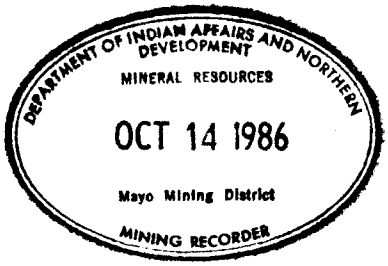
DIAMOND DRILLING REPORT

ON THE

MAR GOLD PROJECT
DUBLIN GULCH, YUKON

NTS: 106D/4, 64°02', 135°50'



FOR

(owner)
QUEENSTAKE RESOURCES LTD.
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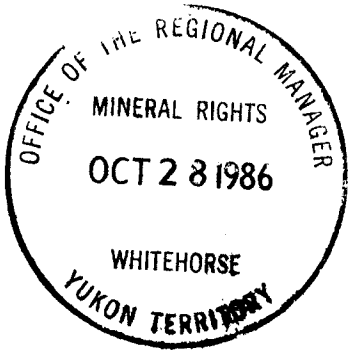

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BY

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September 18, 1986
Vancouver, B.C.

FIELDWORK COMPLETED BETWEEN AUGUST 9, 1986
AND AUGUST 29, 1986

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SUMMARY

(1) The Mar Gold Project at Dublin Gulch is located in central Yukon approximately 40 km northeast of Mayo, centered at 64°02' and 135°50', NTS 106D/4.

(2) Access is by gravel road 88.5 km from Mayo. An all weather road (Highway 11) leads to the South McQuesten River turn-off, 39.2 km northeast of Mayo and 9 km southwest of Elsa. The Dublin Gulch camp is 49.35 km from Highway 11 over good gravel and dirt road.

(3) Coarse, placer gold was discovered in Dublin Gulch in 1898. Placer mining has taken place in most years since discovery.

(4) The claims are underlain by highly deformed and metamorphosed Grit Unit of probable Late Proterozoic age which has been intruded by Cretaceous granodiorite.

(5) Numerous, narrow gold-arsenopyrite-pyrite-sphalerite-jamesonite vein and shear zones have been found near the intrusive contact within an area 12 km long and 3 km wide.

(6) The veins are mineralogically zoned around the pluton and are probably genetically related to the intrusive event.

(7) Previous work included extensive deep trenching, early underground drifting, detail geological mapping and preliminary metallurgical testing.

(8) The 1986 diamond drill program consisted of 4 holes totalling 2,314 feet (705.32 m) below the Victoria Vein System in the Stewart-Catto Area (Bob #1 claim).

(9) A short trenching program was conducted on the DG #53 claim to investigate a new massive pyrite zone found in August 1986. This zone is over 1.5 m wide (true thickness) and averages 0.078 oz/ton gold.

(10) In general, the 1986 diamond drilling indicates very low gold values down dip in the Victoria vein system.

(11) Assay results in the Catto and "New Vein" systems are in the 0.2 to 0.3 oz/ton range for holes 86-1, 2 and 3. However, in Hole No. 86-4 the Catto Vein grades 1.300 oz/ton gold.

(12) High grade gold values were found in the vicinity of the No. 23 structure in Hole 86-4. This vein assayed 2.177 oz/ton gold over 0.5 m.

(13) A short diamond drill program is recommended to investigate the variation of gold values in relationship to the north contact of the main granodiorite pluton.

(14) Associated studies should be conducted to define the mode of gold-sulphide composition with emphasis on the degree of surface enrichment. The soil anomaly south of the Eagle Vein should be trenched.

INTRODUCTION

The first drilling program on the narrow but extensive gold-arsenopyrite-quartz veins at Dublin Gulch, Yukon, was completed in August 1986 by Queenstake Resources Ltd. This report discussed the results of this drilling program.

Numerous veins were discovered prior to 1904 as a result of follow-up to rich placer mining in Dublin Gulch and Haggart Creek. Over 450 meters of underground work had been completed on the four principal vein systems before 1930. Although an extensive surface trenching and geological mapping program was carried out in 1980, no drilling was attempted. Considerable diamond drilling was done on the Ray Gulch scheelite skarn deposit in 1979 to 1982.

Previous work indicated that the veins are narrow and range from a few centimeters to a maximum of about one meter. Gold content in the near surface portion of the veins appeared to be fairly irregular but relatively high grade and ranged between 0.5 oz/ton Au to several ounces per ton gold.

Objectives of the 1986 diamond drilling were:

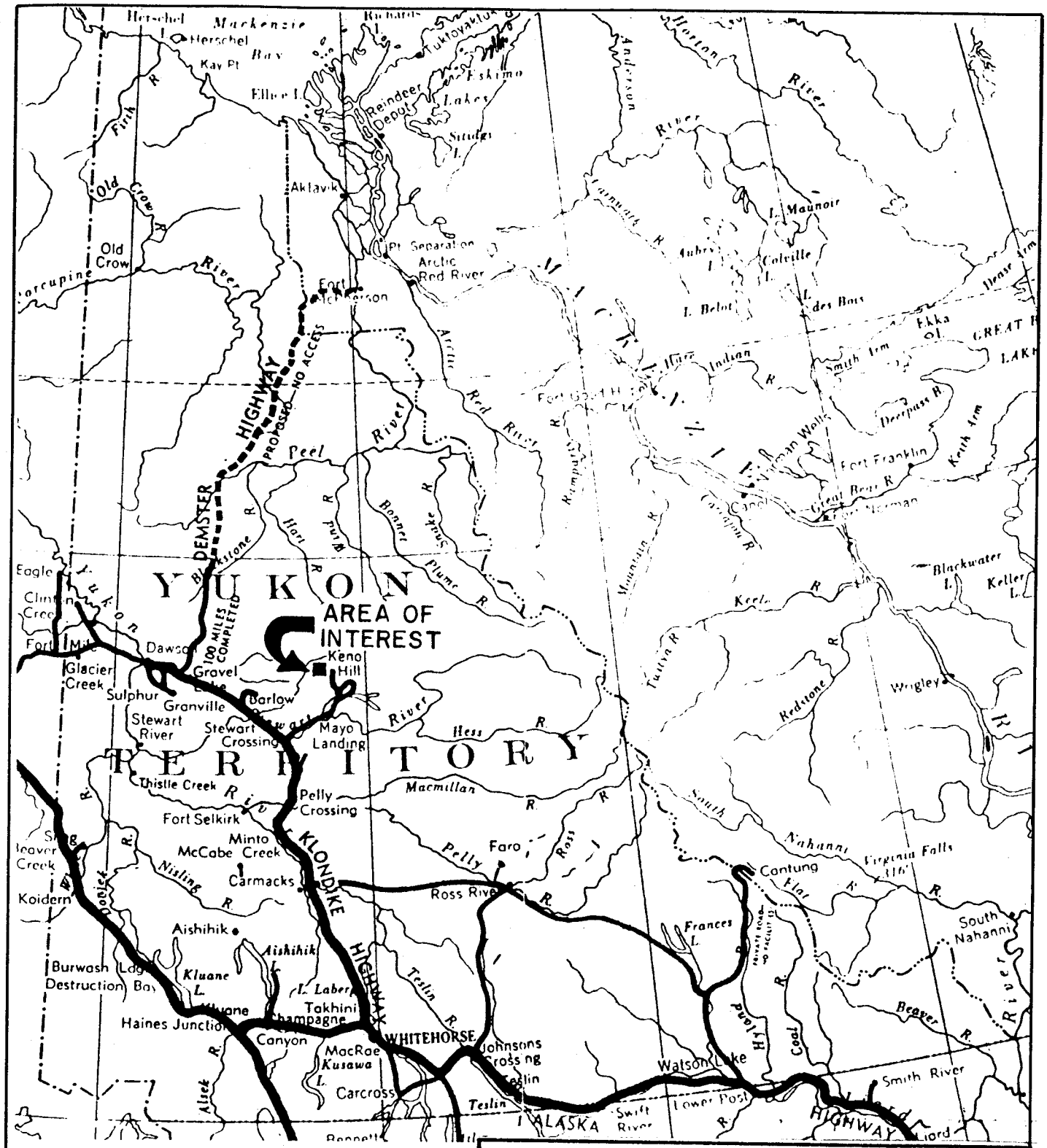
(1) test the down-dip continuity of the Catto and Victoria vein systems (Stewart-Catto Area);

(2) test the strike continuity at depth of the Catto and Victoria vein systems (Stewart-Catto Area);

(3) check for possible sampling errors in the surface trenching program (especially surface enrichment of gold values);

(4) generally assess the exploration potential of the numerous other vein systems.

Infrastructure for a small-scale hardrock mining operation is surprisingly well developed at Dublin Gulch. For example, there is a good road access, United Keno Hill Mines Ltd. has a currently unused cyanide circuit at the nearby Elsa concentrator and large scale, public hydro-electric power is available at Mayo Lake.



QUEENSTAKE RESOURCES LTD.

DUBLIN GULCH AREA

MAYO M.D., YUKON

LOCATION MAP

PROJECT:	MAR GOLD
ENG.:	TRM ENGINEERING LTD.
DATE : AUGUST, 1986	FIGURE 1

LOCATION AND ACCESS

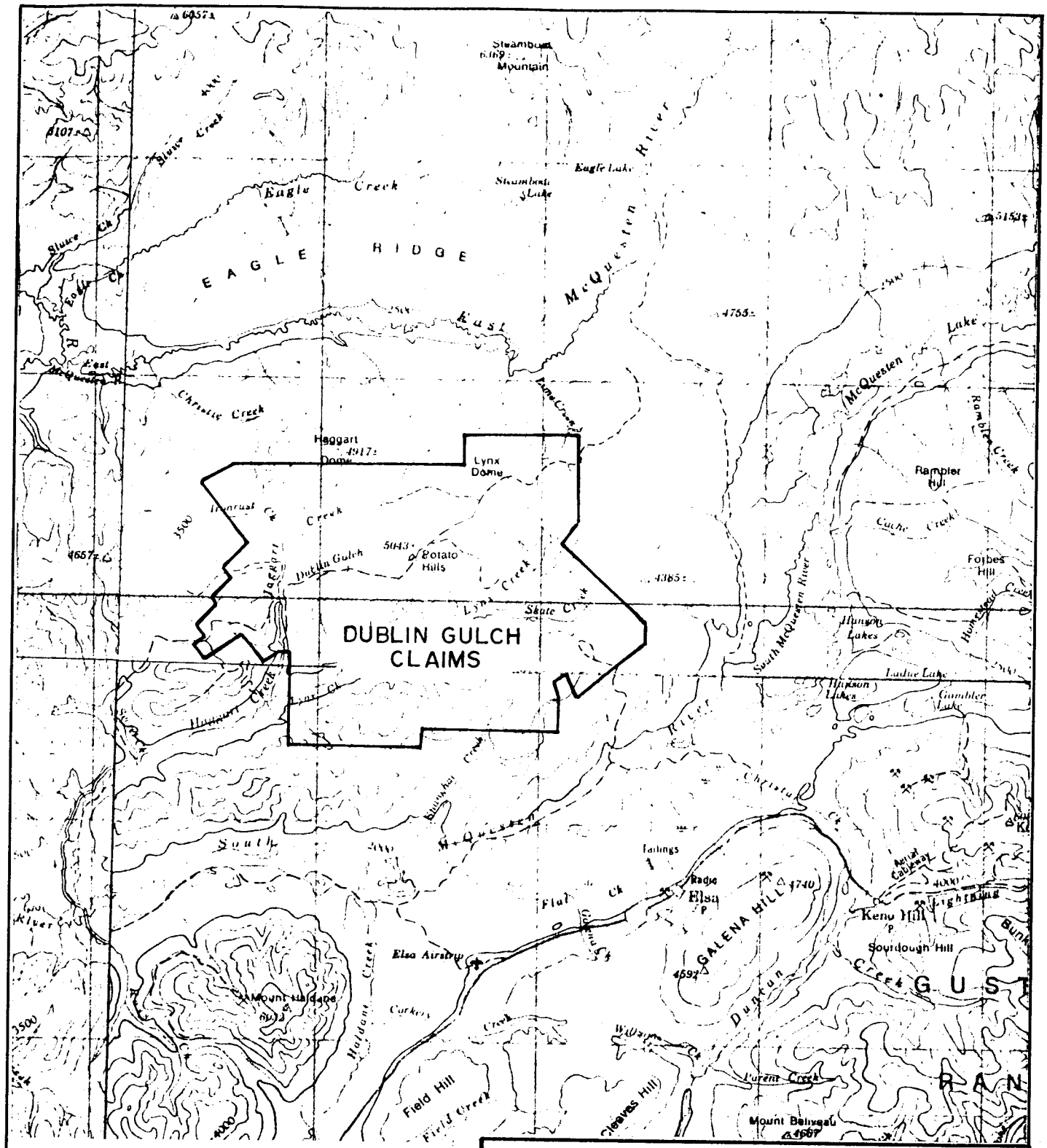
The Mar Gold Project is located in central Yukon approximately 40 km northeast of Mayo centered at 64°02' and 135°50', NTS 106D/4, Figure 1. Access is by gravel road 90 km from Mayo. An all-weather road (Highway 11) leads to the South McQuesten River turn-off, 39.2 km northeast of Mayo and 9 km southwest of Elsa. An excellent secondary gravel road of 42.9 km connects Highway 11 to Haggart Creek. The improved dirt road along Haggart Creek to Dublin Gulch is 6.5 km long.

The area is characterized by a plateau at about the 1,400 meter level which is incised by broad, steep walled valleys. Overburden is relatively thin, generally less than 2 meters near the drillsites. Lower elevations are covered with dense spruce forests which thin to buckbrush sub-alpine vegetation at the 1,200 meter level.

CLAIM STATUS

A large number of claims were located in 1980 to cover the periphery of the older claims groups, Figure 3. Most of these peripheral claims are no longer part of the claim group under consideration. A series of complicated, overlapping option agreements have resulted in a transfer of claims between owners. In 1986, Canada Tungsten Mining Corp. assigned its ownership and option agreements to Queenstake Resources Ltd. A one-mile radius clause in the agreement with G. Dickson covers the main Stewart-Catto Area where the 1986 diamond drilling was completed.

A summary of hardrock claims in the Dublin Gulch Area held under option by Queenstake Resources Ltd. is contained in Table 1.



QUEENSTAKE RESOURCES LTD.

DUBLIN GULCH AREA
MAYO M.D., YUKON

DETAIL LOCATION MAP

PROJECT :	MAR GOLD
ENG. :	TRM ENGINEERING LTD.
DATE : AUGUST, 1986	FIGURE 2

Table 1

Summary List of Claims

CLAIM	GRANT NUMBERS	EXPIRY DATE
Alec 1- 8	YA30048-YA30055 inclusive	October 1, 1992
Alec 9-40	YA30088-YA30119 inclusive	October 1, 1992
Alec 41-45	YA17996-YA18000 inclusive	October 1, 1992
Alec 46-60	YA30001-YA30015 inclusive	October 1, 1992
Alec 61Fr-76Fr	YA42987-YA43002 inclusive	October 1, 1990
Bob 53-65	YA17781-YA17893 inclusive	October 1, 1992
Bob 66-73	YA17794-YA17801 inclusive	October 1, 1990
Bob 76Fr-81Fr	YA43005-YA43010 inclusive	October 1, 1990
Dave 1, 3	YA17802, YA17804	October 1, 1992
Dave 5-12	YA17806-YA17813 inclusive	October 1, 1992
Dave 17-24	YA17818-YA17825 inclusive	October 1, 1992
Dave 26Fr/29Fr/30Fr	YA42971, YA42974, YA42975	September 29, 1990
Dave 31Fr-34Fr	YA43015-YA43018 inclusive	October 1, 1990
Fiji 1Fr	YA63884	October 1, 1987
Fiji 3Fr-6Fr	YA63886-YA63889 inclusive	October 1, 1987
Jeff 1-93	YA17826-YA17881 inclusive	October 1, 1992
Jeff 64-93	YA30120-YA30127 inclusive	October 1, 1992
Jeff 94-96	YA17882-YA17929 inclusive	October 1, 1990
Jeff 97-103		October 1, 1992
Jeff 104-112		October 1, 1990
Jeff 113Fr, 114Fr	YA42976, YA42977	October 1, 1990
Jeff 116Fr-120Fr	YA42979-YA42983 inclusive	September 29, 1990 (except Jeff 117Fr, 1986)
Jeff 121Fr-154Fr	YA43067-YA43099 inclusive	September 29, 1990
Mar 1-24	YA14896-YA14919 inclusive	October 1, 1992
Mar 25-30	YA17104-YA17109 inclusive	October 5, 1992
Mar 31Fr	YA42984	September 29, 1990
Mar 32Fr-43Fr	YA3100-YA3111 inclusive	October 1, 1990
Mary 1Fr-8Fr	YA63876-YA63883 inclusive	October 1, 1987
Mole 1- 6	YA41643-YA41648 inclusive	October 1, 1986
Mole 6-11	YA41649-YA41653 inclusive	October 1, 1990
Mole 14, 16	YA41654, YA41655	October 1, 1996
Mole 17-24Fr	YA43112-YA43119 inclusive	October 1, 1986
R.D. 1- 8	YA1393-YA1400 inclusive	October 1, 1992
R.D. 10, 12	YA1402, YA1404	October 1, 1992
R.D. 14-16	YA1406-YA1408 inclusive	October 1, 1992

Expiry Date
Oct., 1986

Expiry Date
Oct., 1986

Expiry Date
Oct., 1986

DG

BOB

JEFF

TIN DOME

R.D.

1986 DRILLED AREA

MAR

DAVE

ALEC

SMOKY

MOLE

DG.1

AREA TRENCHED

Dublin Gulch

Haggart Creek

C.J.

LEN CLAIMS
(G. DICKSON)

WEASEL

N

Magnetic declination
33° 24'
1986

LEGEND

Claim outline 1990

DG Option

REDUCED FROM BARTLETT 1981
FROM 1 : 31,680

0 1000 2000 m

SCALE 1 : 50,000

QUEENSTAKE RESOURCES LTD.

DUBLIN GULCH AREA
MAYO M.D., YUKON
CLAIM MAP

PROJECT:	MAR GOLD
ENG.:	TRM ENGINEERING LTD.
DATE: AUGUST, 1986	FIGURE 3

FOLD OUT →

Table 1 (cont'd)

Summary List of Claims

CLAIM	GRANT NUMBERS	EXPIRY DATE
Smoky 18, 20, 22	YA17947, YA17949, YA17951	October 1, 1992
Smoky 24, 26, 28	YA17953, YA17955, YA17957	October 1, 1992
Smoky 30-31	YA17959-YA17960 inclusive	October 1, 1992
Smoky 32	YA17961	October 1, 1992
Smoky 33	YA17962	October 1, 1992
Smoky 34	YA17963	October 1, 1992
Smoky 35	YA17964	October 1, 1992
Smoky 36, 37	YA17965, YA17966	October 1, 1992
Smoky 38-40	YA17967-YA17969 inclusive	October 1, 1992
Smoky 41-43	YA17970-YA17972 inclusive	October 1, 1992
Smoky 44, 46, 48, 50	YA30072, YA30074, YA17973, YA17975	October 1, 1992
Smoky 58-61	YA17979-YA17981 inclusive	October 1, 1992
Smoky 61	YA17982	October 1, 1990
Smoky 70-72	YA17987-YA17989 inclusive	October 1, 1992
Smoky 73	YA17990	October 1, 1990
Smoky 80-82	YA17993-YA17995 inclusive	October 1, 1992
Smoky 105Fr-112Fr	YA43142-YA43149 inclusive	October 1, 1990
	TOTAL - 414	

FIELD PROCEDURES

The drillsites were selected on the basis of information gathered initially by Stewart and Catto around 1910 from limited underground drifting and from the extensive trenching program conducted in 1980. No diamond drilling has been done on these gold-quartz veins in the past.

A metric property grid was established in 1978 to facilitate an evaluation program which outlined a large tungsten deposit on the nearby Mar claims at Potato Hills (Ray Gulch). Transit survey points in the Stewart-Catto Area established in 1980 were used to orient the present drillsites. More precise points on iron rods placed later by Underhill & Underhill Ltd. were noted near the first drillsite. The 1986 diamond drill collars were surveyed by Underhill and Underhill as well. Because the majority of the previous work had been done in metric units, a decision to

continue with metric work for the 1986 diamond drilling was appropriate. The magnetic declination used was 33°24' W. Drillsites were placed in relationship to transit points and distinctive trenches using a Brunton compass and chain. Preparation of drillsites was done with a D8K Caterpillar tractor bulldozer. Exceptionally wet weather during the start of the drill program necessitated the used of a Polaris all-terrain vehicle to transport drill personnel and core along the steep hillside.

All mineralized drill core was split in a shed on the property and one-half sent to Bondar Clegg & Company Ltd. in Whitehorse for gold and silver determination by fire assay. Analytical procedures are outlined in Appendix V. The splitting shed was locked at all times when splitting was not taking place. Sample intervals were marked in red lumber crayon with the appropriate assay ticket placed at the end of the interval. This assay ticket was left in the core box as an additional record of the exact interval and checked carefully against the prepared bag into which the sample was placed. These procedures assist in eliminating errors in sample preparation.

Drill logs are contained in Appendix VII. Each hole was logged in a comprehensive fashion before splitting, and percentage of core recovery was calculated against the drilling interval, marked on wooden blocks. Final logging was carried out after the core was split. Drilling was done in feet and converted to meters for logging and sampling using the conversion 1 foot = 0.3048 meters. Core recovery was consistently high except for the initial 3 to 4 meters of most holes and some mineralized zones.

The distinctive elements of the drill logs (Appendix VII) include a visual pattern log with symbols for rock type and other columns for: (1) alteration such as silica, sericite, chlorite and calcite; (2) fracturing; (3) sulfide content; (4) box number; (5) drilling interval; and (6) associated core recovery for each interval. A normal written log accompanies the appropriate part of the visual log. Gold values are shown in the far right column. Colour photographs were taken of all core to supplement the fracture record (on back of drill records) in the event rock mechanic calculations are required.

Each wooden core box was labelled with a metal Dymo strip showing hole number, box number and contained interval. All core from the present program is stored in steel racks at the Upper Placer camp core handling facility, under a metal reinforced roof. The grid coordinates of the core storage building are 459,650 E + 7,101,090 N.

HISTORY

The following historical summary is taken mainly from Bartlett (1981) and notes from Atled Exploration Management Ltd. (May 1978).

The Dublin Gulch area has a long history of mining activity dating back to the Klondike gold rush days of the last century. Placer gold was discovered in Haggart Creek and Dublin Gulch in 1898 and 1899. The creeks were worked sporadically during the early stages and it wasn't until 1904 that scheelite was identified in the placer deposits. In 1908 Cockfield located scheelite and wolframite in quartz veins and pegmatitic veins at the head of Dublin Gulch. These lode discoveries, coupled with increasing amounts of gold and tungsten being recovered from placer operations, resulted in a flurry of exploration activity for additional lode deposits from 1913 to 1916.

A major vein fissure system containing gold, arsenopyrite and silver was discovered on the north facing slopes of the ridge to the south of Dublin Creek. In 1907 J.S. Stewart and Dr. William Catto located the Victoria claim, the first quartz claim staked in Dublin Gulch. Eventually ten veins were discovered between Stewart and Olive Gulches. Other veins belonging to this vein-fissure system were discovered in Eagle Pup, Suttle Pup, Platinum Pup, Bawn Boy Pup and near the junction of Cascallen Pup and Dublin Creek. One prospect, covered by the Independence claim, was located on the ridge above Gill Gulch, west of Haggart Creek. A number of the veins were reported to extend for more than 61 meters (200 feet) with widths up to 3 meters (10 feet) (McLean, 1914).

The early history of the area is detailed in the reports of the Federal Department of Mines; particularly in reports by T.A. McLean, 1914, and D.D. Cairnes, 1915. Dr. W.E. Cockfield of the Geological Survey of Canada reported many of the above occurrences in 1918.

From 1916 to 1918 Mr. Robert Fisher prospected around the headwaters of Dublin Gulch and located several small lode occurrences of scheelite. Little or no work was conducted on these showings. Cockfield (1928) reported that the

scheelite in the placer deposits was emanating from quartz veins and pegmatitic veins found in and adjacent to the main Dublin Gulch Stock. The veins varied in width from 1/8 of an inch (3 millimeters) to over 5 feet (1.5 meters). Assays range from nil to 10% WO_3.

In 1916 cassiterite was first recognized in placer concentrates. The placer cassiterite appeared to emanate from Ann Gulch and further prospecting led to the discovery of two tin, tourmaline-quartz veins on Tin Dome in 1943. In 1945 Cominco drove a short adit of 56 feet (17 meters) but did not intersect the vein. Gordon Dickson staked 56 mineral claims over the Tin Dome showings. The claims were optioned to Canada Tungsten Mining Corporation Limited in 1978. From 1934 into the 1940's, Taylor, Blyler and others worked the placer deposits at Dublin Gulch.

Harvey Ray, a prospector, located scheelite-bearing float in Ray Gulch in 1942. The source areas were not located until 1943 when a G.S.C. party member located several skarn zones at the headwaters of Ray Gulch and other gulches cutting the steep southerly facing slope. All the gulches lead into Lynx Creek.

Mayo Silver Mines Ltd. located a 2-1/2 foot (76 centimeter) arsenopyrite-quartz vein on the east side of the headwaters of Ray Gulch. Mr. C. Provencher staked the Ray Gulch and Dublin Gulch area in 1968. The ground was optioned to Great Plains Development Ltd. in 1968, Tam Mining in 1969 and Connaught Mines Ltd. from 1969 to 1971. In 1970 Connaught subleased the property to Canex-Placer. In 1970 and 1971 Canex- Placer conducted an extensive soil geochemistry program that extended from Platinum Pup to the Potato Hills and covered the south side of Dublin Gulch.

Canex drilled 2,000 feet (610 meters) and cut 20 bulldozer trenches in the Dublin Gulch-Bawn Boy Pup area. The work was primarily confined to the granodiorite stock with the intent of developing a large, low-grade, scheelite-bearing quartz vein stockwork system. No work was done in the Ray Gulch area.

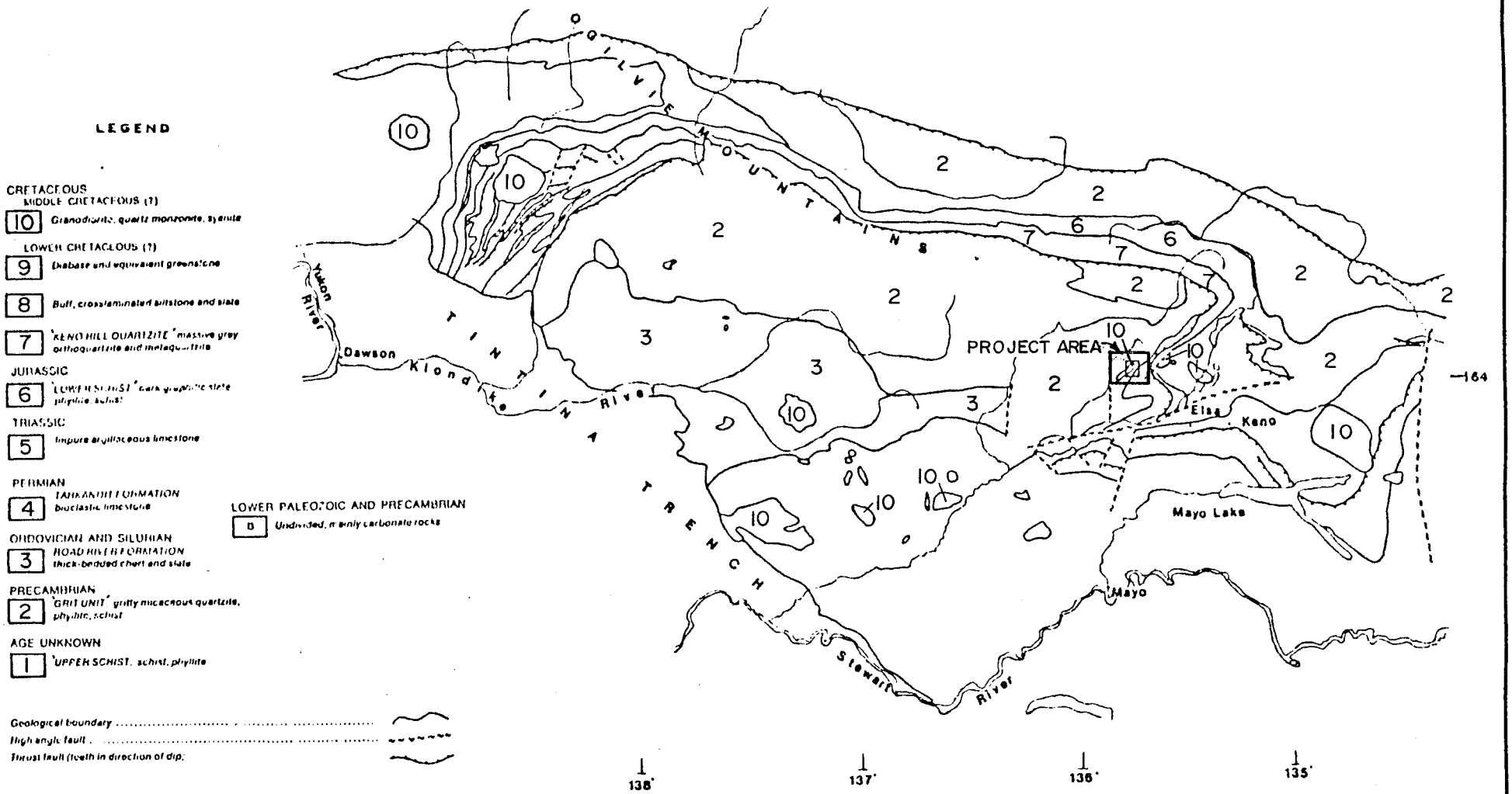
In March of 1977 Gordon Gutrath of Queenstake Resources Ltd. staked 24 Mar claims in the Ray Gulch drainage area. In October of 1977 Mr. Gutrath staked the Mar 25 to 30 claims which lie adjacent and to the east of the Mar 1-24 claims. Queenstake conducted a small program of geological mapping and sampling of the skarn zones in the Ray Gulch areas. Canada Tungsten Mining Corporation Limited optioned the Mar claims from Queenstake during the summer of 1978. Following ground acquisition by staking in 1978 by Canada Tungsten Mining Corporation Limited, a preliminary field program was conducted. Encouraging results in that year led to an extensive 1979 exploration program involving 2,422 meters (7,946 feet) of BQ core drilling in 21 holes. In 1980 Bema Industries Ltd. was retained to manage the project and a large program including 11,315 meters (37,123 feet) of NQ and BQ core drilling was conducted.

GEOLOGY - (A) REGIONAL

Due to the extensive placer mining activity in the Haggart Creek-Dublin Gulch area and nearby Keno Hill Silver District, the regional geological environment is relatively well known (Figure 4). Short geological investigations were initiated by Keele in 1904 and detail mapping completed by H.S. Bostock around Potato Hills in 1942 and 1943 at a scale of 1 inch = 2,000 feet. Regional geological compilations were published by Bostock (Map 890A - Mayo, 1946) and Green and Roddick (Map 1282A - Nash Creek, work in 1961 published in 1972). D.J. Tempelman-Kluit completed a M.A.Sc. thesis in 1964 entitled Geology of the Haggart Creek-Dublin Gulch area.

In spite of this large volume of work, the structural and lithological details are obscure due to complex conditions and lack of marker or datable fossil horizons. Large-scale isoclinal folding and possibly overthrusting of Proterozoic units structurally above apparently Lower Paleozoic quartzite has resulted in the juxtaposition of lithologically similar rocks of widely differing age.

The following discussion is largely taken from the above work and Orssich, 1981.



Redrawn from D.J. Tempelman-Kluit 1970

QUEENSTAKE RESOURCES LTD.	
DUBLIN GULCH AREA MAYO M.D., YUKON REGIONAL GEOLOGY	
PROJECT:	MAR GOLD
ENG.:	TRM ENGINEERING LTD.
DATE: AUGUST, 1986	FIGURE 4

The Lower Schist division is the lowest unit in the stratigraphic column in the area and is overlain successively by the Keno Hill Quartzite, Upper Schist division and Grit Unit. The Lower Schist division consists of graphitic phyllite and schist, quartz-sericite phyllite and schist and thinly bedded fine-grained phyllitic quartzite. The Keno Hill Quartzite consists predominantly of a thick-bedded, massive, light grey quartzite with small interbeds of graphitic phyllite and schist. The Upper Schist strongly resembles the Lower Schist but has interbeds of limestone and some thick bedded quartzite resembling that of the Keno Hill Quartzite as well. The Grit Unit is composed of light buff to grey-green, recrystallized gritty quartzite, phyllitic quartzite, green, grey, black and maroon argillite and phyllite and thin bands of limestone.

Green and Roddick found fossiliferous limestone immediately below the Lower Schist. The fossils, examined by E.W. Barber of the Geological Survey of Canada, date the limestone as Permian in age (Green, 1972). Tempelman-Kluit (1970) mapped two formations the length of the Keno Hill-Tombstone River belt, which may be equivalent to the Lower Schist and Keno Hill Quartzite in the Keno Hill area. Stratigraphic evidence in the Tombstone area indicates a Jurassic age for the Lower Schist and a Lower Cretaceous age for the Keno Hill Quartzite. This Cretaceous age is somewhat controversial. Recent conodont studies for the Keno Hill Quartzite give a preliminary Ordovician date (G. Lynch, pers. comm. 1986).

Granitic intrusions postdate the deformation of the metasediment and Tempelman-Kluit (1970) postulated an early Late-Cretaceous time of emplacement based on K-Ar dating of plutons in the Selwyn Fold Belt. The intrusions are generally granite, quartz monzonite, granodiorite or quartz diorite in composition.

Most of the intrusions occur in the Grit Unit with a few in the Upper Schist and Road River formation and even fewer in the Keno Hill Quartzite and Lower Schist. The stock at Dublin Gulch occurs near the contact between Upper Schist and the Grit Unit and different authors have placed the contact in different places so that on some maps the rocks at Dublin Gulch occur in Upper Schist and on others in the Grit Unit. Based on lithologic descriptions of the two rock units by Green (1971), the rocks at Dublin Gulch are considered to belong to part of the Grit Unit. All the more recent publications place Dublin Gulch in the Grit Unit.

The dominant structures of the northern Ogilvie Mountains are a series of open, east-west trending folds with several minor south-dipping thrust faults. An older period of deformation affected only Precambrian strata. The structure of the southern Ogilvie Mountains, the Keno Hill-Tombstone River belt, is characterized by two major south-dipping thrust faults or fold limbs that repeat Precambrian and younger rocks bringing them up above late Paleozoic and Mesozoic strata (Tempelman-Kluit, 1970; Green and Roddick, 1962). In the Mayo district the thrust faults and the strata between them have been folded and faulted by younger deformation. The "McQueston Anticline", an east-west trending structure, was accompanied by the development of foliation and isoclinal folding. Isoclinal folding is best seen in the Keno Hill Quartzite in which folds from a meter to a few hundred meters between the limbs occur. The axial planes of the folds are usually parallel to the regional strike and dip of the units. A younger period of deformation then folded the already complexly folded and faulted rocks of the Mayo Lake area along a southeast plunging axis to form the Mayo Lake Anticline (Green, 1971; McTaggart, 1960).

Green (1972) suggested the possibility that the McQueston and Mayo Lake Anticlines may have formed in the same phase of deformation in which the thrust faulting occurred by buckling of the thrust sheet.

The rocks in the Keno Hill-Tombstone River belt are relatively unmetamorphosed, with a zone of greenschist metamorphism centered on Keno Hill. The geometry of the McQueston Lake and Mayo Lake anticline with respect to the zone of greenschist metamorphism suggests that the rocks now exposed in the Mayo district originated at greater depth and that they have been brought up to the surface by folding (Tempelman-Kluit, 1970).

GEOLOGY - (B) LOCAL

Detail geological mapping has been completed in the Dublin Gulch area by Bostock (1943), Tempelman-Kluit (1964) and Bartlett (1980), Figure 5.

Common rock types are quartzites, schists and andalusite hornfels and gneisses. Quartzites are generally micaceous and contain interbedded phyllite. The quartz-biotite schist consists of interlaminated biotite and quartz-rich laminations. The biotite laminations are generally about 3 mm thick and the individual grains about 0.05 to 0.1 mm in size. The biotite grains show a weak preferred orientation parallel to the laminations. The quartz laminations vary from 0.5 to 3.0 cm in thickness and individual granoblastic quartz grains are about 0.1 to 0.5 mm in size.

The Dublin Gulch Stock is the largest granodiorite body in the area and extends for over 5 kilometers from Platinum Pup to the Potato Hills. In addition to this large stock, numerous other granodiorite bodies occur about the property. West of Haggart Creek several sill-like bodies of medium grained granodiorite are present. In Dublin Gulch, at the junction of Olive Gulch, a small granodiorite intrusion formerly mapped as quartz monzonite occurs. Another small intrusion occurs east of the Potato Hills.

The Dublin Gulch Stock consists of medium to coarse grained, uniformly textured biotite granodiorite. A typical sample contained 40-45% plagioclase, 20-25% biotite, 2-3% hornblende and lesser amounts of several accessory minerals. Locally coarse Na-feldspar phenocrysts give the rock a porphyritic appearance. This rock type has been referred to as a megaporphyry. The intrusion at the junction of Olive and Dublin Gulch is a subsidiary of the main stock and differs only in the amount of alteration. The small intrusion shows zones of strong silica alteration adjacent to closely spaced quartz veined fractures.

Dyke and sill apophyses of the main Dublic Gulch Stock occur both north and south of the intrusion. They are more strongly developed south of the pluton where several large sill and dyke-like sheets cut the stratigraphic section and may control the emplacement of scheelite-bearing skarns.

Two major periods of deformation are recognized in the district. The first resulted in large scale overthrusting and both large and small scale complex folding. It was during this earlier deformation that the pervasive foliation observed throughout the district was developed. This was a period of intense shearing and is probably the time during which the greenstone units were deformed and

developed their characteristic boudinage. A younger period of deformation is characterized by the development of broad open folds such as the Mayo Lake anticline and the subsidiary McQuesten Valley and Lynx Creek anticlines. It is during this period of deformation that the emplacement of the Dublin Gulch Stock occurred.

Several generations of faults may be present in the Dublin Gulch area but these are not well recognized and their development is poorly understood. Tempelman-Kluit (1964) conducted the most thorough structural investigation and located several faults and proposed several others. In addition to these, a major zone of structural weakness trends northeasterly across the property. The Dublin Gulch Stock and the gold-quartz vein-fissure system occur within this zone of weakness. Numerous minor faults possibly related to the emplacement of the granitic rocks are present.

The most prominent faults occur in the creek valleys of the major drainage systems, such as Haggart Creek and Dublin Creek. Similar faults could occur in upper Haggart Creek, Fisher Gulch and in Gill Gulch. Several other important faults are present. The Tin Dome Fault which crosscuts the southeast slope of Tin Dome has been explored for cassiterite. A fault up Ray Gulch which passes between the Potato Hills and the subsidiary West Ray Gulch fault are apparent.

MINERALIZATION AND DRILL RESULTS

The gold-sulfide-quartz vein systems have been studied in the past by surface trenching, detailed geological mapping, shallow underground drifting, preliminary metallurgical testing and mineralography.

The veins are sub-parallel, en echelon gold and silver-bearing quartz-arsenopyrite-sphalerite-pyrite and siderite-pyrite-jamesonite-arsenopyrite fissure systems which occur along an overall north 60° east trend between

Secret Creek in the west and the Potato Hills to the east. Veins occur over more than 12 kilometers (7.5 miles) along trend and are exposed over a width of more than 3 kilometers (2.0 miles) west of Haggart Creek and over a width of 2 kilometers (1.25 miles) east of Haggart Creek. A number of quartz-arsenopyrite-pyrite veins have been observed in diamond drill core from the skarn-zone south of the Dublin Gulch Stock. By 1981, more than 50 individual "occurrences" had been discovered ranging in width from several millimeters (1/4 inch) to in excess of 9 meters (30 feet). The system is divided physically into two distinct areas by Haggart Creek. The area east of Haggart Creek has been prospected for gold in the course of the 1980 trenching and 1986 drilling programs. The area west of Haggart Creek has been explored by Peso Silver Mines Ltd. in search of silver but has not been evaluated for gold. The information presented pertaining to this west area is drawn from the work of D.J. Tempelman-Kluit (1964) and from the limited 1980 assessment program conducted by Bema Industries Ltd.

The geology and mineralogy of the system east of Haggart Creek has been described in detail by Bartlett (1980). Detailed trenching of portions of the zone during 1980 provided valuable information on the nature of the vein system and in some areas has revealed a more complex mineralogy than indicated by the 1979 work. From the 1980 fieldwork it is recognized that the veins occur in a zone more than 2 kilometers (1.25 miles) wide. Veins observed in 1979 were in or sub-parallel to the Dublin Gulch stock and occurred within a few hundred meters of the exposed contact. The 1980 program was initially planned to test the area along the length of the stock but was modified as the potential of areas farther away from the pluton was realized.

All surface and available shallow underground samples are highly oxidized. Payne (1982) describes a typical vein material as follows:

arsenopyrite	7-10%
scorodite	45-50
quartz (early)	10-12
pyrite	0.3
limonite-hematite	3-5
Mineral X	2-3
quartz (late)	15-20
cavities	5-7
Ti-oxide	trace

The original quartz vein consisted of patches of fine to medium grained arsenopyrite intergrown with medium to coarse grained quartz. The veins have been highly fractured by repeated movement along the vein fissure zone subsequent to deposition of the quartz. Payne (1982) noted one vein-like hairline up to 1 mm wide that has a very fine grained texture suggestive of recrystallization under shearing stress. On oxidation, Payne suggests that:

"Some patches of the rock contain angular fragments of quartz from 0.1-0.2 mm in size surrounded by extremely fine to very fine grained scorodite; the texture resembles a breccia with moderate replacement of quartz by the matrix. Elsewhere, quartz commonly is cut by veinlets of scorodite. These textures suggest a moderate replacement of quartz during weathering, with secondary enrichment of scorodite at the expense of quartz.

Both early and late quartz are cut by scorodite veinlets. The scorodite cutting later quartz veins commonly is coarser grained than normal (average 0.01-0.02 mm) and more granular in texture than earlier scorodite. This data suggests that remobilization and recrystallization of scorodite occurred after emplacement of the later quartz veins.

The rock contains abundant cavities where arsenopyrite has been weathered.

No chalcedonic quartz was seen."

The most significant vein occurrences have been listed by Bartlett (1980) as follows:

Table 2

Significant Gold-Quartz Vein Occurrences

Vein or Occurrence	Location
1. Creek Zone West Fissure	Dublin Creek at the mouth of Suttle Gulch.
2. Creek Zone East Fissure	Dublin Creek 150 meters (492 feet) upstream from Eagle Pup.

Table 2 (cont'd)

Significant Gold-Quartz Vein Occurrences

Vein or Occurrence	Location
3. Eagle Vein	Ridge west of Eagle Pup.
4. Scarp Vein	Ridge west of Eagle Pup, 100 meters (328 feet) north of the Eagle shafts.
5. Henderson Vein	Ridge west of Stewart Gulch, 100 meters (328 feet) south of access road (trenches GTR-48 to GTR-50).
6. Blue Lead Shaft Vein	Ridge west of Stewart Gulch, 80 meters (262 feet) south of granodiorite stock-metasediment contact.
7. Blue Vein	Fifty meters south of the Blue Lead shaft.
8. Stewart Vein	West side of Stewart Gulch at L36+800E and 11+075N.
9. No. 15 Vein	East side of Stewart Gulch in trench GTR-15 at L37+000E and 11+125N.
10. Cabin Vein	East side of Stewart Gulch in Beaver Adit and in trench GTR-4.
11. Klippert Vein	Ridge east of Stewart Gulch in trenches GTR-8 and GTR-9.
12. No. 45 Vein	Ridge east of Stewart Gulch in trench GTR-45 at L37+325E and 11+019N.
13. No. 5 Structure	Ridge east of Stewart Gulch in trenches GTR-5, GTR-5W, GTR-16 and GTR-17.
14. No. 17 West Vein	Trenches GET-17W, GET-43 and GET-44, 25 meters (82 feet) south of No. 5 Structure.

Table 2 (cont'd)

Significant Gold-Quartz Vein Occurrences

Vein or Occurrence	Location
15. No. 24 Vein	Ridge between Olive and Stewart Gulches in trench GTR-24, 50 meters (160 feet) west of Aurum Adit.
16. No. 23 Vein	75 meters (240 feet) south of Aurum Adit in trench GTR-23, ten meters (33 feet) from the south end.
17. Victoria Vein	Aurum Adit 27 meters from the portal and in trenches GTR-3, GTR-23 and GTR-25.
18. Aurum No. 2 Vein	Aurum Adit, 5 meters (16 feet) south of Victoria Vein.
19. Catto Vein	GTR-2, 100 meters (328 feet) south of Aurum Adit portal.
20. Green Vein	Olive Gulch, 20 meters west of the Creek at L37+600E and 10+880N.
21. Olive Vein	West side of Olive Gulch near L37+900E and 10+975N.
22. Shamrock Vein	On the old Carscallen Claim 15 meters (49 feet) north of Dublin Creek near L38+650E and 11+100N.
23. Carscallen Vein	On the old Carscallen claim at L38+650E and 11+100N.
24. C.B. No. 1 Vein	North side of West Potato Hill in trench PGT-1.
25. C.B. No. 2 Vein	North side of West Potato Hill in trench PGT-2.
26. Tin Dom Occurrence	North side of Tin Dome near the summit.

Table 2 (cont'd)

Significant Gold-Quartz Vein Occurrences

Vein or Occurrence	Location
27. Kuzmiski Occurrence	Dublin Creek, 100 meters (328 feet) upstream from the Holoway placer workings.
28. JM Occurrence	On the Potato Hills access road, south of Dublin Creek upstream from the mouth of Olive Gulch.
29. Road Occurrence	On the Potato Hills access road, 200 meters (656 feet) south of the Olive Vein showing.

Descriptions of the main vein showings are included below (from Bartlett, 1980) for completeness.

Creek Zone West Fissure

The Creek Zone West Fissure hosts a number of pyrite-arsenopyrite showings which occur sporadically over 175 meters (574 feet) in the south fork of Dublin Creek. The occurrences crop out in the creek bed exposed by 1979 placer mining and are centered at the confluence of Suttle Pup approximately 500 meters (1,640 feet) downstream from the old Upper Placer camp. There appears to be no record of the occurrences prior to their discovery in August of 1979.

Pyrite and arsenopyrite as well as minor amounts of sphalerite and chalcopyrite occur as masses and disseminations in a north 70° east-trending shear zone which ranges to 60 meters wide. Rocks within this zone consist of interbedded phyllite and quartzite with very minor limestone which strike northeasterly. Phyllite is grey to black in colour and is commonly highly contorted. Minor fold structures believed to be drag folds are common in the exposed bedrock. Quartzite is light grey to black and often contains up to 10% disseminated pyrite and euhedral arsenopyrite. Individual units to 1 meter thick are present and comprise about 15% of the section. It is usually fine grained and is sometimes bleached. One

horizon of black micritic limestone is present and occurs near the top of the section in the northwest portion of the area.

Crosscutting the stratigraphy at a low oblique angle is a pervasive shear foliation which forms clay gouge zones. These zones range up to 7 meters in width and consist of soft grey-blue clay with phyllite fragments. Some sections contain irregular pods of massive pyrite with arsenopyrite. Where the gouge is eroded blocks of massive sulphide are found in the creek bed. Large blocks found indicate that sulphide pods up to 60 centimeters wide occur in this shear zone. These sulphides plus the minor amount of disseminated sulphide present weather to create a widespread orange limonite stain. In addition, white crusts of sulphate occur on surface throughout the zone.

There are two major showings in the Creek Zone West, one discovered in 1979 at 35+490E and 12+056N and the other discovered during 1980 at 35+367E and 12+100N. The material at 35+490E and 12+056N consists of massive pyrite with arsenopyrite and minor sphalerite and chalcopyrite. The sulphide occurs for 15 meters in a gouge zone which has a strike length of at least 45 meters and is over 7 meters wide. Six grab samples of the material have been collected from an area in which the gouge zone crops out in the south bank of the creek. Assay values for gold range from 0.126 ounces per ton to 0.474 ounces per ton. Silver values from these same samples range from 1.00 ounce per ton to 5.88 ounces per ton.

The second significant occurrence lies 125 meters to the west at 35+367E and 12+100N and consists of a narrow gouge zone which contains coarse euhedral pyrite cubes cemented by fine grained arsenopyrite. The zone is 1 meter wide and cuts through sulphide rich, grey, foliated quartzite. Six grab samples collected from this zone gave gold values of 0.094 ounces per ton to 0.156 ounces per ton.

In addition to the 12 analyses mentioned above, another 101 grab and channel samples were collected. Most of the samples were 1 meter channel samples but samples across widths of up to 7 meters were also collected. The remaining samples were grab samples, of which three were submitted for a 20 element, semi-quantitative, spectrographic analysis. Of the samples submitted, 13 contained more than 0.100 ounces of gold per ton and all but one of these samples are intimately associated with sulphide material. The Creek Zone West is the largest structure discovered to date east of Haggart Creek.

Creek Zone East Fissure

Massive pyrite, disseminated pyrite and arsenopyrite occur in a shear zone in the south fork of Dublin Creek 150 meters upstream from the confluence of Eagle Pup. This position is at L36+100E and 12+000N on the cut-line grid, approximately 150 meters southeast of the old Upper Placer camp. Placer mining operations in 1980 exposed a strip of bedrock measuring 80 meters by 45 meters. The bedrock is strongly weathered and an orange limonitic stain covers the entire area.

The geology of the area consists of a northeast striking section of phyllite and quartzite which is cut obliquely by a mineralized shear zone up to 5 meters wide. The lowest unit is a silver phyllite which hosts a 5 meter wide, northeast trending feldspar-biotite porphyry dyke. The phyllite unit is overlain by a thin unit of black graphitic phyllite in which the mineralized portion of the shear zone is localized. The graphitic unit is in turn overlain by limonitic, buff to white bleached quartzite.

Mineralization in the shear zone occurs along a northeast trend for over 35 meters. Grey pyritic gouge 30 centimeters wide occurs on the southwest end of the structure and trends northeasterly for approximately 10 meters. On the east end of the zone pyrite and arsenopyrite occur as fracture fillings and as disseminations in quartzite. Mineralization occurs discontinuously over widths up to 3.5 meters. Bulldozer trenching to the northeast failed to locate a mineralized portion of the zone.

Eleven grab and chip samples were collected from this area and were assayed for silver and gold. Of these, two were assayed for antimony and one for copper. Gold values of 0.220 ounces per ton and 0.232 ounces per ton were obtained from pyritic gouge. All other samples contained little gold and gave values of less than 0.100 ounces of gold per ton. Silver values of 1.12 ounces per ton and 1.13 ounces per ton for the pyritic gouge were received but all other values were 0.30 ounces per ton or less.

The Creek Zone East Fissure is an extension of the large Creek Zone linear and is on trend with the Creek Zone West Fissure. The presence of massive sulphides is encouraging and further exploration is warranted.

Eagle Vein

The Eagle Vein is located on the flat-topped ridge above and to the west of Eagle Pup, 45 meters east of L35+800E and 10+800N. The vein trends down the west slope of Eagle Gulch and has been traced along strike for approximately 50 meters in a series of trenches, shafts and an adit. The area was mapped in detail in 1979 and was only briefly examined in 1980.

The showings consist of banded quartz-scorodite-arsenopyrite vein float which occurs in shaft and adit dumps and in hand and bulldozer trenches. Material collected near the westernmost shaft in 1979 assayed 1.010 ounces of gold per ton and indicated a vein width of at least 30 centimeters. Three grab samples were collected from the Eagle Vein shaft in 1980 and were assayed for gold and silver. The gold values were 1.142, 1.970 and 2.060 ounces per ton and silver values were 0.40, 0.90 and 0.52 ounces per ton.

Scarp Vein

The Scarp Vein occurs on the ridge of the west side of Eagle Gulch, 100 meters north of the Eagle Vein.

The vein strikes at an azimuth of 060° and dips 80° to the southeast. It consists of banded quartz-scorodite-arsenopyrite and is up to 10 centimeters wide. The area around the vein was mapped and sampled in detail in 1979 and was not resampled during 1980. One sample collected in 1979 assayed 0.196 ounces gold per ton and a trace of silver over 10 centimeters.

Henderson Vein

The Henderson Vein was discovered by bulldozer trenching in August of 1980. Banded quartz-scorodite with arsenopyrite vein material occurs in trenches GTR-48, GTR-49 and GTR-50 low on the crest of the ridge west of Stewart Pup. The vein is faulted and broken into several sections but generally trends in an east-west direction. Ten chip samples were collected along the vein which varies between 20 centimeters and 75 centimeters in width along strike. Gold assays range from 0.316 ounces per ton to 1.744 ounces per ton. Silver values of 0.52 ounces per ton to 5.51 ounces per ton were obtained.

Blue Lead Shaft Vein

The Blue Lead Shaft Vein occurs in the shaft on the ridge of the old Blue Lead claim. The shaft is located 80 meters south of the granodiorite-metasediment contact 25 meters east of L36+550E at 10+800N. McLean (1914) reported that the shaft was 25 feet (8.2 meters) deep and that the vein was 2 feet (66 centimeters) wide. A grab sample from the dump beside the shaft collected in 1979 assayed 0.472 ounces of gold per ton and 2.17 ounces of silver per ton. The same dump was grab sampled again in 1980 and the material collected assayed 0.402 ounces of gold per ton and 1.32 ounces of silver per ton. Southwest of the shaft the vein occurs in trench GTR-30. Here the vein is 15 centimeters wide and appears to strike 085° and dips 60° to the north. A sample of this vein assayed 0.336 ounces of gold per ton and 0.25 ounces of silver per ton.

Blue Vein

The Blue Vein crops out in trench GTR-31 approximately 70 meters northwest of the Blue Lead Shaft. A pale green scorodite and crushed quartz vein strikes 095° azimuth and dips 80° to the north. The vein is cut off to the west by a fault and appears to terminate against granodiorite. To the east the vein continues for approximately 10 meters before terminating against a fault. The vein is varied in width between 30 and 60 centimeters. In trench GTR-31 a chip sample across 50 centimeters assayed 0.662 ounces of gold per ton and 0.64 ounces of silver per ton.

Stewart Vein

Low on the west side of Stewart Gulch an adit dump 3 meters east of L36+800E at 11+075N contains blocks of banded limonitic quartz-scorodite vein rock. The adit is caved but appears to trend at a 222° azimuth into the hillside. Float material from the dump indicates that the vein is at least 40 centimeters wide, a sample of this material assayed 0.068 ounces of gold per ton and 0.06 ounces of silver per ton. Permafrost on the slope north of the portal prevented bulldozer access to this vein.

No. 15 Vein

The No. 15 Vein occurs on the west side of Stewart Gulch in trench GTR-15, 45 meters from the south end. The vein is the largest of sixteen small veins discovered in trench GTR-15 during 1980. The veins occur over a distance of 75 meters and range to 10 centimeters wide. A sample of banded quartz-scorodite with arsenopyrite weathered to hematitic limonite contained 0.064 ounces of gold per ton and 0.04 ounces of silver per ton. Several of the veins in this zone show potential for attaining greater widths along strike.

The Cabin Vein

The Cabin Vein occurs on the east side of Stewart Gulch at L37+325E and 11+200N. The vein is exposed in trenches GTR-4, GTR-20 and in the Beaver Adit. On surface, the vein has been traced over 80 meters. Widths of the banded quartz-scorodite-arsenopyrite vein range between 20 and 50 centimeters. Extensive excavator trenching has been conducted on the vein in 5 separate holes and a total volume of 1,622 cubic yards was removed. In the excavator trenches the vein ranges in width between 4 and 50 centimeters. In trench GET-4 the vein has been traced continuously for 41 meters and the hangingwall has been removed to expose the vein to a depth greater than 6 meters below surface. A total of 98 samples were collected from this trench and values range from 0.005 ounces of gold per ton with 1.89 ounces of silver per ton over 30 centimeters to 2.902 ounces of gold per ton and 5.72 ounces of silver per ton over 40 centimeters.

The Cabin Vein has been explored by underground drifting in the Beaver adit. The vein workings are described in detail in the 1979 report. No further underground work was performed during 1980.

Klippert Vein

The Klippert Vein was discovered by bulldozer trenching in trenches GTR-8 and GTR-9 and was later traced in excavator trenches GET-8N, GET-9E2, GET-9E, GET-9 and GET-9W. The vein occurs over a strike length of 32 meters and is up to 40 centimeters wide. It occurs in a limonitic gouge zone and consists of quartz-scorodite-arsenopyrite with a minor amount of siderite and galena. Twenty-three samples were collected and assayed for gold and silver and of these, 9 were assayed for lead and 4 for zinc. Gold values range from 0.010 ounces per ton to 0.182 ounces per ton and respective silver values from 0.03 ounces per ton to 0.76 ounces per ton. Representative samples gave lead and zinc values which ranged up to 0.78% Pb and 1.49% Zn. One sample of siderite and galena was assayed and contained 14.50 ounces of silver per ton, 0.020 ounces of gold per ton and 32.9% lead.

No. 45 Vein

The No. 45 Vein occurs in trench GTR-45 at L37+325E and 11+019N. The vein is 10 centimeters wide and consists of limonitic quartz and scorodite with minor arsenopyrite. A sample of this material assayed 1.318 ounces of gold per ton and 3.70 ounces of silver per ton.

No. 5 Structure

The No. 5 Structure is a structurally complex zone measuring up to 12 meters wide in which at least 3 veins occur. It is exposed discontinuously over 60 meters along a 075° azimuth trend and occurs in bulldozer and excavator trenches GTR-7W, E, 5W, 5, 16W, 16 and GTR-17 and GET-5W, 5, 16 and GET-17. The zone is dissected into several offset sections by north and northeast trending faults. In trench GTR-16, veins indicate fault offsets with right lateral and vertical displacement where the east side is down-dropped.

The largest vein structure in the zone occurs in trench GET-5. A deeply weathered quartz-scorodite vein with minor siderite, jamesonite and arsenopyrite; more than a meter wide is exposed. The vein has been trenched to more than 10 meters below surface but only strongly weathered sample material was recovered. Although strongly weathered gold values from this material were encouraging and ranged 0.302 ounces per ton to 0.524 ounces per ton. Silver values in this material were abnormally high for this structure and ranged from 2.03 ounces per ton to 10.18 ounces per ton.

A total of 38 samples were collected from the No. 5 Structure for assay. Gold assay values ranged from 0.054 ounces per ton to 0.970 ounces per ton and averaged 0.264 ounces per ton. Except for the occurrences of jamesonite in a few veins, and the material in GET-5, the silver content of the veins is generally low and averages less than half an ounce per ton. The average width of the samples collected is 27 centimeters.

The No. 5 Structure occurs in one of the areas of deep-weathering encountered on the property. Although the structure appears to be complexly developed at surface it is possible that it will be less deformed in competent host rocks.

No. 17 West Vein

The No. 17 West Vein was discovered while exploring for a right lateral offset extension of the No. 5 Structure and may well be an extension of the No. 5 Structure. The No. 17 West Vein occurs in excavator trenches GET-17W, 43 and 44 and may extend into trenches GTR-17E and 24. Quartz and scorodite with arsenopyrite occurs in irregular fractures in a zone up to a meter wide which generally trends 085° azimuth. Gold assays range from 0.086 ounces per ton to 0.252 ounces per ton and average 0.166 ounces of gold per ton over 9 centimeters. Silver values range from 0.05 ounces per ton to 0.63 ounces per ton and average 0.28 ounces per ton over 9 centimeters. The structure is unexplored to the west and appears to trend beneath the Aurum Adit access road.

No. 24 Vein

The No. 24 Vein occurs in trench GTR-24 approximately 50 meters west of the Aurum Portal. The structure consists of two parallel veins which strike 071° azimuth and are

exposed in the trench for over 28 meters. The northerly vein is the most prominent and ranges from 8 to 30 centimeters in width. The second vein is parallel to the first, one meter to the south, and is a 1 to 5 centimeter wide vein. Both veins consist of banded quartz-scorodite and arsenopyrite and some sections contain massive arsenopyrite. Gold assay values from the northly vein range from 0.076 to 1.042 ounces per ton and average 0.207 ounces per ton over an average width of 15 centimeters. Silver values are low and range from 0.02 to 0.30 ounces per ton. One sample from the southerly vein assayed 1.006 ounces of gold per ton and 0.05 ounces of silver per ton. The vein may be related to the No. 17 West Vein.

No. 23 Vein

The No. 23 Vein is located 10 meters north of the south end of trench GTR-23. The vein strikes approximately parallel to the Catto Vein and lies 20 meters to the north. The mineralization consists of banded quartz-scorodite-arsenopyrite and is 12 centimeters wide. A sample across this width assayed 0.406 ounces of gold per ton and 0.03 ounces of silver per ton. Trenching to the west in trench GTR-25 did not locate the vein but it has not been tested for an eastern extension.

Victoria Vein

The Victoria and Aurum No. 2 veins comprise the most significant structure east of Haggart Creek explored to date. The veins occur in the Aurum Adit and can be projected to surface trenches GET-3, GET-23E, GET-23 and GTR-23. The Victoria Vein, which is the most extensively developed vein, has been drifted on on the Aurum Adit for 74 meters. On surface the vein can be traced for 42 meters from trench GTR-23 to GET-3. Where exposed, the vein consists of banded green quartz-scorodite-arsenopyrite and ranges in width from 9 centimeters to 60 centimeters.

On surface, 14 samples have been collected from the vein in the various trenches. The vein ranges in width from 5 to 45 centimeters and averages 19 centimeters. Gold assays from the surface range from 0.209 ounces per ton to 3.560 ounces per ton and silver values ranged from 0.06 ounces per ton to 1.18 ounces per ton. The average grade of the material sampled was 0.981 ounces per ton of gold and 0.42 ounces per ton of silver.

A total of 86 samples were collected from the Victoria Vein in the Aurum Adit. Of the 35 vein samples collected, gold values range from 0.012 ounces per ton to 3.794 ounces per ton. Only samples collected during 1980 were assayed for silver and of these vein samples values range from 0.06 ounces per ton to 1.00 ounces per ton. In 1979 a 25 meter section of the vein from the end of the right drift was calculated to grade 0.335 ounces per ton gold over a width of one meter using 9 vein samples. For the same section a grade of 0.156 ounces per ton of gold, over one meter, was calculated using 13 composite samples. De-icing of the left drift and subsequent sampling in 1980 has led to a computed grade value of 0.743 ounces per ton gold (25.47 grams per ton) for an average width of 28 centimeters along 74 meters of drift. This calculation is based on 35 samples. A similar calculation was conducted for the 24 silver assays collected over 49 meters of de-iced drift. A grade value of 0.39 ounces per ton of silver (13.37 grams per ton) was obtained.

Aurum No. 2 Vein

The Aurum No. 2 Vein is the second major structure encountered in the Aurum crosscut and occurs for 8 meters in the Dog Leg Drift. It is also exposed in trenches GET-25, 23, 23E and 3. In the drift the structure consists of two veins each 10 centimeters wide. From the crosscut where they are separated by 1.1 meters, the veins converge to within 20 centimeters on the face. On surface the structure is much stronger and ranges to 60 centimeters in width in trench GET-3. In trench GET-3 a 60 centimeter wide portion of the vein consists of 20 centimeters of quartz-scorodite-arsenopyrite material adjacent to both the footwall and hangingwall and a 20 centimeter core of limonite-siderite-jamesonite vein material.

Twenty-two vein and composite samples were collected from the Dog Leg Drift in 1979 and assayed for gold. Vein samples ranged from 0.035 ounces of gold per ton to 3.540 ounces of gold per ton and an average grade of 0.291 ounces per ton was calculated.

Twenty-three samples were collected from surface exposures of the vein. Gold assay values range from 0.044 to 2.844 ounces per ton and averaged 0.421 ounces per ton over an average width of 27 centimeters. Silver values were generally low except where concentrations of jamesonite were encountered. Values ranged from 0.17 to 20.78 ounces of silver per ton.

The Aurum No. 2 Vein also projects toward the Green Vein Adit portal and it may in fact be the same vein. The Green Vein Adit portal is 56.8 meters lower than the Aurum Adit portal.

Catto Vein

The Catto Vein is exposed in trench GTR-2 (GET-2) which is on the ridge between Olive and Stewart Gulches above the Aurum Adit. Mineralization has been traced in this trench for over 35 meters along a strike of 090° azimuth. The northern vein section is 40 centimeters wide and consists of crushed quartz, scorodite and arsenopyrite, crosscut by a network of pale green chalcedony veinlets. The southern vein structure occurs as an offshoot of the northern structure and is up to 12 centimeters wide. It consists of quartz, siderite, jamesonite and limonite in a vein up to 12 centimeters wide. The zone containing these two structures occur primarily in schistose metasediments but cuts granodiorite in the easternmost 6 meters of the trench. To the west in trench GTR-6 the vein splays into a few scattered quartz-scorodite fracture fillings up to a centimeter wide. To the east the vein splays into 5 or more fracture fillings and trends into the granodiorite for an unknown distance.

Fourteen one meter channel samples were collected across the vein in 1979. The assay values obtained varied from 0.106 to 0.746 ounces of gold per ton across one meter. Follow up excavator trenching and sampling was conducted during 1980 along trench GTR-2. A total of 35 samples were collected and assayed for gold and silver. One of these samples was assayed for lead, antimony and zinc. Gold values from the vein samples ranged from 0.040 to 5.568 ounces per ton. An average grade of 0.885 ounces of gold per ton and 0.56 ounces of silver per ton was obtained from 27 samples from the main vein structure over an average width of 13 centimeters. A sample of siderite-jamesonite assayed 4.22 ounces of silver per ton, 0.080 ounces of gold per ton, 13.50% lead, 7.17% antimony and 1.08% zinc over 12 centimeters.

Green Vein

The Green Vein occurs in an adit on the west side of Olive Gulch about 550 meters upstream from the point at which the Olive Creek crosses the main access road to the Tungsten-Skarn Zone area. A grab sample for the mine dump material consisted of massive arsenopyrite and pyrite with minor

jamesonite in a quartz boxwork and assayed 0.178 ounces of gold per ton and 1.02 ounces of silver per ton. The vein has not been examined during this program but was explored extensively by underground drifting prior to 1914. McLean (1914) states that a 10 foot (3 meter) adit was driven to the vein and then a 180 foot (54.9 meter) drift was driven along it. At the end of the drift a 27 foot (8.2 meter) raise was driven. Two small crosscuts of 20 feet (6.1 meters) and 30 feet (9.1 meters) have been driven off the vein adit. The vein is of varied thickness and ranges from 3 inches (8 centimeters) to 3 feet (91 centimeters).

Olive Vein

The Olive Vein occurs on the east side of Olive Gulch about 600 meters upstream from the junction of Olive Creek and the main access road. Quartz-scorodite-arsenopyrite vein material which occurs in a dump near the top of the gulch is presumed to be from the Olive Vein. A grab sample of this material assayed 1.650 ounces of gold per ton and 2.45 ounces of silver per ton. An adit located about halfway down the side of the gulch is reported by McLean (1914) to include 8 feet (2.4 meters) of adit and 60 feet (18.3 meters) of drift. The vein at the end of the drift is reported to be 20 inches (51 centimeters) wide.

Shamrock Vein

Quartz-scorodite with massive arsenopyrite and pyrite occurs in a dump 15 meters north of Dublin Creek upstream from the confluence of Carscallen Pup. The dump is adjacent to the portal of a caved adit driven on the Shamrock Vein. A grab sample of the mine dump material indicated that the vein is at least 10 centimeters wide and assayed 0.926 ounces of gold per ton and 2.58 ounces of silver per ton. The vein occurs within a shear zone in granodiorite and is associated with a limonitic bleached alteration envelope.

Carscallen Vein

The Carscallen Vein occurs approximately 50 meters northwest of the Shamrock Adit along cutline L38+650E. The adit is now caved but dump material beside the portal indicates a strong vein structure. A grab sample of the material assayed 0.768 ounces of gold per ton and 1.24 ounces of silver per ton. Granodiorite is the host rock and the vein occurs in a strongly altered shear zone.

Tin Dome Occurrence

Vein float material consisting of quartz-scorodite with minor arsenopyrite occurs on the north side of Tin Dome, north of Dublin Gulch. A grab sample assayed 0.228 ounces of gold per ton, 2.40 ounces of silver per ton and contained less than 0.01% tin. The presence of this vein material demonstrates that gold-bearing quartz veins occur in a zone at least two kilometers wide north of the Dublin Gulch stock.

CB No. 1 Vein

In trench PGT-1 on the north side of the West Potato Hill a quartz-scorodite-arsenopyrite vein is exposed for 33 meters. The structure known as the CB No. 1 Vein was first discovered early this century and was explored by a series of hand trenches and by an adit.

The portal is now caved but the dump lying to the east of trench PGT-1 was examined. In trench PGT-1 quartz-scorodite-arsenopyrite vein material occurs in irregular zones of various lengths and widths. Individual pods of mineralization ranging to one meter wide occur in a 2.5 meter wide vein structure.

A total of 37 samples were collected from the CB No. 1 structure including vein, footwall and hangingwall samples. Ten samples of vein material indicate an average width of 58 centimeters. Gold assays ranged from 0.078 to 0.748 ounces per ton and averaged 0.122 ounces per ton. Silver values ranged from 0.12 to 6.05 ounces per ton and average 1.55 ounces per ton. The remaining 27 samples carry various amounts of gold and silver and indicate that less than 0.100 ounces of gold per ton is present in the altered wall rocks beside the vein.

CB No. 2 Vein

The CB No. 2 Vein occurs in trench PGT-2 approximately 325 meters west of the CB No. 1 Vein on the north side of the West Potato Hill. The showing consists of a 5 centimeter quartz-scorodite vein which crosscuts a section of biotite-quartzite schist and subskarn. An adit northeast of the occurrence may have been driven on the vein or on a related structure. A grab sample of vein material assayed 0.294 ounces of gold per ton and 0.61 ounces of silver per ton.

Kuzmiski Occurrence

The Kuzmiski Occurrence consists of a series of large mineralized float boulders which occur in Dublin Creek 100 meters upstream from the Holoway placer workings. Boulders greater than one meter across host quartz-scorodite-arsenopyrite veins up to 50 centimeters wide. The material appears to be locally derived and indicates the presence of a large, significant vein in the area.

JM Occurrences

Three quartz-scorodite-arsenopyrite showings are located on the main Potato Hills' access road south of Dublin Creek, 100 meters upstream from the confluence of Olive and Dublin Creeks. Bulldozer work on the road uncovered the veins late in the 1980 field season and no follow-up work was conducted. The veins are of varied width and range up to 10 centimeters wide.

Road Occurrences

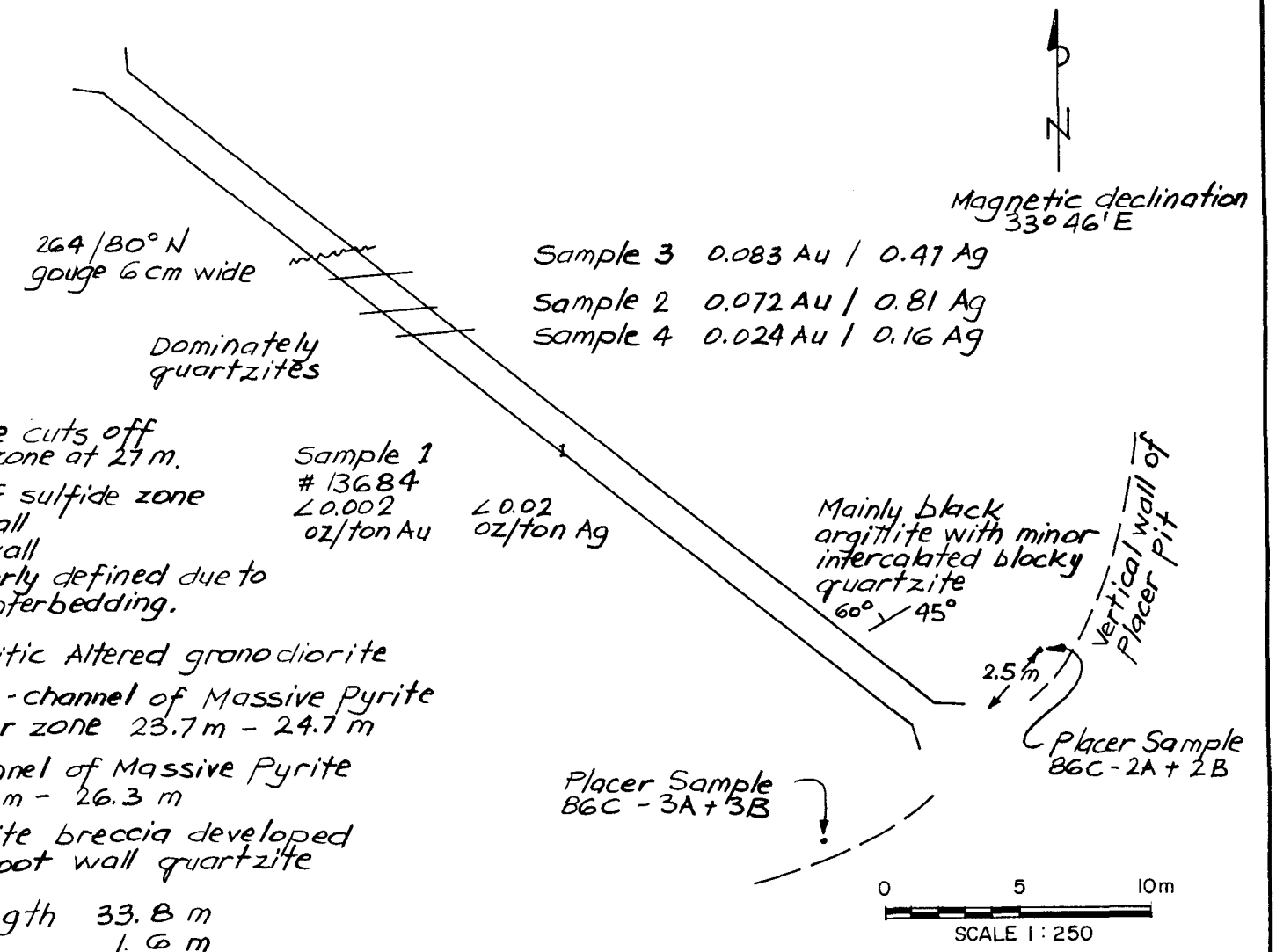
Several quartz-scorodite-arsenopyrite occurrences are located on the Potato Hills' access road, 200 meters south of the Olive Vein showing. The veins were discovered during routine bulldozer road maintenance and no follow-up trenching has been conducted.

1986 Placer Mining Pit

Placer mining in 1986 removed approximately 80,000 cubic yards of overburden and auriferous gravels at the mouth of Suttle Creek on DG53 claim over a vertical distance of about 70 meters. Bedrock stripping revealed a significant massive pyrite zone (Figure 8), occupying a major shear zone. Channel samples through the zone averaged 0.078 oz/ton gold.

1986 Diamond Drilling

The results of the 1986 diamond drill program are shown on Figures 6 and 7 (in pocket). Drill logs are contained in Appendix VII.



QUEENSTAKE RESOURCES LTD.

TRENCH ON DG 53 CLAIM
1986 PLACER MINE PIT

PROJECT :	MAR GOLD
ENG. :	TRM ENGINEERING LTD.
DATE : AUGUST 30, 1986	FIGURE 8

Gold values in the Victoria Vein system are uniformly low in all drill holes. This suggests surface enrichment of gold for the Victoria Vein. A new vein, perhaps correlative with the surface No. 24 vein, was found to contain abundant sulphides over relatively large widths and has gold values of 0.2 oz/ton Au or less of < 1 meter.

The down dip extension of the Catto Vein "offshoot" in hole 86-4 assayed 1.300 oz/ton gold, although 12 meters up dip in hole 86-3 the vein assayed 0.081 oz/ton Au. Similarly, the probable down dip extension of the No. 23 vein assayed 2.177 oz/ton gold in hole 86-4 over 0.5 meters but 22 meters up dip it assayed 0.301 oz/ton gold over 0.5 meters.

METALLURGY

Only the most preliminary metallurgical tests have been completed to date. A 200 pound representative sample consisting of material from several veins was submitted to Bacon, Donaldson and Associates Ltd. in 1980. Three tests were conducted to measure gold recovery by simple gravity separation (jig concentration), sulphide flotation and standard cyanidation (Vrengde 1981 in Bartlett 1981).

The head sample taken of the composite used for testing gave the following assays:

0.654	oz/ton Au
2.92	oz/ton Ag
0.024	% Cu
2.71	% Pb
0.039	% Zn
1.12	% Sb
8.83	% As

Calculated head assays from individual test results indicate a somewhat higher gold content (1.31 and 1.55 oz/ton Au). The results are shown in Table 3.

Table 3

Metallurgical Results
Dublin Gulch Gold-Quartz Veins

Test #	Type	% Recovery	Concentrate Grade oz/ton Au	Remarks
Test 1	gravity concentration	22.96	61.62	46.1% -200 mesh
Test 3	bulk flotation	63.3	11.78% As 17.90% Sb 18.06 oz/ton Au	coarse grind 53.4% -200 mesh
Test 2	standard	82.3	72 hour leach	68% -200 mesh

Only the most preliminary conclusions can be drawn from these tests as would be expected from an ore with several diverse sulfide phases. Cyanidation will require pre-conditioning (add lime to lower pH) to reduce cyanide consumption and enhance dissolution kinetics. The bulk flotation test used a very coarse grind and probably the liberated coarse gold was passed directly into the rougher tailings.

Recommendations by Reid (1985) are:

A) size of sample required 60-80 kg;

B) grinding test - to determine mesh of grind for liberation of Au;

C) gravity jig work - recovery of coarse gold; use flotation to scavenge tailing from jig;

D) flotation testwork;

E) cyanidation of flotation concentrates;

F) cyanidation of ground ore - base recovery information;

G) preliminary test for feasibility of arseno-process;

H) mineralogical investigation of metallurgical products to assist in improving recoveries.

These tests should only be undertaken if a future work program indicates substantial tonnage and higher grade gold values than the 1986 drill results.

GEOCHEMISTRY

Soil sampling was conducted over the entire area from Haggart Creek to Potato Hills in 1978 and 1979. Samples were taken at 25 and 50 meter spacings on lines 150 meters apart and analyzed for gold and silver. The known veins give strongly anomalous response, especially Stewart-Catto Area and east to the Shamrock vein.

Apparently little follow-up was undertaken on these soil results during the 1980 trenching. Several anomalous areas should be checked. These are:

1. northwest side of Tin Dome, samples up to 320 ppb Au;
2. very large complex anomaly south (uphill) of Eagle vein (this area apparently is largley unexplored);
3. northwest of Eagle vein near Suttle Pup;
4. central 1979 Ray Gulch grid extension.

The area south of Eagle vein should be trenched in detail.

CONCLUSIONS

Numerous arsenopyrite-quartz veins have been found in the Dublin Gulch Area within a fissure system 12 km long and 3 km wide. They are the source of rich placer deposits in Dublin Gulch and Haggart Creek. The veins occur mainly near the northern, steeply dipping contact of a Cretaceous granodiorite stock. Host rocks commonly are highly deformed micaceous quartzites with minor biotite schist. The quartz veins, in some cases, continue into the granodiorite without apparent change or have developed solely within the intrusive. Over fifty veins and fissure

systems have been found by extensive surface trenching and shallow underground workings. Individual veins vary from a few centimeters to 1.5 meters but sulfide-rich veins greater than 0.6 meters are rare.

At surface, the veins are composed of arsenopyrite, massive scorodite, quartz and minor pyrite and jamesonite. Deep weathering has occurred throughout the area. Scorodite alteration was noted 25 meters below surface in drillhole QRMG-83-003. Assays of surface vein material and specimens collected from the underground workings gave highly variable results but generally range around 0.8-1.0 oz/ton gold for the higher-grade veins. Unfortunately, not enough attention was given to the problem of surface enrichment and general erratic gold values inherent in gold-sulfide systems. This problem is discussed by Bartlett but the only specific action taken was to collect trench samples from greater depth in so-called "fresh rock". Additional polished section work should have been completed on a systematic basis at that time. Results from the 1986 drilling program indicates that the primary gold grades at depth (below the zone of weathering) are in the range of 0.2 to 0.3 oz/ton gold or less except in the Catto and No. 23 veins near the granodiorite contact. The Catto Vein in Hole 86-4 assayed 1.300 oz/ton Au over 0.44 m and the No. 23 vein assayed 0.2177 oz/ton gold over 0.5 m.

The drilling has also shown that the continuity of structure and mineralization is very strong both along strike and down-dip. The distribution of gold is very irregular. There is wider vein development within the "Mylonitic units" than in the micaceous quartzite or biotite-quartz schist.

Vein mineralogy is variable with depth. Arsenopyrite-dominate assemblages with minor jamesonite grade into pyrite-dominate zones with associated sphalerite and jamesonite.

RECOMMENDATIONS

The degree of surface enrichment of gold values in the Stewart-Catto area suggests that many of the surface samplings on other vein systems along the belt may also be enriched. The role of increased gold content in the veins nearer the granodiorite pluton should be tested. Careful attention should be given to collecting large samples to minimze the effect of erratic gold distributions. The narrow width of the veins requires a relatively high gold content. The surface assays were in the required range of gold values to anticipate commercial production in the event of sufficient tonnage being outlined. The 1986 drill program suggests that the potential for defining considerable tonnage of mineralized material is good. However, the gold content is generally too low to consider mining at the presently known vein widths in the Victoria Vein. The degree of surface enrichment should be investigated in detail in the Cabin vein and other vein systems. This can be done by carefully collecting specimens from each vein system and systematically assess the amount of weathering and scorodite content in polished section. The samples from the 1980 trenching program have been saved, both in Vancouver and at Dublin Gulch. A polished section prepared from the reject portion of the assay sample would suffice for this study.

The large soil anomaly above (south) of Eagle vein should be investigated in detail by trenching.

A preliminary 1987 exploration program is outlined on the next page

Proposed 1987 Exploration Budget
Mar Gold Project

Program: Investigate South Vein, Trench Eagle Area, Petrography

1,200 feet NQ diamond drilling at $45 per foot (all inclusive)	$ 54,000
Trenching: South of Eagle Vein	
Bulldozer with 100 hours @ $150 per hour	15,000
Ripper	
Road building, 30 hours @ $150 per hour	4,500
Geological Mapping	5,000
Petrography	
Sample acquisition from reject portion of 1980 trenching program (either Vancouver warehouse or Bema Camp trailer)	500
Polish section preparation, 75 samples @ $15	1,125
Section Examination and Report	3,000
Contingencies - 15%	12,469
TOTAL	$ 95,594

(Mining surface veins on a small scale - extra)

Respectfully submitted,

J.T. Shearer, M.Sc., FGAC.

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72margld

GTR-48
HENDERSON VEIN
GTR-49
GTR-50
GTR-47
GTR-42
GTR-41
GTR-40
GTR-39
GTR-38
GTR-37
GTR-36
GTR-35
GTR-34
GTR-33
GTR-32
GTR-31
BLUE VEIN
GTR-30
BLUE LEAD SHAFT VEIN
GTR-29
SMOKY No. 75 Claim
STEWART VEIN
STEWART PUP
GTR-46
GTR-28
GTR-22
SEE FIGURE 30 FOR DETAILS
GTR-21
GTR-15
NO 15 VEIN
SEE FIGURES 22 AND 23 FOR DETAILS
GTR-43
SMOKY 84 FR Claim
GTR-26
GTR-27
85 FR Claim
TO EXPLORATION CAMP
TO SKARN ZONE AREA
GTR-14
GTR-13
GTR-12
GTR-19
GTR-18
SEE FIGURE 26 FOR DETAILS
GTR-11
SEE FIGURE 25 FOR DETAILS
GTR-10
SEE FIGURE 24
BEAVER ADIT
GTR-20
GTR-1
CABIN VEIN
GTR-9
GTR-5
KLIPPERT VEIN
GTR-8
GTR 7
NO 5 STRUCTURE
GTR-16
GTR-17
NO 45 VEIN
NO 17 WEST VEIN
GTR-24
NO 24 VEIN
VICTORIA VEIN
AURUM ADIT
GTR-45
GTR-6
AURUM NO 2 VEIN
GTR-25
GTR 23
NO 25 VEIN
GTR-3
CATTO VEIN
GTR-2
AURUM NO 2 VEIN
HOLES 3+4
HOLES 1+2
1986 DIAMOND DRILLING
BOB No. 2 Claim
BOB No. 3
BOB No. 1 Claim

- MODIFIED FROM BARTLETT 1981 (Figure 11)
- OUTLINE OF CLAIMS APPROXIMATE

Scale 0 50 100 150 Metres
SCALE 1 : 2,500

LEGEND

SYMBOLS

GEOLOGICAL BOUNDARY — Defined; Approximate; Assumed
FAULTS — Inferred; Observed
FOLIATION — Inclined
FRACTURE — Inclined
Rock outcrop; Gold-Quartz Vein <10cm; Gold-Quartz Vein >10cm; Bull-Quartz; Underground Shaft; Dump
ABBREVIATIONS
Hw Hanging wall
C Centre
Fw Footwall

TRENCHES — Bulldozer; Excavation
VEIN STRUCTURE — Dip; Strike; Not Defined
SAMPLE LOCATIONS — Chip; Vein
ADIT
SHAFT
SURVEY MARKER

LITHOLOGY

TERTIARY
6 Mafic dykes and segregations
MESOZOIC (Jurassic and Cretaceous)
5 Quartz porphyritic - granodiorite - granodiorite vein rock
4 Plutonic rocks
4a Aplite and leucocratic granite
4b Granodiorite
4c Quartz - feldspar porphyry
4d Quartz diorite
3 Greenstone
PALEOZOIC or MESOZOIC
2 Central Quartzite Formation
2a Massive quartzite and minor phyllite
PRECAMBRIAN or PALEOZOIC
1 Upper Schist Formation
1a Biotite - quartzite schist
1b Massive and gritty quartzite, thin bedded quartzite
1c Micaceous and graphitic phyllite
1d Muscovite - sericite quartzite schist
1e Calc - silicate skarn
1f Calc - silicate hornfels
1g Marble

QUESTAKE RESOURCES LTD.
091867
LOCAL GEOLOGY AND DRILL HOLE LOCATION
PROJECT: MAR GOLD
ENG: TRM ENGINEERING LTD.
DATE: AUGUST 1986 FIGURE 5

NORTH

SOUTH

SURVEY POINT Δ 141

Δ 140

Δ 139

Δ 138

SURVEY POINT Δ 137

ELEVATION (IN METERS)

1225 m

1220 m

1200 m

1150 m

CATTO TRENCH

SURVEY OF DRILLHOLES 81 N 7104 89 E/N 461 144S/45E

GRANODIORITE OUTCROPS TO NORTHEAST

PROBABLE STEEP NORTHERN CONTACT TO MAJOR GRANODIORITE PLUTON

VICTORIA ADIT (30 metres west of section)

VICTORIA VEIN (to surface)

MAIN No. 2 VEIN

VEIN IN UNDERGROUND 8 WEST OF SECTION

ARGILLACEOUS QUARTZITE BIOTITE-QUARTZ SCHIST

BIOTITE QUARTZ SCHIST

MICACEOUS QUARTZITE

BIOTITE-QUARTZ SCHIST

CATTO VEIN

"SOUTH VEIN"

ARGILLACEOUS QUARTZITE

SLIGHTLY SKARNIFIED QUARTZITE

GRANODIORITE STRINGER

SKARNIFIED QUARTZITE

BIOTITE QUARTZ SCHIST

VICTORIA VEIN

NEW VEIN

MYLONITIC QUARTZITE

QUARTZ-PYRITE BRECCIA

END OF HOLE 164.53 m -45° (540 ft)

Non-foliated

"NEW VEIN"

FRACTURE FAULT ZONE

MINERALIZED GRANODIORITE

SPHATERITE PYRITE JAMESONITE, CASSITERITE

END OF HOLE 194.16 m (637 ft)

1100 m

LEGEND

- MICACEOUS QUARTZITE
- BIOTITE QUARTZ SCHIST
- SKARNIFIED QUARTZITE
- ARGILLACEOUS QUARTZITE
- MYLONITIC QUARTZITE

ASSAY RESULTS

- 0.289 — Gold Fire assay in ounces per short ton
- — Less than 0.002 ounces per ton gold (below detection limit.)
- Fault
- Δ 142 Transit Survey Point

1050 m

0 5 10 15 20 METRES

0 10 20 30 40 50 60 FEET

SCALE 1 : 250

To accompany report entitled "Diamond Drilling Report on the MAR GOLD PROJECT" by J.T. Shearer, M. Sc., Dated September 18, 1986

NTS : 106 D/4

WORK BY : J. SHEARER

DRAWN BY: J. SHEARER

QUEENSTAKE RESOURCES LTD.

DUBLIN GULCH AREA
MAYO M.D., YUKON

1986 DIAMOND DRILLING PROGRAM

VERTICAL CROSS SECTION
ALONG 461, 445 E
LOOKING DUE EAST

091867

PROJECT :	MAR GOLD
ENG. :	TRM ENGINEERING LTD.
DATE : AUGUST 30, 1986	FIGURE 6

NORTH

SOUTH

LEGEND

- MICACEOUS QUARTZITE
- BIOTITE QUARTZ SCHIST
- SKARNIFIED QUARTZITE
- ARGILLACEOUS QUARTZITE
- MYLONITIC QUARTZITE

ASSAY RESULTS

- 2.177 — Gold Fire assay in ounces per short ton
- <0.002 — Less than 0.002 ounces per ton gold (below detection limit.)
- Fault
- △ 142 — Transit Survey Point

0 5 10 15 20 METRES
0 10 20 30 40 50 60 FEET
SCALE 1 : 250

To accompany report entitled "Diamond Drilling Report on the MAR GOLD PROJECT" by J.T. Shearer, M.Sc., Dated September 18, 1986

NTS : 106 D / 4
WORK BY : J. SHEARER
DRAWN BY : J. SHEARER

QUEENSTAKE RESOURCES LTD.

DUBLIN GULCH AREA
MAYO M.D., YUKON

1986 DIAMOND DRILLING PROGRAM

VERTICAL CROSS SECTION
ALONG 461,415 E
LOOKING DUE EAST

091867

PROJECT :	MAR GOLD
ENG :	TRM ENGINEERING LTD.
DATE : AUGUST 30, 1986	FIGURE 7

APPENDIX I

STATEMENT OF QUALIFICATIONS

J.T. Shearer, M.Sc., FGAC
Mar Gold Project, 1986

STATEMENT OF QUALIFICATIONS

I, Johan T. Shearer, of the City of Port Coquitlam, in the Province of British Columbia, do hereby certify:

1. I graduated in Honours Geology (B.Sc. 1973) from the University of British Columbia and the University of London, Imperial College (M.Sc. 1977).

2. I have practiced my profession as an Exploration Geologist continuously since graduation and have been employed by such mining companies as McIntyre Mines Ltd., J.C. Stephen Explorations Ltd. and Carolin Mines Ltd. I am presently employed by TRM Engineering Ltd.

3. I am a fellow of the Geological Association of Canada. I am also a member of the Canadian Institute of Mining and Metallurgy, the Geological Society of London and the Mineralogical Association of Canada.

4. I do not have any interest in the Queenstake controlled claims in the Dublin Gulch area or in the securities of Queenstake Resources Ltd. nor do I expect to receive any such interest in the future.

5. I have personally conducted detail geological mapping and logged all diamond core on the Mar Gold Project at Dublin Gulch, Yukon, between August 9 and August 29, 1986. This report is an interpretation of the data obtained.

J.T. Shearer, M.Sc., FGAC.

Vancouver, B.C.
September 18, 1986

APPENDIX II

STATEMENT OF FIELD COSTS

MAR GOLD PROJECT, 1986

Fieldwork completed between
August 9 and August 29, 1986

QUEENSTAKE RESOURCES LTD.
INTERIM DIAMOND DRILLING COSTS
DUBLIN GULCH MAR GOLD PROJECT
Cumulative Totals up to August 1986

* To be charged later by Canada Tungsten Corp.

1.	Consulting (TRM) Wages (Daily Fee)		
	August 8-13 JS & LS	$	1,860.00
	August 14-29 JS & LS		4,960.00
	Sept., 3 days report preparation @ $230		690.00
2.	Truck, 4 x 4 with canopy		
	August 8-29 - 22 days @ $40		880.00
3.*	Bulldozer		
	Initial 19 hrs @ $150 per hr		(2,850.00)
	First hole 7 hrs @ $150 per hr		(1,050.00)
	Demob & moves 13 hrs @ $150 per hr		(1,950.00)
	NOU Can Tung, 5.5 hrs @ $120 per hr		660.00
4.	Drill Mobilization, August 14 field cost		
	34 man-hours @ $29		986.00
5.	Contract Diamond Drilling,		
	2,270 ft. @ $19.20		43,584.00
6.*	Food and Camp, August 9-25,		
	14 days x 4 = 48, 21 x 2 = 42		
	97 man-days @ $50		4,850.00
7.	Assays - 436 x $15.25 approx.		6,649.00
	bags for samples - 500 @ $0.06		130.00
8.	Standby - None anticipated		0.00
9.	Field Costs, moves > 10 man-hours,		
	reaming broken ground, etc.		551.00
10.	Casing @ $22 per foot, 4 holes, 34 feet		680.00
11.	Acid Tests, 1 free & 1 paid per hole		
	@ field cost (1 hour each)		232.00
12.*	Gasoline, 293.7 litres @ $0.532/litre		156.41
13.*	Diesel (for drill), 2864 litres @ $0.5020/l		1,437.73
14.	Drill Demobilization, 30 man-hours @ $29		870.00
15.*	Core Boxes, 130 x $8.50		1,130.50
16.	Daily travelling time, no charge anticipated		0.00
17.	Materials Consumed,		
	4 casing shoes, casing 400		2,532.88
	GS 550 8.5 pails @ $120		1,020.00
	Propane		276.00
18.	Freight, 1.65 per kg Trans North		1,000.00
19.	JS Travel (in lieu of mob/demob)		450.00
20.	Reproduction, 6 copies of report		120.00
21.	Gasoline, Whitehorse-Dublin return		
	(with receipts)		150.00
22.	Miscellaneous, Telephone, etc. (approx.)		97.00
23.	All-Terrain vehicle, 325 + 65 day		715.00
24.	Can Tung hours, 55 hrs @ $25/hour		1,375.00
25.	Underhill surveying, 2 hrs @ $100/hour		200.00
	Interim Sub-Total	$	78,242.44

26. Trenching (on bedrock in Placer Pit) - Extra approximately $400 plus bedrock stripping.

APPENDIX III

LIST OF PERSONNEL

MAR GOLD PROJECT, 1986
Dublin Gulch, Mayo Area, Yukon

Fieldwork completed between
August 9 and August 29, 1986

APPENDIX III

LIST OF PERSONNEL, MAR GOLD PROJECT

Name	Occupation	Address	Dates Worked on Project
TRM ENGINEERING LTD.			
J.T. Shearer	Geologist	3832 St. Thomas St. Port Coquitlam, B.C. V3B 2Z1	August 8-29, 1986 Sept. 5, 12, 15, 1986
L. Shearer	Core Splitter/ Assistant	3832 St. Thomas St. Port Coquitlam, B.C. V3B 2Z1	August 8-29, 1986
CANADA TUNGSTEN MINING CORP.		P.O. Box 130 Mayo, Yukon YOB 1MO	
John Clarke	Loader/ Cat Operator		August 21, 28, 1986
Bruce Goulx	Loader Operator		August 13
Ted Takacs	Bulldozer		August 10, 11, 14, 1986
Cindy Bunbury	Cook		August 9-29, 1986
E CARON DIAMOND DRILLING LTD.		7 Roundel Road Whitehorse, Yukon Y13 3H3	
Mitch McLelland	Driller/ foreman		August 13-28, 1986
Kelly Mac	Driller		August 13-28, 1986
Brian Scheffield	Helper		August 13-28, 1986
Vic Johnson	Helper		August 13-28, 1986

APPENDIX IV

DIAMOND DRILL CONTRACT

MAR GOLD PROJECT, 1986

with E. Caron Diamond Drilling Ltd.
7 Roundel Road
Whitehorse, Yukon
Y1A 3H3

MEMORANDUM OF AGREEMENT MADE THIS 21ST DAY OF July, 1986

BETWEEN: QUEENSTAKE RESOURCES LTD.
900-850 WEST HASTINGS ST.
VANCOUVER, B.C.
V6C 1E1

Hereinafter called "Company"

AND: E. CARON DIAMOND DRILLING LIMITED,
7 Roundel Road,
Whitehorse, Y.T.
Y1A 3H3

Hereinafter called "Contractor"

WITNESSETH: THAT;

WHEREAS, Company is the owner of or is otherwise well entitled to enter upon and explore claims located in the DUBLIN GULCH area of YUKON and,

WHEREAS, Contractor is able to provide the necessary drilling equipment and personnel required by the company.

NOW,THEREFORE, the parties hereto, each in consideration of the promises and agreements of the other, mutually agree as follows:

(1) WORK TO BE DONE: Contractor will diamond drill or cause to be diamond drilled not less than TWO THOUSAND (2,000) feet upon the claims at drill sites to be selected by the company, all subject to the companys right to terminate for non-compliance by the Contractor of the terms and conditions of this agreement.

(2) EQUIPMENT: Contractor agrees to drill all holes with a diesel-driven, skid-mounted drill complete with hydraulic mast, wireline hoist, diesel-driven pumps and all the necessary supplies and spare parts for the wireline drilling operation. The drill will be completely unitized to minimize moving time.

(3) LABOUR: The work under this agreement shall be continued by the Contractor on a twenty-four hour per day, seven days per week basis until completed.

(4) HOLE DIRECTION AND DEPTH: Contractor does not guarantee the direction of the hole beyond the collar nor guarantee to drill any hole to any specified depth. The Contractor will, however, expend every reasonable effort to complete all holes to

the satisfaction of the Company.

(5) HOLE DEPTH AND ANGLE: No drill hole shall be greater than a length of eight hundred (800) feet and dip of all holes shall be ~~fifty (50)~~ degrees or steeper unless otherwise agreed by both parties. Measurements of all holes shall be made from top of the casing. forty-five (45)

(6) SCHEDULE OF RATES: The Company agrees to pay the Contractor for footage drilled and other services performed as follows:

(i) CASING RATES: the price per foot for casing in overburden and/or bedrock shall be $22.00 /H.W. and $20.00 /N.W. from 0 to 50 feet in depth. If the cost to the Contractor of penetrating overburden and/or bedrock below such depth is greater than the above prices, then the Company shall pay the Contractor at Field Cost for casing in overburden and/or bedrock below such depth.

(ii) FOOTAGE RATES:

From bedrock to 800 feet $19.20 per ft. NQ
From bedrock to 800 feet $17.70 per ft. BQ

(7) FIELD COST: Any reference to Field Cost in this agreement shall be interpreted as follows:

Labour	$29.00 per man hour
Drill Rental	$20.00 per machine hour
Material Consumed	Cost plus 15%

(8) SPECIFIC OPERATIONS: Company agrees to pay for the following operations on a Field Cost basis:

(i) Cementing and wedging.

(ii) Drilling of permafrost, cave, broken ground and /or drilling and washing of sand.

(iii) Mud and/or calcium chloride if abnormal ground conditions require treatment with product. Products will be charged at cost plus 15%.

(iv) Removal of casing and associated materials upon completion of drilling on said set-up or left in hole at companys request.

(v) Reducing to smaller size hole if ground conditions necessitate such action.

(9) CAVITIES: In the event that permafrost, cavities, loose or caving materials or excessive water flows are encountered of a nature so as to prevent the successful completion of any hole, the Contractor does not, under such conditions, guarantee to drill any hole to any pre-determined depth and, in the event that it becomes necessary to abandon any hole, the Company agrees to pay the Contractor for such uncompleted holes at the rates herein specified for all footage completed. However, should the Company request that further work be carried out in the hole beyond this point, then the Contractor shall continue the work in the hole

Dublin Gulch placer camp

but such continuing work shall be at Field Cost rates.

(10) MOBILIZATION AND DEMOBILIZATION: Mobilization and demobilization of Contractor's drill, and equipment between Whitehorse and ~~property access road~~ will be at the Contractor's expense. Mobilization and demobilization of Contractor's crew between Whitehorse and the property will be at the Contractor's expense.

(11) MOVING IN AND OUT: Once at access road to property, the Company will be charged $29.00 per man hour for all standby, loading, unloading, and moving in to the property and setting up on the first hole. Once the job is completed, the Company will be charged $29.00 per man hour for all standby, loading, unloading, tearing down and moving out to the same point at the completion of the job. Truck usage during loading and unloading will be charged to the Company at forty-five (45) dollars per hour.

(12) MOVES: Moving time between drill holes in excess of ten (10) man hours will be charged to the Company at Field Cost. Drill rental will not be charged during moves.

(13) HELICOPTER AND/OR FIXED WING: If required, the Company will supply helicopter and/or fixed wing support for movement of drill and supplies, equipment and drill crew at no cost to the Contractor. Any delays waiting for helicopter and/or fixed wing will be charged to the Company at $29.00 per man hour.

(14) TRACTOR: The Company will supply a tractor for trenching, site preparation and for movement of drill and supplies at no cost to the Contractor.

(15) CAMP: The Company will provide room and board for the Contractor's crew at no cost to the Contractor.

(16) WATER SUPPLY: When water supply exceeds 2,000 feet in length and/or 300 feet in elevation, the Company agrees to pay for all installation of pumping equipment at $29.00 per man hour. The Contractor agrees to supply additional pipe, hose and pumps at no cost to the Company, with the exception of freight as outlined in Clause 21 of this agreement. Delays caused by lack of water and/or freezing conditions will be charged to the Company at Field Cost. Freezing water delays, if caused by the negligence of drill crew, will be at the Contractor's expense.

(17) TESTING: The Company will pay for all angle acid testing of holes at Field Cost after one free acid test per hole.

(18) CORE BOXES: Core boxes will be supplied by the Company at no cost to the Contractor.

(19) FUEL: The Company will provide diesel fuel and propane for drill, pumps, camp and tractor at no cost to the Contractor.

forty-five minutes

2½ minutes one way

(20) TRAVELLING TIME: When travelling time between drill and camp site exceeds ~~one half hour~~ per man per day, all time will be chargeable to the Company at $29.00 per man hour.

(21) FREIGHT AND TRANSPORTATION: Once drilling has commenced, any extra equipment such as rods, casing, fuel, mud, propane, cement and calcium chloride etc. will be at cost to the Company from Whitehorse to the property. Any additional trips needed for drill and pump repair will be at the Contractor's expense.

(22) STANDBY: Standby time caused by the Company will be chargeable at $29.00 per man hour. Standby time caused by machine breakdown or lack of drill supplies and equipment will be at Contractor's expense.

(23) MOBILE RADIO: If required, the Contractor will provide radio communication from the property at no cost to the Company.

(24) PERMITS: If a Land Use Permit, Timber Permit and/or Water Permit is required, then the Company shall be responsible for this.

(25) REPORTS: It is agreed that the foreman's daily reports will be signed by the Contractor's foreman and the Company's representative. It is further agreed that the cost items on the signed foreman's reports will be invoiced to and paid for by the Company.

(26) ACTS AND REGULATIONS: The Contractor agrees, at its own expense, to comply with all requirements of the Workman's Compensation Act, Unemployment Insurance Act, Hours of Work and Vacations With Pay Act and generally all federal and provincial/territorial acts and regulations applicable to the Contractor's operations.

(27) RIGHT TO VACATE: Upon completion of the work herein contracted to be performed, the Contractor shall have the right to remove, within a reasonable length of time, all temporary buildings and other fixtures including trade fixtures, machinery, equipment and appliances placed by the Contractor upon such lands.

(28) SECRECY: The Contractor will not give out any information regarding drill results nor permit any access to drill core to any individual other than the Company's representative, except upon specific permission of responsible officials of the Company.

(29) DISCIPLINE: The Contractor shall at all times enforce discipline and maintain good order among its employees, and shall not retain on the job any person not skilled in the work assigned him. Any employee of the Contractor who is objectionable or unsatisfactory to the Company shall be removed from the job and

replaced by an employee satisfactory to the Company.

(30) ECOLOGY AND SANITATION: During the course of the work the Contractor shall keep the site of any drilling and camp site area free from accumulation of waste materials, rubbish, or garbage. Upon completion of the work the Contractor shall remove all tools, scaffolding, surplus materials, rubbish and garbage and leave the area in a clean condition. The Contractor shall observe and comply with all federal and provincial/territorial laws, regulations and orders relating to sanitation in the bush and the prevention of forest fires.

(31) MUTUAL AGREEMENT: In complying with the obligations of this agreement the Contractor agrees to carry insurance of the types and in the minimum amounts as follows:

(i) Workman's Compensation insurance in accordance with the Workman's Compensation Ordinance of British Columbia/Yukon.

(ii) Comprehensive general liability insurance with limit of liability of $1,000,000 inclusive any one bodily injury occurrenceor property damage accident, and in aggreate where applicable.

(iii) Automotive liability insurance including owned, nonowned and hired automotive equipment, with limit of liability of $1,000,000 (owned automotive equipment) and $500,000 (nonowned and hired automotive equipment) inclusive any one bodily injury occurrence or property damage accident.

All such insurance shall be carried in a company or companies acceptable to the Company and shall be maintained in full force and effect during the term of this agreement, and shall not be cancelled, altered or amended without ten days prior notice in writing having first been furnished the Company. Contractor agrees to have its insurance carrier furnish the Company a certificate or certificates evidencing insurance coverage in accordance with the above requirements, and when requested to do so, furnish the Company certified copies of all said insurance policies.

The Contractor will indemnify and hold the Company harmless from and against all damages and claims for damages by reason of death or injury of persons or damage to property caused by the negligence of the Contractor, its employees or agents, or by non-compliance by the Contractor with any rules and regulations, orders or charges issued by a federal authority having jurisdiction in the performance of this agreement.

(33) PAYMENT: The Company will pay the Contractor for all work contemplated by this agreement as the work progresses as follows:

For all work done on and before the last day of the calender month, payment not later than the 30th day of the calendar month next following. Interest will be charged on

overdue accounts at 2% per month.

The Contractor will, along with its final invoice, forward to the Company certification from the Workman's Compensation Board that the Contractor is in good standing with the Board.

(34) SPECIAL AGREEMENT: It is agreed that the prices quoted are subject to change due to increased cost of diamond products and/or drilling equipment, provided however, that the Company be given proof of the requirement for and prior notice in writing of any such price change.

(35) TIME: The commencement day of drilling shall be approximately August 15, 1986 or as soon thereafter as weather conditions permit or as agreed by both parties.

IN WITNESS WHEREOF the parties hereto have caused these presents to be executed by their respective officers in that behalf.

SIGNED BY: IN THE PRESENCE OF:

QUEENSTAKE RESOURCES LTD.

DD SHARP WITNESS Michael Phelps

E. CARON DIAMOND DRILLING LIMITED

UNDERHILL ENGINEERING LTD.
UNDERHILL & UNDERHILL

Date Sept 25/86 Sheet 2 of 2

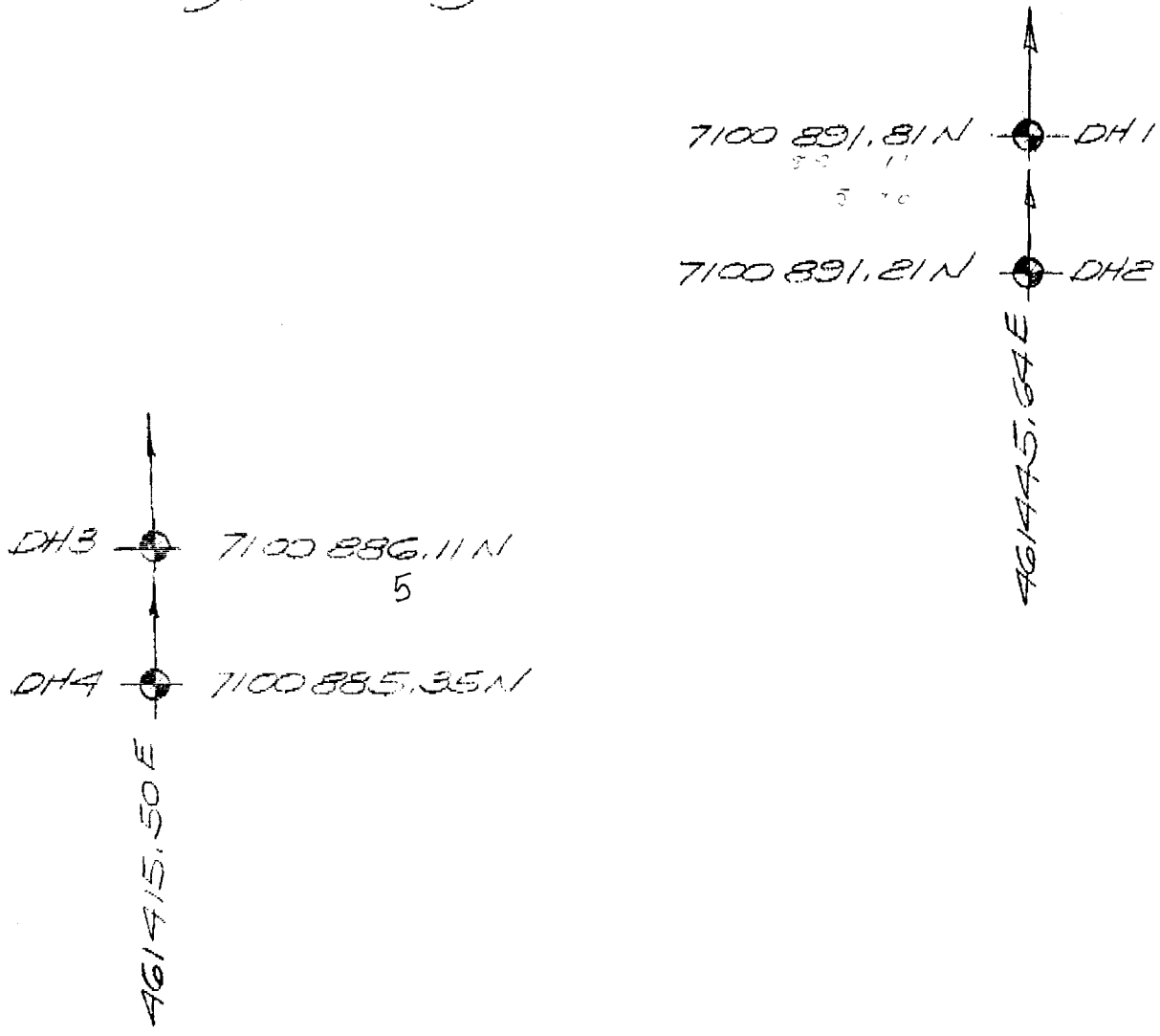
JOB No. 43548 Client CANADA TUNGSTEN

Project DRILL HOLE LOCATION (Zone 8)

Field Book 84 Page 45, 46 Computed By TDC Checked By

DRILL HOLE NUMBER	COLLAR ELEVATION	HOLE BEARING	DIP
1	1215.42	359° 37'	-46° 35'
2	1214.54	357° 43'	-59° 10'
3	1214.60	354° 07'	-42° 30'
4	1214.59	359° 40'	-59° 10'

- Elevations are in metres to Geodetic Datum.
- UTM grid coordinates in metres as shown.
- Bearings are grid.



UNDERHILL & UNDERHILL

FILE 43548

LE DDH COORDINATION FOR CANADA TUNGSTEN

Calc. by T. Connolly

Chkd. by

Field Book 34 page 45, 46

STATION	BEARING	DISTANCE	LAT.	DEP.	ADJ. LAT.	ADJ. DEP.
combined scale factor = 0.999428						
	PEGX	7100000N				
		460000E				
800			927.07	1457.36	el=	1213.06
DH 1	198°28'34"	97.157	891.91	1445.69	el=	1215.42
800						
DH 2	198°05'54"	37.728	891.21	1445.64	el=	1214.54
800						
L 3	225°37'54"	58.572	896.11	1415.49	el=	1214.60
800						
DH 4	225°25'39"	59.093	895.35	1415.51	el=	1214.59

APPENDIX V

Analytical Procedures and Certificates of Analysis

Bondar Clegg

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667

BONDAR-CLEGG

Mr. Joe Shearer

Sept. 29, 1986

701-74 West Hastings St.
Vancouver. B.C.

RE: Assay Procedures for Reports 426-3730 / 3814 / 4040 / 4044

Dear Mr. Shearer:

This letter describes the assay procedures used on the above reports in full, from receipt of the samples to reporting the results.

Sample Preparation:

(a) When the samples are received they are given a report number.
(b) The method of shipping is noted.
(c) The samples are then sorted numerically or according to client shipment form if provided.
(d) The whole sample is then put through a 6" jaw crusher.
(e) The whole sample is then put through a 10" cone crusher, which crushes down to 10 mesh.
(f) Sample is then split down to approximately 250 grams and the excess material is placed back into original bag and the "250" gram split is placed into a paper bag.
(g) The 250 gram split is pulverized to 90% -150 mesh.

The above procedures were carried out at Bondar Clegg in Whitehorse Y.T. The 250 gram splits were then shipped to Vancouver. Upon arrival at Bondar-Clegg Vancouver, the pulverized samples were screened as follows:

Metallics Screening Procedure

1. The whole 250 g sample was passed through a 150 mesh screen.
2. The whole of the + 150 mesh material was fire assayed and a 1AT of the -150 mesh material was fire assayed. The Au in the +150 portion is always finished gravimetrically.
3. The total Au in the sample was then calculated.

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667

BONDAR-CLEGG

Analyses: Fire Assay

The fire assay procedure was as follows:

(a) The sample is weighed into a crucible with prepared flux. The flux was comprised of appropriate quantities of litharge, soda, silica, borax glass, and flour. A solution containing silver was added to all of the samples analyzed for gold. In that case, a separate fusion was required for silver.
(b) Three samples out of every 24 are run again on another fusion at the end of a report. All samples over 0.20 OPT are run again as a checks and weighed on the gold balance, as well as any sample whose results look suspect. (ie a high one amongst a series of low ones and vice-versa)
(c) The samples are fused at 1950 degrees F for about 40 minutes.
(d) The slag is removed from the resulting lead button, which contains the precious metals and weighs between 30 and 40 grams.
(e) The lead button is then cupelled to get rid of the lead and the resulting bead is digested in a test tube and run on the A.A.

I hope the description of the procedures is adequate for your needs.

Sincerely yours

for - R. K. Rogers
Chief Assayer

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667

BONDAR-CLEGG

Certificate of Analysis

REPORT: 426-3730

PROJECT: NONE GIVEN PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Ag OPT
D2 85251		<0.002	0.25
D2 85252		<0.002	0.49
D2 85253		<0.002	0.07
D2 85254		0.002	<0.02
D2 85255		<0.002	0.04
D2 85256		<0.002	<0.02
D2 85257		<0.002	0.02
D2 85258		<0.002	<0.02
D2 85259		<0.002	0.02
D2 85260		<0.002	0.09
D2 85261		<0.002	<0.02
D2 85262		<0.002	0.67
D2 85263		0.005	<0.02
D2 85264		0.002	<0.02
D2 85265		<0.002	<0.02
D2 85266		<0.002	6.53
D2 85267		0.002	1.09
D2 85268		<0.002	0.02
D2 85269		0.002	<0.02
D2 85270		0.003	0.43
D2 85271		0.002	0.15
D2 85272		0.002	0.06
D2 85273		0.003	0.89
D2 85274		<0.002	0.05
D2 85275		0.002	0.04
D2 85276		0.002	0.65
D2 85277		<0.002	0.02
D2 85278		0.004	0.28
D2 85279		0.002	0.74
D2 85280		0.002	0.02
D2 85281		<0.002	<0.02
D2 85282		0.041	0.02
D2 85283		0.008	0.03
D2 85284		0.002	0.02
D2 85285		0.289	0.11
D2 85286		0.002	<0.02
D2 85324		0.003	<0.02
D2 85325		0.002	<0.02
D2 85326		0.049	0.03
D2 85327		0.002	0.02
D2 85328		<0.002	<0.02
D2 85329		0.006	<0.02
D2 85330		0.206	0.51
D2 85331		0.012	0.28
D2 85332		0.002	0.28
D2 85333		0.008	0.18
D2 85339		0.004	<0.02

Registered Assayer, Province of British Columbia

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667

BONDAR-CLEGG

Certificate of Analysis

REPORT: 426-3814 | PROJECT: NONE GIVEN | PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Ag OPT	SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Ag OPT
R2 85287		0.007	0.11	R2 85337		0.002	<0.02
R2 85288		<0.002	0.05	R2 85338		0.003	<0.02
R2 85289		<0.002	0.02	R2 85340		0.003	<0.02
R2 85290		0.002	0.02	R2 85341		0.003	<0.02
R2 85291		0.010	0.12	R2 85342		0.003	0.03
R2 85292		0.006	<0.02	R2 85343		0.002	<0.02
R2 85293		0.003	0.14	R2 85344		0.002	<0.02
R2 85294		0.002	0.16	R2 85345		0.002	<0.02
R2 85295		<0.002	<0.02	R2 85346		<0.002	<0.02
R2 85296		<0.002	<0.02				
R2 85297		<0.002	<0.02				
R2 85298		<0.002	<0.02				
R2 85299		<0.002	<0.02				
R2 85300		0.002	<0.02				
R2 85301		0.002	<0.02				
R2 85302		<0.002	<0.02				
R2 85303		<0.002	<0.02				
R2 85304		0.002	0.03				
R2 85305		0.027	<0.02				
R2 85306		0.011	<0.02				
R2 85307		0.007	<0.02				
R2 85308		0.029	<0.02				
R2 85309		0.009	0.02				
R2 85310		0.002	<0.02				
R2 85311		0.002	<0.02				
R2 85312		0.003	<0.02				
R2 85313		0.002	0.02				
R2 85314		0.002	<0.02				
R2 85315		0.005	0.02				
R2 85316		0.003	0.03				
R2 85317		0.029	0.21				
R2 85318		0.007	0.05				
R2 85319		0.003	0.06				
R2 85320		0.002	<0.02				
R2 85321		0.002	<0.02				
R2 85322		0.002	<0.02				
R2 85323		0.002	<0.02				
R2 85334		0.002	<0.02				
R2 85335		0.003	<0.02				
R2 85336		0.003	0.03				

Registered Assayer, Province of British Columbia

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667

BONDAR-CLEGG

Certificate of Analysis

REPORT: 426-3730 (COMPLETE)

REFERENCE INFO: WHSE 46-252

CLIENT: QUEENSTAKE RESOURCES LTD
PROJECT: NONE GIVEN

SUBMITTED BY: J SHEARER
DATE PRINTED: 2-SEP-86

ORDER	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au	Gold - FIRE ASSAY	47	0.001 OPT		
2	Ag	Silver	47	0.01 OPT		

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
D DRILL CORE	47	2 -150	47	ASSAY PREP	47

REMARKS: ALL SAMPLES WERE SCREENED FOR METALLICS AND
VERY LITTLE WAS FOUND.

REPORT COPIES TO: MR. G. GUTHRATH
MR. J. T. SHEARER

INVOICE TO: MR. G. GUTHRATH

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667

BONDAR-CLEGG

Certificate of Analysis

REPORT: 426-4044 (COMPLETE)

REFERENCE INFO:

CLIENT: QUEENSTAKE RESOURCES LTD
PROJECT: NONE GIVEN

SUBMITTED BY: J SHEARER
DATE PRINTED: 22-SEP-86

ORDER	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au	Gold - FIRE ASSAY	177	0.001 OPT		
2	Ag	Silver	177	0.01 OPT		

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
D DRILL CORE	177	3 -150	177	ASSAY PREP	177

NOTES: = indicates SEE ORE REMARKS

REMARKS: = ALL SAMPLES WERE SCREENED BUT METALLICS FOUND ONLY IN THE SAMPLES INDICATED.

REPORT COPIES TO: MR. J. T. SHEARER

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667

BONDAR-CLEGG

Certificate of Analysis

REPORT: 4Z6-4044 | PROJECT: NONE GIVEN | PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Ag OPT	SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Ag OPT
D2 13086		0.003	0.07	D2 13126		<0.002	<0.02
D2 13087		0.081	0.06	D2 13127		0.040	0.07
D2 13088		0.006	0.02	D2 13128		<0.002	0.03
D2 13089		0.005	0.02	D2 13129		<0.002	0.03
D2 13090		0.006	0.04	D2 13130		<0.002	0.02
D2 13091		0.007	0.08	D2 13131		<0.002	0.06
D2 13092		0.018	0.35	D2 13132		<0.002	0.04
D2 13093		<0.002	<0.02	D2 13133		<0.002	0.03
D2 13094		<0.002	<0.02	D2 13134		<0.002	0.05
D2 13095		0.002	<0.02	D2 13135		0.002	0.04
D2 13096		<0.002	<0.02	D2 13136		0.002	0.04
D2 13097		0.007	<0.02	D2 13137		<0.002	0.02
D2 13098		<0.002	<0.02	D2 13138		0.158=	0.05
D2 13099		0.002	<0.02	D2 13139		0.004	0.02
D2 13100		<0.002	<0.02	D2 13140		<0.002	0.05
D2 13101		<0.002	<0.02	D2 13141		0.064	0.14
D2 13102		0.002	0.52	D2 13142		<0.002	0.03
D2 13103		0.301	0.09	D2 13143		0.003	0.04
D2 13104		0.002	<0.02	D2 13144		0.007	0.09
D2 13105		0.002	<0.02	D2 13145		0.009	0.09
D2 13106		0.005	<0.02	D2 13146		0.026	0.09
D2 13107		0.002	<0.02	D2 13147		<0.002	<0.02
D2 13108		0.006	<0.02	D2 13148		0.002	0.04
D2 13109		0.004	<0.02	D2 13149		<0.002	0.02
D2 13110		<0.002	<0.02	D2 13150		0.002	<0.02
D2 13111		<0.002	<0.02	D2 13151		<0.002	0.02
D2 13112		<0.002	<0.02	D2 13152		<0.002	<0.02
D2 13113		0.007	<0.02	D2 13153		<0.002	0.03
D2 13114		<0.002	<0.02	D2 13154		<0.002	<0.02
D2 13115		0.025	0.05	D2 13155		<0.002	<0.02
D2 13116		<0.002	<0.02	D2 13156		<0.002	<0.02
D2 13117		0.004	0.63	D2 13157		0.029	0.03
D2 13118		0.002	0.21	D2 13158		0.003	<0.02
D2 13119		0.002	0.09	D2 13159		0.002	<0.02
D2 13120		<0.002	0.07	D2 13160		0.004	<0.02
D2 13121		<0.002	0.05	D2 13161		0.002	<0.02
D2 13122		<0.002	0.04	D2 13162		<0.002	<0.02
D2 13123		<0.002	0.04	D2 13163		0.002	<0.02
D2 13124		<0.002	0.02	D2 13164		<0.002	<0.02
D2 13125		<0.002	0.03	D2 13165		0.010	<0.02

004

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SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Ag OPT
D2 13166		0.024	0.05
D2 13167	0.48 x 1.300=	0.624	0.35
D2 13168		0.016	<0.02
D2 13169		0.005	<0.02
D2 13170		0.003	<0.02
D2 13171		<0.002	<0.02
D2 13172		<0.002	0.03
D2 13173		<0.002	0.03
D2 13174		0.014	0.04
D2 13175		<0.002	0.02
D2 13176		0.007	0.08
D2 13177		<0.002	<0.02
D2 13178		<0.002	<0.02
D2 13179		<0.002	0.04
D2 13180		<0.002	0.02
D2 13181		0.005	0.30
D2 13182		<0.002	<0.02
D2 13183		0.002	<0.02
D2 13184		<0.002	<0.02
D2 13185		<0.002	<0.02
D2 13186		<0.126	0.05
D2 13187	0.69 2.177=	0.43	
D2 13188		0.009	0.05
D2 13189		0.010	<0.02
D2 13190		0.004	<0.02
D2 13191		0.005	<0.02
D2 13192		0.002	<0.02
D2 13193		<0.002	<0.02
D2 13194		<0.002	<0.02
D2 13195		<0.002	<0.02
D2 13196		<0.002	<0.02
D2 13197		0.146	0.02
D2 13198		0.002	<0.02
D2 13199		0.002	<0.02
D2 13200		<0.002	<0.02
D2 13626		<0.002	<0.02
D2 13627		<0.002	<0.02
D2 13628		<0.002	<0.02
D2 13629		<0.002	0.02
D2 13630		0.014	0.07
D2 13631		<0.002	<0.02
D2 13632		0.002	0.02
D2 13633		<0.002	0.02
D2 13634		<0.002	0.02
D2 13635		<0.002	<0.02
D2 13636		<0.002	0.02
D2 13637		<0.002	<0.02
D2 13638		<0.002	<0.02
D2 13639		0.012	0.02
D2 13640		0.006	0.10
D2 13641		<0.002	0.10
D2 13642		0.007	0.06
D2 13643		<0.002	0.06
D2 13644		<0.002	0.02
D2 13645		<0.002	0.02
D2 13646		<0.002	0.02
D2 13647		0.005	0.02
D2 13648		0.006	0.02
D2 13649		0.013	0.02
D2 13650		0.006	<0.02
D2 13651		0.002	<0.02
D2 13652		0.164	0.02
D2 13653		0.008	0.19
D2 13654		0.002	0.06
D2 13655		<0.002	0.02
D2 13656		<0.002	0.02
D2 13657		<0.002	0.02
D2 13658		0.005	0.10
D2 13659		<0.002	0.02
D2 13660		<0.002	<0.02
D2 13661		<0.002	<0.02
D2 13662		<0.002	0.11
D2 13663		<0.002	0.06
D2 13664		<0.002	0.09
D2 13665		<0.002	0.08
D2 13666		<0.002	0.03
D2 13667		<0.002	0.02
D2 13668		<0.002	0.12
D2 13669		<0.002	0.03
D2 13670		<0.002	0.05

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SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Ag OPT
D2 13671		<0.002	0.02
D2 13672		<0.002	0.04
D2 13673		<0.002	0.03
D2 13674		<0.002	0.03
D2 13675		<0.002	0.02
D2 13676		0.011	0.04
D2 13677		<0.002	0.02
D2 13678		<0.002	0.03
D2 13679		<0.002	0.02
D2 13680		0.002	<0.02
D2 13681		<0.002	0.02
D2 13682		<0.002	0.02
D2 13683		<0.002	<0.02
D2 13684 1		<0.002	<0.02
D2 13685 2		0.072	0.81
D2 13686 3		0.083	0.47
D2 13687 4		0.024	0.16

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SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Ag OPT	SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Ag OPT
D2 13076		<0.002	<0.02	D2 85378		<0.002	<0.02
D2 13077		<0.002	0.21	D2 85379		1.764	0.51
D2 13078		<0.002	0.03	D2 85380		0.007	<0.02
D2 13079		<0.002	0.02	D2 85381		0.004	<0.02
D2 13080		<0.002	0.02	D2 85382		<0.002	<0.02
D2 13081		<0.002	0.03	D2 85383		0.003	<0.02
D2 13082		0.011	0.02	D2 85384		0.006	<0.02
D2 13083		<0.002	<0.02	D2 85385		0.008	<0.02
D2 13084		0.002	0.03	D2 85386		0.027	0.03
D2 13085		0.011	0.02	D2 85387		0.002	<0.02
D2 85347		<0.002	<0.02	D2 85388		<0.002	<0.02
D2 85348		<0.002	<0.02	D2 85389		0.005	<0.02
D2 85349		0.002	0.03	D2 85390		<0.002	<0.02
D2 85350		<0.002	<0.02	D2 85391		0.003	<0.02
D2 85351		<0.002	0.02	D2 85392		<0.002	<0.02
D2 85352		0.027	0.06	D2 85393		0.006	<0.02
D2 85353		<0.002	0.02	D2 85394		0.003	<0.02
D2 85355		<0.002	<0.02	D2 85395		0.005	<0.02
D2 85356		<0.002	<0.02	D2 85396		0.002	0.05
D2 85357		<0.002	<0.02	D2 85397		<0.002	<0.02
D2 85358		<0.002	<0.02	D2 85398		0.002	<0.02
D2 85359		<0.002	<0.02	D2 85399		<0.002	<0.02
D2 85360		<0.002	<0.02	D2 85400		0.017	0.02
D2 85361		<0.002	<0.02	D2 85401		<0.002	0.15
D2 85362		<0.002	<0.02	D2 85402		<0.002	<0.02
D2 85363		<0.002	<0.02	D2 85403		<0.002	<0.02
D2 85364		<0.002	<0.02	D2 85404		<0.002	<0.02
D2 85365		<0.002	<0.02	D2 85405		0.002	<0.02
D2 85366		<0.002	0.03	D2 85406		<0.002	<0.02
D2 85367		<0.002	<0.02	D2 85407		0.002	<0.02
D2 85368		<0.002	<0.02	D2 85408		<0.002	<0.02
D2 85369		0.003	0.13	D2 85409		<0.002	0.05
D2 85370		0.059	0.64	D2 85410		<0.002	<0.02
D2 85371		0.002	0.11	D2 85411		0.018	0.02
D2 85372		0.002	0.03	D2 85412		0.008	<0.02
D2 85373		<0.002	<0.02	D2 85413		<0.002	<0.02
D2 85374		<0.002	<0.02	D2 85414		0.003	<0.02
D2 85375		<0.002	<0.02	D2 85415		0.011	<0.02
D2 85376		<0.002	<0.02	D2 85416		0.002	<0.02
D2 85377		0.002	<0.02	D2 85417		<0.002	<0.02

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SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Ag OPT	SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Ag OPT
D2 85418		0.004	<0.02	D2 85458		<0.002	<0.02
D2 85419		0.002	<0.02	D2 85459		<0.002	<0.02
D2 85420		<0.002	<0.02	D2 85460		<0.002	0.02
D2 85421		<0.002	<0.02	D2 85461		0.002	<0.02
D2 85422		<0.002	<0.02	D2 85462		<0.002	<0.02
				missing →			
D2 85423		0.019	<0.02	D2 85464		0.002	0.02
D2 85424		0.004	<0.02	D2 85465		<0.002	0.03
D2 85425		0.002	<0.02	D2 85466		<0.002	0.03
D2 85426		<0.002	<0.02	D2 85467		0.002	0.02
D2 85427		<0.002	<0.02	D2 85468		0.002	<0.02
D2 85428		<0.002	<0.02	D2 85469		0.002	<0.02
D2 85429		<0.002	<0.02	D2 85470		0.003	0.02
D2 85430		0.003	<0.02	D2 85471		<0.002	<0.02
D2 85431		0.047	<0.02	D2 85472		<0.002	<0.02
D2 85432		<0.002	<0.02	D2 85473		<0.002	0.02
D2 85433		0.020	<0.02	D2 85474		<0.002	<0.02
D2 85434		<0.002	<0.02	D2 85475		<0.002	<0.02
D2 85435		0.012	<0.02	D2 85476		0.002	<0.02
D2 85436		0.012	0.02	D2 85477		<0.002	<0.02
D2 85437		0.008	0.64	D2 85478		<0.002	<0.02
D2 85438		0.005	<0.02	D2 85479		<0.002	<0.02
D2 85439		<0.002	<0.02	D2 85480		0.003	0.02
D2 85440		<0.002	<0.02	D2 85481		<0.002	<0.02
D2 85441		0.003	<0.02	D2 85482		0.002	0.04
D2 85442		<0.002	<0.02	D2 85483		<0.002	0.04
D2 85443		<0.002	<0.02	D2 85484		0.002	0.02
D2 85444		<0.002	<0.02	D2 85485		<0.002	<0.02
D2 85445		0.002	<0.02	missing → D2 85486		0.003	0.02
D2 85446		<0.002	<0.02	D2 85488		0.002	0.05
D2 85447		<0.002	<0.02	D2 85489		<0.002	<0.02
D2 85448		<0.002	<0.02	D2 85490		0.002	<0.02
D2 85449		<0.002	<0.02	D2 85491		<0.002	0.05
D2 85450		<0.002	<0.02	D2 85492		0.002	<0.02
D2 85451		0.005	<0.02	D2 85493		0.002	<0.02
D2 85452		0.004	<0.02	D2 85494		<0.002	<0.02
D2 85453		<0.002	<0.02	D2 85495		<0.002	<0.02
D2 85454		<0.002	<0.02	D2 85496		<0.002	<0.02
D2 85455		<0.002	<0.02	D2 85497		<0.002	<0.02
D2 85456		<0.002	<0.02	missing → D2 85500		0.007	<0.02
D2 85457		0.015	<0.02				

APPENDIX VI

List of Useful Names and Addresses

MAR GOLD PROJECT, 1986
Dublin Gulch, Yukon

APPENDIX VI

MAR GOLD PROJECT, 1986

Queenstake Resources Ltd.
9th Floor, 850 W. Hastings Street
Vancouver, B.C. V6C 1E1

Gordon Gutrath, Don Sharpe, Mike Philpott 684-1218
Telex 04-508875

Queenstake Resources Ltd.
115 Juniper Road
Whitehorse, Yukon Y1A 4W8 667-4620

Wayne Leonard, Manager (home) 633-3616
Glen Rodgers

Caron Diamond Drilling Ltd. (office) 668-2424
7 Roundel Road E. Caron (home) 668-4675
Whitehorse, Yukon Y1A 3H3

Drill foreman, Mitch McClellan
Kenworth Truck (radio) YJ2-5853
Mack Truck (radio) VL 25993

Dublin Gulch Placer Mine
(Canada Tungsten Mining Corp.) (radio) 2M 5004
John Clarke, Project Superintendent Elsa channel, or
Brian Lennan, Geologist (truck) 2M 8342
P.O. Box 130
Mayo, Yukon Y0B 1M0
John Clarke (home) 596-9583

George Manson, Placer Operator
Dublin Gulch-Haggart Creek

Canada Tungsten Mining Corp. (Vancouver) 689-0046

Bondar Clegg (Vancouver), Keith Rodgers 985-0681
John Reeves, Whitehorse 403-667-6523
136 Industrial Road

Blumenschein Enterprises Ltd. 403-633-2627
34 MacDonald Road
Whitehorse, Yukon
Suppliers of Polaris all-terrain vehicle

USEFUL PHONE NUMBERS, MAR GOLD PROJECT - 1986

Mining Recorder in Mayo, Roland Ronnagan 403-996-2256

Director of Mineral Resources
200 Range Road
Whitehorse, Yukon 403-667-3136
Chief Geologist - J. Morin
Contract Geologist, Ph.D. Thesis,
Mayo Area - Greg Lynch

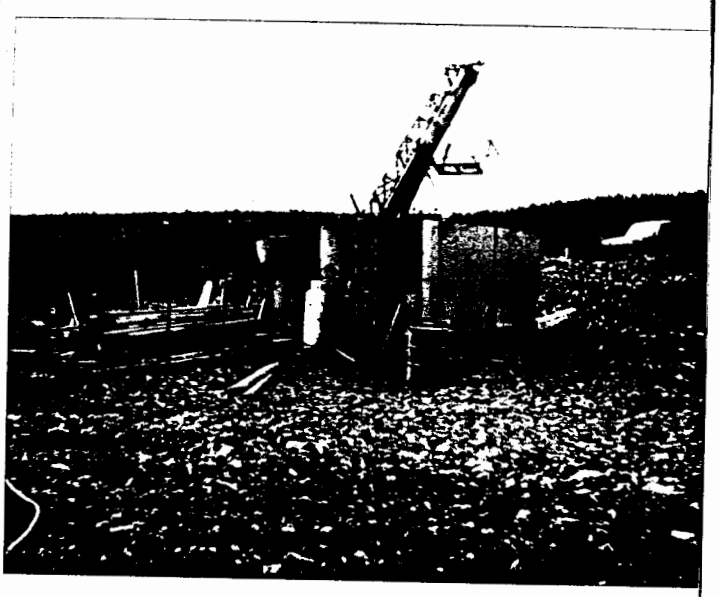
Northstar Motel
Mayo, Yukon 996-2231

Mayo Caselot and Expediting Services 996-2328
Box 155
Mayo, Yukon YOB 1MO

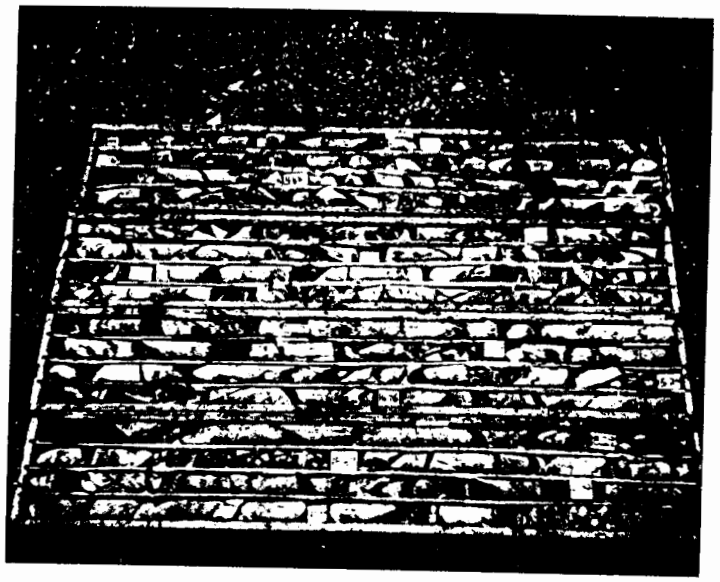
APPENDIX VII

DIAMOND DRILL RECORDS
MAR GOLD PROJECT, 1986
Logged by J.T. Shearer, M.Sc., FGAC

AND CORE PHOTOGRAPHS



MAR GOLD PROJECT
DIAMOND DRILL HOLE QRMG-86-001 -47°
August 15 1986



MAR GOLD PROJECT
DIAMOND DRILL HOLE QRMG-86-001
DATE: August 16 1986 Boxes 1 to 4
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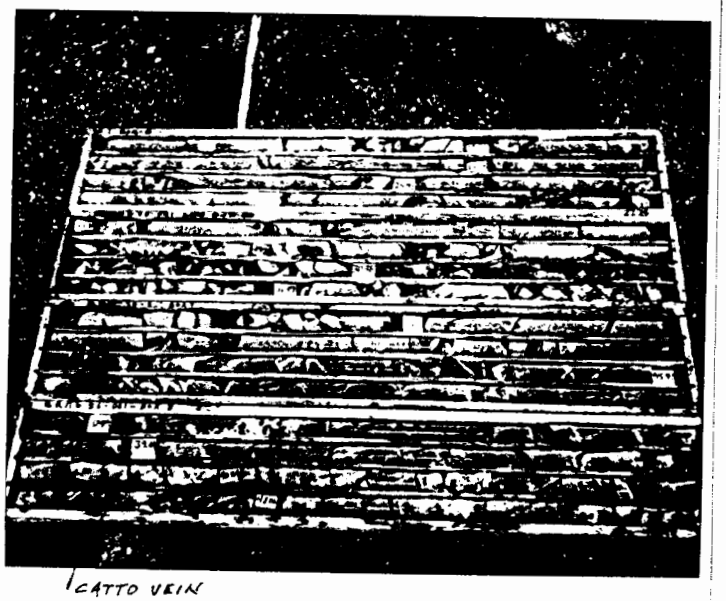
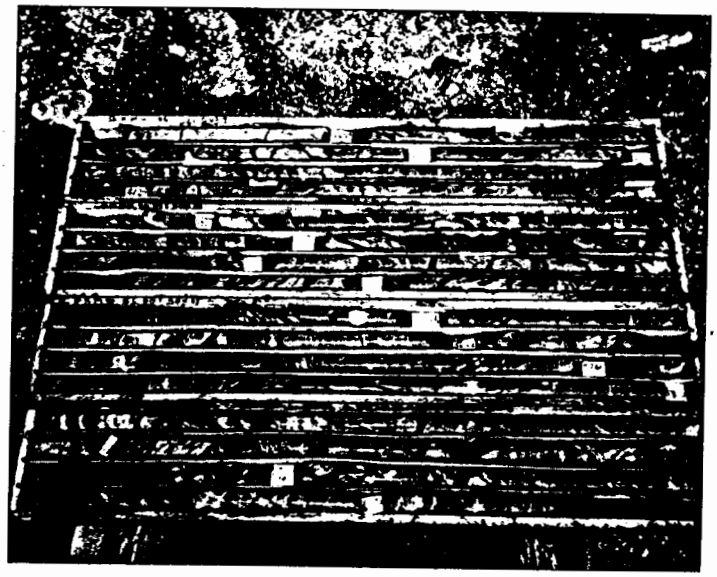


CATTO VEIN
MAR GOLD PROJECT
DIAMOND DRILL HOLE QRMG-86-001
DATE: August 16 1986 BOXES 5, 6, 7, 8
22.02m to 42.98



MAR GOLD PROJECT
HOLE QRMG-86-001
BOXES 9, 10, 11, 12

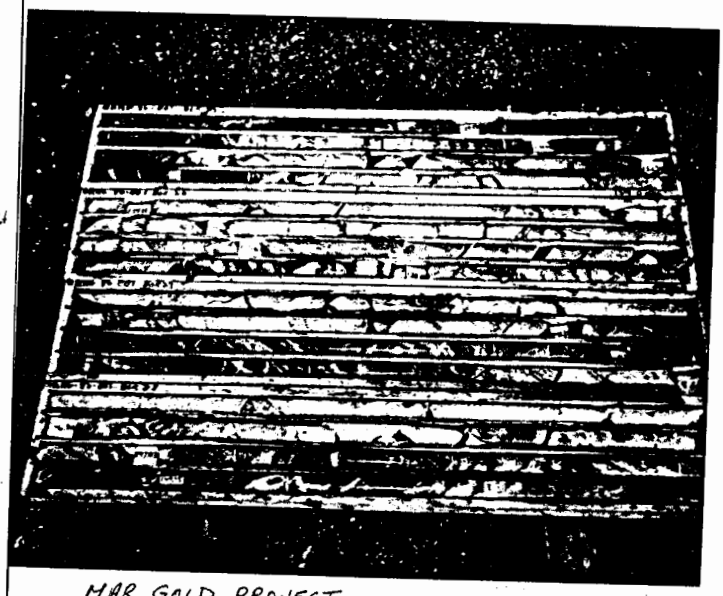
REFER TO ORIGINAL PHOTOGRAPHS FOR DETAILS AND COLOUR.

MAR GOLD PROJECT
HOLE QRMG-86-001
Boxes 13, 14, 15, 16

MAR GOLD PROJECT
HOLE - QRMG-86-001
Boxes 17, 18, 19, 20

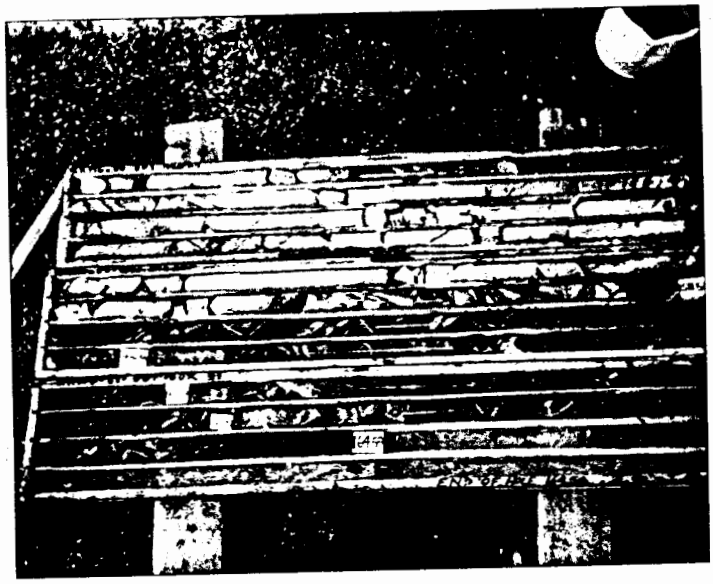
VICTORIA VEIN

MAR GOLD PROJECT
HOLE QRMG-86-001
Boxes 21, 22, 23, 24



MAR GOLD PROJECT
HOLE QRMG-86-001
Boxes 25, 26, 27, 28

REFER TO ORIGINAL PHOTOGRAPHS FOR DETAILS AND COLOUR



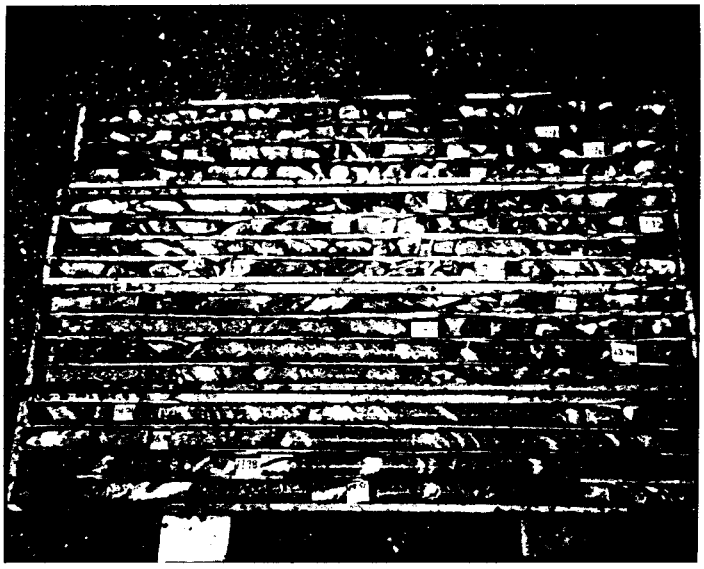
MAR GOLD PROJECT
HOLE QRMG-86-001

BOXES 29, 30, 31 EOH.

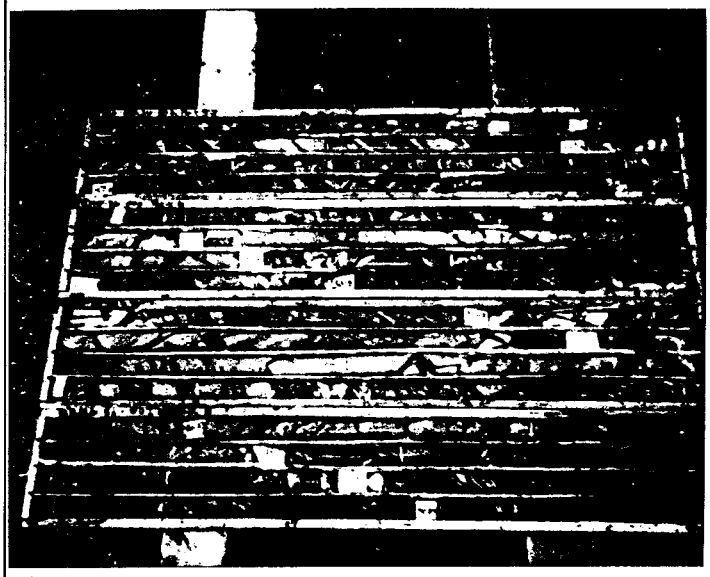
MAR GOLD PROJECT
HOLE QRMG-86-001
VICTORIA VEIN

MAR GOLD PROJECT
HOLE QRMG-86-001
"NEW VEIN"

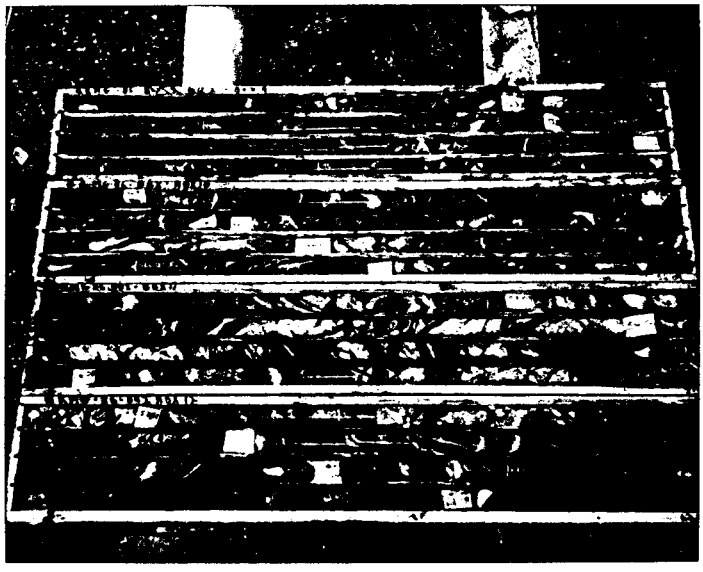
REFER TO ORIGINAL PHOTOGRAPHS FOR DETAILS AND COLOUR.



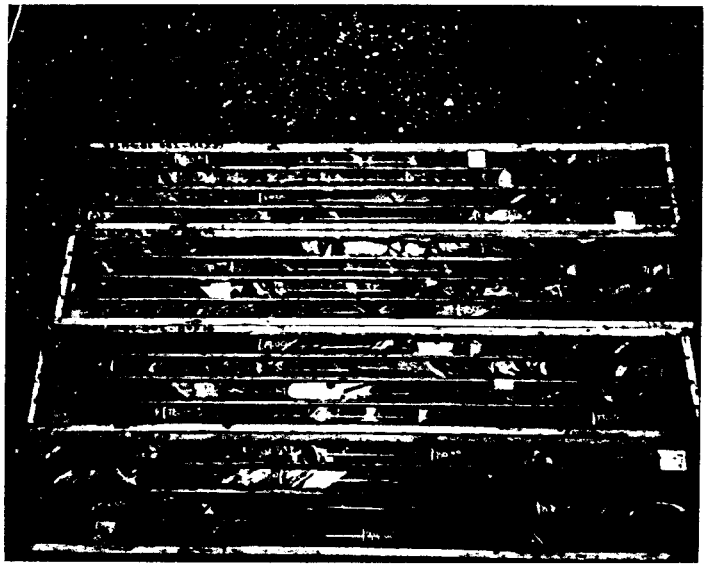
MARGOLD PROJECT
HOLE QRMG-86-002
Boxes 1-4



MARGOLD PROJECT
HOLE QRMG-86-002
Boxes 5, 6, 7, 8

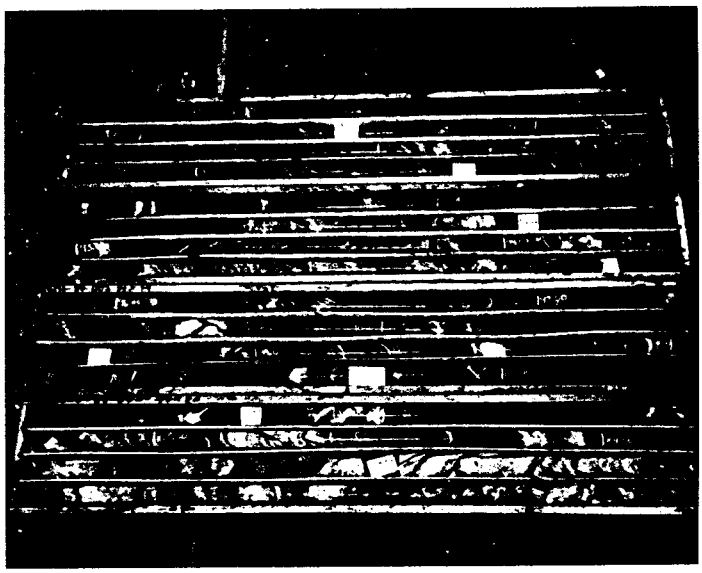


MARGOLD PROJECT
HOLE QRMG-86-002
Boxes 9-12.

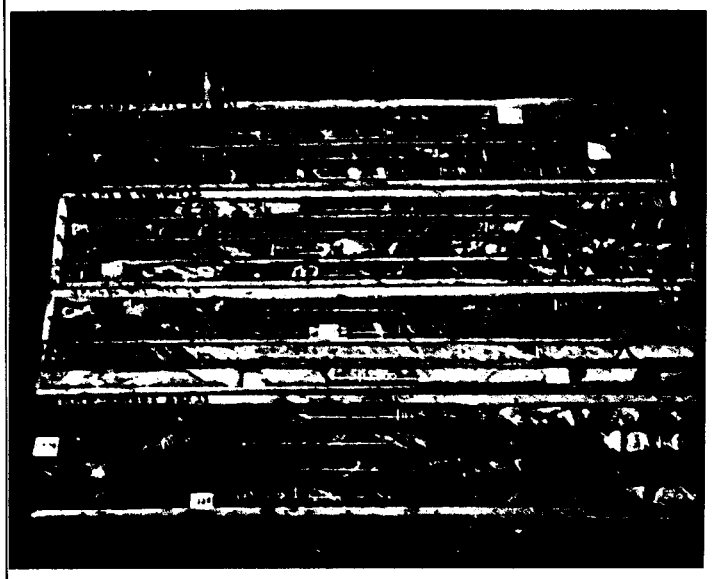


MARGOLD PROJECT
HOLE QRMG-86-002
Boxes 13, 14, 15, 16

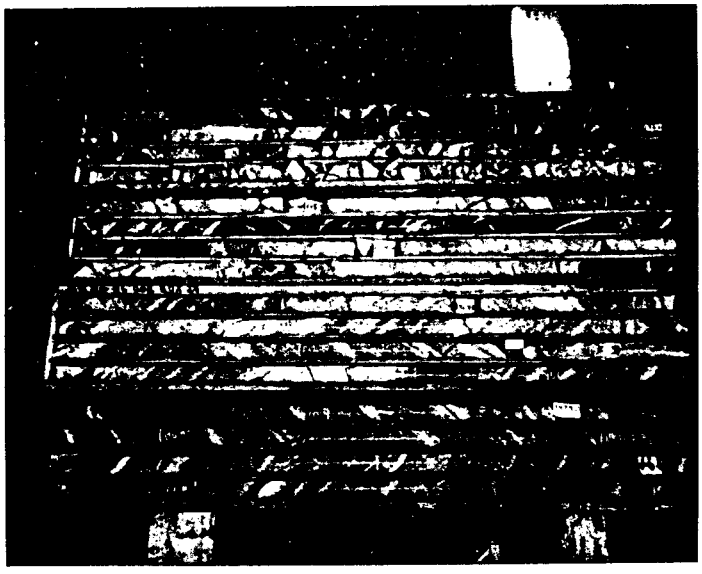
REFER TO ORIGINAL PHOTOGRAPHS FOR DETAILS AND COLOUR.



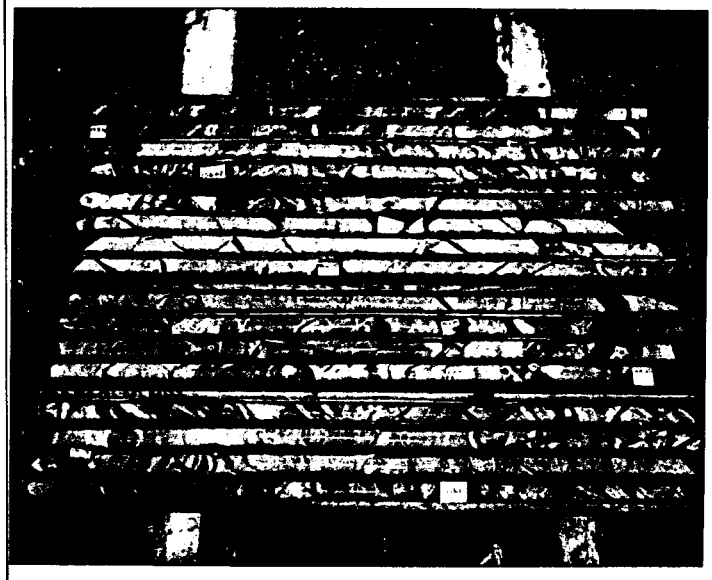
MAR GOLD PROJECT
HOLE QRMG-86-002
Boxes 17, 18, 19, 20



MAR GOLD PROJECT
HOLE QRMG-86-002
Boxes 21, 22, 23, 24

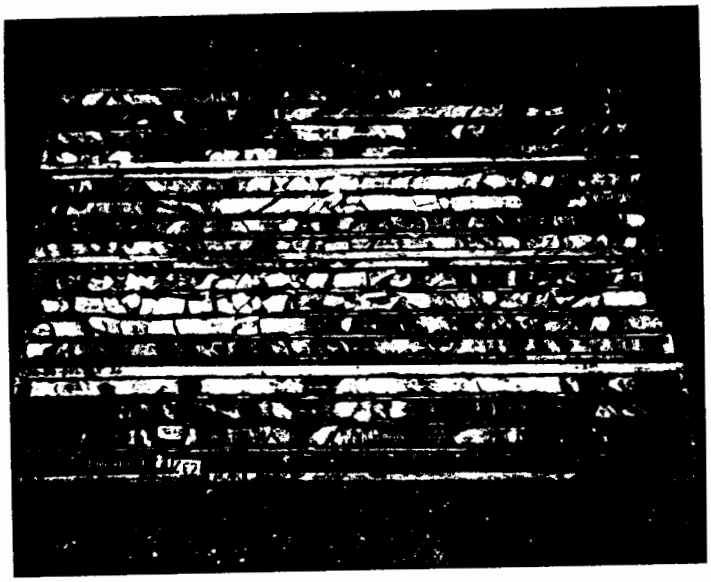


MAR GOLD PROJECT
HOLE QRMG-86-002
Boxes 25, 26, 27, 28

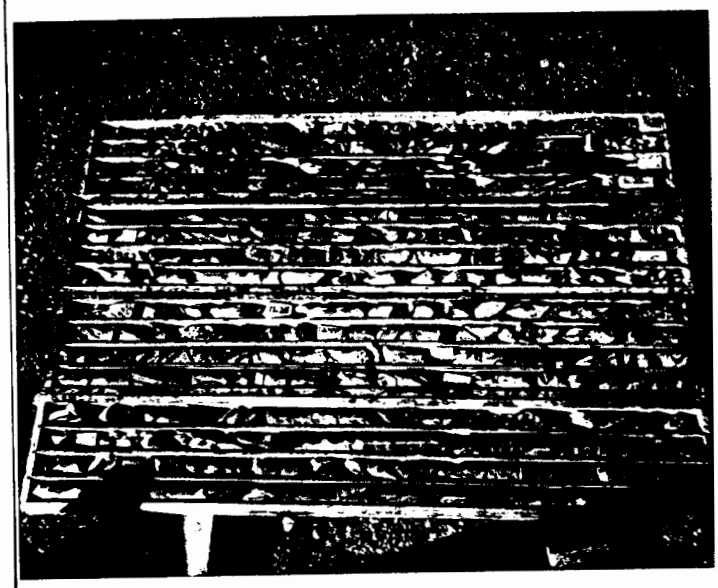


MAR GOLD PROJECT
HOLE QRMG-86-002
Boxes 29, 30, 31, 32

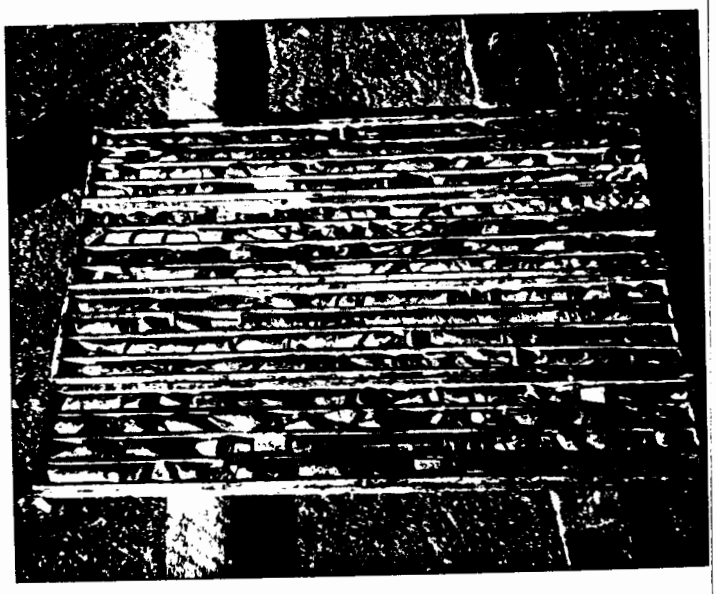
REFER TO ORIGINAL PHOTOGRAPHS FOR DETAILS AND COLOUR.



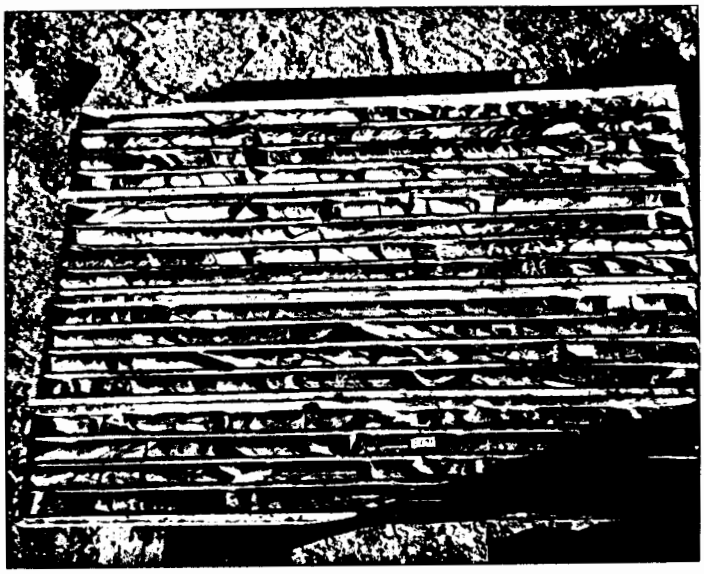
MAR GOLD PROJECT
HOLE QRMG-86-002
Boxes 33, 34, 35, 36
END OF HOLE



MAR GOLD PROJECT
HOLE # QRMG-86-003
Boxes 1, 2, 3 + 4

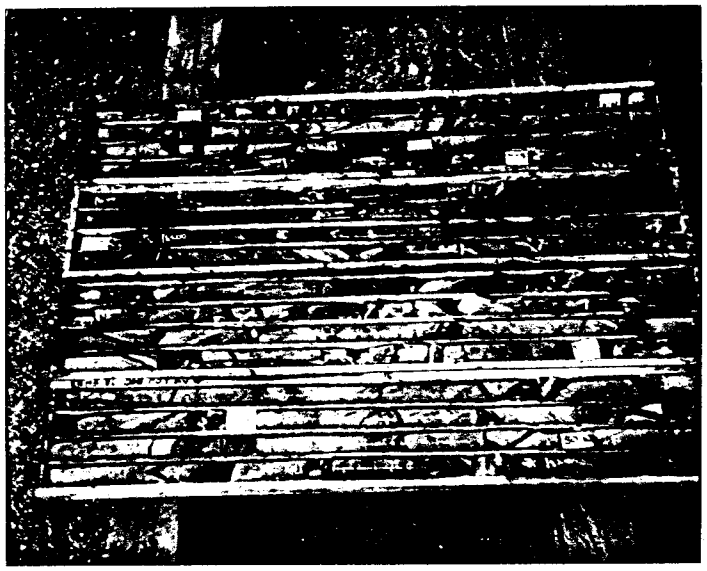


MAR GOLD PROJECT
HOLE # QRMG-86-003
Boxes 5, 6, 7 + 8

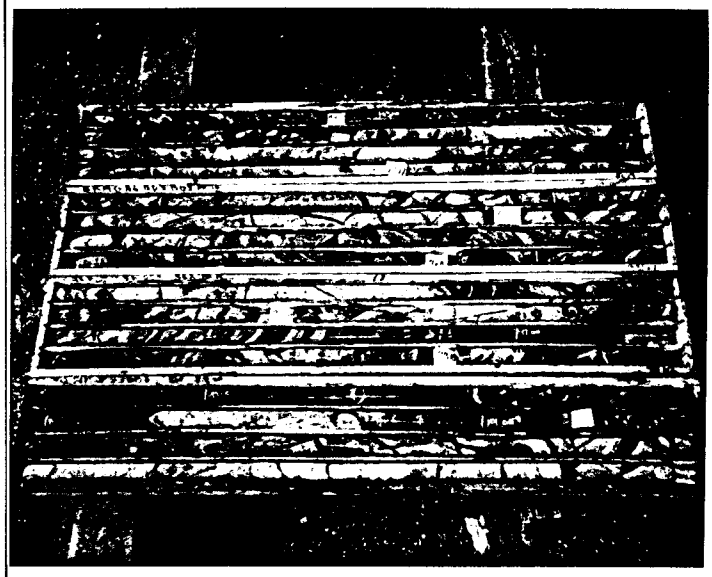


MAR GOLD PROJECT
HOLE # QRMG-86-003
Boxes 9, 10, 11 + 12

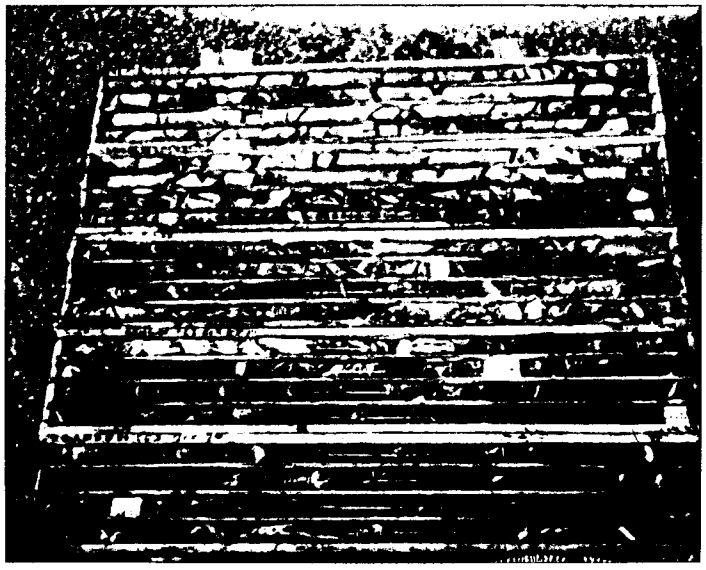
REFER TO ORIGINAL PHOTOGRAPHS FOR DETAILS AND COLOUR.



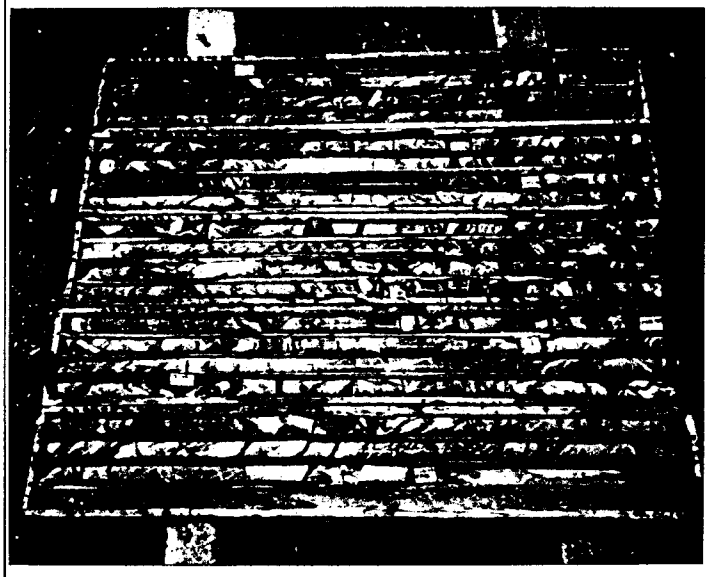
MAR GOLD PROJECT
HOLE # QRMG-86-003
Boxes 13, 14 15 16



MAR GOLD PROJECT
HOLE # QRMG-86-003
Boxes 17, 18, 19 + 20

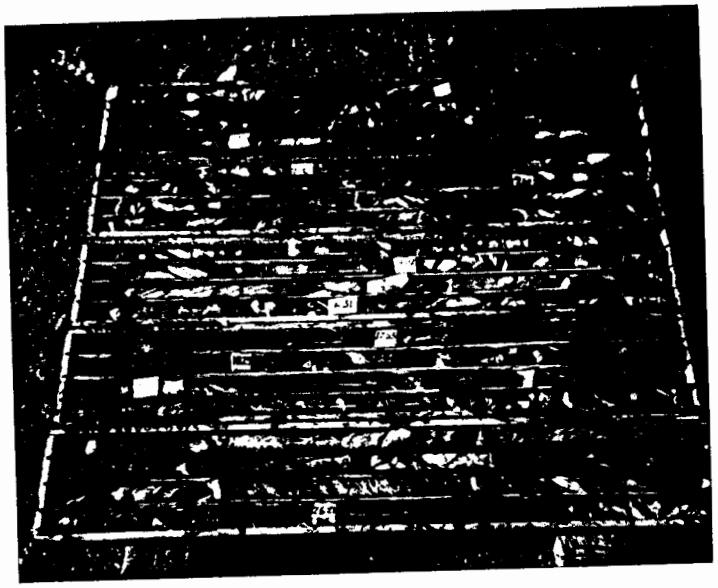


MAR GOLD PROJECT
HOLE # QRMG-86-003
Boxes 21, 22, 23, 24, 25



MAR GOLD PROJECT
HOLE # QRMG-86-003
Boxes 26, 27, 28, 29, 30 EOH.

REFER TO ORIGINAL PHOTOGRAPHS FOR DETAILS AND COLOUR.

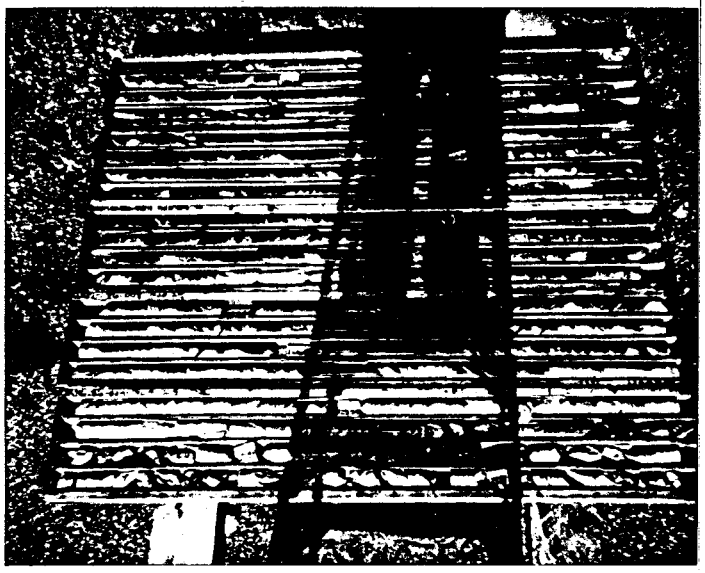


MAR GOLD PROJECT
HOLE No QRMG-86-004
Boxes 1-5

MAR GOLD PROJECT
HOLE # QRMG-86-004
BOXES 11-15

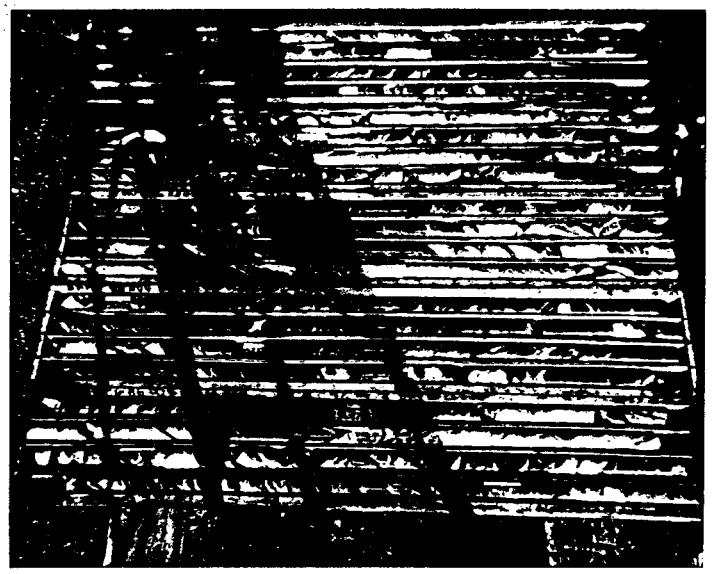
MAR GOLD PROJECT
HOLE # QRMG-86-004
BOXES 16-20

REFER TO ORIGINAL PHOTOGRAPHS FOR DETAILS AND COLOUR



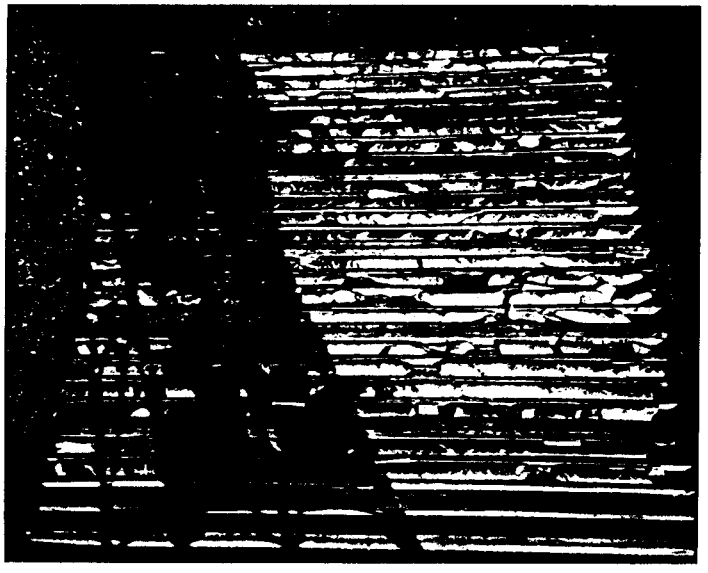
MAR GOLD PROJECT
HOLE # QRMG-86-004

BOXES 21-25



MAR GOLD PROJECT
HOLE # QRMG-86-004

BOXES 26-30



MAR GOLD PROJECT
HOLE # QRMG-86-004

BOXES 31-36
END OF HOLE

REFER TO ORIGINAL PHOTOGRAPHS FOR DETAILS AND COLOUR.

TRM ENGINEERING LTD.

QUEENSTAKE RESOURCES LTD — DUBLIN GULCH —

LOCATION (LEVEL): VICTORIA VEIN — DIP: -47° AT COLLAR, DIRECTION: 359° 37' — **DIAMOND DRILL RECORD** — PROJECT: MAR GOLD — HOLE NUMBER: QRMG-86-001

LATITUDE: 7,100,891.81N (UTM METRIC coord. Underhill) — LENGTH: 164.59 meters (540 ft) — ELEVATION: 1215.49 meters — CLAIM NUMBER: BOB 1

DEPARTURE: 46 1445.04E (Grid 1978 Underhill) — CORE SIZE: NQ — DATE LOGGED: AUGUST 14-18/86 — LOCATION: DUBLIN GULCH PLACER CAMP

STARTED: AUGUST 14 (NIGHT SHIFT) 1986 — FINISHED: AUGUST 17 (D.S.) 1986 — LOGGED BY: J.T. SHEARER — SAMPLED BY: JS, LS

O.B. THICKNESS: 2.44 meters — STARTED: AUGUST 14 N.S. 1986 — FINISHED: AUGUST 14 N.S. 1986 — CASING: HW 3.05 meters LEFT IN HOLE

B.R. THICKNESS: 162.15 meters — STARTED: AUGUST 14 N.S. 1986 — FINISHED: AUGUST 17 D.S. 1986 — TOTAL RECOVERY: 96%

CONTRACTOR: E. CARON DIAMOND DRILLING LTD. — CORE STORED: DUBLIN GULCH PLACER CAMP (UPPER CAMP IN COVERED RACKS)

LY-38 — RUNNERS: M. McLELLAN (D.S.), K. MAC (N.S.) — METRIC CONVERSION BY: L.S. — CORE RECOVERY BY: L.S.

SURVEY: ACID TEST		ANGLE	
DEPTH	BEARING	Reading	Correc
COLLAR	359°37'	-47°	-47°
91.44	~	-56°6'	-47°
164.59 (EOH)	~	-54°30'	-46°

PURPOSE: FIRST DIAMOND DRILL HOLE TEST OF DOWN DIP EXTENTION OF CATTO AND VICTORIA VEINS. UNDER SURFACE TRENCHING AND SHORT UNDERGROUND DRIFT.

COMMENT:

DRILLING INTERVAL | % CORE RECOVERED | BOX Number | SCALE 1:250 METERS | ALTERATION: CALCITE, CHLORITE, SERICITE, SILICA | FRACTURING | MINERAL | GEOLOGY

INTERVAL from to

0 - 2.44 NO CORE : OVERBURDEN, broken rock, soil — NO CORE

2.44 - 12.13 MICACEOUS QUARTZITE : Light grey-green, pervasive limonite staining throughout interval, very rusty fractures @ 25° to core axis, some 40° strongly foliated at 45° to core axis. Mod. staining common. Folded foliation at 4.60, Foliation at 10° to C.A at 6.00, 40° appears most common. Phyllitic appearance due to segregation of muscovite layers. Hairline rusty fractures very common throughout, mainly 23° to core axis. Quartz vein 1.5cm wide at 11.01 @ 20° to core axis.

12.13 - 13.08 VERY ALTERED GRANODIORITE : FAULT GOUGE : Light green. Extreme development of soft gouge throughout entire interval. friable slickensides @ 30° to c.A.

13.08 - 20.78 MICACEOUS QUARTZITE : Rusty brown, Light grey-green. Arsenopyrite veinlet 1.5cm wide 13.46 - 13.475, minor disseminated Aspy in wallrocks sericitic and very rusty., 68° to C.A. Crenulated foliation common, perhaps drag folding along faults. Foliation at 16.70 is 35° to core axis. 17.38 - 18.12 Fresh GRANODIORITE : not sheared, coarse biotite and hornblende. upper contact at 20° to c.A., lower contact also 20° to core axis.

20.78 - 29.47 BIOTITE-HORNBLENDE GRANODIORITE : INTENSE sericite - chlorite alteration 20.78 - 22.02, equigranular mosaic, light green-yellow. Quartz - Arsenopyrite veinlet 2cm wide 21.54 - 21.56 @ 80° to core axis. Gouge 21.68 - 21.90, granulated core., chalky white, sub porphyritic plagioclase excassions. Bleached zones common, minor sericite - chlorite alteration - usually surrounding quartz veinlets; Relatively fresh hypidiomorphic granular rock 22.86 - 29.08. Minor shearing 20° to C.A at 27.02 also 25.00 and 25.70, chlorite replacing hornblende. Rounded mafic-rich inclusions at 28.90. Lower contact brownish gouge 5-10° to core axis starting at 29.08.

29.47 - 31.80 VERY FRACTURED MICACEOUS QUARTZITE : Rusty highly fractured, yellow-brown gouge, pervasive limonite staining.

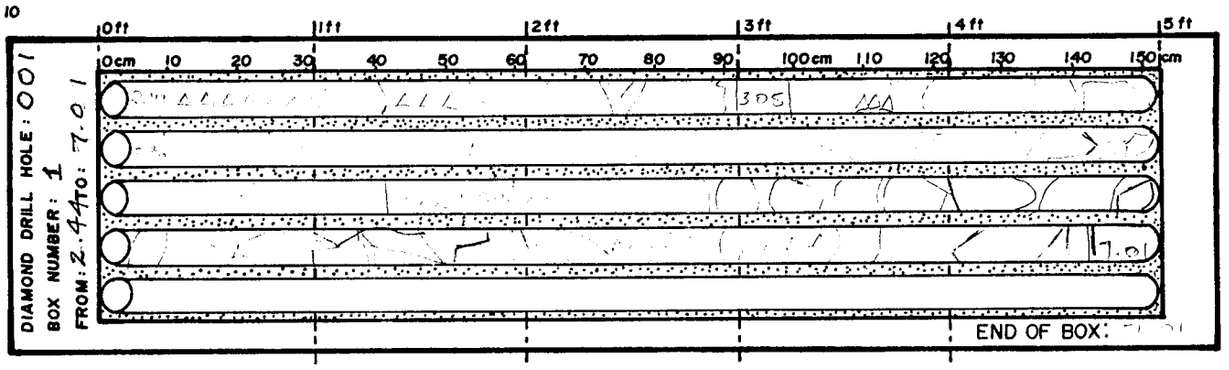
SAMPLE NUMBER	METERS from	to	LENGTH METERS	Au oz/ton	Ag oz/ton
NO CORE					
85251	2.44	3.00	0.56	<0.002	0.25
85252	3.00	4.00	1.00	<0.002	0.49
85253	4.00	5.00	1.00	<0.002	0.07
85254	5.00	6.00	1.00	0.002	<0.02
85255	6.00	7.00	1.00	<0.002	0.04
85256	7.00	8.00	1.00	<0.002	<0.02
85257	8.00	9.00	1.00	<0.002	0.02
85258	9.00	10.00	1.00	<0.002	<0.02
85259	10.00	11.00	1.00	<0.002	0.02
85260	11.00	11.50	0.50	<0.002	0.09
85261	11.50	12.00	0.50	<0.002	<0.02
85262	12.00	13.00	1.00	<0.002	0.67
85263	13.00	13.50	0.50	<0.005	<0.02
85264	13.50	14.00	0.50	0.002	<0.02
85265	14.00	15.00	1.00	<0.002	<0.02
85266	15.00	16.00	1.00	<0.002	6.53
85267	16.00	17.00	1.00	0.002	1.09
85268	17.00	18.00	1.00	0.002	0.02
85269	18.00	19.00	1.00	<0.002	<0.02
85270	19.00	20.00	1.00	0.003	0.43
85271	20.00	21.00	1.00	0.002	0.15
85272	21.00	21.50	0.50	0.002	0.06
85273	21.50	22.00	0.50	0.003	0.89
85274	22.00	23.00	1.00	<0.002	0.05
85275	23.00	24.00	1.00	0.002	0.04
85276	29.00	30.00	1.00	0.002	0.65

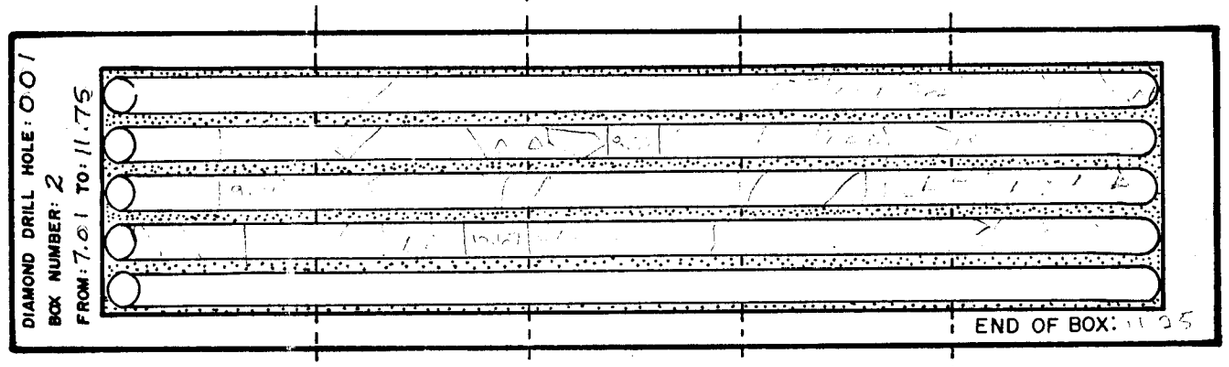
SEE NEXT PAGE

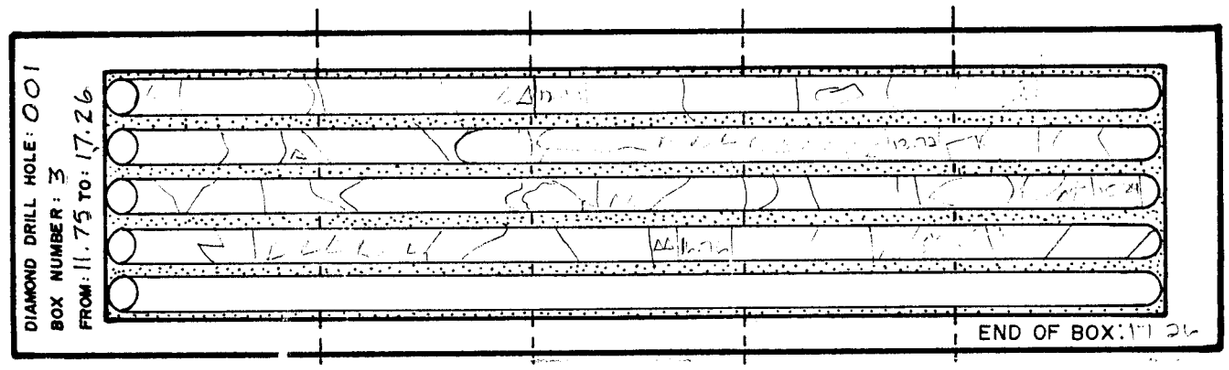
TRM ENGINEERING LTD.

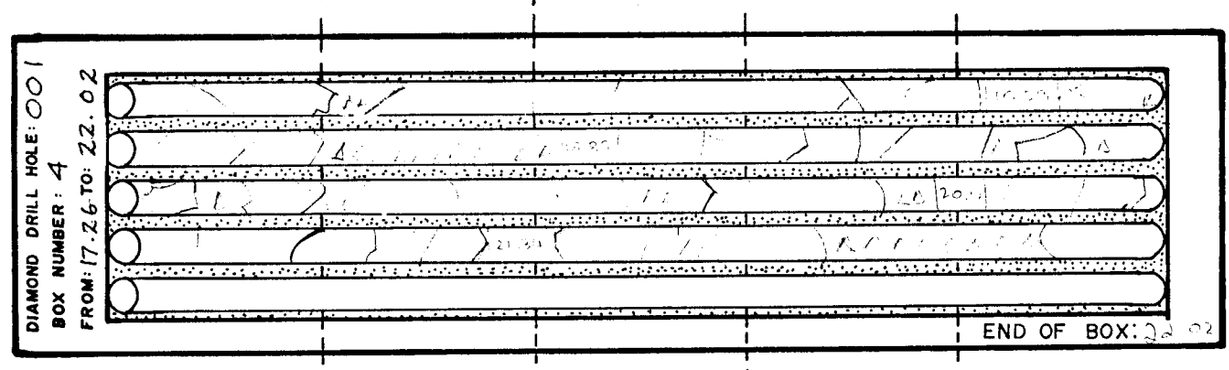
ROCK MECHANICS MEASUREMENTS

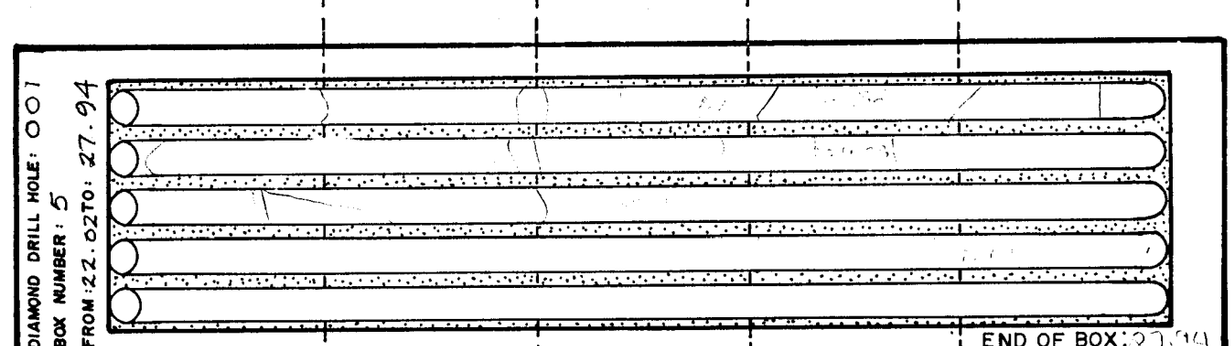
SCALE = 1:10











TRM ENGINEERING LTD.

LOCATION: VICTORIA VEIN

DIAMOND DRILL RECORD

PROJECT: MAR - GOLD (DUBLIN GULCH)

HOLE NUMBER: QRMG 86- 001

PURPOSE:

COMMENT:

DRILLING INTERVAL	% CORE RECOVERED	BOX Number	SCALE 1:250 METERS	ALTERATION: CALCITE	CHLORITE	SERICITE	SILICA	FRACTURING	MINERAL	GEOLOGY	INTERVAL from	to	GEOLOGY
30.48	88	6	31								29.47	31.80	VERY FRACTURED MICACEOUS QUARTZITE: Lower contact gouge yellowish colour, laminated.
31.39	94	32.09	32								31.80	34.56	BIOTITE-HORNBLENDE GRANODIORITE: sheared upper contact 31.80-32.92, gouge at 5° to C.A.; bleaching around quartz veinlets common
32.92		7	33										schist fragment at 34.29, angular, lower contact at 24° to core axis. at 70° to c.a.
34.44	102		34								34.56	40.21	BIOTITE-QUARTZ SCHIST: Mainly dark grey, ...
35.97	92		35										banded and laminated with lighter grey "quartzite" layers., strong foliation
37.49	100	37.39	36										foliation mainly at 25° to c.a., Distortion of arenaceous layers, crenulation
39.01	97		37										minor green calc-silicates developed; compositional contacts parallel to schistosity.
40.54	100	8	38								40.21	40.77	CATTO VEIN (QUARTZ-ARSENOPYRITE-PYRITE): ...
42.06	96		39						Aspy py				Bands of massive arsenopyrite in greyish white quartz, banding at 59° to core axis.
43.59	98	42.98	40										Massive Quartz 40.39-40.62
45.11	99		41										Purplish gouge, 5mm wide at end of quartz stringers and Aspy. @ 30° to c.a.
45.72	80		42								40.77	53.00	BIOTITE-QUARTZ SCHIST: ...
47.24	103		43										Gradational lower + upper contact with vein over about 15 cm, Green gouge at 41.05
48.77	97	48.52	44						Aspy				Zone of granodiorite dyklets 41.16-41.82, sill-like with fragments, shearing @ 70° to c.a.
50.29	102		45										Gold value 0.239 oz/ton 42.00-43.00.
51.51	74		46										trace of arsenopyrite at 42.46; 3cm wide quartz vein, 60° to core axis.
53.04	98	53.70	47										silicified appearance surrounding vein., Quartz vein at 44.77, 2cm wide
54.56	96		48										gouge at 44.85 @ 50° to c.a., Granodiorite dyklet 45.91-45.96, rusty fractures.
56.08	94		49										Arsenopyrite veinlet 47.78, 1cm wide 75° to c.a., Bedding at 47.60 is 23° to c.a.
57.61	104		50										Minor calc-silicate development in "quartzite" layers -
59.13	98	59.13	51										narrow granodiorite dyklet 47.52-48.87 altered. ...
60.66	100	7	52										Rusty, intense fracturing 50.42-50.90, @ 25° to core axis., disseminated py
62.18	100		53										Gradational lower contact over several meters. ...
63.70	99		54								53.00	89.20	ARGILLACEOUS QUARTZITE (± biotite and Andalusite)
65.23	101	64.08	55										Mainly dark grey, poor foliation, abundant andalusite, minor biotite ...
65.84	78		56										more siliceous appearance, bedding compositional variation at 20-30° to C.A.
67.06	99		57										variable - wavy., 45° to c.a at 56.50
68.58	99		58										Granodiorite 54.41-54.52.
70.10	102	69.40 14	59										Calc-silicates more developed in this unit especially as clots of chlorite, (diopside)
			60										Dismemberment of pure silty beds - more competent and subject to brittle deformation.
			61										Rusty fractures still common at 20° to C.A., hackly not smooth.
			62										Skarnified section - 59.78-60.01 Quartz and diopside, Fragmental quartz appearance
			63										crenulated bedding at 61.50, 5° to c.a.
			64										Shattered, very fractured interval 61.60-62.18., @ 30° to C.A., Probable minor fault
			65										White veinlets common, 1-2 mm wide with alteration envelopes, 57° to c.a.
			66										regularly spaced 5-7 cm apart.
			67										Very rusty, sheared interval 65.23-66.13, shearing 10° to core axis, soft, friable
			68										Mottled, bleaching in irregular pattern 67.62-68.00., skarn around white veinlet 68.30
			69										trace of brown sphalerite (needles) possibly cassiterite.
			70										Layering relatively consistant at 25° to core axis., but Local variation up to 38° to C.A.

SAMPLE NUMBER	METERS from	to	LENGTH METERS	Au oz/ton	Ag oz/ton
85277	30.00	31.00	1.00	<0.002	0.02
85278	31.00	32.00	1.00	0.004	0.28
85279	32.00	33.00	1.00	0.002	0.74
85280	39.00	39.60	0.60	0.002	0.02
85281	39.60	40.21	0.61	<0.002	<0.02
85282	40.21	40.77	0.56	0.241	0.02
85283	40.77	41.40	0.63	0.008	0.03
85284	41.40	42.00	0.60	0.002	0.02
85285	42.00	43.00	1.00	0.289	0.11
85286	43.00	44.00	1.00	0.002	<0.02
85287	44.00	45.00	1.00	0.007	0.11
85288	45.00	46.00	1.00	<0.002	0.05
85289	46.00	47.00	1.00	<0.002	0.02
85290	47.00	47.50	0.50	0.002	0.02
85291	47.50	48.00	0.50	0.010	0.12
85292	48.00	48.50	0.50	0.006	<0.02
85293	48.50	49.00	0.50	0.003	0.14
85294	49.00	50.00	1.00	0.002	0.16
85295	50.00	51.00	1.00	<0.002	<0.02
85296	51.00	52.00	1.00	<0.002	<0.02
85297	65.23	66.13	0.90	<0.002	<0.02
85298	66.13	67.00	0.87	<0.002	<0.02
85299	67.00	68.00	1.00	<0.002	<0.02
85300	68.00	69.00	1.00	0.002	<0.02
85301	69.00	70.00	1.00	0.002	<0.02

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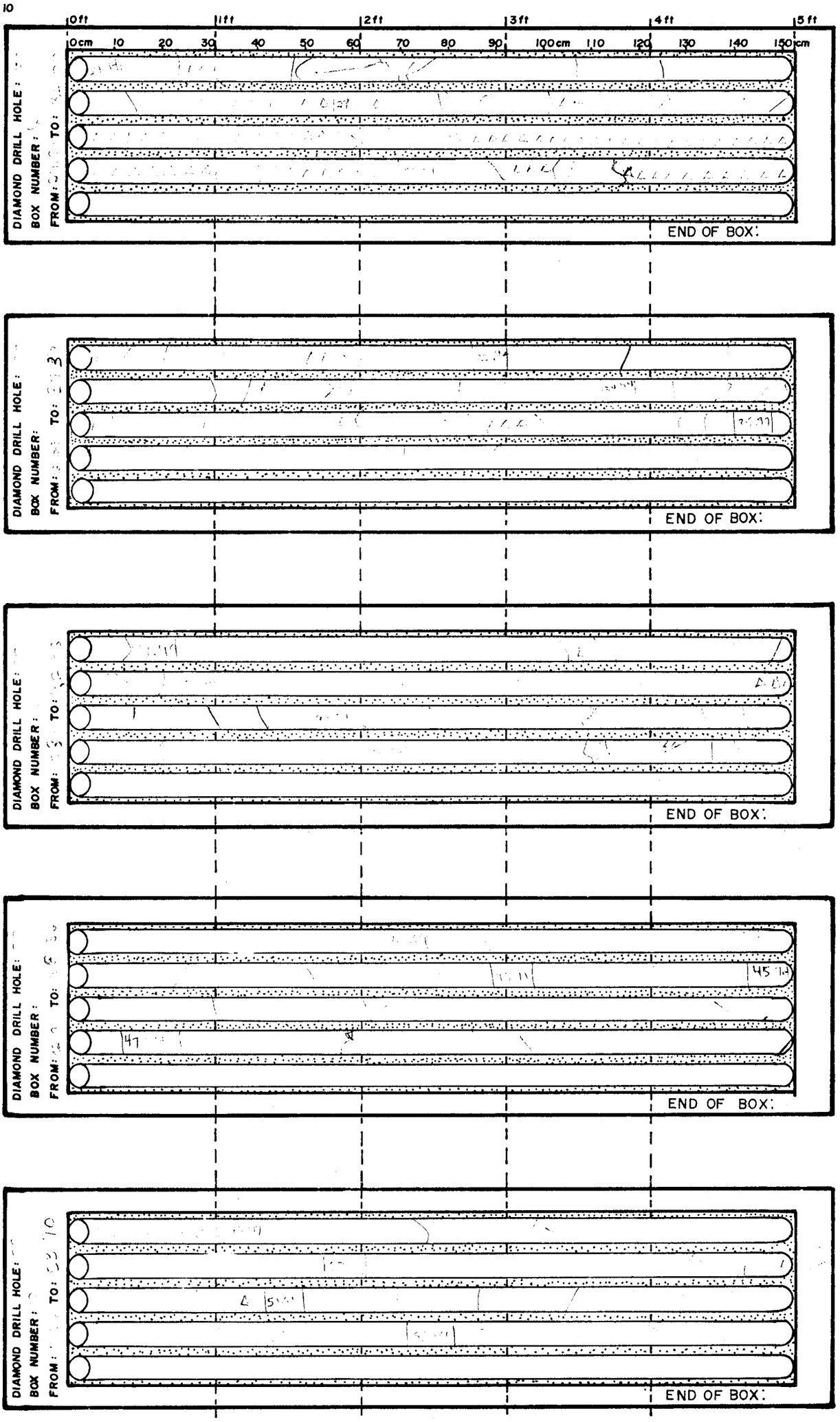
TRM ENGINEERING LTD.

ROCK MECHANICS MEASUREMENTS

SCALE = 1:10



TRM ENGINEERING LTD.

LOCATION: VICTORIA VEIN

DIAMOND DRILL RECORD

PROJECT: MAR GOLD (DUBLIN GULCH)

HOLE NUMBER: QRMG - 86 - 001

PURPOSE:

COMMENT:

DRILLING INTERVAL	% CORE RECOVERED	BOX Number	SCALE 1 : 250 METERS	ALTERATION: CALCITE	CHLORITE	SERICITE	SILICA	FRACTURING	MINERAL	GEOLOGY	INTERVAL from to	GEOLOGY
71.63	101		71								53.00-89.20	ARGILLACEOUS QUARTZITE : (± biotite and Andalusite) mainly dark grey, minor interbeds of light grey purer quartzite recrystallized. short interval of granodiorite and hornfels 72.68-72.81, minor shearing at 72.81 @ 32° to c.A. Arsenopyrite lense-vein at 73.51, 1cm wide., silty layers boudins, schistose overall Andalusite porphyroblasts 0.5 to 1mm long; Fracturing common 73.00 - 74.00 White plagioclase-quartz veinlets, 76.50, 76.64, 78.19, white-grey bleached envelopes
73.15	95		72									
74.68	55	74.91	73									
76.20	89		74									
77.72	72		75									
78.94	125		76									
80.47	112	80.21	77									
81.99	99		78									Short fractured core interval 78.56 - 78.90
83.52	100		79									
85.04	98	85.63	80						Aspy			Slightly rusty fractures 80.62 - 80.95, coated fractures to 82.00, 1.5cm massive arsenopyrite veinlet at 81.45! Arsenopyrite veinlet at 81.45 is @ 65° to core axis. Granodiorite dyklet 81.94 - 82.08 @ 35° to core axis
86.56	100		81									
88.09	98		82									
89.61	99		83									
91.14	97	91.14	84									
91.44	102		85									White hairlines common at 10-15 cm intervals, light grey alteration envelopes. Compositional layering at 25° to core axis.
92.96	102		86									
94.49	93		87									
96.01	100	96.57	88									Narrow quartz-arsenopyrite veinlet at 85.39, fresh, @ 48° to core axis veinlet appears to be similar to nearby barren white (plagioclase-quartz) veinlets
97.54	100		89									
99.06	95		90									Layering (bedding) at 25° to c.A. generally.
100.58	99		91									
102.11	103	101.86	92						Aspy			
103.63	96		93									
105.16	103		94									
	63		95									
Tube	10668 TDL	107.63	96									
108.24	96		97									
109.73	102		98									
	98		99									
			100									
			101									
			102									
			103									
			104									
			105									
			106									
			107									
			108									
			109									
			110									
											89.20-90.78	GRANODIORITE STRINGER BRECCIA : Light grey-white, stringers sub parallel to 30° to core axis., 2-3 cm wide, porphyritic cores. Lower contact at 45° to c.A., Angular in-situ fragments.
											90.78-96.56	ARGILLACEOUS QUARTZITE (± biotite and Andalusite) Abundant andalusite at upper contact., bedding at 93.10 is 30° to core axis. Minor kink cleavage along planes parallel to core axis segregation of biotite along thin horizons common., mainly thinly laminated. Extremely coarse and densely packed andalusite rods, crystals up to 5 mm long.
											96.56-105.08	SKARNIFIED QUARTZITE : Light grey-green. diopside-actinolite development common along foliation planes (bedding) Minor gouge at 97.90, Rusty fractures and fractured core 97.90 to 98.60., 5° to c.A. Very siliceous appearance : competent, not strongly foliated : biotite (relict ?) common 100.40 to 101.47. Minor arsenopyrite at 101.47 @ 61° to core axis, 5mm wide.
												compositional layering accentuated by segregation of biotite envelopes around sugary Lower contact very fractured, parallel to bedding ~ 25° to c.A. quartz layers
											105.08-113.55	BIOTITE-QUARTZ SCHIST : Relatively well developed schistosity, mainly biotite, very little andalusite present. Compositional layering @ 21° to core axis, alternating biotite dominate and quartz dominate layers. Minor diopside @ 108.02 Minor folds common throughout. Calcite on fractures at 109.61, 5° to c.A.

SAMPLE NUMBER	METERS from	to	LENGTH METERS	Au oz/ton	Ag oz/ton
85302	70.00	71.00	1.00	<0.002	<0.02
85303	71.00	72.00	1.00	<0.002	<0.02
85304	72.00	73.00	1.00	0.002	0.03
85305	73.00	73.52	0.52	0.027	<0.02
85306	73.52	74.00	0.48	0.011	<0.02
85307	74.00	75.00	1.00	0.007	<0.02
85308	80.50	81.50	1.00	0.029	<0.02
85309	85.00	86.00	1.00	0.009	0.02
85310	97.00	98.00	1.00	0.002	<0.02
85311	98.00	99.00	1.00	0.002	<0.02

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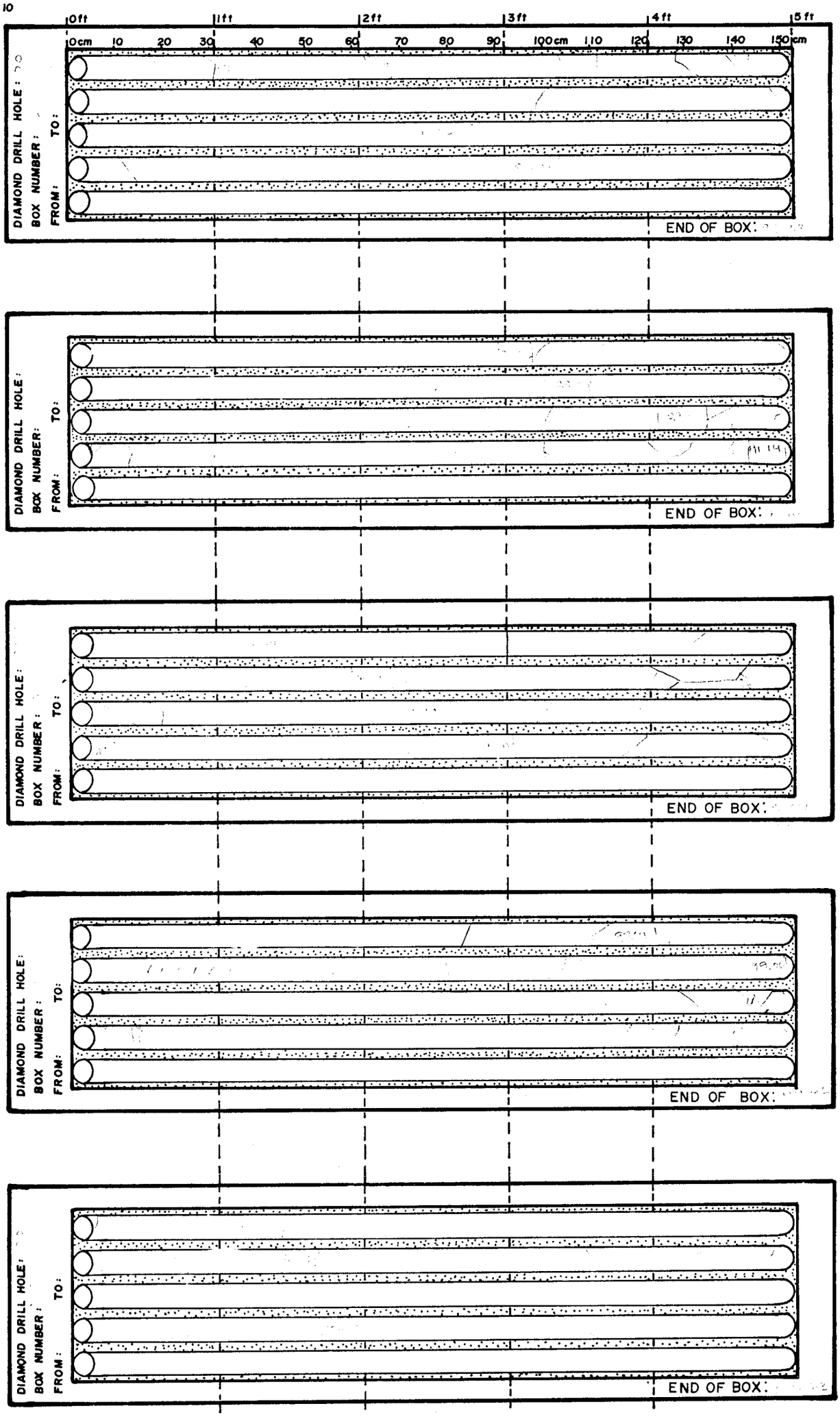
TRM ENGINEERING LTD.

ROCK MECHANICS MEASUREMENTS

SCALE = 1:10



TRM ENGINEERING LTD.

LOCATION: VICTORIA VEIN

DIAMOND DRILL RECORD

PROJECT: MAR GOLD (DUBLIN GULCH)

HOLE NUMBER: QRMG 86- 001

PURPOSE:

COMMENT:

DRILLING INTERVAL	% CORE RECOVERED	BOX Number	SCALE 1:250 METERS	ALTERATION: CALCITE	CHLORITE	SERICITE	SILICA	FRACTURING	MINERAL	GEOLOGY	INTERVAL from to	
111.25	98	21	111						Aspy		0508-113.55	BIOTITE - QUARTZ SCHIST:
112.78	99	112.78	112									Quartz - pyrite - arsenopyrite 111.08 - 111.135 4cm wide, euhedral quartz present Aspy on margins
			113									Arsenopyrite @ 50° in 3mm veinlet at 112.52 - 112.91 @ 52° to core axis
114.30	100		114						py Aspy			Greenish mylonitic shearing starting at 112.91
											113.55-114.30	VICTORIA VEIN - FAULT ZONE: Quartz breccia
115.82	103		115									Massive pyrite Layer @ 113.80 is 69° to bounding faults @ 65° 113.55 - 113.82
			116									Fault Gouge 113.82 - 114.30 ... Angular fragments in Atz bx, Aspy in quartz matrix
117.35	105	117.54	117								114.30-138.12	AGILLACEOUS QUARTZITE: dark grey, ± biotite and Andalusite
			118									Light green laminated mylonitic shearing (parallel to bedding): @ 24° to core axis
118.87	100		119									*Difference between Biotite-Quartz schist and Argillaceous Quartzite is the
120.39	100		120									greater abundance of "quartzite" component in the AQ, less biotite, less well foliated,
			121									and presence of abjindant andalusite in the AQ; the two units appear to grade
121.92	96		122						trpy			into one another and could be difficult to separate on the outcrop scale.
123.44	100	122.96	123									Fractured silica-rich interval 121.38 - 121.98, traces of pyrite on fracture surfaces
			124									Compositional layering at 122.20 is 29° to core axis,
125.97	93		125									Quartz "sweats" 123.55 - 123.99, 124.41 - 124.82, minor pyrite, parallel to bedding
126.49	99		126									recrystalization of purer quartzite layers
			127									Calc-silicate development - Light green, laminated 124.11 - 124.32, chloritic
128.02	95	128.62	128									Abundant Andalusite
129.54	100		129									Green interval, skarnified 127.48 - 127.89 Actinolite, Quartz 127.89 - 128.02
			130									Compositional layering at 128.40 is 19° to core axis,
131.06	102		131									Altered silicified section 130.31 - 130.84, contorted appearance
132.59	102		132									Greenish "MYLonitic" lamination 130.84 - 138.12 * Indication of approaching
			133									Lamination varies from 25° to 35° to core axis, streaky VEIN - FISSURE
134.11	97	134.02	134									Aspy in 5mm quartz veinlet 132.37, very fine laminations, quartz boudins common
135.64	96		135						Aspy	Green "MYLONITIC" Lamination		trace of Arsenopyrite 134.95, 5mm wide, has yellowish tinge and streaks,
			136									Light grey where quartz dominates
137.16	98		137									Quartz - arsenopyrite veinlet 136.29 - 136.34, trace pyrite, buff calcite
			138								138.12-139.16	"NEW VEIN" ... Quartz, Arsenopyrite, pyrite and Sphalerite
138.68	103	139.28	139						Aspy py sphal			Possibly No. 24 STRUCTURE Massive brown sphalerite @ 138.49 - 138.54 @ 52° to C.A
			140									Arsenopyrite - Quartz banding at 138.20 is 53° to c.a. Aspy + sphalerite 50° to C.A at 138.60
140.21	97		141									Quartz breccia plus pyrite 138.68 - 139.16, sulfides in matrix. vugs around fragments
141.73	102		142									Angular quartz fragments: LOWER SHEAR: 139.66 - 140.21 sphalerite - pyrite - Aspy
143.26	100		143									Jamisonite, brecciated.
			144								139.16-144.48	ARGILLACEOUS QUARTZITE: ± biotite
144.78	102	144.79	145									Light green MYLonitic lamination to 141.73, below dark grey abundant Andalusite
146.30	95		146									Dark grey-black 141.73 - 144.48, very abundant biotite and Chlorite crs flakes
147.85	95		147									some actinolite. Minor gouge on lower contact.
			148								144.48-147.77	BLEACHED MYLONITIC GREEN QUARTZITE: silicified
149.35	97		149									same alteration rock-type that surrounds the New Vein 138.12 - 138.16., light green colour,
	100	150.47	150									streaky appearance, Abundant quartz seams. Overall dull-sugary texture
												*brittle, No relict foliation, relatively uniform
											147.77-149.46	ARGILLACEOUS QUARTZITE: Dark grey, Abundant biotite,
												but altered with quartz patches and green shear laminations
											149.46-154.64	BLEACHED "MYLONITIC" GREEN QUARTZITE: silicified

SAMPLE NUMBER	METERS from	METERS to	LENGTH METERS	Au oz/ton	Ag oz/ton
85312	110.00	111.00	1.00	0.003	<0.02
85313	111.00	112.00	1.00	0.002	0.02
85314	112.00	112.50	0.50	0.002	<0.02
85315	112.50	113.00	0.50	0.005	0.02
85316	113.00	113.55	0.55	0.003	0.03
85317	113.55	113.82	0.27	0.229	0.21
85318	113.82	114.30	0.48	0.007	0.05
85319	114.30	115.00	0.70	0.003	0.06
85320	115.00	116.00	1.00	0.002	<0.02
85321	116.00	117.00	1.00	0.002	<0.02
85322	117.00	118.00	1.00	0.002	<0.02
85323	124.00	125.00	1.00	0.002	<0.02
85324	134.90	135.50	0.60	0.003	<0.02
85325	135.50	136.00	0.50	0.002	<0.02
85326	136.00	136.50	0.50	0.049	0.03
85327	136.50	137.00	0.50	0.002	0.02
85328	137.00	137.50	0.50	<0.002	<0.02
85329	137.50	138.12	0.62	0.006	<0.02
85330	138.12	138.68	0.56	0.206	0.51
85331	138.68	139.16	0.48	0.012	0.28
85332	139.16	139.66	0.50	0.002	0.28
85333	139.66	140.21	0.55	0.008	0.18
85339	140.21	140.74	0.53	0.004	<0.02
85335	140.74	141.30	0.56	0.003	<0.02
85336	141.30	141.80	0.50	0.003	0.03
85337	141.80	142.50	0.70	0.002	<0.02
85338	142.50	143.26	0.76	0.003	<0.02
85334	143.26	144.00	0.74	0.002	<0.02
85340	144.00	145.00	1.00	0.003	<0.02
85341	145.00	146.00	1.00	0.003	<0.02
85342	146.00	147.00	1.00	0.003	0.03
85343	147.00	148.00	1.00	0.002	<0.02
85344	148.00	149.00	1.00	0.002	<0.02
85345	149.00	150.00	1.00	0.003	<0.02

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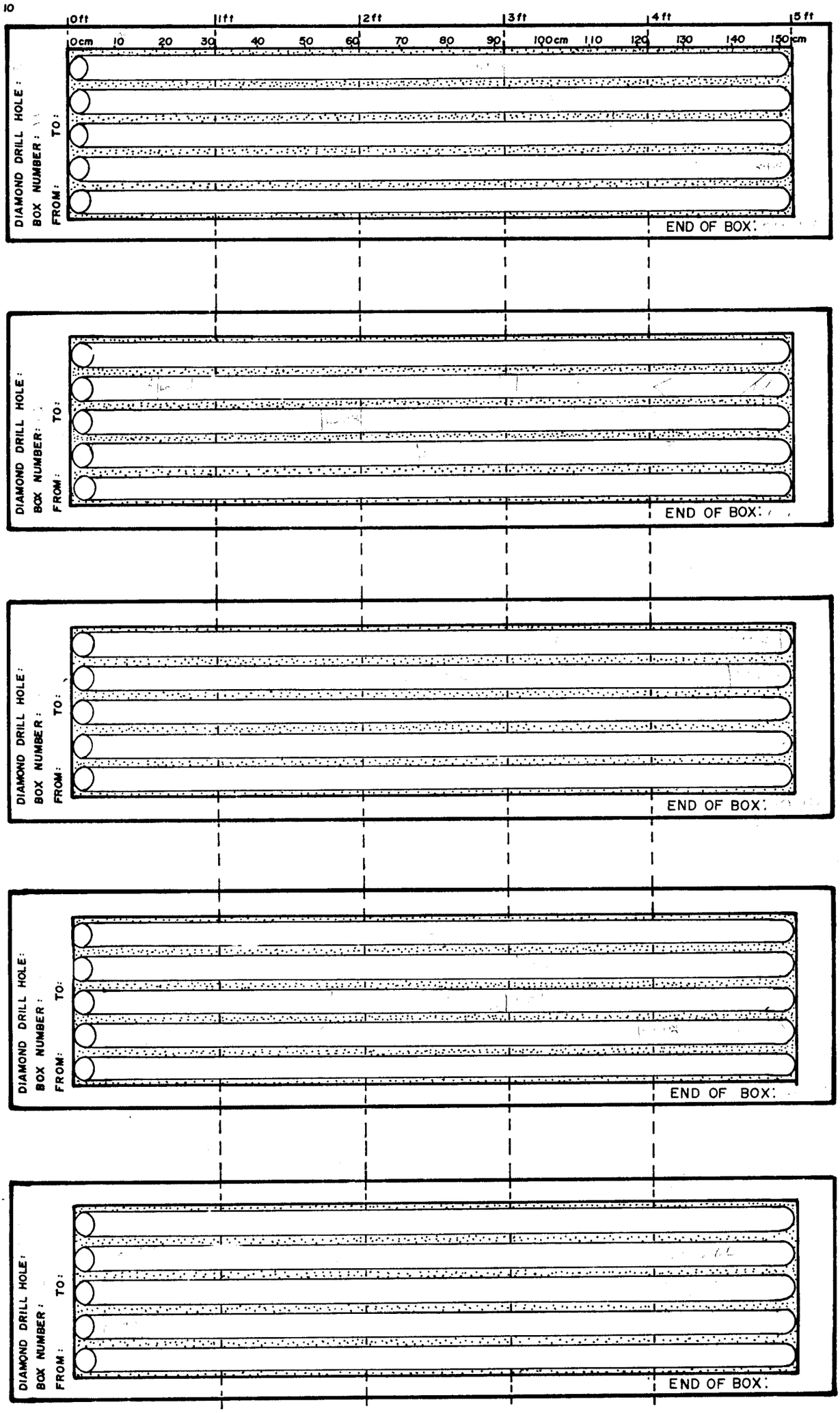
TRM ENGINEERING LTD.

ROCK MECHANICS MEASUREMENTS

SCALE = 1:10



TRM ENGINEERING LTD.

LOCATION: VICTORIA VEIN

DIAMOND DRILL RECORD

PROJECT: MAR GOLD (DUBLIN GULCH)

HOLE NUMBER: QRMG-86-001

DRILLING INTERVAL	% CORE RECOVERED	BOX Number	SCALE 1:250 METERS	ALTERATION: CALCITE	CHLORITE	SERICITE	SILICA	FRACTURING	MINERAL	GEOLOGY
150.88	100		151							
152.41	98		152							
	100		153							
153.92			154							
	97	154.87	155				XXX			
155.45										
	97		156							
156.67	100		157							
157.42										
	96		158							
158.58										
	105		159							
160.02			160							
	93	161.26	161							
161.54										
	94		162							
			163							
163.07										
164.59	102	164.59	164							
		EOH	165							

PURPOSE:

COMMENT:

INTERVAL from to

149.46 - 154.64 BLEACHED "MYLONITIC" GREEN QUARTZITE: siliceous
Light green, laminated, streaky-sheared appearance.
relict biotite from 150.96 - 151.90; calcite : Py at 153.12
Pyrite band 153.19 - 153.21, gangue is flesh coloured calcite @ 64° to core axis.

154.64 - 155.12 QUARTZ - PYRITE BRECCIA 48cm wide core length
Massive pyrite and elongate quartz fragments @ 53° to core axis.
Lower contact 53° Main sulfide concentration 154.79 - 155.12

155.12 - 157.67 BLEACHED MYLONITIC GREEN QUARTZITE: siliceous
Minor gouge 155.90, light green, finely laminated
Gradational lower contact over 1 meter of coarse quartz sweats.

157.67 - 164.59 ARGILLACEOUS QUARTZITE ± biotite and Andalusite.
EOH dark grey with numerous lighter green layers.
abundant felted andalusite.
compositional layering at 161.10 is 25° to core axis, irregular bleaching throughout
Irregular minor folding between 161.50 - 161.90
Minor shearing at 163.42 @ 41° to core axis., Brownish tinge apparent near EOH.
compositional layering at end of hole is 18° to core axis.

END OF HOLE 164.59 METERS
(540 feet)

SAMPLE NUMBER	METERS from	to	LENGTH METERS	Au oz/ton			
85346	150.00	151.00	1.00	<0.002	<0.02		
85347	151.00	152.00	1.00	<0.002	<0.02		
85348	152.00	153.00	1.00	<0.002	<0.02		
85349	153.00	153.50	0.50	.002	0.03		
85350	153.50	154.00	0.50	<0.002	<0.02		
85351	154.00	154.64	0.64	<0.002	<0.02		
85352	154.64	155.12	0.48	0.037	0.06		
85353	155.12	155.70	0.58	<0.002	0.02		
85354	155.70	156.50	0.70	<0.002	<0.02	MISSING	
85355	156.50	157.50	1.00	<0.002	<0.02		
85356	157.50	158.50	1.00	<0.002	<0.02		

TRM ENGINEERING LTD.

ROCK MECHANICS MEASUREMENTS

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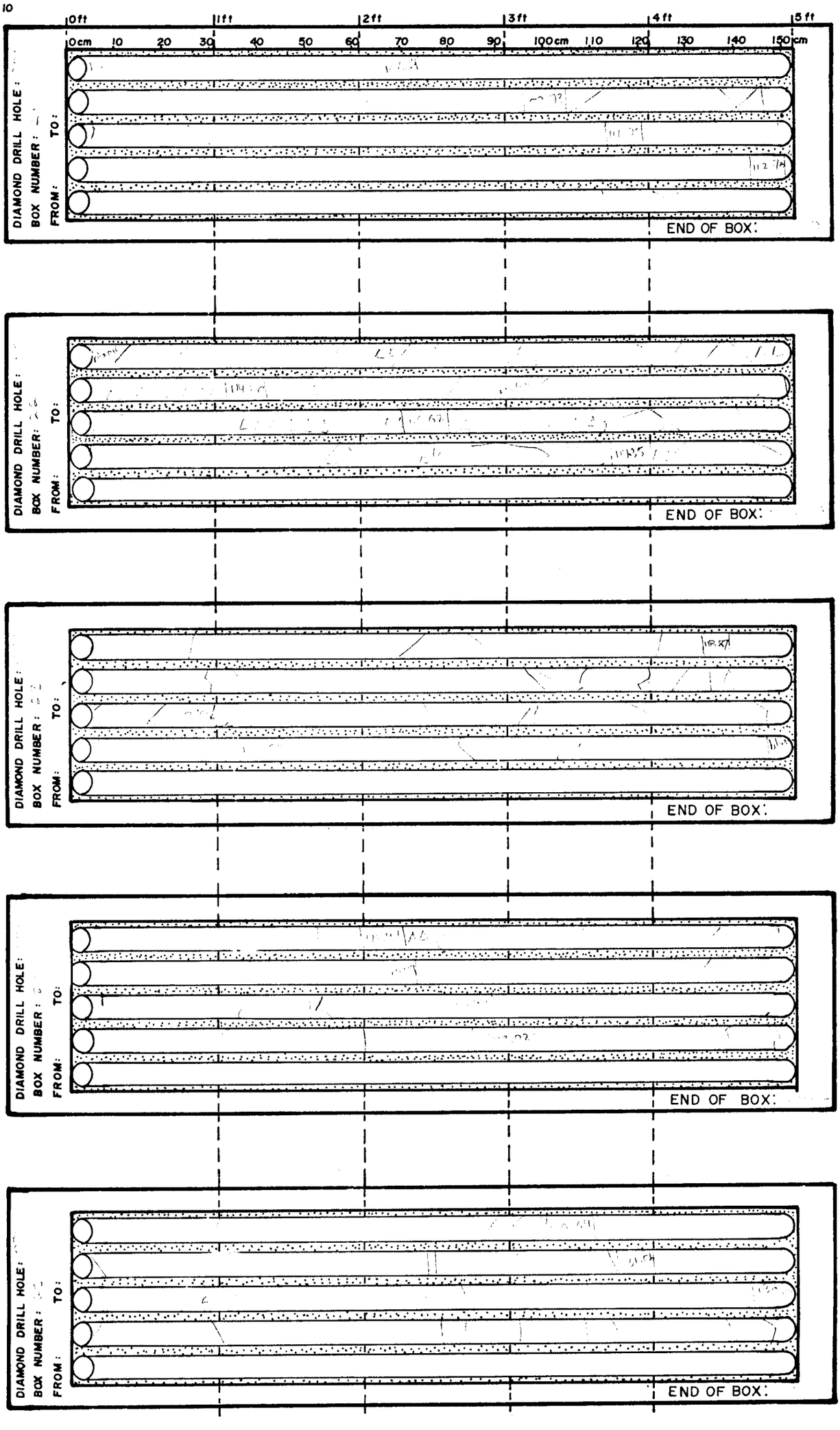

TRM ENGINEERING LTD.

QUEENSTAKE RESOURCES LTD. — DUBLIN GULCH —

DIAMOND DRILL RECORD

LOCATION: (LEVEL): VICTORIA VEIN
DIP: -60° AT COLLAR, DIRECTION: 35°
PROJECT: MAR GOLD
HOLE NUMBER: QRMG 86- 002

LATITUDE: 7,100,891.2N (UTM METRIC Coord. Underhill) LENGTH: 194.16 meters (637 ft) ELEVATION: 1214.54 meters CLAIM NUMBER: BOB 1
DEPARTURE: 461,445.4E Grid 1978 Underhill CORE SIZE: NQ DATE LOGGED: AUGUST 18-21/86 LOCATION: DUBLIN GULCH PLACER CAMP
STARTED: AUGUST 17 (NIGHT SHIFT) 1986 FINISHED: AUGUST 20 N.S. 1986 LOGGED BY: V.T. SHEARER SAMPLED BY: V.S., L.S.
O.B. THICKNESS: 1.22 meters STARTED: AUGUST 17 N.S. 1986 FINISHED: AUGUST 17 N.S. 1986 CASING: 1.83 H.W. meters LEFT IN HOLE
B.R. THICKNESS: 192.94 meters STARTED: AUGUST 17 N.S. 1986 FINISHED: AUGUST 20 1986 TOTAL RECOVERY: 98%
CONTRACTOR: E. CARON DIAMOND DRILLING LTD CORE STORED: DUBLIN GULCH PLACER CAMP
LY-38 RUNNERS: M. McLELLAN (D.S.), K. MAC. (N.S.) METRIC CONVERSION BY: L.S.
CORE RECOVERY BY: L.S.

SURVEY: ACID TEST

DEPTH	BEARING	ANGLE Reading	ANGLE Correc
COLLAR	35°	-60	-60
91.44	—	-67	-60
189.59	—	-66½	-59½

DRILLING INTERVAL	% CORE RECOVERED	BOX Number	SCALE 1:250 METERS	ALTERATION: CALCITE	CHLORITE	SERICITE	SILICA	FRACTURING	MINERAL	GEOLOGY
1.22			1							
2.44	54		2							
2.74	133		3							
3.96	104		4							
4.88	89	5.19	5							
6.79	89		6							
6.71	103		7							
7.32	88		8							
8.23	83		9							
9.45	92	9.79	10						gouge	
10.97	88		11							
11.89	106		12							
13.41	103		13						tr py	
14.94	91	14.78	14							
16.46	95		15							
17.98	103		16						Aspy	
19.51	105		17							
21.03	105	20.10	18							
22.56	98		19							
24.08	101		20							
25.60	92	25.52	21							
27.13	102		22							
28.65	98		23							
29.57	94		24							
	94		25						PY	
			26						FY	
			27						tr Cpy	+ + + +
			28							
			29							
			30							

PURPOSE:
COMMENT:

INTERVAL from to

0-1.22 RUBBLE: Broken core.

1.22-10.81 MICACEOUS QUARTZITE: Light grey-green, pervasively stained by limonite, fractures coated with limonite, core near top of hole very fractured. Many fractures also coated with MnO, Dominate fracture directions are 95° & 20° to C.A. Compositional layering at 4:30 is 41° to core axis, Network of fractures...

Very broken core 7.10-7.55.

minor limonite gouge at 9.00., 25° to C.A.

MAJOR FAULT-GOUGE ZONE 9.45-9.89, rough slickensides @ subparallel to C.A.

10.81-22.48 BIOTITE-HORNBLENDE GRANODIORITE: Hypidiomorphic granular medium crystalline, Relatively fresh, Minor sericitic alteration around veinlets...

Inclusions of biotite-andalusite schist 11.94-12.30, very fractured core. Trace of pyrite in quartz veinlet 1.5 cm wide @ 60° to C.A at 12.53.

partly assimilated schist fragment 14.32-14.60

Minor quartz veinlets 14.70 to end of interval @ 60° to core axis 1-3 mm wide. traces of pyrite and arsenopyrite associated with veinlets.

White, chalky plagioclase phenocrysts common throughout.

Minor gouge-friable rock 20.81-20.92

Intense sericite-chlorite alteration 21.80-21.99, enveloping quartz stringer sharp lower contact @ 25° to core axis

22.48-26.04 BIOTITE-QUARTZ SCHIST: Biotite dominate, dark grey pervasive limonite staining over short intervals, pyrite quartzite layers common compositional layering at 51° to core axis highly recrystallized.

26.04-27.19 QUARTZ-PYRITE ZONE: Disseminated pyrite + quartz 26.04-26.54 Massive PYRITE 26.54-27.19.

banding in massive pyrite @ 45° to core axis, Lower contact sub parallel to C.A

27.19-27.90 VERY ALTERED GRANODIORITE: Light green, equigranular

27.90-35.17 MICACEOUS QUARTZITE: Disseminated pyrite throughout Minor granodiorite @ 29.88-30.18

light greenish grey. Minor gouge at 30.85, dark hair lines common.

SAMPLE NUMBER	METERS from	METERS to	LENGTH METERS	Au oz/ton	Ag oz/ton		
85357	14.00	15.00	1.00	<0.002	<0.02		
85358	15.00	16.00	1.00	<0.002	<0.02		
85359	16.00	17.00	1.00	<0.002	<0.02		
85360	17.00	18.00	1.00	<0.002	<0.02		
85361	18.00	19.00	1.00	<0.002	<0.02		
85362	19.00	20.00	1.00	<0.002	<0.02		
85363	20.00	21.00	1.00	<0.002	<0.02		
85364	21.00	22.00	1.00	<0.002	<0.02		
85365	22.00	23.00	1.00	<0.002	<0.02		
85366	23.00	24.00	1.00	<0.002	0.03		
85367	24.00	25.00	1.00	<0.002	<0.02		
85368	25.00	26.04	1.04	<0.002	<0.02		
85369	26.04	26.54	0.50	0.003	0.13		
85370	26.54	27.19	0.65	0.059	0.64	=	
85371	27.19	27.90	0.69	0.002	0.01		
85372	27.90	29.00	1.10	0.002	0.03		
85373	29.00	30.00	1.00	<0.002	<0.02		

TRM ENGINEERING LTD.

ROCK MECHANICS MEASUREMENTS

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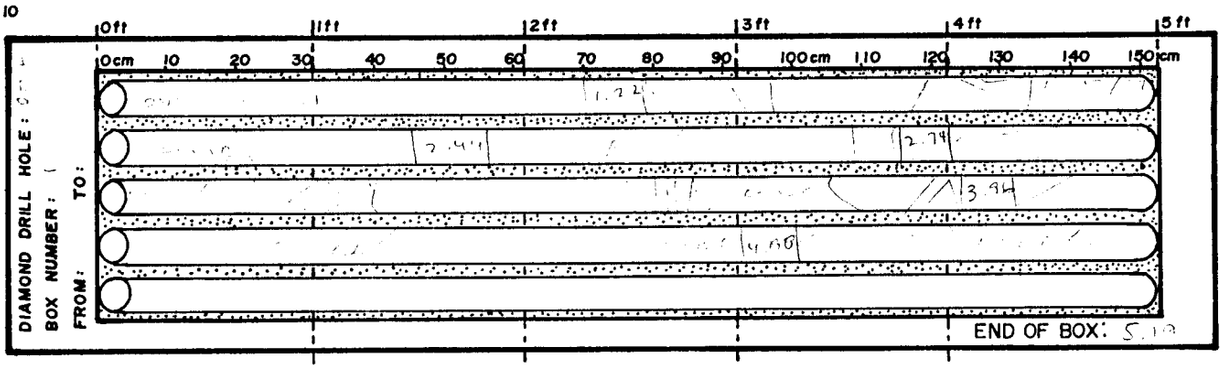
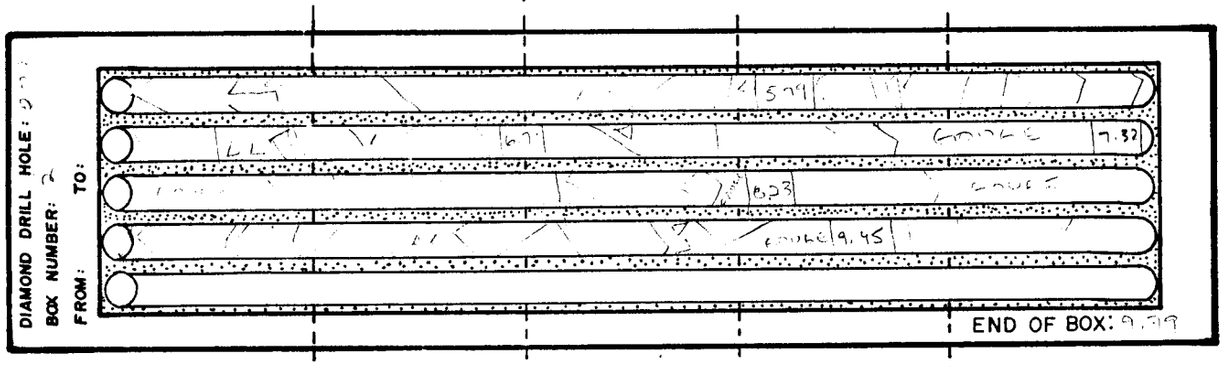
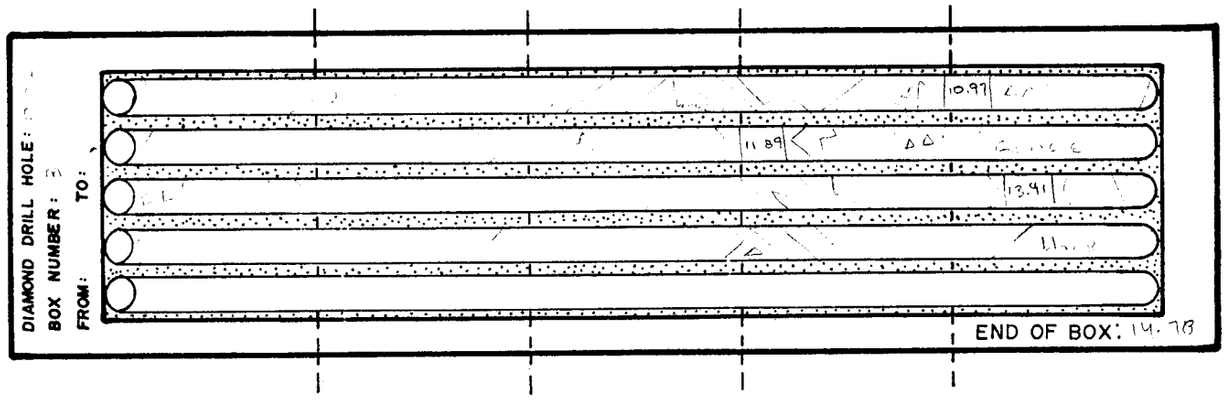
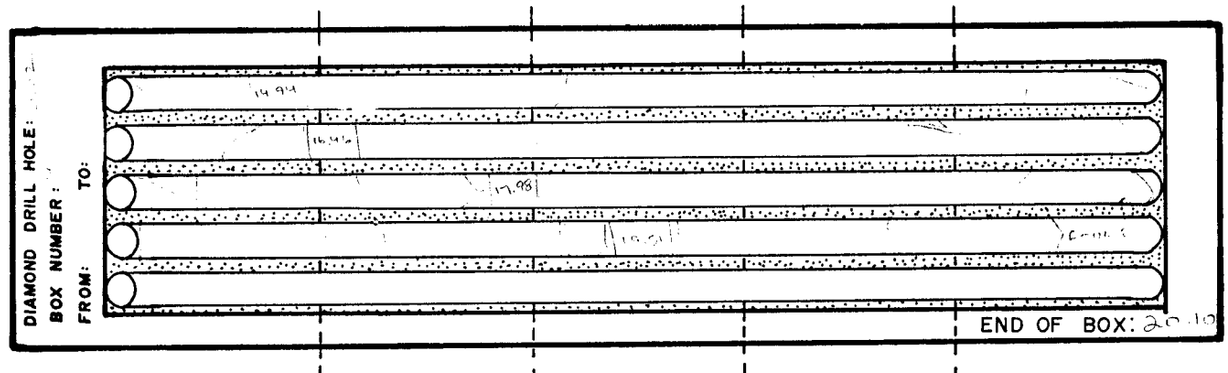
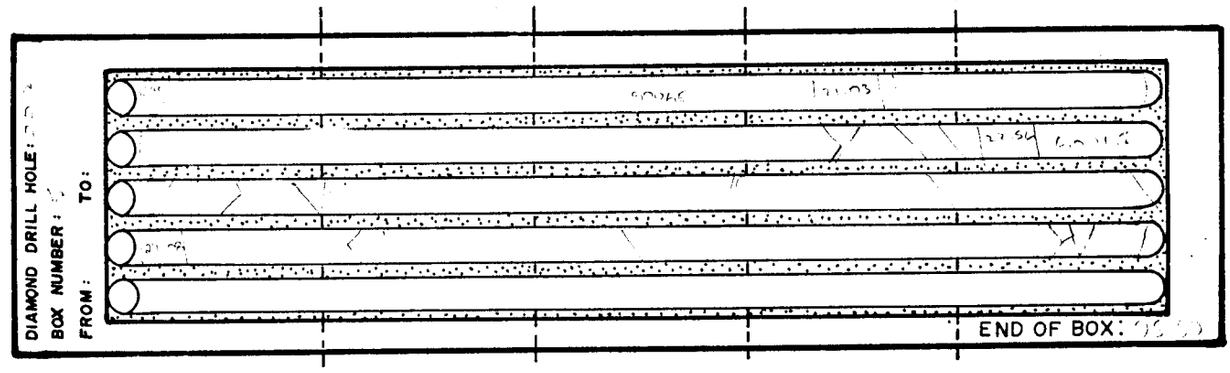










TRM ENGINEERING LTD.

LOCATION: VICTORIA VEIN (STEWART - CATTO AREA)

DIAMOND DRILL RECORD

PROJECT: MAR GOLD

HOLE NUMBER: QRMG - 86 - 002

PURPOSE:

COMMENT:

DRILLING INTERVAL	% CORE RECOVERED	BOX Number	SCALE 1 : 250 METERS	ALTERATION: CALCITE	CHLORITE	SERICITE	SILICA	FRACTURING	MINERAL	GEOLOGY	INTERVAL from	to
30.18		30.85	31									
31.69	103		32									
	103		33									
33.22			34									
34.75	100		35					~ ~	py Aspy			
	97	36.05	36					~ ~				
36.27			37									
37.79	100		38									
	95		39									
39.32			40									
40.84	95	41.31	41					~ ~				
	100		42									
42.37			43									
43.89	95		44									
	95		45									
45.42			46									
46.94	102	46.80	47									
	105		48									
48.46			49									
	98		50						Aspg			
49.99			51									
	98		52									
51.51		52.09	53									
	102		54						Aspg			
53.03			55						Aspg			
	102		56						Aspg			
54.56			57									
	100	57.46	58									
56.08			59									
	98		60									
57.61			61									
	95		62									
59.13			63									
	99		64									
60.66			65									
	103	62.67	66									
62.18			67									
	97		68									
63.70			69									
	97		70									
65.23												
	100											
		68.35										
68.28	99	14										

2.90 - 35.17 MICACEOUS QUARTZITE: Light grey-green, limonite stained, well fractured, relatively less foliated, compositional layering at 32.60 is 40° to c.A.

35.17 - 35.60 PYRITE - ARSENOPYRITE - QUARTZ: white quartz with massive pyrite and arsenopyrite. 35.17 to 35.40, Broken core of quartzite to 35.60 with disseminated pyrite. Pyrite layering @ 53° to core axis.

35.60 - 37.88 MICACEOUS QUARTZITE: Light grey-green, yellow-brown limonite stain layered Lamination's @ 44° to core axis, Abundant micro fractures

37.88 - 53.81 ARGILLACEOUS QUARTZITE ± biotite and Andalusite dark grey, green calc-silicate streaks and knots common. Andalusite locally abundant, Minor gouge + slickensides at 40.79 @ 45° to c.A Rusty, leached fractures common down to 46.60 mainly at 40° and 65° to c.A. Compositional layering at 43.50 is 48° to core axis, chlorite throughout. Narrow quartz - calcite veining 46.35 and 46.80 @ 40° to c.A. minor pyrite associated with veining compositional layering at 46.30 is 48° to core axis.

Minor gouge at 48.26 @ 40° to c.A, light grey

Breccia texture 48.26 - 50.70, very chloritic granodiorite forming matrix position from 50.15 - 50.70, Minor arsenopyrite 50.08 in 2cm quartz vein with white feldspar selvages.

Compositional layering at 52.00 is 43° to core axis.

53.81 - 55.12 CATTO VEIN SYSTEM: Three main quartz - arsenopyrite vein's compose system, VEINS 53.81 - 53.89, 54.18 - 54.49, 54.65 - 54.82, white quartz Arsenopyrite disseminated/along fractures, Veins are at 47° to core axis. veins cutting compositional layering at about 95° to core axis.

55.12 - 64.25 ARGILLACEOUS QUARTZITE ± biotite and andalusite Dark grey, abundant andalusite, broken fractured core. 57.43 - 57.61, rusty stained... Minor gouge at 56.85 and 57.00, Arsenopyrite veinlet at 57.14, 1cm wide @ 45° Compositional banding at 57.40 is 43° to core axis, Minor shearing at 58.12 + 58.30 White feldspar veinlets common 59.50 - 60.80, minor light grey bleached envelopes around veinlets. chlorite lenses at 60.80. Compositional layering at 62.30 is 48° to core axis, wispy in places, and lenticular. very abundant andalusite.

64.25 - 67.45 SLIGHTLY SKARNIFIED QUARTZITE: Light green, fine grained pale silicate development, uniform siliceous appearance. compositional layering is 37° to core axis, black hairlines common ⊥ to layering

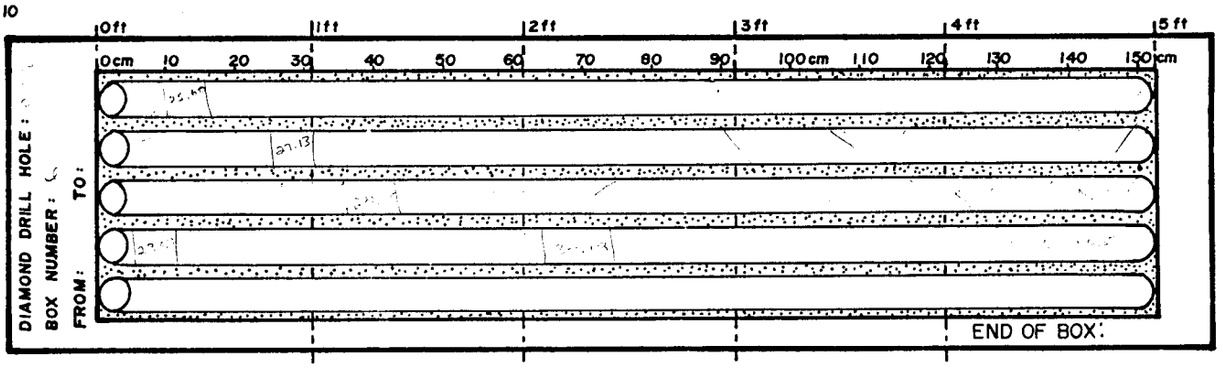
67.45 - 127.04 ARGILLACEOUS QUARTZITE: dark to light grey ± biotite and Andalusite Less calc-silicate development but still short sections of skarnified quartzite, short white granodiorite interval 68.79 - 69.30, fractured core, bleached.

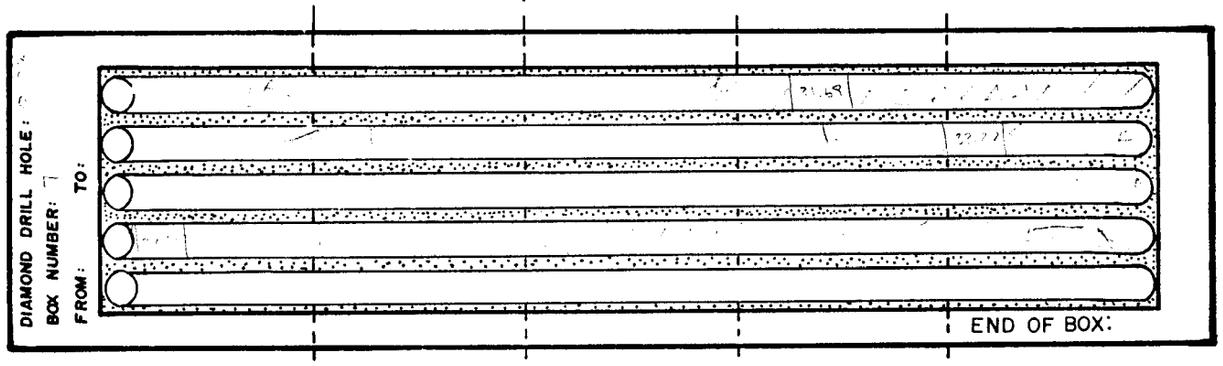
SAMPLE NUMBER	METERS from	to	LENGTH METERS	Au oz/ton	Ag oz/ton
85374	30.00	31.00	1.00	<0.002	<0.02
85375	31.00	32.00	1.00	<0.002	<0.02
85376	32.00	33.00	1.00	<0.002	<0.02
85377	33.00	34.00	1.00	0.002	<0.02
85378	34.00	35.17	1.17	<0.002	<0.02
85379	35.17	35.60	0.43	1.764	0.51
85380	35.60	36.27	0.67	0.007	<0.02
85381	36.27	37.00	0.73	0.004	<0.02
85382	52.00	53.00	1.00	<0.002	<0.02
85383	53.00	53.50	0.50	0.03	<0.02
85384	53.50	54.00	0.50	0.006	<0.02
85385	54.00	54.50	0.50	0.008	<0.02
85386	54.50	55.00	0.50	0.027	0.03
85387	55.00	55.50	0.50	0.002	<0.02
85388	55.50	56.00	0.50	<0.002	<0.02
85389	56.00	56.50	0.50	0.005	<0.02
85390	56.50	57.00	0.50	<0.002	<0.02
85391	57.00	58.00	1.00	0.003	<0.02

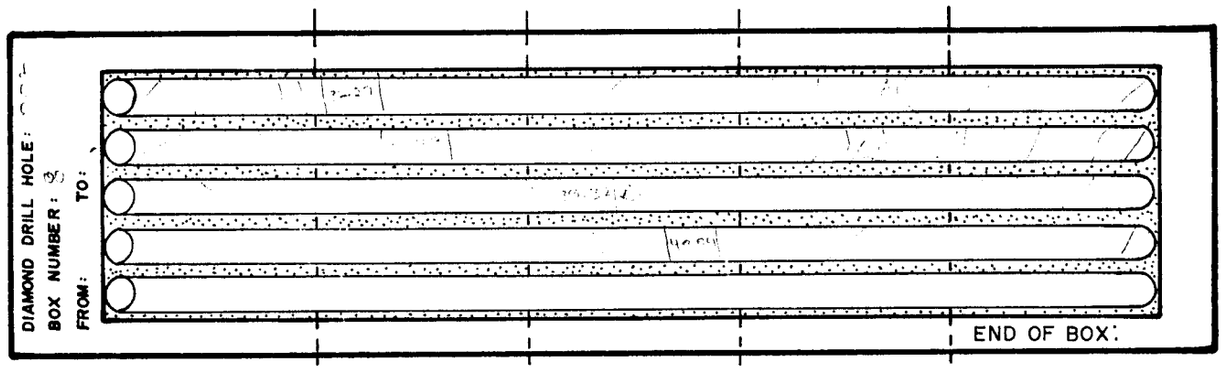
TRM ENGINEERING LTD.

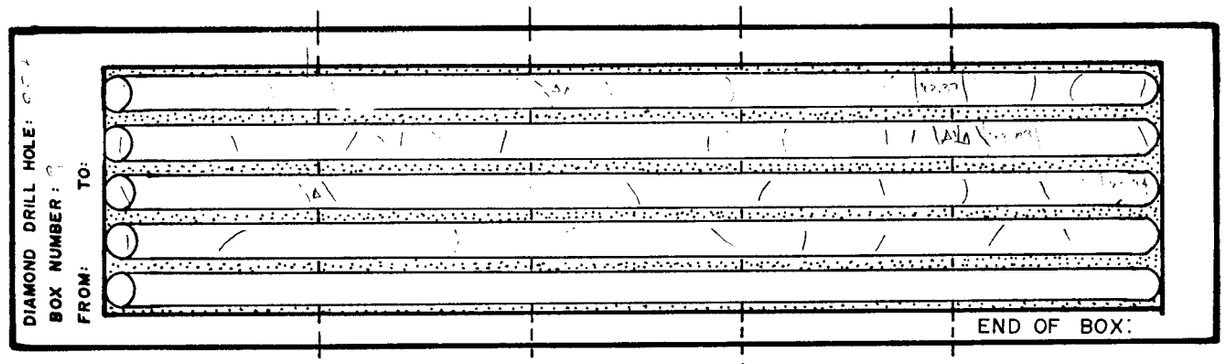
ROCK MECHANICS MEASUREMENTS

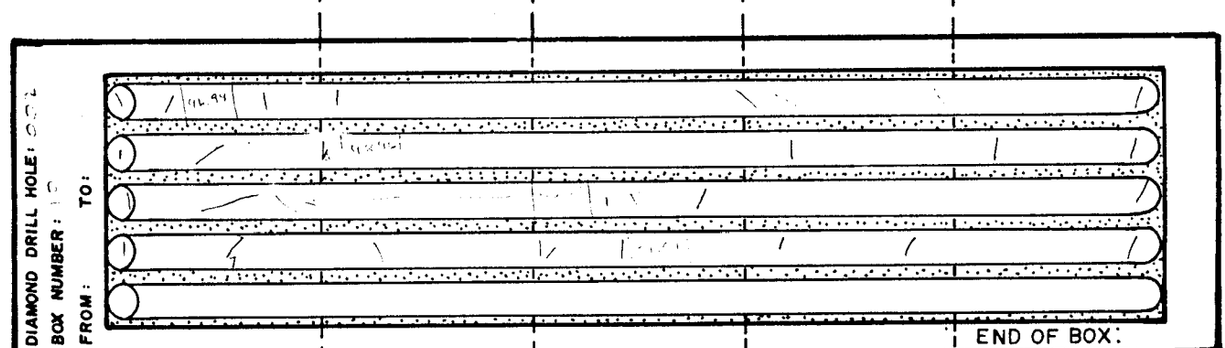
SCALE = 1:10











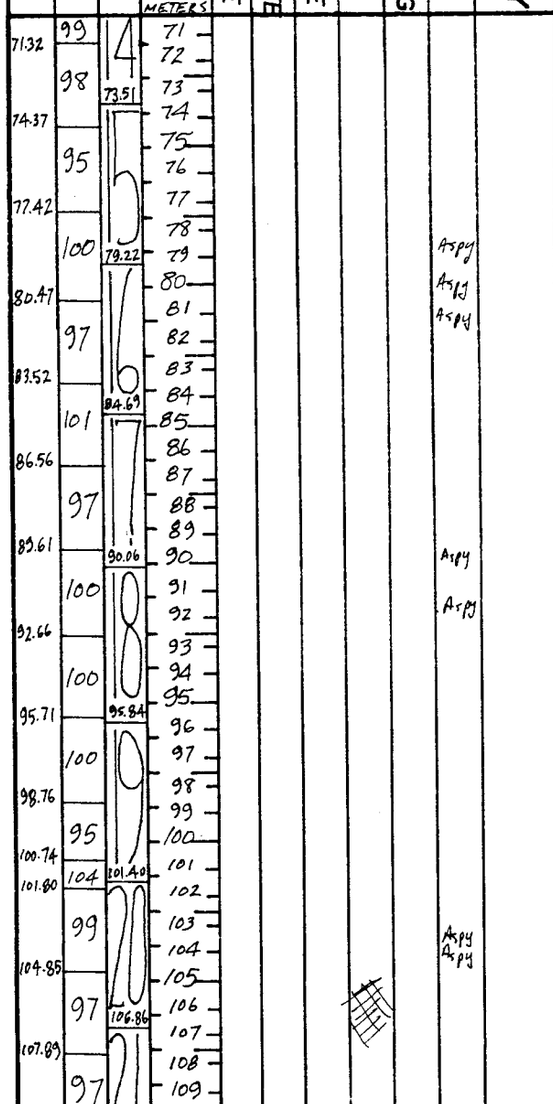
TRM ENGINEERING LTD.

LOCATION:

DIAMOND DRILL RECORD

PROJECT: MAR GOLD

HOLE NUMBER: QRMG - 86 - 002



PURPOSE:

COMMENT:

INTERVAL from to

67.45 - 127.04 ARGILLACEOUS QUARTZITE: ± biotite and Andalusite.
Light to dark grey, less dark component than above. Fractured core 71.65 - 72.40 minor limonite @ 28°.
Compositional layering at 73.00 is 36° to core axis.
Isoclinal fold structure at 73.72 - uniform green "bed" closure. @ 40° to C.A.

Granodiorite 76.68 - 76.77 and 76.95 - 77.14. white bleached.
Sill-like, very contorted layering between the two sills.

Traces of arsenopyrite along fractures at 78.38 and 78.40, 2mm wide @ 45° to C.A.
White quartz veins near 45° veining but perpendicular orientation.
Minor arsenopyrite 79.42 and 79.47, 1-3 mm wide, granodiorite 79.28 - 79.77.
Arsenopyrite 80.90 and 80.98. @ 40° to c.A.
Abundant andalusite crystals up to 2mm long.

Compositional layering at 84.10 is 41° to core axis.

Quartz - Arsenopyrite veinlet 85.12 @ 43° to core axis, 7mm wide. traces of pyrite

Layering at 87.05 is 44° to core axis., Adalusite abundant.

traces of euhedral arsenopyrite @ 89.92, many fractures are also coated with white calcite.

Arsenopyrite on fractures @ 92.55, traces of arsenopyrite throughout sampled interval also minor disseminated pyrite.
Compositional layering at 93.60 is 50° to core axis, thinly laminated.
Triangular wedges of purer quartzite (fold slices) common 95.00 - 96.00.

White feldspar veinlets 97.59, bleached envelopes.
Dark, relatively uniform argillaceous quartzite, constant compositional layering @ 43°

short 1cm - layer of debrecciately banded material 100.90.
Intersecting white veins - dykes, partly granodiorite in composition at 100.92
short granodiorite intervals. 101.92 - 102.12. also 1 - 2 cm sill-dykes 101.50 - 101.80.
Arsenopyrite coated fractures @ 103.11 and 103.37 and 104.43. 48° to CA! Mylonitic lamination common Light green, - yellow.
Abundant quartz in larger scale breccia texture. 104.80 - 106.20.
Chlorite lenses marking boundary between quartz (silica) dominate areas and schist (biotite) dominate
wispy layering, purer quartzite component dominates.

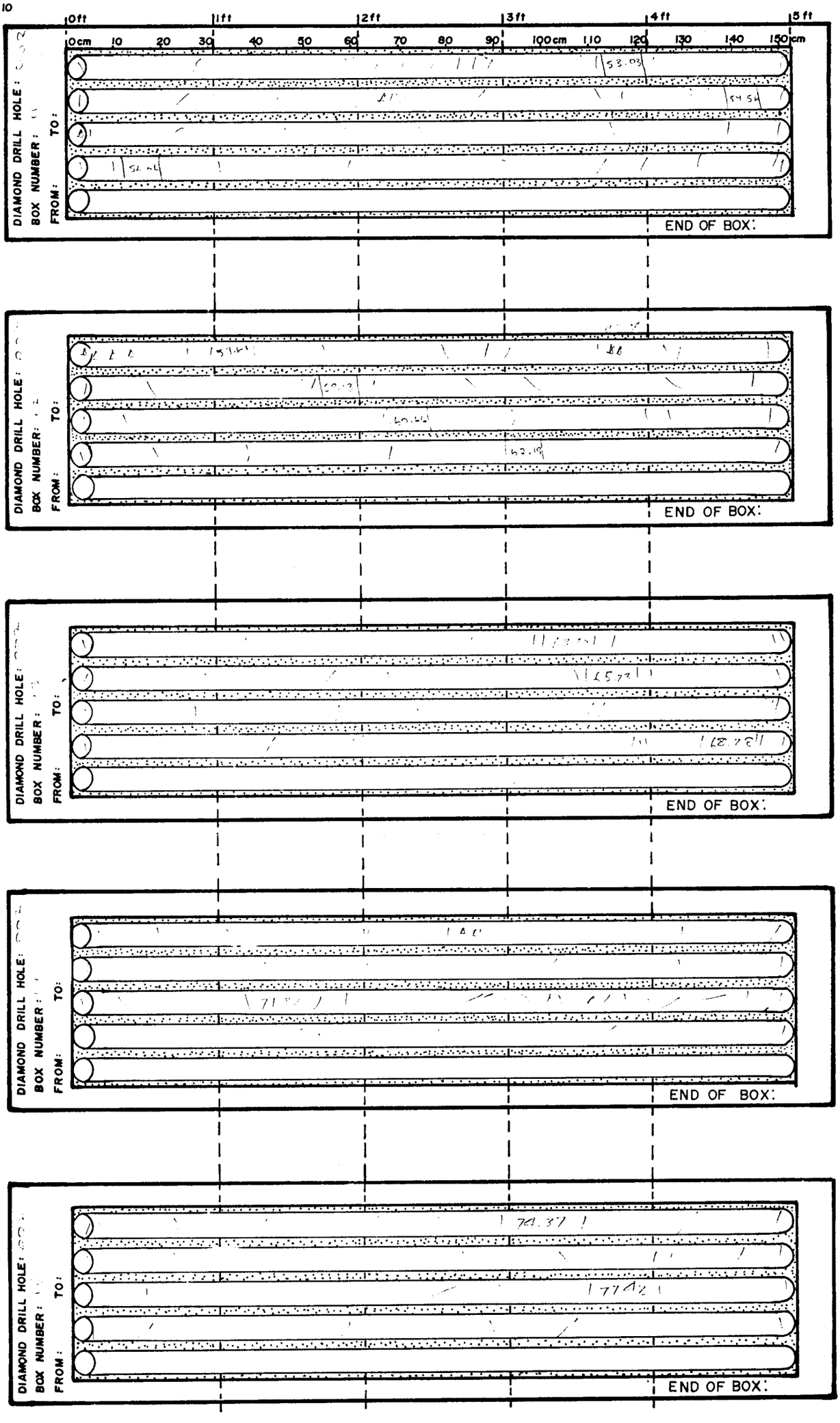
Compositional layering at 109.50 is 43° to core axis, brecciated appearance below 108.50.

SAMPLE NUMBER	METERS from	METERS to	LENGTH METERS	Au oz/ton			
85392	77.00	78.00	1.00	<0.002	<0.02		
85393	78.00	79.00	1.00	0.006	<0.02		
85394	79.00	80.00	1.00	0.003	<0.02		
85395	80.00	81.00	1.00	0.005	<0.02		
85396	81.00	82.00	1.00	0.002	0.05		
85397	82.00	83.00	1.00	<0.002	<0.02		
85398	83.00	84.00	1.00	0.002	<0.02		
85399	84.00	85.00	1.00	<0.002	<0.02		
85400	85.00	86.00	1.00	0.017	<0.02		
85401	86.00	87.00	1.00	<0.002	0.15		
85402	87.00	88.00	1.00	<0.002	<0.02		
85403	88.00	89.00	1.00	<0.002	<0.02		
85404	89.00	90.00	1.00	<0.002	<0.02		
85405	90.00	91.00	1.00	0.002	<0.02		
85406	91.00	92.00	1.00	<0.002	<0.02		
85407	92.00	93.00	1.00	0.002	<0.02		
85408	93.00	94.00	1.00	<0.002	<0.02		
85409	94.00	95.00	1.00	<0.002	0.05		
85410	95.00	96.00	1.00	<0.002	<0.02		
85411	103.00	104.00	1.00	0.018	0.02		
85412	104.00	105.00	1.00	0.008	<0.02		
85413	105.00	106.00	1.00	<0.002	<0.02		

TRM ENGINEERING LTD.

ROCK MECHANICS MEASUREMENTS

SCALE = 1:10



TRM ENGINEERING LTD.

LOCATION: VICTORIA VEIN (STEWART-CATTO AREA)

DIAMOND DRILL RECORD

PROJECT: MAR GOLD

HOLE NUMBER: QRMG-86-002

PURPOSE:

COMMENT:

INTERVAL from to

DRILLING INTERVAL	% CORE RECOVERED	BOX Number	SCALE 1:250 METERS	ALTERATION: CALCITE	CHLORITE	SERICITE	SILICA	FRACTURING	MINERAL	GEOLOGY
110.95		1	111							
	98	12.64	112							
			113						Aspy	
113.99			114							
	98		115							
			116							
117.04		118.24	117							
	90		118							
119.79			119							
	98		120							
			121						Aspy	
			122							
122.83		123.88	123							
	99		124							
			125							
125.88			126							
	100		127							
			128							
128.78			129							
129.24	140	129.39	130							
	93		131							
			132							
132.28			133						Aspy Aspy	
	104	134.80	134							
			135							
135.33			136							
	97		137							
			138							
138.38			139							
	100	140.46	140							
141.43			141							
	93		142							
			143							
144.48			144							
	98	146.33	145						Aspy	
			146							
147.52			147							
	100		148						Aspy	
			149							
150.57			150						Aspy	

6.745 - 127.04 AGILLACEOUS QUARTZITE: ± BIOTITE AND ANDALUSITE:
mainly light grey, purer quartzite dominate, circulation cleavage common.
Arsenopyrite veinlet at 112.48 @ 50° to core axis, 5mm wide.
Andalusite very abundant
Compositional layering at 115.70 is 42° to core axis, thin wispy layering
short igneous appearing sections, silica-rich, patches of biotite.
Layering at 117.90 is 45° to core axis.
short interval of fractured core 119.15 to 119.79, traces of Aspy on fractures.
Arsenopyrite veinlet at 121.22, 5mm wide @ 50° to core axis.
Andalusite very abundant 123.00 to 123.71 Mylonite 123.71 - to 123.92.
Compositional layering. 41° to core axis 124.70.
sharp lower contact over 5cm, silica-rich interval.

127.04 - 132.90 MYLONITIC QUARTZITE: Light grey-green, finely laminated
laminations at 50° to core axis, folding of puter quartzite layers prominate
Minor arsenopyrite along fractures at 52° to core axis., Quartz and Aspy 129.79-129.43
Less mylonitic effects 129.88 - 132.28, brecciated, abundant Quartz masses.
Abundant quartz near lower contact.

132.90 - 134.80 VICTORIA VEIN AND FAULT GOUGE: white to light grey gouge.
Gouge composed of granulated quartz, Mylonite and arsenopyrite 132.90 - 133.84
Last portion heavy pyrite - massive lense., Arsenopyrite veinlet at 52° to core axis 133.04 - 133.55
Extremely fractured MYLONITE 133.55 - 134.50, white gouge 134.50 - 134.80

134.80 - 139.21 MYLONITIC (ARGILLACEOUS) QUARTZITE: light grey-green
Yellowish tinge, thinnly laminated mylonite, laminations @ 48° to core axis,
White quartz veining common throughout., Argillaceous Quartzite 136.15 - 137.17
Trace of arsenopyrite at 135.36., Lower contact sheared at 50° to core axis.,

139.21 - 155.76 BIOTITE - HORNBLENDE GRANODIORITE:
Intense sericite-chlorite alteration from upper contact to friable gouge at 139.34
Gouge - sand zone 139.34 - 139.41. Mainly biotite dominate granodiorite
Relatively fresh except for narrow altered envelopes around quartz-plag veins
Calcite present in some veinlets associated with anhedral quartz.
Minor calc-silicates and chlorite.
Traces of coarse crystalline arsenopyrite in quartz vein at 145.62 @ 47° to C.A.
Minor disseminated arsenopyrite within alteration halo of vein.
white, chalky plagioclase phenocrysts common throughout.
Arsenopyrite 148.12 @ 58° to C.A, close spce plagioclase veinlet, 3mm wide.
Trace of Arsenopyrite in 25° to core axis. veinlet in slightly altered section 150.15.

SAMPLE NUMBER	METERS from	METERS to	LENGTH METERS	Au oz/ton			
85500	112.00	112.50	0.50	0.007	<0.02		
85414	112.50	113.00	0.50	NO: 003	<0.02		
85415	113.00	114.00	1.00	0.011	<0.02		
85416	114.00	115.00	1.00	0.002	<0.02		
85417	115.00	116.00	1.00	<0.002	<0.02		
85418	116.00	117.00	1.00	0.004	<0.02		
85419	117.00	118.00	1.00	0.002	<0.02		
85420	118.00	119.00	1.00	<0.002	<0.02		
85421	119.00	120.00	1.00	<0.002	<0.02		
85422	120.00	121.00	1.00	<0.002	<0.02		
85423	121.00	122.00	1.00	0.019	<0.02		
85424	122.00	123.00	1.00	0.004	<0.02		
85425	123.00	124.00	1.00	0.002	<0.02		
85426	124.00	125.00	1.00	<0.002	<0.02		
85427	125.00	126.00	1.00	<0.002	<0.02		
85428	126.00	127.00	1.00	<0.002	<0.02		
85429	127.00	128.00	1.00	<0.002	<0.02		
85430	128.00	129.00	1.00	0.003	<0.02		
85431	129.00	129.50	0.50	0.047	<0.02		
85432	129.50	130.00	0.50	<0.002	<0.02		
85433	130.00	131.00	1.00	0.020	<0.02		
85434	131.00	132.00	1.00	<0.002	<0.02		
85435	132.00	132.90	0.90	0.012	<0.02		
85436	132.90	133.50	0.60	0.012	0.02		
85437	133.50	134.00	0.40	0.008	0.64		
85438	134.00	134.80	0.80	0.005	<0.02		
85439	134.80	135.50	0.70	<0.002	<0.02		
85440	135.50	136.00	0.50	<0.002	<0.02		
85441	136.00	137.00	1.00	0.003	<0.02		
85442	137.00	138.00	1.00	<0.002	<0.02		
85443	138.00	139.00	1.00	<0.002	<0.02		
85444	139.00	140.00	1.00	<0.002	<0.02		
85445	145.00	146.00	1.00	0.002	<0.02		
85446	146.00	147.00	1.00	<0.002	<0.02		
85447	147.00	148.00	1.00	<0.002	<0.02		
85448	148.00	149.00	1.00	<0.002	<0.02		
85449	149.00	150.00	1.00	<0.002	<0.02		

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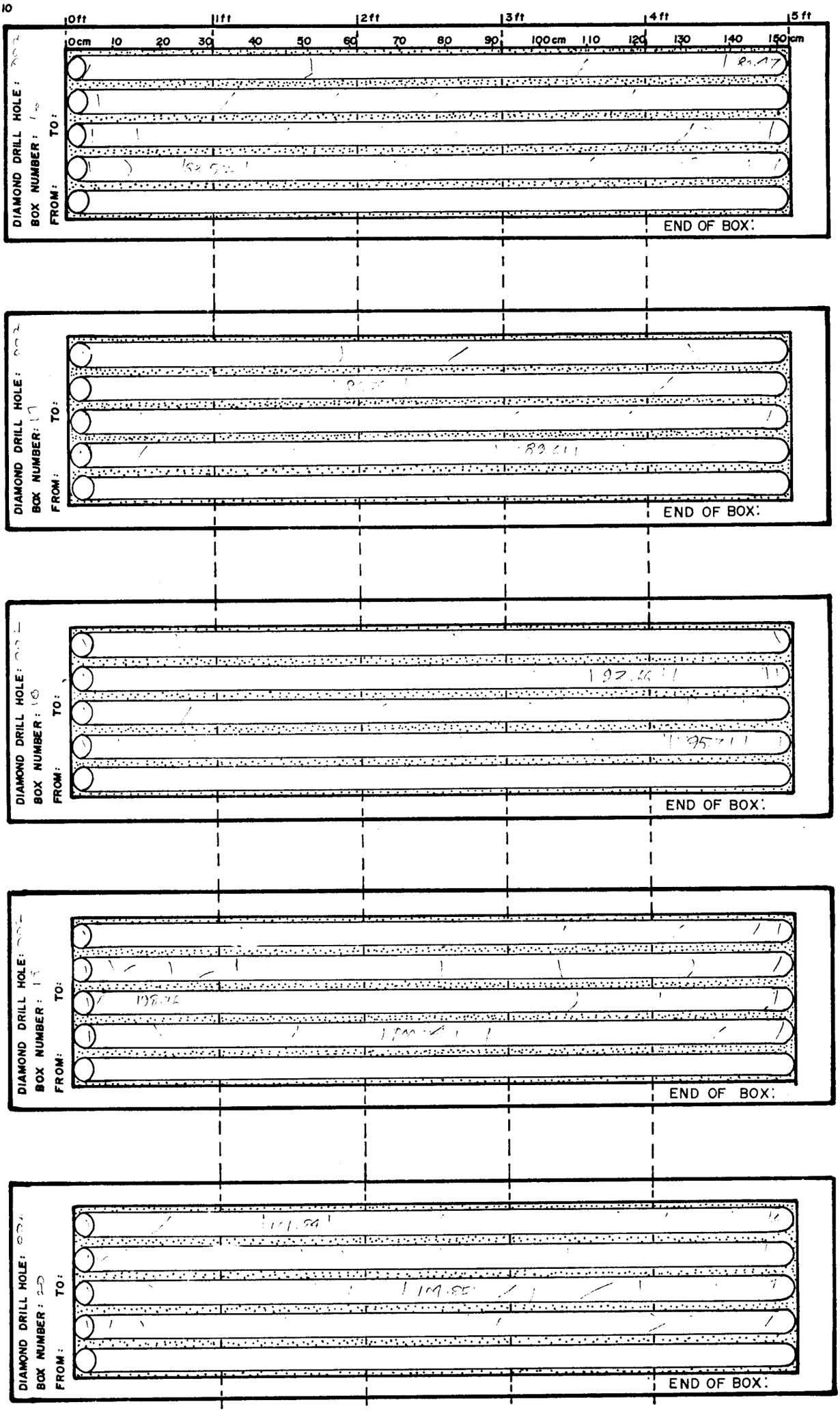
TRM ENGINEERING LTD.

ROCK MECHANICS MEASUREMENTS

SCALE = 1:10



TRM ENGINEERING LTD.

LOCATION:

DIAMOND DRILL RECORD

PROJECT: MAR GOLD

HOLE NUMBER: QRMG -86- 002

SCALE 1: 250 METERS

ALTERATION: CALCITE | CHLORITE | SERICITE | SILICA

FRACTURING

MINERAL

GEOLOGY

PURPOSE:

COMMENT:

INTERVAL from to

DRILLING INTERVAL	% CORE RECOVERED	BOX Number	INTERVAL from	INTERVAL to	SAMPLE NUMBER	METERS from	METERS to	LENGTH METERS	Au oz/ton			
		28	139.21	155.76	85450	150.00	151.00	1.00	<0.002	<0.02		
	98	152.11			85451	150.00	152.00	1.00	0.005	<0.02		
153.62					85452	152.00	153.00	1.00	0.004	<0.02		
	97				85453	153.00	154.00	1.00	<0.002	<0.02		
					85454	154.00	155.00	1.00	<0.002	<0.02		
156.67			155.76	164.54	85455	155.00	156.00	1.00	<0.002	<0.02		
	98	157.66			85456	156.00	157.00	1.00	<0.002	<0.02		
					85457	157.00	158.00	1.00	0.015	<0.02		
					85458	158.00	159.00	1.00	<0.002	<0.02		
159.72					85459	159.00	160.00	1.00	<0.002	<0.02		
	98				85460	160.00	161.00	1.00	<0.002	0.02		
162.15		162.53			85461	161.00	162.00	1.00	0.002	<0.02		
					85462	162.00	163.00	1.00	<0.002	<0.02		
	103				85463	163.00	164.00	1.00			MISSING	
			164.54	164.76	85464	164.00	164.50	0.50	0.002	0.03		
165.20					85465	164.50	165.00	0.50	<0.002	0.03		
	98				85466	165.00	166.00	1.00	<0.002	0.03		
		168.25			85467	166.00	167.00	1.00	0.002	<0.02		
169.25					85468	167.00	168.00	1.00	0.002	<0.02		
	98				85469	168.00	169.00	1.00	0.002	<0.02		
					85470	169.00	170.00	1.00	0.003	0.02		
171.14					85471	170.00	171.00	1.00	<0.002	<0.02		
	108	171.55			85472	171.00	172.00	1.00	<0.002	<0.02		
173.13					85473	172.00	173.00	1.00	<0.002	0.02		
					85474	173.00	174.00	1.00	<0.002	<0.02		
	99				85475	174.00	175.00	1.00	<0.002	<0.02		
176.17			175.41	176.62	85476	175.00	176.00	1.00	0.002	<0.02		
	90				85477	176.00	177.00	1.00	<0.002	<0.02		
178.00		179.26			85478	177.00	178.00	1.00	<0.002	<0.02		
	94				85479	178.00	179.00	1.00	<0.002	<0.02		
					85480	179.00	180.00	1.00	0.003	0.02		
180.75					85481	180.00	181.00	1.00	<0.002	<0.02		
	103				85482	181.00	182.00	1.00	0.002	0.04		
183.79					85483	182.00	183.00	1.00	<0.002	0.04		
	87	184.45	184.28	186.90	85484	183.00	184.00	1.00	0.002	0.02		
185.17					85485	184.00	185.00	1.00	<0.002	<0.02		
	105				85486	185.00	186.00	1.00	0.003	0.02		
187.15					85487	186.00	187.00	1.00			MISSING	
	93	188.59	186.90	189.16	85488	187.00	188.00	1.00	0.002	0.05		
189.59					85489	188.00	188.60	0.60	<0.002	<0.02		
	102	36	189.16	190.78	85490	188.60	189.16	0.56	<0.002	0.03		
					85491	189.16	189.93	0.43	0.002	0.05		
					85492	189.59	190.20	0.61	0.002	<0.02		

139.21 - 155.76 BIOTITE-HORNBLENDE GRANODIORITE: Hypidiomorphic granular, medium crystalline, mainly relatively fresh but cut by many narrow quartz-plagioclase veinlets which have thin sericite-chlorite alteration halos. White alteration (bleaching) common without veincores. Non foliated. Lower contact sheared, Intense sericite-chlorite alteration 155.10 - 155.76, @ 50° to C.A.

155.76 - 164.54 MYLONITIC GREEN QUARTZITE: Light green-yellow, finely laminated but poorly schistose, generally a competent rock type. Traces of brown sphalerite at 152.61, 3mm wide @ 46° to core axis. Minor biotite relicts 158.00 - 158.88., trace Arsenopyrite 159.02, 1cm wide. Stretched pebbles appearing at 159.10 @ 46° to core axis.; Pebble conglomerate or coarse Lithic wacke Possibley porphyroblastic but several different types present. Mylonitic lamination 50° to core axis., finely laminated.

164.54 - 164.76 "NEW" VEIN: Quartz breccia zone with disseminated and lenses of pyrite, subrounded "ghost" fragments, shearing appears minimal., traces of calcite. Py, Sphal

Also minor sphalerite at 165.49, 2cm wide.

164.76 - 175.41 MYLONITIC GREEN QUARTZITE: Light green-yellow, pronounced pebbly appearance as above; Lamination at 168.00 is 52° to core axis. Calcite and sphalerite in veinlets 168.95 - 168.99., brown sphalerite @ 60° to core axis. Gouge-like friable material at 170.02, 1cm wide. @ 50° to C.A., subparallel to mylonite lamination. Vug at 171.91 in calcite-quartz zone., traces of secondary chlorite. Dense light yellow, healed micro breccia, non laminated, Laminated 46° to C.A. Minor Quartz "sweats" ⊥ to lamination at 173.50 Minor Quartz "sweats" 173.30 - 173.45. at 173.20. Rock appears brecciated.

175.41 - 176.62 BIOTITE-HORNBLENDE GRANODIORITE: Hypidiomorphic granular, medium crystalline, white feldspar veins common., minor calcite. crenulated lower contact.

176.62 - 184.28 MYLONITIC GREEN QUARTZITE: Light green-yellow, relict biotite - and lucite short intervals, compositional layering @ 58° to C.A. Brecciated 177.98 - 178.55., several fragment types., Py, Py-Mp

Minor pyrite at 182.22, on calcite veinlet @ 61° to core axis, slickensides common, Quartz-PYRITE-ZONE 183.39 - 183.68 @ 44° to C.A.; veinlet largest at 5cm.

184.28 - 186.90 FAULT-FRACTURE ZONE IN MYLONITIC QUARTZITE: Extremely fractured and broken core, calcite common, main fractures @ 65°. Quartz breccia throughout, many fractures subparallel to core axis. Pyrite at 185.50, small lenses. Py

186.90 - 189.16 MYLONITIC GREEN QUARTZITE: Light green-yellow finely laminated, Abundant ⅓ quartz; relict biotite common; Minor pyrite at 188.22

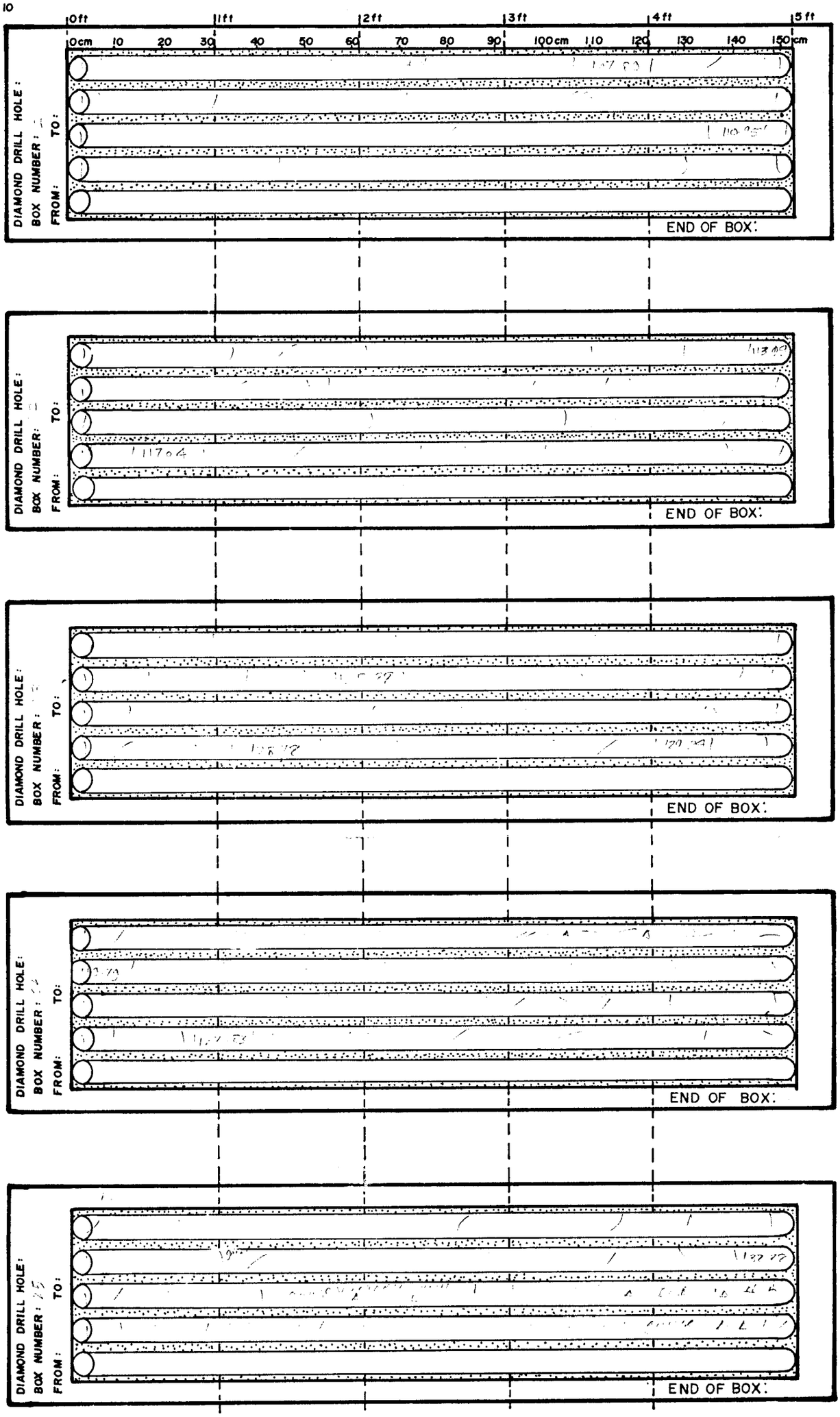
189.16 - 190.78 MINERALIZED, VERY ALTERED GRANODIORITE: Py, Zn, S, Pb, As

Abundant disseminated pyrite, sphalerite and jamesonite 189.16 - 189.72. Intense sericite-chlorite alteration throughout, Biotite fragment at 190.00.....

TRM ENGINEERING LTD.

ROCK MECHANICS MEASUREMENTS

SCALE = 1:10



TRM ENGINEERING LTD.

LOCATION:

DIAMOND DRILL RECORD

PROJECT: MAR GOLD

HOLE NUMBER: QRMG - 86 - 002

DRILLING INTERVAL	% CORE RECOVERED	BOX Number	SCALE 1: 250 METERS	ALTERATION: CALCITE	CHLORITE	SERICITE	SILICA	FRACTURING	MINERAL	GEOLOGY
192.63	104	36	191							
			192							
			193							
194.16	92	194.16	194							
			195							

PURPOSE:
COMMENT:

INTERVAL from to

189.16 - 190.78 MINERALIZED, VERY ALTERED GRANODIORITE: white to light grey

190.78 - 194.16 ARGILLACEOUS QUARTZITE: ~~to~~ biotite and Andalusite: dark grey. Abundant Andalusite, brecciated, by white feldspar veinlets to stockwork. Short very altered intrusive interval 193.22 - 193.37. Minor mylonitic 192.60 - 193.22. Compositional layering at 194.00 is 52° to core axis, wispy layering, brecciated

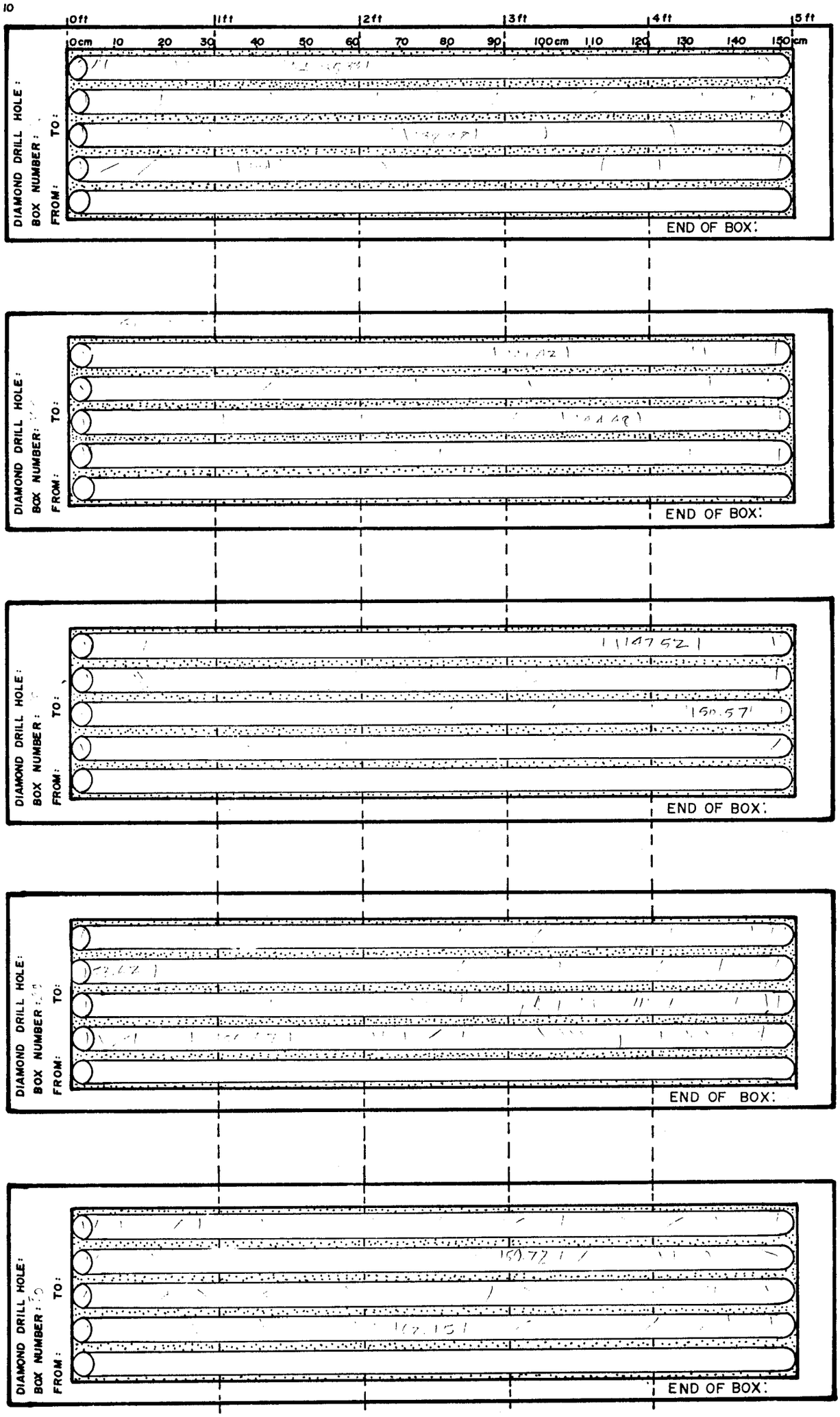
END OF HOLE 194.16 METERS
(637 FEET)

SAMPLE NUMBER	METERS from	METERS to	LENGTH METERS	Au oz/ton			
85493	190.20	190.78	0.58	0.002	<0.02		
85494	190.78	191.50	0.72	<0.002	<0.02		
85495	191.50	192.00	0.50	<0.002	<0.02		
85496	192.00	193.00	1.00	<0.002	<0.02		
85497	193.00	194.16	1.16	<0.002	<0.02		

TRM ENGINEERING LTD.

ROCK MECHANICS MEASUREMENTS

SCALE = 1:10



TRM ENGINEERING LTD.

QUEENSTAKE RESOURCES LTD

LOCATION (LEVEL): VICTORIA VEIN (Stewart-Cat Ito Area)

DIP: -45° AT COLLAR, DIRECTION: 354°00'

DIAMOND DRILL RECORD

PROJECT: MAR GOLD

HOLE NUMBER: QRMG-86-003

LATITUDE: 7100,886 N (UTM COOR. METRIC Underhill) LENGTH: 156.06 meters (512 ft) ELEVATION: 1214.60 meters CLAIM NUMBER: BOB 1

DEPARTURE: 461,415 E (Grid 1978 Underhill) CORE SIZE: NQ DATE LOGGED: AUGUST 18-25/86 LOCATION: DUBLIN GULCH PLACER CAMP

STARTED: AUGUST 17 (NIGHT SHIFT) 1986 FINISHED: AUGUST 23 D.S. 1986 LOGGED BY: V. T. STEARER SAMPLED BY: J.S., L.S.

O.B. THICKNESS: 2.13 meters STARTED: AUGUST 17 1986 FINISHED: AUGUST 17 1986 CASING: 3.66 HW meters LEFT IN HOLE

B.R. THICKNESS: 153.93 meters STARTED: AUGUST 17 1986 FINISHED: AUGUST 23 1986 TOTAL RECOVERY: 95%

CONTRACTOR: E. CARON DIAMOND DRILLING LTD CORE STORED: DUBLIN GULCH PLACER CAMP

LY-38 RUNNERS: M. McLELLAN (D.S.), K. MAC (N.S.) METRIC CONVERSION BY: L.S.

CORE RECOVERY BY: L.S.

SURVEY: ACID TEST

DEPTH	BEARING	ANGLE Reading	ANGLE Correc
COLLAR	354°	-45°	-45°
91.44	—		
156.06	—		

PURPOSE:

COMMENT:

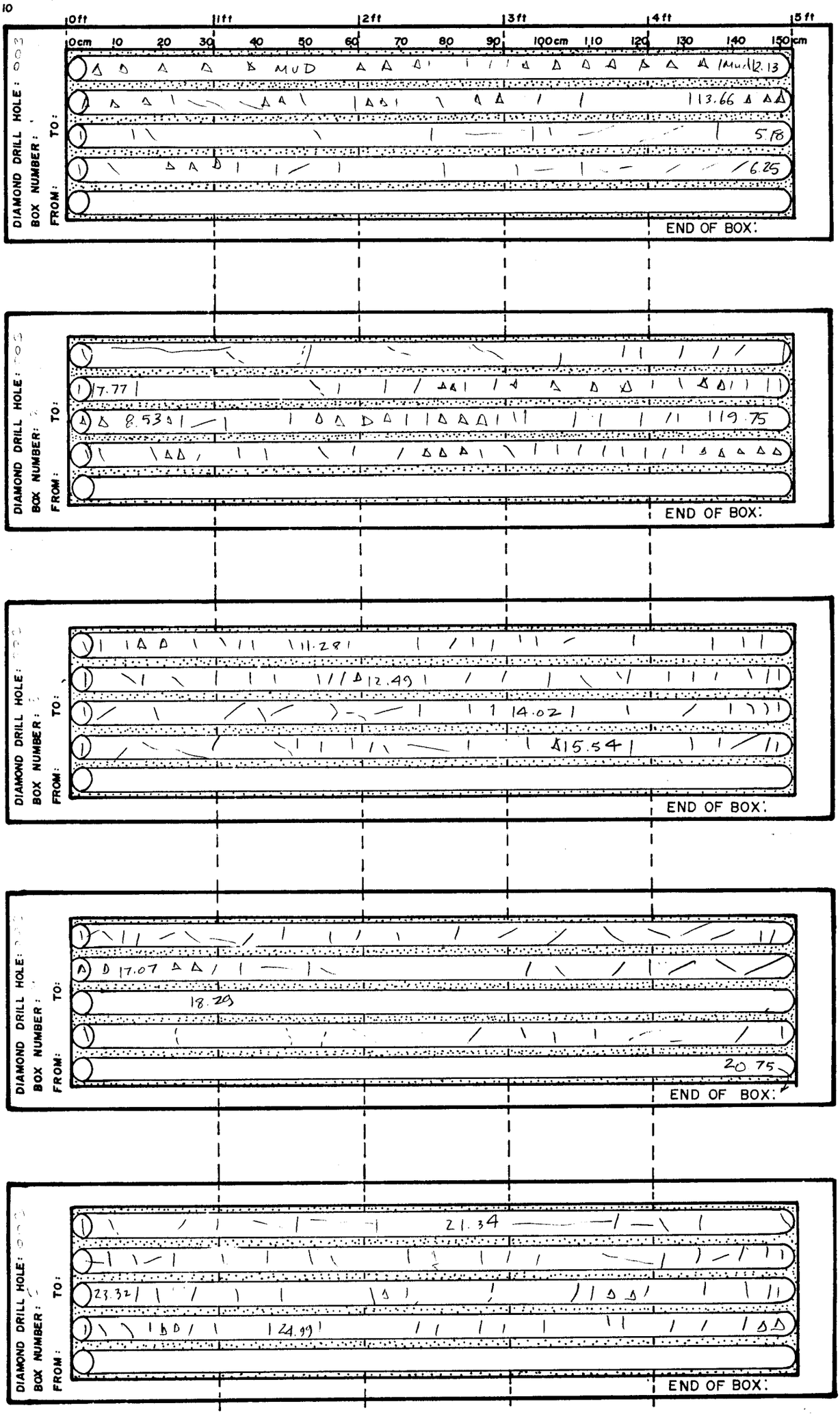
DRILLING INTERVAL	% CORE RECOVERED	BOX Number	SCALE 1:250 METERS	ALTERATION: CALCITE	CHLORITE	SERICITE	SILICA	FRACTURING	MINERAL	GEOLOGY	INTERVAL from to
			1								0-2.13 NO CORE: Rubble, soil, broken rock fragments.
2.13	65	2.13	2								
3.66		1	3								2.13- MICACEOUS QUARTZITE: Light grey with dark streaks,
	87		4								Limonite on fractures but not as much pervasive FeO staining as previous holes.
5.18			5								Main direction of compositional layering is 30° to C.A., but near top of hole bedding
	93	6.25	6								is commonly contorted and folded.
6.25			7								Compositional layering at 6.30 is 4° to core axis, subparallel until 6.90.
	102		8								Minor andalusite at 6.55 along one layer., Very fractured core.
7.77	170		9								
8.53	81		10								White recrystallized quartzite 8.75-9.75, highly fractured No sulfides
9.75											could possibly be a barren quartz vein.
	100	11.05	11								subparallel compositional layering at 10.00 down to 11.28.
11.28											Limonite staining progressively becoming more intense and pervasive below 13.00.
12.49	106		12								Highly fractured 11.50-14.00. Most fractures 70° to C.A. or subparallel
	102		13								Trace of Arsenopyrite at 13.76 along fracture @ 68° to C.A., MnO stain common.
14.02			14						Aspy		Compositional layering at 13.58 is 34° to core axis.,
	87		15						Aspy		Traces of Arsenopyrite in lenses-patches and along fractures 15.71-15.76
15.54		15.97	16								
	108		17								Pebbly core below 17.07, core generally well fractured, most at 35° to core axis.
17.07	110		18								
18.29			19								Layer of arsenopyrite at bottom contact of vein, sharp upper and lower contacts.
	103		20						Aspy		Quartz-Arsenopyrite veinlet 19.16-19.20 @ 71° to core axis, fine appearance,
		20.75									Compositional layering at 19.10 is 35° to core axis, gradational appearance,
21.34			21								Fractures parallel to C.A. Deep weathering over all.
	105		22								
23.32			23						Aspy		Arsenopyrite veinlet @ 23.75, 5mm wide @ 60° to C.A., irregular thickness, Minor scorodite
	97		24								Orange-red friable material, perhaps fault gouge, 24.00-24.17 @ 20° to core axis
24.99			25								MnO on fractures, Network of close spaced fractures,
	78	26.12	26								Reddish orange gouge at 25.90-26.50, sheared, 5-10° to core axis.,
26.37	92		27								heavy limonite staining, compositional layering at 28.05 is 8° to core axis.
27.28	133		28								Gouge at 29.63-29.67 @ 68° to core axis
28.35	92		29								white, intense sericitic alteration of Quartzite, sheared appearance, Aspy @ 30.03-30.08 @ 58°, scorodite
29.26	83	30.45	30								

SAMPLE NUMBER	METERS from	METERS to	LENGTH METERS	Au oz/ton	Ag oz/ton
13076	13.00	14.00	1.00	<0.002	<0.02
13077	14.00	15.00	1.00	<0.002	0.21
13078	15.00	16.00	1.00	<0.002	0.03
13079	16.00	17.00	1.00	<0.002	0.02
13080	17.00	18.00	1.00	<0.002	0.02
13081	18.00	19.00	1.00	<0.002	0.03
13082	19.00	19.50	0.50	011	02
13083	19.50	20.00	0.50	<0.002	<0.02
13084	20.00	21.00	1.00	0.002	0.02
13085	23.50	24.00	0.50	0.011	0.02
13086	29.50	30.00	0.50	0.003	0.07

TRM ENGINEERING LTD.

ROCK MECHANICS MEASUREMENTS

SCALE = 1:10



TRM ENGINEERING LTD.

LOCATION:

DIAMOND DRILL RECORD

PROJECT: MAR GOLD

HOLE NUMBER: QRMG-86-003

DRILLING INTERVAL	% CORE RECOVERED	BOX Number	SCALE 1:250 METERS	ALTERATION: CALCITE	CHLORITE	SERICITE	SILICA	FRACTURING	MINERAL	GEOLOGY
31.09	83		31						Aspy	CATTO?
32.31	94		32						Aspy	
	114		33							
34.14			34						Aspy	
	87	35.96	35							
35.66			36							
	94		37							
37.03										
38.56	115		38							
	97		39							
40.23		40.70	40							
	85		41							
42.06			42							
43.74	102		43							
	96		44							
45.72		45.90	45							
	103		46							
			47							
48.54			48							
49.38	95		49						Aspy	++++
			50						Aspy	
	97	51.35	51							
52.43			52							
			53							
	102		54							
54.86			55							
	63		56							
56.59		56.59	57							
	192		58							
57.91										
	90		59							
59.44			60							
	105	60.96	61							
60.96			62							
	95		63							
62.86			64							
	94		65							
		66.72	66							
66.90			67							
67.67	107		68							
	100		69							
69.95		100	70							

PURPOSE:

COMMENT:

INTERVAL from to

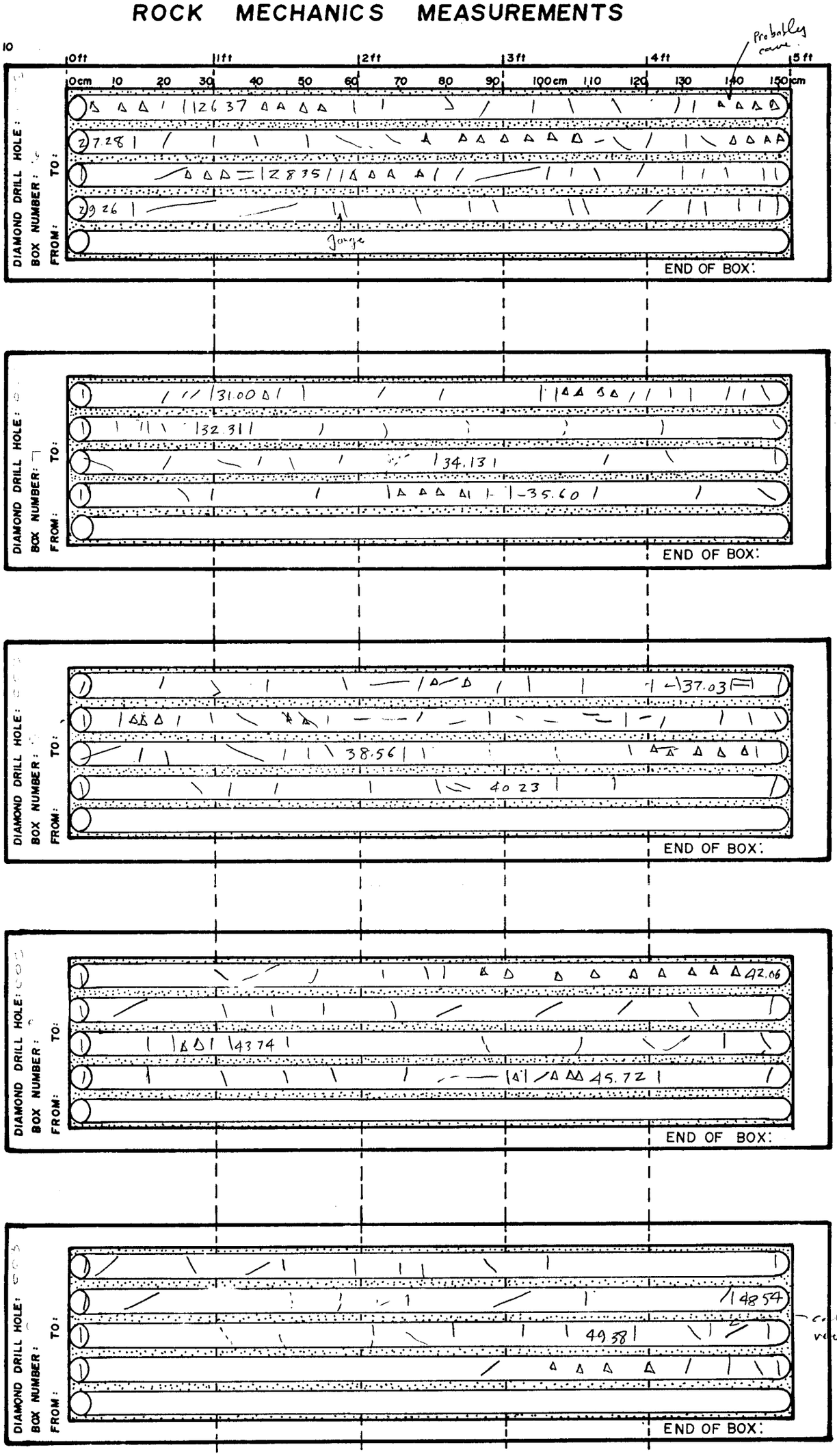
2.13 - 41.06 MICACEOUS QUARTZITE (CATTO VEIN?): Light grey, pervasive Limonite stain
Quartz-PYRITE-ARSENOPYRITE ZONES: 32.08-32.15, 32.39-32.42 @ 57°.
traces of arsenopyrite @ 32.81, "vein + scordite @ 33.11-33.13 and 33.94.
Vein with arsenopyrite, minor scordite at 34.06-34.12, also trace at 34.37 @ 56° to c.a.
Highly fractured core 39.20-39.66; FeO coating surfaces.
Pyrite oxidized in quartz "sweat" 35.14. compositional at 35.75 is 20° to core axis.
Extremely fractured core 36.70-39.40, highly weathered appearance.
Limonite
Lusterous MnO on irregular shear fractures, subparallel to c.a @ 139.70
Compositional layering at 40.65 is 18° to core axis; somewhat wispy.
41.06-49.68 BIOTITE-QUARTZ SCHIST: Dark grey and light greenish-grey,
well banded. Compositional layering at 43.10 is 34° to core axis.
slightly skarnified 43.74-44.22, Limonite very common on fractures, weathered appearance
Fault - Mylonitic shearing at 44.90-45.36, No gouge but fractured + yellowish green
trace of arsenopyrite at 49.16-49.20 @ 60° to c.a. very altered granodiorite 49.07-49.16
Compositional layering at 48.10 is 21° to core axis, contortion of laminations
49.68-49.82 QUARTZ VEIN: Light grey quartz and masses of arsenopyrite throughout just before vein
vein at 52° to core axis, sharp contacts, trace of pyrite and brown calcite.
49.82-67.68 BIOTITE-QUARTZ SCHIST: dark grey, well layered.
Extremely fractured + Limonitic core 51.00-51.35, compositional layering at 50.10 is 15° to c.a.
white hairline with traces of pyrite at 51.63, bleached halo 1cm wide @ 78° to c.a.
Minor andalusite at 54.18-54.26
Compositional banding at 55.60 is 27° to core axis.
friable fracture slices 56.59-56.90, biotite dominate layers highly weathered.
Layering contorted 57.85, silica rich 58.17-58.56, minor calcite veining.
Very weathered appearance throughout, Limonite common.
Andalusite composing dark layers, at expense of biotite.
small scale folding and associated cranulation between 62.50-62.90.
Compositional layering at 62.90 is 23° to c.a., in varigated Quartzite dominate section.
Calc-silicates developed in recrystallized quartzite 64.12-64.68
Abundant andalusite near lower contact; gouge at 67.20
Lower contact sheared, direction not well defined but roughly 35° to core axis.
67.68-71.32 PEBBLY MICACEOUS QUARTZITE: Light grey, not well foliated.
Quartz and feldspar? pebbles (or porphyroblasts) throughout, 3-4 mm long, stretched.
Compositional layering at 69.50 is 30° to core axis., highly contorted.

SAMPLE NUMBER	METERS from	to	LENGTH METERS	Au oz/ton		
13087	30.00	30.50	0.50	0.081	0.86	
13088	30.50	31.50	1.00	0.006	0.02	
13089	31.50	32.00	0.50	0.005	0.02	
13090	32.00	33.00	1.00	0.006	0.04	
13091	33.00	34.00	1.00	0.007	0.08	
13092	34.00	35.00	1.00	0.018	0.35	
13093	35.00	36.00	1.00	<0.002	<0.02	
13094	36.00	37.00	1.00	<0.002	<0.02	
13095	37.00	38.00	1.00	0.002	<0.02	
13096	38.00	39.00	1.00	<0.002	<0.02	
13097	39.00	40.00	1.00	0.007	<0.02	
13098	40.00	41.00	1.00	<0.002	<0.02	
13099	41.00	42.00	1.00	0.002	<0.02	
13100	42.00	43.00	1.00	<0.002	<0.02	
13101	48.00	49.00	1.00	<0.002	<0.02	
13102	49.00	49.50	0.50	0.02	0.02	
13103	49.50	50.00	0.50	0.301	0.09	
13104	50.00	51.00	1.00	0.002	<0.02	
13105	51.00	52.00	1.00	0.002	<0.02	

THM ENGINEERING LTD.

ROCK MECHANICS MEASUREMENTS

SCALE = 1:10



TRM ENGINEERING LTD.

LOCATION:

DIAMOND DRILL RECORD

PROJECT: MAR GOLD

HOLE NUMBER: QRMG-86-003

PURPOSE:

COMMENT:

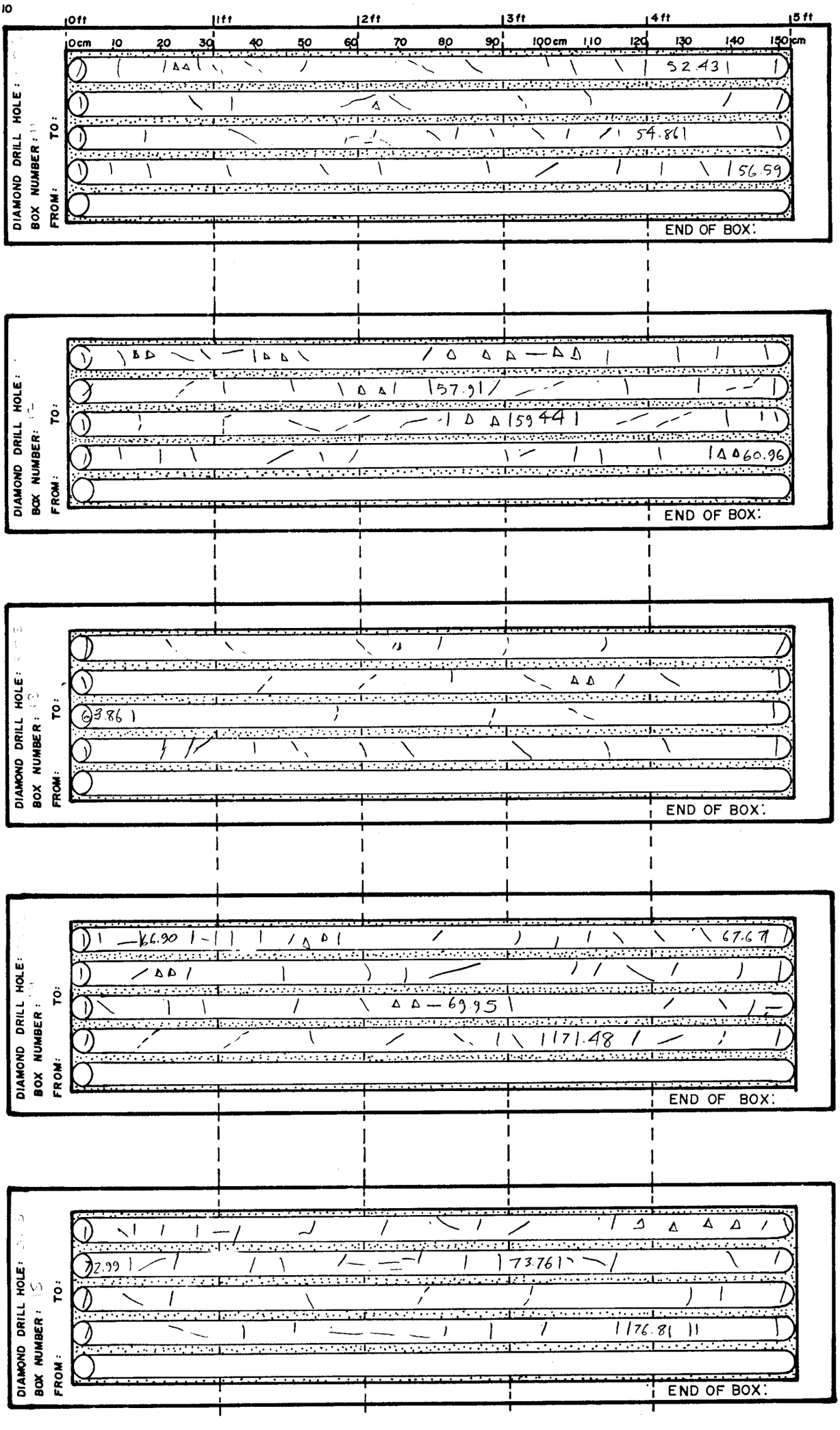
DRILLING INTERVAL	% CORE RECOVERED	BOX Number	SCALE 1:250 METERS	ALTERATION: CALCITE	CHLORITE	SERICITE	SILICA	FRACTURING	MINERAL	GEOLOGY	INTERVAL from to	GEOLOGY
71.48	100	71.83	71								67.68 - 71.32	PEBBLY MICACEOUS QUARTZITE: Light grey, poorly foliated
72.99	109		72								71.32 - 72.75	ARGILLACEOUS QUARTZITE: dark grey, very abundant Andalusite., Layering at 72.50 is 29° to core axis
73.76	93		73								72.75 - 82.23	MICACEOUS QUARTZITE (IN PART PEBBLY): Light gray, relatively poorly foliated, pervasive limonite staining throughout. Some intervals highly internally folded and deformed, Quartz zone 76.81 - 76.96.
76.81	97	76.96	74									Compositional layering at 77.65 is 31° to core axis.
78.64	104		75									Minor muscovite layers for example at 79.12 @ 33° to core axis.
80.62	100		76									Relatively a uniform rock unit, competent, reddish-orange carbonate veinlets at 82.78, 2mm wide.
	94	82.34	77									progressively more sheared appearance
82.91	98		78								82.23 - 83.82	DEFORMED ARGILLACEOUS QUARTZITE: dark grey, minor green mylonitic lamination, layering at 82.25 is 32° to core axis, wavy layering below. Abundant silica - quartzite edgers with associated calcite.
84.12			79								83.82 - 86.02	FAULT GOUGE - MYLONITE: Greenish-yellow, finely laminated, abundant calcite, Mylonitic lamination at 85.15 is 31° to core axis. very friable gouge like 83.82 - 85.34. Many sections weathered brown. MAJOR FAULT
	94		80									
87.17		87.79	81									
	98		82								86.02 - 90.51	MYLONITIC GREEN QUARTZITE: Highly altered, Greenish-brown, Abundant calcite, pervasive brown staining. Shear Lamination at 86.82 is 26° to core axis. Trace of Arsenopyrite along fracture at 89.22, 3 mm wide @ 52° to core axis.
			83									
			84									
			85									
	94		86									
			87									
			88									
	98		89						Aspy			
90.22			90									Trace of arsenopyrite in quartz vein @ 90.29 @ 54° to core axis, 1.1 cm wide.
	89		91								90.51 - 93.42	ARGILLACEOUS QUARTZITE: dark grey, well banded, biotite and Andalusite, brown silty streaks common. Compositional layering at 92.85 is 350° to core axis.
92.81		93.27	92									
			93								93.42 - 94.16	ALTERED GRANODIORITE: grey - reddish brown, medium xline,
	105		94							+++		Intense sericite - chlorite alteration except between 93.54 - 93.73.
95.10			95									quartz veinlets common @ 5.8° to C.A.
	98		96								94.16 - 101.59	ARGILLACEOUS QUARTZITE: ± biotite and Andalusite.
			97									calc-silicate patches at 96.74 + 96.82. Approximately 50% quartzite and 50% Andalusite dominate layers.
98.15		98.62	98									Granodiorite breccia dyke subrounded quartzite fragments in relatively fresh granodio
	99		99									Very abundant andalusite in all dark layers, layering at 98.60 is 18°, 98.11 - 98.32.
			100									Altered granodiorite, limonitic 100.24 - 100.67, quartz veinlets @ 75° to C.A. Intense sericite - chlorite alteration. Gradational Lower contact over 30cm.
101.19			101								101.59 - 105.55	MYLONITIC GREEN QUARTZITE: Light green-yellow,
	99		102									Usually finely laminated by Mylonitic shearing @ 20° to C.A. at 103.20:
			103									coarse grained Andalusite laths common up to 15mm long.
104.19		104.19	104									shearing has taken place in the argillaceous quartzite unit.
	100		105						Aspy		105.55 - 106.23	VICTORIA VEIN AND FAULT GOUGE: orange-red gouge
			106						Aspy			105.55 - 105.81, MASSIVE Arsenopyrite 105.81 - 105.92, Fracture controlled arsenopyrite
107.29			107									Arsenopyrite at 78° to C.A., Fault appears steep. Veinlets 105.92 - 106.23 @ 51° to C.A.
	99		108								106.23 - 112.40	MYLONITIC GREEN QUARTZITE: Light green-grey
		109.80 2.2	109									Mostly finely laminated shearing @ 34° to core axis, white quartz common.
110.19			110									quartz rich layers boudined, Fault at 110.00 - 110.19 friable

SAMPLE NUMBER	METERS from	METERS to	LENGTH METERS	Au oz/ton			
13106	88.00	89.00	1.00	0.005	<0.02		
13107	89.00	90.00	1.00	0.002	<0.02		
13108	90.00	90.50	0.50	0.006	<0.02		
13109	90.50	91.00	0.50	0.004	<0.02		
13110	91.00	92.00	1.00	<0.002	<0.02		
13111	92.00	92.70	0.70	<0.002	<0.02		
13112	92.70	93.42	0.72	<0.002	<0.02		
13113	93.42	93.76	0.64	0.007	<0.02		
13114	105.00	105.55	0.55	<0.002	<0.02		
13115	105.55	106.23	0.68	0.035	0.08		
13116	106.23	106.70	0.47	<0.002	<0.02		
13117	106.70	107.50	0.80	0.004	@63		
13118	107.50	108.50	1.00	0.002	0.21		
13119	108.50	109.50	1.00	0.002	0.09		
13120	109.50	110.19	0.69	<0.002	0.07		

TRM ENGINEERING LTD.

ROCK MECHANICS MEASUREMENTS

SCALE = 1:10



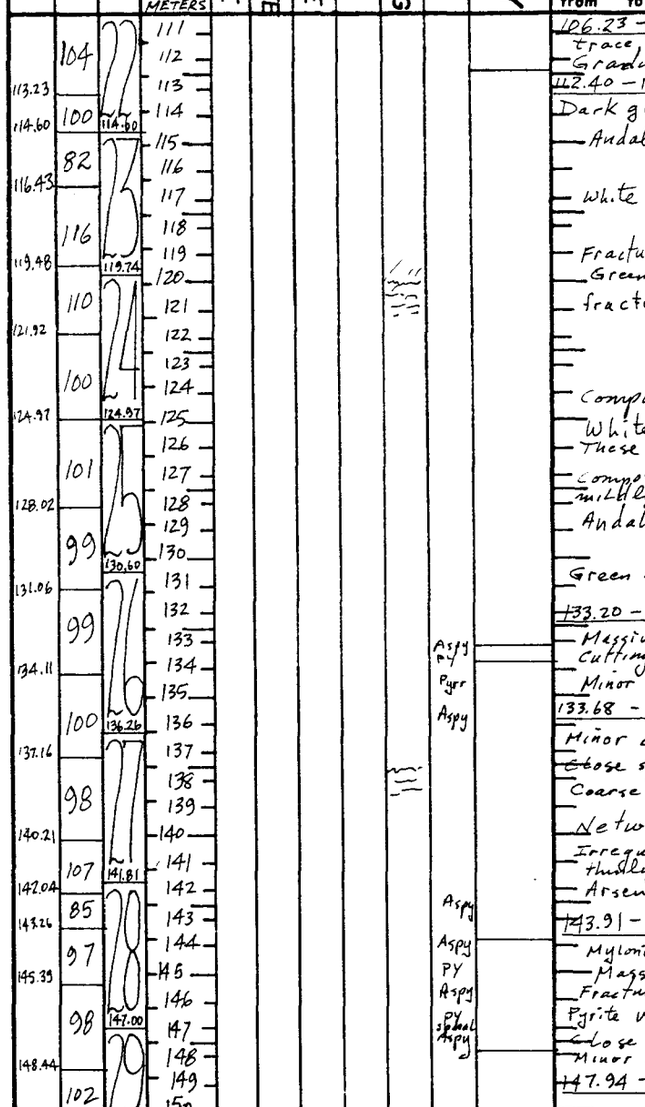
TRM ENGINEERING LTD.

LOCATION:

DIAMOND DRILL RECORD

PROJECT: MAR GOLD

HOLE NUMBER: QRMG-86-003



PURPOSE:

COMMENT:

INTERVAL from to

106.23 - 112.40 MYLONITIC GREEN QUARTZITE: Light green-yellow trace of disseminated arsenopyrite. Gradual decrease in amount of Mylonitic lamination, over 1.0 meter.

112.40 - 133.20 ARGILLACEOUS QUARTZITE: ± biotite and Andalusite Dark grey, Mottled appearance, Compositional layering @ 113.20 is 29° to c.A. Andalusite very abundant.

White veinlets 1-2mm wide, trace of bleaching 117.59, 117.68, 117.96 +/- trace of pyrite.

Fractured core, minor grey-brown gouge @ 15° to c.A between 119.18 - 120.21 Green-yellow, mylonitic shear lamination. 119.89 - 120.20.

fractured core 121.92, Minor white calcite on fracture surfaces.

Compositional layering at 124.46 is 40° to core axis., varying over short distances to 31° to c.A White feldspar veinlets @ 58° to c.A at 127.02 3-4mm wide These veinlets appear to be granodiorite parentage, finely divided pyrite present in veinlets

Compositional layering at 127.35 is 28° to core axis. mildly skarnified 127.98 - 128.68, light green pervasive calc-silicate's Andalusite very abundant, Layering at 130.55 is 31° to core axis.

Green Mylonite starting 132.76 to 133.20, Lower contact has calc-silicate development

133.20 - 133.68 QUARTZ-ARSENOPYRITE-PYRITE: "NEW VEIN"

Massive pyrite and arsenopyrite lenses + bands in light grey quartz + quartzite cutting compositional layering at 30°, Arsenopyrite associated with light brown calcite Minor pyrrhotite in calcite stringers at 134.04. Fractures with Aspy at 133.68

133.68 - 143.91 MYLONITIC GREEN QUARTZITE: Light green-yellow

Minor disseminated Arsenopyrite, Arsenopyrite veinlet at 135.11 @ 54° to c.A Close spaced Mylonitic lamination from 137.16 - 138.20. Highly sheared, friable. Coarse crystalline Andalusite common in relict zones 138.42 - 140.05.

Network of fractures 141.10 - 142.04

Irregular zones of Pyrite-arsenopyrite 141.38, Aspy at 141.75. Finely laminated Mylonitic shearing, healed to hard, non foliated rock.

Arsenopyrite veinlets at 143.02 - 143.08, minor pyrite.

143.91 - 147.94 QUARTZ-PYRITE-ARSENOPYRITE ZONES: occuring within Mylonitic Green Quartzite - Stockwork - multiple veins and disseminations + fracture filling. Massive pyrite and arsenopyrite 144.15 - 144.51, @ 58° to core axis Fracture filling arsenopyrite to 144.75 gouge at 144.51 Pyrite veinlets at 146.44 - 146.17 and 146.37, 146.95 - .97 and 147.00 associated with Close spaced fracturing, filling pyrite and Aspy 147.30 - 147.56, calcite and sphalerite. Minor arsenopyrite at 147.94

147.94 - 156.06 MYLONITIC GREEN QUARTZITE: Light green-yellow. EOH... Abundant Andalusite, coarsely crystalline; traces of disseminated pyrite + Aspy

SAMPLE NUMBER	METERS from	to	LENGTH METERS	Au oz/ton			
13121	110.19	111.00	0.81	<0.002	0.05		
13122	111.00	112.00	1.00	<0.002	0.04		
13123	112.00	113.00	1.00	<0.002	0.04		
13124	131.00	132.00	1.00	<0.002	0.02		
13125	132.00	132.50	0.50	<0.002	0.03		
13126	132.50	133.20	0.70	<0.002	<0.02		
13127	133.20	133.68	0.48	0.40	0.07		
13128	133.68	134.30	0.62	<0.002	0.03		
13129	134.30	135.00	0.70	<0.002	0.03		
13130	135.00	136.00	1.00	<0.002	0.03		
13131	136.00	137.00	1.00	<0.002	0.06		
13132	137.00	138.00	1.00	<0.002	0.04		
13133	138.00	139.00	1.00	<0.002	0.03		
13134	139.00	140.00	1.00	<0.002	0.05		
13135	140.00	141.00	1.00	0.002	0.04		
13136	141.00	142.00	1.00	0.002	0.04		
13137	142.00	143.02	1.02	<0.002	0.02		
13138	143.02	143.50	0.48	0.158 =	0.05		
13139	143.50	144.15	0.68	0.004	0.02		
13140	144.15	144.75	0.60	<0.002	0.05		
13141	144.75	145.50	0.75	0.064	0.14		
13142	145.50	146.00	0.50	<0.002	0.03		
13143	146.00	146.50	0.50	0.003	0.04		
13144	146.50	147.00	0.50	0.007	0.09		
13145	147.00	147.50	0.50	0.009	0.09		
13146	147.50	147.94	0.44	0.026	0.09		
13147	147.94	149.00	1.06	<0.002	<0.02		
13148	149.00	150.00	1.00	0.002	0.04		

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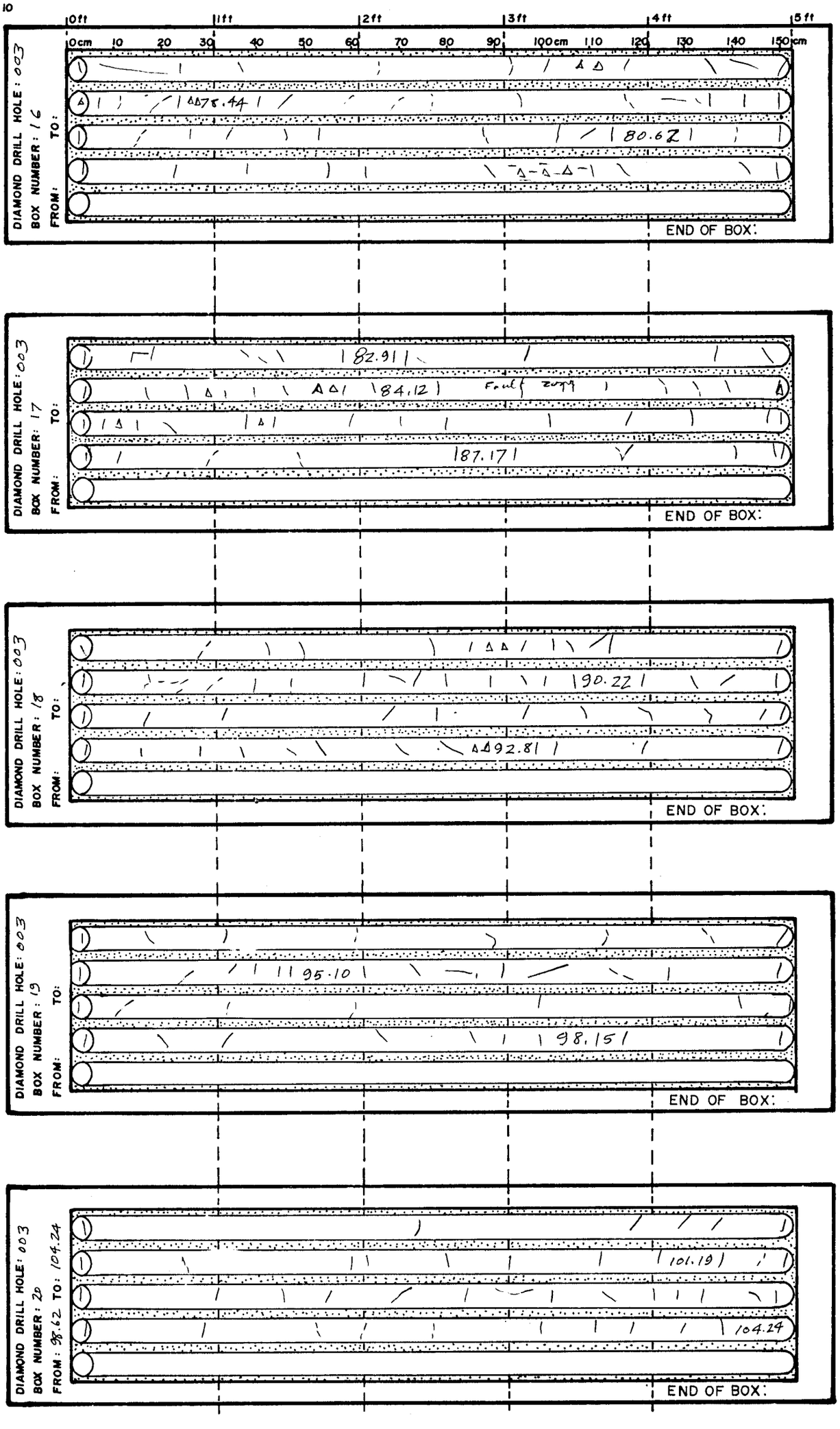
ROCK MECHANICS MEASUREMENTS

SCALE = 1:10



TRM ENGINEERING LTD.

LOCATION: VICTORIA VEIN (STEWART-CATTO AREA)

DIAMOND DRILL RECORD

PROJECT: MAR GOLD

HOLE NUMBER: QRMG-86-003

DRILLING INTERVAL	% CORE RECOVERED	BOX Number	SCALE 1:250 METERS	ALTERATION: CALCITE	CHLORITE	SERICITE	SILICA	FRACTURING	MINERAL	GEOLOGY
151.49	102	29	151							
		152.53	152							
	107									
153.01		30	153						trace PY	
			154						Aspy	
	95		155							
156.03		156.03	156							

PURPOSE:

COMMENT:

INTERVAL from to

147.94 - 156.06 EOH **MYLONITIC GREEN QUARTZITE:** Light green-yellow. Abundant coarsely crystalline andalusite.

Compositional layering and mylonitic lamination at 152.45 is 21° to core axis.

sphalerite-pyrite lense @ 152.95 associated with white quartz zone

trace of fracture filling arsenopyrite at 154.49 @ 43° to core axis. just above open ..... and 153.96 ..... space breccia vugs

layering at 155.60 is 23° to core axis, Fractures limonite stained throughout.

END OF HOLE 156.06 METERS
(512 feet)

SAMPLE NUMBER	METERS from	to	LENGTH METERS	Au oz/ton			
13149	150.00	151.00	1.00	<0.002	0.02		
13150	151.00	152.00	1.00	0.002	<0.02		
13151	152.00	152.50	0.50	<0.002	0.02		
13152	152.50	153.00	0.50	<0.002	<0.02		
13153	153.00	153.50	0.50	<0.002	0.03		
13154	153.50	154.00	0.50	<0.002	<0.02		
13155	154.00	155.00	1.00	<0.002	<0.02		
13156	155.00	156.06	1.06	<0.002	<0.02		

TRM ENGINEERING LTD.

ROCK MECHANICS MEASUREMENTS

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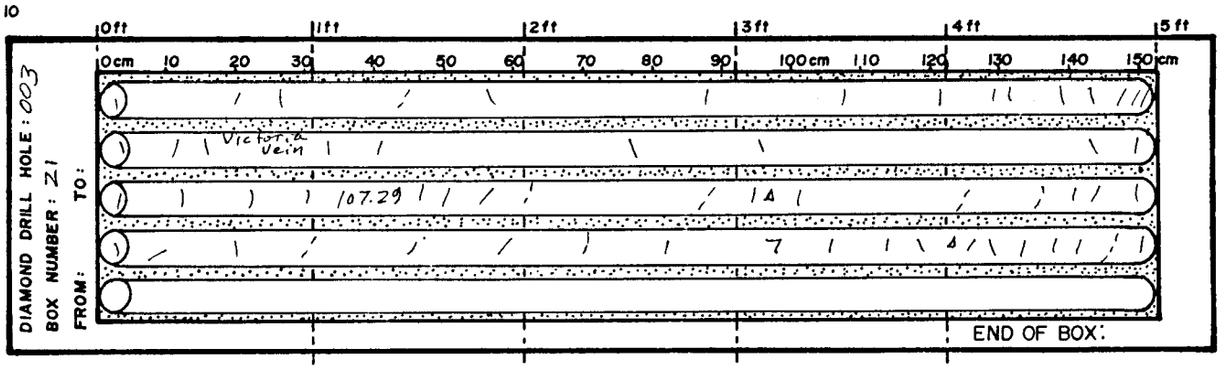

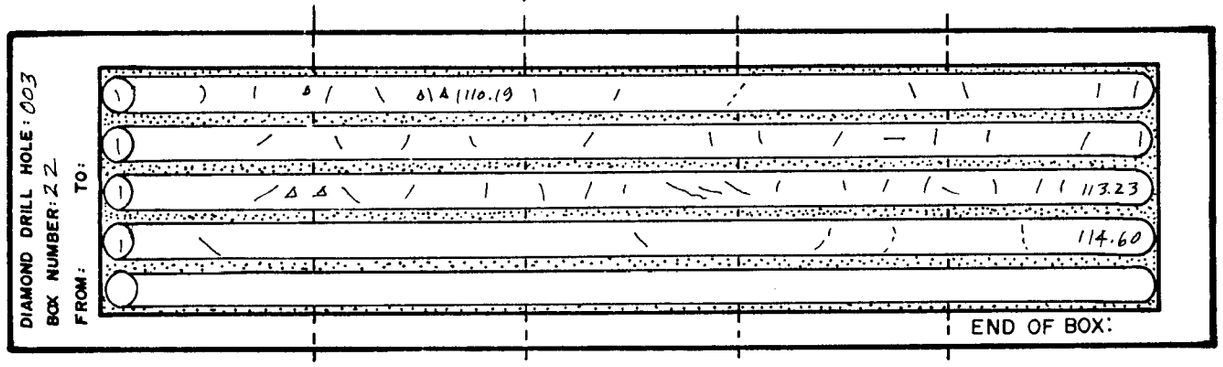

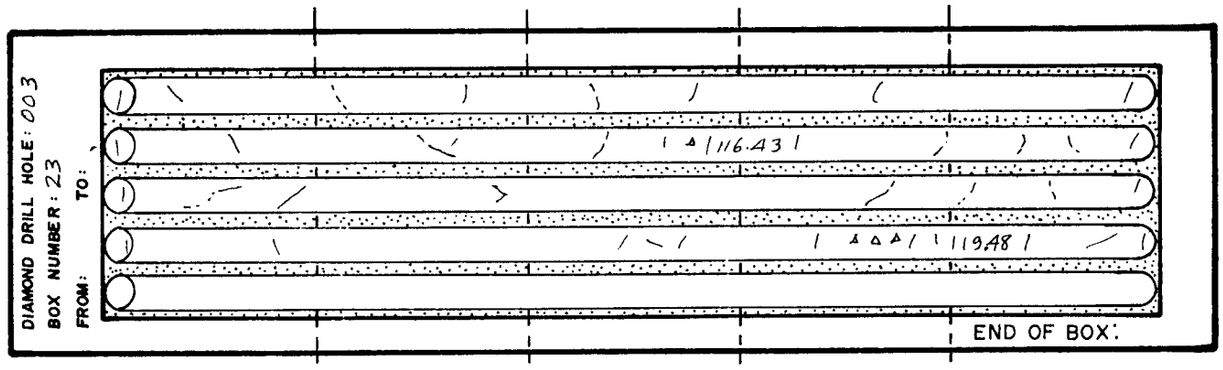

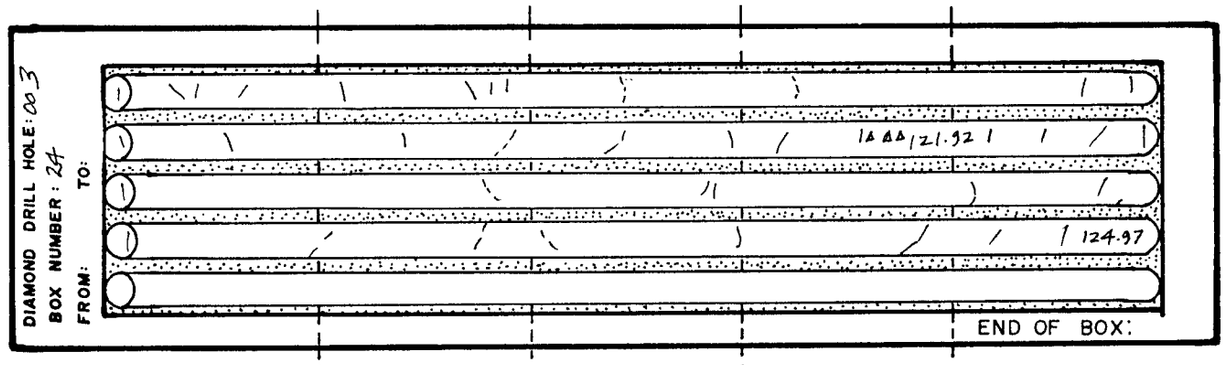

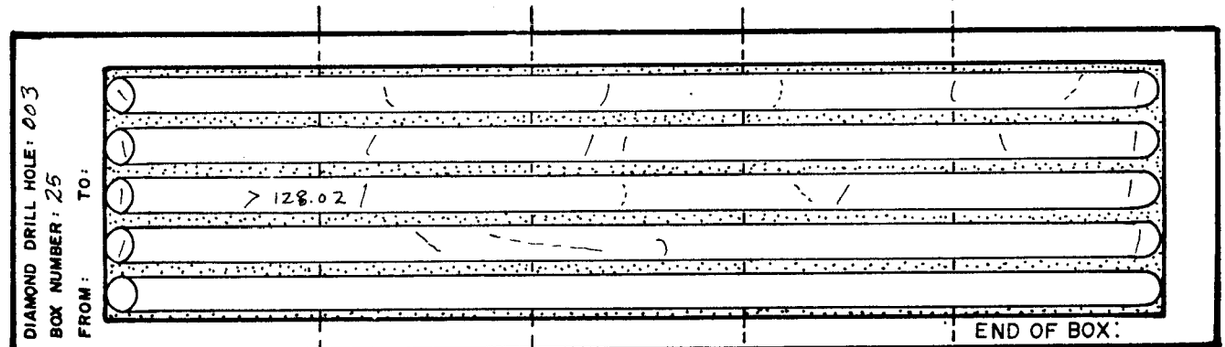

TRM ENGINEERING LTD.

QUEENSTAKE RESOURCES LTD — DUBLIN GULCH —

LOCATION: (LEVEL): VICTORIA VEIN (STEWART-CATTO AREA) — PROJECT: MAR GOLD — HOLE NUMBER: QRMG-86-004

DIAMOND DRILL RECORD

DIP: -60° AT COLLAR, DIRECTION: 359°40' — LATITUDE: 7100,885.35N (UTM METRIC COOR. Underhill) — LENGTH: 190.50 meters (625 ft) — ELEVATION: 1214.59 meters — CLAIM NUMBER: BOB 1

DEPARTURE: 461,415.51E (Grid 1978 Underhill) — CORE SIZE: NQ — DATE LOGGED: August 7th /86 — LOCATION: DUBLIN GULCH PLACER CAMP

STARTED: AUGUST 23 (NIGHT SHIFT) 1986 — FINISHED: AUGUST 1986 — LOGGED BY: J. SHEARER — SAMPLED BY: J.S., L.S.

O.B. THICKNESS: 1.22 meters — STARTED: AUGUST 23 N.S. 1986 — FINISHED: AUGUST 23 N.S. 1986 — CASING: H.W. meters LEFT IN HOLE

B.R. THICKNESS: 189.28 meters — STARTED: AUGUST 1986 — FINISHED: AUGUST 1986 — TOTAL RECOVERY: 97%

CONTRACTOR: E. CARON DIAMOND DRILLING LTD — CORE STORED: DUBLIN GULCH PLACER CAMP (UPPER CAMP IN COVERED RACKS)

LY 38 — RUNNERS: M. McLELLAN (D.S.), K. MAC (N.S.) — METRIC CONVERSION BY: L.S.

CORE RECOVERY BY: L.S.

SURVEY: ACID TEST		ANGLE	
DEPTH	BEARING	Reading	Correc
COLLAR	359°40'	-60	-60

PURPOSE:
COMMENT:

DRILLING INTERVAL	% CORE RECOVERED	BOX Number	SCALE 1:250	ALTERATION: CALCITE	CHLORITE	SERICITE	SILICA	FRACTURING	MINERAL	GEOLOGY	INTERVAL from to	GEOLOGY
			1								0 - 1.22	NO CORE: OVERBURDEN, soil, loose rock.
1.22		1.22										
2.44	44		2								1.22 - 34.21	MICACEOUS QUARTZITE: Light grey mainly with dark layers,
3.05	38		3									Relatively poorly foliated; compositional layering at 2.09 is 43° to core axis.
3.96	73		4									Surprisingly little limonite staining, rock not exceptionally fractured.
4.88	116		5									Minor calcite coating fractures. Gouge? at 2.55
5.49	60											Darker layers dominated by biotite.
5.94	104		6									
7.32	100	6.80	7									Calc-silicate development 7.33-7.45, compact, fine grained actinolite
7.72	103		8									Compositional layering at 8.04 is 42° to core axis. Minor folds and local
9.14	84		9									calc-silicates, skarnification 9.06 - 9.14, trace Pyrite at 9.85. contortion very common.
10.06	88		10									
11.58	91	11.12	11									
12.50	101		12									Skarnified quartzite 12.57 - 12.95, coarser grained actinolite + zoisite?
14.02	89		13					FeO				Intense Limonite starting at 13.37 and continues to 22.00, Pervasive Limonite
15.24	105		14									white hairlines at 13.78 1mm wide, trace Jamesonite, @ 58° staining
16.31	80		15									orange gouge 15.58 - 15.45, @ 20° to core axis.
17.53	106	17.04	16									
18.29	114		17									Compositional layering at 17.30 is 34° to core axis.
19.26	92		18									Many fractures are subparallel to core axis, stained envelope 1-2cm wide.
20.12	71		19									
21.64	89	21.64	20						Aspy			Narrow quartz vein at 20.91, 1.2 cm wide, trace of arsenopyrite @ 53° to C.A.
			21									
	99		22									Friable core 22.61, sheared, limonitic t.o. 26.21, less minor folds and crenulation.
			23									
24.69			24						AsPy			Arsenopyrite-quartz veinlet 2.1 cm wide 23.81-23.84 @ 66° to core axis.
	99		25									massive arsenopyrite on lower contact. FAULT - GOUGE 24.81 - 25.23 @ 60° to C.A.
26.21		26.94	26									Compositional layering at 25.45 is 44° to core axis poorly defined.
27.74	83		27									Gouge - fault zone 26.80 - 27.10, very fractured core.
28.96	100		28									Highly contorted layering 28.41 - 28.73, folds with 3cm wavelengths.
	95		29									Narrow granodiorite dyke 29.14 - 29.28, slightly altered. fold axis parallel to general layering
			30									Fault at 29.40, very limonitic @ 20° to C.A., sheared down to 31.42

SAMPLE NUMBER	METERS from	to	LENGTH METERS	Au oz/ton	Ag oz/ton
13157	23.00	24.00	1.00	0.029	0.03
13158	24.00	25.00	1.00	0.003	<0.02
13159	25.00	26.00	1.00	0.002	<0.02
13160	29.00	30.00	1.00	0.004	<0.02

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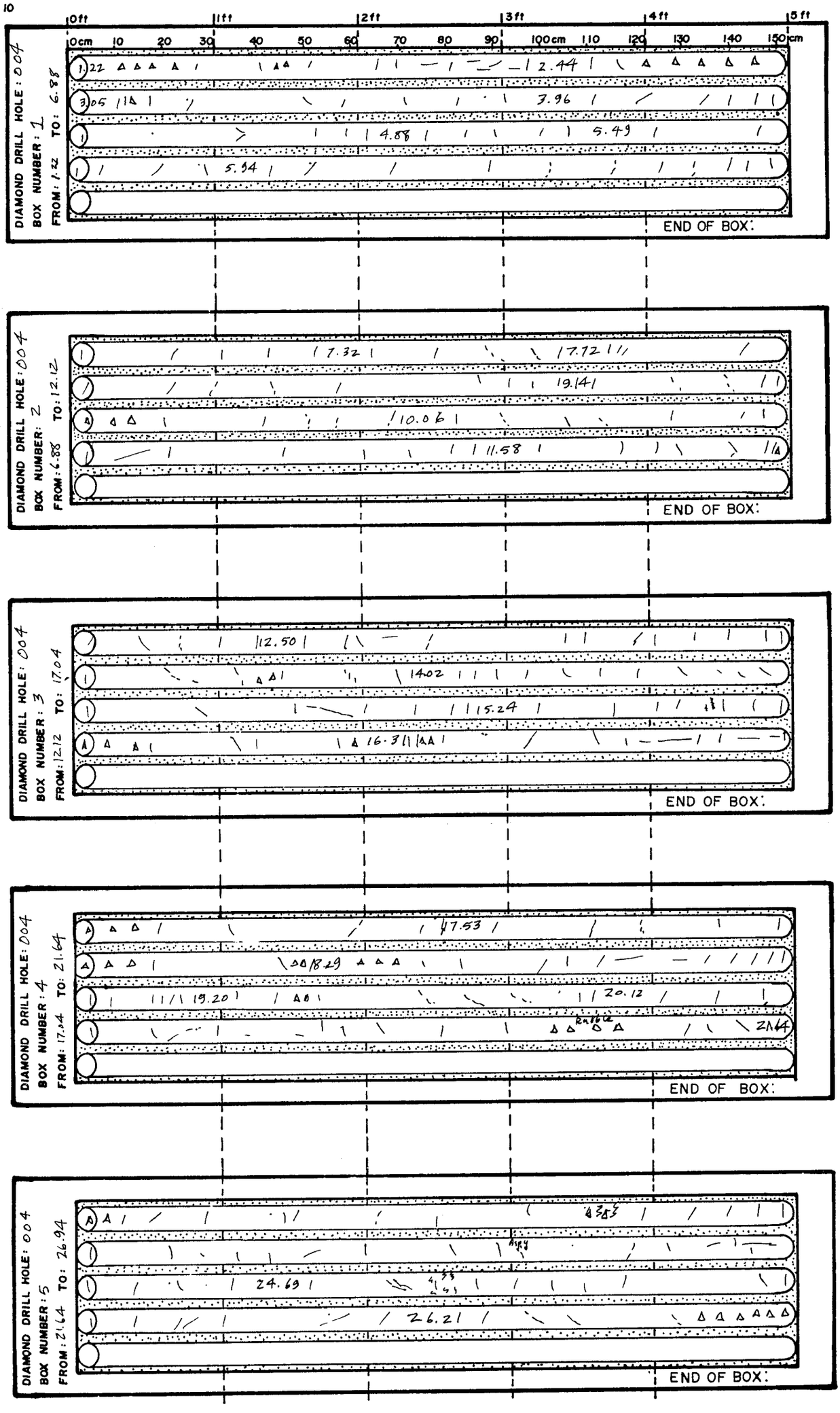
TRM ENGINEERING LTD.

ROCK MECHANICS MEASUREMENTS

SCALE = 1:10



TRM ENGINEERING LTD.

LOCATION: VICTORIA VEIN (STEWART - CATTO AREA)

DIAMOND DRILL RECORD

PROJECT: MAR GOLD

HOLE NUMBER: QRMG-86-004

PURPOSE:

COMMENT:

DRILLING INTERVAL	% CORE RECOVERED	BOX Number	SCALE 1:250	ALTERATION: CALCITE	CHLORITE	SERICITE	SILICA	FRACTURING	MINERAL	GEOLOGY	INTERVAL from to	GEOLOGY
31.55	95	6	31								1.22 - 34.21	MICACEOUS QUARTZITE: Light gray, well layered with subordinate darker biotite rich bands. Compositional layering at 32.95 is 34° to core axis, Minor Mylonitic lamination.
	85	32.29	32									
33.53		7	33									
	98		34						VG. Aspy Py		34.21 - 35.13	ARSENOPYRITE - PYRITE - QUARTZ: Massive lenses of Aspy in white quartz., Banding of sulfides is 51° to core axis, Minor Aspy at 34.21
			35									VISIBLE GOLD - 3 particles @ 34.91 in quartz associated with Arsenopyrite & trace calcite
36.58			36									Main sulfide interval 34.69 - 35.13, Massive Pyrite 34.69 - 34.76, Lower 10 cm 100% Aspy. PROBABLY CATTO VEIN.
	89	38.24	37						Aspy		35.13 - 50.37	MICACEOUS QUARTZITE: Light grey, very well
			38						Aspy			banded with thin dark grey bands. Layering at 36.25 is 0° to core axis.
39.32		8	39									Minor Arsenopyrite at 37.52 along fractures @ 50° to c.A.
40.23	115		40									well fractured with Limonite coatings. 39.32 - 45.50, Minor pervasive limonite
	94		41									Porphyroblastic dyke at 39.01 - 39.03, Large crystals of calc-silicates + carbonate staining.
42.96		42.87	42									Appearance of local shearing at 39.95 @ 41° to core axis.,
	99		43									Overall weathered aspect, friable in places, orange gouge at 41.77.
43.59			44									Compositional layering at 44.50 is 41° to core axis
44.81	107	9	45									Red Limonite coatings.
	95		46									well developed small scal kink cleavage at 45.81, very fractured 45° + 5° to c.A.
47.24		47.54	47									Quartz-rich area 46.71 - 46.79, white, minor chlorite patches + calcite veining
	94		48									Major Fault, Limonite gouge at 50.20 ~ 25° to core axis
		10	49								50.37 - 52.05	VERY ALTERED GRANODIORITE: Light green
50.23			50									Intense sericite - chlorite alteration throughout, Minor relict biotite - 2%
	88		51									Narrow quartz stringers common at 52° to core axis, 1-3 cm wide, Upper + Lower contacts at 45° to core axis
		52.96	52						Py			Massive PYRITE band 51.57 - 51.63 @ 58° to c.A.
53.34			53								52.05 - 57.76	MICACEOUS QUARTZITE: Light grey, well layered.
	102		54									Light brown pervasive staining throughout sections, perhaps carbonate
			55									Abundant MnO staining on low angle fractures 53.10 - 55.40, associated with mild Mylonitic laminations. No locus of faulting
56.39			56									Compositional layering 55.20 is 46° to core axis, trace Pyrite at 56.02° in fractures
	99	57.58	57									Arsenopyrite - sphalerite veinlet 56.53, 2 cm wide @ 24° to core axis, associated with Calcite
			58								57.76 - 65.62	ARGILLACEOUS QUARTZITE: ± biotite and Andalusite.
59.44			59									dark grey dominates intercalated with lighter grey more quartzitic layers.
	100		60									Andalusite relatively coarse crystalline, laths up to 15mm long.
61.72		62.41	61									compositional layering at 60.20 is 34° to core axis, streaky brown layers.
			62									Minor folds/fractures common 62.10 - 62.40
	96		63									Gouge and shattered rock 62.49 - 63.05; FAULT: shearing angle 36° to cA brown gouge, 4-10 mm wide
64.62		13	64									Minor mylonitic laminations gradually increasing toward lower contact.
65.53	93		65									Also increase in calc-silicate development.
			66								65.62 - 68.24	MYLONITIC GREEN QUARTZITE: greenish-yellow
	100	67.81	67									Altered granodiorite 67.23 - 67.45, Quartz rich, layering at 68.00 is 39° to c.A.
68.58			68								68.24 - 69.48	ARSENOPYRITE - QUARTZ: Upper contact 30°, Main sulfides 69.00 - 69.48
	99		69						Aspy Aspy Aspy			Main arsenopyrite Layers at 54° to core axis, Vuggy, some euhedral quartz.
			70									coarse crystalline Aspy, 90° to Mylonitic laminations, NO Pyrite
											69.48 - 74.56	MYLONITIC GREEN QUARTZITE: Light yellow-green laminated

SAMPLE NUMBER	METERS from	METERS to	LENGTH METERS	Au oz/ton	Ag oz/ton		
13161	30.00	31.00	1.00	0.002	<0.02		
13162	31.00	32.00	1.00	<0.002	<0.02		
13163	32.00	33.00	1.00	0.002	<0.02		
13164	33.00	33.50	0.50	<0.002	<0.02		
13165	33.50	34.21	0.71	0.010	<0.02		
13166	34.21	34.69	0.48	0.024	0.05		
13167	34.69	35.13	0.44	1.300	0.35	V.G.	**
13168	35.13	36.00	1.00	0.006	<0.02		
13169	36.00	37.00	1.00	0.005	<0.02		
13170	37.00	38.00	1.00	0.003	<0.02		
13171	38.00	39.00	1.00	<0.002	<0.02		
13172	48.00	49.00	1.00	<0.002	0.03		
13173	49.00	50.00	1.00	<0.002	0.03		
13174	50.00	51.00	1.00	0.014	0.04		
13175	51.00	51.50	0.50	<0.002	0.02		
13176	52.50	52.00	0.50	0.007	0.08		
13177	52.00	53.00	1.00	<0.002	<0.02		
13178	53.00	54.00	1.00	<0.002	<0.02		
13179	54.00	55.00	1.00	<0.002	0.04		
13180	55.60	56.00	1.00	<0.002	0.02		
13181	56.00	57.00	1.00	0.005	0.30		
13182	57.00	58.00	1.00	<0.002	<0.02		
13183	66.00	67.00	1.00	0.002	<0.02		
13184	67.00	67.50	0.50	<0.002	<0.02		
13185	67.50	68.24	0.74	<0.002	<0.02		
13186	68.24	69.00	0.76	0.126	0.05		
13187	69.00	69.50	0.50	2.177	0.43	ASPY Abundant	
13188	69.50	70.00	0.50	0.009	0.05		

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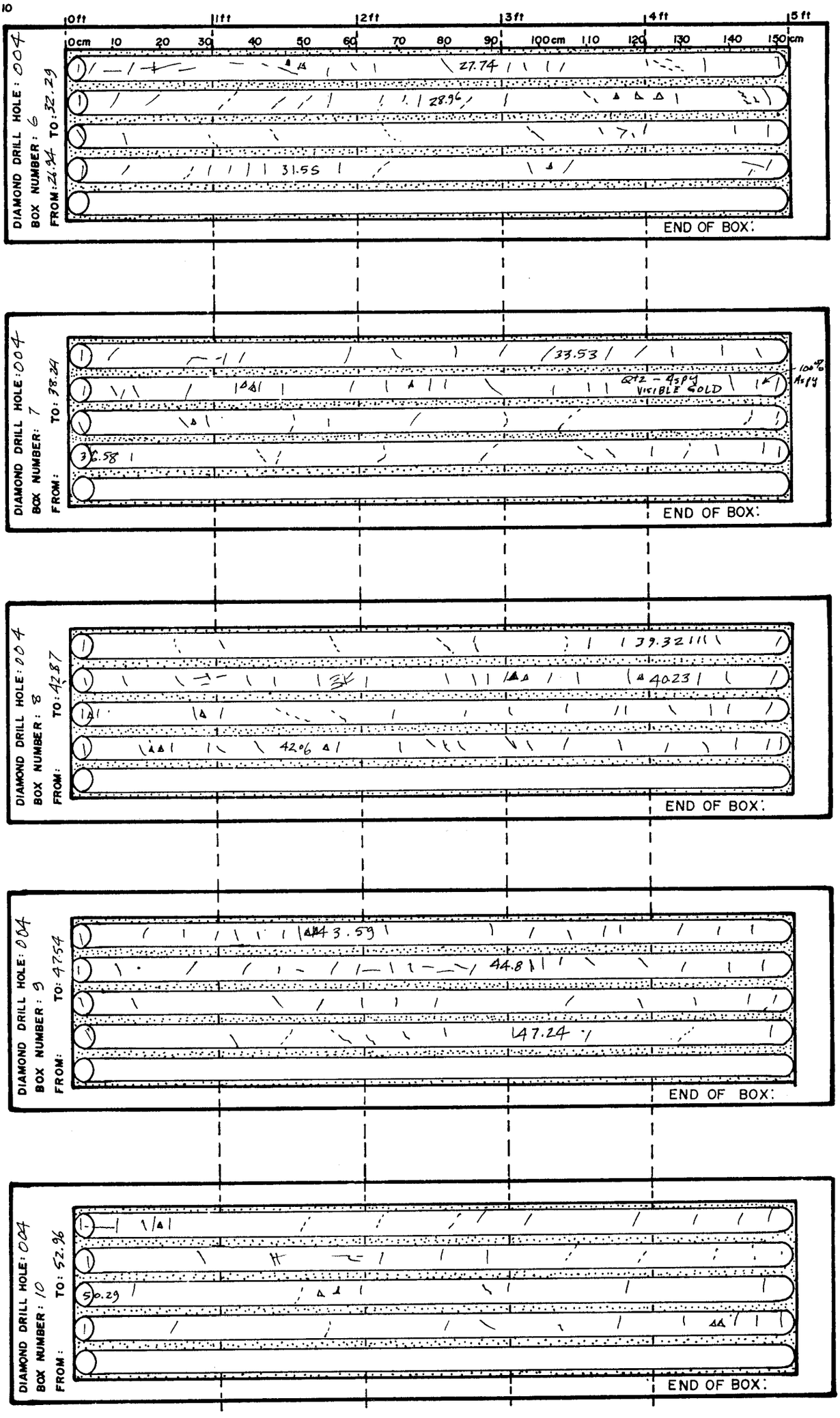
TRM ENGINEERING LTD.

ROCK MECHANICS MEASUREMENTS

SCALE = 1:10



TRM ENGINEERING LTD.

LOCATION: VICTORIA VEIN (STEWART - CATTO AREA)

DIAMOND DRILL RECORD

PROJECT: MAR GOLD

HOLE NUMBER: QRMG - 86 - 004

DRILLING INTERVAL blocks	% CORE RECOVERED	BOX Number	SCALE 1:250 METERS	ALTERATION: CALCITE	CHLORITE	SERICITE	SILICA	FRACTURING	MINERAL	GEOLOGY
71.63	99	4	71							
	100	73.32	72						Apy	
74.68			73							
	100	5	74							
77.72		78.73	75							
	103	6	76							
80.77			77							
	100		78							
83.72		84.28	79							
	92	7	80							
86.87			81							
	100		82							
89.92		89.92	83							
	102	8	84							
92.96			85							
	102	95.50	86							
96.01		9	87							
	97		88							
99.06			89							
	93	101.08	90							
102.11			91							
	109		92							
105.16		106.59	93							
	96		94							
108.20			95							
	100		96							
			97							
			98							
			99							
			100							
			101							
			102							
			103							
			104							
			105							
			106							
			107							
			108							
			109							
			110							

PURPOSE:

COMMENT:

INTERVAL from to

0 - 74.56 MYLONITIC GREEN QUARTZITE: Light green-yellow, finely laminated, layering at 71.28 is 42° to core axis, traces of disseminated Apy. Trace of arsenopyrite in quartz veinlet at 72.77 @ 44° to C.A, cross cutting Mylonite. Gradational lower contact over 50cm, and 72.09 in quartzose zone.

74.56 - ARGILLACEOUS QUARTZITE: ± Biotite and Andalusite: dark grey with lighter grey interbeds, Andalusite at upper contact but abundant biotite throughout

Narrow, very altered granodiorite interval (sill) 79.08 - 80.85, Intense sericite chlorite alteration more white than light green, trace of remnant biotite. Sheared lower contact @ 46° to core axis

Compositional layering at 82.10 is 31° to core axis. Calc-silicate development increasing between 82.26 - 83.63. Actinolite breccia.

Garnet and other calc-silicates in silica band at 85.43. red brown garnet

Rusty orange gouge - Fault at 86.17 @ 48° to core axis.

Dark brown, pervasive stain around hairline at 87.39 associated with bleaching @ 40° to core axis

Compositional layering at 89.30 is 31° to core axis, skarnified slightly some Andalusite; only relict biotite; mainly actinolite? and quartz.

Garnet and Actinolite - diopside in quartz rich zone at 92.43 - 92.51

Crenulation cleavage well developed at 93.54 and minor folding. White feldspar patch 93.96 - 94.02, irregular contacts,

Silica-rich interval 96.21 - 96.53, minor calcite Probably recrystallized pure quartzite, But possibly igneous.

Compositional layering at 98.10 is 46° to core axis. Slightly skarnified throughout, Alternating between biotite dominate and Andalusite dominate; Purer quartzite layers less common than above.

Lighter grey 103.20 - 105.46, fewer dark bands, still abundant andalusite in some of the sparse mafic layers, mainly wispy banding.

Compositional layering at 104.91 is 38° to core axis.

Minor pyrite in silica rich zone 106.15 - 106.31, calcite coating 5° fractures

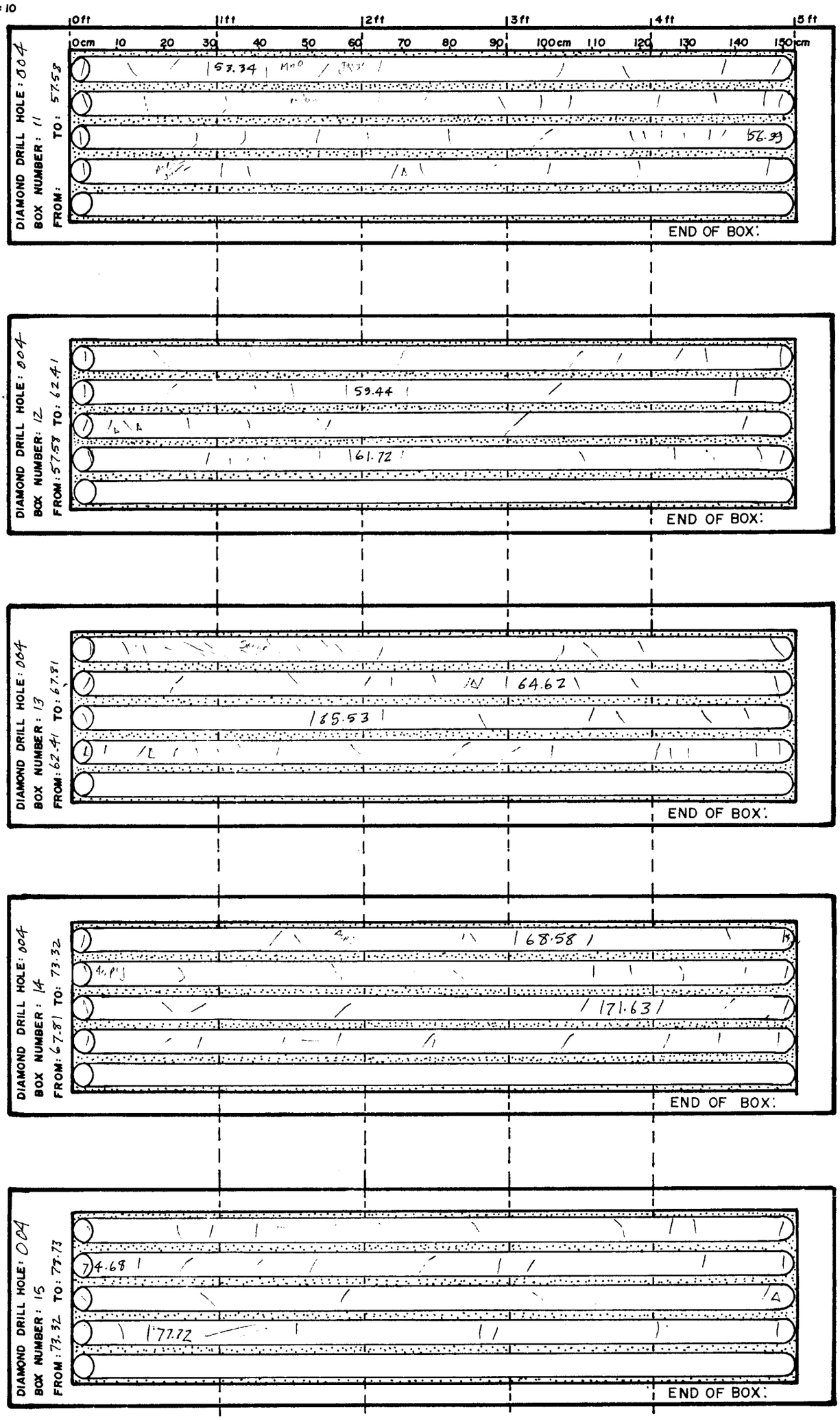
Uniform argillaceous quartzite, low ange fractures common especially between 108.60 - 109.00

SAMPLE NUMBER	METERS from	METERS to	LENGTH METERS	Au oz/ton	Ag oz/ton
13189	70.00	71.00	1.00	0.010	<0.02
13190	71.00	72.00	1.00	0.004	<0.02
13191	72.00	73.00	1.00	0.005	<0.02
13192	73.00	74.00	1.00	0.002	<0.02
13193	74.00	75.00	1.00	<0.002	<0.02
13194	87.00	88.00	1.00	<0.002	<0.02
13195	96.00	97.00	1.00	<0.002	<0.02
13196	106.00	107.00	1.00	<0.002	<0.02

TRM ENGINEERING LTD.

ROCK MECHANICS MEASUREMENTS

SCALE = 1:10



TRM ENGINEERING LTD.

LOCATION: VICTORIA VEIN (STEWART CATTO AREA)

DIAMOND DRILL RECORD

PROJECT: MAR GOLD

HOLE NUMBER: QRMG-86-004

PURPOSE:

COMMENT:

DRILLING INTERVAL	% CORE RECOVERED	BOX Number	SCALE 1:250 METERS	ALTERATION: CALCITE	CHLORITE	SERICITE	SILICA	FRACTURING	MINERAL	GEOLOGY	INTERVAL from to	
111.25	100	21 111.90	111								74.56 - 128.61	ARGILLACEOUS QUARTZITE: ± biotite and Andalusite. Dark grey, well layered, Compositional layering at 111.20 is 34° to core axis
			112									
	98		113									green calc-silicate veinlet at 112.98 @ 26° to core axis, bleaching outward.
			114									Abundant Andalusite at 114.00 - 116.00, coarsely crystalline
114.30			115									
	99		116									slight brecciation of white feldspar material at 116.30
117.35		117.46	117									Minor shearing @ 55° to c.A., trace of gouge and fractured core common.
			118						Aspy			Arsenopyrite veinlet at 118.41, 1cm wide, associated with quartz veining. also bleached.
	107		119									
120.10			120									Compositional layering at 120.70 is 28° to core axis
			121									
	90	123.12	122									Minor shearing at 121.80 - 122.20, 20° to c.A., calcite coating fractures.
			123									occaisional white plagioclase veinlet perpendicular to compositional layering.
123.44			124									
	98		125									Minor folds abundant. Mostly biotite but some fine grained andalusite.
			126									Mylonitic laminations starting at 127.32.
126.49			127									
	98	128.92	128						Pyrr			128.61 - 130.87 MYLONITIC GREEN QUARTZITE: Light green-yellow, thinly laminated, layering at 129.40 is 39° to core axis. many quartz lenses
129.54			129						Pyrr			Minor Pyrrhotite in quartz - calcite veinlet at 127.62.
			130									
	100		131						JAMS PY PY			130.87 - 131.98 VICTORIA VEIN: Hanging wall 1cm wide band of black Jamesonite.
131.98			132									MASSIVE JAMESONITE AND PYRITE 131.36 - 131.85, fracture filling after 191.75, sheared in lower part.
			133									Minor flesh coloured calcite interbanded with Massive sulfides. Minor sphalerite at 130.87:
133.81	86	134.12	134							gouge		131.98 - 134.65 VICTORIA FAULT - GOUGE ZONE: very broken and fractured core, Large sections of gouge and friable rock. Mylonitic lamination throughout.
135.64	99		135									Gouge filled fractures. zz° to c.A.; some coarse Andalusite.
			136									Granulated gouge and rock fragments at 134.65 @ 54° to core axis
	102		137									
138.38		139.57	138									134.65 - 148.98 ARGILLACEOUS QUARTZITE: MYLONITIC:
			139									Dark grey overall with many short intervals of green-yellow mylonitic lamination and bleaching throughout, Abundant Andalusite, Minor shearing common.
	97		140									Quartzitic layers are whiter (more recrystallized) than usual.
141.43			141									
			142									Major fault, white gouge with minor euhedral pyrite 140.95 - 141.57 @ 15° to c.A.
	100		143									entire interval 139.80 - 145.00 is highly sheared and fractured.
144.48		144.83	144									Green mylonitic zone 142.77 - 143.30, Shearing also at 144.00 to 144.25.
			145									
	100		146									
			147									
147.52			148									Narrow, relatively fresh granodiorite 146.09 - 146.19, sill. and also at 148.18 - 148.26
	102		149									Intire section sheared but lower contact relatively sharp defined by brecciation.
		150.48	150									148.98 - 150.57 BRECCIATED MYLONITIC GREEN QUARTZITE:
												gouge at 148.98 - 149.26 subrounded, rotated fragments, shearing 30° common., minor Pyrite
												Compositional layering at 149.90 is 60° to core axis, drag folded

SAMPLE NUMBER	METERS from	METERS to	LENGTH METERS	Au oz/ton	Ag oz/ton		
13198	118.00	119.00	1.00	0.002	<0.02		
13199	127.00	128.00	1.00	0.002	<0.02		
13200	128.00	129.00	1.00	<0.002	<0.02		
13626	129.00	129.50	0.50	<0.002	<0.02		
13627	129.50	130.00	0.50	<0.002	<0.02		
13628	130.00	130.50	0.50	<0.002	<0.02		
13629	130.50	131.36	0.86	<0.002	0.02		
13630	131.36	131.85	0.49	0.014	0.07		
13631	131.85	132.50	0.65	<0.002	<0.02		
13632	132.50	133.00	0.50	0.002	0.02		
13633	133.00	133.50	0.50	<0.002	0.02		
13634	133.50	134.00	0.50	<0.002	0.02		
13635	134.00	134.50	0.50	<0.002	<0.02		
13636	134.50	135.00	0.50	<0.002	0.02		
13637	135.00	136.00	1.00	<0.002	<0.02		
13638	136.00	137.00	1.00	<0.002	<0.02		
13639	137.00	138.00	1.00	0.012	0.02		
13640	138.00	139.00	1.00	0.006	0.10		
13641	139.00	140.00	1.00	<0.002	0.10		
13642	140.00	141.00	1.00	0.007	0.06		
13643	141.00	142.00	1.00	<0.002	0.06		
13644	142.00	143.00	1.00	<0.002	0.03		
13645	143.00	144.00	1.00	<0.002	0.03		
13646	144.00	145.00	1.00	<0.002	0.02		
13647	145.00	146.00	1.00	0.005	0.02		

TRM ENGINEERING LTD.

ROCK MECHANICS MEASUREMENTS

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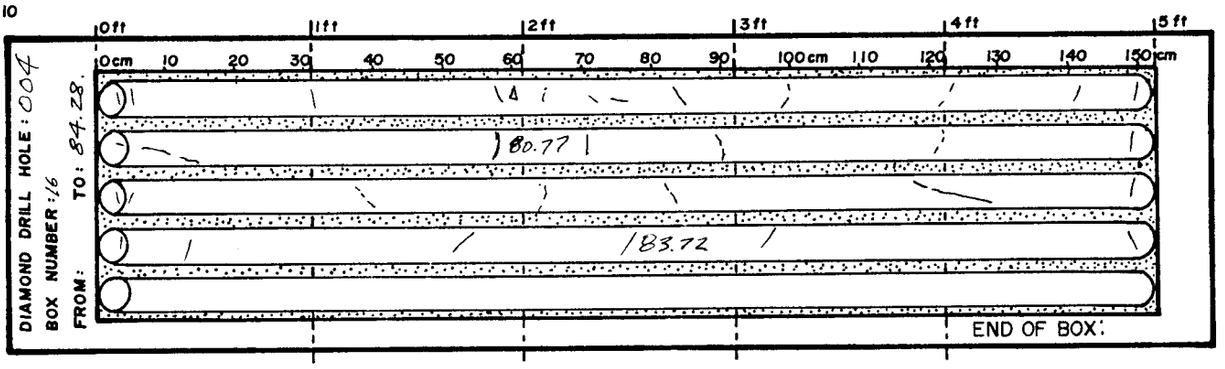
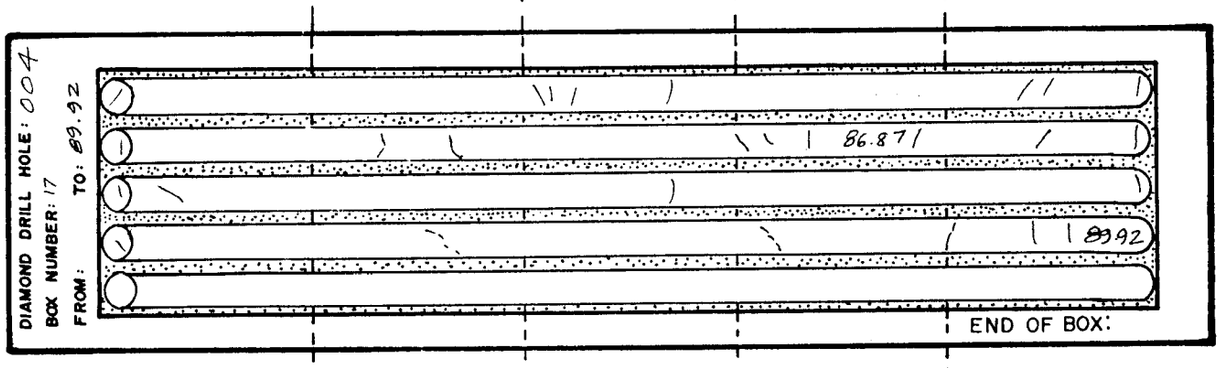
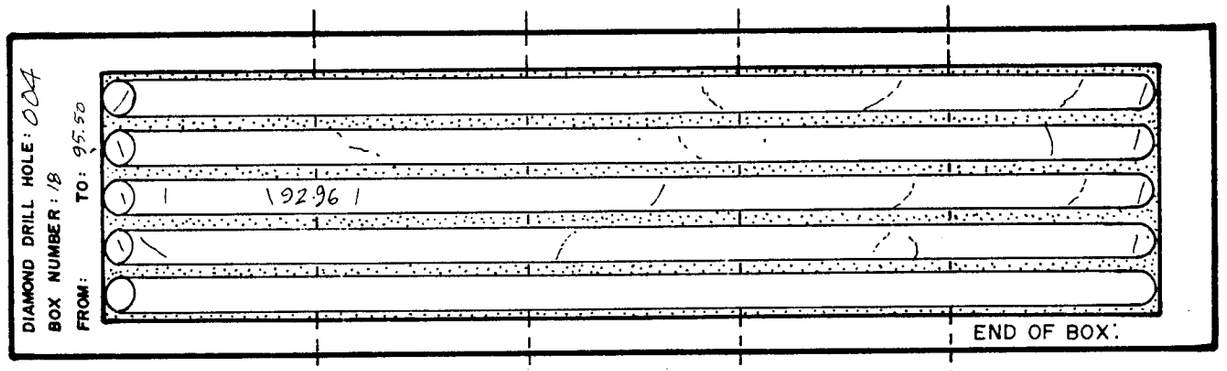
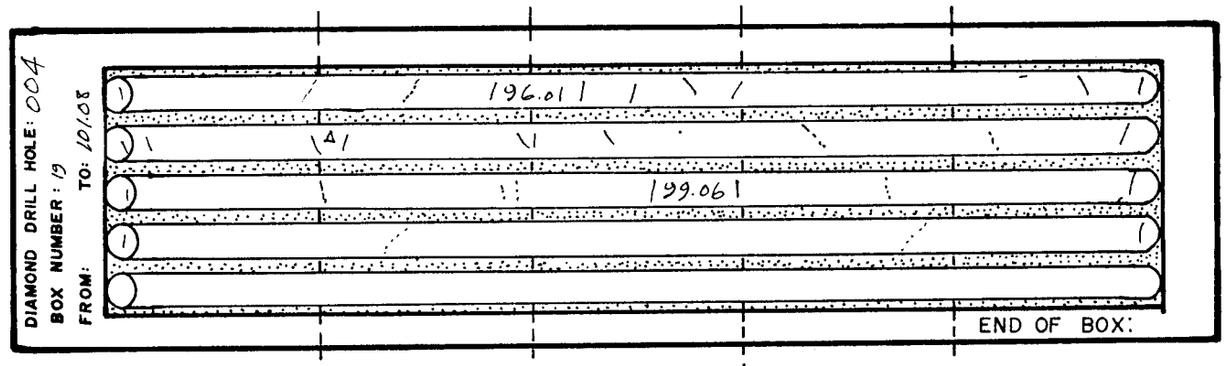
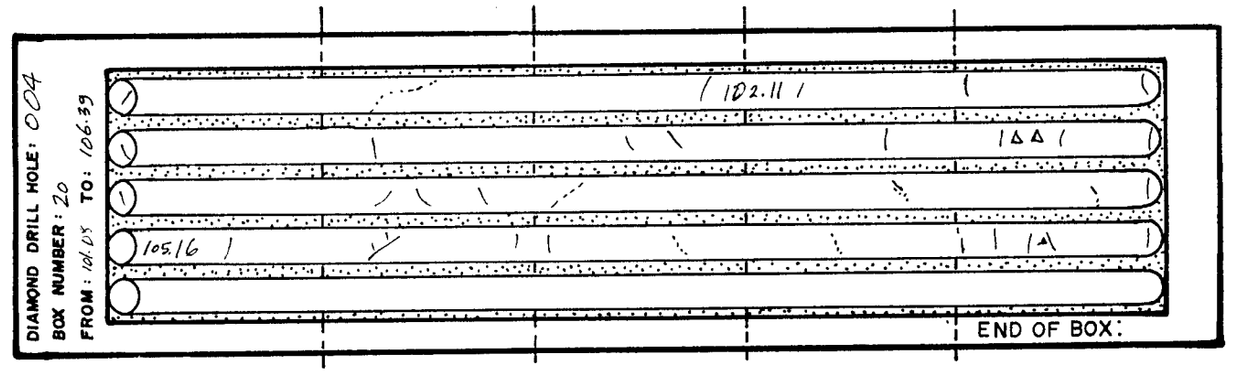










TRM ENGINEERING LTD.

LOCATION: VICTORIA VEIN (STEWART - CATTO AREA)

DIAMOND DRILL RECORD

PROJECT: MAR GOLD

HOLE NUMBER: QRMG-86-004

PURPOSE:

COMMENT:

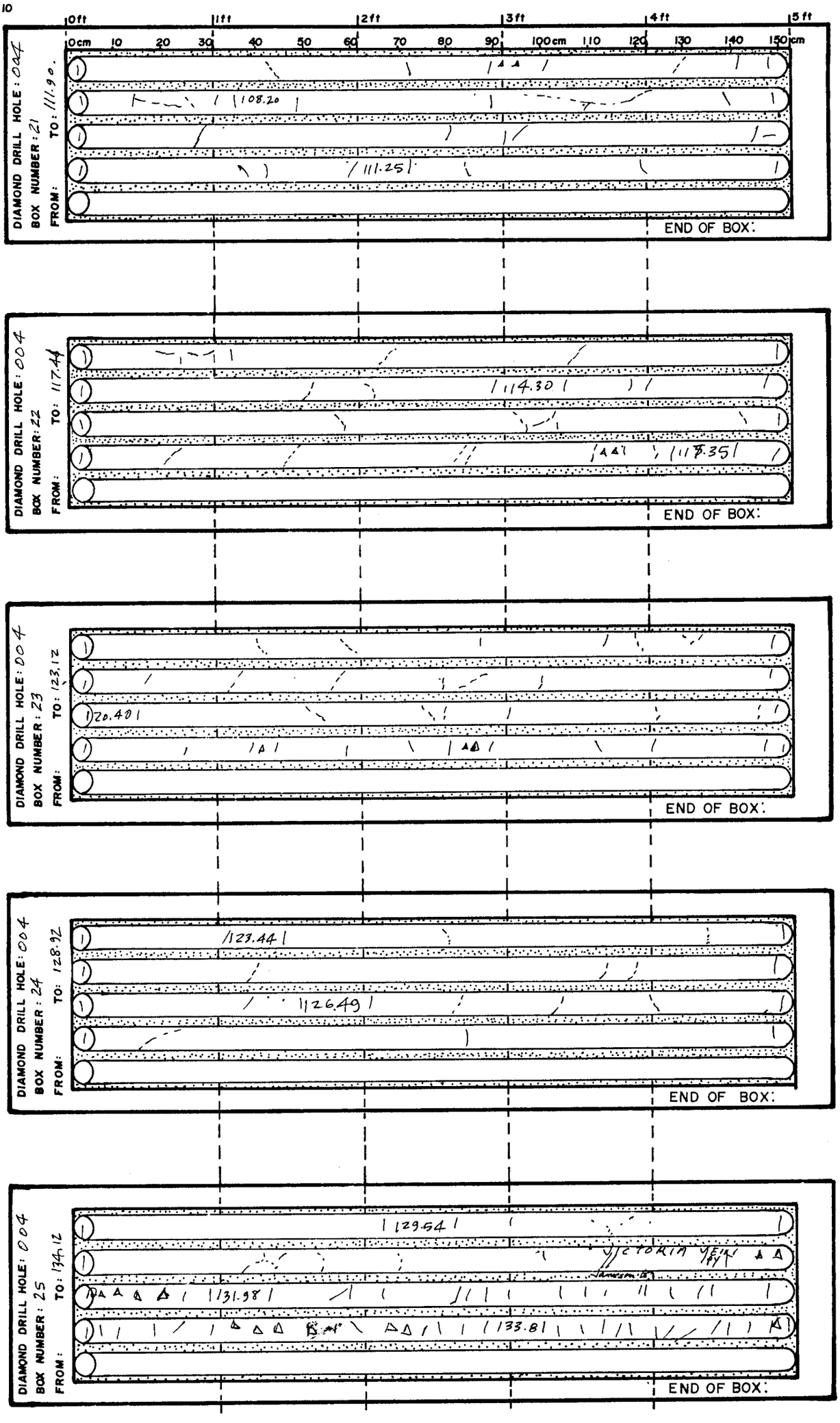
DRILLING INTERVAL	% CORE RECOVERED	BOX Number	SCALE 1:250 METERS	ALTERATION: CALCITE	CHLORITE	SERICITE	SILICA	FRACTURING	MINERAL	GEOLOGY	INTERVAL from to
150.57		150.48	151								150.57 - 156.94 SKARNIFIED ARGILLACEOUS QUARTZITE: Dark grey, finer grained than usual, calc-silicate mineral development. Light green, compact compositional layering at 152.10 is 37° to core axis; feathery andalusite common. Light green bleaching around quartz-feldspar veinlets.
	101		152								
153.62			153								
	100		154								
		156.03	155								
156.67			156								Lower contact gradational with increase in green-yellow lamination + bleaching @ 40°
	92		157								156.94 - 161.54 BRECCIATED MYLONITIC GREEN QUARTZITE:
			158						Aspy		Silica rich, highly irregular appearance, in situ brecciation, wispy fragments.
159.41			159						Aspy		Arsenopyrite veinlets 157.61 - 157.79 @ 44° to C.A., 2-4mm wide, associated with calcite.
160.02	133		160								Traces fracture filling arsenopyrite throughout, for example 159.48, .61, .81, .86.
			161								161.54 - 162.14 PYRITE - QUARTZ ZONE: close spaced fractures filled with pyrite, largest is 4cm wide, but most are about 2mm wide, @ 65° to core axis.
	88	161.42									
			162						Py		Most of the pyrite is euhedral or flatten slightly. Minor disseminated pyrite. Traces of arsenopyrite disseminated below main concentration of fractures pyrite.
163.07			163								162.14 - 171.08 BRECCIATED MYLONITIC GREEN QUARTZITE:
	114		164								Mylonites, friable sections common. Light green-yellow fragments in a matrix of white quartz. Irregular patches of calcite common.
165.81			165								Minor pyrite and arsenopyrite lenses in more sheared sections.
		166.71	166								Compositional laminations at 166.40 is 42° to core axis.
	97		167								
168.10			168								Altered granodiorite veining and matrix filling, 170.30 - 170.37.
	98		169								Minor shearing at 170.31, Lower contact gradational, contact defined by absence of brecciation.
			170								
171.30			171								171.08 - MYLONITIC GREEN QUARTZITE: Light green-yellow, some darker grey siliceous. Pronounced breccia texture absent.
		172.52	172								brown calcite associated with quartz veining 173.85 and 172.96.
	79		173								Compositional laminations, finely layered @ 174.05 is 43° to core axis.
174.35			174								Coarse andalusite at 172.10.
	126		175								
			176								
176.78			177								Altered granodiorite sill 178.31 - 178.58. Intense sericite-chlorite alteration.
		177.69	178								Granulation cleavage well developed @ 178.10 Laminations at 178.05 are 40° to C.A. at 50° to cliff. - rotated.
	104		179								Pyrite lense and black gouge at 179.83, 3-4mm wide @ 52° to core axis.
179.83			180								
	110		181								
180.75			182								Mylonitic lamination at 182.80 is 52° to core axis.
	88	182.85	183								Disseminated arsenopyrite at 183.67, partly fracture filling.
183.79			184								Minor pyrite in quartz lined vug at 184.08.
183.40	172		185								
			186								Quartz zone at 185.91 - 186.22 containing sparry white calcite.
	96										Minor gouge at 187.77 - 187.79, fracturing at 70° to C.A.
187.45		187.78	187								
			188								Less well developed green-yellow mylonitic lamination, more dark grey intervals, relict biotite. Lamination at 189.10 is 51° to core axis, cleavage parallel.
	97	36	189								
190.50		190.50	190								END OF HOLE 190.50 METERS (625 feet)

SAMPLE NUMBER	METERS from	to	LENGTH METERS	Au oz/ton			
13648	157.00	158.00	1.00	0.006	0.02		
13649	158.00	159.00	1.00	0.013	0.02		
13650	159.00	160.00	1.00	0.006	<0.02		
13651	160.00	161.00	1.00	0.002	<0.02		
13652	161.00	161.50	0.50	0.164	0.02		
13653	161.50	162.00	0.50	0.008	0.19		
13654	162.00	162.50	0.50	0.002	0.06		
13655	162.50	163.00	0.50	<0.002	0.02		
13656	163.00	164.00	1.00	<0.002	0.02		
13657	164.00	165.00	1.00	<0.002	0.02		
13658	165.00	166.00	1.00	0.005	0.10		
13659	166.00	167.00	1.00	<0.002	0.02		
13660	167.00	168.00	1.00	<0.002	<0.02		
13661	168.00	169.00	1.00	<0.002	<0.02		
13662	169.00	170.00	1.00	<0.002	0.11		
13663	170.00	171.00	1.00	<0.002	0.06		
13664	171.00	172.00	1.00	<0.002	0.09		
13665	172.00	173.00	1.00	<0.002	0.08		
13666	173.00	174.00	1.00	<0.002	0.03		
13667	174.00	175.00	1.00	<0.002	0.02		
13668	175.00	176.00	1.00	<0.002	0.12		
13669	176.00	177.00	1.00	<0.002	0.03		
13670	177.00	178.00	1.00	<0.002	0.05		
13671	178.00	179.00	1.00	<0.002	0.02		
13672	179.00	180.00	1.00	<0.002	0.04		
13673	180.00	181.00	1.00	<0.002	0.03		
13674	181.00	182.00	1.00	<0.002	0.03		
13675	182.00	183.00	1.00	<0.002	0.02		
13676	183.00	184.00	1.00	0.011	0.04		
13677	184.00	185.00	1.00	<0.002	0.02		
13678	185.00	186.00	1.00	<0.002	0.03		
13679	186.00	187.00	1.00	<0.002	0.02		
13680	187.00	188.00	1.00	0.002	<0.02		
13681	188.00	189.00	1.00	<0.002	0.02		
13682	189.00	190.00	1.00	<0.002	0.02		
13683	190.00	190.50	0.50	<0.002	<0.02		

TRM ENGINEERING LTD.

ROCK MECHANICS MEASUREMENTS

SCALE = 1:10



LEGEND

GEOCHEMICAL SAMPLING

S-113 ○ SAMPLE LOCATION WITH SAMPLE NUMBER

SAMPLE LOCATIONS

△ STREAM SAMPLE

○ SOIL SAMPLE

□ ROCK SAMPLE

SAMPLE NUMBERS

SAMPLES ARE DESIGNATED BY A LETTER FOLLOWED BY A SEQUENTIAL NUMBER THE LETTER INDICATES AN INDIVIDUAL SAMPLER

SAMPLE ANALYSIS RESULTS

A SUITE OF 2 ELEMENTS – GOLD & SILVER ARE DISPLAYED IN SERIES AS SHOWN

S-113 ○ 10 , 0.1 Sample Number ○ Gold , Silver (PPB) , (PPM)

DETECTION LIMITS

GOLD 10 PPB ; VALUES BELOW LIMIT SHOWN AS < 10 PPB

SILVER 0.2 ; VALUES BELOW LIMIT SHOWN AS 0.1 PPM

SYMBOLS

TREE VEGETATION LIMITS

CUT ROADS AND TRENCHES

CONTOUR INTERVAL = 10 Metres

NOTE - See Map No For Stream & Rock Geochemistry

SHEET INDEX

		3	2
4		5	
11	10	9	8
12	13		

CANADA TUNGSTEN MINING CORP. LTD.

1978 DUBLIN GULCH DETAILED
& 1979 GEOCHEMISTRY

RAY GULCH GRID AND
DUBLIN GULCH GRID

091867

10 METRES CONTOUR INTERVAL — FEET

SCALE IN METRES 1 : 5000	DWG No. 108-2-6
DATE FEB. 1981	MAP No. 7
DRAWN BY: R. LENNAN	REVISED
CHECKED BY:	1979 DUBLIN GULCH PROJECT REPORT