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)*
0-9.8	Casing	Acid Tests; 200' (60.97m) - 39°; 400' (121.95m) - 38.5°; 600.0' (182.92m) - 35.5°				
9.8-41.2	Gabbro sill; medium crystalline. Sill contact cuts core at 15°	generally dark green with scattered white alteration zones	nil	Abundant fractures with associated alteration cut core at angles of 46° and 17°.	Abundant mineralization along with apple green talc is associated with the above fractures effects approximately 1/3 of the gabbro dyke.	Abundantly disseminated black sooty mineral (chalcocite) is associated with muscovite-talc alteration.

SAMPLE NO.	FROM	TO	LENGTH	Au ppb	Ag ppm	Pb ppm	Zn ppm	Cu ppm
grab 2001	15.6			5	0.3	10	37	270
grab 2002	30.5			20	0.3	13	29	460
grab 2003	35.5			10	0.1	14	46	429

METERS	*LITHOLOGY*	*COLOUR*	*PRIMARY STRUCTURE & TEXTURE*	*TECTONIC STRUCTURE*	*GENERAL ALTERATION*	*MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)*
41.2-51.6	Fragmental; clasts are mainly argillite in a silty argillite matrix	gray to dark gray	Clasts are mainly angular, rarely rounded. The fragmental ranges between clast supported and matrix supported, clasts range in size between 2 and 200mm, there appears to be no sorting or grading of clasts.	nil	Generally sericitic throughout, scattered with tiny spheres of sericite, maybe after garnet. Locally biotite is very abundant in the fragmental matrix.	Some limonite staining along fractures
51.6-83.6	Altered argillite and silty argillite; some thin bands of fragmental units	white	disrupted slumped sediments	82.0-83.6m - fault zone, consists of limonitic gouge and brecciated sediments. Cuts core at 14°.	Very strongly sericitic with distorted bands and clasts of talc, scattered patches of dendritic biotite. 69.2-70.0m - brown tourmalinite	Rare narrow quartz veins at 41° , no sulfides

SAMPLE NO.	FROM	TO	LENGTH	Au ppb	Ag ppm	Pb ppm	Zn ppm	Cu ppm
grab 2004	57.0			40	0.1	15	1	5
grab 2005	83.0			10	0.2	8	48	7

METERS	*LITHOLOGY*	*COLOUR*	*PRIMARY STRUCTURE & TEXTURE*	*TECTONIC STRUCTURE*	*GENERAL ALTERATION*	*MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)*
83.6-84.6	Fragmental; clasts are argillite in siltstone matrix	gray and brownish gray	fragmental is mainly clast supported, clasts are sharply angular, range between 4-20mm in size, no preferred orientation, sorting or grading	nil	Abundant biotite in matrix	Weakly disseminated limonite in matrix

HOLE NO.: C95-1

METERS	LITHOLOGY	COLOUR	PRIMARY STRUCTURE & TEXTURE	TECTONIC STRUCTURE	GENERAL ALTERATION	MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)
84.6-130.8	Mixed argillite and siltstone	gray	Slump structured, mainly siltstone with wispy distorted beds and lenses of argillite	Abundant open fractures at 64°and 24° to core, without slickenside	Generally biotitic and sericitic throughout. At 89.8m - 10cm thick zone of massive, coarsely crystalline biotite, silicification is patchy throughout.	2-4mm thick, widely scattered py filled veinlets cut core at 64 and 24°. Abundant irregular hairline thick py filled fractures occur throughout this section. Rare thin breccia quartz veins cut core at 30°
130.8-142.4	Siltstone, Interbedded Argillite; siltstones generally medium grained	gray to dark gray	Medium to thick bedded, bedding is sharp and generally flat. Bedding to core 20° at 132.5m	Open fractures as previously described. 139.3-140.0m - crackle breccia zone cuts core at 14°	Abundant finely disseminated biotite throughout, some widely scattered books of chlorite	Py as previously described
137.8-232.9	Argillite, interbedded Siltstone; siltstone beds generally medium grained	gray with some light gray banding	Thin to very thin bedded, some medium beds, bedding is sharp and flat. Bedding to core: 21° @145.5m; 11° @ 151.5m; 13° @ 163.0m; 12° @ 172.0m; 14° @ 180.0m; 14° @ 191.0m; 8° @ 198.0m; 5° @ 205.0m; 15° @ 219.0m; 21° @ 230.0m; 29° @ 232.0m	202.0-204.0m - weak crackle breccia zone healed by sulphide? 217.0-218.6m - weak crackle breccia zone healed by sulphide? Both cut core at 70°	Disseminated biotite throughout, in some sections thin siltstone beds are strongly biotitic. Biotite in these beds tends to be coarsely crystalline and reddish brown in colour. Sericite occurs as small rounded blebs, disseminated throughout the sediments.	Py as previously described. 231.5-232.0m - abundant py in fractures and parallel to bedding planes.
232.9	END OF HOLE Core is stored in racks at Quest'f Vine property					

CHAPLEAU RESOURCES LTD. PROPERTY: CRUZ

Property: CRUZ	**Location:** Cruz DePlata 5	**Hor. Comp.:** 325.57m	**Corr. Dip:** ---	**Hole No.:** C95-2
Commenced: 09/27/95	**District:** Fort Steele	**Vert. Comp.:** 448.11m	**Azimuth:** 276°	**Length:** 553.9m
Completed: 09/29/95	**Core Size:** NQ	**Logged By:** D.L. Pighin	**% Recovery:** ---	**Elevation:** 995m
Co-Ordinates: ---	**Tests:** yes	**Date:** September 1995	**Objective:** Ore Test	**Collar Dip:** -55°
Longitude: ---	**Latitude:** ---			

METERS	*LITHOLOGY*	*COLOUR*	*PRIMARY STRUCTURE & TEXTURE*	*TECTONIC STRUCTURE*	*GENERAL ALTERATION*	*MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)*
0-9.1	Casing	Acid Test: 50' (15.24m) 55°; 617' (188.1m) 53°				
9.1-30.5	Gabbro Sill? Basal contact is parallel to bedding.	green with whitish green alteration	nil	nil	Described in log C95-1, from 9.8-41.2m, however alteration is less intent	see log C95-1
30.5-60.0	Quartzite, Interbedded Siltstone and Minor Argillite; medium to fine grained siltstone and quartzite	generally light gray and gray, rarely dark gray	Medium to thick bedded, rarely thin and very thin bedded, bedding sharp, flat to wavy. Some ripple marked bedding planes. Some widely scattered rip up clasts. Bedding to core: 72° @ 31.3m; 67° @ 42.5m	The dominant fracture set cuts core at 13°	Quartzites are intensely silicified with scattered 4-10mm, whitish yellow spheres (garnet?) Siltstones and argillite are generally biotitic (black).	Py, locally abundant, occurs as scattered blebs, spheres and in irregular hairline fractures. At 39.2m thin quartz vein contains scattered ilmenite crystals.
60.0-130.2	Argillite, Interbedded Silty Argillite; very fine grained sediments with thin medium grained siltstone interbeds. 91.5-94.3m - quartzite, very fine grained. 122.0-124.0m - lamprophyre sill, mainly biotite and coarsely crystalline amphibolite	banded gray, dark gray and reddish brown	Thin to very thin bedded with rare medium beds, bedding planes are sharp and flat. Some thin silty beds are distinctly cross bedded, argillite beds are typically very finely parallel laminated. Bedding to core: 68° @ 57.0m; 66° @ 72.0m; 65° @ 84.0m; 65° @ 94.0m; 66° @ 102.0m; 66° @ 114.9m; 66° @ 127.0m	Fractures as previously described. At 68.0m - 1-2cm thick calcite filled breccia cuts core at 22°, nearly 90° to bedding. At 122.0m - 4cm thick gouge zone parallel to bedding	Biotitization is strongly developed throughout the sediments. The biotite is generally fine grained, the biotite is black in argillite beds but is salmon brown to reddish brown in thin siltstone beds. Abundant tiny spheres of sericite after garnet? throughout the section. Widely scattered thin bands of intense silicification.	Py is abundant as disseminations and as thin band parallel to bedding. Py also occurs in hairline fractures scattered throughout the sediments.

SAMPLE NO.	FROM	TO	LENGTH	Au ppb	Ag ppm	Pb ppm	Zn ppm	Cu ppm
grab 2006 - Ba 799 ppm	123.0			5	0.2	11	67	208

130.2-131.6	Quartzite; coarse grained	light gray	massive	nil	Silicified, biotitic and muscovitic	nil
131.6-197.0	Gabbro Sill	light gray and dark green	Chilled upper contact (fine grained) from 131.6-133.2m. The remainder of the sill is coarsely crystalline.	nil	nil	Rare disseminated po and cpy along the sills upper contact

METERS	LITHOLOGY	COLOUR	PRIMARY STRUCTURE & TEXTURE	TECTONIC STRUCTURE	GENERAL ALTERATION	MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)
131.6-197.0 (cont)			Hornblende in medium crystalline plagioclase matrix			
197.0-198.0	Tourmalinite	light brown to black	massive	nil	tourmalinized	nil
198.0-221.6	Siltstone, Interbedded minor Quartzite, and Argillite	gray to dark gray	medium to thick bedded, rarely thin bedded, bedding indistinct and generally wavy. Thin argillite interbeds show sharp flat bedding.	nil	Generally biotitic and sericitic with local zones of intense silicification. At 118.6m - 10cm thick zone of light grayish brown tourmalinization	minor disseminated py
221.6-224.8	Fragmental; argillite clasts in a quartzite matrix	gray to light gray	Massive, matrix supported clasts, clasts are angular and distorted, range in size between 2-50mm. Clasts show no preferred orientation. Matrix is medium to coarse grained quartz sand.	nil	In the upper part of fragmental the matrix is tourmalinized, lower part is intensely silicified and muscovitic.	Locally abundant py with rare aspy
224.8-230.6	Argillite, Interbedded Silty Argillite	light gray banded, gray	Medium to thin bedded, bedding sharp, flat. Bedding to core 64° at 226.0m	nil	Generally weakly biotitic	Minor py in hairline fractures, and as weak disseminations.
230.6-234.5	Quartzite; coarse to very coarse grained, mainly quartz sand	white	Massive, mature quartz sand, unsorted and non graded. 'Vented'	nil	Strongly silicified and strongly sericitized.	nil
234.5-236.0	Fragmental Unit; argillite clasts in a quartzite matrix	light gray to light brownish gray	Massive, clast supported, sharply angular distorted clasts from 2-50mm in size. Matrix supported, matrix consists of coarse to very coarse grained mature, unsorted quartz sand.	nil	Partly silicified, strongly sericitized, weakly biotitic.	Relatively abundant disseminated py with rare aspy.
236.0-240.2	Argillite, Interbedded Silty Argillite;	gray light banded	Medium to thin bedded, bedding sharp-flat. Bedding to core 58° at 240.0m.	nil	Weakly biotitic with minor thin bands of intense brown biotitization.	Rare finely crystalline py in hairline fractures.
240.2-244.3	Siltstone, Interbedded Quartzite; 242.5-244.3m - fragmental unit	gray to light gray	Medium to thick bedded, bedding distinct and wavy, argillite bed tops generally distorted and fragmented.	nil	Generally biotitic, fragmental partly silicified.	Py is relatively abundant in hairline fracture and scattered blebs.

HOLE NO.: C95-2

METERS	LITHOLOGY	COLOUR	PRIMARY STRUCTURE & TEXTURE	TECTONIC STRUCTURE	GENERAL ALTERATION	MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)
240.2-244.3 (cont)			Fragmental unit contacts parallel to bedding, matrix supported, clasts are angular to rounded from 2-20mm in size.			
244.3-267.8	Argillite, Interbedded Silty Argillite; 254.0-259.0m - scattered thin interbeds of calcareous argillite	light gray and gray banding	Thin to very thin bedded, bedding is flat-sharp. In general sediments are typically finely parallel laminated. Bedding to core: 60° @ 247.0m; 60° @ 264.0m	nil	Generally biotitic throughout with scattered thin bands of intense reddish brown biotitization. Locally small rounded spheres of intense sericitization are abundant.	Py lined hairline fractures are relatively abundant and widely scattered throughout the section. Rare thin bedding parallel py layers.
267.8-275.5	Quartzite; medium grained	light bluish gray	Medium to thick bedded, bedding wavy-distinct. Argillite bed tops typically disrupted and fragmented.	nil	Strongly silicified and sericitic, with concretionary patches of very intense sericitization.	nil
275.5-280.5	Argillite, Interbedded Siltstone	gray and dark gray	Medium to thin bedded, bedding is distinct and wavy, commonly disrupted (soft sediment deformation)	nil	Generally biotitic with patchy silicification. 277.0-278.2m - talcose mud stone (nearly massive talc alteration).	nil
280.5-299.7	Quartzite, Minor Siltstone; medium to fine grained	light bluish gray to gray	Thick to very thick bedded, rare medium to thin argillite interbeds. Bedding generally indistinct. Argillite bed tops typically disrupted, rip-up clasts are common in quartzite beds. Bedding to core 61° at 293.0m	nil	Generally silicified and strongly sericitic, minor disseminated biotite, coarsely crystalline muscovite along hairline fractures and in small concretions. 291.5-291.7 and 292.5-292.9m - talcose mudstone	Py is rare usually in hairline fractures.
299.7-303.2	Argillite	light brownish gray	Medium to thin bedded, bedding is sharp-flat to wavy, beds are strongly disrupted and/or fragmented.	nil	Strongly talcose. 302.5-303.2m - massive talc with widely scattered prophyroblasts of chlorite.	Scattered hairline fractures with finely crystalline py. Lenses of very finely crystalline py 4-40mm are common throughout talc intervals.
303.2-329.5	Argillite, Interbedded Silty Argillite and rare thin calcareous argillite beds.	banded light gray, gray and reddish brown	Thin to very thin bedded, bedding is sharp flat. Argillite beds are generally very finely parallel laminated. Silty beds are commonly cross bedded. Bedding to core: 64° @ 307.0m; 66° @ 321.0m	nil	Silty interbeds are strongly biotitic and sericitic, biotite is commonly medium crystalline and reddish brown in colour. In argillite beds sericite forms abundant small white spheres.	Py is relatively abundant as thin bedding parallel bands and disseminations.

METERS	LITHOLOGY	COLOUR	PRIMARY STRUCTURE & TEXTURE	TECTONIC STRUCTURE	GENERAL ALTERATION	MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)
329.5-336.1	Quartzite, Interbedded Siltstone; medium to fine grained, locally coarse grained, rare thin argillite bed	light gray to gray	Thick to very thick bedded, rare thin beds, bedding is indistinct and wavy. Some scattered rip-up clasts. Argillite bed tops are generally disrupted.	Scattered thin fractures cut core at 4 and 25°.	Generally silicified and sericitic.	Widely scattered hairline fractures contain finely crystalline py.
336.1-339.5	Talcose Argillite	brownish gray	Thin to medium bedded, bedding indistinct	nil	Nearly massive talc with scattered chlorite porphyroblasts.	Relatively abundant thin wispy lenses of finely crystalline py with rare crystals of aspy.
339.5-350.2	Quartzite, Interbedded Siltstone and Argillite	banded gray, light gray and light bluish gray	Thick to very thick bedded quartzite with lesser thin to medium bedded argillite and siltstone. Bedding is generally indistinct with some sharp flat bedding. Quartzite bed tops are generally disrupted and fragmented.	nil	Quartzite beds are strongly silicified and sericitic. Siltstone and argillite beds are biotitic and muscovitic. Talc beds are thin and rare.	Scattered wispy hairline py filled fractures.
350.2-354.7	Siltstone, Minor Argillite; 353.5-354.7m - lamprophyre sill, mainly biotite with scattered amphibole	gray to grayish brown	Medium to thin bedded, bedding sharp and flat.	nil	Finely biotitic.	nil
354.7-356.2	Quartzite; medium grained	light gray	Thick to very thick bedded, bedding indistinct, wavy. Scattered rip-up clasts.	nil	Generally silicified and sericitic.	Minor disseminated py.
356.2-400.3	Argillite, Interbedded Siltstone; with minor scattered very thin beds of quartzite, scattered thin calcareous siltstone and argillite beds. 359.8-380.6m - quartzite, very thick bedded, medium grained.	banded light gray, reddish brown and gray	Thin to very thin bedded, bedding is flat-sharp, small scale cross bedding is common in siltstone interbeds. Quartzite interbeds are mainly coarse grained, unsorted, mature quartz sand. Bedding to core: 63° @ 378.0m; 62° @ 395.0m.	nil	Medium crystalline reddish brown biotite and sericite are abundant in siltstone and quartzite beds. Fine black biotite is more typical of the more argillaceous beds.	Py is abundant as thin 2-4mm bedding parallel layers.
400.3-405.0	Argillite, Interbedded Silty Argillite	banded gray, light gray with scattered thin band of reddish brown	Thin to very thin bedded, bedding is flat-sharp. Thin silty beds are commonly cross bedded (small scale).	nil	Generally biotitic and sericitic.	403.3-403.45m - coarse grained biotitic-muscovitic quartzite contains relatively abundant disseminated PbS and ZnS. Scattered 2-4mm thick bedding parallel bands of py.

HOLE NO.: C95-2

METERS	LITHOLOGY	COLOUR	PRIMARY STRUCTURE & TEXTURE	TECTONIC STRUCTURE	GENERAL ALTERATION	MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)
405.0-407.3	Quartzite; very coarse grained to coarse grained	very light gray	Medium to thick, bedding is distinct and wavy. Quartzite consists of unsorted, mature quartz sand in a muscovite matrix. Vented sands?	nil	Strongly muscovitic.	Abundant disseminated py, usually medium crystalline.
407.3-408.3	Argillite, Interbedded Silty Argillite	banded light gray and gray with reddish brown bands	Thin to very thin bedded, flat sharp bedding. Bedding to core 61° at 407.8m.	nil	Generally biotitic. 407.8-408.0m - tourmalinite (black)	Rare disseminated py.
408.3-415.0	Quartzite, Minor Wispy Argillite beds; quartzites are coarse to very coarse grained	light gray, white and light reddish gray	Thick to very thick bedded, bedding is indistinct. Quartzites are composed mainly of coarse to very coarse grained, unsorted or graded quartz sand with widely scattered argillite sand sized grains.	Rare thin quartz filled fractures 5mm thick cut core at 5 and 10°.	Quartzites, matrix is mainly muscovite wit some reddish brown biotite.	PbS, ZnS and py is disseminated throughout the quartzite beds. PbS, ZnS and py also occurs in thin quartz veins described previously.
415.0-433.0	Argillite, Interbedded Silty Argillite and Siltstone; 331.5-433.0m - lamprophyre sill consists of mainly reddish brown biotite with scattered amphibole phenocrysts	banded light gray, gray and reddish gray	Thin to very thin bedded, bedding is flat-sharp.	nil	Silty beds are strongly biotitic (reddish brown) and muscovitic. In argillite beds sericite form small scattered white spheres.	Py occurs as weak disseminations and in hairline fractures throughout interval.
433.0-443.3	Mainly Quartzite with Minor Argillite; quartzite generally coarse grained.	light gray to gray and brownish gray	Medium to thick bedded, bedding is indistinct and tectonically disrupted.	Crackle brecciated from 438.1-440.2m fractures cut core at 5-16°. Healed by barite?, dolomite and minor quartz.	Argillite and silty argillite are generally biotitic. Quartzites are strongly sericitic and silicified.	At 440.6 - 15cm quartz-dolomite shear zone cuts core at 80°, hosts minor py and very rare PbS.

SAMPLE NO.	FROM	TO	LENGTH	Au ppb	Ag ppm	Pb ppm	Zn ppm	Cu ppm
grab 2007 - crackle breccia, Ba 102 ppm, La 41ppm, Mn 1053 ppm	439.0			5	0.2	33	42	13

METERS	LITHOLOGY	COLOUR	PRIMARY STRUCTURE & TEXTURE	TECTONIC STRUCTURE	GENERAL ALTERATION	MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)
443.3-446.7	Tourmalinite	dark brown to tan brown	Medium to thin bedded, bedding is distinct, flat to wavy	nil	Intensely tourmalinized argillite and quartzite	nil
446.7-448.7	Quartzite; coarse to medium grained	white	Very thick bedded.	nil	Strongly silicified and sericitic.	nil

METERS	LITHOLOGY	COLOUR	PRIMARY STRUCTURE & TEXTURE	TECTONIC STRUCTURE	GENERAL ALTERATION	MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)
446.7-472.5	Argillite, Interbedded Silty Argillite; 468.4-468.7m - lamprophyre sill, composed mainly of biotite	banded gray and light gray with some reddish brown banding	Thin to very thin bedded, bedding is sharp-flat, some cross bedded silty argillite. Bedding to core: 55° @ 459.0m; 55° @ 464.0m; 56° @ 470.0m.	nil	Generally biotitic throughout with scattered thin zones of intense silicification, some scattered whitish green bands of diopsidic alteration.	At 450.0m - 2cm zone contains disseminated Pb-Zn in silicified siltstone. 456.0-456.3m - crackle breccia zone cuts core at 35°, hosts abundant ZnS and py.
472.5-489.5	Gabbro Dyke	dark green to greenish light green	Medium to finely crystalline	Contact cuts core at 28°, and cuts bedding at 88°.	Approximately 1/3 of the dyke has been strongly altered to actinolite, dolomite and biotite.	3cm thick chloritic shear along F.W. contact hosts minor cpy and py with one clast of brown tourmalinite.
489.5-517.7	Quartzite; medium to coarse grained	white to light yellowish white	Destroyed by alteration and breccia.	Intensely crackle brecciated from 489.5-508.2m, the zone cuts core at 28°.	Intense to very intensely silicified, over printed by late silica filled fractures which in turn are over printed by later dolomite mineralized fractures.	Very weakly disseminated py throughout the above described crackle brecciated silicification zone.

SAMPLE NO.	FROM	TO	LENGTH	Au ppb	Ag ppm	Pb ppm	Zn ppm	Cu ppm
grab 2008 - scattered py veinlets, Mn 906 ppm	490.0			5	0.3	12	15	9
grab 2009 - rare py disseminations, Cr 102 ppm	506.2			5	0.2	12	6	48

METERS	LITHOLOGY	COLOUR	PRIMARY STRUCTURE & TEXTURE	TECTONIC STRUCTURE	GENERAL ALTERATION	MINERALIZATION
517.7-553.9	Gabbro Sill	dark green	Medium to coarsely crystalline	nil	nil	nil
553.9	END OF HOLE Core is stored in racks at Quest's Vine property.					

CHAPLEAU RESOURCES LTD. PROPERTY: CRUZ

Property: CRUZ	**Location:** Cruz DePlata 3	**Hor. Comp.:** 196.23m	**Corr. Dip:** ---	**Hole No.:** C95-3
Commenced: 09/30/95	**District:** Fort Steele	**Vert. Comp.:** 732.36m	**Azimuth:** 276°	**Length:** 758.2m
Completed: 10/11/95	**Core Size:** NQ, BQ	**Logged By:** D.L. Pighin	**% Recovery:** ---	**Elevation:** 1025m
Co-Ordinates: ---	**Tests:** yes	**Date:** September - October 1995	**Objective:** Ore Test	**Collar Dip:** -75°
Longitude: ---	**Latitude:** ---			

METERS	*LITHOLOGY*	*COLOUR*	*PRIMARY STRUCTURE & TEXTURE*	*TECTONIC STRUCTURE*	*GENERAL ALTERATION*	*MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)*
0-15.0	Casing	Acid Tests; 400' (121.95m) 75°; 700' (213.41m) 74°; 980' (298.8m) 75°; 1237' (377.1m) 74°; 1530' (466.5m) 75°				
15.0-52.6	Overburden					
52.6-102.0	Argillite, interbedded Silty Argillite	light gray banded dark gray	Thin to very thin bedded, bedding is sharp and flat. The sediments are generally all finely parallel laminated and/or parallel banded. Bedding to core: 53° @ 52.8m; 53° @ 76.0m; 66° @ 84.0m; 46° @ 87.5m; 46° @ 93.0m; 84° @ 99.0m; 84° @ 102.0m.	Rare siderite filled thin fractures cut core at 40°, the angle between bedding and fracture is 80°. 79.0-80.7m - crackle breccia with shearing at 12° and 48° to core. 87.6-89.0m - fault zone, abundant gouge cuts core at 12°, angle between bedding and fault is 25°. 93.6-95.0m - fault cuts core at 17°.	Sediments are all finely biotitic with scattered sections. Salmon and reddish brown biotite banding.	Py occurs as widely scattered thin bedding parallel bands. It rarely occurs in hairline fractures.
102.0-111.9	Quartzite, minor Siltstone; medium to fine grained	greenish gray and gray	Thick to very thick bedded, bedding indistinct.	nil	Generally intensely silicified with weakly disseminated biotite with abundant pale green fine sericitization.	nil
111.9-135.5	Gabbro Sill	dark green to light pale green	Medium to finely crystalline.	Abundant fractures at 5°, 38° and 50°.	Sericitization and talcose alteration of the gabbro is abundant and in adjacent to the above fractures, such that approximately 30% of the gabbro sill is argillitized. Associated with the argillitized zones are disseminated pyrolusite and thin veinlets of maraposite.	No sulphides observed.
135.5-162.5	Quartzite, interbedded Siltstone; with some thin sections of argillite	light gray to gray	Thick bedded, rarely very thick bedded with some thin bedded argillite. Quartzite-siltstone bedding planes are generally indistinct. Argillite bedding is sharp and flat. Rip-up clasts are common in both siltstone and quartzite beds. Bedding to core 81° at 153.5m.	nil	Intense silicification along with weakly disseminated sericite and scattered subhedral pink garnets are typical of quartzite and siltstone beds. Biotite is present throughout the interval. At 136.3m - 1cm thick band of tourmalinite.	At 154.3m - bedding parallel quartz vein 2cm thick contains po, py and minor ilmenite. Py occurs mainly in these fractures but locally forms small massive lenses up to 2cm thick.

METERS	LITHOLOGY	COLOUR	PRIMARY STRUCTURE & TEXTURE	TECTONIC STRUCTURE	GENERAL ALTERATION	MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)
162.5-215.1 BQ core starts at 162.5m	Argillite, interbedded Silty Argillite; generally fine grained sediments.	generally banded gray, dark gray and salmon brown	Thin to very thin bedded, bedding is sharp and flat. Sediments are commonly finely parallel banded and/or finely parallel laminated. Small scale cross bedding in thin silty beds is common. Bedding to core: 80° @ 171.2m; 83° @ 207.0m.	Open fractures are abundant at 7° and 37°. At 200.3m - 10cm thick shear zone filled by gouge cuts core at 20°. At 208.0m - thin breccia zone cuts core at 22°	Strongly biotitic throughout section. Argillite beds typically black, finely crystalline biotite. In silty argillites, biotite is generally salmon brown to reddish brown. Sericite occurs as small spheres through the sediments.	Py forms widely scattered thin bedding parallel layers.
215.1-218.6	Quartzite; medium to coarse grained	light gray	Thick bedded, bedding wavy and indistinct, graded beds fining upwards.	Fractures as previously described.	Biotitic and muscovitic.	nil
218.6-283.8	Gabbro Sill; 243.6-276.5m - hornblendite	dark green to very dark green	Finely crystalline from 218.6-219.6m, medium crystalline from 219.6-243.5m, coarsely crystalline from 243.6-276.5m, medium crystalline from 276.0-282.0m and finely crystalline from 282.0-283.8m.	Fractures cut core at 50° and 11°.	Intense argillitization of hornblende crystals apparently controlled by the previously described fractures.	245.5-276.5m - relatively abundant disseminated po with minor cpy.
283.8-293.4	Quartzite, interbedded Argillite	light gray to dark gray	Medium to thin bedded, bedding indistinct and wavy. Argillite interbeds highly disrupted, slump structured.	nil	Weakly biotitic and sericitic.	At 289.2m - hairline fracture contains disseminated ZnS.
293.4-296.8	Quartzite; fragmental in part	light gray	Massive, widely scattered argillite clasts. Generally sharply angular, 2-10mm in size.	nil	Intensely silicified and weakly sericitic.	Very weakly disseminated py.
296.8-306.8	Argillite, interbedded Silty Argillite; with rare coarse grained quartzite.	banded gray, light gray and dark gray	Thin to very thin bedded, rare medium beds of quartzite, bedding sharp and flat. Quartzite beds contain rare rip-up clasts.	nil	Weakly biotitic throughout, quartzites are strongly muscovitic.	Rare disseminated py.
306.8-310.9	Quartzite; coarse to very coarse grained. 307.5-308.8m - fragmental unit	light gray to white	Massive, very thick bedded, crudely graded, bedding is distinct and wavy. Fragmental unit consists of large sharply angular clast, commonly bent and deformed.	nil	Strongly silicified and sericitized.	Rare disseminated py.

METERS	LITHOLOGY	COLOUR	PRIMARY STRUCTURE & TEXTURE	TECTONIC STRUCTURE	GENERAL ALTERATION	MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)
310.9-315.0	Argillite, interbedded Silty Argillite	banded gray and dark gray	Thin to very thin bedded, bedding sharp and flat. Bedding to core 85° at 312.0m.	nil	Abundant fine biotite with scattered tiny spheres of sericite.	Very finely crystalline py occurs in abundant hairline fractures. Rare very thin pyritic-chloritic bedding parallel veinlets contain minor ZnS.
315.0-319.8	Quartzite with thin argillite bed tops; quartzites are medium to coarse grained	white	Massive, thick to very thick bedded, bedding is indistinct and wavy	nil	Strongly silicified and sericitic.	nil
319.8-323.6	Argillite, interbedded Silty Argillite	gray and dark gray banding	Thin to very thin bedded, bedding flat-sharp. Bedding to core 79° at 321.0m.	Thin fractures cut core at 16°.	Fine disseminated biotite throughout.	Rare disseminated py.
323.6-326.0	Quartzite; fine grained with thin argillite bed tops. Fragmental in part.	white	Medium to thick bedded, bedding is indistinct. Tops of beds commonly marked. 20-30cm of fragmental, mainly argillite clasts.	Rare thin fractures at 30° to core.	Intensely silicified with abundant fine sericite.	Relatively abundant disseminated fine crystalline py with local disseminated ZnS.
326.0-344.0	Argillite, interbedded Calcareous Argillite, Calcareous Silty Argillite and Silty Argillite	banded light gray, gray and dark gray	Thin to very thin bedded, bedding sharp and flat. Bedding to core: 82° @ 331.0m; 83° @ 344.0m.	Thin py lined fractures cut core at 16° and cut bedding at 86°.	Finely biotitic throughout section with lesser sericite. Limy beds tend to be strongly muscovitic.	Py is weakly disseminated throughout sediments and locally forms thin bands parallel to bedding.
344.0-350.5	Quartzite, with minor thin Argillite interbeds; quartzites are medium grained to locally coarse grained	light gray	Mainly thick to very thick bedded with some thin argillite beds.	nil	Strongly silicified with abundant sericite. Rarely some concretions with coarse crystalline muscovite. Biotite is weakly disseminated throughout.	Rare disseminated py.
350.5-352.9	Argillite, Interbedded Silty Argillite; fine grained sediments	light gray banded, dark gray	Thin to very thin bedded, bedding flat-sharp.	nil	Abundantly disseminated fine black biotite.	nil
352.9-355.5	Quartzite; medium to coarse grained	light gray	Very thick bedded, bedding is indistinct. These are graded beds fining upwards.	nil	Strongly silicified and sericitic.	Rare disseminated py.
355.5-356.8	Argillite, interbedded Silty Argillite; fine grained sediments	gray banded, dark gray	Thin to very thin bedded, bedding planes sharp-flat. Bedding to core 82° at 356.0m.	nil	Abundant fine disseminated biotite.	Minor disseminated py.
356.8-376.1	Quartzite; with scattered thin argillite interbeds. Quartzites are medium to coarse grained.	light bluish gray	Quartzite beds are thick to very thick bedded, argillite beds are thin to very thin bedded. Bedding wavy-distinct to	Rare quartz-biotite-sericite veinlets cut core at 4°.	Strongly silicified and sericitized with some weakly disseminated biotite. Widely scattered small concretions consisting of intense dark gray silicification and coarsely crystalline	Locally py is abundant in wispy hairline fractures.

METERS	LITHOLOGY	COLOUR	PRIMARY STRUCTURE & TEXTURE	TECTONIC STRUCTURE	GENERAL ALTERATION	MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)
356.8-376.1 cont	365.5-367.0m - mainly thin to very thin bedded argillite, mainly disrupted beds.		sharp-flat in argillite beds. Quartzite beds are graded with disrupted and/or fragmented argillite bed tops. Bedding to core 76° at 367.0m.		muscovite.	
376.1-398.4	Argillite, interbedded silty argillite, calcareous argillite, calcareous silty argillite and argillaceous limestone. Approximately 1/5 of the section consists of argillaceous limestone.	banded light gray, white and gray	Thin to very thin bedded, bedding is sharp and flat. In general these sediments are typically very finely parallel laminated. Thin argillaceous limestone beds are typically cross bedded and finely crystalline. Bedding to core: 82° @ 383.0m; 82° @ 390.0m	nil	Abundant finely disseminated black biotite with widely scattered bands of brown biotitization.	Py is relatively abundant as scattered round spheres and as thin 2-4mm thick bedding parallel layers. Py is very common in argillaceous limestone beds.
398.4-410.3	Quartzite, interbedded siltstone with thin beds of argillite. Medium to fine grained.	gray to light gray	Thick to very thick bedded, distinct-wavy bedding. Siltstone and quartzite beds typically have disrupted to fragmented argillite bed tops.	nil	Silicified to intensely silicified, generally sericitic and biotitic.	Py is locally abundant in irregular hairline fractures. Py also occurs as widely scattered finely crystalline irregular lenses and blebs.
410.3-451.7	Argillite, interbedded silty argillite, calcareous silty argillite, calcareous argillite and argillaceous limestone. 422.8-423.7m - fragmental unit	banded gray, white and dark gray	Thin to very thin bedded. This section is lithologically and structurally the same as the section from 376.1-398.4m. Bedding to core: 78° @ 426.0m; 80° @ 434.5m; 78° @ 449.2m.	nil	See section from 376.1-398.4m.	Thin bedding parallel layers of py scattered throughout section. At 441.3m - 4mm thick bedding parallel layers of py host disseminated ZnS. At 418.0m - 4mm thick bedding parallel layers of py, calcite-chlorite host disseminated ZnS. At 425.9m - weakly disseminated ZnS in thin fracture.
451.7-464.2	Argillite, interbedded silty argillite and coarse grained quartzite.	gray and light gray with dark gray banding	Mainly thin to very thin bedded with some scattered medium beds of quartzite. Bedding is sharp-flat. Silty argillite and argillite beds are generally finely parallel banded and/or	nil	Argillite-silty argillite beds are finely biotitic and sericitic. Quartzite beds muscovite typically forms the matrix. These beds are locally intensely silicified.	Abundant py along with minor disseminated ZnS and rare PbS occur in the coarse grained quartzite beds.

METERS	LITHOLOGY	COLOUR	PRIMARY STRUCTURE & TEXTURE	TECTONIC STRUCTURE	GENERAL ALTERATION	MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)
451.7-464.2 cont			finely cross bedded. Quartzite beds are graded fining upwards and consist of unsorted, rounded to angular quartz sand with rare lithic chips. Bedding to core 76° at 463.5m.			
464.2-469.7	Quartzite, interbedded siltstone, some thin beds of argillite. Quartzites are generally coarse grained.	light gray to white and gray to brownish gray	Mainly thick to very thick bedded with minor thin argillite beds. Bedding is distinct, commonly wavy. Quartzites beds are as described before but with some widely scattered argillite clasts as large as 2cm.	nil	As described previously.	Very weakly disseminated py with local areas of heavy py dissemination.
469.7-491.9	Argillite, interbedded silty argillite with rare coarse grained quartzite. 484.0-484.5m - disrupted and fragmented argillite-silty argillite unit	banded gray, light gray and gray	Mainly thin to very thin bedded with rare medium beds. Bedding is sharp and flat. Beds are generally very finely parallel laminated and rarely finely cross bedded. Bedding to core: 76° @ 471.0m; 81° @ 478.0m; 82° @ 491.0m.	nil	In general as previously described. Extremely altered sediments or lamprophyre sills. From 471.9-472.6m and 490.0-490.7m; these rocks appear to have originally consisted of coarse crystalline hornblende in a massive biotite matrix. 3/4 of hornblende has been altered to talc and locally to actinolite.	Py occurs throughout the section as weak disseminations and as thin bedding parallel layers. 488.4-488.8m and 489.5-489.7m - coarse grained quartzite flooded by py associated with dolomitization and muscovitization.
491.9-497.6	Quartzite; medium to coarse grained	whitish to buff gray	Very thick bedded.	Weakly crackle brecciated.	Strongly silicified and sericitic. Partly dolomitized	Py weakly disseminated throughout.
497.6-524.1	Argillite, interbedded silty argillite. 498.1-498.9m - quartzite, thick bedded, coarse to medium grained.	light gray band, light brownish gray and gray	Thin to very thin bedded, bedding sharp-flat. Sediments are generally very finely parallel laminated. Bedding to core 79° at 524.0m.	nil	As previously described. At 520.5m - 2cm thick band tourmalinite. At 521.4m - 2cm thick band tourmalinite.	As previously described.
524.1-536.4	Quartzite, minor siltstone; medium to coarse grained	light bluish gray	Thick to very thick bedded, bedding is distinct and wavy. Graded beds fining upwards. Argillite bed tops typically disrupted and fragmented.	nil	Generally intensely silicified, generally sericitic with some disseminated biotite.	Rare disseminated py.

<table>
<tr><th>METERS</th><th>LITHOLOGY</th><th>COLOUR</th><th>PRIMARY STRUCTURE & TEXTURE</th><th colspan="3">TECTONIC STRUCTURE</th><th colspan="3">GENERAL ALTERATION</th><th colspan="2">MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)</th></tr>
<tr><td>536.4-593.3</td><td>Gabbro Sill</td><td>generally dark green with light green to white zones of alteration</td><td>Medium to finely crystalline.</td><td colspan="3">Numerous fractures generally associated with alteration cut core at 12° , 10° and parallel to core. 567.2-580.2m - fault zone cuts core at 10°, see below.</td><td colspan="3">Hornblende crystals are altered to actinolite, tremolite adjacent to numerous quartz-dolomite, green sericite, talc filled fractures. 581.4-584.0m - massive alteration zone cuts core at 12° consists of biotite, vuggy quartz, talc and tremolite.</td><td colspan="2">567.2-580.2m - fault zone, consists of brecciated quartz and altered gabbro. The breccia is healed by dolomite and in part by cpy. Maraposite, biotite and muscovite are abundant in the matrix and in some of the clasts. Gabbro clasts are commonly altered to white talc and/or completely dolomitized. The breccia zone is characterized by abundant large vugs lined by euhedral dolomite crystals.</td></tr>
<tr><td colspan="4">SAMPLE NO.</td><td>FROM</td><td>TO</td><td>LENGTH</td><td>Au ppb</td><td>Ag ppm</td><td>Pb ppm</td><td>Zn ppm</td><td>Cu ppm</td></tr>
<tr><td colspan="4">grab 2010 - brecciated quartz-dolomite matrix,</td><td>574.5</td><td></td><td></td><td>10</td><td>0.1</td><td>29</td><td>193</td><td>22</td></tr>
<tr><td colspan="4">grab 2011 - gray quartz, chlorite, biotite, tremolite, Cr 113 ppm</td><td>576.4</td><td></td><td></td><td>5</td><td>0.2</td><td>12</td><td>24</td><td>6</td></tr>
<tr><td colspan="4">grab 2012 - gray quartz, maraposite and albite? Cr 105 ppm</td><td>578.0</td><td></td><td></td><td>5</td><td>0.1</td><td>12</td><td>39</td><td>10</td></tr>
<tr><td>593.3-609.2</td><td>Quartzite, interbedded siltstone; medium to fine grained sediments</td><td>light gray to bluish gray</td><td>Medium to thick bedded, bedding is wavy and indistinct. Argillite bed tops are generally disrupted and fragmented. Rip-up clasts are common. Bedding to core 86° at 594.0m</td><td colspan="3">nil</td><td colspan="3">Some beds are intensely silicified and sericitic but generally these sediments are biotitic with spotty silicification and sericitation. Some rare subhedral pink garnets.</td><td colspan="2">595.3-595.8m - chloritic-silicified hairline fractures host disseminated ZnS. At 608.7m - ZnS associated with calcite occurs in a thin fracture. Po occurs as weak disseminations and widely scattered blebs.</td></tr>
<tr><td>609.2-612.0</td><td>Argillite, interbedded silty argillite</td><td>gray banded dark gray</td><td>Thin to very thin bedded, bedding flat-distinct.</td><td colspan="3">nil</td><td colspan="3">Biotitic.</td><td colspan="2">nil</td></tr>
<tr><td>612.0-626.5</td><td>Quartzite, minor siltstone; coarse to medium grained</td><td>light bluish gray</td><td>Thick to very thick bedded with rare thin silty argillite interbeds. Bedding is distinct and commonly wavy. Argillite bed tops tend to be fragmented and/or disrupted. Rip-up clasts are common in quartzite beds.</td><td colspan="3">Thin fractures cut core at 10° at an angle to bedding of 82°.</td><td colspan="3">Quartzite beds are generally strongly silicified and strongly sericitic. Some finely disseminated biotite.</td><td colspan="2">The above described fractures typically host quartz-calcite, sericite and occasionally ZnS and PbS along with py and po. These fractures are widely scattered throughout the interval and are rarely more than 4mm thick.</td></tr>
</table>

METERS	LITHOLOGY	COLOUR	PRIMARY STRUCTURE & TEXTURE	TECTONIC STRUCTURE	GENERAL ALTERATION	MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)
626.5-627.5	Argillite, interbedded silty argillite	gray banded, dark gray	Thin to very thin bedded, bedding flat and sharp. Bedding to core 87° at 625.5m.	nil	As previously described.	nil
627.5-639.6	Argillite, interbedded silty argillite	gray banded, dark gray	Thin to very thin bedded, flat-sharp bedding. Bedding to core 86° at 635.0m.	nil	Fine biotite throughout sediments.	Finely crystalline py occurs in scattered hairline fractures and as rare thin bedding parallel lamina.
639.6-657.5	Argillite, interbedded silty argillite.	light gray to light brownish gray with some dark gray bands	639.6-644.5m - thin to very thin bedded, 644.5-657.5m - medium to thick bedded, rarely very thick bedded. The thick bedded silty argillite units are uniquely massive fine grained structureless rock, bedding sharp and flat. Bedding to core 80° at 647.0m.	Scattered thin fractures cut core at 30° and 12°.	Massive silty argillite, strongly biotitized by fine crystalline biotite with abundant scattered books of chlorite, sericite forms 60% of the rock.	Po forms widely scattered small blebs throughout the massive silty argillite. Po-py with rare PbS and ZnS form thin 2-5mm thick widely scattered bedding parallel layers. Widely scattered thin fractures host chlorite, calcite, po and rare PbS and ZnS.
657.5-667.4	Fragmental, mainly silty argillite matrix with argillite and silty argillite clasts	light brownish gray	Massive, matrix supported fragmental. Clasts are angular and distorted, range between 2-50mm. Clasts show a preferred orientation parallel to bedding. Fragmental contacts appear to be parallel to bedding. The unit resembles massive slumped unit.	nil	Strongly sericitic with fine disseminated biotite and abundant disseminated chlorite books.	Po is relatively abundant. It occurs as small blebs and partly replacing clasts, rare aspy crystals noted generally with po.
667.4-681.5	Fragmental with a siltstone matrix. Clasts are mainly argillite in a siltstone matrix.	bluish dark gray	Massive, mainly matrix supported but with some zones of clast supported fragmental. Clasts are generally angular and commonly distorted with a preferred orientation parallel to bedding. Fragmental contacts appear to be parallel to bedding.	nil	Strongly silicified with patchy chloritization. Small subhedral pink garnets are locally abundant, generally sericitized with finely disseminated biotite.	At 668.6m - quartz vein 1cm thick, cuts core at 5°, hosts disseminated PbS, ZnS and cpy. At 681.0m - 5cm thick garnetiferous band of sediment hosts abundant disseminated PbS
681.5-685.9	Argillite.	banded light gray and gray	Medium to thin bedded. Bedding sharp-flat. Bedding to core 85° at 685.9m.	nil	Weakly biotitic and sericitic.	Weakly disseminated po in thin bands parallel to bedding.

HOLE NO.: C95-3

METERS	LITHOLOGY	COLOUR	PRIMARY STRUCTURE & TEXTURE	TECTONIC STRUCTURE	GENERAL ALTERATION	MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)
685.9-758.2	Mainly quartzite with minor siltstone and widely scattered thin argillite intervals less than 1m thick. Quartzites are generally medium grained and locally coarse grained. 752.7-754.0m - fragmental unit.	light bluish gray with some gray banding	Mainly thick to very thick bedded with some medium beds. Some scattered thin bedded argillite, bedding is generally indistinct and wavy. Argillite bed tops are generally disrupted and fragmented. Bedding to core: 82° @ 703.0m; 80° @ 723.0m; 82° @ 758.0m. Fragmental unit is generally matrix supported, clasts are oriented parallel to bedding.	Fractures healed by calcite-quartz-sulphides cut core at 13°. 714.5-715.2m - fault zone consists of gouge and shear sediments, cuts core at 28°.	Quartzite beds are generally strongly silicified and sericitized, locally biotitic. Some scattered small subhedral pink garnets.	At 704.5m - hairline fractures host abundant ZnS and PbS associated with silicification cut core at 13°. At 729.6m - 5cm thick quartz vein cuts core at 12°, disseminated ZnS along H.W. of vein. At 745.0m - disseminated ZnS associated with pale green sericitization developed along hairline fractures cutting core at 13°.
758.2	END OF HOLE Core is stored in racks at Quest's Vine property.					

CHAPLEAU RESOURCES LTD. PROPERTY: CRUZ

Property: CRUZ	**Location:** Cruz DePlata 5	**Hor. Comp.:** 304.36m	**Corr. Dip:** ---	**Hole No.:** C95-4
Commenced: 10/19/95	**District:** Fort Steele	**Vert. Comp.:** 362.72m	**Azimuth:** 276°	**Length:** 473.5m
Completed: 10/26/95	**Core Size:** NQ	**Logged By:** D.L. Pighin	**% Recovery:** ---	**Elevation:** 935.0m
Co-Ordinates: ---	**Tests:** none	**Date:** October 1995	**Objective:** Ore Test	**Collar Dip:** -50°
Longitude: ---	**Latitude:** ---			

METERS	*LITHOLOGY*	*COLOUR*	*PRIMARY STRUCTURE & TEXTURE*	*TECTONIC STRUCTURE*	*GENERAL ALTERATION*	*MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)*
0-24.4	Casing					
24.4-114.0	Gabbro	dark green	Generally coarsely crystalline.	nil	nil	nil
114.0-118.0	Siltstone; fine grained	dark gray	Medium to thin bedded, bedding indistinct, rarely sharp. Bedding to core 61° at 115.0m.	Rare thin quartz veins cut core at 20° and cut bedding at 80°.	Generally biotitic with some reddish brown biotite banding. 115.5-116.0m - thin bands of tourmalinite.	Rare disseminated py.
118.0-125.4	Quartzite, with rare argillite interbeds; coarse to very coarse grained	white to light gray	Very thick bedded, no distinct bedding.	Rare fracture as previously described.	Quartzites are strongly silicified with muscovite matrix with some yellowish dolomite. Biotite is common in the lower part of the interval.	Good disseminated dark reddish brown ZnS from 121.9-122.6m, associated with minor PbS and py.
125.4-132.4	Argillite, Interbedded Silty Argillite	gray to light gray banded	Medium to thin bedded, bedding sharp and flat. Bedding to core 61° at 130.0m.	Rare quartz filled fractures as previously described.	Finely biotitic throughout.	Rare disseminated py.
132.4-140.2	Quartzite, minor Siltstone; quartzites coarse to very coarse grained	mainly white with gray siltstone	Massive to very thick bedded, no distinct bedding. Quartzites consist of unsorted, ungraded quartz sand.	Rare fractures as previously described.	Quartzites are strongly silicified, matrix is mainly muscovite with minor disseminated dolomite. Lower part of interval is biotitic.	135.6-137.3m - tetrahedrite weakly disseminated in coarse grained quartz. Tetrahedrite also occurs in hairline fractures, rare cpy. 139.0-139.3m - very weakly disseminated PbS and tetrahedrite.
140.2-185.0	Argillite, Interbedded Silty Argillite, minor Siltstone	banded gray to dark gray	Medium to thin bedded, bedding sharp-flat, some fine parallel laminated beds. Bedding to core: 38° @ 142.4m; 34° @ 153.0m; 30° @ 180.0m.	Widely scattered fractures as previously described.	Generally biotitic throughout, some reddish brown biotite banding, rare patches of chloritization with associated subhedral pink garnets. At 146.8m - thin band of argillite contains scattered tiny tourmaline needles.	At 182.7m - po-py bed contains rare ZnS. Thin scattered irregular fracture filled by barite.

METERS	LITHOLOGY	COLOUR	PRIMARY STRUCTURE & TEXTURE	TECTONIC STRUCTURE	GENERAL ALTERATION	MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)
185.0-206.1	Quartzite, interbedded Siltstone; medium to fine grained	bluish gray to light gray	Thick to very thick bedded, bedding indistinct. 201.0-203.2m - disrupted siltstone-argillite unit with scattered clasts.	190.5-191.5m - strongly crackle brecciated, muscovitization and chloritization and some dolomitization. 199.4-199.7m - shearing cuts core at 45° healed by quartz, chlorite and carbonate.	Generally silicified, finely biotitic and sericitic, over printed by fracture controlled chloritization, muscovitization and dolomitization.	199.4-199.7m - shear hosts py and rare ZnS.
206.1-207.1	Argillite, interbedded Silty Argillite	banded gray and dark gray	Thin to very thin bedded, bedding flat-sharp. Finely parallel laminated argillite beds.	nil	Weakly biotitic throughout.	nil
207.1-225.7	Quartzite, minor Siltstone; 220.5-221.4m - mixed slumped structure siltstone-argillite unit	light gray to bluish light gray	Thick bedded.	nil	Generally strongly silicified throughout interval, strongly sericitic, over printed by fracture controlled muscovitization and dolomitization. Locally widely scattered tourmaline needles are noted.	Weak py mineralization along hairline fractures.
225.7-226.8	Argillite, interbedded Silty Argillite	banded gray and light gray	Thin to very thin bedded, bedding flat-sharp. Bedding to core 43° at 225.7m.	Thin breccia structure (2cm thick) parallel to bedding at 226.1m.	Weakly disseminated biotite.	Rare disseminated py. At 226.1m - breccia hosts siderite, py and rare ZnS.
226.8-242.5	Quartzite, interbedded Siltstone	light gray to light bluish gray	Thick to very thick bedded, bedding indistinct. 234.6-235.5m - mixed slumped structured argillite and siltstone with some clasts. 239.9-234.7m - mixed slump structured argillite and siltstone with rare clasts.	nil	Generally silicified and sericitized throughout interval. Irregular patches of muscovitization over printing silicification and sericitization. Some dolomitization along hairline fractures.	Minor py in hairline fractures.
242.5-270.2	Argillite, interbedded Silty Argillite; 249.2-249.8m - lamprophyre sill 265.5-267.2m - lamprophrye sill	banded gray and light gray with some reddish brown bands	Thin to very thin bedded, bedding flat-sharp. Thin silty beds are commonly cross bedded, argillite beds are commonly finely parallel laminated. Bedding to core 46° at 258.5m.	nil	Silty beds are strongly biotitic (reddish brown) and muscovitic. Argillite beds tend to be finely biotitic (black).	Finely crystalline py with and without chlorite form abundant but widely scattered thin bedding parallel layers throughout interval.
270.2-279.6	Quartzite; medium to fine grained	light bluish gray	Thick to very thick bedded, bedding distinct to indistinct, wavy to flat. Thick turbidite with E and D avg. bed tops. Widely scattered rip-up clasts.	nil	Silicified, to intensely silicified, and generally sericitic.	Rare disseminated py and po.

METERS	LITHOLOGY	COLOUR	PRIMARY STRUCTURE & TEXTURE	TECTONIC STRUCTURE			GENERAL ALTERATION			MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)	
279.0-284.7	Argillite	brownish gray	Thick to medium bedded, generally slump structured with disrupted wispy bedding. Some scattered clasts. Bedding to core 48° at 282.6m.	nil			Finely disseminated biotite with scattered books of crystalline chlorite.			Widely scattered wisps and blebs of very finely crystalline py.	
284.7-296.7	Quartzite; medium grained. 290.5-291.5m - thin bedded argillite 287.1-289.1m - lamprophrye sill. 80% biotite, 10% amphibole, 10% amphibole altered to talc	light bluish gray	Thick to very thick bedded, bedding distinct and wavy. Turbidite D and E argillite bed tops typically disrupted and fragmented. Some of the beds are distinctly graded fining upwards.	nil			Generally silicified to intensely silicified and strongly sericitic with late fracture controlled muscovitization, chloritization and some dolomitization.			nil	
296.7-313.1	Argillite, interbedded Silty Argillite	banded gray, light gray and brownish gray	Thin to very thin bedded, bedding flat-sharp. Some scattered thin disrupted and fragmented beds. Bedding to core 59° at 297.0m.	At 306.0m - shear zone cuts core at 36°, consists of crushed sediments and gouge. Rare fracture and thin crackle breccia zones.			Argillite beds are fine biotitic (black) with some fine disseminated muscovite. Silty argillite beds are very strongly biotitic (reddish brown) and strongly muscovitic.			Fracture and crackle breccia healed by barite? Very finely crystalline py is relatively abundant as thin bedding parallel layers, disseminations and in hairline fractures.	
313.1-316.4	Siltstone; fine to medium grained	light gray	Thick to very thick bedded, bedding indistinct. Bed tops are disrupted and fragmented. Bedding to core 56° at 316.4m.	nil			Partly silicified with fine reddish biotite throughout.			Fine crystalline py fills wispy, irregular hairline fractures.	
316.4-348.8	Argillite, interbedded Silty Argillite	banded gray, light gray, and light reddish brown gray	Thin to very thin bedded, bedding is sharp and flat. Argillite are fine parallel laminated, thin silty beds are commonly cross bedded. Bedding to core: 53° @ 331.0m; 50° @ 343.0m; 50° @ 348.0m	Scattered fractures at 7° and 42° to core. These fractures and minor crackle breccias are abundant from 324.0-329.0m.			Argillites finely biotitic (black). Silty beds are strongly biotitic (reddish brown) with abundant muscovite.			Barite? and py fills the above described fractures. Py is abundant in the sediments as blebs, disseminations and as thin bedding planes parallel laminae.	
SAMPLE NO.				FROM	TO	LENGTH	Au ppb	Ag ppm	Pb ppm	Zn ppm	Cu ppm
grab 2013 - La 80 ppm, 1.73% Mg				342.0			5	0.2	31	60	41
348.8-361.0	Quartzite, interbedded Argillite and Silty Argillite; quartzite very coarse grained (vented sands). Rare thin fragmental beds with coarse grained quartzite matrix.	Gray and light gray to white	Thin to very thin bedded with scattered medium beds of very coarse grained quartzite. Medium quartzite beds are formed by mature coarse grained quartz sand with some	nil			Quartzites are generally intensely silicified with brown biotite and muscovite forming part of the matrix. Silty argillite is strongly biotitic (brown) and muscovitic.			Coarse grained quartzite beds are generally pyritic with some disseminated PbS and ZnS.	

METERS	***LITHOLOGY***	***COLOUR***	***PRIMARY STRUCTURE & TEXTURE***	***TECTONIC STRUCTURE***	***GENERAL ALTERATION***	***MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)***
348.8-361.0 cont			scattered lithic chips.			
361.0-370.2	Quartzite; coarse to very coarse grained. 362.4-363.6m - massive argillite	white to light bluish gray	Thick to very thick bedded, bedding indistinct. Quartzites are formed mainly by unsorted, mature quartz sand with rare lithic chips.	nil	Generally silicified, locally intensely silicified. Muscovite and minor biotite form part of the matrix.	361.0-362.4m - weakly disseminated py, PbS and ZnS in quartzite matrix.
370.2-384.2	Argillite, interbedded Silty Argillite	banded gray and light gray	Thin to very thin bedded, bedding sharp-flat. Argillite beds are very finely parallel laminated. Bedding to core 46° at 371.0m.	nil	Finely sericitic and biotitic throughout.	Finely crystalline py occurs as scattered thin bedding parallel layers and in hairline fractures.
384.2-390.0	Siltstone, minor interbedded Argillite; medium to fine grained	light gray to gray	Medium to thick bedded, bedding indistinct and flat	nil	Finely biotitic and sericitic, over printed by chloritic hairline fractures.	Very finely crystalline py in hairline fractures and as scattered blebs.
390.0-399.2	Argillite, interbedded Silty Argillite	banded gray, light gray and reddish brown	Thin to very thin bedded, bedding sharp-flat. Some thin silty beds are finely cross bedded. Argillite beds are generally finely parallel laminated. Bedding to core 48° at 394.0m.	nil	Argillite tend to be finely biotitic (black). Silty beds are strongly biotitic (brown) and strongly muscovitic. At 392.0m - 5cm thick tourmalinite bed.	Py as previously described.
399.2-404.1	Quartzite; coarse to very coarse grained. 401.4-402.8m - argillite-silty argillite (thin to very thin bedded)	white to light gray	Thick to very thick bedded. Quartzite composed of mature, unsorted, ungraded quartz sand.	nil	Strongly silicified with a strongly muscovitic matrix.	Py is abundant in quartzite as finely crystalline rounded pellets and disseminated py. Locally rare ZnS and cpy.
404.1-456.3	Argillite, interbedded Silty Argillite	banded gray, light gray and brownish gray	Thin to very thin bedded with rare medium beds, bedding is sharp and flat. Argillite beds generally finely parallel laminated. Silty beds can be parallel laminated but are commonly cross bedded. Bedding to core: 54° @ 417.0m; 52° @ 428.0m; 45° @ 429.5m; 10° @ 431.0m; 63° @ 434.0m; 22° @ 436.5m;	Folding between 429.5-450.0m. One small scale fold suggests that axial plane is at 90° to core. 439.6-440.2m - healed crackle breccia cuts core at 20°.	Generally biotitic throughout the section. 453.0-454.0m - sediments are partly calcareous.	439.6-440.2m - crackle breccia zone healed by chlorite and muscovite, mineralized by py and minor ZnS. Py occurs throughout the section as thin bedding parallel bands of py and as widely scattered py disseminations.

METERS	LITHOLOGY	COLOUR	PRIMARY STRUCTURE & TEXTURE	TECTONIC STRUCTURE	GENERAL ALTERATION	MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)
404.1-456.3 cont			21° @ 441.0m; 6° @ 443.0m; 13° @ 445.0m; 39° @ 450.0m; 44° @ 456.0m.			453.0-456.3m - po is dominant over py, it occurs with calcite and rare cpy in fractures at 60° to core and 70° to bedding. Po with rare cpy occur in concretions as large as 3cmx5cm.
456.3-473.5	Quartzite; medium to fine grained	light bluish gray	Thick to very thick bedded, bedding is indistinct and generally wavy. Argillite bed tops are generally disrupted and fragmented.	Very thin dolomite-calcite filled fractures and thin crackle breccia zones cut core at angles of 30° and 57°.	Strongly silicified and sericitic, over printed by thin fracture controlled muscovitization, chloritization and dolomitization.	ZnS along with dolomite occurs in thin fracture at 461.0m.
473.5	END OF HOLE Core is stored in racks at Quest's Vine property.					

Appendix B

Analytical Results

ROSSBACHER LABORATORY LTD.

CERTIFICATE OF ANALYSIS

2225 Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

To : CHAPLEAU RESOURCES LTD.
525-744 WEST HASTINGS STREET
VANCOUVER, B.C.

Project: Rise

Type of Analysis: ICP

Certificate: 95142
Invoice: 50524
Date Entered: 95-11-07
File Name: CHP95142.I
Page No.: 1

PRE FIX	SAMPLE NAME	PPB AU AA	PPM AG	% AL	PPM AS	PPM BA	PPM BE	PPM BI	% CA	PPM CD	PPM CO	PPM CR	PPM CU	% FE	PPM HG	% K	PPM LA	% MG	PPM MN	PPM MO	% NA	PPM NI	PPM P	PPM PB	PPM SB	% SI	PPM SR	% TI	PPM V	PPM W	PPM ZN
A1	2001	5	0.3	1.03	8	89	1	6	0.19	1	26	38	270	2.86	ND	0.05	9	0.43	183	1	0.02	44	627	10	13	0.01	13	0.03	71	12	37
A1	2002	20	0.3	1.23	28	56	1	1	0.25	1	63	69	460	2.65	ND	0.02	2	0.56	415	1	0.04	79	600	13	10	0.01	29	0.04	68	5	29
A1	2003	10	0.1	1.21	68	49	1	1	0.26	1	75	59	429	4.07	ND	0.03	3	0.63	828	2	0.03	75	543	14	9	0.01	16	0.02	73	5	46
A1	2004	40	0.1	0.23	5	14	1	1	0.04	1	2	15	5	0.08	ND	0.11	4	0.01	20	5	0.01	4	246	15	12	0.01	1	0.01	3	67	1
A1	2005	10	0.2	0.36	11	32	1	1	0.04	1	16	55	7	1.27	ND	0.10	35	0.15	122	1	0.01	26	189	8	12	0.01	2	0.01	6	1	48
A1	2006	5	0.2	2.68	17	799	1	2	0.24	1	41	21	208	6.20	ND	0.10	2	1.95	479	1	0.04	28	779	11	18	0.01	2	0.24	150	1	67
A1	2007	5	0.2	2.99	26	102	2	1	1.71	1	13	47	13	4.49	ND	0.09	41	0.92	1053	1	0.06	17	552	33	6	0.01	40	0.06	34	1	42
A1	2008	5	0.3	0.20	7	19	1	1	0.25	1	12	61	9	2.85	ND	0.03	26	0.11	906	1	0.04	12	269	12	13	0.01	5	0.01	46	1	15
A1	2009	5	0.2	0.14	6	31	1	1	0.11	1	4	102	48	1.10	ND	0.02	26	0.04	251	1	0.03	7	137	12	13	0.01	2	0.01	12	1	6
A1	2010	10	0.1	0.31	24	60	2	4	1.80	1	25	81	22	9.14	ND	0.05	12	1.15	2164	1	0.04	69	87	29	11	0.01	12	0.01	61	1	193
A1	2011	5	0.2	0.65	17	51	1	2	1.23	1	11	113	6	1.46	ND	0.08	1	0.59	191	2	0.01	23	54	12	11	0.01	4	0.01	25	1	24
A1	2012	5	0.1	1.39	19	74	1	1	6.15	1	23	105	10	2.55	ND	0.08	3	1.13	513	1	0.04	43	231	12	1	0.01	16	0.03	35	1	39
A1	2013	5	0.2	2.34	36	76	1	6	0.78	1	19	94	41	6.10	ND	0.10	80	1.73	481	4	0.11	25	596	31	4	0.01	39	0.14	32	1	60
A1	[redacted]																														

CERTIFIED BY :

CHAPLEAU RESOURCES LTD.

FIGURE 5a

CRUZ PROPERTY

Longitudinal Section A'A
Looking NW
Moyie Lake, B.C. Area

This Plot: 96/03/18 pm	Date: Jan.'96 by DLP/REA
Map Ref.: 82G.011,82G.021	Scale: 1:20,000

CAD Filename: d:\chapleau\dse\RS-LS-AA.dwg Last Update (Y/M/D): 96/03/18 pm (REA)

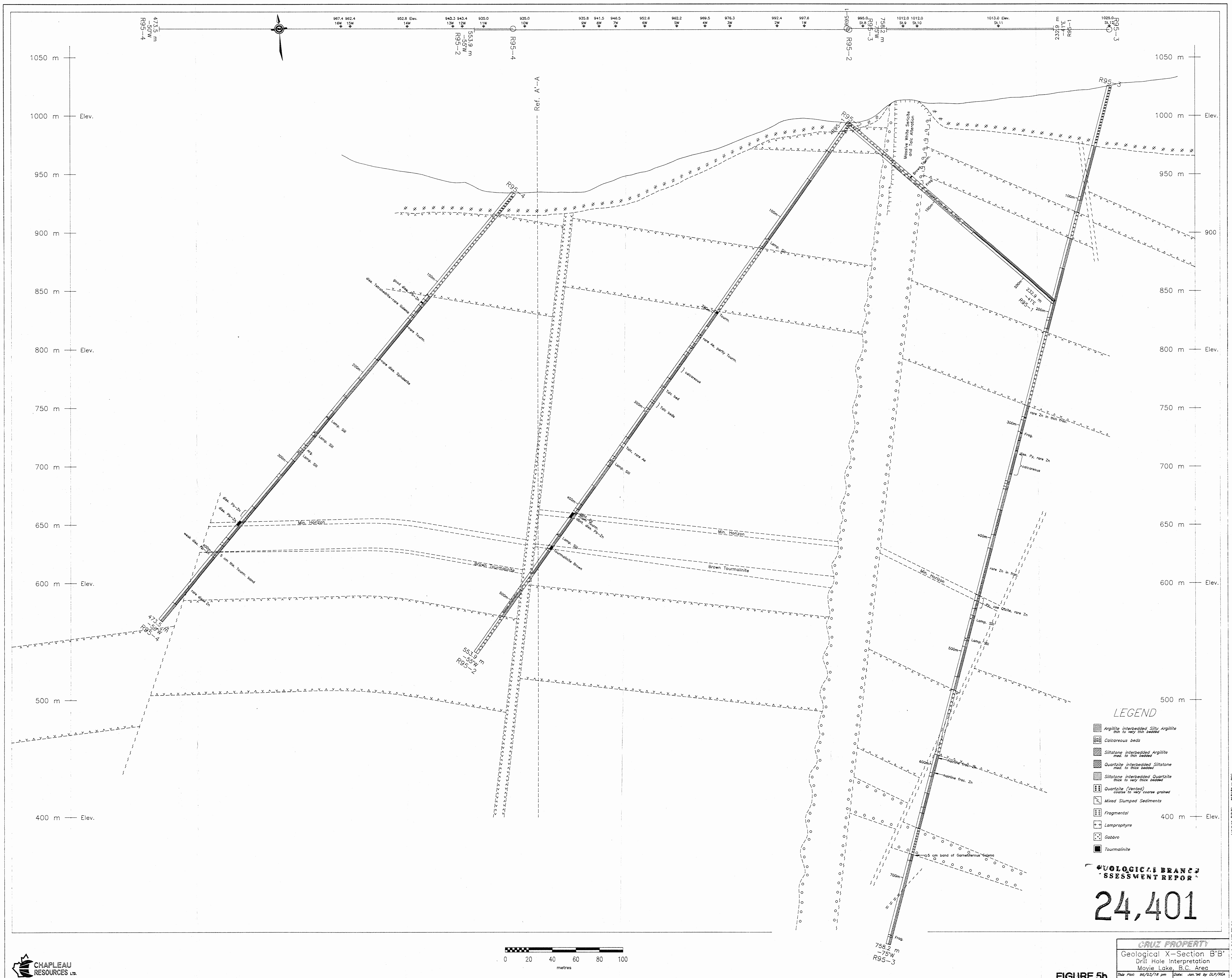
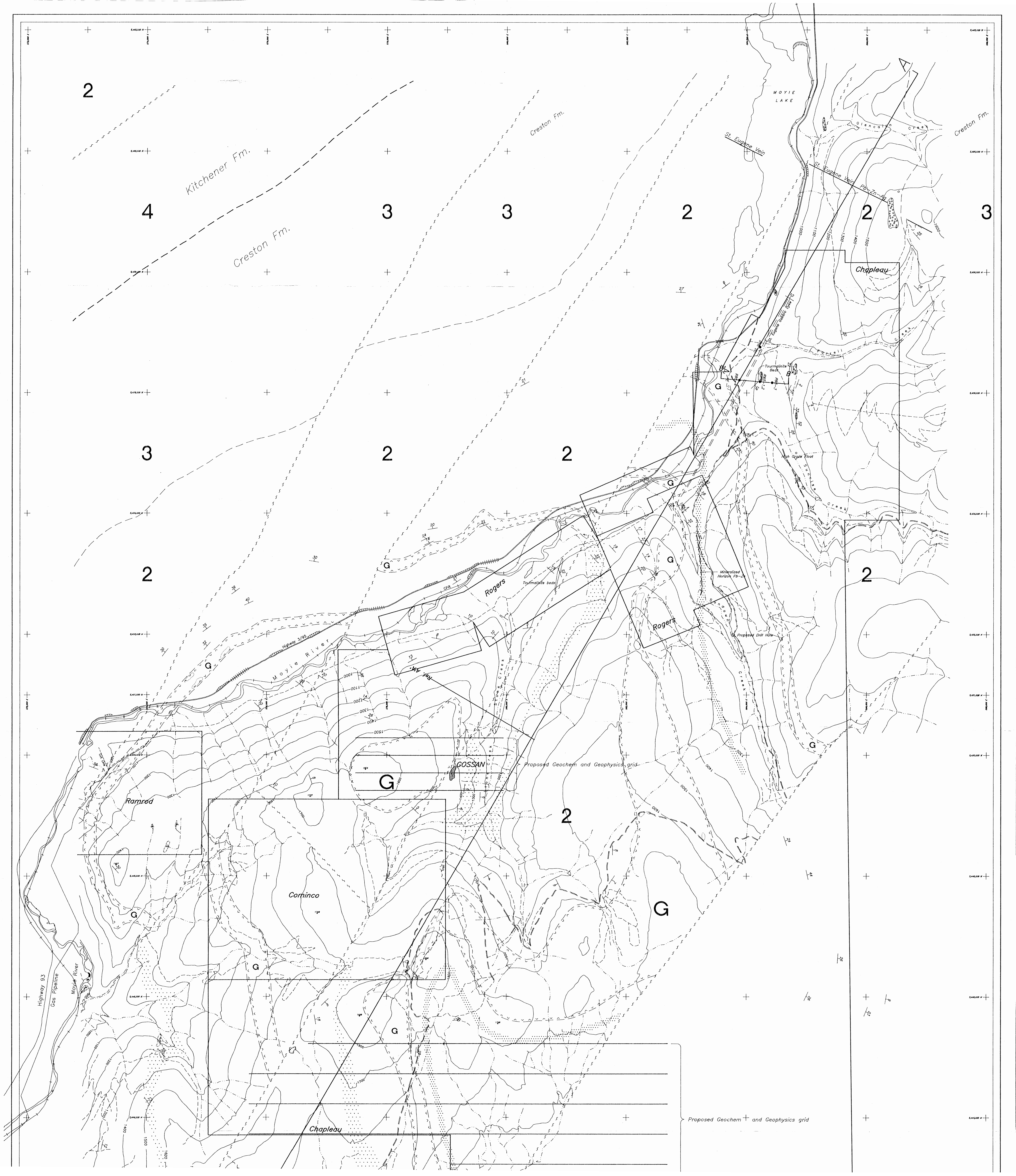

LEGEND
Argillite interbedded Silty Argillite thin to very thin bedded
Calcareous beds
Siltstone interbedded Argillite med. to thin bedded
Quartzite interbedded Siltstone med. to thick bedded
Siltstone interbedded Quartzite thick to very thick bedded
Quartzite (Vented) coarse to very coarse grained
Mixed Slumped Sediments
Fragmental
Lamprophyre
Gabbro
Tourmalinite
Min. Horizon
Brown Tourmalinite
Massive White Sericite and Talc Alteration
Ref. A'–A
473.5 m -50°W R95-4
553.9 m -55°W R95-2
758.2 m -75°W R95-3
232.9 m -41°E R95-1
0 20 40 60 80 100
metres
CHAPLEAU RESOURCES LTD.
GEOLOGICAL BRANCH ASSESSMENT REPORT
24,401
CRUZ PROPERTY
Geological X–Section B'B'
Drill Hole Interpretation
Moyie Lake, B.C. Area
This Plot: 96/03/18 pm
Date: Jan.'96 by DLP/REA
Map Ref.: 82G.011,82G.021
Scale: 1:1,000
CAD Filename: d:\chapleau\rsa\R5-GEO-X.dwg

FIGURE 5b



MOYIE LAKE
St. Eugene Vein
Kitchener Fm.
Creston Fm.
Creston Fm.
Creston Fm.
Chapleau
Tourmalinite beds
Rogers
Rogers
Moyie River
Highway 3/95
GOSSAN
Proposed Geochem and Geophysics grid
Ramrod
Cominco
Highway 93
Gas Pipeline
Moyie River
Chapleau
Proposed Geochem and Geophysics grid