

520566

1985 PHASE III EXPLORATION REPORT

ON THE

PESO-CPW GOLD PROSPECT  
SPANISH MOUNTAIN AREA

FOR

MT. CALVERY RESOURCES LTD.

CARIBOO MINING DIVISION  
BRITISH COLUMBIA

NTS: 93 A/11W  
LATITUDE: 52° 36' N  
LONGITUDE: 121° 28' W

FIELD WORK DONE DURING THE PERIOD OCTOBER 24  
TO NOVEMBER 10, 1985

FIELD WORK SUPERVISED BY: J.A. McClintock, P.Eng.

REPORT PREPARED BY: J.A. McClintock, P.Eng.

December 10, 1985

## TABLE OF CONTENTS

	<u>PAGE</u>
SUMMARY AND RECOMMENDATIONS	
INTRODUCTION	1
LOCATION AND ACCESS	1
PHYSIOGRAPHY AND VEGETATION	1
CLAIM STATUS	4
1985 PHASE III FIELD PROGRAM	5
GEOLOGICAL SETTING	6
PROPERTY GEOLOGY	6
LITHOLOGIC DESCRIPTIONS	6
STRUCTURAL SETTING	9
MINERALIZATION AND EXPLORATION POTENTIAL	10
MADRE	12
REMAINING POTENTIAL	19
CONCLUSIONS	20
PROPOSED 1986 PHASE I PROGRAM	21
PROPOSED 1986 PHASE I BUDGET	22
BIBLIOGRAPHY	23

## APPENDICES

APPENDIX A ..... DIAMOND DRILL LOGS

## ILLUSTRATIONS

### TABLES

TABLE 1	DIAMOND DRILL HOLE DATA	5
TABLE 2	DIAMOND DRILL RESULTS	13

### FIGURES

FIGURE 1	LOCATION MAP	2
FIGURE 2	CLAIM MAP	3
FIGURE 3	LITHOSTRATIGRAPHIC COLUMN	7
FIGURE 4	GRAPHICAL COMPARISON OF GOLD ASSAY RESULT ROTARY DRILL HOLE MR-13 WITH DIAMOND DRILL HOLE MD-12	15

<u>FIGURES</u>	<u>PAGE</u>
FIGURE 5 GRAPHICAL COMPARISON OF GOLD ASSAY RESULT ROTARY DRILL HOLE MR-35 WITH DIAMOND DRILL HOLE MD-48	16
FIGURE 6 LOG PROBABILITY PLOT - ROTARY DRILL	17
FIGURE 7 LOG PROBABILITY PLOT - DIAMOND DRILL RESULTS	18

ILLUSTRATIONS

<u>PLATES</u>	<u>IN REAR POCKETS</u>
PLATE 1 COMPILATION MAP	1:1000
PLATE 2 GEOLOGY PESO CLAIM	1:1000
PLATE 3 CROSS SECTION BB'	1:200
PLATE 4 CROSS SECTION DD'	1:200
PLATE 5 CROSS SECTION FF'	1:200
PLATE 6 CROSS SECTION GG'	1:200

## SUMMARY AND RECOMMENDATIONS

A Phase III program of 655 metres of diamond drilling in 7 holes was carried out on the Madre Zone during the period October 24th through November 10th, 1985. The program was designed to define the extent of the zone to the southwest, provide geological information and to allow comparison of diamond drill assay results to rotary results.

Drilling showed the zone to extend a further 100 metres to the southwest and to have a total length of 250 metres. Core specimens of the mineralized zone showed it to be a swarm of 1 cm to 20 cm quartz veins containing variable amounts of pyrite, chalcopyrite, galena and native gold. Re-drilling of two rotary holes showed the diamond drilling assay results to be significantly lower than the rotary drilling. Because of the diamond drilling's low bias, the assay results of the southwest extension of the Madre Zone are inconclusive.

Based on a 250 m strike length, an average width of 15 m and to a 60 m depth, the Madre Zone has potential for 850,000 tons grading 0.1 oz/ton gold. In addition to the Madre Zone, there are 6 other zones which have only been partially evaluated. Combined, these zones have an aggregated potential for several million tons in the 0.1 oz/ton gold range.

Continued exploration is recommended by way of a comprehensive exploration program of trenching, rotary and diamond drilling be undertaken on the CPW and PESO claims. The primary objective of the program is to expand presently indicated reserves for a cost of \$322,000.

## INTRODUCTION

Prompted by the success of the initial Phase I and II 1985 Exploration Program, a Phase III Program was initiated on the CPW Gold Prospect during October, 1985. Total expenditure of the Phase III Program was \$134,016.

The Phase III Program, consisting of 655 m of NQ Diamond drilling in 7 holes was undertaken during the period October 24th through November 10th, 1985. All of the drilling was done on the Madre Zone with the objective of defining the southwest strike extent of the zone. Results of the program show the Madre Zone to have a total strike length of 250 m and to be terminated to the southwest by a fault.

In addition to the Madre Zone, there are several other zones that have only partially tested. Trenching and drilling is warranted to delineate these zones.

## LOCATION AND ACCESS

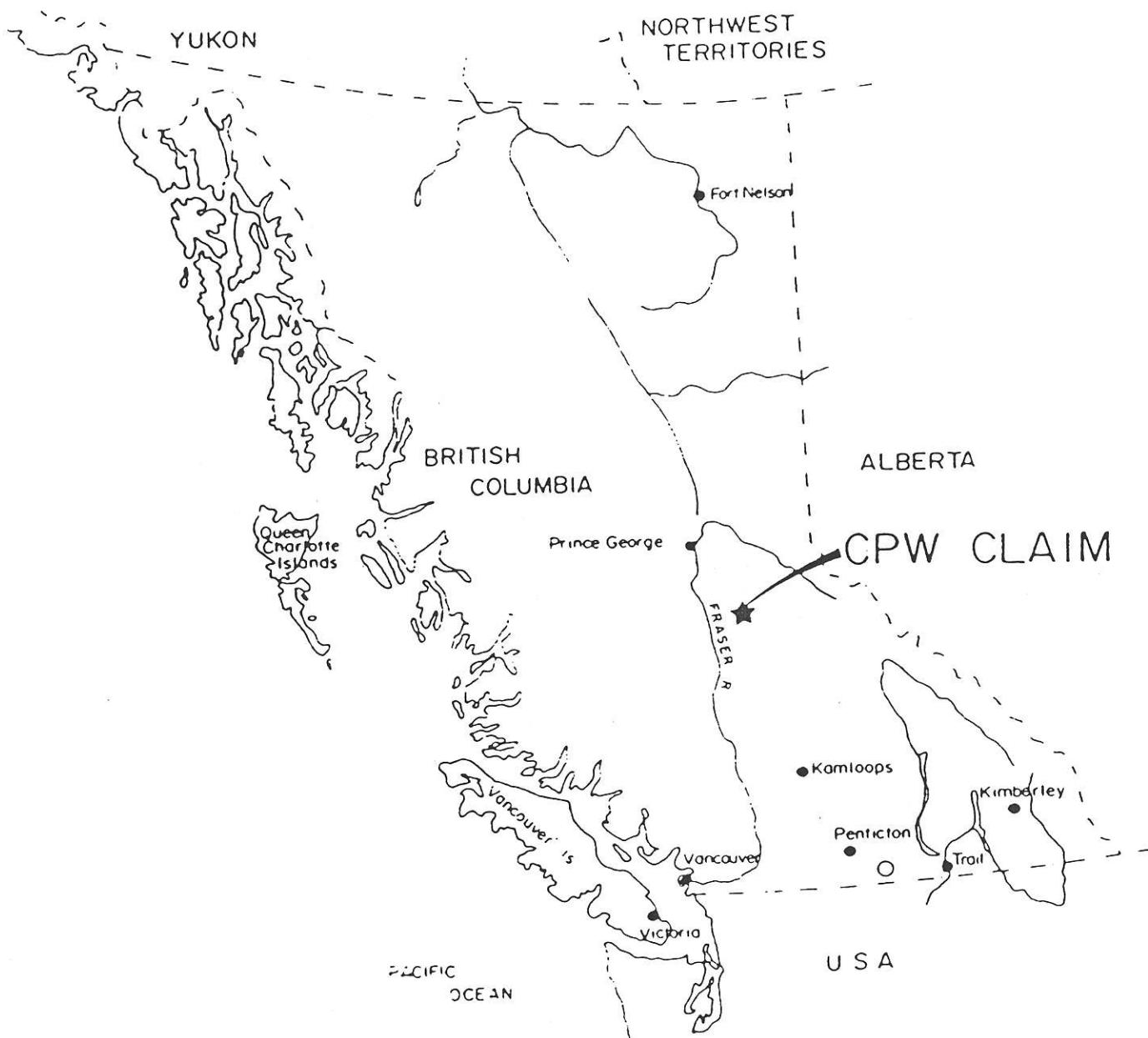
The CPW Claim is located just west of Spanish Lake, approximately 4 miles east-southeast of the village of Likely, B.C. Approximate geographic coordinates are 52°36' North latitude and 121°28' West longitude (see Figure 1).

The all-weather, Spanish Lake - Abbott Creek forestry access road transects the northern portion of the claim and provides ready access from the village of Likely. Secondary logging roads off the main haul road have been up-graded and extended to provide access throughout the property.

## PHYSIOGRAPHY AND VEGETATION

The CPW Claim lies on the north slope of the western ridge of Spanish Mountain. The terrain is moderate, elevations range from 3,000 feet a.s.l. at Spanish Creek to 4,300 feet a.s.l. along the southern boundary of the property. Side slopes seldom exceed 25°.

Much of the property has been clear-cut logged; however, the northeast and southwest corners of the property are covered by mature stands of fir, spruce, alder and cottonwood. The logged-off areas have been reforested, but are largely covered by a heavy growth of alder.

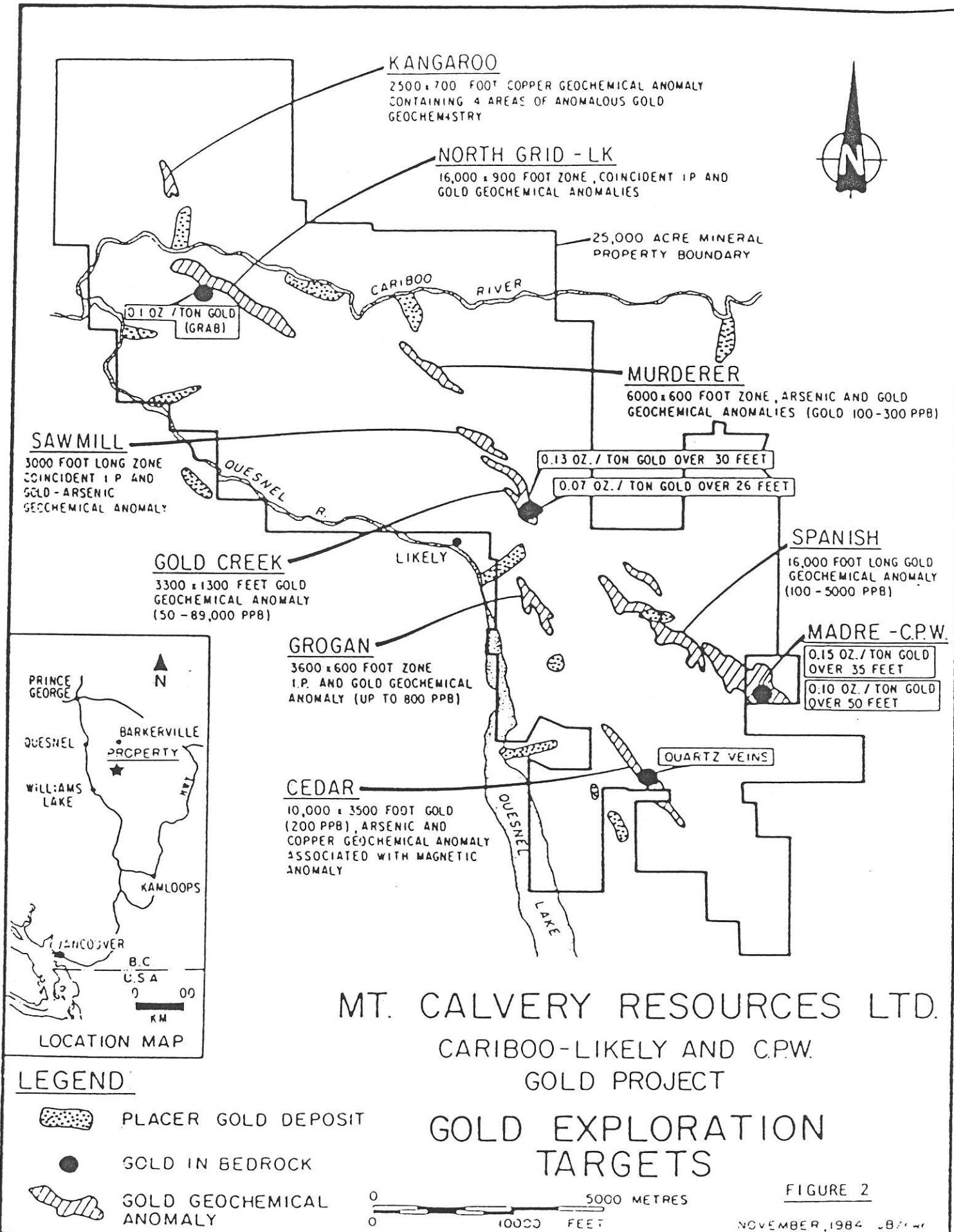


MT. CALVERY RES. LTD.

CPW CLAIM  
LOCATION MAP

FEB , 1985

FIGURE 1



CLAIM STATUS (see Figure 2)

The four-unit CPW Claim was staked in October, 1982 and recorded November 1, 1982 (Record No. 4541) by D.E. Wallster, as agent for C.P. Wallster, trustee for the Mariner Joint Venture. On March 18, 1983, the CPW Claim was optioned to Whitecap Energy Inc.

Mt. Calver Resources acquired the CPW Claim by an agreement with Whitecap Energy and the Mariner Joint Venture under a Letter of Agreement on August 2, 1984, and a formal agreement dated November 2, 1984. Mt. Calver has the right to earn an 100% interest in the property, while Mariner and Whitecap may elect to participate as to 10% and 20% working interests respectively.

In October, 1985, the PESO Claim, which adjoins the CPW to the south, was acquired by option from Hycroft Resources. The terms of the agreement give Mt. Calver the right to earn 60% interest in the PESO Claim through cash payments and fulfilling a \$350,000 work commitment.

Mt. Calver and Teck Corporation concluded a financing agreement on November 2, 1984, which allows Teck the option of funding Mt. Calver's Cariboo-Likely Project, including the CPW Claim, through production, by the purchase of Mt. Calver treasury shares. Since November 1984, the necessary funds to continue exploring the CPW Claim have been provided by Teck.

1985 PHASE III FIELD PROGRAMPHASE III PROGRAM

Prompted by the highly encouraging results of the 1985 Phase I and II Program, Teck Corporation funded a Phase III exploration program on the CPW and adjoining PESO Claim. The purpose of the Phase III Program was threefold:

- 1) To delineate the southwest extension of the Madre Zone;
- 2) To provide core samples of the gold bearing zones;
- 3) To compare assay results from rotary drilling to those of diamond drilling.

To this end a program of 655 m of NQ drilling in seven holes was undertaken. Of the seven holes, two were re-drills of earlier rotary drilled holes designed to compare a "high" grade and a "low" grade intersection. The remaining 5 holes tested 120 m of potential strike extent southwest of the earlier 1985 drilling (Plate I). All five of these holes were drilled on the PESO Claim.

Welcome North Mines Ltd., as Operator, initiated and conducted the Phase III exploration program on the CPW and PESO claims as set out in Schedule "D" of the Teck-Mt. Calvary financing agreement.

TABLE I - DIAMOND DRILL HOLE DATA

<u>HOLE NO.</u>	<u>LENGTH METRES</u>	<u>AZIMUTH</u>	<u>DIP</u>	<u>SOUTH</u>	<u>LOCATION EAST</u>
MD 48	106.5	120°	-60	962	244
MD 49	30.0	120°	-60	948	289
MD 50	91.5	120°	-60	1,024	240
MD 51	106.5	120°	-60	1,008	215
MD 52	136.0	120°	-60	1,052	153
MD 53	93.0	120°	-60	1,068	199
MD 54	91.5	120°	-60	1,035	265

### GEOLOGICAL SETTING

The Cariboo Quesnel Gold Belt lies within the Cariboo Quesnel Trough, a 20 mile wide, northwest-trending, early Meozoic volcanic-sedimentary belt of regional extent. To the west, the trough is fault-bounded by Cache Creek Terrane sediments and greenstones, and to the east by Omineca Terrane metamorphosed sediments. The trough is defined by an Upper Triassic assemblage of calcareous argillites, sandstones and conglomerates overlain by a series of Jurassic basalt flows and breccias, with variable interbedded limestone, mudstone, greywacke and conglomerate and upper series of maroon-coloured basaltic flows and breccias. This entire sequence has been intruded by a series of stocks and sills of syenite and diorite.

### PROPERTY GEOLOGY

The Property is underlain by a northwest trending assemblage of Triassic-age sedimentary and volcanic rocks. This assemblage is divisible into a structurally overlying intercalated phyllitic shale, siltstone and massive dolomitic siltstone; and structurally underlying andesitic tuffs breccias and agglomerates. Light grey, altered feldspar porphyry dykes and the above lithologies in the southwest portion of the property.

Structurally the above units have been folded into a major northwest trending anticline-syncline pair. Much of the property overlies the "S" limb of the anticline resulting in a predominant sheet dip of 30-35 degrees to the northeast with local dip reversals due to open parasitic folding. Numerous faults and shear zones parallel and conjugate to the major fold axes are present throughout the property and are important control to the gold mineralization. All sedimentary units have suffered low grade, green-schist facies metamorphism with universal pyritization and carbonatization (ankerite).

### LITHOLOGIC DESCRIPTIONS

Structural-stratigraphic mapping and drilling has outlined a thick succession of interbedded phyllitic shale, shaly siltstone and siltstone structurally overlying andesitic tuffs, breccias and agglomerate (Figure 3). Although there remains a lack of stratigraphic control, based on drilling results, the succession appears to have a minimum thickness of 300 m with individual members vary from 15 to over 60 metres in thickness.

# MT. CALVERY RESOURCES LTD.

## LITHOSTRATIGRAPHIC COLUMN

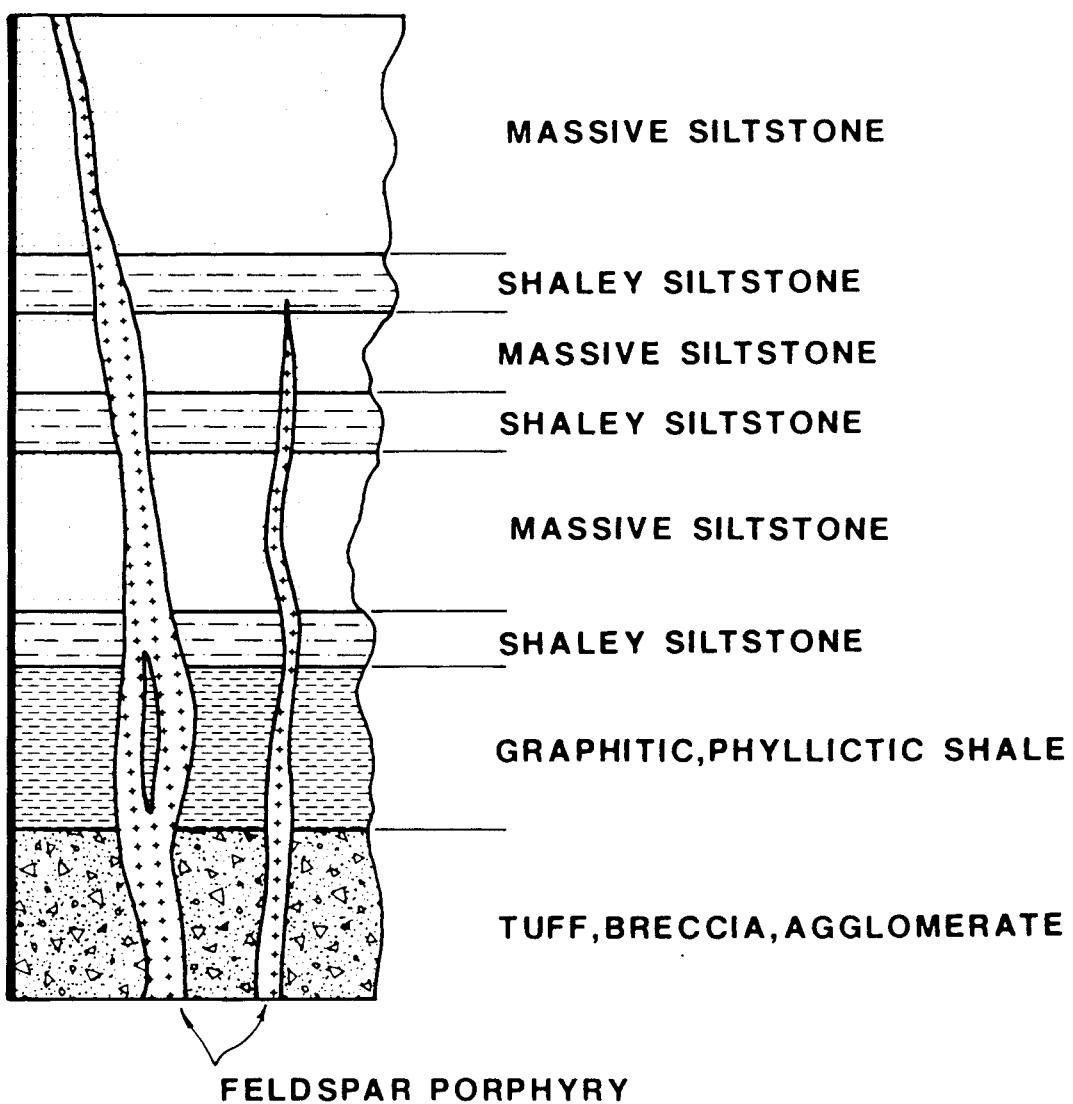


Fig. 3

The structurally lower most part of the sequence is an unknown thickness of andesitic fine ash tuff, coarse breccia and possibly autobrecciated flows, unit TV. These volcanic rocks are not exposed on surface on either the PESO or CPW claims and were first recognized in Phase III drill core (Plates 1, 5 & 6). The volcanic rocks are pale to medium green in colour and intensely carbonate and fuchite altered and pyritic. Carbonate alteration consists of calcite veining and clot-like ankerite porphyroblasts. Argillic alteration is superimposed on the carbonate alteration, forming envelopes around fractures and shears. Alteration is intense, making positive identification of the primary volcanic textures difficult. None of the drill holes penetrated unit TV, hence it is unknown what underlies this unit.

Overlying unit TV is a dark grey to black variably sheared, graphitic, phyllitic shale to silty shale, unit SH. The nature of the contact between the shale and volcanics is unknown as the 3 holes that penetrated the shale passed through feldspar porphyry dykes before entering the volcanics. It is equally possible, therefore that the contact is either conformable, unconformable or faulted.

On the surface, the shale is exposed in the core of a major antiform that transects the southwestern portion of the CPW and the central portion of the PESO claims. The shale contains an average of 10% pyrite concentrated in wisp-like bands of fine-grained, euhedral crystals. These bands of granular pyrite vary in thickness from 3 m to 10 mm and generally mimic the foliation. Variable amounts of fine-grained, oval shaped ankerite porphyroblasts are common throughout, but are prevalent in silty lamina within the shale. Drilling indicates the shale to be approximately 100 m thick.

The shale sequence is conformably overlain by unit SST, a 10 to 20 m thick, pale orange weathering, variably calcareous, laminated dark grey silty shale to shaly siltstone. Typically, unit SST, has 3 to 5 cm beds of siltstone separated by 1 to 2 cm thick beds of shale. The unit is pyritic with coarse, euhedral pyrite disseminated in the siltstone beds and fine grained granular bands of pyrite in the shale beds.

In turn, unit SST is overlain by pale orange weathering, massive to thick bedded, light to dark grey siltstone, unit ST. The siltstone consists of quartz grains in a dolomitic clay matrix. Large, up to 1 cm porphyroblasts of ankerite form 5% of the rock. Pyrite forms 3% of the rock as disseminated very coarse grained (up to 2 cm) euhedral grains. Surface mapping and drilling indicate unit ST to have a thickness of 30 m.

Overlying unit ST is a second unit of shaly stone (SST) which is visually indistinguishable from the underlying unit. This upper unit of SST is overlain by a second unit of ST. This upper massive siltstone differs slightly from the lower unit in the presence of fine grained angular volcanic fragments.

Intrusive into the sedimentary rocks are narrow light-grey siliceous feldspar porphyry dykes ranging from 10 cm to over 20 m thick. The dykes for the most part trend northwesterly with near vertical dips. They are most common in the southwestern portion of the CPW and the northwestern part of the PESO Claim where they form a closely spaced swarm. The dykes characteristically have a faint, indistinct, crowded porphyritic texture and contain variable amounts of ankerite, pyrite and traces of fuchsite. The age of the porphyries has not been determined, but it is assumed they are related to Jurassic-age stocks seen elsewhere in the district.

Locally, sedimentary-volcanic sequence has been bleached white, silicified and altered to an assemblage of dolomite, calcite, quartz and fuchsite. These alteration areas are centered around similarly altered porphyry dykes. Intensity of the alteration is such, that determination of the original rock type is difficult and the contacts between intrusive and wall rock are indistinct. Where identification of the original rock type is impossible, it has been termed altered sedimentary and mapped as unit AS.

#### STRUCTURAL SETTING

The eastern portion of the PESO and most of the CPW claims largely cover the east limb of a major northwest trending anticline (Plate 2). Bedding attitudes, where recognized, have an average strike of  $130^{\circ}$  and a variable dip of 30 to 60 degrees to the northeast. The variable dips are due to open, parasitic folds along the back or "S" limb of the anticline. These folds have amplitudes of tens of metres, with steep southwestly and gentle northeasterly dipping limbs. The net effect of the sub-parallel topographic relief and unit sheet dips results in the present surface forming nearly a dip slope.

The west limb of the major anticline underlies most of the western half of the PESO Claim. This west limb is poorly exposed with widely scattered rock outcroppings of massive, indistinctly bedded siltstone (ST), altered sedimentary and occasional feldspar porphyry. The paucity of rock outcroppings combined with the lack of bedding features in the massive siltstone makes a detailed structured interpretation difficult.

All of the rocks have been disrupted by several directions of faulting and shearing, some of which are economically important. From oldest to youngest these are:

- (i) Axial plane shears trending at approximately 150° and are sub vertical. These zones, with widths to 15 m have been recognized in the shale. They contain graphitic planes and quartz veinlets.
- (ii) Two sets of quartz-filled fractures, one trending at 035° with a 40 to 60° northwest dip with the other with an average trend of 100° and a flat lying southerly dip. Coarse visible gold has been observed in both fracture set quartz veins;
- (iii) Late stage northerly trending normal faults with grey clay gouge that displace rock unit boundaries, the most prominent of which is the northwestly trending fault that transects the PESO-CPW boundary and has down-dropped massive siltstone (ST) against shale (SH). These faults post date the mineralizing event.

The structural preparation of the layered sequence of shale and siltstone through folding, shearing and fracturing has provided the network of channel ways for the silica-gold mineralization.

#### MINERALIZATION AND EXPLORATION POTENTIAL

Exploration of auriferous veins on Spanish Mountain has occurred sporadically since the 1930's. Prior to 1984, most of this work was focussed on the larger veins with the objective to develop small tonnages of higher grade vein material. In 1984, Mt. Calvary personnel discovered that within certain units, "replacement" type mineralization occurred between the veins. This exciting discovery prompted extensive prospecting, sampling, trenching, diamond and rotary drilling both on the CPW and on the PESO claim.

The extensive exploration has demonstrated three inter-related styles of gold mineralization:

- (a) In anastomosing quartz vein swarms occupying north-easterly trending, steeply dipping fracture zones in graphitic shale and underlying tuffaceous volcanic rocks;
- (b) Rimming and filling fractures in pyrite grains invariably encapsulated in silica;

- (c) As free gold associated with minor galena in northeasterly and easterly trending 2 cm to 1.5 m quartz veins in massive siltstone and altered siltstone.

The three forms of gold mineralization are thought to have been deposited by hydrothermal fluids localized in north easterly trending fracture and shear zones formed by compressional shearing during folding of the strata. Compressional stress caused the more competent massive siltstones and altered dykes to fail along a limited number of fractures, while wide zones of fracturing developed in the shale. The auriferous, hydrothermal fluids migrated up these structures forming discrete vein-fillings in the massive siltstone, but horsetailed into an anastomosing vein system on passing into the fractured shale. Ponding of the hydrothermal fluids occurred as the upwardly migrating solutions attempted to pass from the structurally more permiable shale into the overlying less permiable siltstone. As ponded fluids spread laterally through the pyritic shaly siltstone, gold was deposited as replacements of pyrite rims forming manto-like replacement zones beneath the less permiable siltstone.

Since acquiring the ground, Mt. Calvary Resources Ltd. have focussed exploration on both the shear hosted and manto-type mineralization because of their potential for significant tonnages of near surface, open pitable gold mineralization.

Earlier 1984 and 1985 programs on the CPW claim have shown the shear-hosted vein swarms to be up to 15 m wide and to consist of variably spaced 0.5 to 20 cm thick quartz veins. These veins contain quartz pseudomorphs of calcite and occasional drusy cavities. Sulphide mineralization consists of minor to trace quantities of pyrite, galena and chalcopyrite. Gold in native form occurs in the veins as very fine to coarse grains, often intimately associated with galena and pyrite. Veins in the shale are generally narrower and of a more anastomosing nature than in the tuffaceous volcanic rocks.

Work has shown the replacement, or manto-type mineralization to be restricted to the shaly-siltstone units. Within the replacement zones, quartz has flooded out laterally from the veins along the pyritic shale beds encapsulating pyrite grains and depositing gold. The highest grade gold replacement mineralization is usually restricted to within 1 to 2 metres of the source vein. The zone of replacement is limited to a 10 to 20 m thickness beneath the overlying siltstone cap and is laterally restricted to 10 metres on either side of the underlying shear-hosted quartz-vein swarm.

Seven separate areas of the CPW and PESO claims have been found to host both shear-hosted vein swarms and associated replacement gold mineralization. These zones have been termed: the Madre; Madre West; 11-12-13 and LE; M; 14oz; A; and E zones (Plate 1).

As the Phase III work was restricted to the Madre Zone, only this zone will be discussed in detail. For a complete discussion of the remaining zones, the reader is referred to a report entitled:

1985 Exploration Report  
on the  
CPW Gold Prospect,  
Spanish Mountain Area  
by  
J.A. McClintock, P.Eng.

MADRE ZONE

The best defined of the gold zones is the Madre. Extensive trenching, diamond and rotary drilling have shown the zone to consist of both an auriferous vein swarm cutting shale and tuffaceous volcanics, and a replacement zone where the vein swarm intersects the contact with overlying siltstone. The stockwork zone varies from 10 to 20 metres wide, strikes northeasterly and dips 50° to the northwest. The 1985 Phase I and II drilling traced the vein swarm from the shale-shaly siltstone contact southwesterly to the PESO/CPW claim boundary. The replacement, or manto part of the zone is restricted to a 10 to 15 m thickness of the shaly siltstone immediately beneath the capping siltstone. Laterally, the zone obtains a width of 30 to 40 m. This replacement zone plunges northeasterly beneath the siltstone cap.

The northeast end of the Madre Zone terminates against a series of feldspar porphyry dykes and intensely silicified and carbonate altered sedimentary rocks. Where the vein swarm and associated replacement mineralization encounter the more competent dykes and altered sedimentary rocks, they become channeled into larger, more widely spaced veins.

The southwest extension of the Madre vein swarm remained open after the Phase II drilling and it was the objective of Phase III to drill test the zone in this direction. Locations of the drill holes are shown on Plate I and a summary of the assay results is tabulated in Table 1. Logs of the drill holes are available in Appendix I with drill sections displayed on plates 3 through 6.

## TABLE II

MT. CALVERY RESOURCES LTD.TABLE OF DIAMOND DRILL HOLES

<u>Drill Hole</u>	<u>Interval (Metres)</u>	<u>Length (Metres)</u>	<u>Gold Assay (Ounces/Ton)</u>
MD 48	49 to 72	23	0.07
MD 49	11 to 15	4	0.03
	16 to 19	3	0.03
MD 50	55 to 60	5	0.04
	85 to 90	5	0.04
MD 51	9 to 11	2	0.06
MD 52	No Significant Intersections		
MD 53	No Significant Intersections		
MD 54 including	69 to 78	9	0.03
	69 to 72	3	0.05

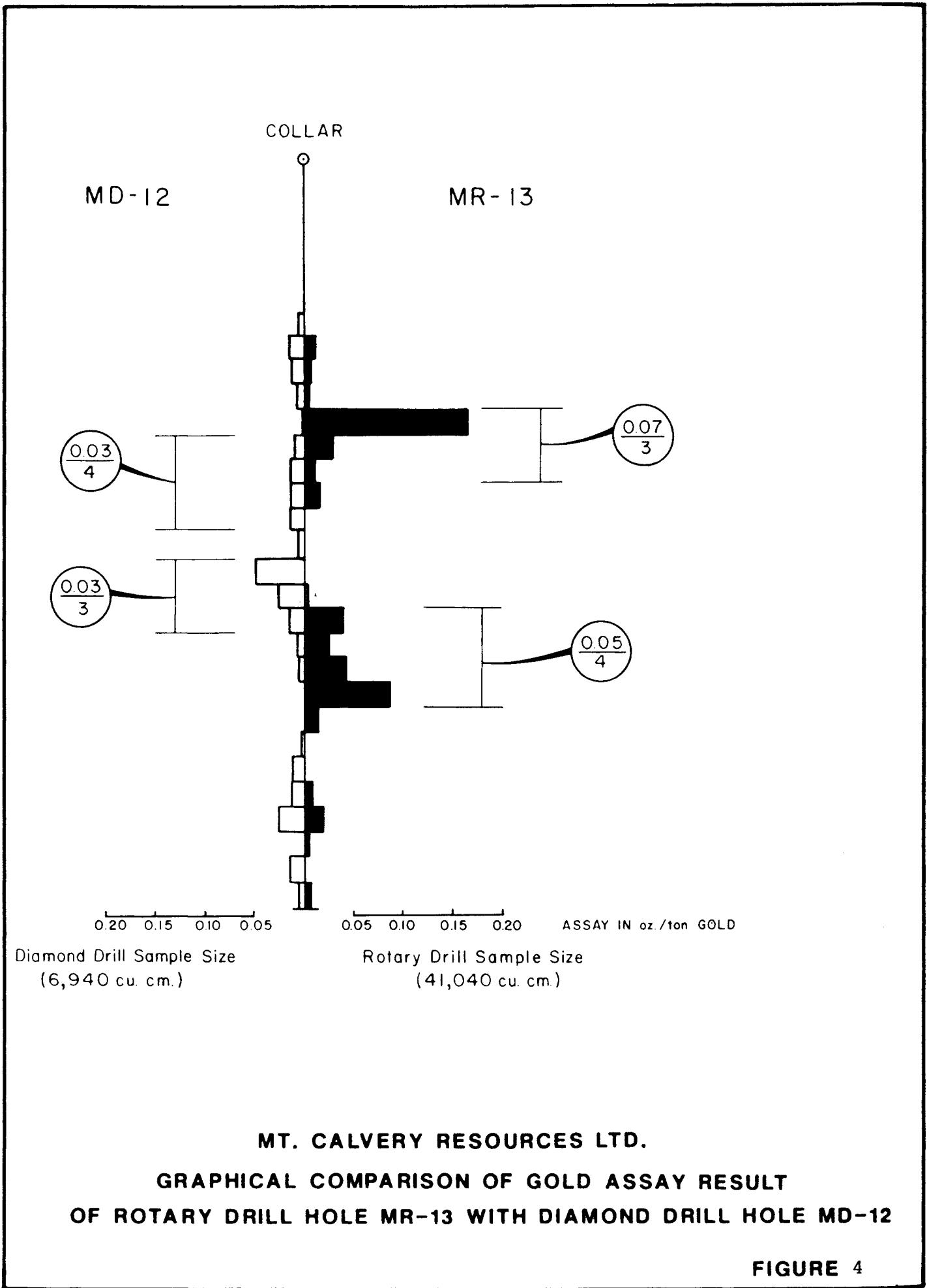
To obtain a comparison of rotary to diamond drill results, it was decided to twin two rotary holes. The holes chosen were MR-35, which had a high-grade gold intersection, and MR-13, which contained a low-grade intersection. Diamond drill hole MD 11 and MD 12 were drilled 1 metre northwest of the collars of MR-35 and MR-13 respectively. Comparison of the results are available on plates 4 and 5, and a graphic comparison is provided in Figures 4 and 5.

Although sections of anomalous gold values generally correspond between the two types of drilling, on average, the drill results are lower. Comparison of MD-11 and MR-35 show the diamond drill results to be roughly half of the rotary results. The difference between MR-13 and MD-12 is less dramatic, but is still significant.

The possible cause of the discrepancy may be the nugget effect of coarse particles of free gold amplified by the much smaller sample size and more erratic recoveries of diamond drilling. A comparison of the idealized sample size (Figure 5) shows the diamond drill sample to be one-eighth the size of the rotary sample.

To determine if the differences between the two types of drilling were significant, a statistical comparison of the logs of the gold values were carried out using a method described by M. David (1977) (Fig. 6 and 7). Based on M. David's method, at the 99% confidence level, the diamond drill results have a low bias and therefore can not be directly compared to the rotary drill results.

Drilling traced the Madre Zone a further 100 m to the southwest, at which point the zone is terminated by a post mineralization, normal fault, which downdrops the economically unfavourable siltstone against shale. The downward component of fault movement is in excess of 100 m with an unknown strike-slip component. If the strike-slip movement was negligible, then the zone lies at depth, beneath >100 m of barren siltstone. If the strike slip movement was significant there is a chance that the zone has been displaced to the northwest or southeast.



# LOG PROBABILITY PLOT ROTARY DRILL

46 8080

K E PROBABILITY X 3 LOG CYCLES  
KEUFFEL & ESSER CO. MADE IN U.S.A.

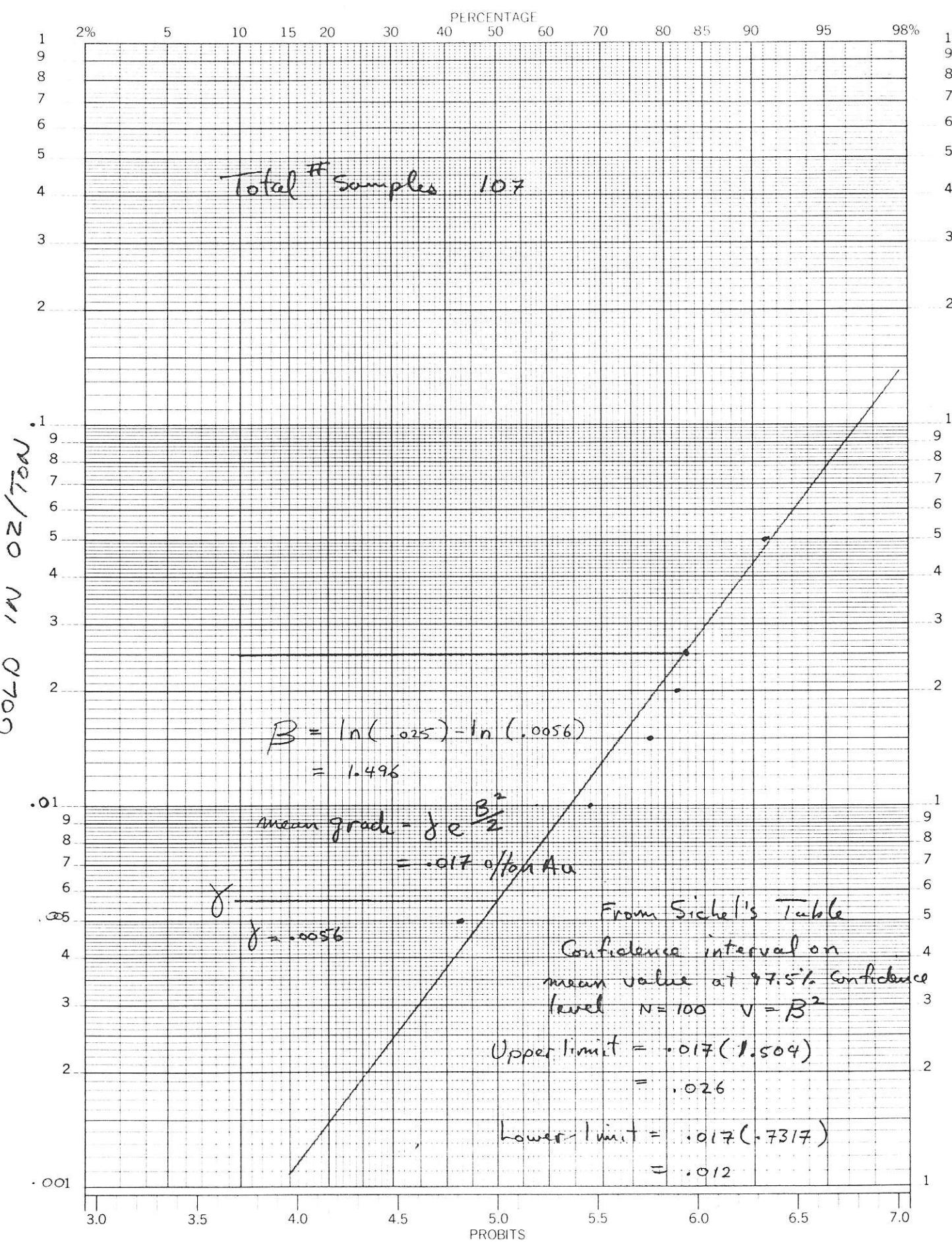


Figure 6

# LOG PROBABILITY PLOT DIAMOND DRILL RESULTS

46 8080

PROBABILITY X 3 LOG CYCLES  
KEUFFEL & ESSER CO. MADE IN U.S.A.

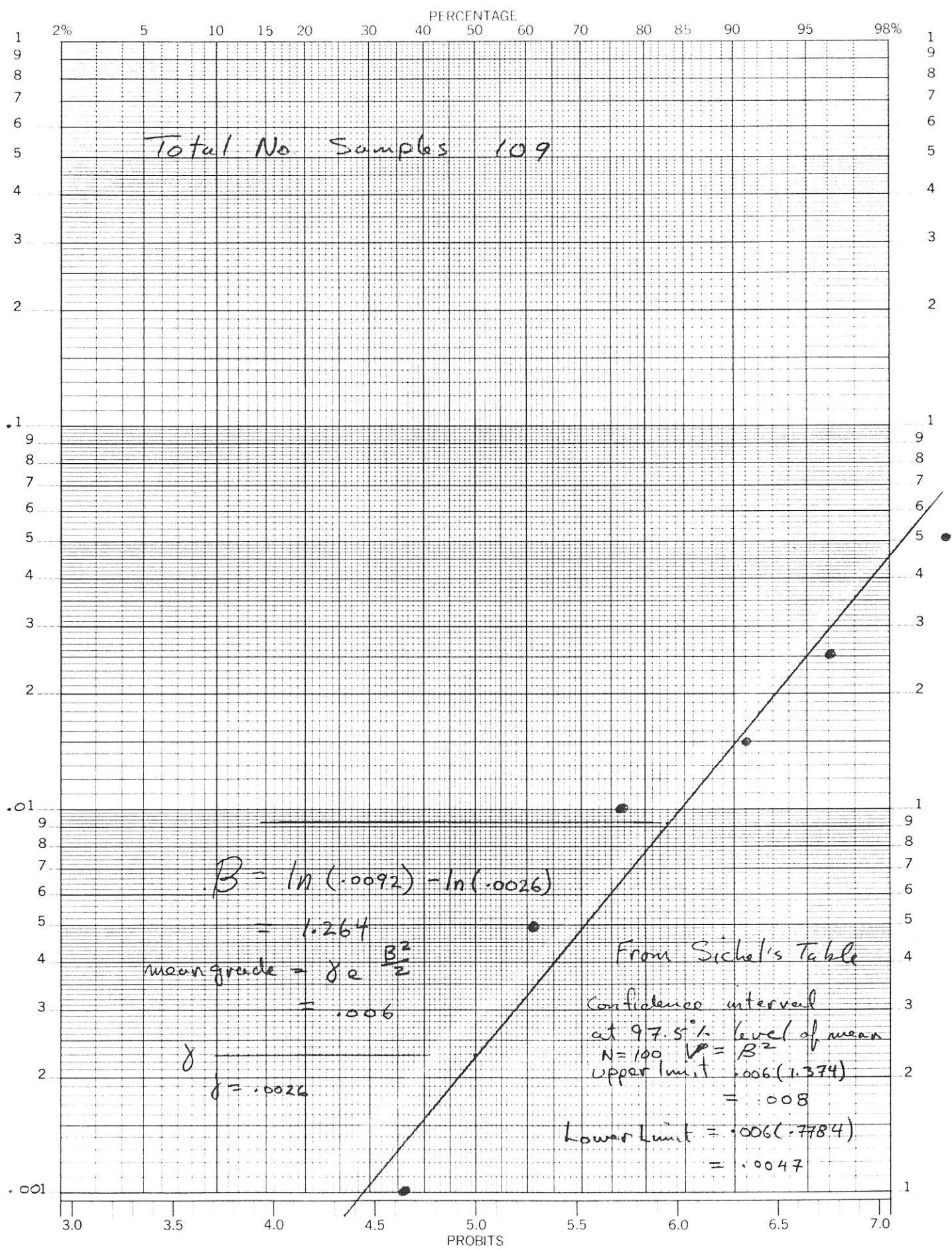


Figure 7

Drill intersections within the southwest extension show gold values to be low (Table II, Plate ). However, the significance of these results is questionable because of the known low-grade bias of diamond drilling compared with rotary drilling. Re-drilling of the southwest extension with rotary drill will be necessary to confirm gold grades.

The overall strike extent of the Madre Zone has been shown to be 250 metres. The tonnage potential of the zone to a depth of 60 m and a width of 20 m is approximately 860,000 tons grading 0.1 oz/ton gold.

#### REMAINING POTENTIAL

On the CPW Claim, six other stockwork and replacement zones have been outlined. These zones, which are at varying stages of exploration, have surface and/or drill results indicating gold grades and widths similar to the Madre Zone. Mineralized exposures in each of the zones indicate they individually have potential for between 500,000 and 2,000,000 tons and collectively have potential for several million tons of 0.1 oz/ton gold. Systematic trenching, rotary and diamond drilling will be required to delineate these reserves.

On the PESO Claim, potential for stockwork and replacement mineralization is best on the eastern portion of the claim where the shale/siltstone contact is exposed. This part of the claim remains to be prospected and geologically mapped. An area of lesser attraction lies in the southwest quadrant of the PESO Claim, where northeast trending quartz veins to 50 cm are hosted in massive siltstone. These are locally mineralized with spectacular amounts of gold. Unfortunately, as on the CPW Claim, the veins are narrow (<30 cm), widely spaced, and disrupted by numerous post mineralization faults. The veins may represent leakage from an underlying replacement and stockwork mineralization in the shale and shaly siltstone beneath the massive siltstone. However, based on drill results from MD-15 and MD-16, it is probable that the capping siltstone is in excess of 200 m.

CONCLUSIONS

Drilling showed the southwest end of the Madre Zone to terminate by a northwest trending normal fault. Maximum strike length of the zone is 250 metres with an inferred tonnage potential of 850,000 tons in the 0.1 oz/ton gold range.

Twining of 2 rotary holes with diamond drilling shows diamond drill gold assay results to be half of the rotary results. Gold-assay results obtained from diamond drilling the southwest extension are therefore inconclusive and probably do not reflect the true grade of the zone. Diamond drill holes MD 13, 14 and 17 should be redrilled by rotary drilling techniques to verify the diamond drill results.

In addition to the Madre Zone, there are 6 other gold zones on the CPW Claim that have a combined potential for several million tons grading 0.1 oz/ton gold. Further trenching and drilling of these zones is warranted.

On the PESO, a geologically favourable environment exists in the unexplored eastern half of the claim. Prospecting, surface sampling and geological mapping in this area is warranted.

PROPOSED 1986 PHASE I PROGRAM

A comprehensive exploration program is recommended in 1986 with the objective of expanding the geological reserves of the CPW-PESO claims. Work would be focused on the A, E, 14oz, L, 11-12-13 and LE zones, and would consist of backhoe trenching and rotary-percussion drilling. Re-drilling of the southwest extension of the Madre Zone would also be carried out. A limited program of diamond drilling would be carried out concurrently with the rotary drilling to provide geological information on the zones.

The Phase I program consisting of 1,500 m of backhoe trenching, detailed sampling, 2,740 metres of reverse circulation rotary and 655 m of diamond drilling is proposed on the seven zones for an estimated expenditure of \$321,000. The above program would be initiated in April with anticipated completion in late July.

MT. CALVERY RESOURCES LTD.  
 PESO-CPW GOLD PROSPECT  
 PROPOSED 1986 PHASE I - BUDGET

ESTIMATE OF EXPENDITURES

<u>Exploration Function</u>	<u>Estimate Cost</u>
	\$
Assays & Geochem 4,000 @ \$12/sample	48,000
Camp Maintenance 6 men for 80 days @ \$37/day	17,800
District Expense, estimate	500
Rotary Drilling 9,000 feet @ \$11/ft. all up	99,000
Diamond Drilling 2,000 feet @ \$20/ft. all up	40,000
Field Supplies & Equipment, estimate	2,000
Fuel	1,000
Maps, Prints, Drafting	8,000
Property Acquisitions & Option Payments	5,000
Property Maintenance	1,000
Salaries	50,000
Trenching & Roads 250 hours @ \$80/hr.	20,000
Project Management Fees (10%)	29,200
Total Cost:	321,500

Budget prepared by: J.A. McClintock, P.Eng.  
 For: Mt. Calvery Resources Ltd.  
 December 10, 1985

BIBLIOGRAPHY

1. R.B. Campbell, GSC OF 574, 1978, 1:125,000
2. C.T. Rees, GSC Paper 83-13, 1983, 1:56,000
3. M. David, Geostatistical Ore Reserve Estimation, 1979
4. L.C. Struick, GSC O.F. 920, 1982, 1:50,000
5. D.E. Wallster, Geochemical Assessment Report, 1984
6. R.F. Sheldrake, Report on Helicopter EM/MAG Survey, 1981

**APPENDIX "A"**

**DIAMOND DRILL LOGS**

---

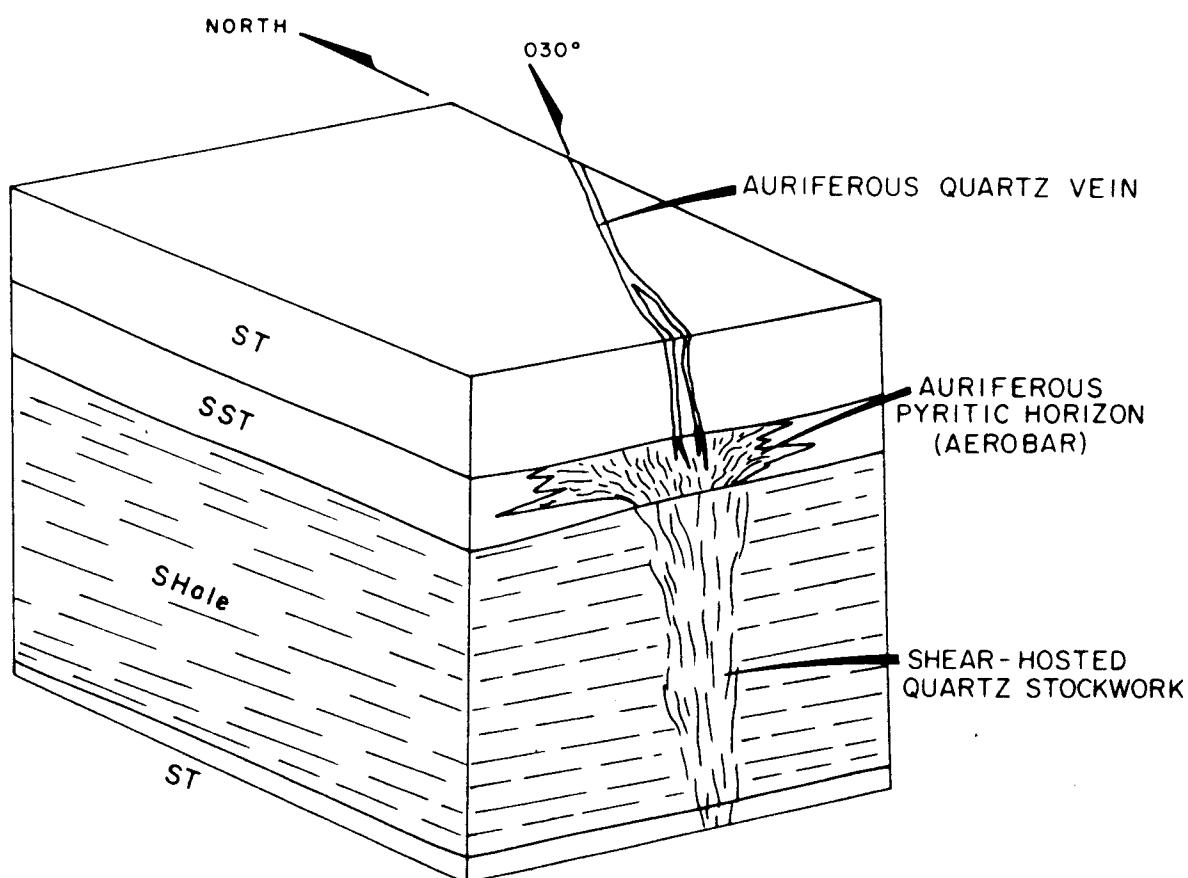
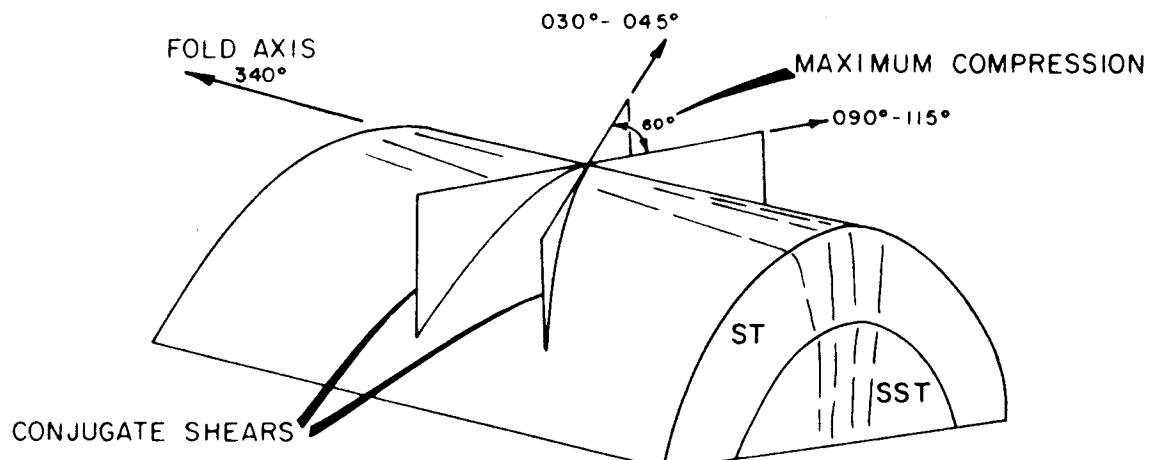
---

STATEMENT OF QUALIFICATIONS

John A. McClintock

- Abbotsford*
- 1) I am a geologist residing at 32841 Ashley Way, Clearbrook, British Columbia and am currently employed by Welcome North Mines Ltd, 1027-470 Granville Street, Vancouver, British Columbia.
  - 2) I graduated from the University of British Columbia in 1973 with a B.Sc (Honours) degree in Geology and have practised my profession continuously since that time.
  - 3) I supervised and directed the physical and <sup>rotary</sup> diamond drilling field work carried out on the Tillicum Gold Property. <sup>CPW claim.</sup>
  - 4) I am an active member in good standing of the Association of Professional Engineers of the Province of British Columbia.

John A. McClintock, P.Eng.



MT. CALVERY RES LTD.  
CPW CLAIM  
BLOCK DIAGRAM  
GOLD MINERALIZATION

J.M./r.w.r.

FEB., 1985

MT. CALVERY RESOURCES LTD.

COST STATEMENT PESO/CPW CLAIMS

FOR PERIOD JUNE 1 - OCTOBER 1, 1985

	\$
Analyses - Assay 600 samples @ \$10.50/sample	6,300
Camp Maintenance 2 men @ \$37/day for 14 days	1,036
Diamond Drilling 2,151 feet at \$17/ft.	36,567
Expediting (telephone, etc.)	107
Field Equipment (miscellaneous)	293
Maps, Prints, Drafting	1,200
Salaries J. McClintock, geologist 30 days @ \$175/day      \$5,250.00 E. Alionis, assistant      20 days @ \$ 95/day <u>1,900.00</u>	7,150
Transportation Freight                  \$ 333.00 Truck (incl. fuel) <u>1,000.00</u>	1,333
	Total:                  53,986

Cost apportioned to PESO Claim based on drill footage:

$$\$53,986 \times \frac{1701 \text{ ft.}}{2151 \text{ ft.}} = \$42,691.86$$

PREPARED BY: J.A. McClintock, P.Eng.  
December 9, 1985