

[REDACTED]

CHAPLEAU RESOURCES LTD.

DIAMOND DRILLING ASSESSMENT REPORT ON THE

# FORS PROPERTY

Drillhole F96-32  
Cougar and Puma Claims

FORT STEELE MINING DIVISION  
82 G/5W

Latitude: 49° 22'N  
Longitude: 115° 53'W

Owners

CHAPLEAU  
RESOURCES LTD.  
104, 135 10th Ave S  
Cranbrook, BC V1C 2N1

BARKHOR  
RESOURCES INC.  
PO Box 434  
Cranbrook, BC

CITATION  
RESOURCES LTD.  
922, 510 West Hastings St  
Vancouver, BC V6C 2G8

Operated by  
Quest International Resources Corp.  
PO Box 728, Cranbrook, BC V1C 4J5

Written by  
DAVID L. PIGHIN, P.GEO.

Date: May 20, 1997

MINERAL TITLES BRANCH  
Rec'd.  
MAY 29 1997

[REDACTED]

25 030

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**Chapleau Resource Ltd.**

**DIAMOND DRILLING ASSESSMENT REPORT  
Drillhole F96-32**

**Cougar & Puma claims  
Fort Steele Mining Division**

**D.L. Pighin, P.Geo.**

**May, 1997**

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**1.00 INTRODUCTION**

**1.10 Location and Access**

The Cougar and Puma claims are located about 18 km SW of Cranbrook, B.C., in the Monroe Lake area, centered approximately at 49° 22' N latitude, 115° 53' W longitude, on reference mapsheet NTS 82G/5W (Figure 2).

Access is via Highway 3/95 south of Cranbrook to Green Bay then west to Monroe Lake or along the Lamb Creek logging road.

**1.20 Physiography**

The Cougar and Puma claims are situated just west of Moyie Lake within the Moyie Range of the Purcell Mountains. Topography varies from gentle valley bottoms and rounded ridges to steep, rocky, mountain slopes. Elevations range from 1077 m at Monroe Lake to 1830 m at the north edge of the property. Nearby mountains reach elevations of 2100 m.

**1.30 Property**

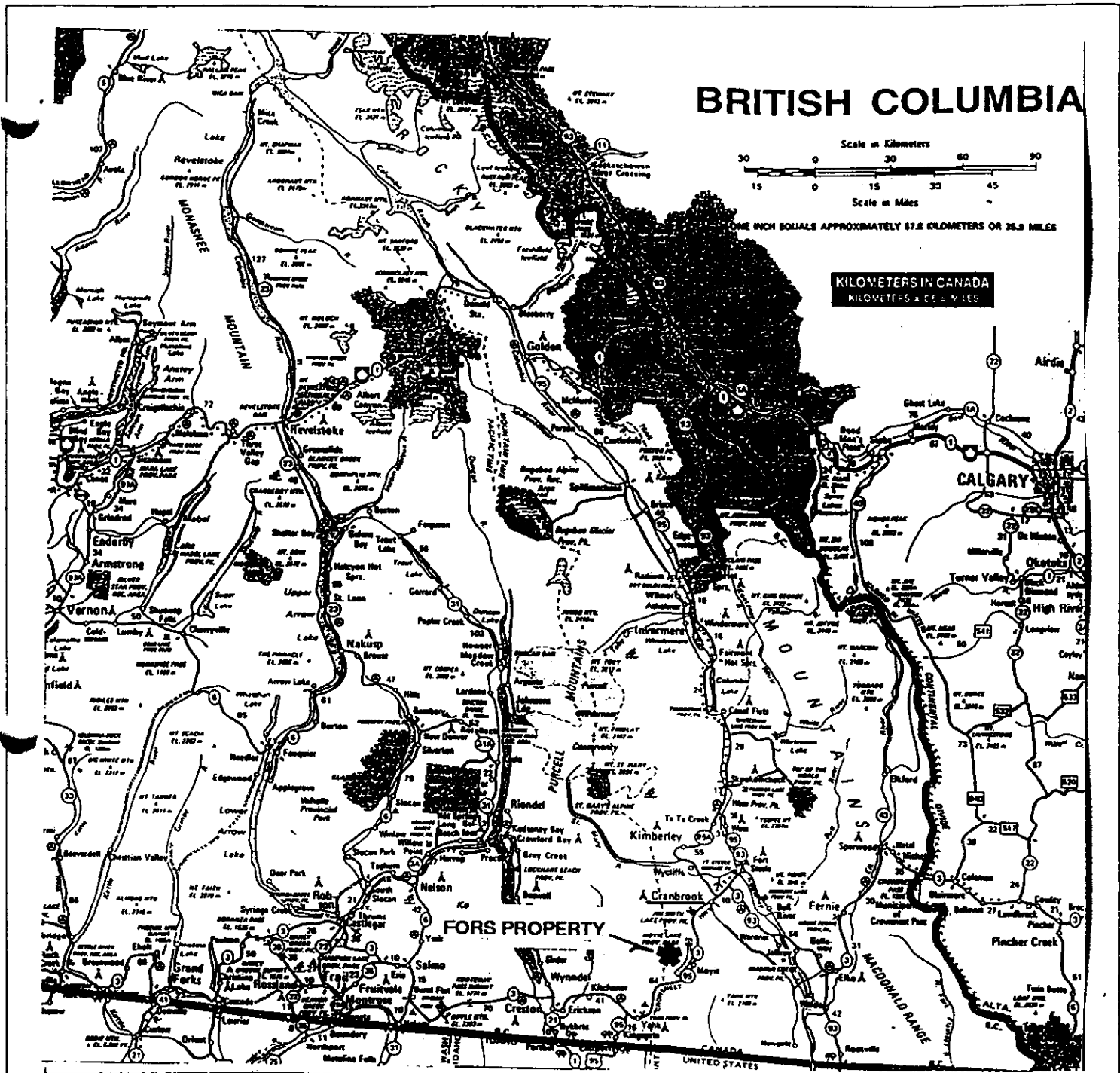
The Cougar and Puma claims are part of the Fors property which includes 145 units in 33 claims. The Fors property claims are either wholly owned or under option to Chapleau Resources Ltd.

**1.40 History**

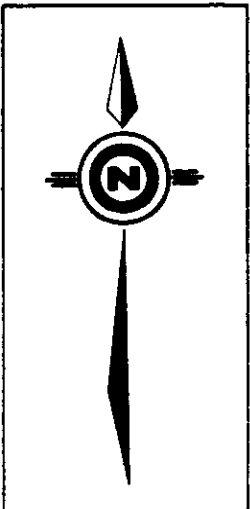
The area was initially staked by Cominco Ltd. in the mid-1960's following the discovery of surface base metal mineralization. Cominco's exploration included soil geochemistry, geophysics and diamond drilling. At least 5 shallow and 2 deeper holes were drilled between 1967 and 1978.

L.D. Morgan staked the Fors ground in 1987 and 1988 after Cominco allowed it to lapse. In 1988, the property was optioned to Placer Dome who conducted geological and geochemical work for one season.

In the fall of 1992, Chapleau Resources Ltd. and Barkhor Resources Inc. optioned the Fors property and commenced a diamond drill program operated by Consolidated Ramrod Gold Corp. (now Quest International Resources Corp.)



Last Update 11/1/97



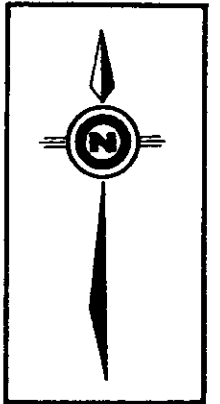
*Chapleau  
Resources*

# FORS PROPERTY LOCATION MAP

Created by: Rene Pighin  
Figure 1, May 1997 Scale: As Depicted

CAD Filename: C:\CAD\W\CHPASS.DWG

# CHAPLEAU RESOURCES



5475000 N

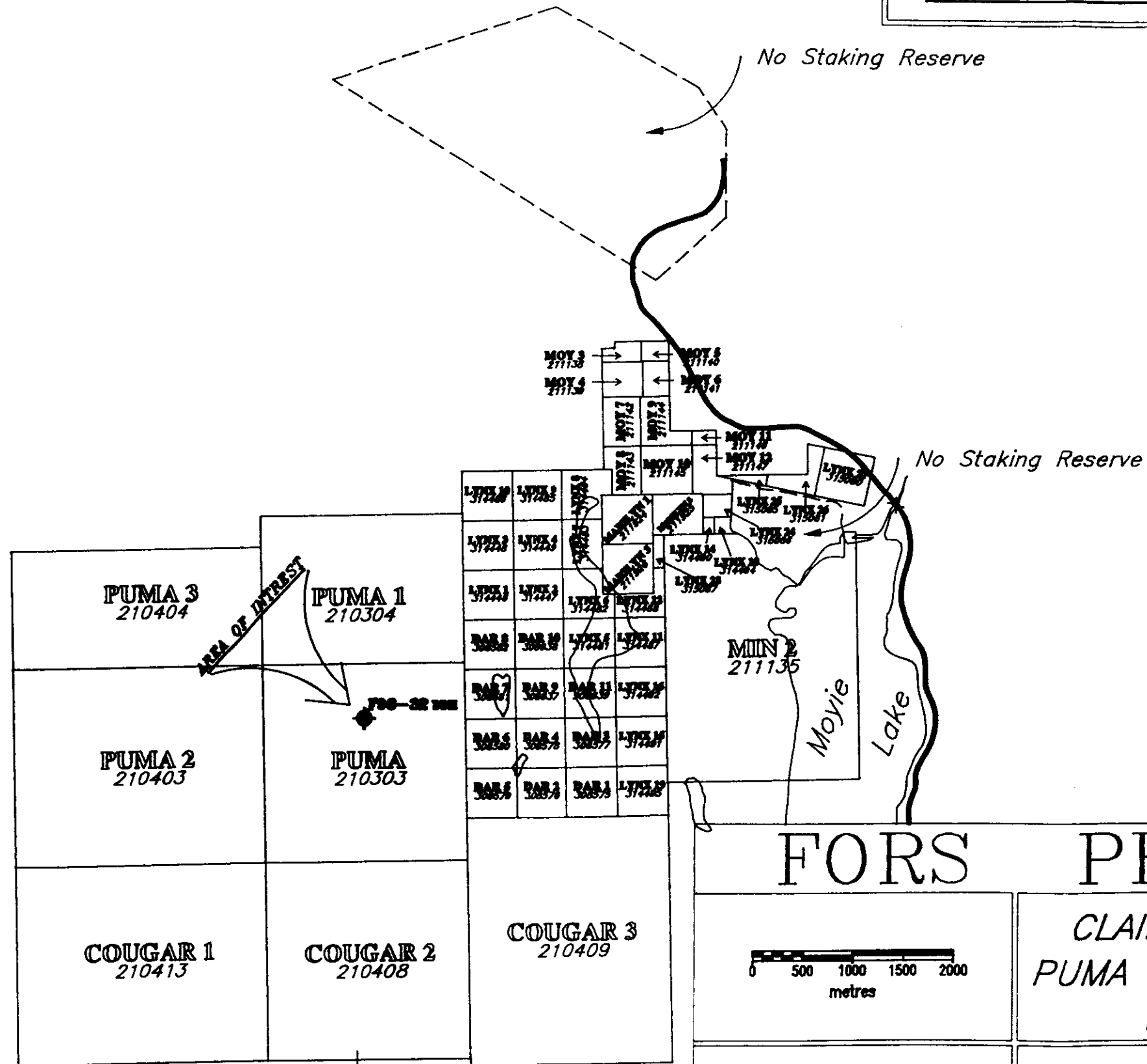
5470000 N

5470000 N

5465000 N

575000 E

590000 E



## FORS PROPERTY

CLAIM LOCATION MAP  
PUMA & COUGAR CLAIMS  
DDH F96-32

Map Reference: NTS 82G05W

Scale: 1:50,000

Date: 97/05/15

Figure 2

c:\fors\property\CLAIM-F96.dwg

### **1.50 Scope of the Present Program**

In 1996, exploration work focused on the Puma claim. The work consisted of diamond drilling. The objective was to test an IP geophysical anomaly.

## **2.00 GEOLOGY**

### **2.10 Regional Geology**

The Fors property is underlain by the Kitchener and Aldridge Formations which are members of the Precambrian Purcell Supergroup.

The Middle Proterozoic Purcell Supergroup is a thick succession of fine-grained clastic and carbonate sedimentary rocks exposed in the core of the Purcell Anticlinorium in SE British Columbia. These rocks are believed by some workers to have been deposited in an epicratonic reentrant of a sea that extended along the western edge of the North American Precambrian Craton.

The oldest known member of the Purcell Supergroup is the Aldridge Formation, a thick sequence of fine-grained siliciclastic rocks deposited largely by turbidity currents. The Aldridge Formation is gradationally overlain by shallower-water deltaic clastics of the Creston Formation; no rocks of the Creston Formation are exposed on the Fors property. Conformably overlying Creston rocks is the Kitchener Formation consisting of fine siltstones, silty carbonate and carbonates.

The Purcell anticlinorium is transected by a number of steep transverse and longitudinal faults.

A number of gabbro and diorite composition sills and dykes of Precambrian age are present within the Aldridge Formation. The Moyie Fault is a major transverse fault which crosses the extreme SE corner of the Fors property. Locally Kitchener Formation rocks on the south side of the Moyie Fault are juxtaposed with Lower Aldridge Formation rocks on the north side of the fault, implying a vertical component of movement about 5000 m.

The Aldridge Formation is host to the world class lead-zinc-silver Sullivan Orebody at Kimberley, B.C., approximately 40 km north of the Fors property. Consequently, the Aldridge Formation is prime exploration ground for the discovery of a similar deposit.

## **2.20 Property Geology**

The Fors is underlain primarily by rocks of the Aldridge Formation, with Kitchener Formation exposed on the south side of the Moyie Fault in the SE corner of the property.

Aldridge rocks north of the Moyie Fault dip gently north, NE and east. Adjacent to the Moyie Fault, Aldridge rocks strike NE and dip steeply SE while Kitchener Formation rocks on the south side of the fault strike NE but dip moderately NW.

## **3.00 DIAMOND DRILLHOLE F96-32**

### **3.10 Diamond Drillhole Statistics**

One NQ diameter drillhole was completed on the Puma claim in June 1996. The hole was drilled to test an IP geophysical anomaly.

Drillhole F96-32 was collared on the Puma claim at coordinates 49° 21' 19" N latitude and 115° 53' 50" W longitude at an elevation of 1540 m (see Figure 3).

### **3.20 Diamond Drill Geology**

Drillhole F96-32 cored Middle Aldridge Formation sediments and gabbro intrusive rocks. The sediments consist mainly of thick to very thick bedded siltstone and lesser quartzite, and medium to thin bedded, rarely very thin bedded siltstone, silty argillite and argillite. A gabbro sill of unknown thickness occupies the lower part of the hole. The gabbro is generally coarsely crystalline becoming finely crystalline near the upper contacts. The hole stopped in gabbro.

In the hole alteration is confined mainly to the sediments. Intense alteration generally occur in scattered zones throughout the hole. Alteration is principally silicification, muscovitization, biotitization with thin local zones of granetization.

Hole F96-32 found now significant faults, folds or foliation zones.

### **3.30 Mineralization**

Pyrrhotite is common as weak disseminations throughout all the rocks cored by F96-32. Locally pyrrhotite will form thin irregular veinlets and thin wispy layers parallel to bedding.

Pyrite and rare sphalerite was noted in rare thin chloritic fractures. The gabbro sill which forms the bottom of the hole contains 2% by volume disseminated pyrrhotite with rare chalcopyrite.

# LEGEND



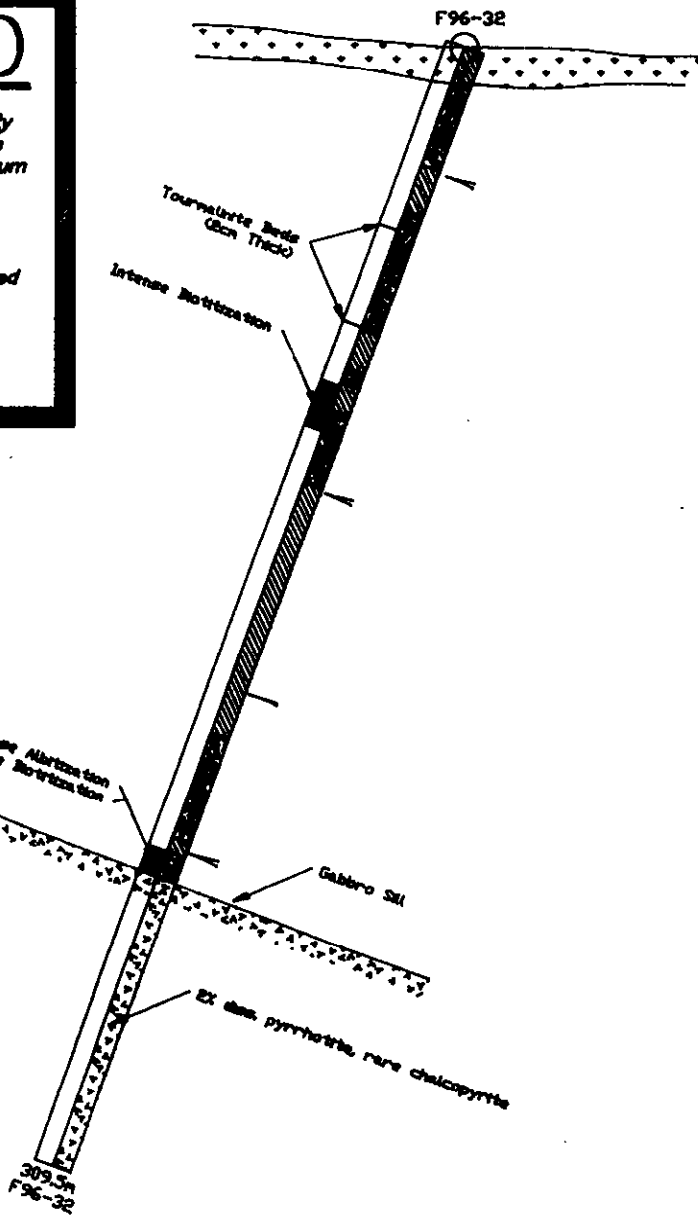
Siltstone, interbedded Silty Argillite, Argillite and rare Quartzite. Generally medium to very thin bedded.



Siltstone, interbedded Quartzite, minor Argillite. Thick to very thick bedded to very thin bedded.



Gabbro Sill



Last Update (Y/M/D): LAST-UPDATE-DATE

CAD Filename: C:\ACAD\DWG\CHAPASS.DWG

*Chapleau*  
*Resources*

FORS PROPERTY  
 DRILL HOLE F96-32  
 GRAPHIC LOG

Figure 3 May 1997 Created by: Rene Pighin  
 Scale: 1:2000



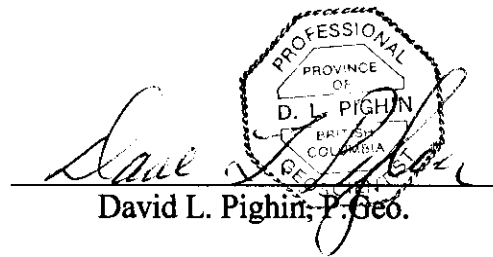
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#### 4.00 CONCLUSIONS

Diamond Drillhole F96-32 did not discover any mineralization of economic significance. Heavily disseminated pyrrhotite in the gabbro sill at the bottom of the hole is considered to be the source of the IP geophysical anomaly.

#### 5.00 RECOMMENDATIONS

No further drilling is recommended in the area adjacent to hole 96-32.



David L. Pighin, P. Geol.

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**STATEMENT OF EXPENDITURES**

**Diamond Drillhole F96-32  
Puma claim**

**Work performed between June 19, 1996 to June 26, 1996**

**INDIRECT**

Salaries

D.L. Pighin - P.Geo. - Program preparation, Log core, report writing  
6 days @ \$250/day \$ 1,500.00

Site Preparation

Lost Creek Enterprises Ltd., Fort Steele, B.C.

D7F Tractor 37.5 hrs @ \$110/hr 4,125.00

518 Skidder 58.0 hrs @ \$ 60/hr 3,480.00

Mob/Demob

Olympic Drilling Consultants Ltd. 2,179.25

**DIRECT**

Olympic Drilling Consultants Ltd.

7101 Honeyman St.

Delta, B.C. V4G 1E2

F96-32 = 309.5 m 36,870.25

**TOTAL INDIRECT & DIRECT \$48,154.50**

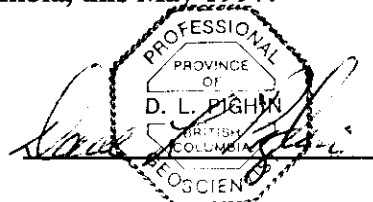
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### AUTHOR'S QUALIFICATIONS

As author of this report I, David L. Pighin, certify that:

1. I am a geologist employed by Quest International Resources Corp. whose office is at Hidden Valley Road, Cranbrook, BC. Mailing address is P.O. Box 728, Cranbrook, BC VIC 4J5.
2. I am a Member in good standing of the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
3. I have been actively involved in mining and exploration geology, primarily in the province of British Columbia, for the past 31 years.
4. I have been employed by major mining companies.

Dated at Cranbrook, British Columbia, this May 1997.



David L. Pighin  
P. Geo.

APPENDIX I

Diamond Drillhole F96-32

QUEST INTERNATIONAL RESOURCES CORP.

Property: Fors		Location: Puma claim		Hor. Comp.: 105.85m		Corr. Dip: ---		Hole No.: F96-32	
Commenced: 06/21/96		District: Fort Steele		Vert. Comp.: 209.83m		True Brg.: 210° Az.		Length: 309.5m	
Completed: 06/26/96		Core Size: NQ		Logged By: D.E. Pighin, P. Geo		% Recovery: ---		Elevation: 1540m	
Co-Ordinates: ---		Tests: none		Date: June 1996		Objective: To test an IP		Collar Dip: -70°	
Longitude: 115° 53' 50"		Latitude: 49° 21' 19"				geophysical anomaly			
METERS	LITHOLOGY	COLOUR	PRIMARY STRUCTURE & TEXTURE	TECTONIC STRUCTURE	GENERAL ALTERATION	MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)			
0-9.15	Casing to 9.15m								
9.15-32.4	Mixed Silty Argillite, Argillite and Siltstone	dark gray	massive, slump structured, probably soft sediment deformation. Bedding is indistinct wispy and distorted	Rare fractures cut core at 45°. Biotite is generally black and medium crystalline, siltstone sections are silicified and locally strongly granitiferous (subhedral pink garnets)	Strongly biotitic and chloritic. Chlorite occurs as scattered books of crystals	Locally fine dark po forms dendritic patterns in sediments. At 29.7m 5mm thick massive py vein cuts core at 45°, strong chlorite salvage along vein contacts.			
32.4-40.5	Siltstone, interbedded silty argillite, rare argillite; medium to fine grained siltstones	gray to light gray	Thin to medium bedded, bedding distinct and wavy. Graded turbidite beds fining upwards with "E" and "D" bed tops. Bedding to core 85° at 33.0m	Rare fractures cut core between 5° and 20°.	Siltstones generally silicified with fine sericite biotite and scattered subhedral pink garnets, argillite beds generally biotitic, chloritization is patchy usually in siltstone units.	Some scattered blebs and disseminations of po.			
40.5-44.9	Argillite, minor silty argillite	light gray banded gray	Thin to very thin bedded, bedding distinct and flat, rarely wavy. Bedding to core 87° at 44.5m. Rare small scale soft sediment folding, some fine parallel laminations.	nil	Widely scattered biotite.	Rare blebs and small scattered lenses of po.			

METERS	LITHOLOGY	COLOUR	PRIMARY STRUCTURE & TEXTURE	TECTONIC STRUCTURE	GENERAL ALTERATION	MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)
44.9-78.3	Siltstone, rare thin argillite interbed; generally medium to fine grained, rarely coarse grained	light gray to gray	Thick to very thick bedded, mainly indistinct and wavy, rare sharp-flat. Some beds are more than 2m thick.	Fracturing is rare but occurs locally at 23° to core.	Siltstone is generally intensely silicified with disseminated sericitic and biotite throughout. Chlorite and subhedral pink garnets localized along hairline fractures. 50.3-50.5m - tourmalinized (black)	Rare po occurs as blebs and disseminations.
78.3-82.2	Argillite, interbedded siltstone	dark gray banded gray	Thin to very thin bedded, bedding distinct flat to wavy	nil	As previously described. At 78.6m 2cm band of tourmalinite	Rare disseminated po.
82.2-89.4	Siltstone, interbedded silty argillite	banded gray and dark gray	medium to thin bedded, bedding generally indistinct flat to wavy	nil	As previously except for some intensely biotitized beds of argillite	84.2-86.5m gray vuggy quartz vein cuts core at 50°. Quartz veins host irregular patches of massive coarsely crystalline biotite.
89.4-94.0	Siltstone	light gray to bluish gray	Thick to very thick bedded, bedding indistinct and wavy.	nil	Strongly silicified with abundant sericite (muscovite?) Some hairline fractures with associated chloritization	rare disseminated po
94.0-100.2	Siltstone, interbedded silty argillite	band gray and light gray	Medium to thin bedded, bedding is in part distinct sharp flat and in part wavy. Bedding to core 87° at 98m. Some beds are finely parallel laminated.	nil	As previously described.	Weakly disseminated po with scattered bands of strongly disseminated po
100.2-117.3	Siltstone, with minor thin argillite, interbeds; siltstones are medium to fine grained, rare coarse grained	generally light gray	Thick to very thick bedded with rare thin beds. Bedding is indistinct, some beds are strongly disrupted by soft sediment deformation. Some siltstone beds are 2 meters thick	nil	Siltstones are strongly silicified, muscovitized and biotitized. Subhedral pink garnets are locally abundant	Very rare disseminated po. Wide scattered very thin hairline fractures host py and chlorite.
117.3-123.0	Argillite, interbedded silty argillite	light gray, dark brownish gray	Thin to very thin bedded, bedding sharp and flat, some beds are finely parallel laminated, some thin zones of soft sediment deformation. Bedding to core 85° at 121.0m.	nil	Silty argillite are generally intensely biotitized.	118.0-118.6m - thin irregular fracture cuts core at 8°. Mineralized by py and chlorite with rare ZnS.
123.0-134.5	Siltstone, interbedded silty argillite	light gray, band gray	Medium to thin bedded, bedding distinct and wavy.	nil	Siltstone beds strongly silicified, muscovitized, biotitized with rare scattered pink subhedral garnets.	Minor disseminated py and po.

MEYERS	LITHOLOGY	COLOUR	PRIMARY STRUCTURE & TEXTURE	TECTONIC STRUCTURE	GENERAL ALTERATION	MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)
134.5-141.3	Siltstone, minor interbedded argillite and silty argillite; medium grained, rarely coarse grained siltstones	mainly bluish gray with some light gray banding	Medium to thick bedded, bedding distinct and wavy. Siltstone beds are graded fining upwards.	nil	Siltstone beds are strongly silicified with abundant fine muscovite, locally scattered subhedral pink garnets.	Widely scattered po disseminations.
141.3-149.0	Siltstone, interbedded argillite and silty argillite	gray banded, light gray	Medium to thin bedded, bedding distinct generally flat.	nil	As previously described.	Rare thin 2-4mm thick quartz py veinlets cut core at angles of 15° and 33°.
149.0-162.0	Argillite, interbedded silty argillite; rare siltstone	banded gray and light gray	Thin to very thin bedded, rare medium beds, bedding is sharp flat. Bedding to core 88° at 157.3m.	nil	Argillite beds are intensely biotitized by fine biotite, then overprinted by latter biotitization which forms 2-3mm spheres forming a spotted hornfels rock. Small subhedral white to pink garnets abundant locally in the spotted hornfels	rare very thin veinlets contain quartz and py.
162.0-182.5	Siltstone, lesser interbedded argillite and silty argillite; medium to fine grained siltstone	light gray to bluish gray	Medium to thick bedded, bedding is indistinct, bedding planes are wavy. Siltstone beds are generally graded fining upwards.	nil	Argillite beds are altered to spotted hornfels as described previously. Siltstone beds are intensely silicified with abundant fine muscovite, widely scattered subhedral pink garnets associated with silicification.	Rare disseminated po
182.5-211.3	Siltstone, rare argillite interbeds; siltstones are fine to medium grained		Thick to very thick bedded, bedding is indistinct, some of the siltstone beds at least 1m thick. Bedding to core 87° at 203.0m.	nil	Siltstones are strongly silicified and altered as described above. Argillite beds altered to spotted hornfels as above.	Rare thin irregular veinlets 2-4mm thick, mineralized by py and chlorite cuts core at 5°.
211.3-214.8	Siltstone, interbedded argillite-silty argillite; 214.2-214.8m - lamprophyre dyke cuts core at 54°	gray, banded light gray	Medium to thin bedded, bedding sharp-flat, rarely wavy and/or distorted. Bedding to core 88° at 212.5m.	Relatively abundant open fractures at 64° and 26° to core	Strongly albitized, biotitized with minor chloritization. Albitization is most intense along the H.W. of lamprophyre dyke	Rare disseminated po-py
214.8-221.6	Siltstone	light gray	Very thick bedded, no visible bedding planes	Abundant open and healed fractures at 60°, 40° and 18° to core	Biotitized and silicified, cut by late albitization and chlorite in veinlets and in patches. Albitization intensifies towards the underlying gabbro contact.	nil
221.6-309.5	Gabbro; in part quartz diorite	shades of green	246.0-309.5m - zoned between medium and finely crystalline. Brecciated, breccia consists of dark green finely crystalline amphibole clasts in a medium to coarsely crystalline quartz diorite matrix.	244.0-246.0m - thin chloritic shear zone healed by calcite is parallel to core	Late albite? veinlets are scattered throughout gabbro and quartz diorite.	231.0-309.5m - gabbro hosts up to 2% po as specks and massive blebs 4mm in size (probably the reason for the I.P. anomaly). Quartz diorite breccia hosts 2-3% ilmenite.

METERS	LITHOLOGY	COLOUR	PRIMARY STRUCTURE & TEXTURE	TECTONIC STRUCTURE	GENERAL ALTERATION	MINERALIZATION (ASSOCIATED ALTERATION, HOST STRUCTURE)
221.6-309.5 cont			Upper contact is marked by berrn quartz, the relationship between the quartz and underlying gabbro is obscured by broken rubble core			Ilmenite grains all have leucoxene rims. Cpy is very weakly disseminated throughout, some weak po disseminations as well.
309.5	END OF HOLE  Core is stored in racks at Quest's Office.					