

**DRILLING REPORT  
ON  
STEEPLES GROUP #1C  
AND  
STEEPLES GROUP #2B**

**GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORTS**

**DATE RECEIVED  
JAN 26 1996**

**FORT STEELE MINING DIVISION  
BRITISH COLUMBIA  
49°30'N, 115°23'W  
NTS 82 G/11**

**For  
R. H. STANFIELD  
380 - 4723 1st Street S.W.,  
Calgary, Alberta**

**By  
MASTER MINERAL RESOURCE SERVICES LTD.  
32 Midpark Gardens S.E.,  
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**FILMED**

**December 1995**

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**24,240**

**MASTER MINERAL RESOURCE SERVICES LTD.**

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## INTRODUCTION:

The Steeples Group #1C comprises of five claims of twenty units each as shown in Table 1:

**Table 1: Steeples Group #1C:**

Claim Name	Tenure No.	No. of Units	Current Expiry Date	\$ Value to be applied	Years to be applied	New Expiry Date
Steeples 11	209738	20	09/11/95	8,000.00	2	09/11/97
Steeples 13	209740	20	09/11/95	8,000.00	2	09/11/97
Steeples 2	209737	20	09/11/95	8,000.00	2	09/11/97
Steeples 1	209736	20	09/11/95	8,000.00	2	09/11/97
Steeples 15	209847	20	22/12/95	8,000.00	2	22/12/97

In the exploration program at the old Bul River Mine area, several en echelon mineralized zones have been identified in two clusters. The main group is denoted as the Central Section of the Underground Zone, while the other group further to the west, but in the same strike direction has been located and identified as the Western Section of the Underground Zone.

In between the two groups there was a gap in information that did not allow the determination of whether these two groups were connected along strike or were offset by faulting. The deeper overburden in this area prevented more detail exploration, but in 1995 an area near the edge of the old mine pit was selected for testing by drilling, because, it appeared to be not only in line with the strike of the mineralized zones, but the overburden thickness was estimated to be about 150 meters. The drill hole is designated as *BR 1-95*.

Drill Hole **BR 2-95** is located to determine the strike extension of the Western Section of the Underground Zone even further west. The drill hole is on Steeples 12 of the Steeples Group 2B described in Table 2 below. The collar is located at the intersection of the strike projection of the Underground Mineralized Zone and a 300 meter long , north trending, axis of a magnetic anomaly (survey completed by previous owners).

**Table 2: Steeples Group #2B:**

Claim Name	Tenure No.	No. of Units	Current Expiry Date	\$ Value to be applied	Years to be applied	New Expiry Date
Steeples 12	209739	20	09/11/95	8,000.00	2	09/11/97
Steeples 14	209741	20	09/11/95	8,000.00	2	09/11/97

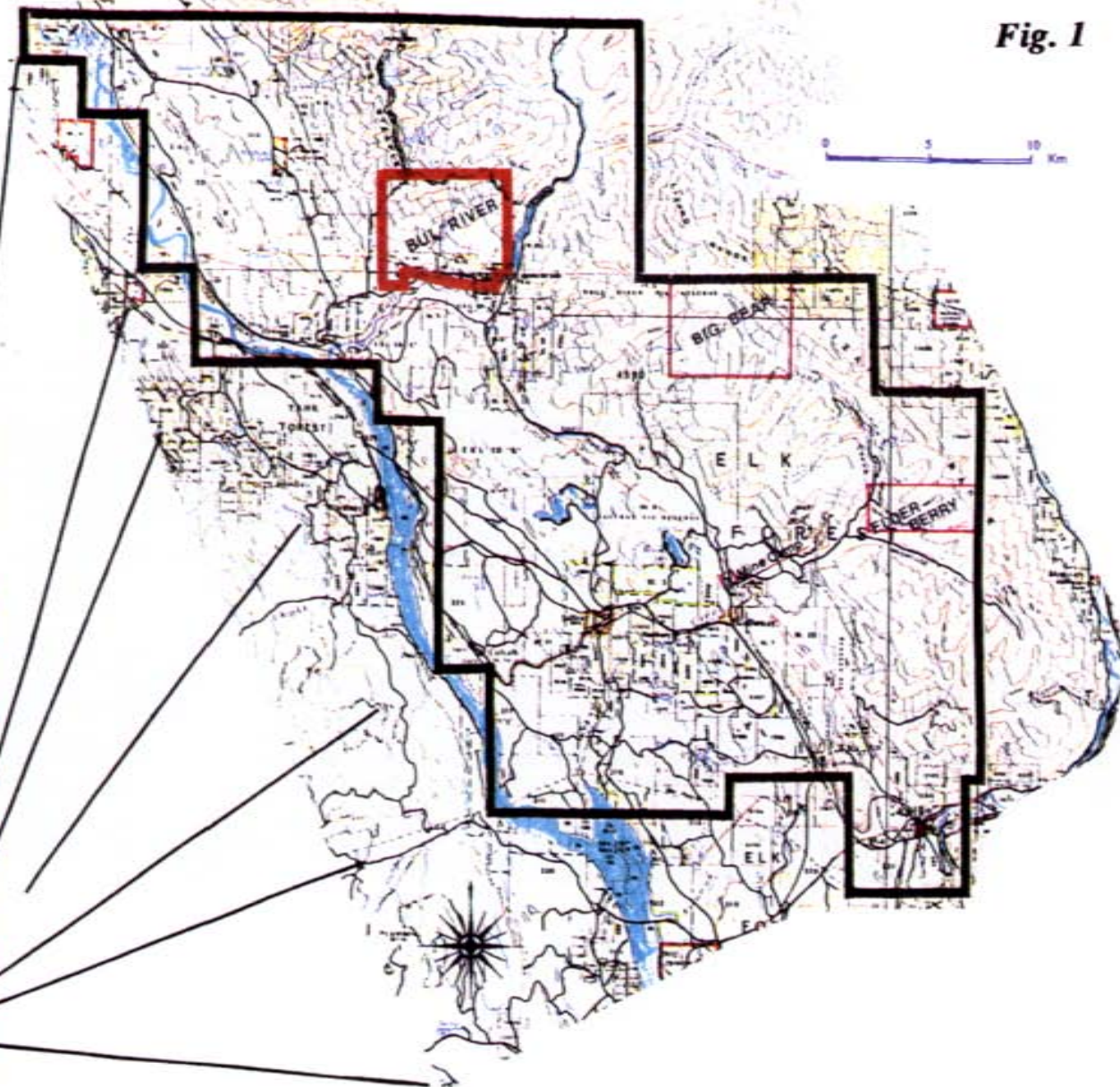
#### **LOCATION, ACCESSIBILITY AND TOPOGRAPHY:**

The claim groups are located in southeastern British Columbia approximately 30 kilometers by Highway 3 from Cranbrook, and 16 kilometers by paved and secondary road to the mouth of the Bull River Canyon (see *Figure 1*).

The groups are centered approximately at 49° 30'N, 115°23'W in N.T.S. quadrant 82G/11 within the Fort Steele Mining Division (*Figure 2 for Group #1C, and Figure 3 for Group #2B*). Topographic relief ranges from 900 to 1,500 meters with steep gradients except at the Bul River Mine Site, where gradients are not so severe.

The drill hole collar for BR 1-95 is located at UTM coordinates 617000E, 5484420N (Grid Zone 11U), and the collar elevation is at 921.21 meters. The dip at the collar is vertical (-90°) and the hole was completed to 903.3 meters between November 4, 1994 and April 6, 1995 using a Longyear Super 38 Diamond Drill.

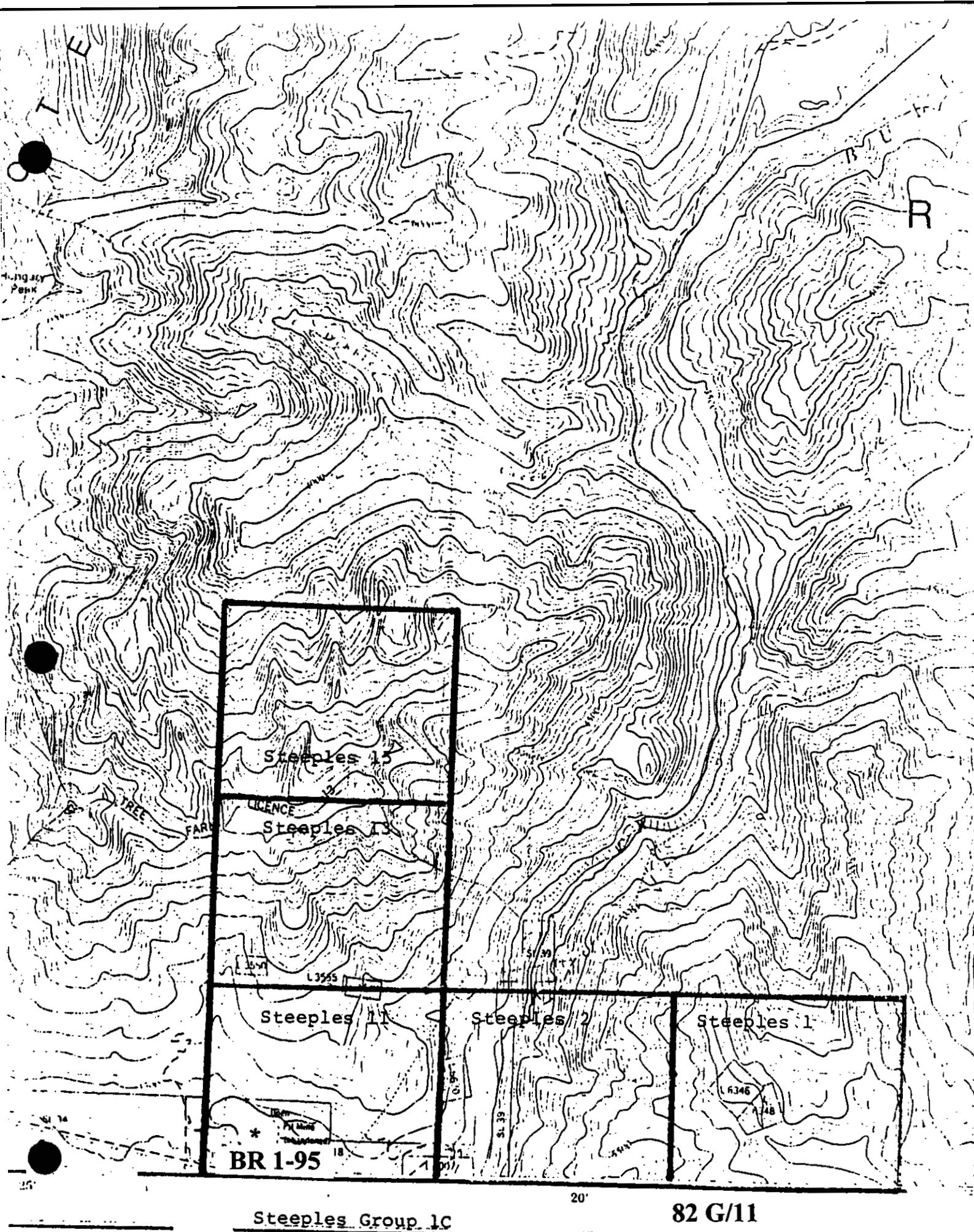
# THE R. H. STANFIELD GROUP



**Fig. 1**

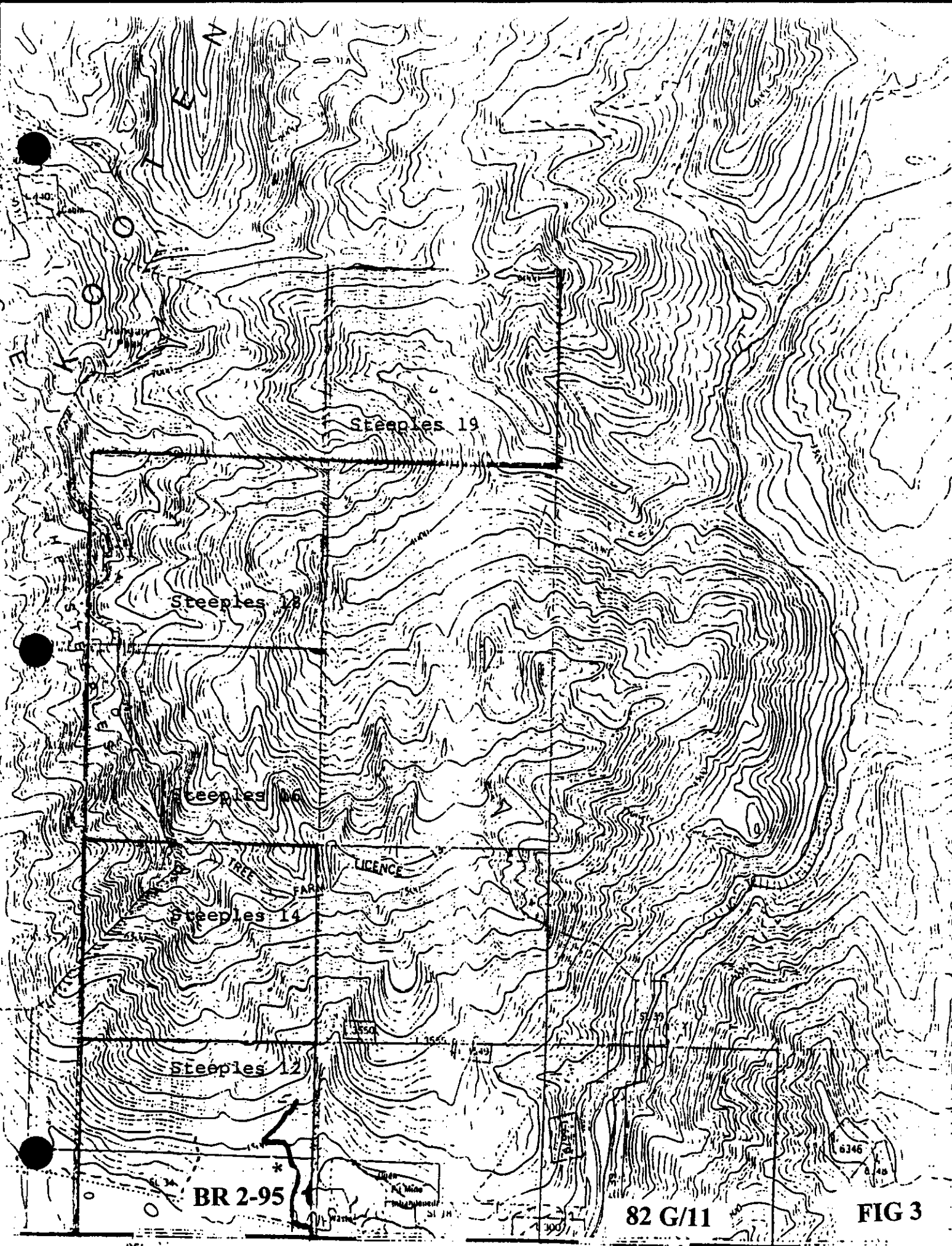
**LOCATION AND CLAIM AREA**





1: 50,000 SCALE, OUTLINE OF CLAIMS

FIG 2

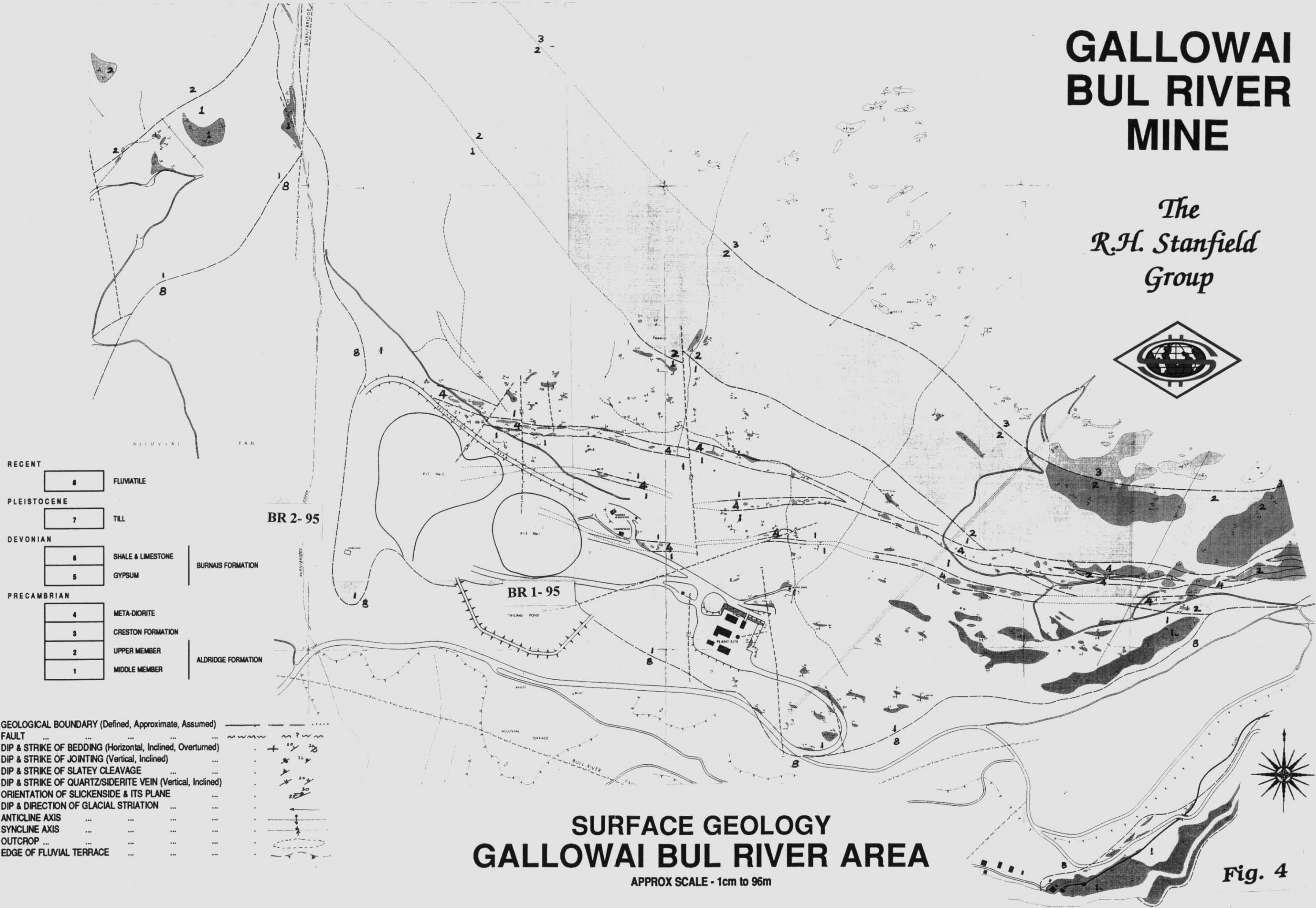


25'  
Steeples Group 2B

1: 50,000 SCALE, OUTLINE OF CLAIMS

# GALLOWAI BUL RIVER MINE

*The  
R.H. Stanfield  
Group*

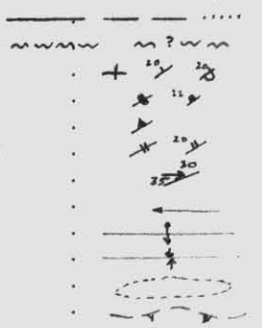


RECENT	8	FLUMATILE
PLEISTOCENE	7	TILL
DEVONIAN	6	SHALE & LIMESTONE
	5	GYPSUM
PRECAMBRIAN	4	META-DIORITE
	3	CRESTON FORMATION
	2	UPPER MEMBER
	1	MIDDLE MEMBER

BURNAIS FORMATION

ALDRIDGE FORMATION

GEOLOGICAL BOUNDARY (Defined, Approximate, Assumed)  
FAULT ...  
DIP & STRIKE OF BEDDING (Horizontal, Inclined, Overturned)  
DIP & STRIKE OF JOINTING (Vertical, Inclined)  
DIP & STRIKE OF SLATEY CLEAVAGE  
DIP & STRIKE OF QUARTZ/SIDERITE VEIN (Vertical, Inclined)  
ORIENTATION OF SLICKENSIDE & ITS PLANE  
DIP & DIRECTION OF GLACIAL STRIATION  
ANTICLINE AXIS  
SYNCLINE AXIS  
OUTCROP  
EDGE OF FLUVIAL TERRACE



## SURFACE GEOLOGY GALLOWAI BUL RIVER AREA

APPROX SCALE - 1cm to 96m

Fig. 4



The collar for drill hole BR 2-95 is located at UTM coordinates 616230E, 5484754N (Grid Zone 11U), at an elevation of 971.15 meters. The dip of the hole at the collar is vertical ( $-90^0$ ). 1,414 meters were drilled between April 20, 1995 and September 28, 1995 using a Longyear 44 Diamond Drill.

## **GEOLOGY AND MINERAL DEPOSIT:**

### **Geological Setting:**

The old mine site and the current main area of investigation on the two claim groups is located on the eastern flank of the Rocky Mountain Trench, within the Steeples Range Domain of the Western Rocky Mountains. *Figure 4* shows the formations mapped in the area. It is probably significant that the old mine site and the mineralized zones under current investigation are adjacent to the south dipping, west-northwest striking Bull Canyon Fault System (*Figure 5*) that marks the southern limit of the Steeples Range Domain. The fault system parallels other major fault systems in the area that also have one or more associated mineral deposits, e.g. Sand Mountain and Sand Creek Fault Systems.

The area under investigation is at the edge of a deep area of overburden of Pleistocene glaciofluvial and colluvial sediments. Basement rocks consist of Precambrian meta-sediments of the Upper Aldridge and Lower Creston Formations, and diorite dykes and sills of the Moyie Intrusives. Outcrops of these basement rocks are common immediately north and east of the area underlain by the mineral deposits in this investigation.

### **Nomenclature and Identification of Mineralized Zones:**

The term *PIT ZONE* refers to the mineralized zone mined by previous owners in the 1970s by open pit methods. The remnants of the two pits are shown in Figure 7. The

FIG 5

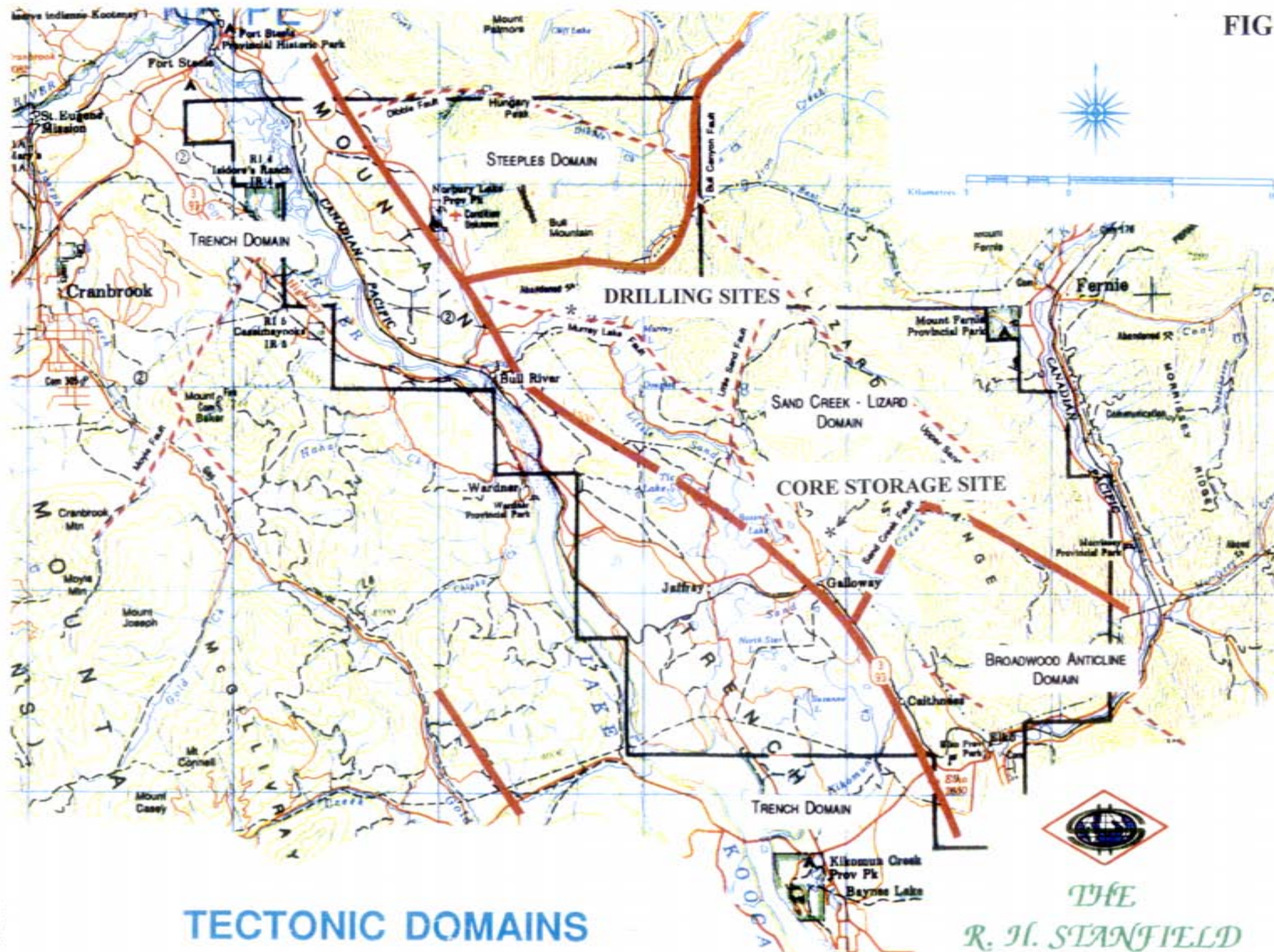


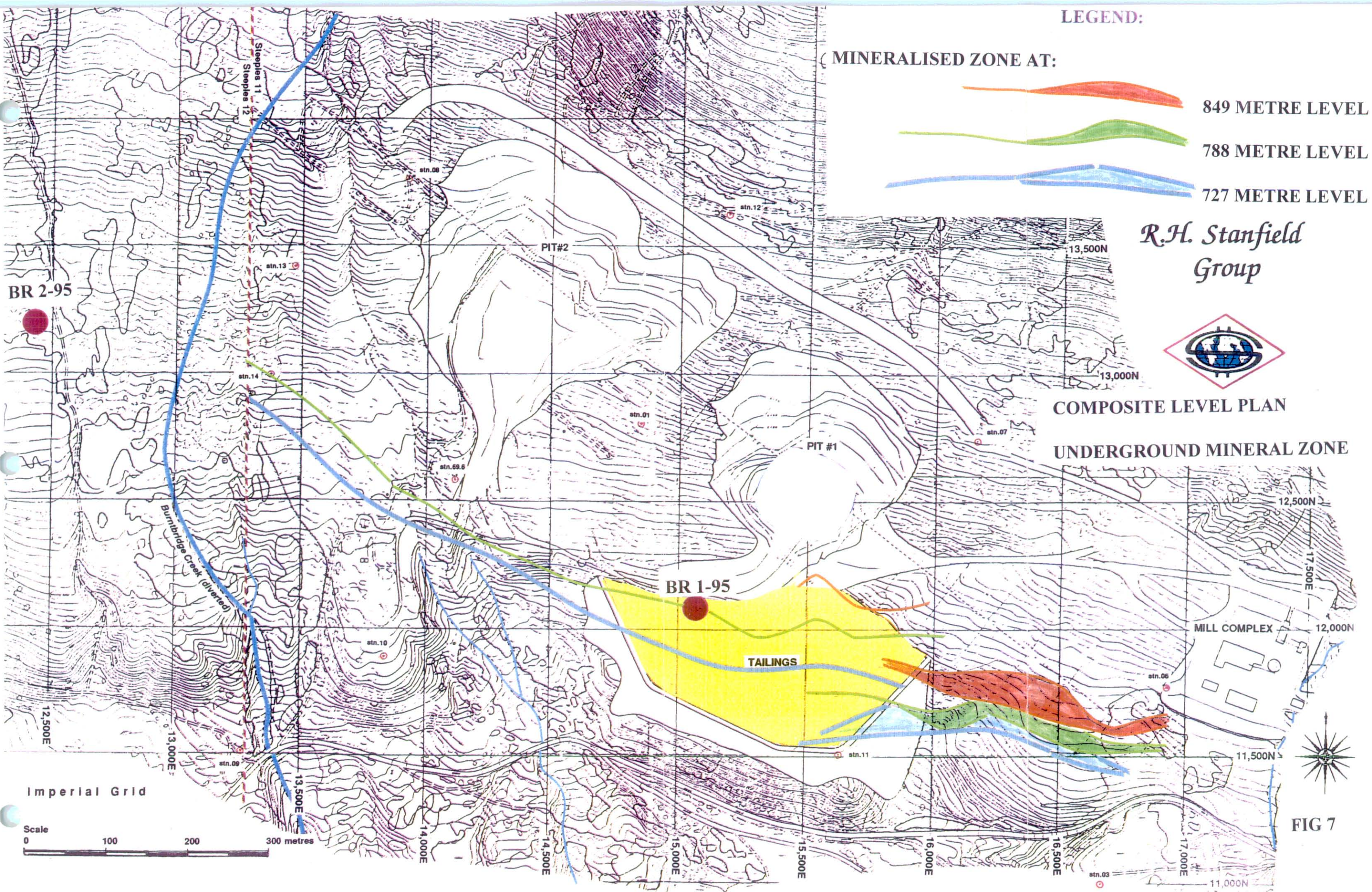
FIG 5

## TECTONIC DOMAINS

AND DRILLING SITE AND CORE STORAGE SITE

THE  
R. H. STANFIELD  
GROUP





LEGEND:

MINERALISED ZONE AT:

- 849 METRE LEVEL
- 788 METRE LEVEL
- 727 METRE LEVEL

R.H. Stanfield Group



COMPOSITE LEVEL PLAN

UNDERGROUND MINERAL ZONE

FIG 7



term **UNDERGROUND ZONE** has been applied in the past by the previous owners to the mineralized zones in the hanging wall of the Pit Zone. This term is used in this report for the mineralized zones located by continuing exploration in the old Bul River Mine area. **Figure 6**, is a schematic composite cross section (looking west) showing the several en echelon mineralized systems of the Underground Zone. Along the west north-west strike the Underground Zone has been identified in two clusters. The main group is denoted as the Central Section of the Underground Zone, while the other group further to the west, but in the same strike direction has been located and identified as the Western Section of the Underground Zone.

### Host Rock Geology

The host rocks are designated as the **Argillite Sequence**. Units within the sequence are identified on:

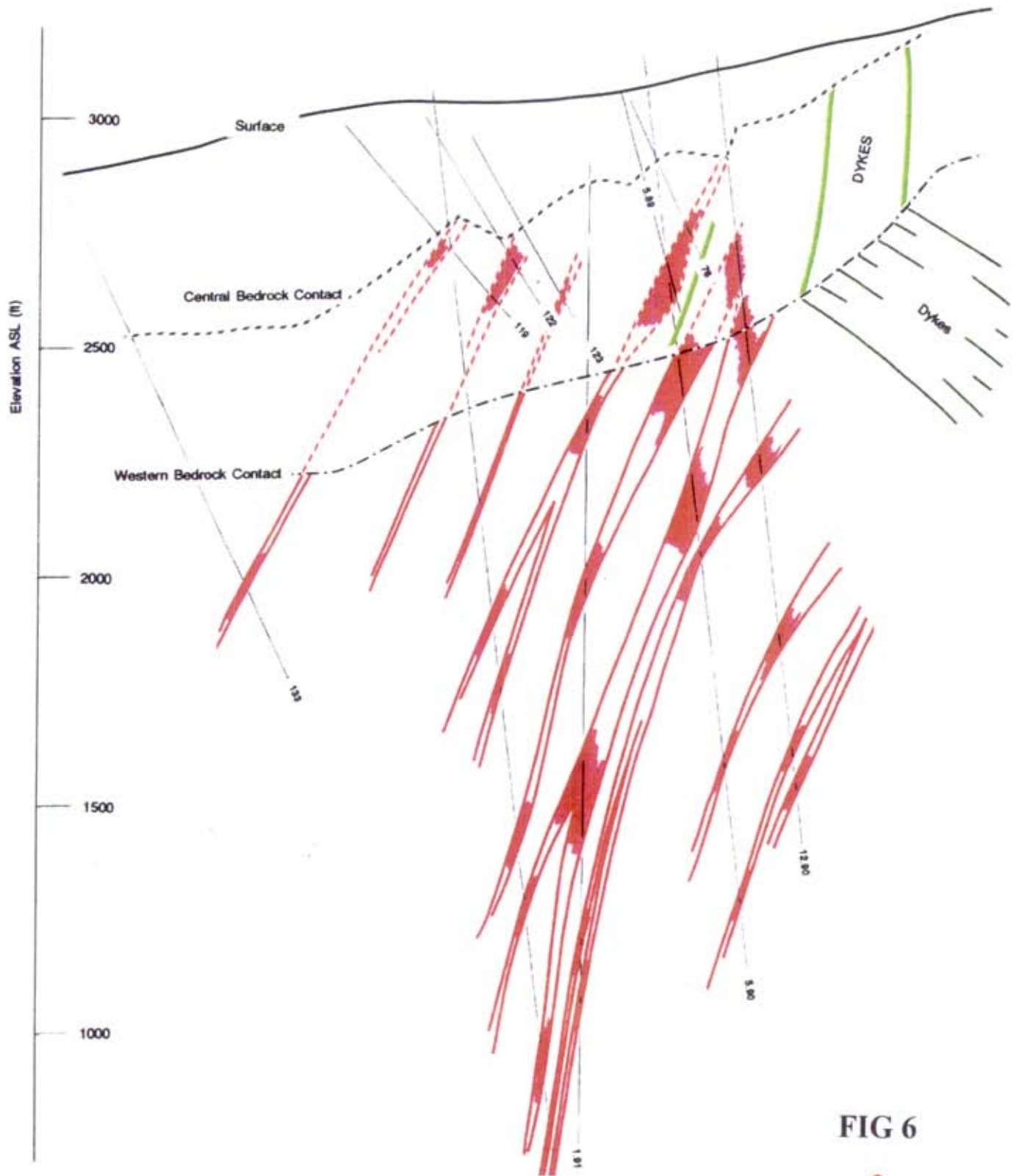
- (1) *colour* --- degree of chloritisation and silicification, and presence of graphitic material.
- (2) *foliation* --- degree of foliation or massive looking.

The above criteria allows classification into the following spectrum:

***Argillite – Quartzitic Argillite – Argillitic Quartzite – Quartzite***

The attitude of the host rocks in outcrop adjacent to the mine has been determined as generally west-northwest with a northerly dip. Lack of marker horizons or distinctive bedding, and the cyclical nature of the sedimentary sequence makes it almost impossible to determine structure, e.g. folding, within the host sequence from the drill hole data. Previous work has postulated transverse faulting as one mechanism to explain repetition of features and en-echelon mineralized zones.

FIG 6



SCHEMATIC CROSS SECTION (LOOKING WEST)

**CENTRAL & WESTERN  
ZONES**  
(schematic)

FIG 6



*THE  
R. H. STANFIELD  
GROUP*



Disseminated sulphides, mostly pyrite and pyrrhotite are common and are usually trace to < 5%, but frequently stringers of sulphides and concordant (to foliation) bands of pyrrhotite have been observed in the drill core.

The Argillite Sequence is intruded by dykes and sills of "diorite" that have been identified by previous work as part of the Moyie Sills and Dykes. These tend to be concentrated mostly in the Pit Zone and the footwall of the Underground Zone. Trace content of sulphides in the diorite is noted in drill intersections observed for this report.

### **Mineralized Zones:**

Within the Aldridge sequence are several shear zones that have the same approximately north-west strike but dip south. Several of these shear zones have been identified by drilling. They vary in width and continuity along strike and dip. One of the shear zones within the block identified as the Underground Zone is known for its relatively extensive continuity along strike and dip and has been identified as the *Main Zone*.

Most of the shear zones are identified in the drill core by fracturing. The intensity of fracturing varies from broken core, to clay filled fractures (gouge) to a mass of micro-fractures designated as the "crackle zone" in drill logs. Some of the fractures have extensive carbonate in the matrix -- mostly calcite, but siderite and ankerite are significant in some sections. There is usually a direct correlation in secondary chlorite and carbonate in the shear zones, particularly with siderite. Quartz is sometimes a major constituent in the shear zones, and appears to be affected by micro-fractures in some sulphide-chlorite mineralized sections.

Sulphides consist of pyrite, pyrrhotite, chalcopyrite and arsenopyrite(?) in order of abundance within the shear zones. The relationships observed in the core between the types and degree of fracturing, the types and degree of carbonate fillings, chloritisation,

quartz content, sulphide content and crackle zones, suggests multiple phases of fracturing with the carbonate and quartz filling the major fractures followed by micro fracturing, which provided pathways for transportation and deposition of secondary chlorite and sulphides.

The footwall and hanging wall limits of sulphide mineralisation are based mainly on visual criteria in drill core, and in *Appendix A* the drill logs show the chemical analysis of some of the mineralized zones analyzed to date on the two drill holes being reported. In *Appendix B* the analysis report from Terrain Research Lab is included.

#### **DRILL HOLE COLLAR LOCATION:**

*Figure 7* shows the location of collars for drill holes BR 1-95 and BR 2-95.

The drill core is stored at the core storage facilities and permanent camp site of Bul River Mineral Corporation Ltd. near Gallowai, British Columbia (see Figure 5).

#### **CONCLUSIONS:**

Figure 7 is a composite level plan showing the trace of the Main (Mineralized) Shear Zone at three levels. At all three levels -- the 849, the 788 and the 727 -- the mineralisation is present in the Central Zone of the deposit, but is only intersected at the 788 and 727 levels in the Western Zone due to erosion of the upper level.

Prior to the completion of BR1 - 95, there was no confirmation of connection along strike between the two zones. The completion of this drill hole has shown that the Main Shear (Mineralized) Zone is indeed continuous at the 788 and 727 levels, with the upper sections being eroded from higher levels as in the Western portion of the deposit. This confirmation of continuity will improve the confidence of reserves in the deposit, and facilitate planning of a bulk sampling program.

More close spaced drilling is recommended in this area to better delineate the Main Shear Zone, and to determine the extensions -- along strike and down dip -- of the other en-echelon structures. Several of these structures in the Central Zone have shown a tendency to change strike direction and form large ore shoots when they intersect the Main Shear Zone.

Figure 7 also shows that hole BR 2-95 did not intersect the Main Shear (Mineralisation) Zone. Due to the deep overburden and the potential depth to targets at the three levels mentioned above, it is recommended that further investigation for the western extension of the deposit by surface drilling be done after better delineation of shear zones by geophysical methods.

#### **COST STATEMENT:**

##### **Claim Group: Steeples # 1C**

<b>Claims:</b>	Steeples #11, 13, 2, 1, and 15
<b>Drilling Dates:</b>	November 4, 1994 to April 6, 1995. Nov. 4-9, 10, 12-17, 19-24, 26-30, Dec. 1, 3-8, 10-16, 1994 and Feb. 1-9, 11-16, 18-28, March 1, 2, 4-9, 11-16, 18-23, 25-28, 31, April 1-6, 1995.
<b>Drill Crew:</b>	Driller: Mr. Robert Thelland, Box 24, Gallowai, B.C. Driller's Helper: Mr. R. Hewisson, Box 24, Gallowai, B.C. Mr. Stan Muglich, Box 24, Gallowai, B.C.
<b>Site Crew:</b>	Manager: Mr. R. Stanfield, Jr., Box 24, Gallowai, B.C.
<b>Consultant:</b>	Pilsum Master, P.Geol., 32 Midpark Gdns. S.E., Calgary, Alberta
<b>Equipment:</b> and	1 Longyear Super 38 Coring drill with heavy duty mask all weather skid shack. Pump Sloop (water heater, Petter/FMC pump), 1000gal portable tank IR 125 compressor. Drill Rod Trailer Ford F600 4x4 Rod Truck Two F250 4x4 Pickup Trucks, slip tank. 1 D7 Cat, to set up drill stations, reclaim drill sites, roads, stand by. 1 CASE 580D 4x4 Backhoe, with extended Boom, sump placement, site preparation.

<b>Unit Direct Drill Costs:</b>	Owning and Operating costs for M/c, Drill	
	String and Bits	\$ 13.958/foot
	Moving, Setup, Surveying, Pumping, etc.	\$ 0.938/foot
	Ancillary Charges @ 59.65% of above	\$ 8.885/foot
	Contingency @ 8% of total above	\$ 1.903/foot
		<u>\$ 25.68 / foot</u>

**Cost Summary:****A: For Period November 9, 1994 - April 6, 1995:**

Labour Costs, including Manager	\$ 57,856.10
Room and Board, 271 man days @ \$65/day	\$ 17,615.00
Direct Drill Costs; 2566 feet @ \$ 25.68/ft	\$ 65,894.88
Consultant' Fee: 5 days @ \$ 400/day	\$ 2,000.00
Room and Board, Consultant: 5 days @ \$65/day	\$ 325.00
Room and Board, Manager/Site Foreman:	
89 days @ \$65/day	\$ 5,785.00
Chemical Analysis	\$ 108.28
Equipment: D7, 7 hours @ \$110/hour	\$ 770.00
Backhoe, 17 hours @ \$ 100/hour	\$ 1,700.00
Driller's Truck: 89 days @ \$50/day	\$ 4,450.00
Foreman's Truck: 89 days @ \$50/day	\$ 4,450.00
Sub - Total	\$ 160,954.26

Plus:

**B: For Period November 4 - November 9, 1994:**

Labour Costs:	\$ 2,993.00
All other costs Prorated as 6 days/ 89 days from A	\$ 10,850.85

**TOTAL** **\$ 174,798.11**

**Claim Group: Steeples # 2B**

<b>Claims:</b>	Steeples # 12 and 14
<b>Drilling Dates:</b>	April 20, 1995 to September 28, 1995 April 20-27,29,30, May 1-4,6-11,13-18,20-25,27-31, May 1-4,6-11,13-18,20-25,27-31, June 1,3-8,10-14,16-22, 24-30, July 18-27,29,31, Aug. 1-3,5-10,12-17,19-24,26-31, Sept. 2-7, 9-14,16-23.
<b>Drill Crew:</b>	Driller: Mr. Robert Thelland, Box 24, Gallowai, B.C. Driller's Helper: Mr. R. Hewisson, Box 24, Gallowai, B.C. Mr. Stan Muglich, Box 24, Gallowai, B.C. Mr. Kirk Halwas, Box 24, Gallowai, B.C.
<b>Site Crew:</b>	Manager: Mr. R. Stanfield, Jr., Box 24, Gallowai, B.C.
<b>Consultant:</b>	Pilsum Master, P.Geol., 32 Midpark Gdns. S.E., Calgary, Alberta
<b>Equipment:</b>	1 Longyear 44 0 Coring drill with heavy duty mask and all weather skid shack.

Pump Sloop (water heater, Petter/FMC pump), 1000gal portable tank IR 125 compressor.

Drill Rod Trailer

Ford F600 4x4 Rod Truck

Two F250 4x4 Pickup Trucks, slip tank.

1 D7 Cat, to set up drill stations, reclaim drill sites, roads, stand by.

1 CASE 580D 4x4 Backhoe, with extended Boom, sump placement, site preparation.

**Unit Direct Drill Costs:**

Owning and Operating costs for M/c, Drill

String and Bits \$ 13.958/foot

Moving, Setup, Surveying, Pumping, etc. \$ 0.938/foot

Ancillary Charges @ 59.65% of above \$ 8.885/foot

Contingency @ 8% of total above \$ 1.903/foot

\$ 25.68 / foot

**Cost Summary:**

For Period April 20 to September 28, 1995:

Labour Costs, including Manager \$ 62,451.70

Room and Board, 293 man days @ \$65/day \$ 19,045.00

Direct Drill Costs; 3,702 feet @ \$ 25.68/ft \$ 96,062.31

Consultant' Fee: 6 days @ \$ 400/day \$ 2,400.00

Room and Board, Consultant: 6 days @ \$65/day \$ 390.00

Room and Board, Manager:95 days @ \$65/day \$ 6,175.00

Chemical Analysis \$ 59.06

Equipment: D7, 8 hours @ \$110/hour \$ 880.00

Backhoe, 20 hours @ \$ 100/hour \$ 2,000.00

Driller's Truck: 95 days @ \$50/day \$ 4,750.00

Foreman's Truck: 95 days @ \$50/day \$ 4,750.00

Drill Pipe Truck 184 days @ \$50/day \$ 9,200.00

**TOTAL** \$ 207,163.07



## REFERENCES

ALLEN, Alfred R., Geology and Ore Potential on the R. H. Stanfield Holdings., August 1976

BATEMAN, Economic Mineral Deposits; 1950

CAMPBELL, F. A.; ETHIER, V.G.; KROUSE, H.R., The Massive Sulfide Zone: Sullivan Ore body. Economic Geology Vol. 75; 1980

CLAGUE, John T. The St. Eugene Formation and the development of the Southern Rocky Mountain Trench. Canadian Journal Earth Science. 1974

FREEZE, A.C., On the Origin of the Sullivan Ore Body, Kimberly, B.C.; C.I.M. Vol. 8; 1966

HELMSTAEDT, H. H., et al, Stratigraphic & Structural Setting of the Intrusive Breccias Diatremes in the White River-Bull River Area, Southeast BC, BC Ministry of Energy, Mines and Petroleum Resources, Geological Fieldwork, 1987, Paper 1988-1 p. 363-388

HOY, T., HEYDEN, P. Van Der., Geochemistry, Geochronology, and tectonic implications of the two quartz monzonite intrusions, Purcell Mountains, Southeastern British Columbia. Can. Journal Earth Sciences 25. 1988

HUNT, Graham, Time of Purcell Eruption in Southeastern British Columbia and Southwestern Alberta. Journal of A.S.P.G. Vol. 10 #7; 1962

LEECH, G.B., Structure of the Bull River Valley near Latitude 49 35; Journal of the A.S.P.G. Vol. 10 #7. 1962

LEECH, G.B., Fernie Map Area, West Half, B.C. Geol. Survey of Canada. 1958

MASTER MINERAL RESOURCE SERVICES LTD., A Tectono - Stratigraphic Classification for Gallowai Metal Mining Corporation, Fort Steele Mining Division, British Columbia, Canada. October, 1990

MASTER MINERAL RESOURCE SERVICES LTD. , Compilation and Review of the Geology and Geologic Modeling of Gallowai Bul River Mine, Fort Steele Mining Division, British Columbia, Canada. April 10, 1991

McCONNELL, Douglas L. P.Eng., Dighem iv Survey for Bul River Mineral Corporation, Big Bear Property, Sand Creek Area, British Columbia., February 11, 1993

McCONNELL, Douglas L. P.Eng., Dighem iv Survey for Bul River Mineral Corporation, Steeples Claims, British Columbia., February 11, 1993

McMECHAN, M.E., The Middle Proterozoic Purcell Supergroup in the southwestern Rocky and Southeastern Purcell Mountains, British Columbia and the Initiation of the Cordilleran Miogeocline, Southern Canada and Adjacent United States. Bulletin of Canadian Petroleum Geology. Vol. 29 #4. Dec. 1981.

McMECHAN, M.E.; PRICE, R.A., Transverse Folding and Superimposed deformation, Mount Fisher area, Southern Canadian Rocky Mountain thrust and fold belt. National Research Council of Canada. 1982.

PELL, Jennifer., Diatreme Breccias in British Columbia, BC Ministry of Energy, Mines and Petroleum Resources, Geological Fieldwork, 1985, Paper 1986-1, p 243-253

PRICE, R.A., The Cordilleran Foreland Thrust and Fold Belt in the Southern Canadian Rocky Mountains. The Geological Society of London. 1981.

PRITCHARD, Ruth A. Dighem iv Survey for Bul River Mineral Corporation Ltd., Steeples Claim Block. Dighem Surveys & Processing Inc., February 25, 1991.

THOMPSON, Thomas L., Origin of the Rocky Mountain Trench in Southeastern British Columbia by Cenozoic Block Faulting, Journal of the A.S.P.G. Vol.10 #7; 1962.

UNIVERSITY OF MUNICH. Ground Geology and Tectonic Studies of the Southern Steeples and Northern Lizard Ranges in Southeastern British Columbia. 1989/90.

**CERTIFICATE**

December 21, 1995.

I, Pilsum Master of 32 Midpark Gardens SE, Calgary, Alberta certify that:

I am a graduate of the University of Bombay, India, and a graduate of the University of New Mexico, USA, and hold the following degrees:

B.Sc., 1963, Geology / Chemistry  
M.Sc., 1965, Geology  
M.Sc., 1968, Geology / Mineralogy

I am a registered Professional Geologist (Association of Professional Engineers, Geologists and Geophysicists of Alberta), and a member of the American Institute of Mining, Metallurgical and Processing Engineers.

I am the President of Master Mineral Resource Services Ltd of Calgary, Alberta with Permit to Practice Number P 5336 from the Association of Professional Engineers, Geologists and Geophysicists of Alberta.

I have practiced my profession for the past twenty five years, including ten years in the geology, material characterization, process and product research of a range of industrial minerals in North America and Asia.

This Assessment Report is based on my examination of drill core, and analysis and compilation of drill hole data.

I hold no interest in the properties or securities of R. H. Stanfield, or affiliates thereof, nor do I expect to receive any directly or indirectly

Pilsum Master, M.Sc., P.Geol.

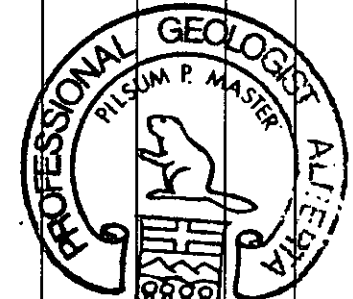
<b>PERMIT TO PRACTICE</b>	
MASTER MINERAL RESOURCE SERVICES LTD.	
Signature	<i>Pilsum Master</i>
Date	<i>Dec 21 95</i>
<b>PERMIT NUMBER: P 5336</b>	
The Association of Professional Engineers, Geologists and Geophysicists of Alberta.	

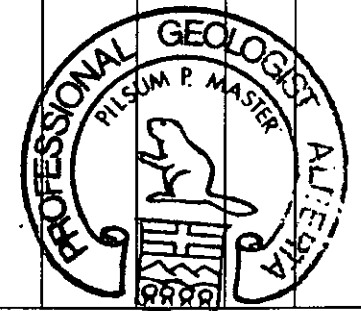
**APPENDIX A**  
**DIAMOND DRILL LOGS**

## DIAMOND DRILL LOG

MASTER MINERAL RESOURCE SERVICES LTD.

Hole No. BR 1- 95		Page 1 of 2	Project: R. H. STANFIELD		Property: Steeples #11 of the Steeples Group #1C								
Collar Survey Date: August, 1995		Location: 617000E, 5484420N		UTM Grid Zone 11U		Elevation: 921.21 metres		Dip @ Collar : -90					
Objective: To determine strike connection between western and eastern portions of Ore Zones				Length of Hole: 2,981 feet (903.3 metres)									
Commenced: Nov 4, 1994		Logged by: Pilsum Master		Collar Bearing/Dip: -90°									
Completed: April 6, 1995		Sampled by: Pilsum Master		Dates Logging: Oct 3-7, 1995		Depth		Bearing/Dip:					
From	To	Description	Sample No.	From - To	Width	ANALYSIS (in ppm unless otherwise stated)							
0	127.3	Casing, Overburden				Cd	Co	Cu	Fe	Mo	Ni	Pb	Zn
127.3	150.6	Argillaceous Qtzite and Diorite (?), broken and fractured core. Mineralised Zones discontinuous and at ittegular intervals.	5053	132.4 - 133.9	1.5	1	94	1.04	1.7	14	28	10	17
			5054	133.9 - 135.5	1.6	1	41	1.45	4.5	20	68	17	22
			5055	138.8 - 140.0	1.2	1	78	3.25	5.5	10	66	13	49
150.6	221.2	Diorite (?) or almost massive highly altered Argillite: fine to medium grained, silisic 150.6 - 188.5: Broken core, a few narrow stringers of qtz-CO <sub>3</sub> 150.6 - 212.7: Barren qtz-CO <sub>3</sub> stringers 212.7 - 213.2: Mineralised Zone, crackle cp-py-qtz-chlorite	4845	212.7 - 213.2	0.5	30	645	6.00	12.3	15	163	12	141
		217.3 - 221.2: Mineralised Zones at irregular intervals	4843	216.9 - 218.8	1.9	9	121	0.634	4.1	17	27	8	517
		221.2 - 235.5: Mineralised Zone: Qtz bx some glassy qtz, dark chlorite. Lots of cp in fractures	4839	222.4 - 223.3	0.9	1	44	1.53	6.3	18	14	83	69
			4838	223.3 - 224.2	0.9	1	142	4.34	2.1	22	32	6	30
			4836	225.2 - 226.4	1.2	5	483	4.98	14.0	14	82	36	271
			4835	226.4 - 227.9	1.5	4	321	3.55	19.7	14	106	35	169
			4834	227.9 - 229.4	1.5	4	293	2.90	6.3	14	73	16	180
			4833	229.4 - 230.9	1.5	10	47	5.71	11.8	12	12	23	630
			4832	230.9 - 232.4	1.5	10	30	4.66	15.2	9	9	13	730
			4831	232.4 - 233.9	1.5	17	71	6.52	11.2	5	9	13	978
			4830	233.9 - 235.5	1.6	6	81	1.96	5.5	13	19	10	306
221.2	290.9	241.8: Massive conformable pyrrhotite stringer Qtzitic Argillite:											
290.9	297.0	280.0 - 280.9: broken and fractured, some CO <sub>3</sub> and qtz , no significant sulphides. Mineralised (Breccia ) Zone: chlorite, CO <sub>3</sub> and qtz fraction, not glassy											
297.0	364.6	Qtzitic Argillite: foliated 70° to CA, some light green chlorite on some fractures 338.2 - 338.8: Bx, < 10 cm wide, 10° to CA, no sulphides 310.9 - 323.3: fractured and broken core, some CO <sub>3</sub> veinlets 20° to CA, some gouge, no significant sulphides except @ 297.3 - 298.5 (10% sulphides - lots of quartz), and @ 312.4 - 313.0											







# DIAMOND DRILL LOG

MASTER MINERAL RESOURCE SERVICES LTD.

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## DIAMOND DRILL LOG

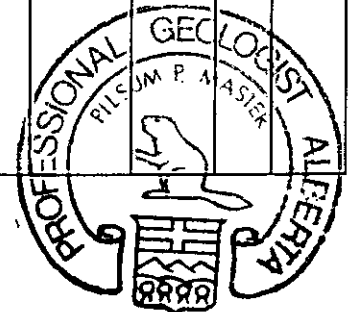
MASTER MINERAL RESOURCE SERVICES LTD.

Hole No.: BR 2 - 95		Page 1 of 2	Project: R. H. STANFIELD		Property: Steeples #12 of the Steeples Group 2B								
Collar Survey Date: August 1995		Location :5484754E, 616230N		UTM Grid Zone 11U		Elevation of Collar: 971.15 m		Dip @ Collar: -90°					
Objective: To determine strike extensions of mineralised zone -- west					Length of Hole: 1,414 metres to Sept 28, 1995								
Commenced: April 20, 1995		Logged by: Pilsum Master		Collar Bearing/Dip: -90°									
Report to: September 28, 1995		Sampled by: Pilsum Master		Dates Logging: Sept 26-30, Oct 2, 1995		Depth		Bearing/Dip: Bearing/Dip:					
From	To	Description	Sample No.	From - To	Width	ANALYSIS (in PPM except where noted)							
						C d	Co	Cu %	Fe %	Mo	Ni	P b	Zn
0	291.5	Casing, Overburden											
291.5	309.4	Qtzitic Argillite: not very silisic, broken and fractured core, some gouge zones, not much carbonate,qtz or sulphides											
309.4	483.9	Qtzitic Argillite: foliated, not silisic, some sections with fractured core (e.g. at 368.2 - 371.8, 355.5 - 355.8, 313.3 - 314.2, 317.0 - 318.8, 326.1 - 326.4)											
483.9	521.8	Qtzitic Argillite: foliated approx. 70° to CA, not very silisic, broken core, some gouge.											
		Inclusions or intrusions of medium grained altered material (?) with very sharp irregular contacts.											
521.8	535.8	Breccia Zone: broken core, qtz- CO <sub>3</sub> - bx, sulphides (py, pyrrhotite <10%), some more massive relatively unfractured white qtz	5058	523.3 - 524.9	1.6	1	60	0.03	8.9	9	11	1	66
			5060	526.4 - 527.9	1.5	1	70	0.11	3.6	19	10	1	38
			5063	530.0 - 531.5	1.5	1	205	0.01	7.1	6	12	4	18
535.8	667.3	Qtzitic Argillite: very slightly silisic, foliated @ 40° to CA, a few sulphides											
667.3	791.8	Argillaceous Qtzite and Qtzite: interfingered, sharp contacts approx 30° to CA. Some sections very dark chloritic, others very light coloured gray -- silisic. Disseminated sulphides approx 10% 703.0 - 705.2: broken core, some gouge											
791.8	843.0	Argillaceous Qtzite: green colour but quite silisic ( contact zone ?), interfingering with Di 784.9 - 785.2: Qtz Bx with sulphides, approx 30° to CA											

PROFESSIONAL GEOLOGIST

PILSUM P. MASTER

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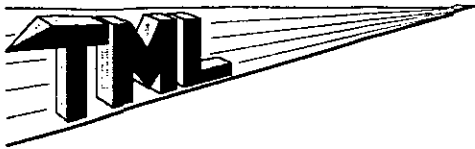


# DIAMOND DRILL LOG

MASTER MINERAL RESOURCE SERVICES LTD.

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**APPENDIX B**  
**CHEMICAL ANALYSIS REPORT**  
**TERRAMIN RESEARCH LABS LTD.**



**TERRAMIN RESEARCH LABS LTD.**

**ANALYTICAL REPORT**

**R. H. Stanfield  
350, 4723 - 1 Street S.W.  
Calgary, Alberta  
T2G 0A1**

**R. Stanfield  
cc: Pilsum Master**

**Date: Oct. 27, 1995**

**Job No: 95-192**

**Project: Gallowai Bul River**

**Signed:** \_\_\_\_\_

A handwritten signature, likely of R. Stanfield, is written over a horizontal line. The signature is cursive and stylized, with the first letter being a large, prominent 'R'.

**14, 2235 30th Avenue N.E., Calgary, AB, T2E 7C7  
Phone: (403)250-9460 Fax: (403)291-7064**





TERRAMIN RESEARCH LABS Ltd.

Job No: 95-192

Client: R.H. Stanfield  
Project: Gallowai Bul River

Sample Number	Cd ppm	Co ppm	Cu %	Fe %	Mo ppm	Ni ppm	Pb ppm	Zn ppm
4830	6	81	1.96	5.5	13	19	10	306
4831	17	71	6.52	11.2	5	9	13	978
4832	10	30	4.66	15.2	9	9	13	730
4833	10	47	5.71	11.8	12	12	23	630
4834	4	293	2.90	6.3	14	73	16	180
4835	4	321	3.55	19.7	14	106	35	169
4836	5	483	4.98	14.0	14	82	36	271
4838	1	142	4.34	2.1	22	32	6	30
4839	1	44	1.53	6.3	18	14	83	69
4843	9	121	0.634	4.1	17	27	8	517
4845	30	645	6.00	12.3	15	163	12	1410
5053	1	94	1.04	1.7	14	28	10	17
5054	1	41	1.45	4.5	20	68	17	22
5055	1	78	3.25	5.5	10	66	13	49
5058	1	60	0.032	8.9	9	11	1	66
5060	1	70	0.113	3.6	19	10	1	38
5063	1	205	0.014	7.1	6	12	4	18

**MASTER MINERAL RESOURCE SERVICES LTD.****Pilsum Master, M.Sc., M.Sc., P.Geol.**

32 Midpark Gardens S.E., Calgary, Alberta, Canada T2X 1N7

Telephone (403) 256 - 6220 • Facsimile (403) 254 - 4333

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May 14, 1996

Mr. George Owsiacki,  
Ministry of Energy, Mines and Petroleum Resources  
Province of British Columbia  
Victoria, B.C.

FAX: (604) 952 - 0381

**Re.: Drilling Report on Steeples Group #1C, and Steeples Group #2B  
Fort Steele Mining Division  
For: R. H. Stanfield**

Dear Mr. Owsiacki:

Further to our phone conversation regarding the assessment report on the above claims, I am enclosing the information you requested:

**For Holes BR1-95 and BR2-95 the size of core was NQ from 127.3 to 903.3 meters in BR1-95, and 291.5 to 1414.2 meters in BR2-95.**

In both holes the casing was installed in July of 1994 (see report by Phil D. de Souza, "Drilling - PBR 2.94") and this casing was used to access bedrock in the diamond drilling program in 1995.

Please contact me if there are any further questions.

Yours truly

Pilsum Master, P.Geol.

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