GEOLOGICAL SURVEY BRANCH ASSESSMENT REPORTS

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.

PROGRESS REPORT ON SAWYER PROPERTY

FORT STEELE MINING DISTRICT BRITISH COLUMBIA

> NTS MAP NO.: 82F 10/E LATITUDE: 49° 44' N LONGITUDE: 116° 35' W

> > FOR

FOCAL RESOURCES LIMITED #640, 910 - 7th Ave., S.W. Calgary, Alberta T2P 3N8

NOVEMBER, 1996

Revised on February 26th, 1997

Der The Lacklan Jennifer MacLachlan, E.I.T Author

59510 R M. Bapty, A. Eng.

GEOLOGICAL SURVEY BRANCH ASSESSMENT REPORT

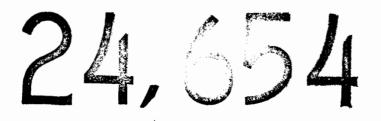


TABLE OF CONTENTS

1.00	Summary	1 2 2 2 2 2 4 4 6 7 7
2.00	Introduction	2
	2.1 Location and Access	2
	2.3 Physiography	2
	2.4 Property	2
	2.41 Geological Target	2
	2.42 Claim Group and Status	4
	2.43 History	4
	2.44 Previous Work	6
3.00	Geology	7
	3.1 Regional Geology	7
	3.2 Property Geology	10
	3.21 Structure and Stratigraphy	10
	3.22 Lithology	13
	3.23 Mineralization	14
4.00	Program	16
	4.1 Geophysics	16
	4.2 Prospecting and Mapping	16
	4.3 Geochemistry	19
	4.4 Drilling	19
	4.5 Drill Program and Expenses	22
5.00	Conclusions and Recommendations	23
	Qualification Statement	24
Refer	rences	25
Appen	dix A: Drill Logs	

Appendix B: 1996 Assays of Mineralized Lens

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LIST OF FIGURES

Page

Sawyer Property Location	3
Claim Map: Sawyer Group	5
	9
	12
	17
Geology of Chute #1, Sawyer Property	18
Sawyer Project Vertical Section A-A	21
Drill Plan and Sections	In Pocket
	Sawyer Property Location Claim Map: Sawyer Group Sawyer Property Regional Geology Sawyer Mountain Geologic Section Sawyer Property EM Conductors Geology of Chute #1, Sawyer Property Sawyer Project Vertical Section A-A Drill Plan and Sections

TABLES

Page

Table	1	Geologic	Formations	in	the	Sawyer	Pass	Area	8
Table	2	Sampling	Summary			-			19

1.00 SUMMARY

The eight claim Sawyer group is located just east of the Sawyer Pass about 45 km west of Kimberley, in the Fort Steele Mining District of British Columbia. The base metal occurrence on the claims is thought to represent stratabound limestone replacement mineralization formed proximate to prominent north-south faults along the western edge of the Aldridge Basin. The property straddles the geological division between the Precambrian Windermere and Purcell Supergroups marked by the Toby Formation conglomerate.

Initial reconnaissance programs were encouraged by numerous high grade float samples taken from avalanche chutes on the Sawyer 8 claim located on Sawyer Mountain. In-situ mineralization was found in the summer of 1996 on the north face of the mountain at 2115 m in elevation. It consists of massive sphalerite, galena and tetrahedrite, in siliceous limestone; the outcrop measures approximately 1 m thick and 10 m wide.

Drilling of the outcrop later in the season revealed no increase in thickness or extent of the mineralized pod. The abrupt termination of mineralization and the widespread presence of faulting suggest that extensions of the mineralization at one time existed.

Examination of the E-W trending Sawyer and adjacent mountains to the north and south reveals steep jagged slopes on the north faces and smooth, fabric controlled slopes on the south faces. It is possible that the slopes were created by a series of rotational faults with an E-W axis, and that the north faces may be fault planes. If this is true, extension of mineralization may exist beneath the valley floor and a program of mapping and ground geophysics is recommended. Positive results would lead to a further drill program.

2.00 INTRODUCTION

2.1 Location and Access

The Sawyer claims are located just east of the Sawyer Pass, about 45 km west of Kimberley, B.C., and straddle an unnamed mountain rising to 2399 m (hereafter called Sawyer Mountain). Geographically, they are referenced at 49° 44' N latitude and 116° 35' W longitude.

Access is by logging road west from Kimberley until turning off onto the West Fork trunk road approximately 23 km past St. Mary's Lake, and following the south side of the river onto the Sawyer Creek Forest Road. Approximately six kilometers beyond is the start of an old trail leading up to the Sawyer Pass which crosses the claim block. A 2.5 km hike brings the viewer to the base of the avalanche chutes containing the mineralized float (Figure 1).

2.3 Physiography

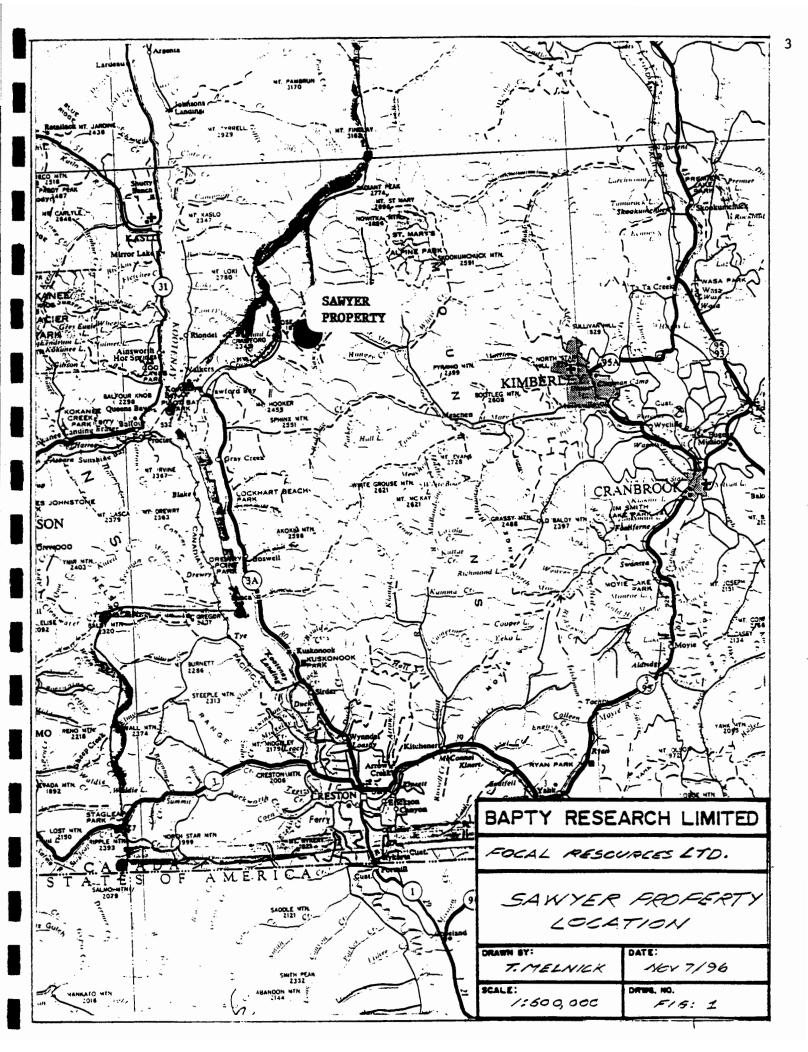
The claim group covers alpine terrain near the top of the St. Mary's River drainage. Approximately 80% of the block is forested by mature larch, pine and balsam to 2300 m, with the remainder largely unvegetated due to steep terrain and avalanche scour.

Rain and snowfall levels are above average with accumulated snowfalls reaching 5 m. The property is free from snow between May and October.

2.4 Property

2.41 Geological Target

The property is located at the contact between Hadrynian and Helikian rocks of the Precambrian. The nearest producer is the now dormant Bluebell Mine, located approximately 20 km west of the claims which produced about 4.7 million tonnes of lead and zinc grading 14% combined metal.



Mineralogically, the occurrence is thought to be another example of a limestone replacement deposit, similar to Lapoint Creek mineralization located about 3 km to the west, whereby high grade lenses of zinc/lead sulphides hosted in siliceous limestone overlie a weakly developed strataformed sulphide system hosted in black argillites.

Genesis is thought to follow a two stage process; hydrothermal venting associated with block faulting along the edge of the Aldridge basin synchronous with rifting and deepening within the basin proper, followed by remobilization and limestone replacement associated with subsequent lithification.

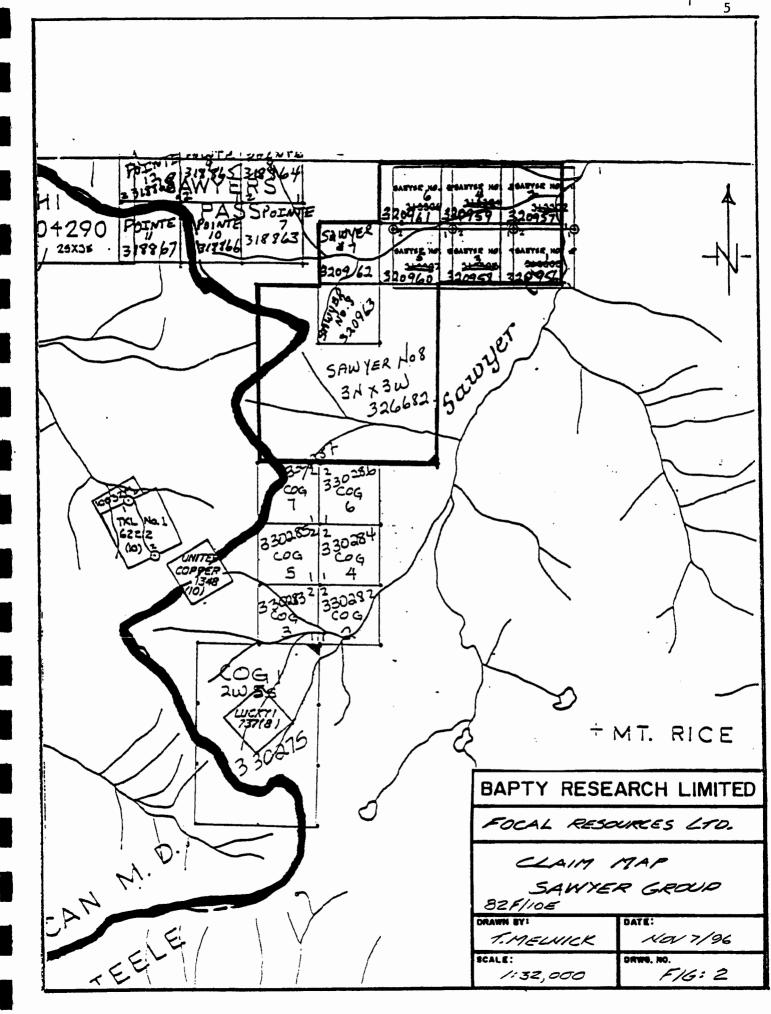
2.42 Claim Group and Status

				Due I	Date
<u>Claim Name</u>	<u>Tenure #</u>	<u># of Units</u>	Date Staked	Past	Present
Sawyer 1	320956	1	09/14/93	09/14/96	09/14/99
Sawyer 2	320957	1	09/14/93	09/14/96	09/14/99
Sawyer 3	320958	1	09/14/93	09/14/96	09/14/99
Sawyer 4	320959	1	09/14/93	09/14/96	09/14/99
Sawyer 5	320960	1	09/14/93	09/14/96	09/14/99
Sawyer 6	320961	1	09/14/93	09/14/96	09/14/99
Sawyer 7	320962	1	09/14/93	09/14/96	09/14/99
Sawyer 8	326682	9	06/09/94	06/09/97	06/09/99

Claim configuration is shown in Figure 2. All claims were staked in 1993 by G. Johnstone and F. Fairclough, and subsequently optioned to Focal Resources Ltd.

2.43 History

There are no records of previous work in the area, however, there is evidence of historical trenching over a quartz vein outcropping on the south edge of the claims.



2.44 Previous Work

An initial examination of the Sawyer claims was carried out during the 1994 field season, following their optioning by Focal Resources Ltd.

- Early work included prospecting and construction of a photographic montage to assist with structural definition, but field examination of the upper portion of the mountain revealed no mineralization.
- A second survey included Rick Walker, P.Geo., two mountain climbers and Mike Bapty. Roped descent through 300 m of steep terrain, including traverses across areas of likely sources of mineralization revealed none, however, at an elevation of 2010 m the slope was noted to be comprised of highly oxidized talus.
- Float samples from initial investigation indicated that the mineralized horizon was broadly segregated into a lead-rich band, combined lead-zinc, and a zinc-rich band. The host sequence was determined to be a siliceous limestone replaced irregularly by the sulphides prior to regional metamorphism. There was petrographic evidence of only minor mineral remobilization subsequent to emplacement, despite extensive faulting and tectonic reworking.
- Initial field efforts met with little success. In the talus samples, low values of iron were found with the disseminated lead sulphides and iron was only a minor component with the uniform dark brown coloured zinc. Analyses of outcrop samples from several locations on the face however, revealed only iron rich oxides and sulphides with no accompanying lead or zinc.

Despite limited initial evidence of mineralization on the slope, some promising factors lead to recommendations for further work. The sedimentary-exhalative model for stratabound deposits typically gossan at 2010 m suggested a possible vent source. Also, significant grades of lead and/or zinc were observed in selected samples within the scree across the four avalanche chutes.

3.00 GEOLOGY

3.1 Regional Geology

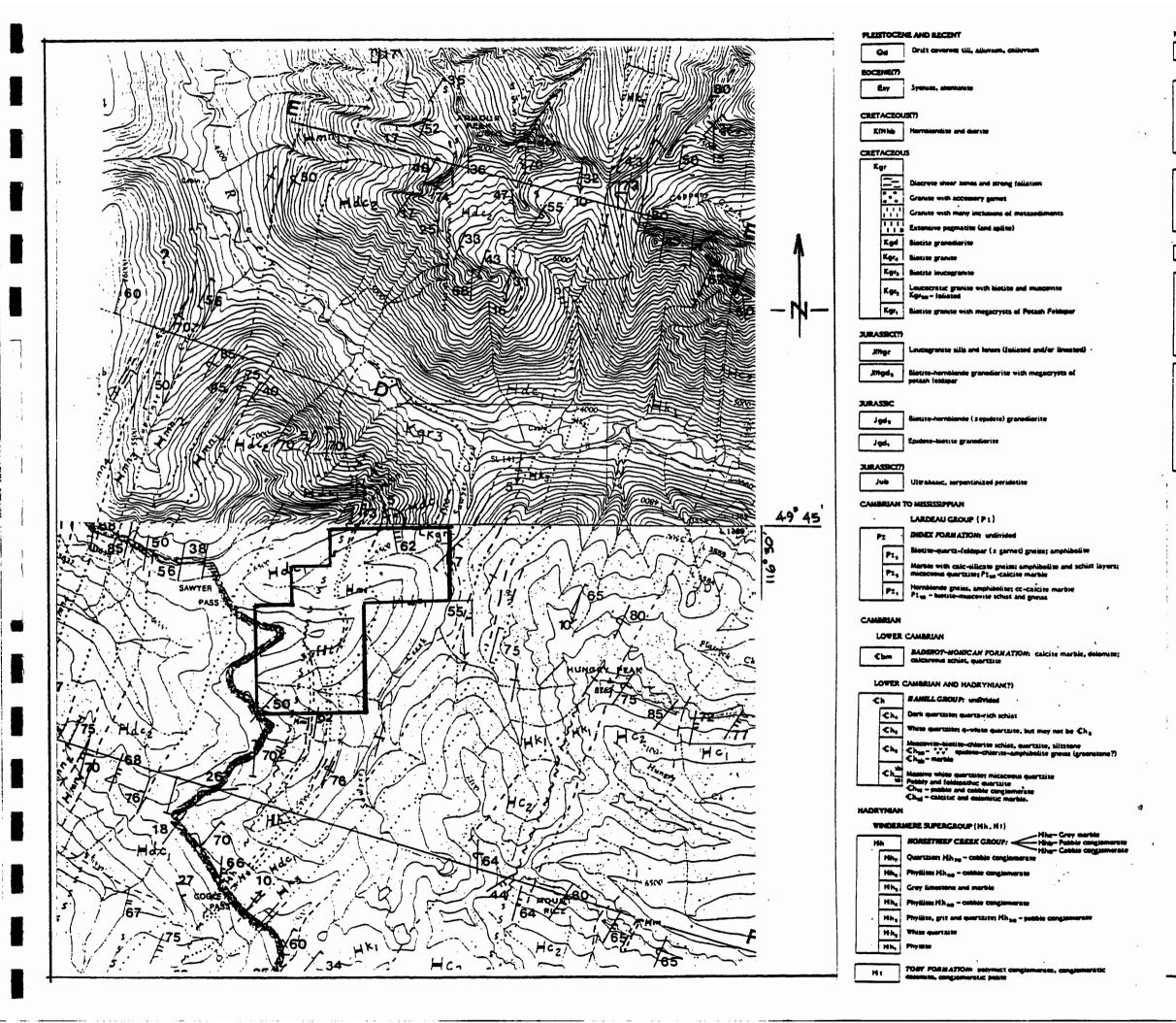
In the Crawford Bay-Sawyer Creek area, intensely deformed Precambrian metasedimentary clastic and carbonate rocks of the La France Group, Mount Nelson and Toby Formations and the Horsethief Creek Group form a linear northeast trending belt (Table 1 and Figure 3).

Cretaceous quartz monzonites to diorites are in part responsible for the levels of deformation and metamorphism evident in the Sawyer Creek area. Foliation in the sediments follows batholith margins with metamorphic and deformational intensity increasing towards the batholith contacts. The contact zones are generally gneissic with included lineated fragments of metamorphosed sediments.

Numerous minor felsic and lamprophyric intrusions are prevalent throughout the region, typically in silicified structures which parallel foliation; their occurrence is commonly coincident with galena, sphalerite and tetrahedrite.

Table #1 - Geologic Formations in the Sawyer Pass Area

Hadr	Hadrynian					
Wind	lermere Supergroup					
н _н	Horsethief Creek Group: phyllite and schist;					
	interbedded quartzite, pebble and cobble conglomerate; grey limestone.					
Н _Т	Toby Formation: polymict conglomerate; pebble and cobble conglomerate; quartzite and grit; phyllite.					
Heli	ikian					
Purc	cell Supergroup					
H _{MN}	Mount Nelson Formation: dolomite, white to dark grey, buff to brown weathering.					
H _{LF}	La France Creek Group: thinly interbedded black argillite and grey siltite.					



WE BULAN Granute, permatite Her PURCELL SUPERGROUP (H mn 40 Ha) HOUNT HELSON FORMATTON: Undivided s, where or dark gray, bull or brown weathering Nack graniling and annullacoous ever siltstone, thi Men tic sittens, argillits Hanna. abuse or erange, thirty-heating martilling Maic DUTCH CREEK FORMATION: undivided UPPER: siltstane, argillite, quartite Za-carbanate bearing bods and dolomite LOWER: black argilite and argillaceous gray siltstone, thinly interpedent; la-then successions of delemite and/ar white quartizte Mak Hm MOYIE INTRUSIONS: meta-disrite, meta-quartz disrite KITCHENER FORMATTON: undivided Nk Mk. Red weathering determite, black argillite, quartzine Black argilline, grey siltstane, tan siltstane all thinly interbeddets rare carbonate bearing horizons nite, green argillite, black argillite مولته منده b-black argilline; buff dolomit a-groon argilline, bulf dolomit nitic siltston white silts utic sultitume, doi nite CRESTON FORMATIOM undivided Hc UPPER CRESTON: deep green siturene, light and dark, thinly laminated arguittee and siturene; purple arguittee. i me MIDDLE CRESTON: grey, blocky silitions and very line quartrite in beds to 30 cm or more, commonly rupple marked, and commonly purple lined or mottled; black to deep surple argulitize and thin-bedded silitizene; white, medium-grained quartrite commonly associated with purple mod-chip broccia. LOWER CRESTON: then-bedded dark argillite and grey siltstone characterized by unregular purching and swelling beds, ripple cross-lumination, mud-cracks, munor cut and fill learures; green substane with this interbeds of argillite. M e ------------..... --------V A REAL PROPERTY AND A REAL -----+ -----an Annual and Annual Street of Annual BAPTY RESEARCH LIMITED FORAL RESOLACES LTD. SAWYER PROPERTY REGIONAL GEOLOGY REF. RECSOR, 1968 DRAWN BY: DATE: T. MELNIKK NOV 7/96

SCALE:

1:50,000

DRWG. NO.

F16: 3

3.2 Property Geology

3.21 Structure and Stratigraphy

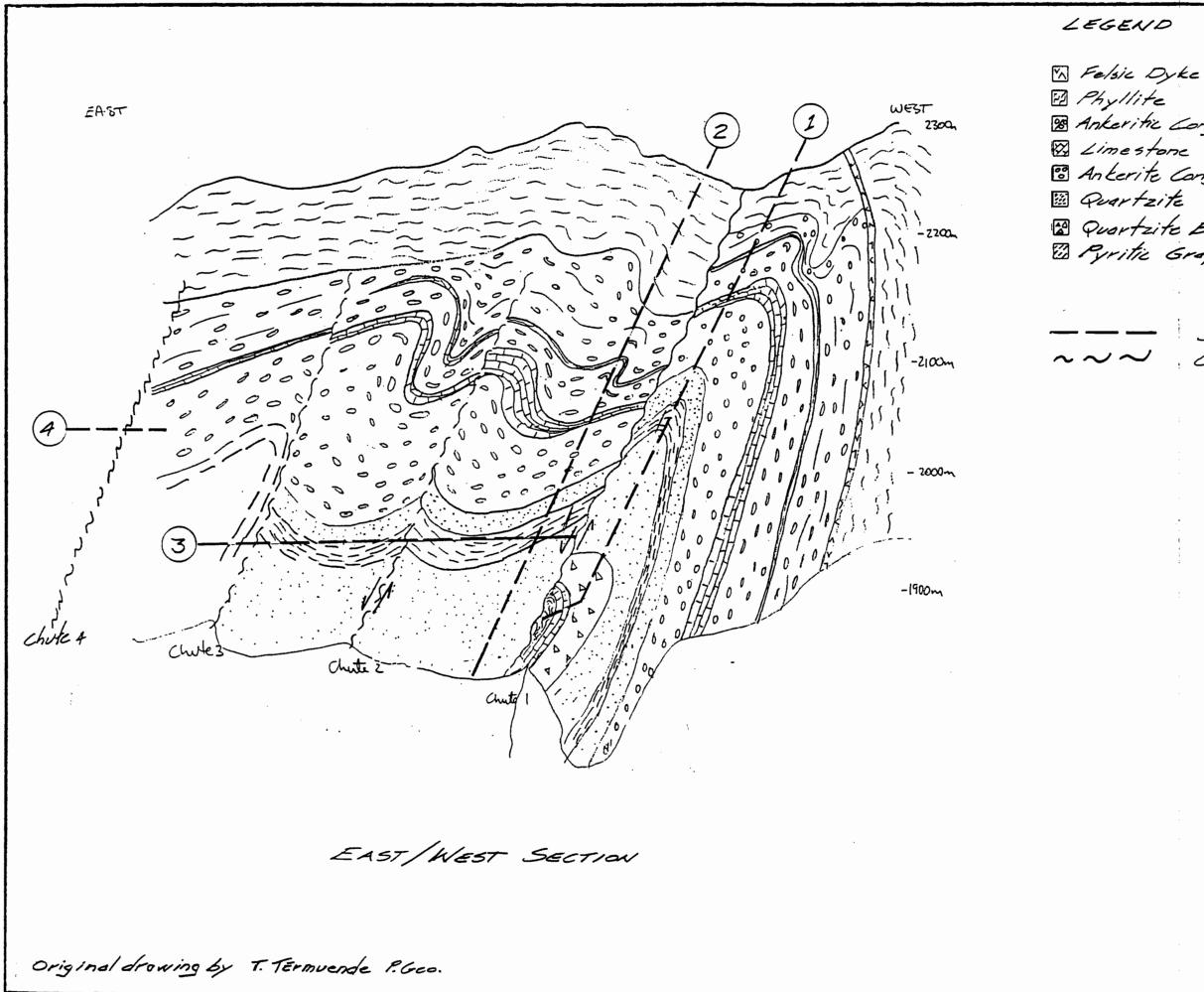
The Sawyer claim block straddles the geological boundary between the Hadrynian Windermere Supergroup and the Helikian Purcell Supergroup. The erosional surface is defined by the polymictic conglomerate of the Toby Formation, the stratigraphically lowest member of the Windermere Supergroup. The formations trend predominantly north-northeast and dip very steeply to the east. They appear to be tightly folded into a syncline with a virtually vertical fold axis.

At least three specific units makeup the geology of the claims, and from the core of the syncline out, are: phyllite and schist, interbedded quartzite, pebble and cobble conglomerate and grey limestone of the Horsethief Creek Group; polymictic conglomerate, pebble and cobble conglomerate, quartzite and grit and phyllite of the Toby Formation; and white to dark grey dolomite with buff to brown weathering and thinly bedded black argillite and grey siltite of the Mount Nelson Formation or possibly the Lower La France Creek Group (Reesor, 1996).

The Redding Creek fault cuts the property to the west, striking approximately north-south and dipping at about 68° to the east. In the area of the Sawyer claims the fault has sheared off the west arm of the syncline leaving only the east arm (which dips at almost 90°).

Stratigraphic units in the drill holes correspond roughly to the units described by Reesor (1996) and are discussed in the next section. Although the occurrence of the units seems somewhat erratic, a general pattern of limestone (possibly Horsethief Creek) interbedded with conglomerate (of the Toby Formation) is evident. Several other units were also noted including a siltstone with varying amounts of dolomite (most likely Mount Nelson) and a very thin marker unit of dacite. The La France Creek Formation may be represented by several thin beds of black, graphitic argillite which, like the dacite, act as excellent marker beds.

The thin dacite unit provides evidence of external venting possibly associated with intrusive activity at the time of basin rifting. It is generally coincident with stratigraphy and has an often blurry contact with the adjacent siltstones suggesting the unit may actually be dacitic tuff which settled gently onto the underlying sediments as opposed to intruding them. This theory is further supported by the lack of a "chilled" or "baked" zone in the siltstones. A sketch of the north face of Sawyer Mountain shows the above units as they relate to each other (Figure 4).



12

Ankeritic conglomerate with Interbedded quartzite 3 Ankerite Conglomerate 2 Quartzite Breccia 2 Pyritic Graphitic Shale Soil Line ~~~ Chute BAPTY RESEARCH LIMITED FOCAL RESOURCES LTD. SAWYER MOUNTAIN GEOLOGIC SECTION DRAWN BY: DATE NOV 7/96 T. MELNICK DRIVE. NO. FIG: 4

SCALE:

NOT TO SCALE

3.22 Lithology

The three main units encountered in the drill holes were a polymictic conglomerate, a limestone and a siltstone (with varying amounts of siliceous and dolomitic material). The four lesser units were a green phyllite, a dark brown phyllite, a pale pinkish-green dacite and a black, graphitic argillite.

A description of these units can be seen in the complete drill logs in Appendix A. A brief outline of their major characteristics is given below.

- Polymictic Conglomerate:
 - characteristically medium to pale grey matrix but occasionally rusty orange, medium brown, pinkish or greenish;
 dolomite/silica contents vary.
 - matrix generally chaotic, but occasionally has fine laminations where pebbles are scarce.
 - pebbles range in size from several mm's to tens of cm's, may be quartz, feldspar or lithic fragments, and form anywhere from 5-70% of the rock.
 - occasionally cross-cut by small quartz or calcite veinlets.
 - pyrite commonly occurs in matrix or around the rims of pebbles.

Limestone:

- characteristic medium to dark grey, with fine laminations most prevalent.
- laminations can be coarser and are occasionally not even present.
- paler, more purely calcitic laminae usually contain small amounts of pyrite.

Siltstone: (most variable unit in the sections)

- characteristic greeny-grey colour but may also be dark grey, creamy pink, buff, pinky-grey or rusty orange.
- ranges compositionally from almost totally siliceous to highly dolomitic.
- laminae may be straight or wavey and rock is occasionally massive.
- globular pyrite and possibly sphalerite (and even pyrrhotite) occur mostly in rusty orange laminae.

Green Phyllite:

- pale green, finely bedded, no sulphides Brown Phyllite:
 - deep, rich, muddy brown with very fine laminae which are occasionally crenulated.
 - muscovite-rich, no sulphides.

Dacite:

- pale, pinky-green with small dark grey flecks.
- massive, with no visible sulphides.

Argillite:

- black, highly graphitic, very finely laminated.
- fine disseminated pyrite throughout (<1%).
- cross-cutting quartz veins and veinlets, which are often rusty, contain 30-40% pyrite.

3.23 Mineralization

The main mineralization on the Sawyer claims was discovered in Chute #1 on the north face of Sawyer mountain at an elevation of 2115 m. It is a small lens, approximately 1 m thick and 10 m wide, of massive sphalerite, galena and tetrahedrite. The mineralization is thought to be a small limestone-replacement deposit with a sedimentary-exhalative origin. The lens overlies a small limestone tongue and is overlain by the polymictic Toby conglomerate. The outcrop does not extend into either of the 1996 drill holes but the mineralization would be expected to have a long axis parallel to the controlling structure. The absence of an ankerite-pyrite rich halo, which is often present around Pb-Zn mineralization of this nature, suggests that not all the mineralization is present in the mountain. This raises an interesting conjecture. The structural extension to the outcrop face has either eroded away, or has possibly been faulted downwards to form the valley floor to the north of the Sawyer Mountain.

4.00 PROGRAM (1995-1996)

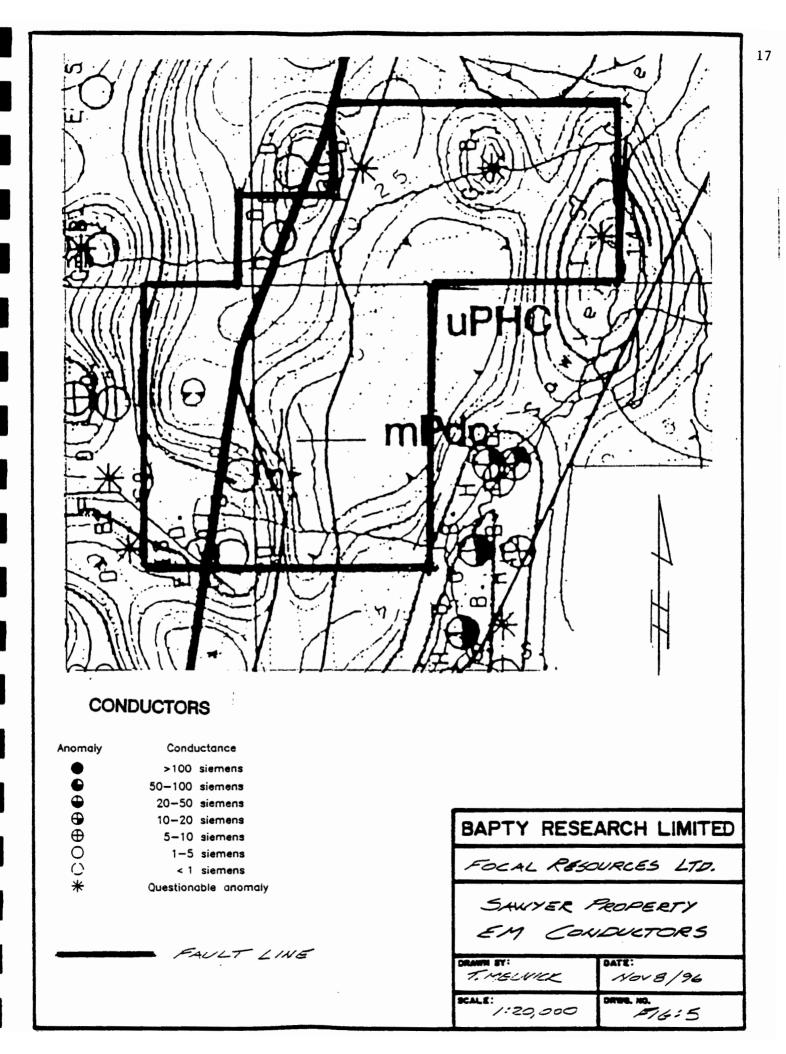
4.1 Geophysics

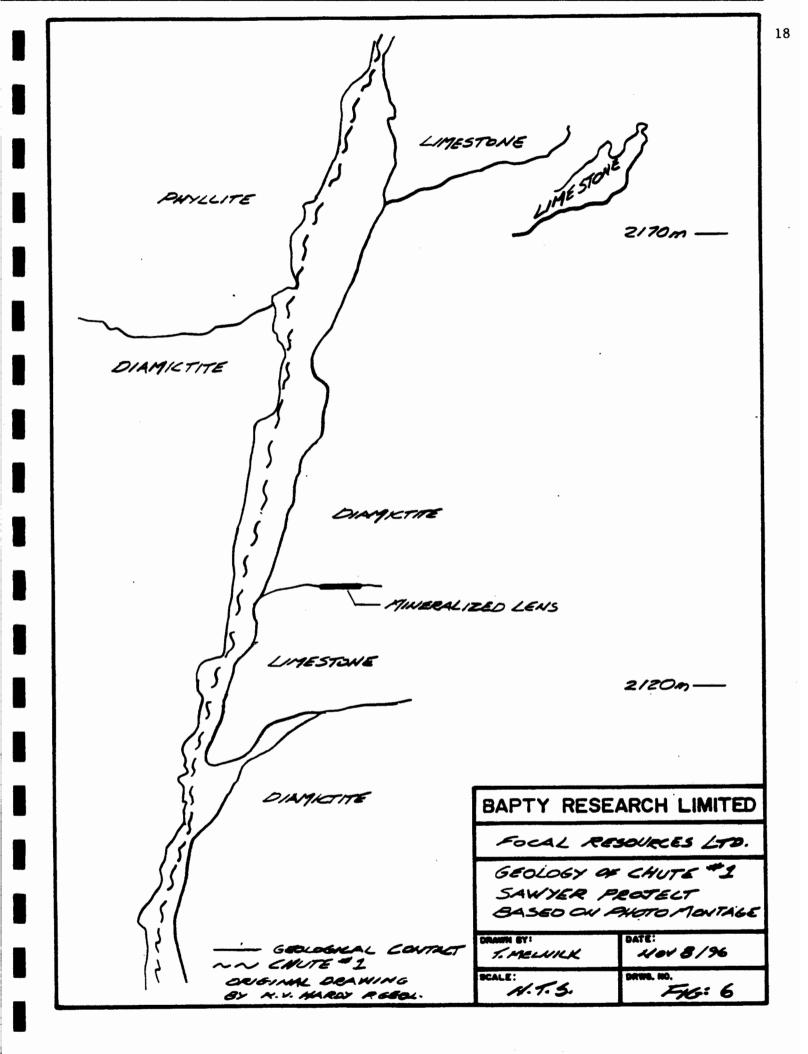
Government sponsored regional airborne geophysics showing EM (Figure 5), magnetics and radioactive elements were examined in an effort to delineate any potentially metalliferous zones. Minor conductors to the north and south of Sawyer Mountain were found but no anomalies occur directly over the mountain. The potassium alteration map reveals a zone of high potassic content surrounding and closely paralleling the contours of Sawyer Mountain.

4.2 Prospecting and Mapping

The mapping and prospecting which took place in the 1995 field season was much more extensive than that which took place in the 1994 season. Samples taken along four avalanche chutes and four soil lines included in-situ rocks, float rocks, soils and silts. The persons involved in this venture were Robert V. Hardy, P.Geol., Tim J. Termunde, P.Geo., and Chuck Downie, P.Geo., along with several prospectors and climbers. Additional prospecting was carried out by Gerry Roy and Reto Keller and several climbers in September and October of 1996 during drilling. Distal sketch mapping of stratigraphy was carried out on the north face of Sawyer Mountain by Termuende and a pseudo-section was drawn showing geology and the locations of the four chutes and four soil lines (see Figure 4).

Detailed mapping was done on chute #1 in 1995 (Figure 6). The lens located in 1996 at an elevation of 2115 m, (and later added to this 1995 map) consists of massive galena, sphalerite and tetrahedrite.





4.3 Geochemistry

Altogether 211 samples were collected and analysed in 1995. A breakdown of sampling media is shown in Table 2.

No. of Samples
13 36 16 _146
211

Table 2: Sampling Summary

Although the samples constituted an excellent teaching suite, they gave no specific clues to where the mineralization might be located, only that it was present.

Two samples were sent for petrographic analysis in July of 1995. The first sample, a piece of float from chute #1, contained coarse grained sphalerite with lesser pyrite, arsenopyrite, chalcopyrite, pyrrhotite and galena. Its source was later learned to be the mineralized lens in chute #1. The second sample, an in-situ rock from east of the lens, contained large amounts of iron but no base metals.

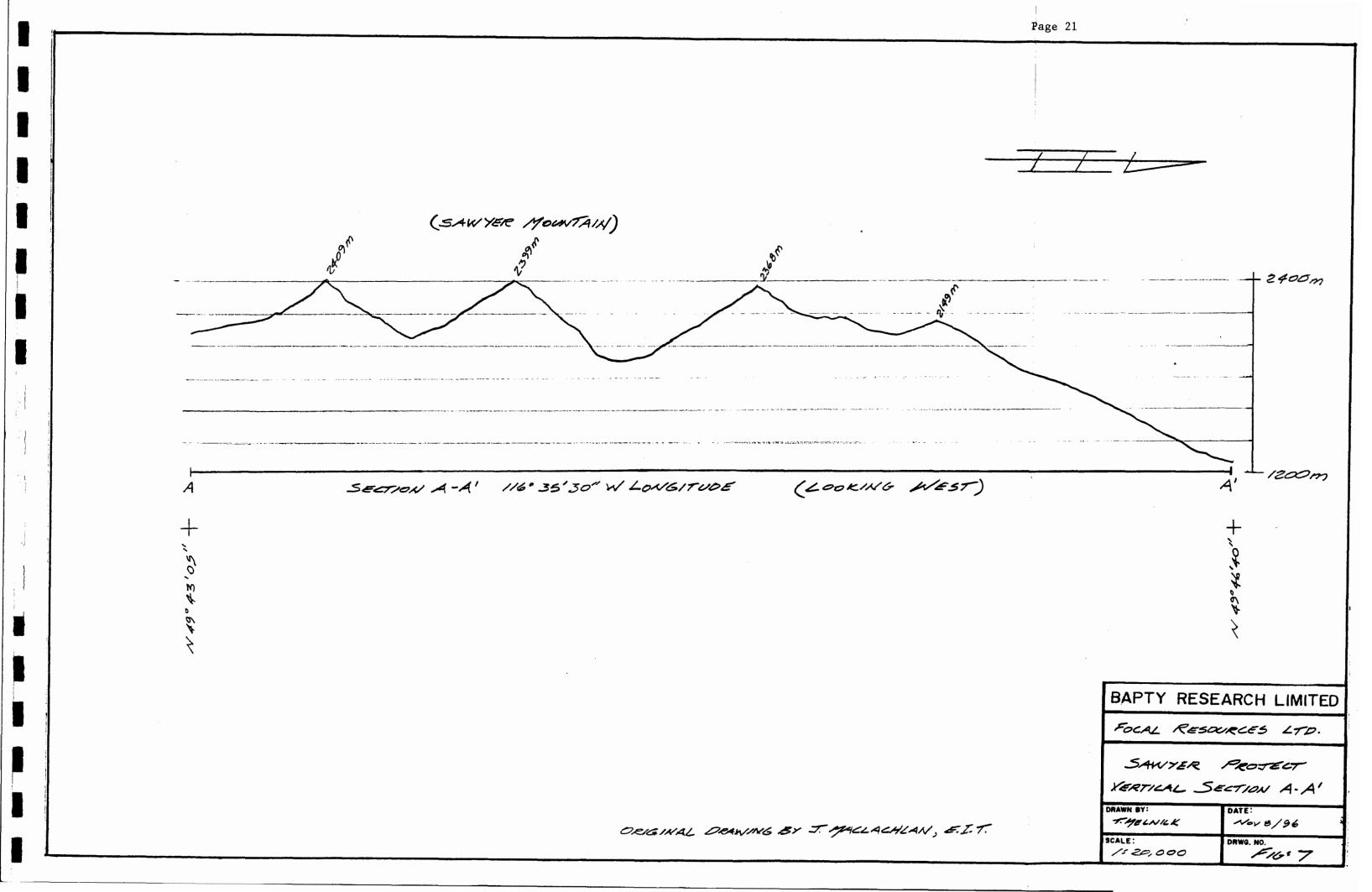
Samples taken from the lens in 1996 revealed lead concentrations as high as 21.16% and zinc up to 29.84%. Accompanying silver values ranged from 2.81-10.80 oz./ton (generally running at about half the lead assay). Full assay details are given in Appendix B.

4.4 Drilling

Diamond drilling at Sawyer was carried out in September and October of 1996 using a JKS 300 machine. Two BQ holes were drilled from a platform at an elevation of 2165 m (about 10 m west of chute #1) to determine if the mineralized lens at 2115 m extended back into the mountain. Configuration of the drill holes is shown in Figure 8 (Pocket). Drill hole #1 was oriented straight east and was drilled at -85° to a depth of 84.7 m. The second hole, oriented at N 35° E was drilled at -65° to a depth of 95.75 m. The core was logged by the author and two sections were constructed. Although neither section shows mineralization similar to the outcropping lens, lesser disseminated mineralization was evident throughout both drill holes and samples were taken at various depths.

The absence of an extension of the mineralization is not conclusive however, when the influence of block or wrench faulting is considered. A vertical section through Sawyer and adjacent mountains, oriented approximately north-south (Figure 7), reveals an interesting trend. The north faces of the mountains appear to be steeper than their southern counterparts indicating that the mountains may be the result of upward block faulting with their north faces being the fault planes. This would suggest that the stratigraphy on the north face of Sawyer Mountain might well correspond to that further north at lower elevations in the adjacent valley.

The presence of the north-south striking fault (seen as true dip in section 2) on Sawyer Mountain, which shows a vertical offset of at least 100 m, also suggests the possibility of a mineralized extension at a lower elevation.



4.5 Drill program and Expenses

Planning for the project began August, 1996. Field work mobilized on September 5, 1996, when a crew of five people erected a drill platform on the mountain face and tent platforms on the top of the mountain. Mountain Dream Tours contracted to install climbing ropes and provide safety instruction and equipment for the drill team, as well as operate and cater the camp. All work on the face was under the control of Reto Keller, a Swiss climber with internationally recognized certification for mountain rescue. The initial work was completed by September 13 when the program was temporarily suspended pending delivery of the drill. The crew was remobilized on September 25 to install the pump arrangement for lifting water 450 meters to the drill sites. The drill was flown onto the platform on September 27. The two holes totalling 175.9 meters were completed by October 9 and the camp was demobilized on the 11th. Costs were incurred as follows:

	Work Item	<u>\$</u>
1.	Project staff and Supervision	8,752.80
2.	Climbers & Camp	28,776.99
3.	Drill Program (Lumber, Expenses, Drill, Pumps, Labour)	35,862.08
4.	Transport, Communications (Helicopter, Trucks, Radios)	34,113.91
5.	Overhead and Administration	8,365.19
	This Project	\$115,870.97

5.00 CONCLUSIONS AND RECOMMENDATIONS

The existence of the mineralized lens on Sawyer Mountain in conjunction with the other mineralization in the area shows that at some stage in the geologic history there was a mechanism for metallogenesis which could result in economic base metal deposits occurring within limestones at the base of the Windermere formation. They are typically rich lead and zinc sulphide limestone replacement occurrences. Based on the size and nature of similar mineralization in the area, a deposit is likely to be small(less than 1,000,000 tons), however, with exceptional grades (greater than 25% combined metal).

The absence of an ankerite/pyrite halo in the outcrop face indicates that the whole of the mineralization may not be present in the showing. This suggests that the original extension of the mineralization was somehow removed or displaced. The latter could have been accomplished by one of the many E-W trending block-faults in Sawyer. A possible location of the extension would be below the valley floor to the north of Sawyer Mountain.

It is recommended that geological mapping be carried out on the property to the north of Sawyer Mountain, in conjunction with a high resolution EM survey. Positive results would have to be followed up by a further drill program in order to discover if an extension to the mineralization is indeed present.

6.00 QUALIFICATION STATEMENT

I, Michael Bapty, of the City of Cranbrook, in the Province of British Columbia, hereby certify that:

- 1. I am a Consulting Mining Engineer and Contractor at 901 -Industrial Road #2, Cranbrook, B.C.
- 2. I am a graduate of the University of British Columbia with a BASc in Mineral Engineering, and have been active in mine exploration, development, operations and administration for twenty-eight years.
- 3. I am a member of the Association of Professional Engineers of British Columbia.
- 4. This report is based upon property fieldwork conducted by our staff and consultants, under my supervision, from the period July 5, 1996 to November 10, 1996, but includes material from previous programs also carried out under our supervision.
- 5. I have no interest in this property either directly or indirectly, other than through a development contract between Bapty Research Limited and Foral Resources Limited, which is renewable annually.
- 6. I authorize Focal Resources Limited to use this report in a Statement of Material facts, or a supporting documentation as may be required by any Securities Exchange, Financial Institution, or Superintendent of Brokers.

Dated at Cranbrook, British Columbia, this 12th of November, 1996.

Michael Enq.

REFERENCES

- 1. Bapty, Michael B., P.Eng., and Walker, Richard T., P.Geo, 1994, <u>Report on Sawyer Property</u>, 19 pp (unpub.).
- 2. Bapty, Michael B., P.Eng., 1990, <u>Geological Development Report on</u> <u>the Lapointe Creek Property</u>, 50 pp (unpub.).
- 3. Field Notes: Robert V. Hardy, P.Geol., 10104-92 Street, Edmonton, Alberta, T5H 1S7.
- 4. Field Notes: Tim J. Termuende, P.Geo., SS 1, Site 7-95, 2720 -17th Street, Cranbrook, British Columbia, V1C 4H4.
 - 5. Field Notes: Chuck Downie, P.Geo., Box 155, Cranbrook, British Columbia, V1C 4H7.
 - 6. Reesor, J.E. (comp). <u>1996, Geology, Kootenay Lake, British</u> <u>Columbia</u>, Geological Survey of Canada, Map 1864A, scale 1:100,000.

APPENDIX A

Drill Logs

COMMENCED: COMPLETED: LOGGED BY: DATE LOGGED:	Oct. 4, 1996 PROPERTY: Sawyer BEARING: N 90 ⁰ E J. MacLachlan LOCATION: See Plan LENGTH 84.7 m C	ESTS: ORE SIZE: BQ RECOVERY: 80%
STRATIGRAPHI	C UNIT:	
METRES FROM TO	DESCRIPTION	
0 0.1-2.25	Phyllite: pale green Toby Conglomerate: siliceous, thinly bedded, medium to pale grey mat (0.5mm), sometimes forming larger masses up to 1 cm in length, Qu (1-3cm) and sparsely distributed.	
2.25-4.75	Limestone: finely laminated, dark to pale grey with pyrite in simila	or occurrence as 0.1-2.25. C to B = 60°
4.75-11.90	Toby Conglomerate: pebbles are larger and more abundant than in 0.1- chaotic with no discernible laminations or bedding.	2.25 (up to 10-15 cm in length). Matrix
	4.75-8.0 and 8.30-9.00: Dolomite matrix, characteristic rusty orange < 5 cm in length. 8.00-8.30 and 9.00-11.90: Much more siliceous ma characteristic pale greenish grey colour. No laminations.	
11.90-13	Phyllite: dark, rich muddy brown, muscovite - rich, very finely lam	ninated. C to B = 50-55 ⁰
13-14.5	Toby Conglomerate: As 8-8.30 and 9-11.90	
14.5-15.2	Transition to phyllite (as in 11.90-13) i.e. increasing phyllite in	matrix, decreasing pebbles
15.2-17.7	Phyllite (as 11.90-13) C to B = 50 ⁰	
17.7-23.9	Toby Conglomerate - equal parts dolomite/siliceous matrix with highly pebbles up to 10 cm long. Contact \Im 55° to 60°	ly chaotic fabric and quartz-feldspar
23.9-24.5	Transition: possibly fault containing, to dominantly siliceous silts possibly due to weathering out of a previously present phase (mag?)	stone. Rock is rusty brown with tiny vu
24.5-28.5	Siltstone: dark grey with fine black laminae at -45 ⁰ (C to B)	
28.5-28.8	Transition to calcareous siltstone, C to $B = 60^{\circ}$	
28.3-30.6	Calcareous siltstone: wavy, coarse laminations (bedding) with chara grey and creamy pink beds (with some 1-1.5 cm pure calcite beds) C 1 (up to 1 cm) form up to 30% of fine (<0.25 cm) iron rich possibly an	to $B = 30^{\circ}$. Globules of fine pyrite gra
30.6-41.15	Limestone: medium grey coarsely laminated with very fine (< 0.5 mm C to B = 65° . (Small transition zone of calcareous pinky siltstone	
41.15-44.0	Siliceous siltstone: dark grey to greyish green with flecks of dark characteristic dull green with the occasional darker grey (almost bl material (80-90%). Also present are 2 creamy to pinkish calcareous b	lack) band caused by increased mafix
44-52.5	Slightly calcareous siltstone: buff to pale pink, dolomitic with de crenulation. Laminae can be up to a few mm (5-6) in width and are of grained). Occasional "disturbances" are present usually as beds up conglomeritic.	composed of about 50-70% pyrite (fine

Drill Hole Record: Sawyer Pass Hole No. S-96-1

44-52.5 44-44.8 Characteristic buff to pinky grey, pyrite laminae are abundant and bedding is wavy and sometimes (cont.) chaotic. C to $B = 50-70^{\circ}$

SAMPLE 44.25-44.65

44.8-45 Decite: pale, buff green

45-52.5 45-50.4 Siltstone alternates between massive (as in 41.15-44) pale pinky grey (with very minor pyrite) and highly quartzitic (almost pure) beds ranging from 1-2 dm to 5-7 dm. Some segments are very rusty.

SAMPLE 50.4-51

- 50.4-51 Paler grey with the most pyrite yet and highly chaotic laminae. C to $B = 60^{\circ}-90^{\circ}$ highly variable
- 51-52.5 characteristic deep browny-pink with less chaotic laminae and less pyrite. C to $B = 45^{\circ}-55^{\circ}$

SAMPLE 51.3-51.9

- 52.5-74.5 Toby Conglomerate (siliceous matrix): very chaotic, with pebbles and cobbles of many different kinds. Many lithic fragments (siltstone, etc.) along with quartz and feldspar laths and some veining. Occasional intervals of "calm" with very few pebbles and very fine laminations e.g. @ 55.9-56.15 C to B = 50⁰-60⁰. Pyrite is present throughout the matrix in rusty brownish chaotic laminae or in the same material surrounding lithic fragments or laths. Pyrite 1% with possible ZnS (brown material?) (pyrite usually fine but globs up to 0.5 cm) (Rusty material may be somewhat phyllitic.) Characteristic colour is medium grey.
- SANPLES 59.45-60 60.50-61.35 63-63.8

69-85-70.5

C to $B = 35^\circ$ to 40° (contact)

- 74.5-76.95 Siltstone: Very dark grey, siliceous, massive to very finely laminated, C to B = 45⁰. Rusty alteration/weathering increases (pyrite is very scarce) in lighter beds as fault (?) is approached.
- 76.95-77.05 FAULT muddy material, quite rusty
- 77.05-81.45 Argillite black, graphitic with numerous cross-curing quartz veinlets which are often rusty and contain up to 30-40% pyrite in fine grained globules but may also (commonly) be barren. Pyrite also occurs (<1%) throughout the argillite in blocky (3-4 mm) grains.
- 81.45-84.7 Toby Conglomerate (as 52.5-74.5): Pyrite (fine or blocky) makes up to 2-3% of the rock.

END OF HOLE

DRILL HOLE RECORD: SAWYER HOLE NO. S-96-2

COMPLETED: COMPLETED: LOGGED BY: DATE LOGGED	Oct. 5, 1996 Oct. 9, 1996 J. MacLachian : October 22/96	DISTRICT: PROPERTY: LOCATION: CO-ORD.:	Ft. Steele Sawyer See Plan H	COLLAR DIP: BEARING: LENGTH ELEV.:	-65 ⁰ N 35 ⁰ E 95.75 m 2165 m	TESTS: CORE SIZE: % RECOVERY:	8Q 80%	
STRATIGRAPH	IC UNIT:							<u> </u>
METRES FROM TO	DESCRIPTION							
0 - 4.0	Casing							
.0-4.2	Very rusty - hard	to identify,	possibly con	lomerate				
.2-11.15	Limestone: charac = 30 ⁰ -35 ⁰ . No vis			inely laminate	d with cr	oss-cutting,	crenulated calcit	eveins Cto
	$C \text{ to } \mathbf{B} = 60^{\circ} (Con$	tact)						
11.15-14	Siliceous Siltston Pyrite is abundant						1 см. наvy, chaot e (up to 70-80%)	ic beds.
SAMPLE 11.5	-12.1							
14-20.95	Toby Conglomerate: small lithic fragm brown. Pyrite ver	ents and high	ly contorted					
20.95-21.8	Phyllite: as in S	-96-1, dark,	deep brown, d	ccasionally r	usty, cre	mulated lamin	ae, mica-rich. C	to B = 30°
21.8-37.2	Toby Conglomerate: d) pale whitish gr which case C to B plagioclase laths is ubiquitous (in pebbles (except in	ey. Matrix o = 10 ⁰ -30 ⁰ . and lithic fr small quantit	an be contor Huge rounded agments are a fies) through	ted and chaoti quartz pebble abundant. Sma put the matrix	c or fine s are up ill veins but is m	ely laminated to 50 cm. lor of quartz als	(usually where ph ng and smaller (<1 so present in pale	yllitic) in 0 cm) r rock. Pyri
SAMPLE 24.1	5-24.75							
39.2-38.8	Siltstone: silice	ous, characte	eristic pale (greeny-grey ma	ssive. l	ip to 5-10% p	rite in coarse cu	bic crystals.
SAMPLE 37.2	-39.8							
38.8-42.85	Toby Conglomerate: (crenulated) lamin				als alter	mate. Abunda	ant pyrite in cont	orted
SAMPLE 38.9	-39.85							
42.85-44.1	Transition to lime siliceous limeston generally followin	e. Pale gree	my-grey to w					
SAMPLE 42.85	-44 Contact with limes							
		tone. C to B	= 35-400.					

Drill Hole Record: Sawyer Pass Hole No. S-96-2 44.1-57.75 sulphides, C to B = 60-65⁰ (cont) 57.75 59.6 Dolomitic siltstone, rusty buff to characteristic greenish-grey, massive. Speckled with very fine sulphides (pyrite) 10%. SAMPLE 58.8-59.5 C to B = 45-500 (Contact) 59.6-61.25 Limestone: (59.6-60.05) Pale grey to greyish white, massive, no sulphides. (60.05-61.25) Alternating dark grey and pale grey, finely bedded with cross-cutting calcite veinlets, no visible sulphides. 61.25-61.60 Dolomitic Siltstone: as 57.75-59.6 but with slightly less Pyrite. C to $B = 60^{\circ}$ (Contact) 61.6-62.05 Limestone: pale grey to greyish-white. Slightly rusty with no sulphides. C to B - 50o 62.05-63.85 Dolomitic Siltstone: as 61.25-61.60 but with even less and much finer pyrite. Also with large rusty segments. 63.85-67.55 Limestone: characteristic med. grey to whitish-grey, finely laminated with cross-cutting calcite veinlets. C to $B = 60^{\circ}$. Minor, fine, globular Pyrite in paler layers 67.55-68.70 Dolomitic Siltstone, characteristic, rusty, pinky buff with darker, crenulated pyritic layers, C to B = 600* SAMPLE 67.55-68.70 68.70-69.55 Dacite: characteristic pinky green with small dark grey flecks. No sulphides. 69.55-73.95 Dolomitic siltstone: characteristic greeny, grey with some rusty patches (at cracks). Very finely bedded, C to B = 75-80°. Pyrite abundantly in tiny, quartz veinlets, as fine grained globules (1-2 mm). SAMPLE 70.55-71.55 73.95-79.80 Toby Conglomerate: characteristic med. to pale grey with small (< 2 cm) pebbles of quartz and lithic fragments. Small chaotic veinlets of calcite. Pyrite in small veins or as masses in matrix. 79.80-80.00 Muddy graphitic fault material (unconsolidated argillite). SAMPLE 79.80-80.00 80.00-81.55 Transition from conglomerate to limestone: Calcareous, highly-fractured conglomerate. C to $B = 65-70^{\circ}$ (Contact) 81.55-84.85 Limestone: characteristic, med-dark grey, finely laminated, no visible sulphides. Cross-cutting veinlets of calcite. C to B = $20-25^{\circ}$. 84.85-85.15 Transition (fault) to dolomitic siltstone. 85.15-88.25 Dolomitic Siltstone: greenish grey to med. grey, massive with med-coarse pyrite in veinlets and masses.

Drill Hole Record: Sawyer Pass Hole No. S-96-2

SAMPLE 85.55-86.15

88.25-92.15 Toby Conglomerate: rusty orange to light grey, large pebbles and laths (1-5 cm), no visible sulphides.

92.15-93.15 Siltstone (as 85.15-88.25)

93.15-94.30 Toby Conglomerate: chaotic veining, small pebbles/laths, med. grey, no sulphides.

94.30-94.55 Muddy graphitic argillite. (as 79.80-80.00)

94.55-95.75 Dolomitic Siltstone. (as 85.15-88.25)

END OF HOLE

APPENDIX B

1996 Assays of Mineralized Lens

CHE ANALYTICAL LABO	Bapty Re	ABETINOS ST. VAN ABEAY CERT Search Limite 1 Industrial Road R2.	IFICATE d File # 9	96-1257	(604)253-3158 PAX	££
andalo a composita a a	SAMPLE#	Cu Pb	Zn Fe	Ag** Au** oz/t oz/t	ana <u>n yan mina ananga mini ana sa</u> miningan ka	<u> </u>
	B 82131 B 82132 RE B 82132	.020 5.72 .318 21.16 .305 20.41	29.84 4.24 23.74 3.46 23.01 3.34	2.81 .001 10.80 .009 10.51 .011		
DATE RECEIVED: JUL	AG** & AU** BY FIRE - SAMPLE TYPE; ROCK	IN 50 NL AQUA - REGIA ASSAY FROM 1 A.T. SAM <u>E' are Recurs and 'RR</u> Amgy 7/96	PLE. E <u>' are Reject Reru</u> D	<u>4113.</u>	LEONG, J.WANG; CERTIFIED	B .C. ASSAYERS

Amendment A

OUALIFICATION STATEMENT

I, Jennifer MacLachlan, of the City of Cranbrook in the Province of British Columbia, hereby certify that:

- I. I am working as an E.I.T. with Bapty Research Limited at 901 Industrial Rd. No. 2, Cranbrook, B.C., and have been so employed for the last six months.
- I am a graduate of Queen's University at Kingston, Ontario with a B.Sc. in Geological Engineering from the Faculty of Applied Science, Class of 1996.
- 3. I am enrolled as an Engineer-in-Training with the Association of Professional Engineers and Geoscientists of the Province of British Columbia (APEGBC), Reg. No. E6936.
- 4. I have worked part-time in various aspects of field exploration during my summers as an undergraduate, and I have worked full-time in exploration since my graduation.

hae

Jennifer MacLachlan, E.I.T. Reg. No. E6939

Amendment B

4.6 Location of Sawyer Core

Twelve core boxes containing approximately 600 feet of BQ core are presently stored at 7048 Wycliffe Road near Cranbrook, B.C.

<u>Amendment C</u>

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Statement of Costs

	Work Item	<u>\$ Rounded</u>
1.	Project Staff and Supervision E.I.T. (34.2 hrs. @ \$34/hr.) P.Eng. (126.5 hrs @ \$60/hr.) Truck transport (4 days at \$75/day + fuel)	1,163.00 7,590.00 <u>350.00</u> 9,103.00
2.	Climbers and Camp Guide and Equipment (25 days @ \$1049/day) Equipment extras and repair Communications (radios, cell phone)	26,227.00 3,159.00 <u>795.00</u> 30,181.00
3.	Drill Program Drill Rental (15 days @ \$300/day) Platform construction material Driller and Helper (241 hrs. @ \$21/hr. and and 239 hrs. @ \$35.50/hr + expenses) Pump, hoses etc. Fuel Core Assays (20 samples @ \$16.95 ea.) Misc.	4,500.00 3,428.00 14,122.00 6,372.00 1,005.00 339.00 1,130.00 30,896.00
4.	Crane (20.5 hrs @ \$100/hr.)	2,050.00
5.	Helicopter including Fuel (27 hrs. @ \$1,045/hr. + GST)	30,230.00
6.	Labour (Mob., Demob.) D.O. 123 hrs @ \$15/hr + exp. G.J. 4 hrs @ \$15/hr. A.B. 5 hrs. @ \$15/hr. G.R. 103 hrs @ \$35.50/hr + exp.	1,892.00 60.00 75.00 <u>3,870.00</u> 6,920.00
7.	OH (10%) and Administration	8,888.00
	Total	\$118,238.00

The Total is slightly increased due to late invoices.

