093G/01
Mastt Property.

GEOLOGICAL REPORT ON THE MASTT PROPERTY, CARIBOO MINING DIVISION, NTS 93G/1E

821969

by
Jennifer Pell, Ph.D., F.G.A.C.

1. SUMMARY AND RECOMMENDATIONS

The MASTT Cottonwood property is located 26 kilometres east of Quesnel in the Cariboo Mining Division. The property occurs in a belt of Lower Mesozoic rocks which hosts two important gold deposits and numerous other significant gold occurrences.

The area is predominantly underlain by a sequence of mixed volcanic, volcaniclastic and sedimentary rocks of Upper Triassic and possibly Lower Jurassic age, which strike northwesterly (Tipper, et. al., 1979). These strata are assigned to the Takla Group. In simplified terms, the area can be broken into three lithologic belts. On the western half of the claims volcanic and volcaniclastic rocks predominate, with minor sedimentary strata present (Figure 2). Two syenite porphyry bodies, possibly subvolcanic intrusions, crop out in this area. On the eastern half of the claims Triassic sedimentary rocks, dominantly black argillites, are predominant. These rocks occur in a northwest trending belt known as the Quesnel Trough (Campbell and Tipper, 1970), and are separated from metamorphosed Paleozoic strata, which crop out in the northeastern corner of the MASTT property, by a major thrust fault.

On the basis of geology and results of the preliminary drilling program, a two phase exploration program is recommended. This program is designed to test for precious metals in the vein, porphyry and massive sulphide environments. Detailed reevaluation of chip samples obtained during the exploratory drilling and assaying of bulk samples using fire assay metallics sieve analyses should be undertaken to properly evaluate ground previously tested. The field program should include magnetometer and VLF-EM surveys over the western part of the MASTT RESOURCES INC. holdings to outline the geology of the bedrock units and faults in drift covered areas and to test for potential massive sulphide conductors. Detailed mapping, prospecting and reconnaissance geochemistry on the whole property should be undertaken. Grid geochemistry, trenching and an IP survey is proposed in the vicinity of known syenite outcroppings and stockwork veining to test for areas of disseminated sulphide mineralization and precious metal enrichment. The total cost of this project is estimated at $324,550. Additional funding may be necessary if results are favourable.

Jennifer Pell

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2. INTRODUCTION

From September, 1986 until January, 1987, the author was involved in reconnaissance mapping, prospecting and partial supervision of a preliminary drill program on the MASTT RESOURCES INC. properties. Previous visits to the properties were made in the fall of 1984. This report is based on field examinations, and a study of the available literature.

3. PROPERTY, LOCATION AND ACCESS

The MASTT RESOURCES INC. mineral property consists of 330 non-overlapping units (Table 1) located approximately 26 kilometres east of Quesnel, British Columbia, in the Cottonwood area, Cariboo Mining Division (Figure 1, 2).

The property consists of three claim blocks which comprise approximately 76 square kilometres, and lie within a 13.5 x 7 km rectangular area. The bulk of the property comprises 307 contiguous claims. The second block (Mastt 12 & 13) lies in the northeast corner of the area and the third block consists of the Mastt 10 claim located in the southeast corner (Figure 3).

The claims are accessible by vehicle from Quesnel. Access is via the Wells/Barkerville Highway (#26) which adjoins Highway 97 six kilometres north of Quesnel. The MASTT claims straddle the highway at the Cottonwood River Bridge, 24 km east of the junction. Both the northern and southern halves of the property are traversed by numerous well maintained logging roads and skid trails. All parts of the claims are easily accessible by vehicle.

Elevations on the property range from 760 to 1000 metres and the terrain is gently sloped to rolling. Much of the property is drift covered, but there is abundant outcrop on the northeastern portion of the property and to the west and southwest of the Cottonwood River. The central portion of the area, in the vicinity of John Boyd Creek and Coldspring Lake, contains thick (in excess of 25m) drift cover. Glacial ice moved in a northerly direction in the vicinity of the property. The area covered by the claims is largely logged off or burnt and is now covered by 11 year old growth of pine and alders. Some unlogged areas have mature stands of fir, pine and cedar.

In addition to MASTT's mineral properties, the company holds 11 placer leases in the Cottonwood area and three placer leases in the Wells/Barkerville area.

4. REGIONAL GEOLOGY

The claim group lies within the Quesnel Trough, a linear belt of early Mesozoic volcanic and sedimentary rocks lying along the western margin of the Omenica Crystalline Belt. The Quesnel Trough is a division of the Intermontane Belt, one of the five major tectonic subdivisions of the Canadian Cordillera. It is fault bounded on the east, juxtaposed against older Paleozoic and

Precambrian metasedimentary strata and on the west by Paleozoic sedimentary and volcanic rocks of the Cache Creek Group.

The Quesnel Trough is comprised of rocks which are believed to represent an island arc assemblage formed at a consuming plate margin above an easterly dipping subduction zone which existed from late Jurassic to early Triassic time (Saleken and Simpson, 1984). The lithologies have been traced southwards to beyond the international border and northwards to beyond Prince George. The succession near the property and northwards have been assigned to the Takla Group, which is correlative with the Nicola Group, to the south. The base of the succession comprises a black argillite unit of Upper Triassic age which is exposed on the eastern margin of the Trough (Saleken and Simpson, 1984). The basal black argillite is overlain by a series of augite porphyry flows, breccias and minor argillites and siltstones. This sequence is, in turn, overlain by volcaniclastic rocks and argillites of Upper Triassic to Lower Jurassic age, and accumulations of intermediate to mafic volcanic rocks in local centres. Mid-Jurassic alkaline plutons were emplaced near the volcanic centres and were often related to early north to northwesterly trending faults.

During the Late Jurassic to Early Cretaceous Columbian Orogeny, the oceanic rocks of the Quesnel Trough were obducted onto the continent and somewhat deformed and metamorphosed. In the late Cretaceous, granitic bodies locally intruded rocks of the Quesnel Trough. Tertiary extension resulted in block faulting, which is the dominant structural style throughout most of the belt.

5. REGIONAL ECONOMIC GEOLOGY

Lode gold mineralization was reported from the Quesnel Trough as early as 1902, when placer miners drove adits in pyrite bearing quartz veins in the area southeast of Likely. These veins cut argillites and tuffs near the eastern boundary of the Trough, and are believed to represent metamorphic segragations associated with the dewatering of sediments during the initial stages of deformation (Bloodgood, 1987; Saleken and Simpson, 1984). Considerable work has been carried out on these vein prospects, but little production has been recorded to date.

In 1964, the Cariboo-Bell, a copper-gold deposit, was discovered 9 km southwest of Likely. The Cariboo-Bell is a porphyry copper type deposit associated with an alkalic intrusion emplaced at the site of an Upper Triassic volcanic centre. Extensive exploration for porphyry copper mineralization was carried out intermittently in the area until the late 1970's, when most of the known plutons were staked. Though many of the plutons were found to contain some auriferous chalcopyrite mineralization, most proved to have insufficient size and grade (Saleken and Simpson, 1984). In the late 1970's it was discovered that extensive zones of gold-pyrite mineralization could occur in basaltic rocks periperal to the intrusions. Exploration has been

active in the Quesnel Trough since then and has resulted in a number of interesting finds.

5.1 CARIBOO-BELL

The Cariboo-Bell copper-gold deposit is located 63 km southeast of the MASTT property (Figure 2). The deposit was found in 1964 after ground examination of a magnetic anomaly revealed copper oxide mineralization, a discovery which preceeded a flurry of exploration activity. The latest published geologic reserves are 117 million tons grading 0.31% Cu and 0.012 oz/ton Au, including a high grade zone of 30 million tons grading 0.38% Cu and 0.018 oz/ton Au (Sakelen and Simpson, 1984).

Mineralization consists of chalcopyrite, magnetite and alteration minerals mainly confined to high level, intrusive breccia zones within an alkaline intrusion hosted in Upper Triassic volcanic rocks. The intrusion is a zoned complex, 6 km in length, consisting of syenodiorite, monzonite porphyry, intrusion breccia and pyroxenite-gabbro. The intrusion is surrounded by concentric alteration zones, grading from a K-feldspar/biotite/diopside core to a garnet/epidote intermediate zone, to a pyritic epidote perimeter zone (Hodgson et. al., 1976).

5.2 THE DOME QR DEPOSIT

DOME'S Quesnel River (QR) property, located near Likely, approximately 50 kilometres southeast of the MASTT property, contains a potential large tonnage - low grade deposit. Pittable reserves, as of March 1985 were estimated at 862,000 tonnes grading 6.8 grams gold per tonne (950,000 tons of 0.21 oz/ton) (The Northern Miner, March 7, 1985, p. B28-29). The discovery of this deposit resulted in renewed interest in the Quesnel Trough.

Mineralization occurs within a pyrite-epidote alteration zone in brecciated Upper Triassic basaltic volcanic rocks near a zoned alkaline (syenite) porphyry. The mineralized horizon occurs immediately below a sedimentary contact and above a strongly carbonated zone (Saleken and Simpson, 1984). Airborne magnetic anomalies and Cu and Au geochemistry led to a drill program which revealed the mineralization.

5.3 SPANISH LAKE PROPERTY

MOUNT CALVERY RES. and their affiliate TECK CORP. have outlined a number of gold targets on their Spanish Lake property, located a few kilometres east of the QR property (Fig. 2). Two main northwest trending belts of mineralization have been discovered on this property; one containing QR-type porphyry gold deposits and the second, in a more easterly position, with strata-controlled mineralization hosted in sedimentary rocks, predominantly black argillites (North American Gold Mining Industry News, March 15, 1985, p. 13). The best intersection reported at that time assayed 6.8 grams gold per tonne (0.20 oz/ton) across 28 metres, from one of the sediment hosted zones (Madre Zone). Fourteen widely spaced

drill holes intersected anomalous gold values of from 1.37 to 37.63 grams per tonne (0.04 to 1.10 oz/ton) over widths of 3 to 10 metres. Most of the mineralization occurs in quartz veins and associated pyritic argillites. Mineralization in the argillites may be syngenetic (Bloodgood, 1987).

5.4 FRASERGOLD DEPOSIT

The Frasergold Property of Eureka Resources is located along the eastern margin of the Quesnel Trough, approximately 137 km southeast of the Mastt Property (Figure 2). Exploration activity from 1983 to 1986 has outline significant reserves. Eureka has now demonstrated the existance of bedrock mineralization of potentially economic widths over a strike length of 4 km (George Cross News Letter, No. 25, February 5, 1987, p. 3). Data from one zone indicate a potential mineral reserve for an underground operation of 1.2 millon tons grading 0.4 oz/ton, with additonal open pit potential of 20 million tons grading 0.06 oz/ton Au (George Cross News Letter, opt. cit.).

Gold mineralization is associated with pyrite, pyrrhotite and chalcopyrite, and occurs as disseminations in one horizon of the black argillite and in quartz veins. As at Spanish Lake, the mineralization is of syngenetic (volcangenic) origin with some later remobilization during regional metamorphism (Bloodgood, 1987). This differs form the alkalic porpyry type mineralization seen at QR.

5.5 GABRIEL - HUGHES LANG PROPERTIES

To the northwest of the MASTT property (approximately 12 kilometres) GABRIEL RESOURCES have staked a 45 kilometre stretch of claims on the same belt of sedimentary and volcanic rocks as MASTT. The company's chief geologist for British Columbia has been quoted as saying "-we did an extensive aerial survey of 55,000 square kilometres of what we determined were the richest anomalies in B.C. and the southeastern Yukon. Out of that entire area, the Gabriel Claims (near Quesnel) presented the largest and strongest anomalies" (Quesnel-Cariboo Observer, March 12, 1986, p.2). Strong gold values were found in massive sulphide zones on the southern portion of the property. This property was drilled during the summer and fall of 1986. In three of the first seven holes significant mineralization was encountered and assays of from 3.75 grams per tonne gold (0.090 oz/ton) over 2.6 metres to 15.83 grams per tonne gold (0.380 oz/ton) over 0.8 metres were reported (News Release, Sept. 4, 1986). Drilling in January of 1987 intersected values of up to 0.83 oz/ton Au, 1.94 oz/ton Ag and 0.65% Cu over 2.3 foot widths (George Cross News Letter, opt. cit.).

Mineralization occurs in massive sulphide zones (VLF-EM conductors) four to five feet wide, which are traceable for up to 230 feet (75 metres) along strike (George Cross News Letter, opt. cit.). These massive sulphide zones contain pyrite, pyrrhotite, chalcopyrite, sphalerite and galena, and are hosted in north to

nortwest striking interlayered volcanic and sedimentary rocks of the Takla Group.

5.6 PUNDATA PROPERTIES

Recent exploration by PUNDATA RESOURCES (previously MARY CREEK RESOURCES) on their property which is adjacent to the MASTT holdings has led to the discovery of a new gold occurrence. Assay results of up to 48.33 grams per tonne (1.16 oz/ton) across a three metre width have been reported (Northern Miner, Feb. 17, 1986). The extent of this mineralization is not known; it may extend to the northwest or southeast onto MASTT property.

6. PROPERTY GEOLOGY

The regional geology of the area has been mapped by the Geological Survey of Canada and published at a scale of 1:250,000 (Tipper et. al., 1979).

The western half of the MASTT property is underlain by a north to northwesterly striking volcanic rock dominated sequence with some intercallated sediments, correlative with Upper Triassic and Lower Jurassic Takla Group. Work in the spring of 1984 and winter of 1986 (Schmidt and Copeland, 1984; 1986) uncovered the presence of an unmapped syenite porphyry dyke in andesitic volcanic rocks on the Henric 2 post claims. Associated with this dyke is a visible pyritic zone in brecciated and silicified andesites. Soil samples collected in the immediate vicinity yielded high arsenic anomalies (>3900 ppm), which is generally considered to be a good indicator of potential gold mineralization. A rock sample of altered andesite collected in the same area contained >4000 ppm As (Schmidt and Copeland, 1986), but low gold values. Additional outcroppings of the syenite dyke were discovered in September of 1984 by the author, also on the Henric 2 post claims, approximately one kilometre north of the first discovery (Figure 3, 4). As at the first locality, the syenite has intruded andesitic volcanic rocks which have been slightly altered and contain some pyrite mineralization. A large syenite porphyry stock crops out in the southwest corner of the Mastt 18 claim, to the south of the syenite dyke (Figure 4). The stock has intruded intermediate to mafic volcanic rocks and argillites also correlative with Upper Triassic to Lower Jurassic Takla Group strata. Visible sulphide mineralization and weak alteration occurs both within the margins of the syenite stock and in the surrounding volcanic rocks. A major northerly trending fault, indicated by the aeromagnetic patterns (Figure 5), is located immediately to the west of the syenite stock.

The eastern portion of the area, in the vicinity of Lightning and Mary creeks (Figure 4) is underlain by Upper Triassic black argillites. These argillites locally contain disseminated pyrite mineralization and quartz stringer veins.

Between the eastern argillite dominated sequence and the western volcanic dominated sequence in the southern part of the claims (Cottonwood River-Swift River areas, Figure 4), a mixed

sequence of argillites, siltstones, tuffs and minor volcanics outcrop. Southwest of the claims area augite porphyry flows occur in this unit. These strata are probably Upper Triassic in age. Prospector H. Marthinsen obtained a sample of mineralized quartz vein from this unit where it was exposed in the Old Highways pit near the Cottonwood River Bridge while the pit was being worked by the Highways Department in 1980. This sample assayed 59.16 grams per tonne gold (1.42 oz/ton) and 393.27 grams per tonne silver (9.44 oz/ton). This site has been reclaimed by the Highways Department and the only evidence of the bedrock geology exists in the large tonnage of road ballast dumped in the terraces below Highway 26 at the approach to the new Cottonwood River bridge. A variety of rock types exist in this ballast, primarily argillites, tuffaceous argillites, and intermediate volcanics and intrusives. Two varieties of quartz veining exist. One is narrow, white quartz veins and the second is chalcedonic quartz and carbonate cutting altered, brecciated andesitic volcanic rocks.

The northeastern corner of the MASTT property (Mastt 13) is underlain by Paleozoic and Precambrian metasedimentary rocks (Figure 4). Dominant litholgies in the area are micaceous quartzites and grits, with minor phyllite. These strata are part of the Omenica Belt, and are in thrust contact with the Quesnel Trough lithologies to the west.

7. PROPERTY EXPLORATION

Prior to September of 1986, exploration of the MASTT Property had been limited to minor reconnaisance geological mapping, prospecting, limited geochemistry, some trenching and two exploratory cable-tool drill holes, on Mastt 13. On October 14, 1986 a major rotary drilling program of over 1500 metres was begun to test the recognized geological targets. Chip samples were collected using an Acutech sampler. This drill program is now complete, but chip logging and assaying is not yet finished.

The first hole, on Mastt 12, was drilled north of the Toop Nugget mine (Figure 6) and completed to a depth of 260 feet (79 metres). In this hole, 105 feet of overburden were encountered, followed by 155 feet of black argillite which locally contained quartz veining and disseminated sulphide mineralization (up to 10% pyrite). The greatest amount of veining and mineralization was encountered between 210 and 250 feet. It was hoped that Drill Hole 1 would intersect heavily veined, altered and pyritized argillites similar to those underlying the Toop Nugget Mine. Samples of bedrock from the Toop Mine have reportedly returned very high gold values (T. Toop, pers. comm., 1986), suggesting the potential for argillite hosted syngenetic deposits, similar to those at Frasergold, exists in the Cottonwood area. Preliminary assays, however, have not been encouraging. Significantly more work is necessary to properly asses the potential of this part of the claims.

Drill Holes 2 to 5 were drilled east of the Cottonwood River, on the Henric 2 post claims, along the syenite dyke (Figure 6,

and 7A). These holes were intended to test the potential for QR-type mineralization in the vicinity of the dyke. Drill Hole 2 was completed to a depth of 325 feet (99 metres), DH 3 to 260 feet (79 metres), DH 4 to 345 feet (105 metres), and DH 5 to 505 feet (154 metres). All holes in this vicinity encountered less than 25 feet of overburden. Drill Hole 2 intersected mixed volcanic and volcaniclastic rocks with zones of alteration, minor disseminated sulphide mineralization and sulphides coating fractures to 180 feet. From 180 to 305 feet, zones of silicic alteration, rich disseminated sulphide mineralization, fracturing and local quartz veining occurred. Drill Hole 3 was spotted in the region of the high arsenic anomalies. It encountered intense argillic alteration in volcanic rocks to a depth of 95 feet, below which fine disseminated sulphides and sulphide fracture coating occurred. Drill Hole 4 intersected volcanic and clastic rocks to a depth of 105 feet. Between 85 and 105 feet, abundant disseminated sulphides (15 to 20% of the rock) were encountered. From 105 to 115 feet syenite was intersected. From 115 to 265 feet, the rocks were fractured, contained abundant sulphides (up to 15%), and locally were veined with quartz. Minor sulphides in volcanic rocks and argillites were encountered from 265 feet to the bottom of the hole. In Drill Hole 5 the rocks were highly altered (silicic and argillic) and contain only minor pyrite. Less than 40% of the material recovered from these holes has been assayed to date. No significant analyses have yet been returned from DH 2 and DH 3. In DH 4, above background values were as follows: 185-205, .009; 325-345, .080 oz/ton Au. In DH 5, above background values were as follows: 85-95, .012 oz/ton Au.

Three holes were drilled in the vicinity of the syenite stock on Mastt 18 (Figure 6 and 7B). Drill Hole 6 was completed to a depth of 305 feet, DH 7 to 185 feet, and DH 8 to 285 feet. All encountered less than 30 feet of overburden. These holes were drilled to test for Cariboo Bell type porphry copper-gold mineralization on the margins of the stock. Drill Hole 6 intersected pyritized (up to 10%) and altered volcanic and clastic rocks containing some epidote and minor quartz veins. Drill Hole 7 encountered syenite containing minor amounts of sulphides and a 2 metre thick quartz vein at approximately 55 feet. Drill Hole 8 encountered syenite intermixed with altered and pyritic volcanic and clastic rocks for its entirety. Very little material from these holes have yet been assayed.

Nine holes were spotted in the old Highways Pit area (Henric claim), south of the Cottonwood River (Figure 6 and 7C), testing for fault and fracture related mineralization as was first noted by prospectors H. Marthinsen and E. Sorum, when the Highways Department exposed bedrock in the pit. A sample of material obtained by the prospectors, from the pit assayed 1.42 oz/ton gold and 9.44 oz/ton silver. The drillholes (DH 9, DH 10 and DH 12 - 18) encountered altered dark grey, green and black volcanic rocks, volcaniclastic rocks, and argillites with sulphide rich zones and zones of stockwork chalcedonic quartz veining. Drill Hole 9 was completed to a depth of 505 feet. From the surface down to 80 feet, highly altered (weathered?) volcaniclastic rocks were encountered

which contained some sulphide mineralization and minor quartz veining. From 105 feet to 345 feet, intensely fractured rocks crosscut by chalcedonic quartz and carbonate stockwork veining and containing abundant disseminated sulphides (10 - 15%) were intersected. Below this level stockworking was not ubiquitous, but locally present. From 475 feet to the bottom of the hole fracturing was minimal. Upon examination of the samples, fine visible gold was observed in six ten foot intervals: 65-75, 125-135, 135-145, 155-165, 225-235, 275-285. Drill Hole 10 (Figure 7C) was completed to a depth of 305 feet. From the surface to 105 feet, weathered, fractured, sulphide bearing volcaniclastic rocks were encountered. From 105 feet, to the base of the hole, fractured rocks containing stockwork veining and disseminated sulphides were intersected, similar to those in DH 9. Visible gold was observed in the interval 185-195 feet. Drill Hole 12 intersected 105 feet of overburden and was completed to a depth of 305 feet. Mixed argillite, volcanic and volcaniclastic rocks were intersected. As with the other holes in the area, quartz-carbonate stockwork veining, fracturing and disseminated sulphides were present throughout, with greatest abundance (sulphides up to 20%) between 140 and 235 feet. Drill Holes 13 to 15 all intersected 65 feet of overburden and were completed to depths of 435, 525 and 305 feet, respectively. Rocks encountered were much the same as those previously described. Those at shallow levels of DH 15 were quite bleached and contained epidote. Information of Holes 16 to 18 is not yet available. Assays from DH 9 were not as favourable as the presence of visible gold would suggest. Anomalous values were as follows: 125-135, .015 to .039; 135-145, .015; 145-155, .012; 225-235, .008 oz/ton Au. Drill Hole 10 produced anomalous results in only one intersection: 245-255, .018 oz/ton Au. The other holes have only had a few random intersections assayed and produced above background results as follows: DH 12, 225-235, 0.066 oz/ton Au. No assaying has yet been done on DH 13 and DH 14.

Drill Hole 11, located to the northwest of the large syenite stock, (Figure 6) was a wildcat hole to examine bedrock west of the inferred fault indicated by aeromagnetics. It was drilled to a depth of 210 feet and intersected fractured argillites throughout.

Some additional analyses have been performed using a mercury amalgamation technique. Extremely high gold values resulted. No confirmation or duplication of these results has yet been possible.

8. CONCLUSIONS

Examination of the MASTT properties revealed the occurrence of sedimentary and volcanic rocks of the Upper Triassic to Lower Jurassic Takla Group on most the claim block. In the northeastern part of the area Takla Group rocks are in fault contact with Paleozoic and Precambrian strata. Three subdivisions of the Takla Group strata can be delineated. The easternmost unit consists dominantly of black argillites of probable Upper Triassic age. A central subdivision, found mainly on the south and central

portion of the claims consists of mixed argillite, siltstone, volcaniclastic rocks and locally, augite porphyry. The western portion of the claim area is underlain by mixed volcanic, volcaniclastic and sedimentary rocks of Uppr Triassic to Lower Jurassic age. Two syenitic bodies, probable subvolcanic intrusions, which do not appear on the government maps (Tipper, et. al., 1979) were observed on the claims. These are locally associated with altered and pyritic rocks.

The western portion of the property, particularly in the vicinity of the large syenite stock, has the potential for QR type mineralization. This potential was not completely addressed by the exploration drill program; until detailed mapping, geochemistry and more geophysics has been done it is impossible to delineate a target area around the stock. The eastern part of the claims, where underlain by black argillite, may potentially contain Frasergold type mineralization. Again, significant groundwork is required to assess this possibility.

Some favourable results from the exploration drill holes have been returned to date, in particular DH 4, 325-345 feet, 0.080 oz/ton Au, and DH 12, 225-235, 0.066 oz/ton Au. These results were obtained by fire assay, using a bulk metallics sieve analysis of 500 gram samples. Additional assaying and detailed core logging is required to completely test zones already drilled. A "nugget effect" problem is suggested by variations in results seen in intersections of DH 9 (eg. 125-135 feet, noted above). Bulk samples need to be evaluated in an attempt to negate any nugget problems.

Based on the favorable geology, lack of systematic exploration and exploration activity in surrounding areas, a detailed geological mapping, geochemical and geophysical exploration program is recommended. If good targets are defined, diamond drilling should be used to examine the precious metal potential of the MASTT claims.

9. REFERENCES

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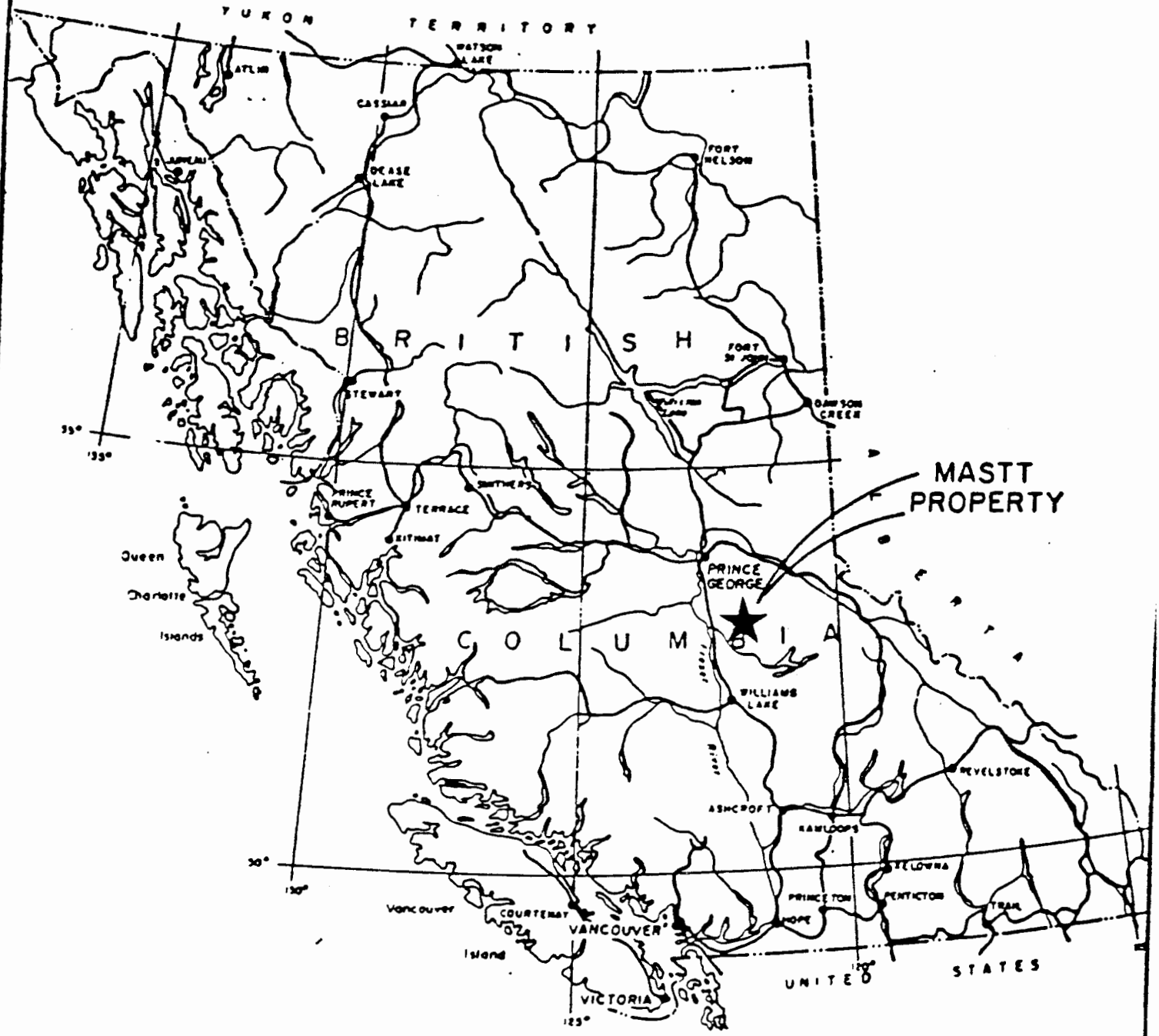
10. ESTIMATE OF COSTS

PHASE 1

Preparation work and in town followup	
Line cutting 175 km @ $350/km	$ 61,250
Small equipment purchases and rentals	$ 8,000
Senior Geologist, Field Supervisor, report, technical support, etc.	$ 20,000
Petrologic studies (polished thin sections, preparation and study)	$ 5,000
General Labourers	$ 10,000
Pickup rental 75 days @ $50/day	$ 3,750
Insurance 75 days @ $5/day	$ 375
Fuel	$ 3,750
Mapping, prospecting, core logging, assaying and geochemistry	
Project Geologist 60 days @ $250/day	$ 15,000
Junior Geologist 60 days @ $160/day	$ 9,600
2 Assistants 120 days @ $100/day	$ 12,000
Room (2, in Quesnel) 120 days @ $50/day	$ 6,000
Pickup Rentals (2) 120 days @ $50/day	$ 6,000
Fuel	$ 6,000
Geochemical soil and rock analyses, assaying shipping etc.	$ 10,000
Geophysics	
Magnetometer 140.5 km @ $120/km	$ 16,800
VLF-EM 140.5 km @ $120/km	$ 16,800
Interpretation, technical support, mobilization, etc.	$ 5,000
Trenching	
Hoe 170 hrs at $125/hr	$ 21,000
Cat 170 hrs at $140/hr (D9 w/ripper)	$ 23,800
Trucking	$ 2,500
TOTAL	$ 262,745
Contingency 10%	$ 26,275
	$ 289,020

PHASE 2

IP Survey	
15 km at $1500/km	$ 22,500
Interpretation, report, tecnical support	$ 2,000
Additional Geochemical Analyses	
Sample preparation and analysis	$ 5,000
Additional trenching	
Cat 20 hours at $140/hr	$ 2,800
TOTAL	$ 32,300
Contingency 10%	$ 3,230
	$ 35,530
TOTAL (all phases)	$ 324,550



CARIBOO M.D.

LOCATION

SCALE		N.T.S.	FIG. NO.
1 : 7,000,000		93G/1	1

from Schmidt and Copeland, 1986

FIGURE 2 LOCATION OF MASTT HOLDINGS

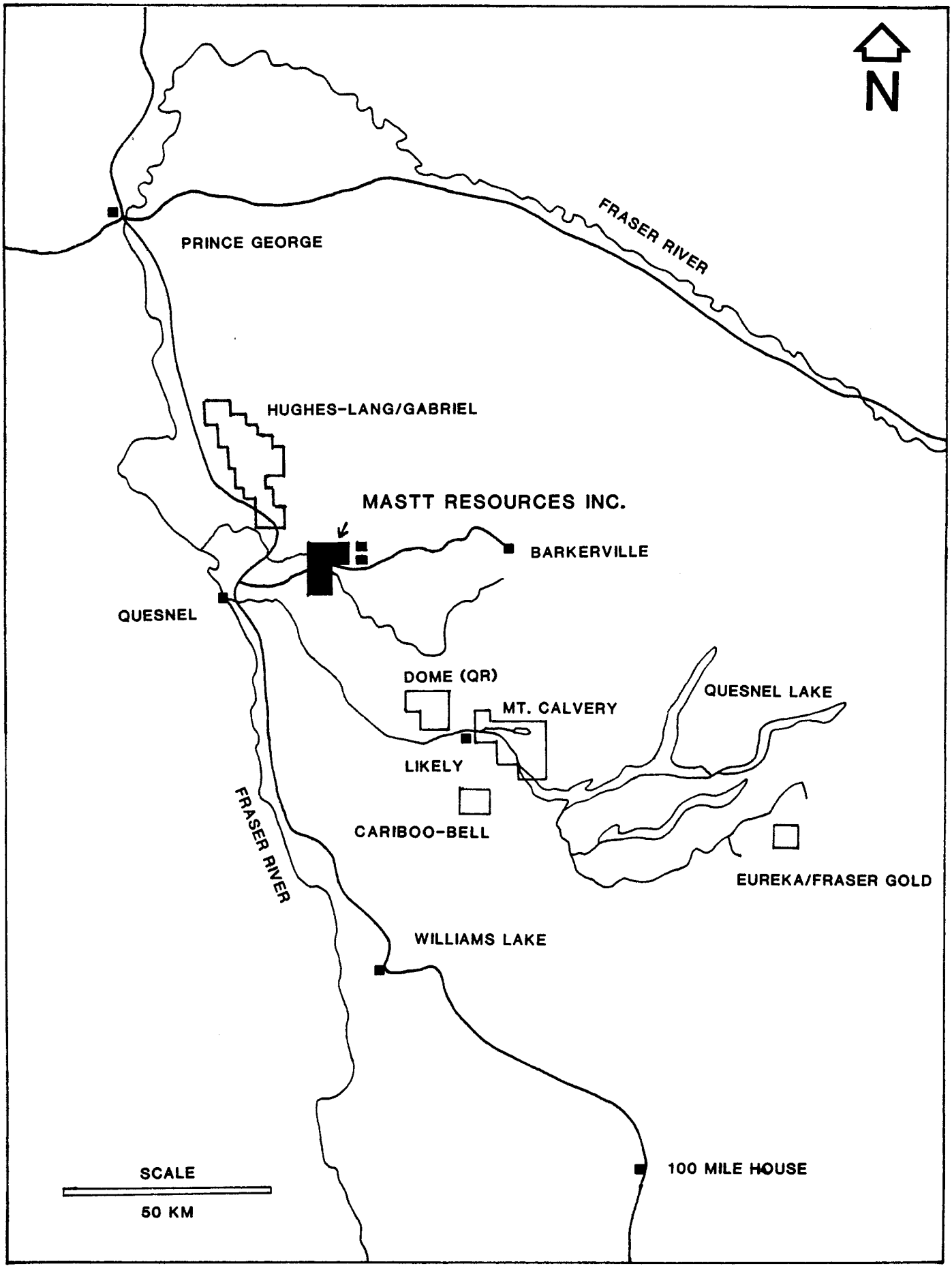


FIGURE 3 **CLAIMS MAP**

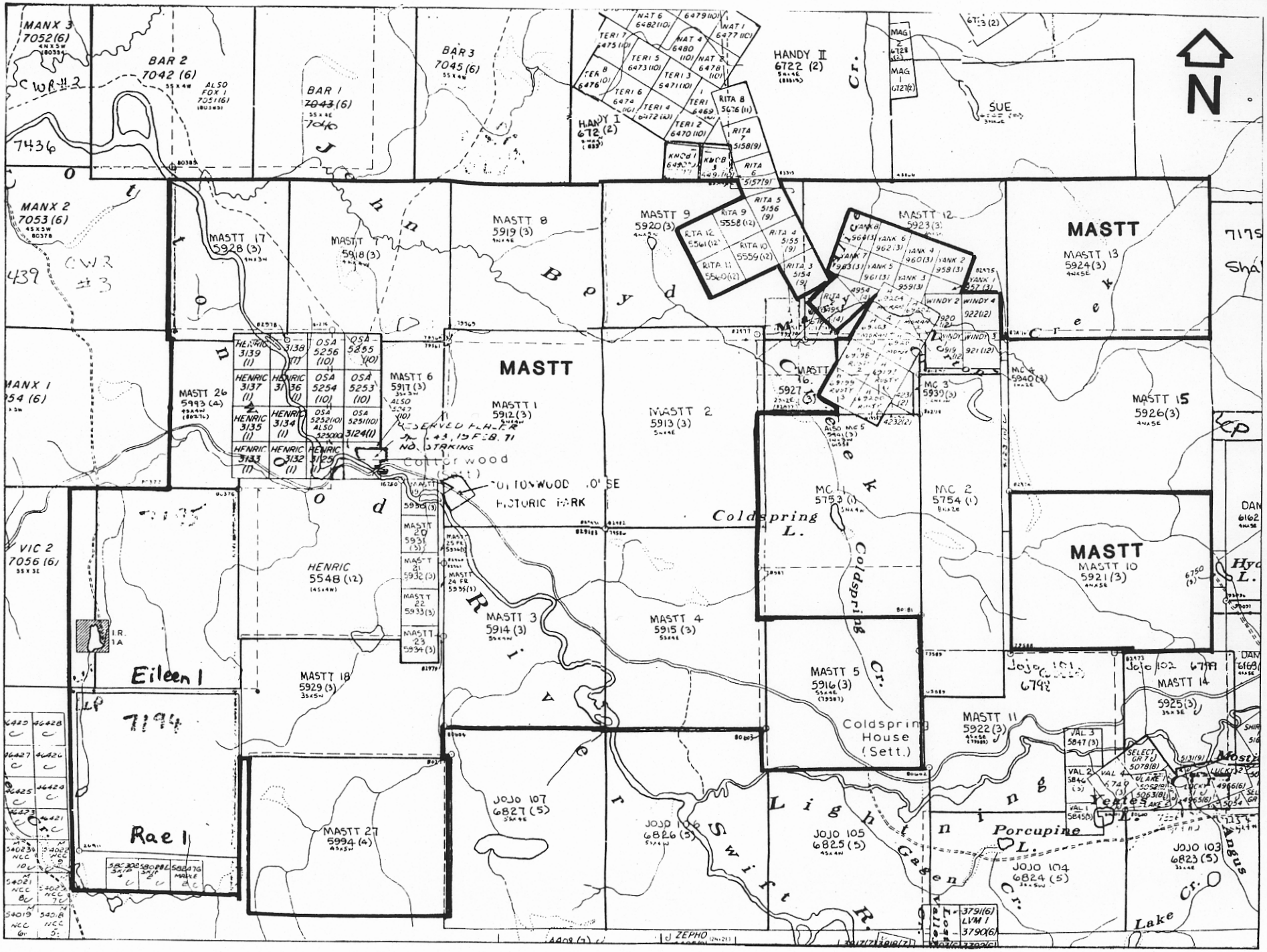
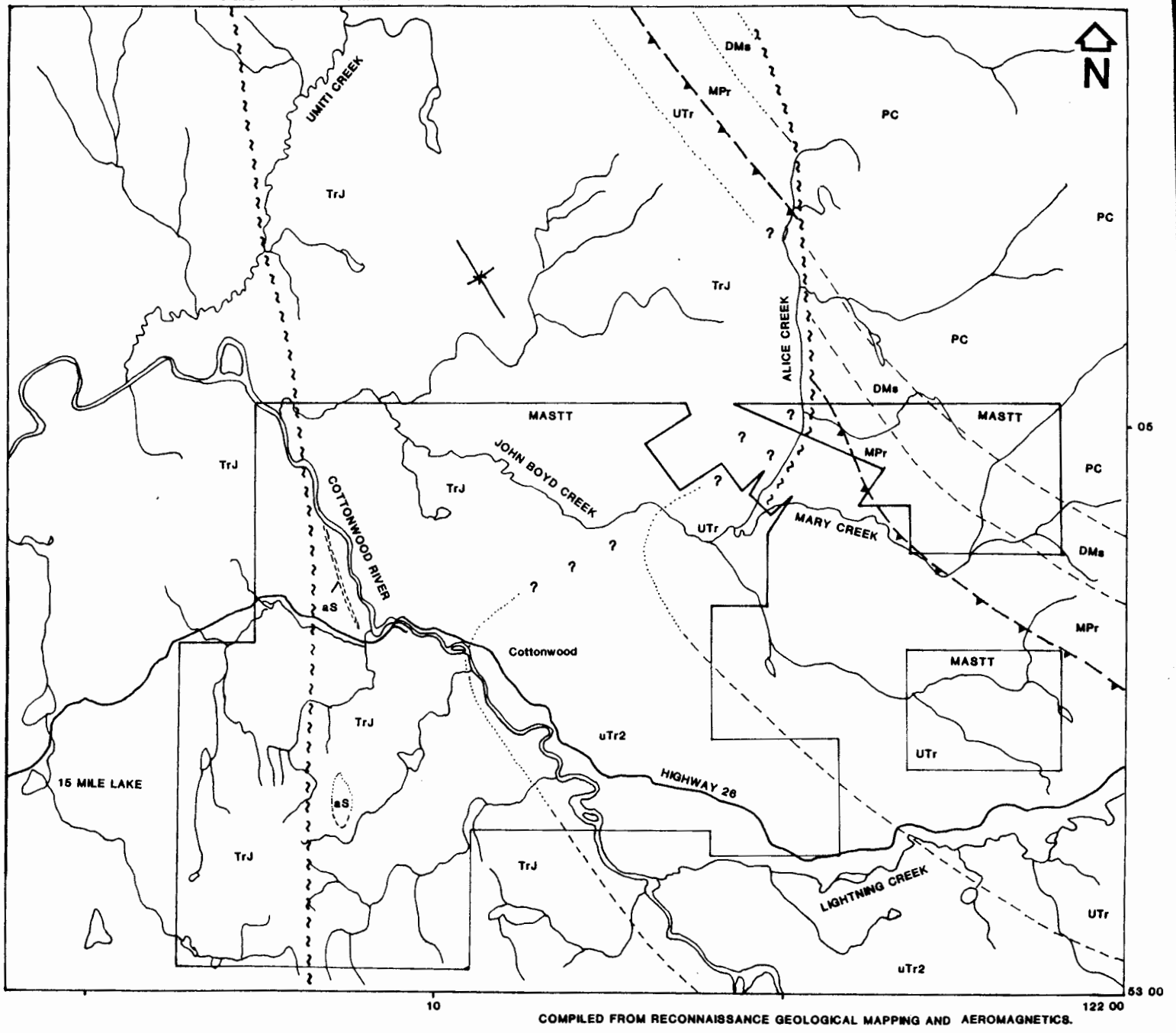


FIGURE 4 GEOLOGICAL SKETCH MAP OF COTTONWOOD AREA



COMPILED FROM RECONNAISSANCE GEOLOGICAL MAPPING AND AEROMAGNETICS.

LEGEND

aS — syenite, age uncertain

TRIASSIC AND JURASSIC

TrJ — intermediate and mafic volcanics, argillite, chert

UPPER TRIASSIC

uTr2 — undivided argillite and greenstone, including tuff and augite-porphyry

UTr — black argillite, slatey argillite

?MISSISSIPPIAN TO PERMIAN

MPr — Ramos Creek Succession: grey to olive micaceous quartzites and grits, phyllite, tuff

?DEVONIAN TO MISSISSIPPIAN

DMs — black siltite and phyllite, micaceous quartzite

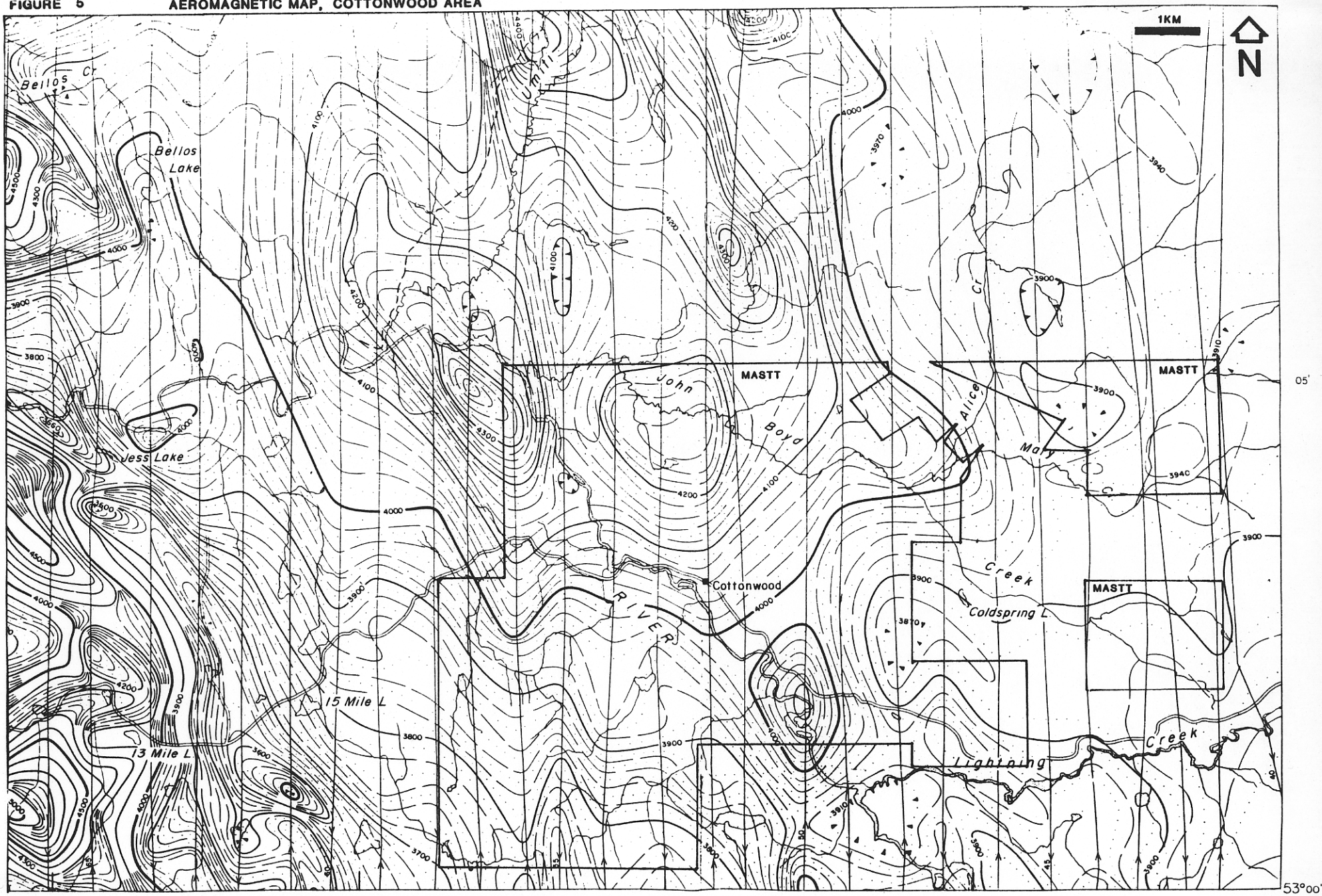
PRECAMBRIAN

PC — fine micaceous quartzites, phyllite, marble

SCALE

1 0 1 2KM

FIGURE 5 AEROMAGNETIC MAP, COTTONWOOD AREA



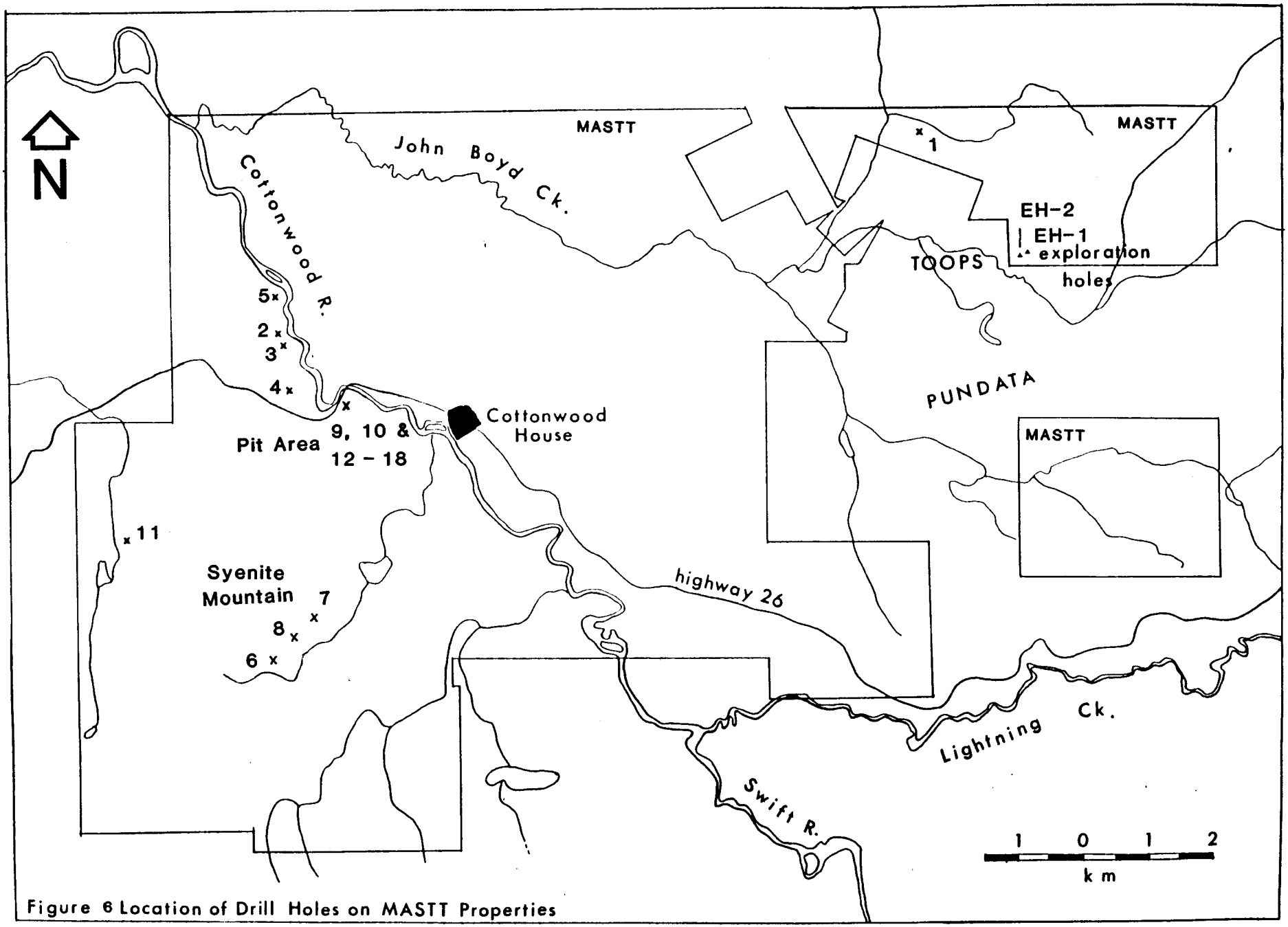


Figure 6 Location of Drill Holes on MASTT Properties

FIGURE 7A

Trenches and Drill Sites Cottonwood River Area

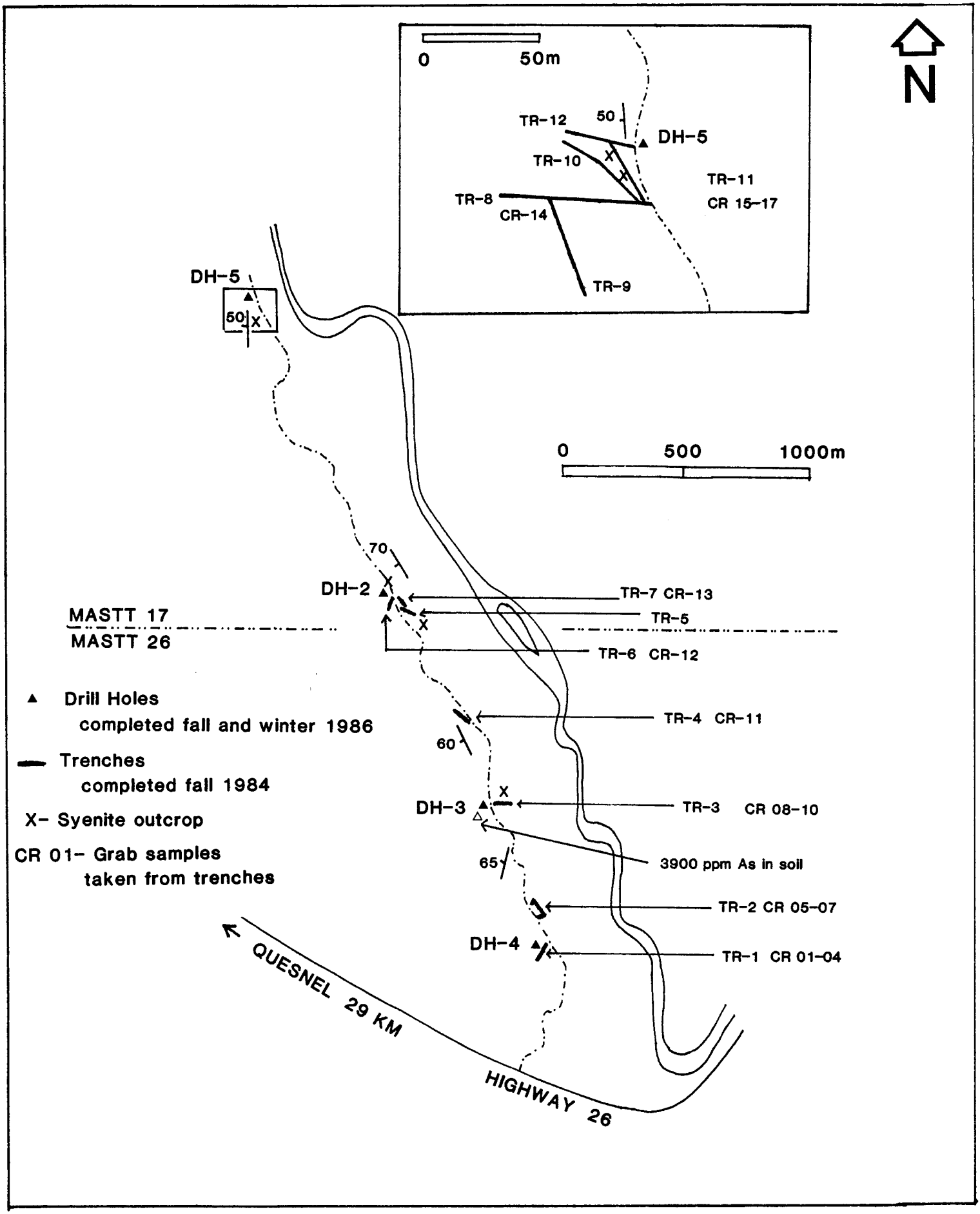
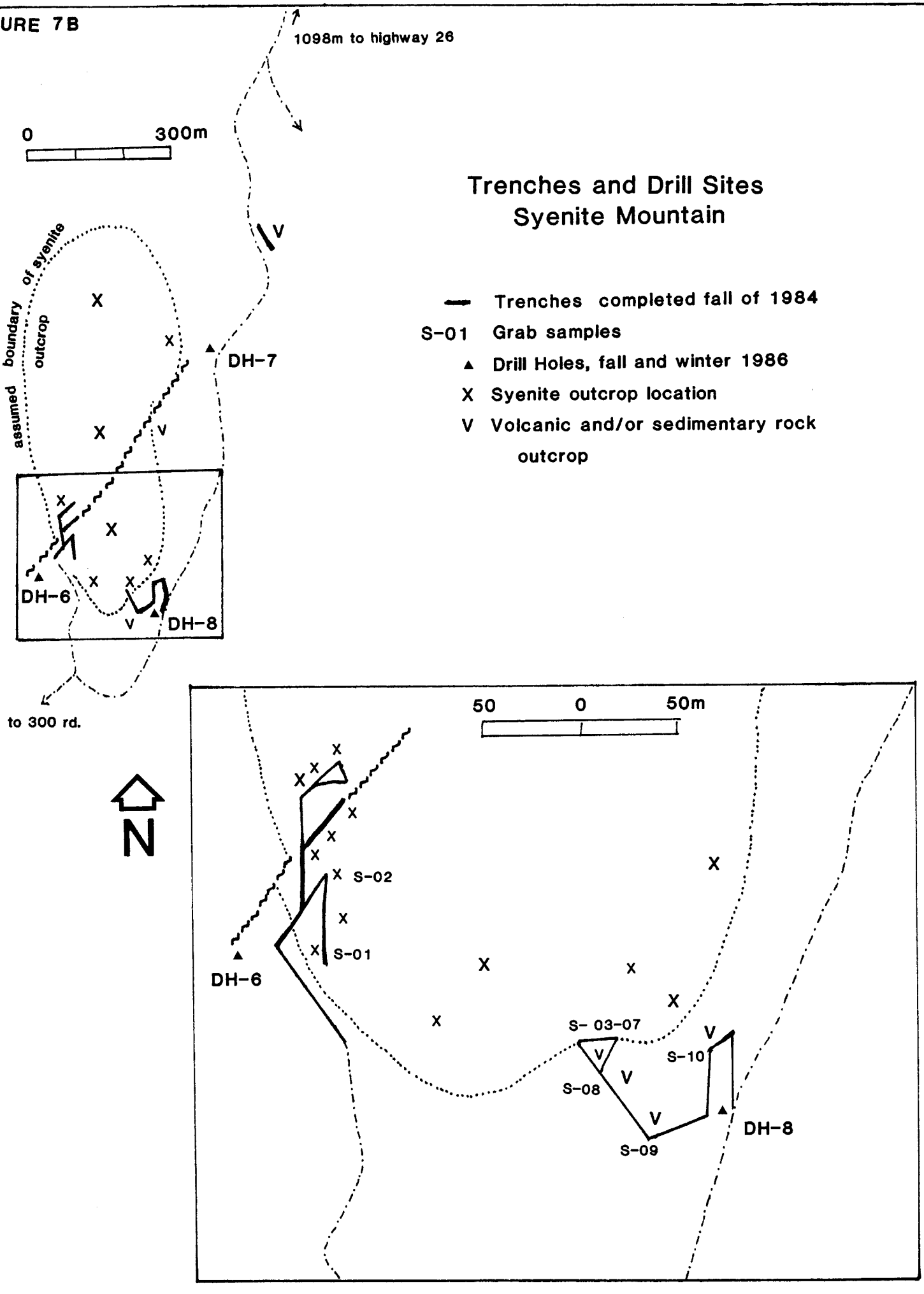


FIGURE 7B


1098m to highway 26
0
300m
Trenches and Drill Sites
Syenite Mountain
Trenches completed fall of 1984
S-01 Grab samples
Drill Holes, fall and winter 1986
X Syenite outcrop location
V Volcanic and/or sedimentary rock outcrop
assumed boundary of syenite outcrop
DH-7
DH-6
DH-8
to 300 rd.
N
50
0
50m
S-02
S-01
S- 03-07
S-10
S-08
S-09

Drill Sites- Old Highways Pit Area

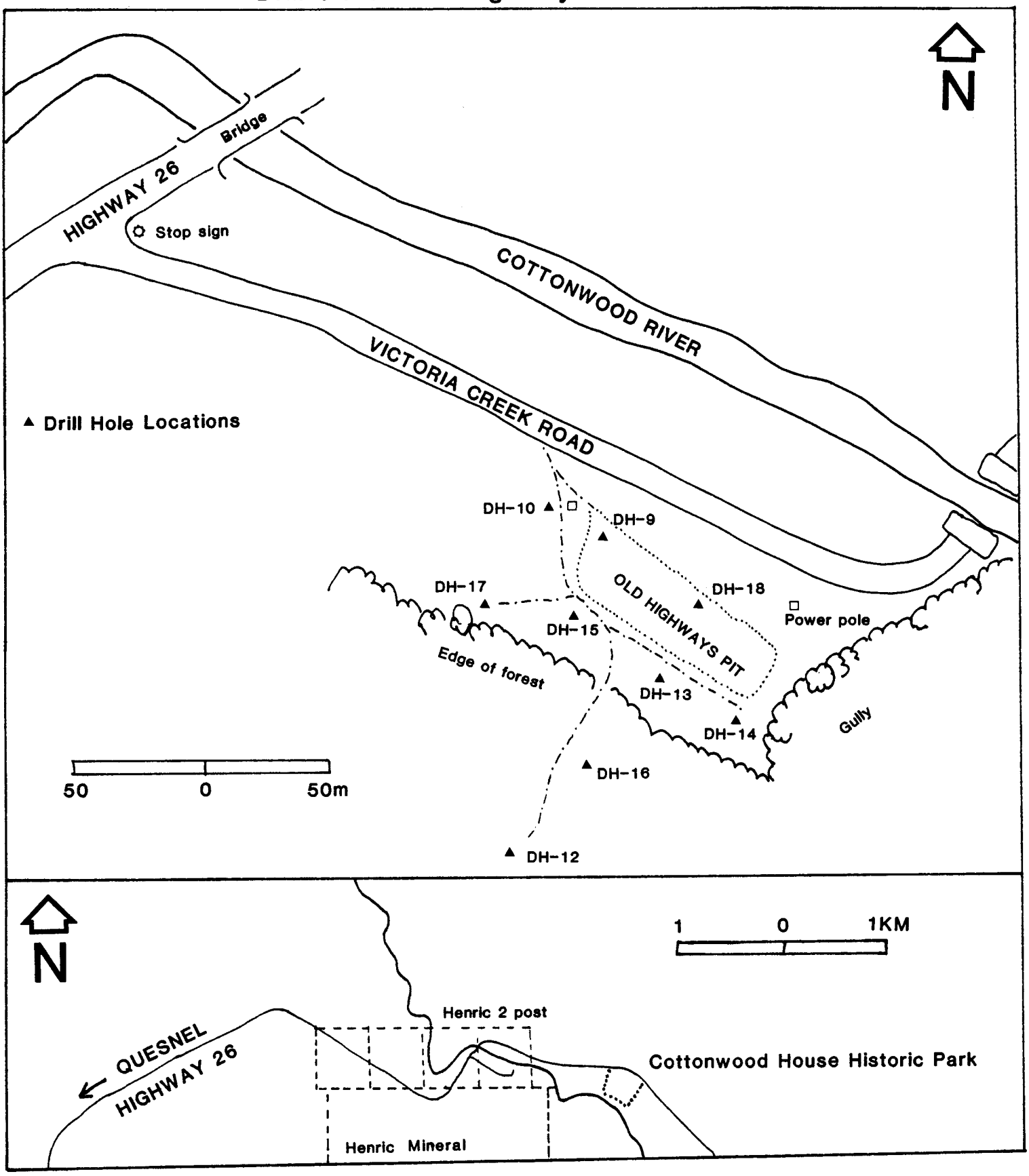


FIGURE 7 C

APPENDIX A

CERTIFICATE OF QUALIFICATIONS

I, Jennifer A. Pell, of #4, 1719 Yew Street, Vancouver, British Columbia, do hereby certify that:

1. I am a graduate of the University of Ottawa with a Bachelor of Science Honours degree in Geology, 1979.

2. I am a graduate of the University of Calgary with a Doctorate of Philosophy degree in Geology, 1984.

3. I am a Fellow of the Geological Association of Canada and a Councellor of the Cordilleran Section of the Geological Association of Canada for 1987/1988.

4. I was employed as an Assistant Professor in the Department of Geology, University of Windsor, teaching Economic Geology and Structural Geology from July, 1985 to July, 1986. From January to April 1987, I was employed by the Department of Geological Sciences, University of British Columbia as a Sessional Lecturer, teaching Introductory Geology.

5. I have been engaged in mineral exploration, geologic mapping and geological research in the Northwest Territories, Manitoba and British Columbia periodically since 1977.

6. My experience in the Cariboo Mining Division dates back to 1982 and includes a four month period during 1983 engaged in bedrock mapping and mineral exploration in the Cottonwood area.

7. This report is based on my knowledge of the properties and local geology as well as a study of available literature.

8. In March of 1987, I was appointed to the Board of Directors of Mastt Resources Inc. I do not currently hold any stock in the company; however, an allotment of 170,000 shares has been applied for in my name.

Vancouver, B.C.
April 25, 1987

Jennifer Pell

Jennifer Pell, Ph.D., FGAC