

008795

MATHEW CLAIMS

YUKON TERRITORY

PROJECT DESCRIPTION

The Mathew claim block consists of 146 mineral claims situated in the Pelly Mountains of the south-central Yukon. They were staked during the months of August - September, 1987 to cover a large area of Devonian-Mississippian strata which is known to contain volcanogenic massive sulphide deposits (Morin, J.A., 1977). While staking this property three discoveries were made. The first of these represent a series of lead-silver veins, with the remaining two "Kuroko-type" volcanogenic massive sulphide mineralization. In addition, a very extensive zone of ferro-crete (non-oxide) was discovered, plus at least seven other gossans were spotted from a helicopter. During 1988, several more mineralized areas containing the characteristics of "Kuroko-type" mineralization were located and found to be within the boundaries of the Mathew claim block. In addition, a grid was established and approximately 500 soil samples were collected.

LOCATION AND ACCESS

The claim block is centered on the junction of four claim sheets (NTS 105F 7/8/9/10). To the west the claims abut against the McConnell River, and to the south, White Creek. The town of Ross River is located roughly 60 km due north, and Whitehorse lies 150 km to the southwest.

Access to the property is best attained through the use of helicopters based out of Ross River, although a cat-road does enter the western boundary of the property. Roughly 20 km to the west is the South Canal Highway, and 50 km to the north is the Robert Campbell Highway. In addition, the recently opened Ketz River Mine of Canamax Resources is approximately 5 km to the east.

PROPERTY HISTORY

To date, only a limited amount of work has been carried out on any of the showings.

During 1987, a total of two mandays were spent prospecting the property. This was largely done in conjunction with the claim staking and resulted in the discovery of a number of mineralized showings. In 1988, a more detailed program was launched which entailed additional prospecting plus the establishment of roughly 15 km of grid. On this grid soil sampling plus geological mapping were carried out over some of the more promising stratigraphy. In total, approximately 500 samples were collected from lines spaced 50 m apart.

Recorded work previous to 1987 consists of a program of soil sampling, geological mapping and trenching over the CPA claim block which was located in the southern portion of the property. Although several multi-element anomalies for base metals were outlined during this work little seems to have done with the property.

Also present in the vicinity of one of the showings discovered in 1987 were some claim posts bearing the name A. Kulan, July, 1977. However, after searching the records these claims did not appear to have ever been recorded.

Recent staking activity in the area has resulted in considerable land holdings by Canamax Resources to the east, Fairfield Minerals to the northwest and Cominco to the southwest. Presently, very little open ground remains, as over 50 km of strike length has been staked.

REGIONAL GEOLOGY

The property is for the most part underlain by Upper Devonian to Mississippian intermediate to felsic volcanics. In more detail, these consist of submarine lapilli tuffs and agglomerates. Also present is a northwesterly trending belt of high-level syenite domes and stocks which intrude only the lower portions of the volcanic section. In total, the thickness for the volcanics is quite variable, ranging from less than 100 m to over 600 m.

Occurring midway through the formation of this volcanic sequence is an episode of explosive felsic volcanism. The felsic tuffs which are the result of this event are host to or are immediately overlain by the massive sulphide deposits which characterize this stratigraphic package. Overlying this felsic volcanic sequence is a second series of buff to gray-brown flows and tuffs which are indistinguishable from those in the lower portion of the package.

MINERALIZATION

Prior to the staking of the Mathew claims, five stratiform zinc-lead-barite deposits were known within the Devonian-Mississippian volcanics (MM, Matt Creek, Bnob, Chzerpnough and Joe). Of these, only the MM (presently owned by Curragh Resources) has been extensively drilled. On this property a strike of over 1,000 ft. has been delineated which contains intersections of massive pyrite, sphalerite, galena, chalcopyrite and barite up to 35 feet thick. Economically the best drill intersection consisted of 10.4% Pb-Zn over a true thickness of 14 feet. Peripheral from the immediate area of the MM deposit, smaller occurrences of massive sulphide have been traced for over 3,000 feet. Of these all appear to occur at the same stratigraphic interval.

Within the confines of the Mathew property, a number of zones of interest are present. Of these most appear to be related to the formation of volcanogenic massive sulphide mineralization.

The first consists of a 15 to 45 foot thick zone of pyritic siliceous exhalite which is comprised almost entirely of quartz although minor amounts of pyrite (2-10%) and fluorite (0-2%) are present. In appearance this unit closely resembles the cherty exhalite which hosts most of the known massive sulphide deposits of the Noranda District, Quebec. Along strike this zone has been traced for over 1,000 feet and there is every indication of this zone continuing for a considerably greater distance. A total of nine grab samples were obtained over a small portion of this zone (87 BR-851 a, b, c; 87 BR-852 a, b; 88 CFT-148-149, 151-156). Although they contained up to 5% Fe and 0.5 oz/ton Ag as was expected, they were of background levels for the remaining elements.

The second and perhaps more significant zone occurs approximately 1.0 km downstream of the pyritic siliceous exhalite. This showing consists of 6-20 feet of banded massive pyrite and quartz. Three samples (87 BR-855 a, b; 88 CFT-150) were taken from this zone. Again, the base and precious metal values were of background levels, although the iron content was up to 19.09%. Although time constraints precluded tracing this zone in 1987, geological mapping carried out in 1988 suggests it may join up with a well developed zone of ferri-crete 1,500 ft. along strike to the west.

Also discovered in 1987 was a third area of interest which was located in the northeastern corner of the property. This zone consists of a series of small galena-sphalerite veins from which individual values range up to 23.60% Pb, 6.82% Zn and 14.96 oz/ton Ag (samples 87 DR-190 to 192).

Two other areas of interest have been located, and as with the first two, both appear to be related to volcanogenic massive sulphide mineralization. One of these represents a somewhat conspicuous gossan which occurs roughly in the centre of where the CPA claims existed. Several old trenches are present and within these trenches minor amounts of veined and disseminated pyrite were found. The other

P. 5 missing

SUBJECT: Proposed Exploration Program
LOCATION: MATHEW Claims, Yukon
BY: Brian V. Hall, M.Sc.
DATE: July 20, 1988

PROJECT DESCRIPTION

The MATHEW claim block consists of 146 mineral claims located in the Pelly Mountains of south-central Yukon. They were staked during the months of August-September 1987 to cover a large area of Devonian-Mississippian strata which is known to contain volcanogenic massive sulphide deposits (Morin, J. A., 1977). During the course of staking, three discoveries were made - two of which appear to be related to "Kuroko-type" volcanogenic massive sulphide mineralization, with the remaining one representing a series of lead-silver veins. In addition, a very extensive zone of ferro-crete (iron-oxide) was discovered, plus at least seven other gossans which were spotted from a helicopter.

To date, only a limited amount of prospecting (one man-day) has been carried out on the property. Further, no recorded work is known to exist on the discoveries which were made in 1987; however, a portion of what is now the MATHEW claims had been staked in 1982 as the CPA claims and, on this ground, a limited amount of trenching was undertaken. Also present in the vicinity of one of the showings were some claim posts bearing the name A. Kulan, July 1977; however, these claims do not appear to have ever been recorded.

LOCATION AND ACCESS

The claim block is roughly centered on the junction of four claim sheets: NTS 105-F-7/8/9/10. To the west the claims abut against the McConnell River, and to the south White Creek. The town of Ross River (population 500) is located roughly 60 km due north, and Whitehorse (population 18,000) lies 150 km to the southwest.

Access to the property is best attained through the use of helicopters based out of Ross River, although a cat-road does come within 2 km of the western boundary of the property. Some 20 km to the west is the South Canal Highway, and to the north (roughly 50 km away) is the Robert Campbell Highway. In addition, the recently opened Ketz River Mine of

Canamax Resources is situated approximately 5 km from the eastern boundary of the property.

Recent staking activity in the area has resulted in considerable land holdings by Canamax Resources to the east, Fairfield Minerals (RAM property) to the northwest and Cominco to the southwest. Presently, very little open ground remains in the area of the MATHEW claims, as over 50 km of strike length stretching from the Ketza River to the east and the South Canol Highway in the west has been staked. What remains is largely intrusive rocks which do not appear to host any mineral occurrences.

REGIONAL GEOLOGY

As stated previously, the property is mainly underlain by Upper Devonian to Mississippian intermediate to felsic volcanics. In more detail, these predominantly consist of submarine lapilli tuffs and agglomerates, although some flows, dykes and sills are present. Also present is a northwesterly trending belt of high-level syenite domes and stocks which intrude only the lower portions of the volcanic section. The total thickness for the volcanics is quite variable, ranging from less than 100 m to over 600 m.

Occurring midway through the formation of this volcanic sequence is an episode of explosive felsic volcanism. The felsic tuffs which resulted from this event are host to or are immediately overlain by the massive sulphide deposits which characterize the Upper Devonian to Mississippian strata. Overlying this felsic volcanic sequence is a series of buff to gray-brown flows and tuffs which are indistinguishable from those in the lower portion of the strata.

MINERALIZATION

Prior to the staking of the MATHEW claims, five strataform zinc-lead-barite deposits were known within the Devonian-Mississippian volcanics (MM, Matt Creek, Bnob, Chzerpough and Joe(?)). Of these, only the MM (presently owned by Cyprus Anvil, now Curragh Resources) has been extensively drilled. A strike length of over 1,000 feet has been delineated which contains intersections of massive pyrite, sphalerite, galena, chalcopyrite and barite up to 35 feet thick. The best drill intersection consists of 10.4% combined metals over a true thickness of 14 feet. Away from the immediate area of the MM deposit, smaller occurrences of massive sulphides have been traced for over 3,000 feet - all of which appear to occur at the same stratigraphic interval (Mortenson, J. K., 1977).

Within the MATHEW claims, three new mineral occurrences were discovered during one day of prospecting. The first consists of a 15 to 45 foot thick zone of siliceous exhalite which is comprised almost entirely of quartz although minor amounts of pyrite (2-10%) and fluorite (0-2%) are present. In appearance, this unit closely resembles the cherty exhalite which hosts most of the known massive sulphide deposits of the Noranda District, Quebec. Along strike, this zone has been traced for 1,000 feet and gives every indication of continuing for a considerably longer distance. A total of five grab samples were obtained over a small portion of this zone (87-BR-852 abc and 87-BR-852 ab); they contained up to 0.5 oz/ton Ag and 5.0% Fe but, as expected, were of background values for the remaining elements.

The second and more significant of the volcanogenic massive sulphide showings consists of 6 to 8 feet of banded massive pyrite and quartz. Two samples (87-BR-855 a,b) were taken from this zone and again the base and precious metal values were of background levels although the iron content was 19.09% and 9.23% respectively. Time constraints precluded tracing this zone any further than the discovery showing, although it appears as though this zone could join up with a well-developed zone of ferri-crete 1,000 feet along strike.

The third area of interest occurs in the northeastern corner of the property and consists of a series of small galena-sphalerite veins. Individual values from this area ranged between 0.64 - 23.60% Pb, 2.89 - 6.82% Zn and 6.93 - 14.96 oz/ton Ag (samples 87-DR-190 to 192).

PROPOSED PROGRAM

Since the bulk of this property has never received any serious work and new discoveries have been made, a two-phase program is proposed. The first phase will cost approximately \$50,000 and would entail prospecting the various gossans on the property plus establishing small flag line grids over any areas of interest. On these grids, geological mapping, soil sampling and some geophysics (magnetometer and EM) would be carried out. Depending upon the results obtained from this first phase of exploration, the budget may be extended to \$100,000.

Following this, a program of more detailed grid work and trenching should be instigated based upon the results of the first-phase work.

Diamond drilling would likely follow if the results of the second phase of exploration warrants.

Brian V. Hall, M.Sc.
July 19, 1988.

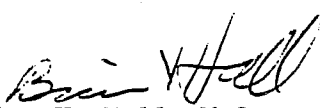
REFERENCES

- MORIN, J. A., 1977: Ag-Pb-Zn mineralization in the MM deposit and associated Mississippian felsic volcanic rocks in the St. Cyr Range, Pelly Mountains. Department of Indian and Northern Affairs, 1976 Mineral Inventory Report, pp. 83-97.
- MORTENSEN, J. K., 1977: Stratigraphic, structural and tectonic setting of an Upper Devonian-Mississippian volcanic-sedimentary sequence and associated base metal deposits in the Pelly Mountains, southeastern Yukon Territory. Unpublished M.Sc. thesis, University of British Columbia, 1977.

STATEMENT OF QUALIFICATIONS

I, BRIAN V. HALL, of RR 1, L-9, Bowen Island, British Columbia, VON 1G0, do certify that:

- 1) I am a graduate of the University of British Columbia (B.Sc. 1975) and the University of Waterloo (M.Sc. 1978) in geology.
- 2) I have practised my profession for thirteen years since my graduation from the University of British Columbia.
- 3) I am a member of the Society of Economic Geologists and a Fellow of the Geological Association of Canada.
- 4) I have an indirect beneficial interest in this property in that I am a major shareholder in Cascade Pacific Explorations Ltd. which is an unlisted company and which is now the vendor of the property; I also hold 37,000 shares in Cactus West Explorations Ltd.


Brian V. Hall, M.Sc.
July 19, 1988.

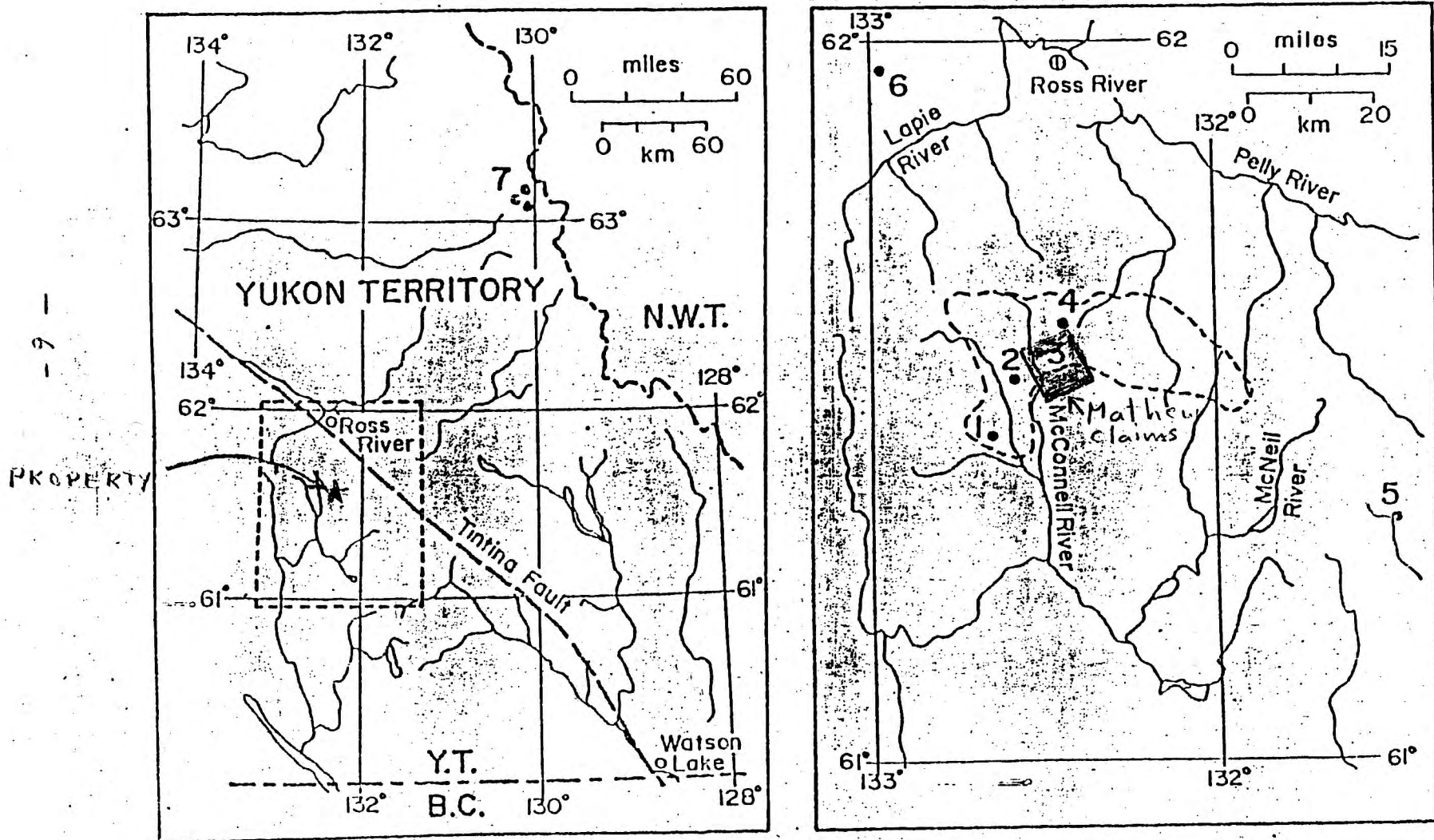


Fig. 3.3 Location of Devonian and Mississippian stratabound and stratiform massive sulphide and barite deposits in southeastern Yukon Territory. Deposits are as follows; 1) MM; 2) MATT CREEK; 3) BNOB; 4) CHZERPNOUGH; 5) JOE; 6) GREW; 7) TOM-JASON-TEA-PETE. Dashed line on the right-hand figure outlines the area mapped in detail in this study.

Rock Samples
44852-60

Rock Samples
44861-865

AREA OF
Zn VEINS

SEE FIGURE 5
1:2000 GEOLOGY

88CFT-150
PEEDED PYRITE

M_Y

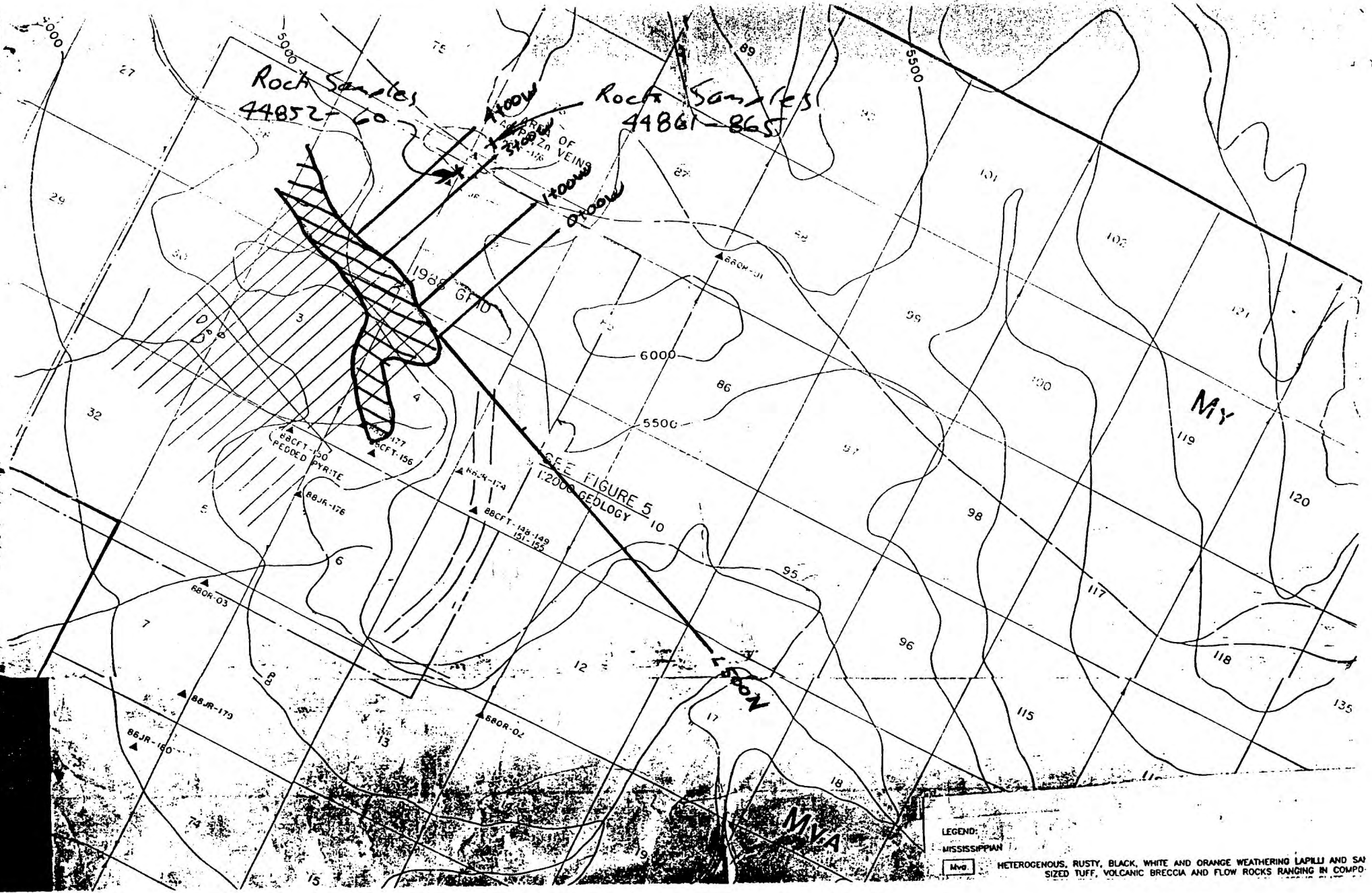
M_{VB}

LEGEND:

MISSISSIPPIAN

M_{vb}

HETEROGENOUS, RUSTY, BLACK, WHITE AND ORANGE WEATHERING LAPILLI AND SAND SIZED TUFF, VOLCANIC BRECCIA AND FLOW ROCKS RANGING IN COMPO-





M.P. CLAIMS
RESOURCES
LTD.

M.P. CLAIMS
CO. MINES LTD.

MCCONNELL RIVER

OLD ROAD

MATHIE

GOSMAN

FERRI-ZONE SPR.
1986

P. 24
VAINS

Dummy PROBE

1500 feet of cable