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DRILLING REPORT
ON
AB GROUP # 1

FORT STEELE MINING DIVISION
BRITISH COLUMBIA

620500E, 5482500N UTM ZONE 11U
NTS 82G/6

For
R. H. STANFIELD
350 – 4723 1st Street S.W.
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By
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September 1998

CONTENTS

FIGURES

INTRODUCTION:

A drilling program of two drill holes was started in May 1998 and completed in June 1998 on the AB Group #1. The Group comprises of five claims of 20 units each as shown in Table 1.

Two collar sites designated A9-1-98 and A9WW-98 are at approximately UTM co-ordinates of 617100E, 5483100N, on the south bank of the Bull River across from the Bul River Mine. The holes were located on the south side of the projection of the Boundary Fault that separates the Rocky Mountain Trench tecteno-stratigraphic terrain from the Rocky Mountain terrain to the north. Rock outcrops in the southern block are mainly mapped as Devonian carbonates, while the block to the north is underlain by argillaceous sediment of the Proterozoic age Aldridge Formation.

A significant magnetic anomaly was identified in an area immediately north of the Bull River centred on the Bul River Mine area, and this anomaly extends south over the river in to the Devonian. Dykes and sills of dioritic composition in the Bul River area, tentatively identified as part of the Moyie Sills and Dykes sequence of Proterozoic age, are believed to be partly the cause of the magnetic anomaly. However, the size of the anomaly exceeds the known area extent of the Moyie intrusive in the area, and the general outline of the anomaly suggests a deeper and larger source, perhaps of batholitic proportions.

A9-1-98 was drilled to determine the depth to the Boundary Fault, and whether the footwall is the same Aldridge sequence found north of the river, and whether dioritic sills and dykes exist in significant amounts to explain the magnetic anomaly extension from north of the river. Hole A9WW-98 was drilled entirely using percussion drilling and cased to provide water for drilling the A9-1-98 diamond drill hole which is recommended to extend to greater depth. Core from the diamond drilling was examined and logged, and the core is stored at the Stanfield camp site just north of Galloway, British Columbia.

Table 1: AB Group #1:

Claim Name	Tenure No.	No. Of Units	Current Expiry Date	$ Value to be applied	Years applied	New Expiry Date
Balsam #9	209751	20	99/07/05	28,000	7	06/07/05
Balsam #10	209752	20	99/07/05	28,000	7	06/07/05
Balsam #11	209755	20	99/07/28	32,000	8	07/07/28
Balsam #12	209756	20	99/07/28	32,000	8	07/07/28
Aspen #9	321708	20	03/10/20	0	0	03/10/20

Figure 1 is a map showing the Site Location in southeastern British Columbia.

SITE LOCATION

LOCATION, ACCESSIBILITY AND TOPOGRAPHY:

The claim group is in southeastern British Columbia approximately 30 kilometres by Highway 3 from Cranbrook and then by Highway 93 just past the settlement of Bull River. A secondary all-weather road follows the northern bank of the Bull River basin past the Bul river mine site and connects to the road that extends upstream through the Bull River Canyon. Within the claim group the road intersects another secondary artery that extends south to the town of Galloway on Highway 3.
Figure 2 is a composite map showing the regional setting of the claim group with respect to prominent cultural features, topography, UTM grid and mineral deposits on and adjacent to the claims, and geology from B.C. Geological Survey Bulletin 84.

The claim group is centred approximately 49^{0}29.5'N, 115^{0} 22'W, UTM Zone 11U co-ordinates 5482500N, 620500E, in NTS quadrant 82G/6. The claims are in the Fort Steele Mining Division. Topographic relief ranges from 750 meters to 2000 meters, with steep gradients over one third of the claim group.

GEOLOGY

The deciphering and understanding of the structure and structural evolution of the Rocky Mountain Trench and the western edge of the Rocky Mountains of southeastern British Columbia are necessary to determine the economic potential of the AB Group #1 property. In addition, the mode of occurrence of the different types of mineral deposits in the area, including the ones on the property, provide clues to the location and identification of other exploration targets.

In **Figure 2**, the geology shown is an overlay of T. Hoy's compilation map accompanying Bulletin 84. The most important feature on the claim Group is the Boundary Fault that separates the Rocky Mountain Trench tecteno-stratigraphic terrain from the Rocky Mountain terrain to the north, although this fault in this local area does not exactly coincide with the distinct Steeples Range escarpment. Rock outcrops in the southern block are mainly mapped as Devonian carbonates, while the block to the north is underlain by argillaceous sediment of the Proterozoic age Aldridge Formation.

In addition, the location of the drilling program is based on the discovery of a significant magnetic anomaly in an area immediately north of the Bull River centred on the Bul River Mine area (see **Figure 3**). This discovery was part of a DIGHEM helicopter borne survey completed in previous years and this anomaly extends south over the river in to the Devonian.

Dykes and sills of dioritic composition in the Bul River area, tentatively identified as part of the Moyie Sill and Dyke sequence of Proterozoic age, are believed to be partly the cause of the magnetic anomaly. However, the size of the anomaly exceeds the known area extent of the Moyie intrusive in the area, and the general outline of the anomaly suggests a deeper and larger source, perhaps of batholitic proportions.

Figure 3 also shows a portion of a magnetic anomaly just west of this claim group that is correlated to a Diorite to Monzonite composition stock or batholith, probably of Cretaceous age. It is therefore possible, that a portion of the large magnetic anomaly tested by this drilling can be a result of a similar intrusive at depth.

Over half of the claim group is underlain by the Proterozoic age Aldridge and Creston Formations which are hosts to several vein type mineral deposits of Cu, Pb and Zn associated with shear zones. A similar potential exists if the drill hole penetrates this Proterozoic sequence on the foot wall of the Boundary Fault.

LITHOLOGY AND STRATRIGRAPHY

The following Table (from McMechan, 1978) summarizes the lithology and stratigraphy of the area, including this property. In addition, Cretaceous-Tertiary intrusives near the margins of the Trench are worth noting. The Trench itself is filled with Pleistocene and Recent sediments of gravel, sand, silt, till, colluvium and alluvium.

UPPER DEVONIAN TO PERMIAN

Undifferentiated Fairholme Group, Palliser Formation, Exshaw Formation, Banff Formation, Rundle Group, Rocky Mountain Group: Limestone, Shale Limestone, Shale, Quartzite, and Dolomitic Quartzite.

MIDDLE DEVONIAN AND (?) EARLIER

Upper unit (Burnais and Harrogate Formations): Shaly Limestone, Shaly Dolomite, Limestone Breccia, and Gyp0sum; Basal Unit: Dolomitic Sandstone, Sandy Dolomite, Breccia, Conglomerate, and Shale

CAMBRIAN

"Tanglefoot Unit": Shaly Limestone, Limestone, Sandy Shale, and Dolomite
Eager Formation: Shale, Limestone, Siltstone, and Quartzite; Cranbrook Formation: Quartzite and Granule Conglomerate

MIDDLE PROTEROZOIC

Moyie Sill: Hornblende Metadiorite to Metagabbro

PURCELL SUPERGROUP

Phillips Formation: Red Micaceous Quartzite and Siltite
Gateway Formation: Green, Purple Siltite, Minor Quartzite, and Dolomitic Siltite near top.
Sheppard Formation: Stromatolitic Dolomite, Green, Purple Siltite, Quartzite, and Silty Dolomite
"Lava and Sediment" Unit: Massive to Amygdaloidal "Andesitic" Lava, Volcanic and Feldspathic Sandstone, Siltite, and Minor Dolomitic Siltite
"Non-Dolomitic Siltite" Unit: Green, Locally purple Siltite

KITCHENER FORMATION
Upper Unit (North of Dibble Creek Fault): Silty Dolomite, Grey Dolomitic Siltite, Grey Siltite, Sandy Dolomite, and Stromatolitic Dolomite

Lower Unit (North of Dibble Creek Fault): Green or Grey Dolomitic Siltite, Green Siltite, and minor Dolomitic Quartzite

CRESTON FORMATION
Upper Subunit: Green, Lesser purple Siltite, Dolomitic Siltite near top, white quartzite

Lower Subunit: Purple, Grey or green, very course-grained Siltite to fine-grained quartzite, white quartzite, and green, purple Siltite

Upper Subunit: Purple Siltite with white quartzite

Middle Subunit: Green Siltite

Lower Subunit: Grey Siltite (north of Bull Canyon Fault), green, fine-grained quartzite, with Grey Siltite (south of Bull Canyon Fault-Unit)

ALDRIDGE FORMATION
Grey Siltite and Argillite, with two Dolomitic Siltite Horizons near top, South of Bull Canyon Fault

Quartzite, Grey Siltite and Argillite: Quartzite predominant, Siltite and Argillite predominant

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TYPES OF MINERALISATION:

The following is a brief description of the types of mineralisation known on the property and in the surrounding area with similar to identical geology.

Quartz-Carbonate-Sulphide VEIN SYSTEMS in SHEAR ZONE envelopes:

Vein systems can be massive, tens of feet wide to a few inches width in stockworks and horsetails. Sulphides are chalcopyrite, pyrite, pyrrhotite mainly, with minor galena and arsenopyrite. Quartz is the major gangue mineral followed by carbonates (dolomite and siderite). Gold is associated with the sulphides and/or occurs as free gold in the quartz gangue and within silcified zones in the shear envelopes.

Host rocks are partly silicified and chloritised argillites, argillaceous quartzites, and quartzites mainly of the Aldridge formation. Other host rocks include the argillites of the Creston and Gateway formations. The meta diorite dykes and sills of the Moyie Sill group have some degree of spatial relationship to the vein systems, but their role in the mode of origin of mineralisation is not clear.

The Bull River Mine just north of the property is an excellent example of this type of mineralisation. Other related examples of this type include the Strathcona-Empire, the Rex-Zone, the Dean Zone, the Treasure Zone, the Don and Rimrock Zones.

Conformable (Syngenetic?) Massive Sulphide Deposit

These are characterised by mainly conformable (to bedding) massive sulphides within the Aldridge formation. Sulphides are galena, sphalerite, pyrrhotite, with zones of massive pyrite. Zoning of sulphides is common, so is alteration, such as chloritisation and tourmaline. The host rock lithology is very similar to the Bull River Mine. The Sullivan Mine is a prime example of this type, and is located west-northwest of the property, on the other side of the Trench. Location of a Sullivan Type of ore body east of the Trench, has been a long-term exploration goal in this part of British Columbia.

Quartz Lode Type with Sulphides and/or Free Gold:

The Cretaceous-Tertiary quartz-monzonite, monzonite, granodiorite and diorite intrusive in the area have potential for this type of mineralisation, and may be source areas for some of the placer told deposits.

Vein Type Galena-Sphalerite Mineralisation associated with Major Structures:

This type of mineralisation has been found to date in the Aldridge, Creston, and the Lower Cambrian formations. Mineralisation occurs as fillings and replacement with faults and associated fissure systems. Examples of this type in the area are the Burt, OK Zones, and possibly the Great Western Zone. The Estella Mine and the Kootenay King Mine further north of the property are also of this type, and so is the St. Eugene Mine across the Trench to the west.

STRUCTURE AND STRUCTURAL EVOLUTION

The property and the immediate area is divided into a number of tecteno-statrigraphic domains. The primary divisions include the ROCKY MOUNTAIN TRENCH on the west of the property and the WESTERN ROCKY MOUNTAINS on the east half of the property.

The Western Rocky Mountains:

The Western Rocky Mountains form the eastern edge of the Purcell anticlinorium, against the Rocky Mountain thrust belt. The geology is fairly complex, with structural evolution mainly tied to the Hosmer Thrust.

The Western Rocky Mountains in this area are further subdivided into three major tecteno-stratigraphic terrains by EAST trending REVERSE FAULT SYSTEM **(see Figure 4)**. The northern segment is the STEEPLES RANGE DOMAIN, whose northern boundary is marked by the DIBBLE FAULT SYSTEM and the southern boundary by the BULL CANYON FAULT SYSTEM. The middle segment is the relatively complex SAND CREEK – LIZARD RANGE DOMAIN, that includes the Lizard Range. It is

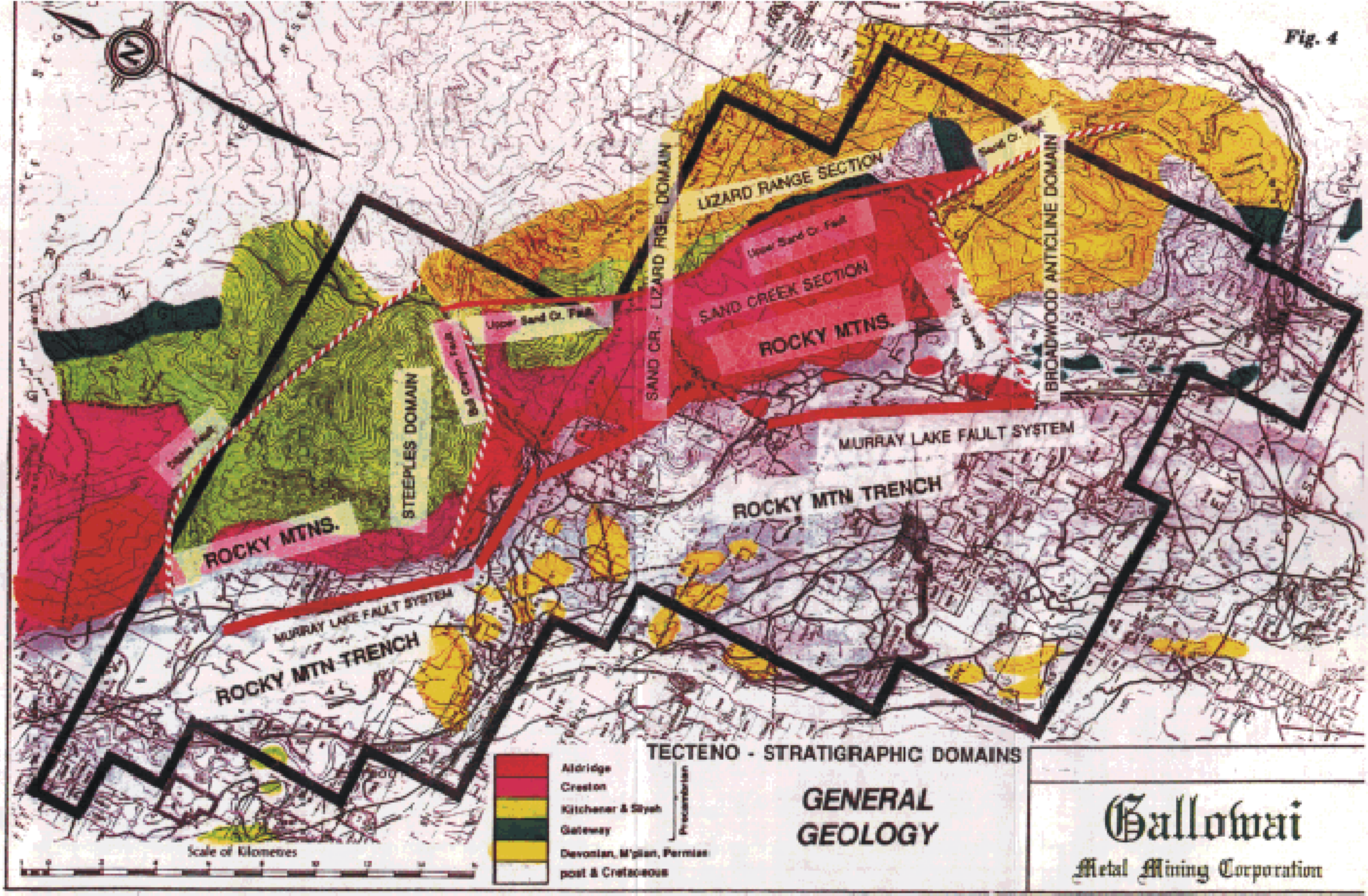
Fig. 4
LIZARD RANGE SECTION
SAND CR. - LIZARD RISE DOMAIN
Upper Sand Cr. Fault
SAND CREEK SECTION
ROCKY MTNS.
Sand Cr. Fault
BROADWOOD ANTICLINE DOMAIN
Upper Sand Cr. Fault
STEEPLES DOMAIN
ROCKY MTNS.
MURRAY LAKE FAULT SYSTEM
ROCKY MTN TRENCH
MURRAY LAKE FAULT SYSTEM
ROCKY MTN TRENCH
RIVER
TECTENO - STRATIGRAPHIC DOMAINS
Aldridge
Creston
Kitchener & Siyeh
Gateway
Precambrian
Devonian, M'pian, Permian
post & Cretaceous
GENERAL GEOLOGY
Scale of Kilometres
Gallowai
Metal Mining Corporation

bounded in the north partly by the BULL CANYON FAULT and to the south by the SAND CREEK FAULT. Most of the AB Group #1 is within this segment. Both of the Steeples and the Sand Creek – Lizard Range Domains are part of the LIZARD SEGMENT of the HOSMER THRUST, and is part of the structurally highest portion of the southern Rocky Mountains.

The southern most domain is the BROADWOOD ANTICLINE bounded in the north by the Sand Creek Fault (different than the Upper Sand Creek Fault), and has a southern boundary near Mt. Broadwood.

The Sand Creek – Lizard Range Domain:

This domain is divided into two longitudinal sections by the NW trending UPPER SAND CREEK thrust fault. The western segment is designated by us as the SAND CREEK SECTION, and the eastern segment is the LIZARD RANGE SECTION.

The BULL CANYON FAULT marks the northern boundary of the Sand Creek Section. It is a left-lateral reverse fault with about 2-3 km of stratigraphic separation, and dips southward. The locus of the fault suggests that its origin is tied into the stress associated with the Dibble monocline. Also, the contrasts in the Purcell succession across the fault suggest that it may follow the locus of an older structure that controlled Purcell deposition. Although the Lower Purcell group of rocks are found on both sides of the fault, the NE trending structures in the Steeples Domain, north of the fault do not extend on the hangingwall side of this fault. In addition, the large anticline north of the fault (in the Steeples Domain) is not one of the NE trending structures caused by compression during movement on the Dibble fault, but is formed during the Bull Canyon Fault displacement, and does not have a counterpart on the hangingwall (south) side of the fault.

In the Sand Creek-Lizard Range domain, the mechanics and structural history of the UPPER SAND CREEK FAULT are critical in understanding the stratigraphy of this domain. This fault is considered to be a splay from the Hosmer Thrust. The Domain is part of the HOSMER NAPPE which has a shallow NW plunge. Strata in the overturned forelimb are west dipping while strata in the backlimb a generally northeast dipping.

The Upper Sand Creek Fault cuts through this nappe, causing the backlimb and bow of the nappe to be thrust over the overturned forelimb. This has thrust the Precambrian Purcell Series of rocks from the backlimb of the nappe against the overturned Devonian and Mississipian strata of the forelimb. The Purcell Series forms a range with generally rounded slopes, and structurally also is part of the crest and east limb of an anticline (superimposed on the backlimb of the nappe) that plunges gently northwest. This range is the SAND CREEK SEGMENT of the domain.

East of the Upper Sand Creek Fault the second division of the domain forms the LIZARD RANGE. It essentially consists of the overturned forelimb of the Hosmer Nappe forming a prism of sediments. The backbone of the range is made up by resistant portions of Devonian and Mississipian formations, while its eastern slopes are underlain by softer Mesozoic strata.

While the north boundary of the Sand Creek segment is mainly marked by the Bull Canyon Fault, the Lizard Range segment's north end is crumpled by complex faults and nappe-like folds that are overturned to the southeast and south, causing the strata to bend sharply from a NW trend to NE near the drainage area of Iron Creek. This trend continues NE off the property to Sulphur Creek where the NW trend and folds overturned east-northeast resumes to form the mountains north of Fernie and between the upper Elk and upper Bul Rivers.

DRILLING PROGRAM:

The drilling program consists of two drill holes located within a few meters of each other. Two collar sites designated A9-1-98 and A9WW-98 are at approximately UTM co-ordinates of 617100E, 5483100N, on the south bank of the Bull River across from the Bul River Mine. The holes were located on the south side of the projection of the Boundary Fault that separates the Rocky Mountain Trench tecteno-stratigraphic terrain from the Rocky Mountain terrain to the north.

Hole A9WW-98 was drilled entirely using percussion drilling and cased to provide water for drilling the A9-1-98 diamond drill hole. Core from the diamond drilling was examined and logged, and the core is stored at the Stanfield camp- site just north of Galloway, British Columbia.

In Figures 2 and 3 the location of the drilling program is marked and labelled as A9-1-98, the two drill hole collars being too close to differentiate on that scale. The claim boundaries and these identification are on both these figures also.

Objectives and Summary Results

Over the past twenty years the R. H. Stanfield Group of companies has initiated a series of programs of airborne geophysics, satellite imagery, and ground examination to fulfil the following objectives. The programs are ongoing, and this report covers a portion of the effort covering this claim group:

a. Determine the strike and dip extensions of the individual deposits.
b. Increase the tonnage potential of the deposits by either connecting these adjacent deposits along strike (or connections at depth), or discovering other deposits in the strike directions or down-dip or enechelon to the known showings.
c. A9-1-98 was drilled to determine the depth to the Boundary Fault, and whether the footwall is the same Aldridge sequence found north of the river, and whether

dioritic sills and dykes exist in significant amounts to explain the magnetic anomaly extension from north of the river.

The AB Group #1 claim group includes several mineral deposits, including the BUL RIVER MINE, COPPER KING, TRILBY and the BULL RIVER IRON (see Figure 2). It straddles the Sand Creek- Lizard Range Domain of the Rocky Mountain tecteno-stratigraphic province, and the Rocky Mountain Trench province. In the former province within the claim group the bedrock is mostly of argillaceous sediments of Proterozoic age Aldridge-Creston Formations, and Moyie diorite dykes and sills. The Proterozoic sequence is the host-rock on most of the known mineral deposits on the property and adjacent to it. On the claim group, the area immediately on the hanging wall of the Boundary Fault, that separates the two provinces across from the Bul River Mine area, is of interest because of the large magnetic anomaly associated with the area.

The drill sites were located in the closest flat area that was accessible using existing infrastructure. The core from the diamond drilling program are stored at the R. H. Stanfield campsite near Galloway.

Appendix 1 contains the geologic logs of the A9-1-98 diamond drill hole. Of particular interest was the confirmation of the Boundary Fault, and the presence of dyke (dioritic?) immediately in the footwall of the fault. (Figure 2).

The aeromagnetic anomaly over the Bul River Mine area is possibly related to the en-echelon system of diorite dykes and sills that have been mapped to date as part of the Proterozoic Moyie system. To the immediate west of the claim group another distinct aeromagnetic anomaly has been correlated to a large intrusive of diorite-monzonite composition. This has been mapped in Bulletin 84 as a Cretaceous age intrusive.

It is, therefore, possible that the dyke intersected in the A9-1-98 drill hole may be either related to the Moyie dykes and sills, or to the Cretaceous intrusive in the area, or is part of a different intrusive sequence. Samples of the Moyie type intrusive from the Bul River Mine area, and samples from the Cretaceous intrusive were analysed for major elements together with a sample of the dyke from A9-1-98. **Table 2 in Appendix 2** shows the analytical report based on analytical report from Loring Laboratories of Calgary.

In Table 2 all three samples of the Moyie, especially the BRM-DYR1 and 2, have high carbonate content. This is fairly common in the mine area, and accounts for the high CaO and LOI in these samples. The high iron content is related to the higher magnetite content of the Moyie intrusives with respect to the Proterozoic sediments, and probably accounts for the magnetic anomaly in the mine area. The alkali content of the dyke from A9-1-98 is quite different than the alkalis in the Cretaceous intrusive. A similar discrepancy is apparent in the silica to aluminium ratios. This suggests that the intrusive in A9-1-98 is probably different than the other two intrusive types in the Bul River mine area, or is a different phase of probably the Moyie. The iron content in the A9-1-98 sample is probably high enough to explain the magnetic anomaly, but the drilling to date has not intersected enough intrusive material to support the size of the anomaly south of the Bull River.

RECOMMENDATIONS:

Continue the drill hole to determine if Proterozoic sediments are on the footwall side of the Boundary fault, and if more intrusive are found to account for the size of the magnetic anomaly.

Drilling may intersect enechelon shear zone envelopes (probably with mineralised vein systems) similar to the Bul River Mine and Copper King type of mineralised structures in the Aldridge Formation.

GENERAL INFORMATION A9-1-98:
(This data is supplied to MMRS by R.H. Stanfield)

Re.: Rotary Percussion Drill

Dates Drilled:	A9WW-98	May 20, 1998 – May 21, 1998
Contractor	Schmidt Drilling Ltd. PO Box 98 Tees, Alberta T0C 2N0	
Crew	Driller-Kevin Schmidt, Driller-Kelly Smith, Helpers- Geoff Kellner, Terry Ackerman	
Contractor Equipment	Ingersol Rand TH-60 Truck Mounted Rotary Percussion Drill Rig, 600 CFM Air Compressor, Western Star Flatbed, 1000 Ga. Tanker and Pipe Truck, 915 Weldco Casing Hammer, 5 x 10 mud pump, Tool Shed Trailer (8 x 15) and ¾ ton 4x4 Diesel Crew Cab and Slip Tank	

Re.: Diamond Drill

Dates Drilled:	**A9-1-98(DD)**	**May 21, 1997 – July 29, 1997**
	Schmidt Drilling Ltd. PO Box 98 Tees, Alberta T0C 2N0	
Crew	Driller-Kelly Spence, Driller-Kevin Schmidt, Driller-Darcy Schmidt, Helpers- Geoff Kellner, Terry Ackerman, R. Kellner	
Site Crew	Manager- Mr. R. Stanfield Jr.	Box 94, Galloway BC
	Co-ordinator- Mr. T. Hewison	Box 94, Galloway BC
Equipment	Ingersol Rand TH-60 Truck Mounted Rotary Percussion Drill Rig, 600 CFM Air Compressor, Western Star Flatbed, 1000 Ga. Tanker and Pipe Truck, Tool Shed Trailer (8 x 15) and ¾ ton 4x4 Diesel Crew Cab and Slip Tank. Schramm Coring head with side inlet swivel Model T660, Model 2500 Foot Clamp to hold drill rods, Wheatley Tri-plex Hi-Pressure pump, 16' Gooseneck Stock Trailer	

Aspen#9 Drill Holes

	A9-1-98 (DD)	A9WW-98
Background		
Drilling days	20	2
Period days	29	2
Total depth	2650'	215'
Direct Costs		
Drilling Costs (hrs x $185)	**73,445.00**	**5735.00**
Travel Time to Site (hrs x $72)	**2,808.00**	**216.00**
Boart Longyear NQ Series 6 Bits @ $565.00/per	**3,390.00**	
NQ Drill Rod String @ $2.56/ft	**6,784.00**	
NQ Premium Reaming Shell @ $540.00/per	**1,080.00**	
20L Torqueless @ $80.00/per	**2,800.00**	
20L Pail UltraVis @ $100.00/per	**3,800.00**	
20L Pail X-pand @ $213.60/per	**213.60**	**1093.75**
180' 4 ½ Casing @$5.20/ft	**936.00**	**58.00**
125' 6 5/8" Casing @ $8.75/ft		**401.50**
6 5/8 Drive Shoe @ $58.00/per		**740.00**
8 5/8 Ring Bit @ $401.50/per		**$8244.25**
5 5/8 Hammer Bit @ $740.00/per		
Direct Total Costs	**$95,256.60**	
Indirect Costs		
Drilling Co-ordinator @ 140.00/day	**2800.00**	
Drilling Co-ordinator R&B @ $65.00/day	**1300.00**	
Drilling Co-ordinator 4x4 @ $50.00/day	**1000.00**	
Contractor R&B @$65.00/day/man	**5070.00**	**390.00**
Foreman's Wage @ $200.00/day	**4000.00**	**400.00**
Foreman's R&B @ $65.00/day	**1300.00**	**130.00**
Foreman's 4x4 @$50.00/day	**1000.00**	**100.00**
Indirect Total Costs	**$16470.00**	**$1020.00**
Total Direct and Indirect Costs	**$ 111,726.60**	**$ 9264.25**

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CERTIFICATE

I, Pilsum Master of 32 Midpark Gardens S.E. Calgary, Alberta certify that:

I am a graduate of the University of Bombay, India and a graduate of the University of New Mexico, U.S.A., 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 P5336 from the Association of Professional Engineers, Geologists and Geophysicists of Alberta.

I have practised my profession for the past twenty-eight years.

This Report on the AB Group #1is based upon my involvement in the compilation of geological literature, examination of drill sites, splitting of samples, logging of drill core, and the evaluation and compilation of data.

My company and I do not hold any interest in the properties or securities of R. H. Stanfield, or affiliates thereof, nor do my company and I expect to receive any directly or indirectly.

Pilsum Master, M.Sc.,M.Sc., P.Geol.
President
Master Mineral Resource Services Ltd.

PERMIT TO PRACTICE
MASTER MINERAL RESOURCE SERVICES LTD.
Signature P Master
Date Sept 28 98
PERMIT NUMBER: P 5336
The Association of Professional Engineers, Geologists and Geophysicists of Alberta

CERTIFICATE

September 28, 1998

I, Phil D. de Souza, certify that:

I am a graduate of the Camborne School of Mines, Cornwall, England and that I hold the degree of ACSM First Class in Mining Engineering therefrom.

I am a member of the Canadian Institute of Mining and Metallurgy and a member of the American Institute of Mining, Metallurgical and Processing Engineers.

I am a licensed Professional Engineer of the Province of Alberta, British Columbia and Ontario, Canada, and have been practising my profession for the past thirty-three years.

This report by Pilsum master, P.Geol. (Alberta) entitled: "Drilling Report on AB Group #1", for R. H. Stanfield has been reviewed by me and results from my direct involvement in the Stanfield Group since 1987.

I certify that neither I nor my Associates or Partners hold any interest or securities in any of the four corporations owning an interest in the properties, nor do I, or we expect to receive any directly or indirectly.

PROFESSIONAL
PROVINCE OF
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APPENDIX 1

DRILL LOGS

DIAMOND DRILL LOG		R. H. STANFIELD GROUP			PAGE:	1 of 1	
HOLE NO A9-1-98	PROJECT: ASPEN		PROPERTY:	AB Group #1	OBJECTIVE:		
COLLAR LATITUD	5483105N	LONGITUDE:	617126E	ELEVATION:	DIP:	0	
COMMENCED:	21-May-98	COMPLETED:	18-Jun-98	DRILLED BY:	Schmidt Drilling Ltd.		
LOGGED BY:	Pilsum Master, P.Geol.	DATE LOGGED:	July 27, 30, 1998	SURVEY: DEPTH:	0 DIP:	-90	Azimuth:
					276m	-85	19
					485m	-86	31.5
					679m	-83	35

FROM ft	FROM m	TO ft	TO m	DESCRIPTION	SAMPLE	FROM	TO
0	0.00	202	61.21	Overburden			
202	61.21	276	83.64	Gray Limestone: fractured, broken and some ground core	No Samples taken for chemical analysis		
276	83.64	355	107.58	Gray Limestone: quite fractured, not as broken and little or no ground core			
355	107.58	380	115.15	Gray Limestone: more ground core than in previous sections			
380	115.15	511	154.85	Gray limestone: less ground core, but still broken and fractured			
511	154.85	620	187.88	Gray Limestone: fractured, broken and some ground core			
620	187.88	860	260.61	Gray Limestone: with irregular white carbonate stringers fracturing @ 75 degrees to CA and approximately 1 inch apart			
860	260.61	890	269.70	Gray Limestone: with irregular white carbonate stringers spaced further apart			
890	269.70	1430	433.33	Gray Limestone: more competent less fractured 269-378: more broken and fractured, some ground core 378-400: calcite stringers about the same as previous section			
1430	433.33	1635	495.45	Gray Limestone: with irregular white carbonate stringers quite fractured at high angle to CA			
1635	495.45	1700	515.15	Gray Limestone: slightly graphitic			
1700	515.15	1725	522.73	Most core lost: unconsolidated Grit(?)			
1725	522.73	1925	583.33	Gray Limestone: slightly graphitic, quite broken and ground core			
1925	583.33	2047	620.30	Gray Limestone: slightly graphitic, less broken and ground core			
2047	620.30	2093	634.24	Dark Limestone: quite graphitic			
2093	634.24	2280	690.91	Dark Graphitic Limestone: quite competent, with iregular discontinuous stringers of calcite. A few zones of breccia with white CO3 matrix over a few inches at irregular intervals.			
2280	690.91	2500	757.58	Gray Limestone: quite crackled, but core is still competent and not broken. Evidence of cemented brecciation and fault gouging. Uneven fractures usually at 75 degrees to CA, some secondary CO3 stringers, irreg. Discont. And at variable orientation to CA 691-703: increased percentage of white carbonate stringers 726-726: fault gouge			
2500	757.58	2555	774.24	Fault Gouge Zone: grey colour, carbonate matrix, some argillaceous material recognisable			
2555	774.24	2566	777.58	Medium Grained Intrusive diorite(?), light coloured			
2566	777.58	2669	808.79	Fault Gouge Zone: grey colour, carbonate matrix, some argillaceous material recognisable			
2669	808.79	2750	833.33	Medium Grained Intrusive diorite(?),greenish coloured portions are quite fractured and ground core (fault zone?). Some CO3-chlorite-breccia-clay zones 45 to 70 degrees to CA **LOGGING TO BE CONTINUED**			

APPENDIX 2

Table 2: Major Elements in Dyke intersected in A9-1-98 compared to Moyie intrusives from Bul River Mine area, and the Cretaceous intrusive in the area

Table 2: Comparison of Dyke intersected in A9-1-98 with Intrusives in the Bul River Mine Area believed to be Moyie Sequence, and with Intrusives in the area of Cretaceous Age

Loring Laboratories Ltd.

629 Beaverdam Road N.E.,
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Tel: 274-2777 Fax: 275-0541

FILE:# 40436

TO: BUL RIVER MINERAL CORP.
Suite 350
4723 - 1st S
Calgary, Alta.

DATE: SEPT.16, 1998

Attn: Pilsum Master

WHOLE ROCK ANALYSIS BY ICP

Project: A B Group #1

	Sample No.	Al2O3 %	CaO %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SO3 %	SiO2 %	TiO2 %	LOI %	SUM %
MOYIE INTRUSIVES	BRM-DYR1	16.85	3.76	15.09	1.31	4.49	0.13	4.02	0.37	0.15	41.97	1.98	7.67	97.86
	BRM-DYR2	14.75	6.05	14.94	1.64	4.52	0.18	2.95	0.40	0.19	39.53	1.92	10.27	97.42
	BRM-DYR3	7.44	3.65	6.84	2.31	2.18	0.15	0.14	0.05	0.35	66.82	0.33	8.87	97.15
CRETACEOUS INTRUSIVE	A11-1-87-691	17.80	5.21	4.14	0.34	1.69	0.08	7.52	0.19	0.15	57.15	0.38	2.74	97.59
	A11-1-87-211	17.77	4.62	3.70	1.77	0.88	0.06	7.16	0.26	0.12	59.23	0.37	2.34	98.41
DYKE IN A9-1-98	A9-1-98-2729	12.36	0.93	6.59	3.37	2.72	0.05	0.18	0.20	0.44	65.33	0.44	3.78	96.42
CRETACEOUS INTRUSIVE	A11-1-87-691R	17.17	5.24	4.09	0.34	1.68	0.08	7.43	0.21	0.15	57.37	0.33	2.74	97.04

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LORING LABORATORIES LTD.

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WHOLE ROCK FUSION

1 LAY A BED OF **1.20 gm LITHIUM METABORATE** IN A GRAPHITE CRUCIBLE. WEIGH **0.2000 gm** SAMPLE ONTO THE BED. **DO NOT MIX**.

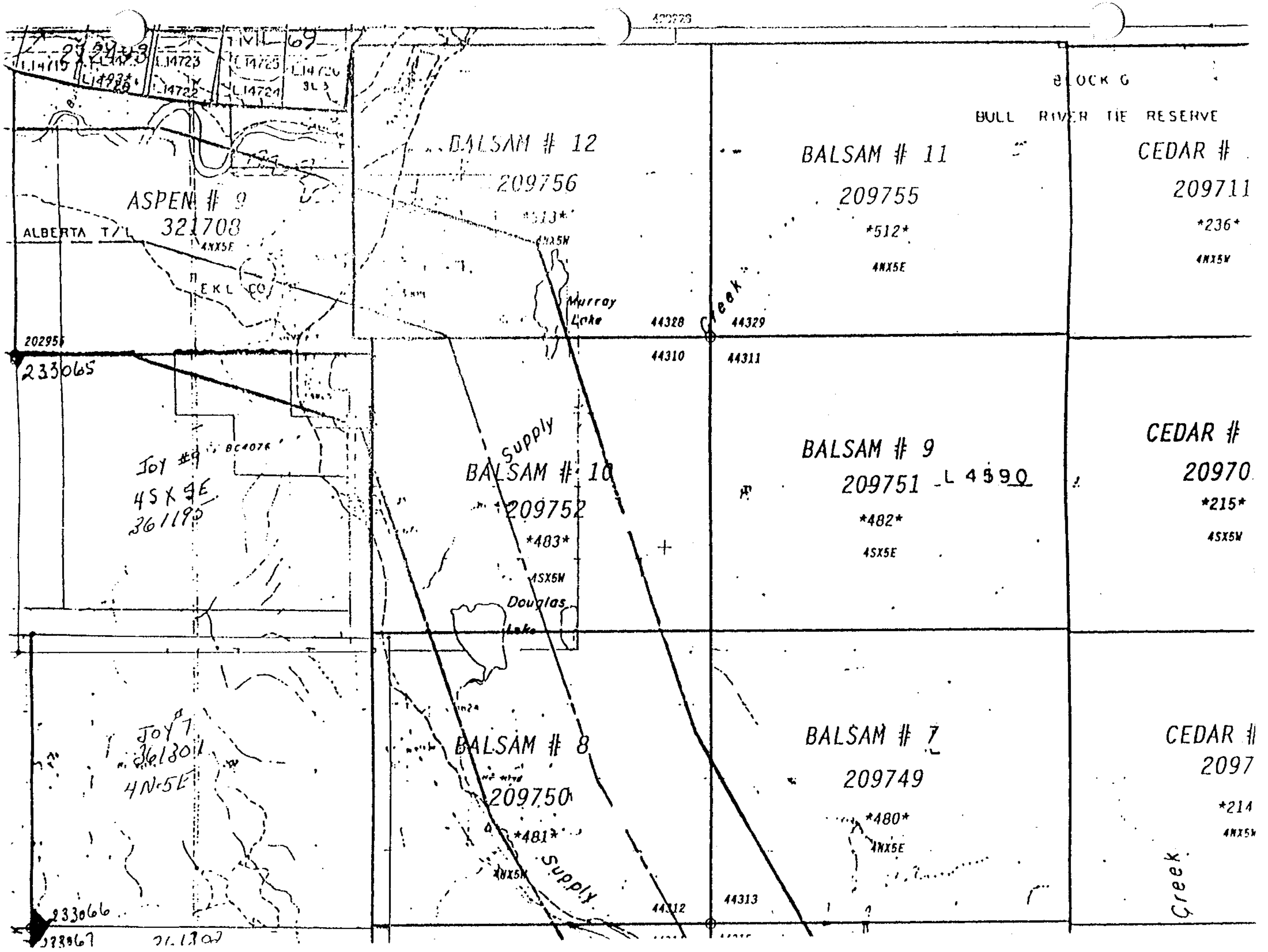
2 **COVER** THE SAMPLE LIGHTLY WITH METABORATE.

3 **PREHEAT** MUFFLE TO **1000 °C**, COVER ALL VENTHOLES, SET UP A ROW OF CUPELS. **FUSE** IN MUFFLE AT **1000 °C**, FOR **30 min.**, BEHIND CUPELS.

4 PREPARE DRIED PLASTIC BOTTLES WITH EXACTLY **100 ml OF 5% HNO3.**

5 REMOVE CRUCIBLES FROM MUFFLE (ONE AT A TIME) AND QUICKLY **POUR FUSION** INTO THE PLASTIC BOTTLES. CLOSE LIDS TIGHTLY.

6 **SHAKE** THE BOTTLES ON AN AUTOMATIC SHAKER FOR **45 minutes**. SUBMIT TO THE INSTRUMENT ROOM FOR **ICP ANALYSIS**.



BLOCK G
BULL RIVER TIE RESERVE
BALSAM # 12
209756
513
4NX5W
BALSAM # 11
209755
512
4NX5E
CEDAR #
209711
236
4NX5W
ASPEN # 9
321708
4NX5E
ALBERTA T/L
EKL CO
Murray Lake
Creek
44328
44329
44310
44311
202955
233065
Supply
BALSAM # 10
209752
483
4SX5W
Douglas Lake
BALSAM # 9
209751
L 4590
482
4SX5E
CEDAR #
20970
215
4SX5W
JOY #9
4SX5E
361195
BC4076
JOY 7
361801
4N-5E
BALSAM # 8
209750
481
4NX5W
Supply
BALSAM # 7
209749
480
4NX5E
CEDAR #
2097
*214
4NX5W
Creek
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44313
233066
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L14723
L14725
L14722
L14724

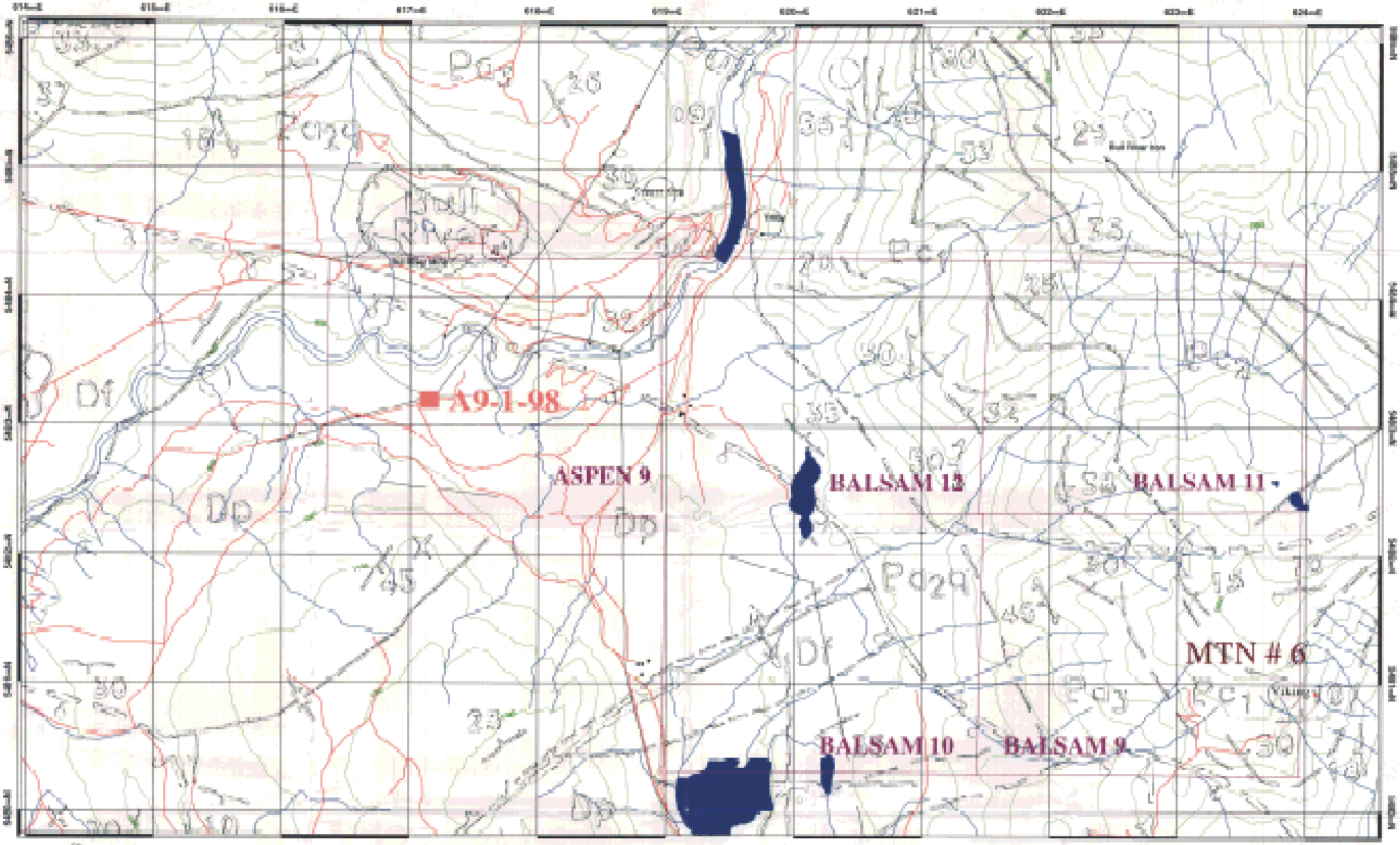
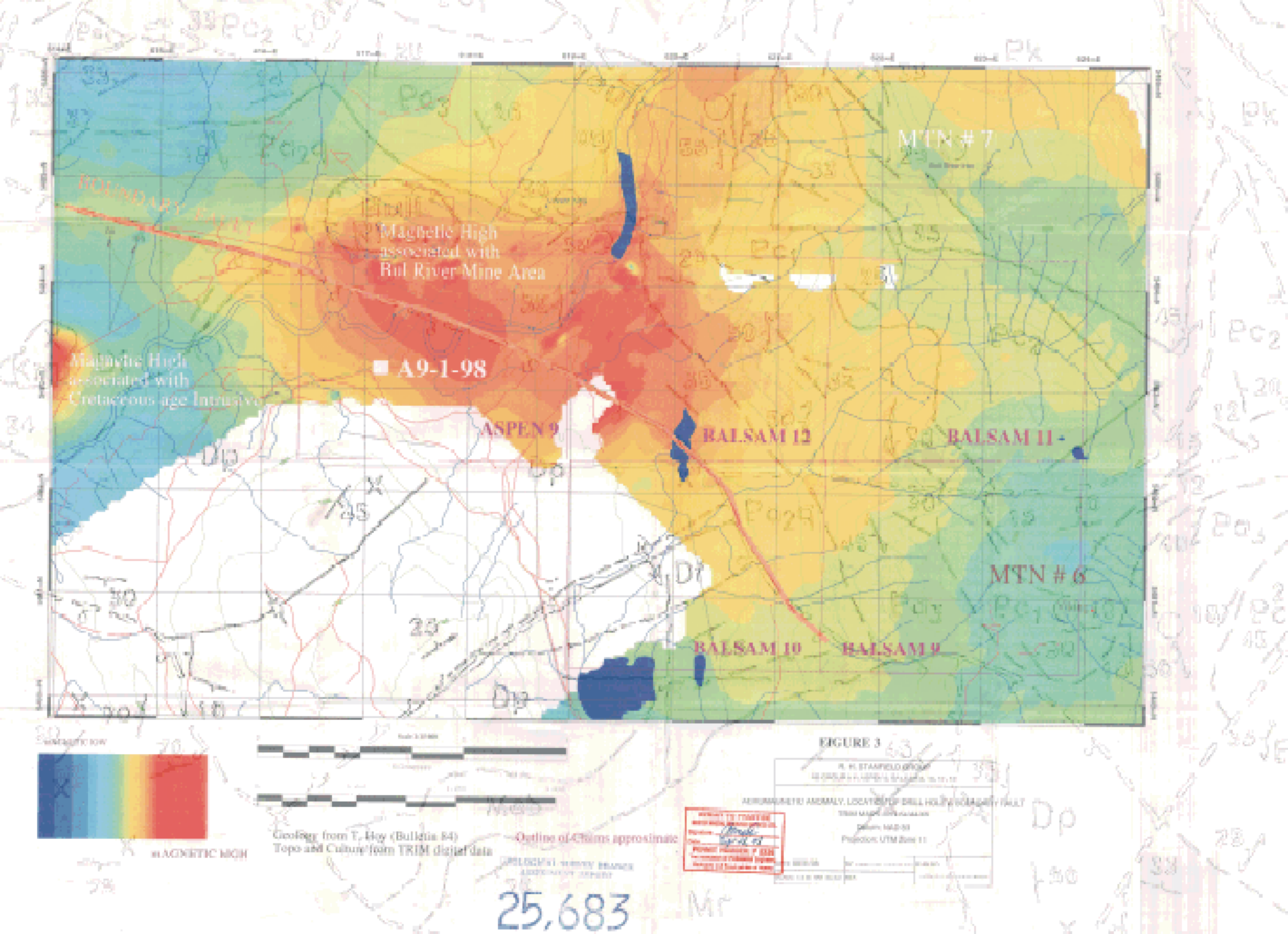


FIGURE 2

Geology from T. Hoy (Bulletin 84)
Topo and Culture from TRIM digital data

Outline of Claims approximate

COMPILATION MAP
Datum: NAD 83
Projection: UTM Zone 11



BOUNDARY FAULT
Magnetic High
associated with
Bul River Mine Area
Magnetic High
associated with
Cretaceous age Intrusive
A9-1-98
MTN # 7
ASPEN 9
BALSAM 12
BALSAM 11
MTN # 6
BALSAM 10
BALSAM 9
MAGNETIC HIGH
Geology from T. Hoy (Bulletin 84)
Topo and Culture from TRIM digital data
Outline of Claims approximate
FIGURE 3
R. H. STANFIELD GROUP
Datum: NAD 83
Projection: UTM Zone 11
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