

860000

SUPPLEMENTARY REPORT  
ON THE  
MASTT PROPERTY  
(MASTT 6,7,17-27, HENRIC and OSA CLAIM GROUP)  
CARIBOO MINING DIVISION  
NTS 93G/1E  
Lat.: 53°03' N. Long.: 122°11' W.

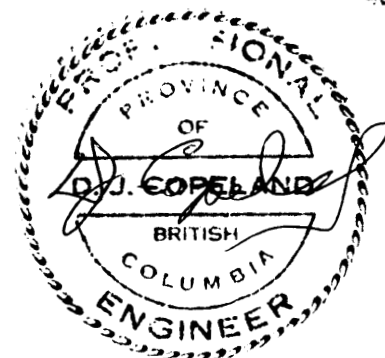
for

MASTT RESOURCES INC.

by:

David J. Copeland, P.Eng.  
Coastal Mountain Engineering Ltd.  
3626 West 1st Avenue  
Vancouver, B.C. V6R 1H2  
Canada

MALH 6,  
January 8, 1985



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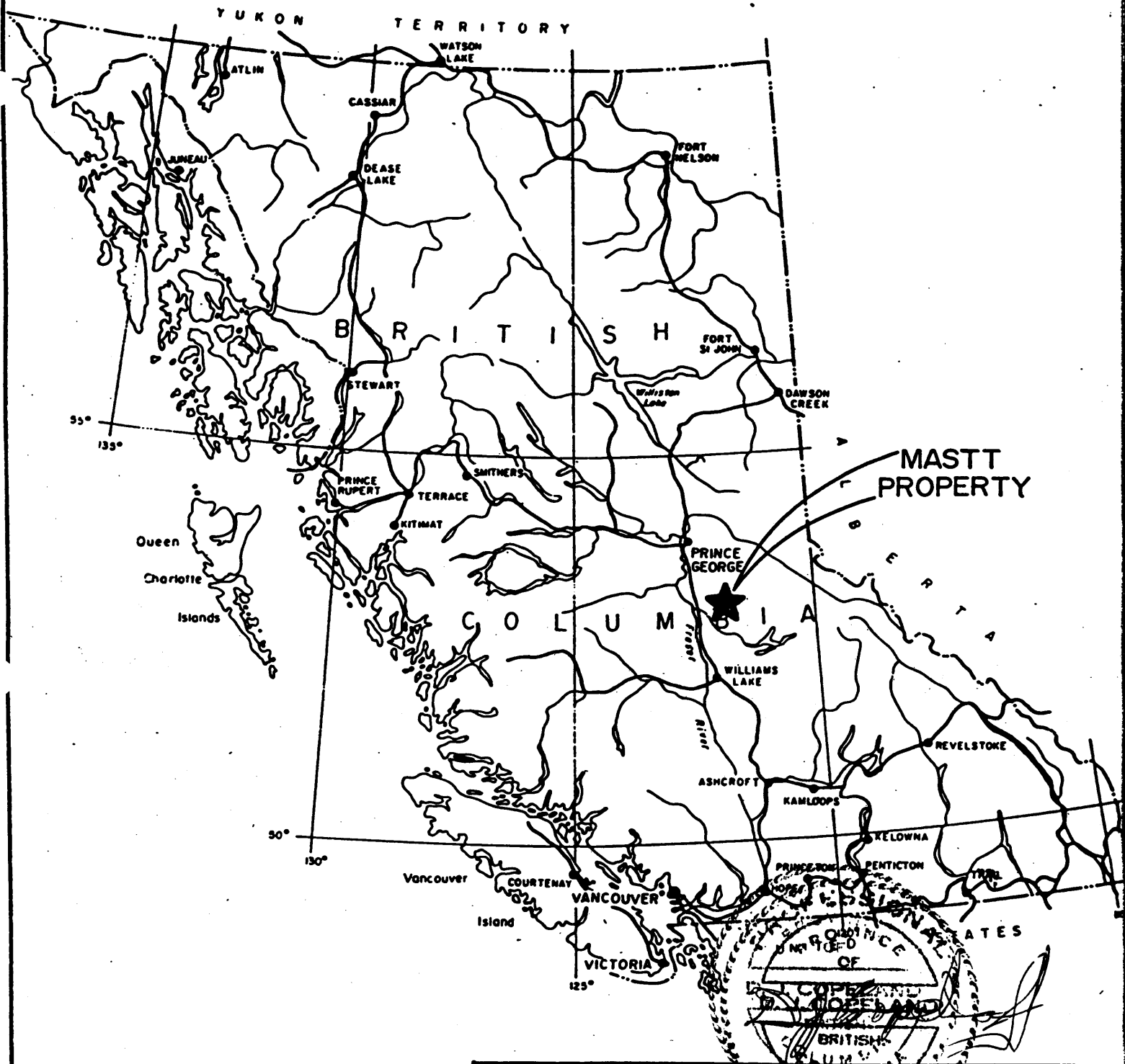
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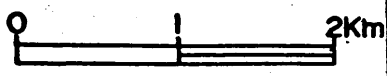
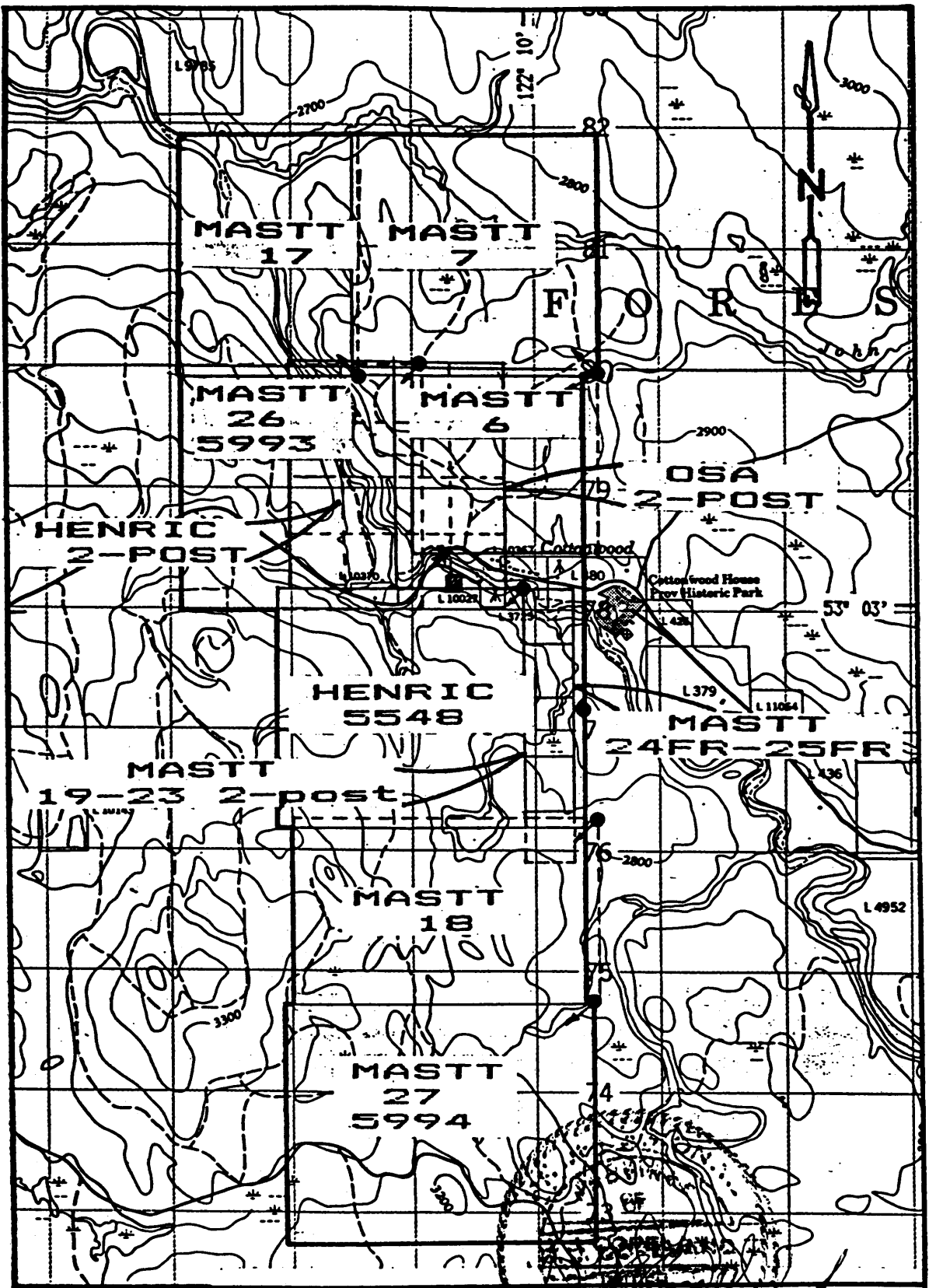
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MASTT RESERVATION  
Fig. 1

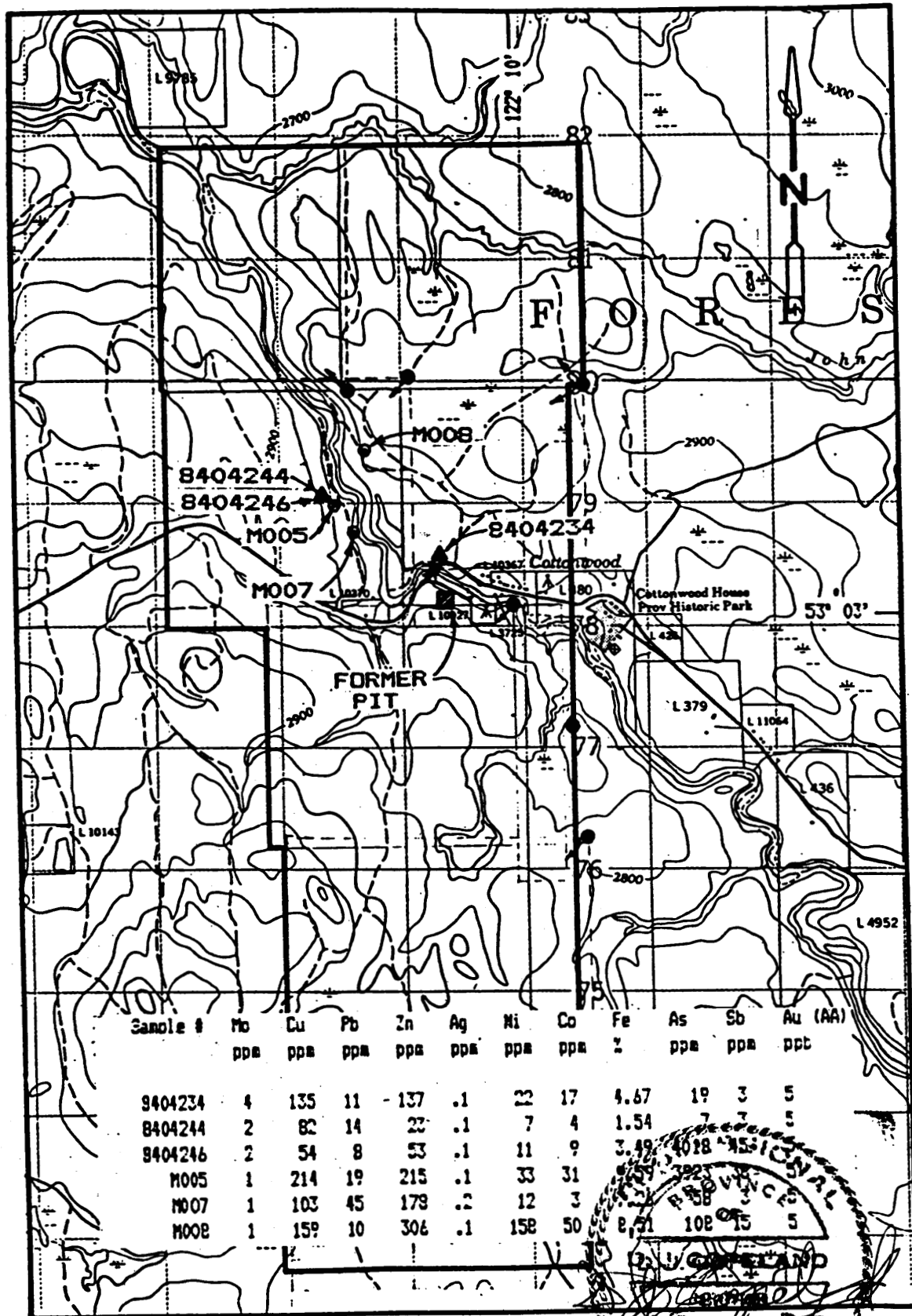
**LOCATION**

Coastal Mountain Engineering Ltd.  
To Accompany Report Dated  
Scale=1:7,000,000

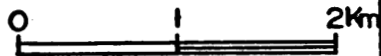


● LCP

MASTT RESOURCES  
 Fig. 2  
**CLAIM LOCATION**  
 Cariboo Mining Division  
 NTS 936/1  
 Coastal Mountain Engineering Ltd.  
 To Accompany Report Dated  
 Scale = 1:50,000



Sample #	Pb	Cu	Pb	Zn	Ag	Ni	Co	Fe	As	Sb	Au (AA)
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppt
8404234	4	135	11	137	.1	22	17	4.67	19	3	5
8404244	2	82	14	22	.1	7	4	1.54	7	7	5
8404246	2	54	8	53	.1	11	9	3.49	4018	151	5
M005	1	214	19	215	.1	33	31	8.59	202	20	5
M007	1	103	45	179	.2	12	3	2.53	102	15	5
M008	1	159	10	306	.1	158	50	8.51	102	15	5

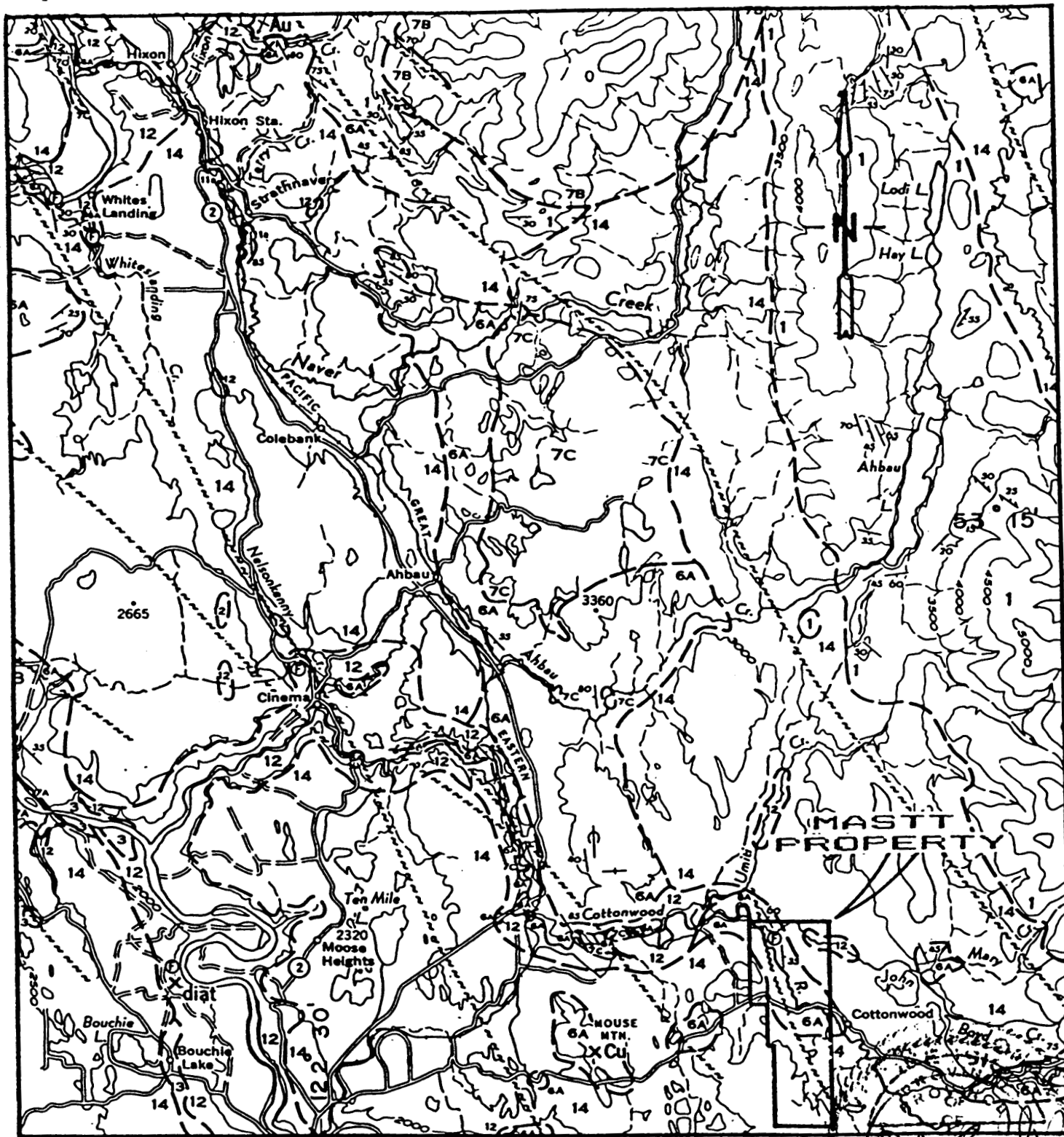


- SOIL SAMPLE
- ▲ ROCK SAMPLE

MASTT RESOURCES INC.  
 Fig. 4  
**SAMPLE LOCATION**  
**MASTT PROPERTY**  
 Cariboo Mining Division  
 NTS 93G/1  
 Coastal Mountain Engineering Ltd.  
 To Accompany Report Dated  
 Scale = 1:50,000

LEGEND

CENOZOIC	QUATERNARY	
	PLEISTOCENE AND RECENT	
	14	Till, gravel, sand, clay, and silt
	TERTIARY	
	MIOCENE AND/OR LATER	
	ENDAKO GROUP	
	13	Basalt, andesite, related tuff and breccia
	MIOCENE (?)	
	12	Conglomerate, sandstone, mudstone, lignite, and diatomite
PALEOCENE (?) TO OLIGOCENE		
11	Andesite, basalt, breccia, and tuff; 11a, minor sediments	
10	Rhyolite, dacite, trachyte, related tuff and breccia; minor sediments	
9	Andesite, basalt, breccia, and tuff; minor rhyolite	
MESOZOIC	JURASSIC	
	MIDDLE JURASSIC	
	HAZELTON GROUP (in part)	
	8	Green to dark grey andesite and basalt, related pyroclastic rocks, chert-pebble conglomerate, argillite, and greywacke
	LOWER JURASSIC AND (?) LATER	
	7	7A. TOPLEY INTRUSIONS: granodiorite, quartz diorite, diorite, biotite granite 7B. Quartz monzonite, monzonite, and granite; minor diorite 7C. Granodiorite, diorite, granite, minor gabbro
	TRIASSIC AND JURASSIC	
UPPER TRIASSIC (?) AND LOWER JURASSIC (?)		
6	6A. Eastern group: argillite, greywacke, green, grey, black, purple andesite and basalt and related tuffs and breccias; minor conglomerate and limestone 6B. Western group: chert-pebble conglomerate, red, brown, and black shale, greywacke; minor purple to green andesite	
TRIASSIC		
POST-PERMIAN, PRE-UPPER TRIASSIC (?)		
5	Serpentinized peridotite, serpentinite	
PALAEOZOIC	PENNSYLVANIAN (?) AND PERMIAN	
	CACHE CREEK GROUP	
	3	3. Black to dark grey ribbon chert, black argillite
	4	4. Green to black basic volcanic rocks, grey limestone; minor argillite and chert; 4a, mainly grey limestone
	MISSISSIPPIAN (?)	
	SLIDE MOUNTAIN GROUP	
2	Grey and buff chert, argillite, basalt and related pyroclastic rocks; 2a, diabase	
CAMBRIAN AND/OR LATER		
LOWER CAMBRIAN AND/OR LATER		
CARIBOO GROUP		
1	Grey micaceous quartzite, black to dark grey phyllite and argillite; minor grey limestone	



MASTT RESOURCES INC.  
Fig. 3

**GEOLOGY**  
(after Tipper, 1960)  
Coastal Mountain Engineering Ltd.  
To Accompany Report Dated  
Scale = 1:250,000



I. INTRODUCTION

In November 1984, Coastal Mountain Engineering Ltd. was commissioned by Mastt Resources Inc. to examine and prepare a report on Mastt, Henric and Osa claims which are located east of Quesnel, B.C. This report is based on field work carried out by Mastt Resources Inc.

II. PROPERTY, LOCATION AND ACCESS

The Mastt Property consists of 102 mineral, 23 two post and 2 fractional claims with an approximate area of 2,725 hectares. The property is located 26 km. east of Quesnel in the Cariboo Mining Division.

The claims are accessible by vehicle from Quesnel. Access by road is via highway 97 north for 6 km. to its junction with highway 26, the Wells, Barkerville highway. The claims straddle the highway at the Cottonwood River bridge, 24 km. east from the junction.

The approximate centre of the property is 53°03' N. latitude and 122°11' W. longitude on NTS 93G/1E claim map.



CLAIM DATA AND SIZE

CLAIM NAME	TYPE	NO. OF UNITS	TAG NO.	RECORD NO.	RECORDING DATE
Henric	Mineral	16	16750	5548	Dec. 6, 1983
Henric	2 Post	8		3132- 3139	Oct. 24, 1983
Osa	2 Post	8		5249- 5256	Jan. 26, 1981
Mastt 6	Mineral	9	79567		Mar. 23, 1984
Mastt 7	Mineral	16	59468		Mar. 23, 1984
Mastt 17	Mineral	12	82978		Mar. 23, 1984
Mastt 18	Mineral	15	82979		Mar. 23, 1984
Mastt 19-23	2 Post	5	394479M- 394483M		Mar. 23, 1984
Mastt 24 FR	Fraction		82961		Mar. 23, 1984
Mastt 25 FR	Fraction		82960		Mar. 23, 1984
Mastt 26	Mineral	16	80276	5993	Mar. 25, 1984
Mastt 27	Mineral	20	80277	5994	Mar. 25, 1984
Total		125 units			

III. REGIONAL GEOLOGY

The claim group lies within the Quesnel Trough, a narrow belt of Mesozoic volcanic and sedimentary rocks. The Quesnel Trough is a division of the Intermontane tectonic belt which is one of the 5 major tectonic elements of the Canadian Cordillera.

The lithologies of the Quesnel Trough have been traced southward to beyond the international border and northwestward beyond Prince George. The Mesozoic succession near the property

and northward have been assigned to the Takla Group. To the south, the lower, Upper Triassic sequences have been assigned to the Nicola Group.

The trough is fault bounded on the west and east. To the west, the Quesnel Trough lies in fault contact with Paleozoic rocks of the Pinchi Belt. To the east the boundary between the trough and Intermontane Belt is marked by a major shear zone. Large scale tectonic imbrication and mylonitization on both sides of the zone suggest an eastward thrusting of the Intermontane over the Omineca Belt (Rees, 1981).

The Quesnel Trough was the site of the extensive island-arc type volcanic and sedimentary deposition from late Triassic to early Jurassic time. The base of the Quesnel Trough is an Upper Triassic black argillite unit. This unit is exposed near the eastern margin of the trough where it commonly overlies ophiolitic rocks of the Slide Mountain Group. The basal black argillite is overlain by a series of augite porphyry flows, breccias and minor argillites. These rocks are overlain by a second sequence of argillites and volcanoclastic rocks of Upper Triassic to Lower Jurassic age. The presence of sub-aerial volcanoclastics in the geologic record indicates that volcanic centres in the trough emerged in early Jurassic time. This is postulated to have occurred in conjunction with the rise and deformation of Omenica Crystalline Belt rocks to the east.

Block faulting and tilting are the dominant structural styles in the belt. Faults trend in a northwest and northeast

direction. Folding is restricted to the eastern margin of the belt near its structural boundary with the Omineca Crystalline Belt.

Two major episodes of granitic intrusion are recognized along a northwest trending belt slightly oblique to the Quesnel Trough. The intrusive events cluster around 200 and 100 million year ages.

Copper and copper-gold deposits have an affinity for 200 million year old alkalic plutons and Triassic-Jurassic volcanic rocks. Molybdenum deposits on the other hand are associated with the 100 million year intrusive event.

Although many of the copper occurrences in the Quesnel Trough were probably known at the time of placer gold exploration, documentation of systematic hardrock exploration began with the discovery of surface exposure of the Cariboo-Bell deposit in 1964.

Extensive mineral exploration for porphyry copper mineralization has been carried out intermittently in the area until the late 1970's when most of the known alkalic plutons in the area were staked and explored for copper-gold mineralization of the Cariboo-Bell type. More recently, since the discovery of the Q.R. deposit and higher gold prices, attention has focussed on the copper-gold porphyry and stratabound replacement mineralization found in the alkalic porphyry environment.

In addition, the recent discovery of apparent stratabound gold mineralization in the basal argillite unit of the Quesnel Trough at the Frasergold property (Amoco/Eureka) has provided a third model of gold occurrence which may have regional

exploration implications and therefore may have exploration significance to the Mastt property.

A limited amount of surface exploration has been carried out on the property by H. Marthinsen, a prospector from Cottonwood. Mr. Marthinsen and his associates obtained a high gold and silver assay from a fragment of quartz vein from a highways department quarry at the west end of the Cottonwood River bridge. One diamond drill hole into the zone was also attempted in late 1983 but this failed because of deep overburden and difficult bedrock conditions.

A small soil and rock sampling programme was carried out by J.W. Morton in 1982 on behalf of Mr. Marthinsen on the south side of the Cottonwood River near the west side of the bridge. There is no public record of this or prior work on the property.

#### IV. PROPERTY GEOLOGY

The geology in the property area is mapped as a north trending fault-bounded wedge of Jurassic shale, greywacke and conglomerate within the Takla Group which comprises Upper Triassic and Lower Jurassic andesite, basalt, tuff, breccia, conglomerate, shale and limestone.

A large northwest striking fault is shown cutting across the property from the southeast to the northwest corner.

#### Previous Work

Previous work on the property was restricted to a small area in the two southernmost claims of the former Henric two post

claims near the south side of the Cottonwood River bridge. Since then, the area has been restaked as the OSA two-post claims and is included in the much larger Mastt property.

Mr. Marthinsen prospected the area, after his discovery of gold and silver bearing quartz vein fragments in a department of highways pit. In 1982, Mr. J.W. Morton examined the area around the pit for Mr. Marthinsen. His work included one soil sample line south of the pit, rock chip sampling north of the pit along the south side of Cottonwood River, sampling of road ballast material derived from the pit and a petrographic examination of selected rocks. A total of 44 rocks were analysed for gold, 12 rocks were analysed for gold and silver and 19 soil samples were analysed for silver. None of the rock samples contained gold in excess of the analytical detection limit. Two rock samples taken east of the old Cottonwood bridge, contained 0.05 and 0.26 oz./ton silver.

Silver analyses of soils, taken south of the pit, ranged from 0.2 to 1.2 ppm. The highest value occurred immediately south of the pit.

During the fall of 1983, Mr. Marthinsen and an associate attempted to drill into the zone from the north side of the pit. This attempt failed because of deep overburden and badly fractured bedrock. Overburden depth at this site is 8 meters. The hole was abandoned at a depth of 12 meters.

V. REVIEW OF COMPLETED WORK

At the request of Mastt Resources Inc., I visited the property on November 10, 1984 and I have reviewed exploration carried out by Mastt Resources Inc. on their Cottonwood River area property.

Work carried out on the property by Mastt Resources Inc. in September 1984 consisted of road building, road improvement and trenching. A total of 5,121 meters of road building and 894 meters of trenching were completed at a cost of \$16,380.00.

Total programme cost including supervision totals \$17,080.00. Additional work was carried out by Dr. Pell, valued at \$3,000.00, but this work was not reviewed by the writer. Trenching survey maps drafted by Dr. Pell are attached. The trenching of the former Department of Highways quarry, as recommended by Coastal Mountain Engineering could not be carried out as the necessary permits from the Department of Highways could not be obtained at that time. The writer has since been advised that they have been obtained.

The programme was carried out by Mastt Resources Inc. under the supervision of their consultant Dr. J. Pell, whose qualifications are attached. Coastal Mountain Engineering Ltd. did not plan or supervise the work.

The trenching programme was carried across syenite volcanic rock contacts. This helped to define these contacts, especially in the poorly exposed areas on the northern half of the property. Intruded rocks near these boundaries are often

pyritic and altered. A number of grab samples were taken, typically 1 per trench. Of these, 14 rocks were assayed. The number of samples taken are too few to be considered representative of the area. No assays were carried out in the pyritic area which previously returned anomalous arsenic analyses.

The assay results have been included only as evidence of having been carried out.

#### VI. SUMMARY OF EXPENDITURES

##### Cottonwood River Area

(Mastt 17 & 26 Claims; Henric 3132 - 3139)

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Road building - 3,259 m. 4 days @ \$1,560.00/day	\$ 6,240.00
Trenching - 455.5 m. 2 days @ \$1,560.00/day	3,120.00
Preliminary survey of road 1 day @ \$175.00/day	175.00
Final mapping of road, trenches & sample collection 1 day @ \$175.00/day	175.00

##### Syenite Mountain Area

(Mastt 18 & Henric 5548 Claims)

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Road building - 1,862 m. 2½ days @ \$1,560.00/day	3,900.00
Trenching - 438.1 m. 2 days @ \$1,560.00/day	3,120.00
Preliminary survey of road 1 day @ \$175.00/day	175.00
Mapping of trenches, road & sample collection 1 day @ \$175.00/day	175.00
Preliminary Geological Report on Cottonwood Area	3,000.00

TOTAL \$20,080.00

VII. SUMMARY AND RECOMMENDATIONS

The Mastt property is located 26 km. east of Quesnel in the Cariboo Mining Division. The property is located in the Quesnel Trough, a belt of Lower Mesozoic volcanic and sedimentary rocks which host two important gold deposits and other significant gold occurrences.

An examination of the property revealed a number of unmapped exposures of syenite, volcanic and associated sedimentary rocks. Limited sampling of altered rocks and nearby soils returned highly anomalous arsenic concentrations.

The trenches as excavated should be mapped and sampled and the Department of Highways old quarry should be trenched if approval can be obtained.



**Appendix A**

## REFERENCES

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- BELIK, G. (1982): Summary Report on the Frasergold Property for Eureka Resource Ltd., in Eureka Resources' Prospectus.
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- (1978): G.S.C. Open File 574 Geology, Quesnel Lake, 93A.
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- FOX, P.E. (1975): Alkaline Rocks and Related Mineral Deposits of Quesnel Trough, B.C., G.A.C. Symposium. Abstracts: Intrusive Rocks and Related Mineralization of the Canadian Cordillera.
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- STRUIK, L.C. (1981b): A re-examination of the type area of the Devono-Mississippian Cariboo Orogeny, Central B.C., Can. Jour. Earth Sci. vol. 18 no. 12.
- SUTHERLAND BROWN, A. (1967): Cariboo-Bell, B.C. Minister of Mines and Petroleum Resources Annual Rept. 1966, pp. 126-131.
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- SALEKEN, L.W. and SIMPSON, R.G. (1984): Cariboo-Quesnel Gold Belt: A geological overview, Western Miner, April, 1984.
- MORTON, J.W. (1982): Preliminary Geological Investigation, Henric claims, Cariboo Mining Division. Private, unpublished report.

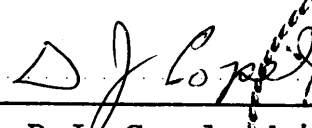
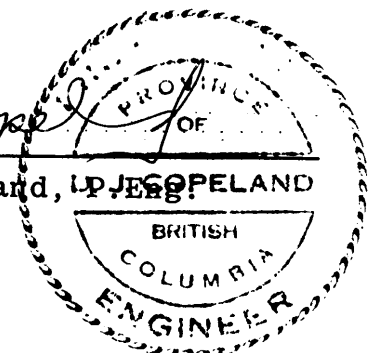
**Appendix B**

CERTIFICATE OF QUALIFICATIONS

I, David J. Copeland, of 3626 West 1st Avenue, Vancouver, British Columbia, do hereby certify that:

- (1) I am a graduate of the University of British Columbia with a Bachelor of Science degree in Geology, 1970.
- (2) Since graduation I have been engaged in mineral exploration and mine development in Canada, United States of America, Mexico, South America, Australia, New Guinea and South East Asia.
- (3) I am a registered member, in good standing, of the Association of Professional Engineers in British Columbia.
- (4) I am a Consulting Geological Engineer.
- (5) This writer has examined several properties in the area and has reviewed the geological setting of the Mosquito Creek Gold Mine, Cariboo-Bell and the Frasergold Property.
- (6) I have not received nor do I expect to receive any interest directly or indirectly in the securities or properties of Mastt Resources Inc.
- (7) I hereby give permission for inclusion of this report into a statement of material facts or a prospectus.

Vancouver, B.C.  
January 8, 1985

  
D. J. Copeland, P. ENG  


Appendix C

ACME ANALYTICAL LABORATORIES LTD.  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE 253-3158      TELEX 04-53124

DATE RECEIVED: NOV 23 1984

DATE REPORT MAILED: *Nov 28/84*

### ASSAY CERTIFICATE

SAMPLE TYPE: ROCK CHIPS    AU: 10 GRAM REGULAR ASSAY

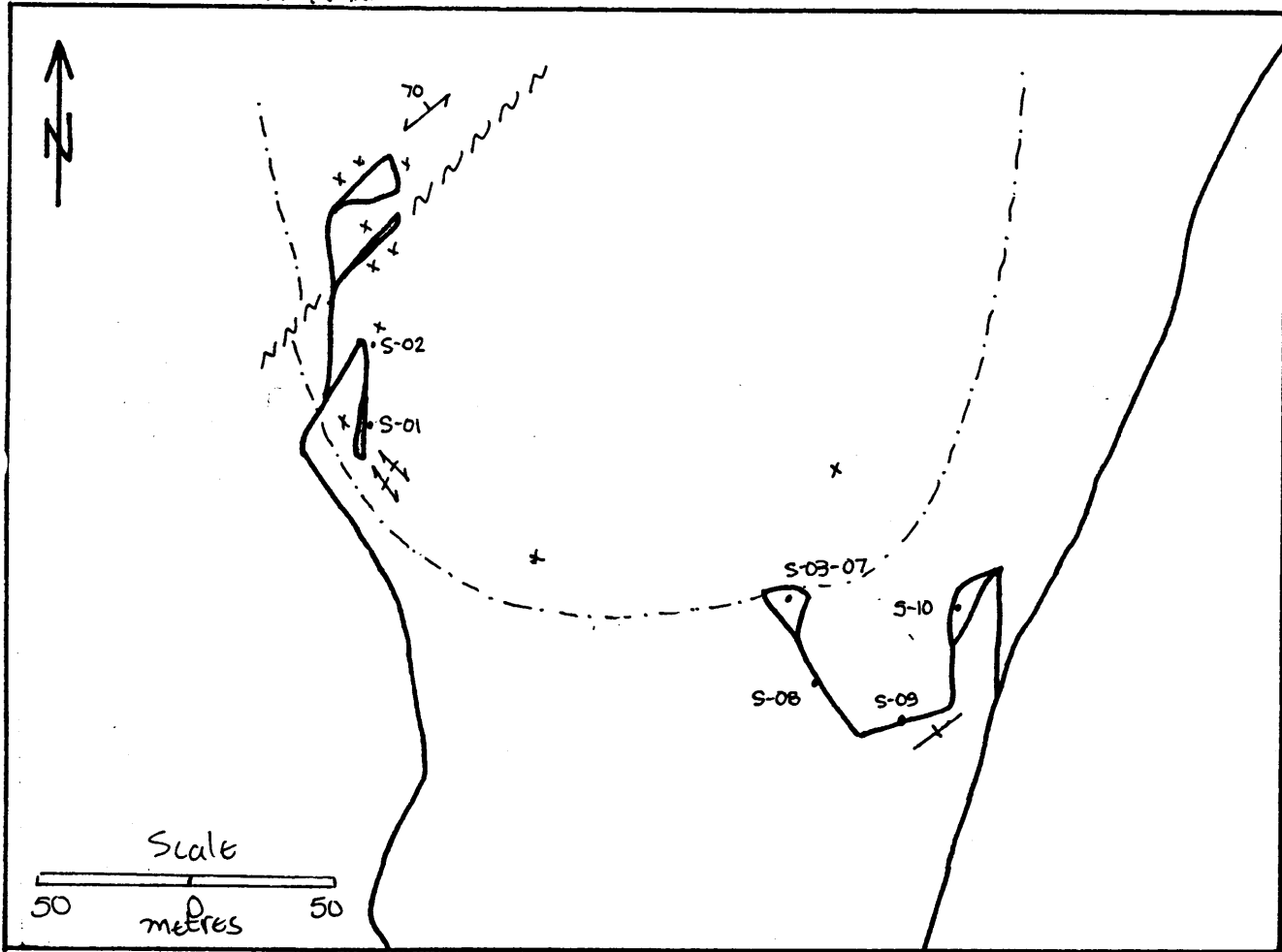
ASSAYER: *D. J. [Signature]* DEAN TOYE. CERTIFIED B.C. ASSAYER

MASTT RESOURCES      FILE # 84-3443

PAGE 1

SAMPLE#	Ag oz/t	Au oz/t
S-02	.02	.001
S-03	.01	.001
S-05	.01	.001
S-06	.01	.001
S-09	.01	.001
S-10	.01	.001
S-12	.01	.001
CR-02	.02	.001
CR-03	.01	.001
CR-05	.01	.001
CR-06	.01	.001
CR-09	.01	.001
CR-10	.01	.001
CR-11	.01	.001
STD R-1	2.96	-

AREA OF ENLARGEMENT



- mineral alignment fabric
- bedding in volcanics
- syenite outcrop locations
- probable boundary of syenite plug
- S-01 sample location
- fault
- road
- trenches

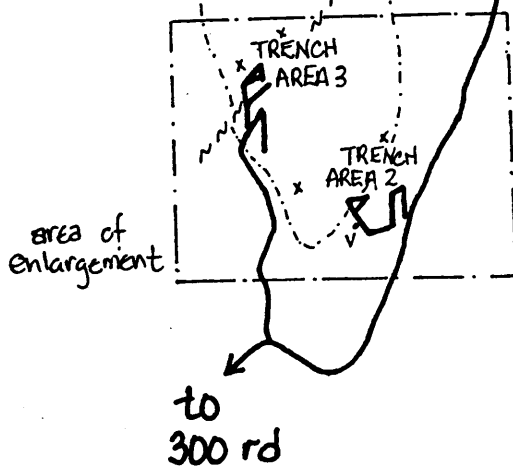
drafted & surveyed by J. Peck



road upgraded from this point  
to Highway 26  
1098 m

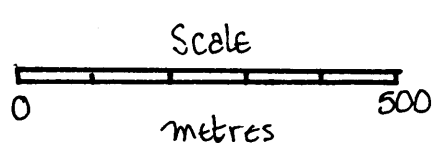
HENRIC 5548  
MASTT 18

TRENCH #1



- v volcanic host rock outcrop
- x syenite outcrop
- - - boundary of syenite plug (probable)
- ~ ~ ~ fault

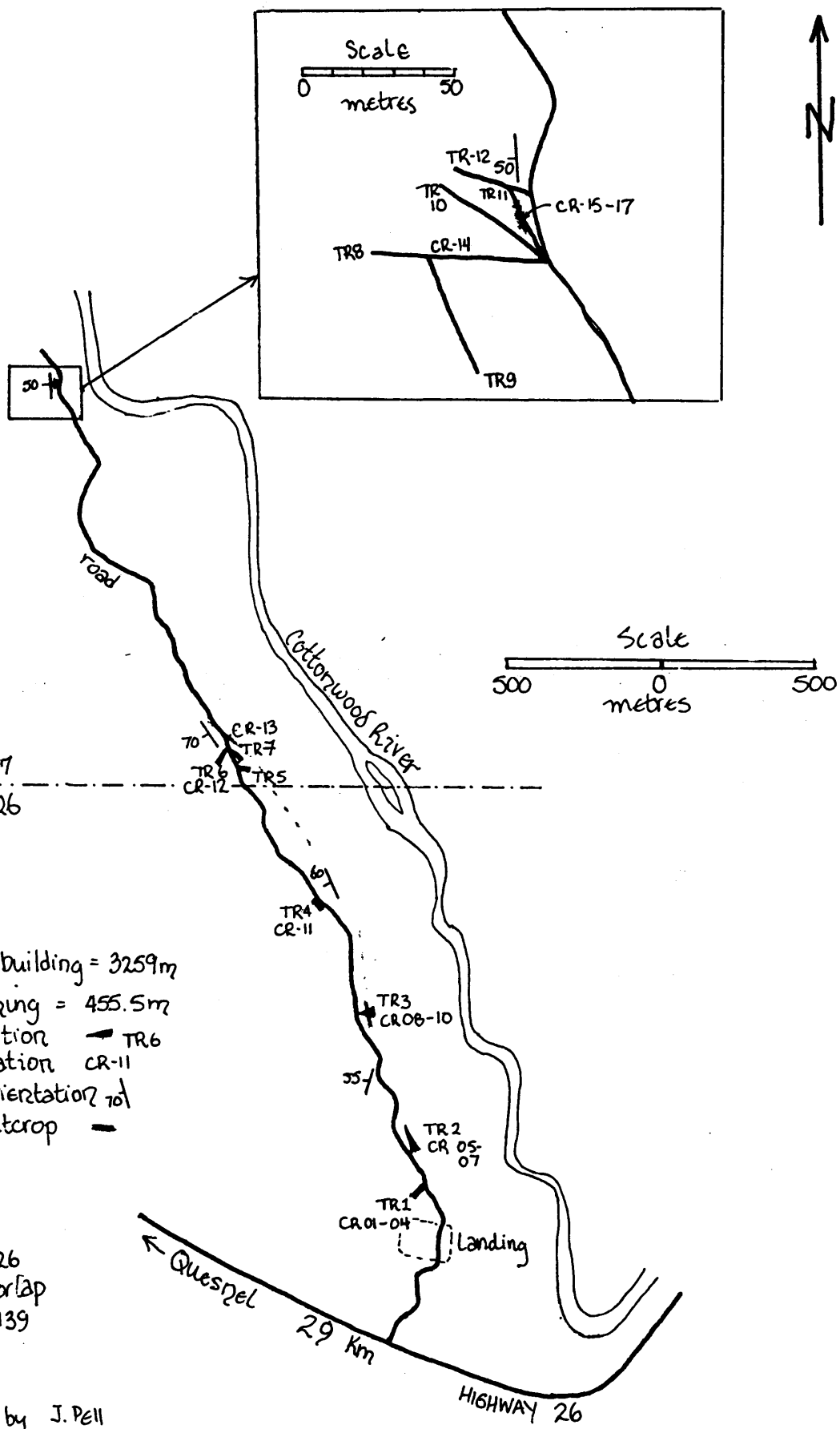
total trenching = 438.1 m  
total road upgrading = 1862 m



NOTE: FOR LOCATION SEE PROPOSED PLAN

surveyed & drafted by J. PELL

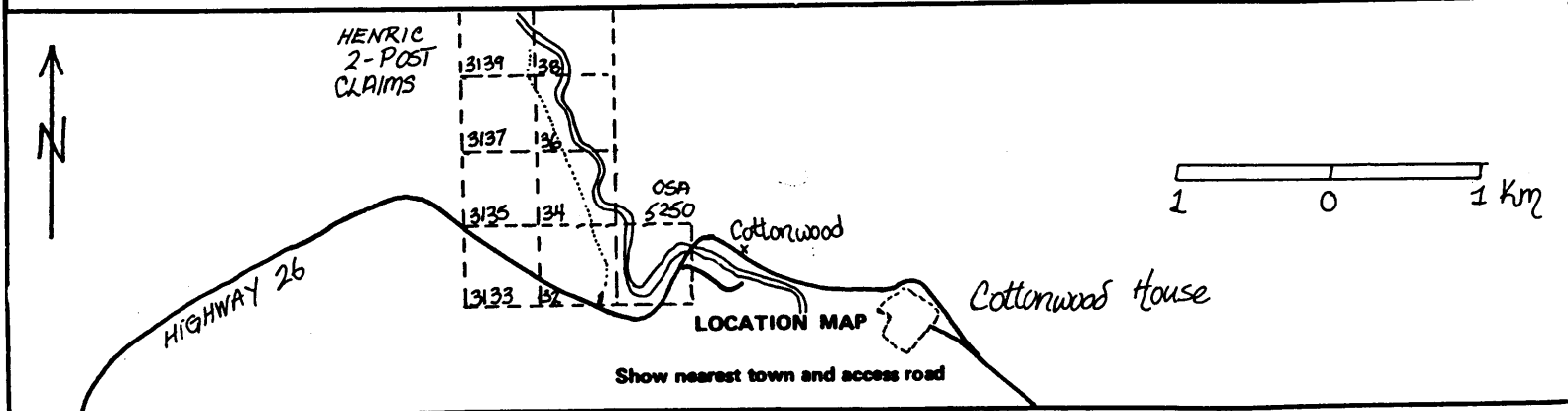
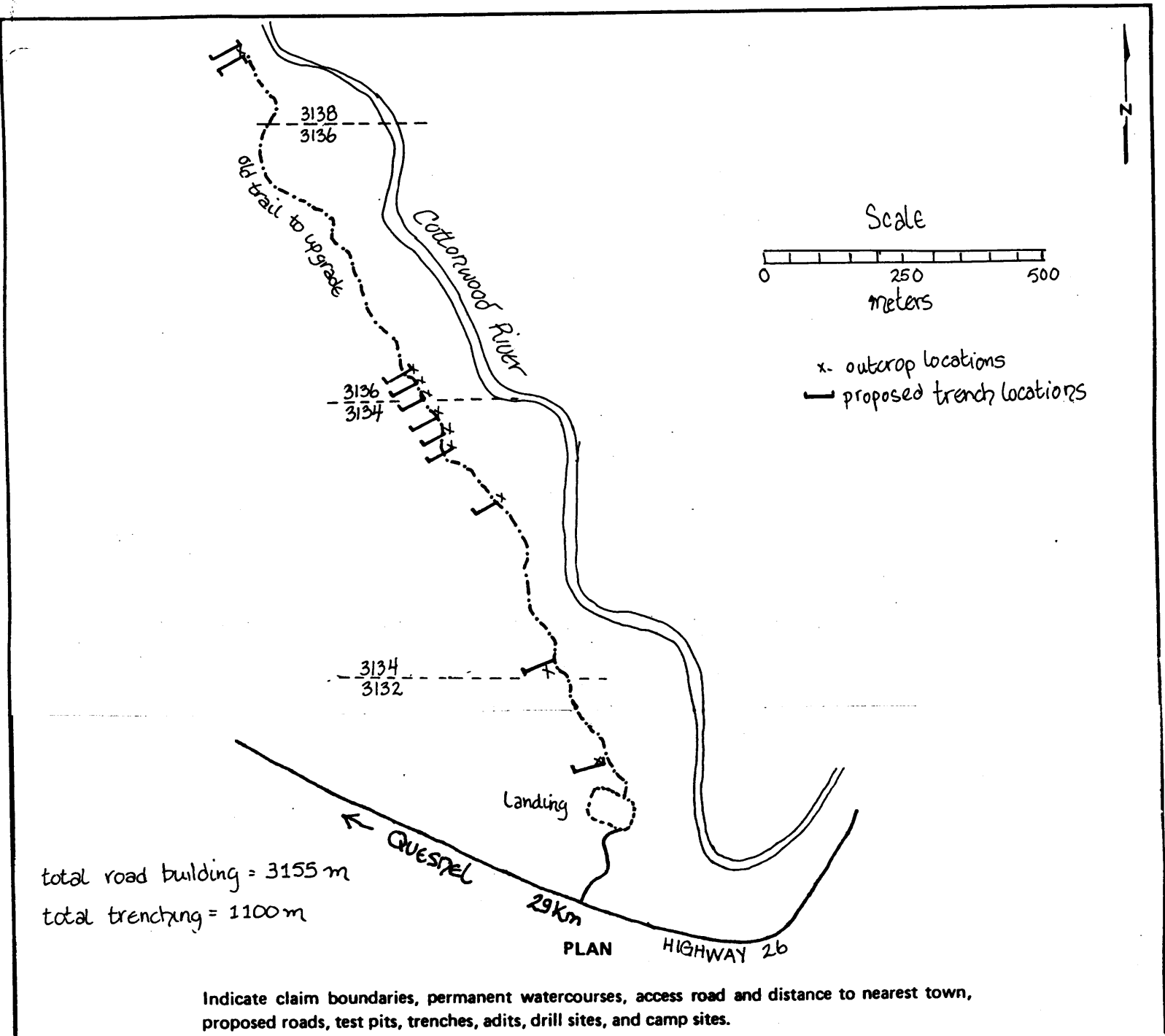




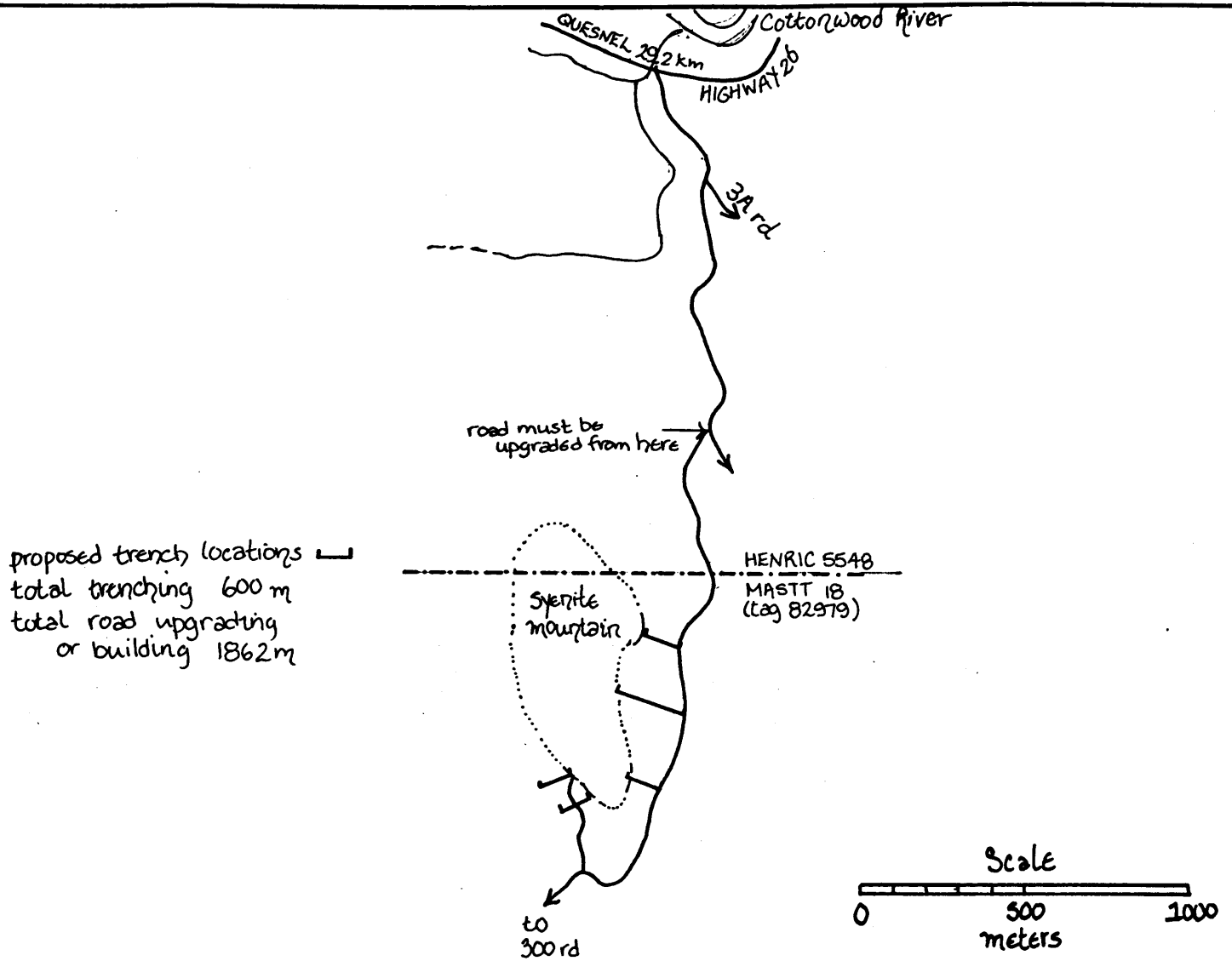
total road building = 3259m  
 total trenching = 455.5m  
 trench location      ← TR-6  
 sample location      CR-11  
 bedding orientation 70°  
 syenite outcrop      —

Note: Mast 17 & 26  
 claim blocks overlap  
 Henric 3132 → 3139

surveyed & drafted by J. Pell

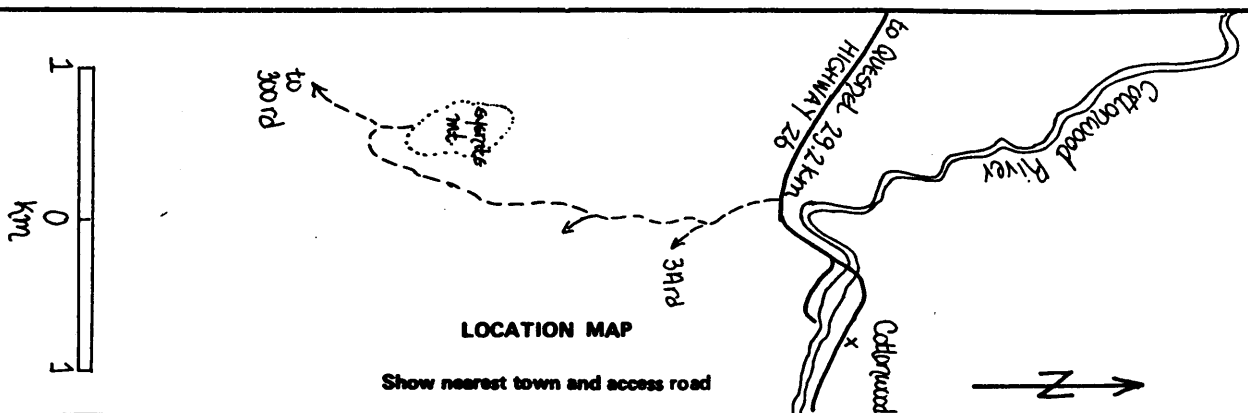


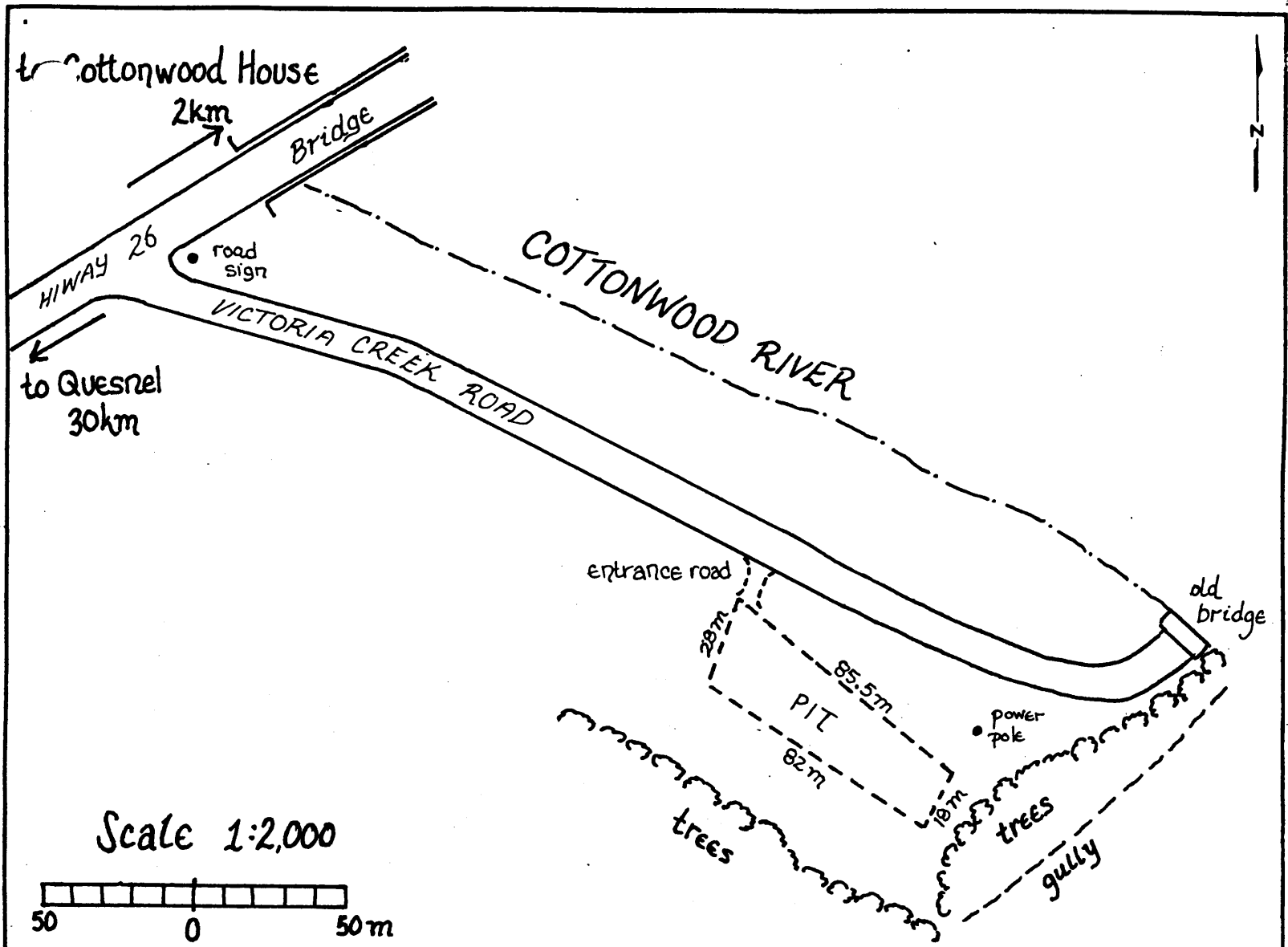
surveyed & drafted by J. Fell



PLAN

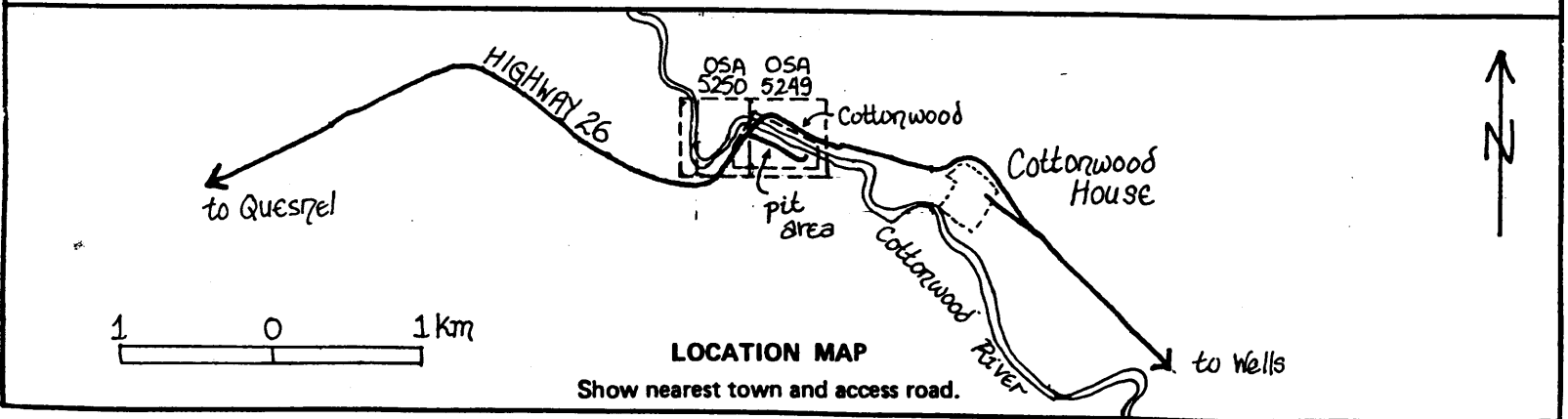
Indicate claim boundaries, permanent watercourses, access road and distance to nearest town, proposed roads, test pits, trenches, adits, drill sites, and camp sites.





**PLAN**

Indicate claim boundaries, permanent watercourses, access road and distance to nearest town, proposed surface disturbances including roads, test pits, trenches, portals, drill sites, and camp sites.



**LOCATION MAP**

Show nearest town and access road.