

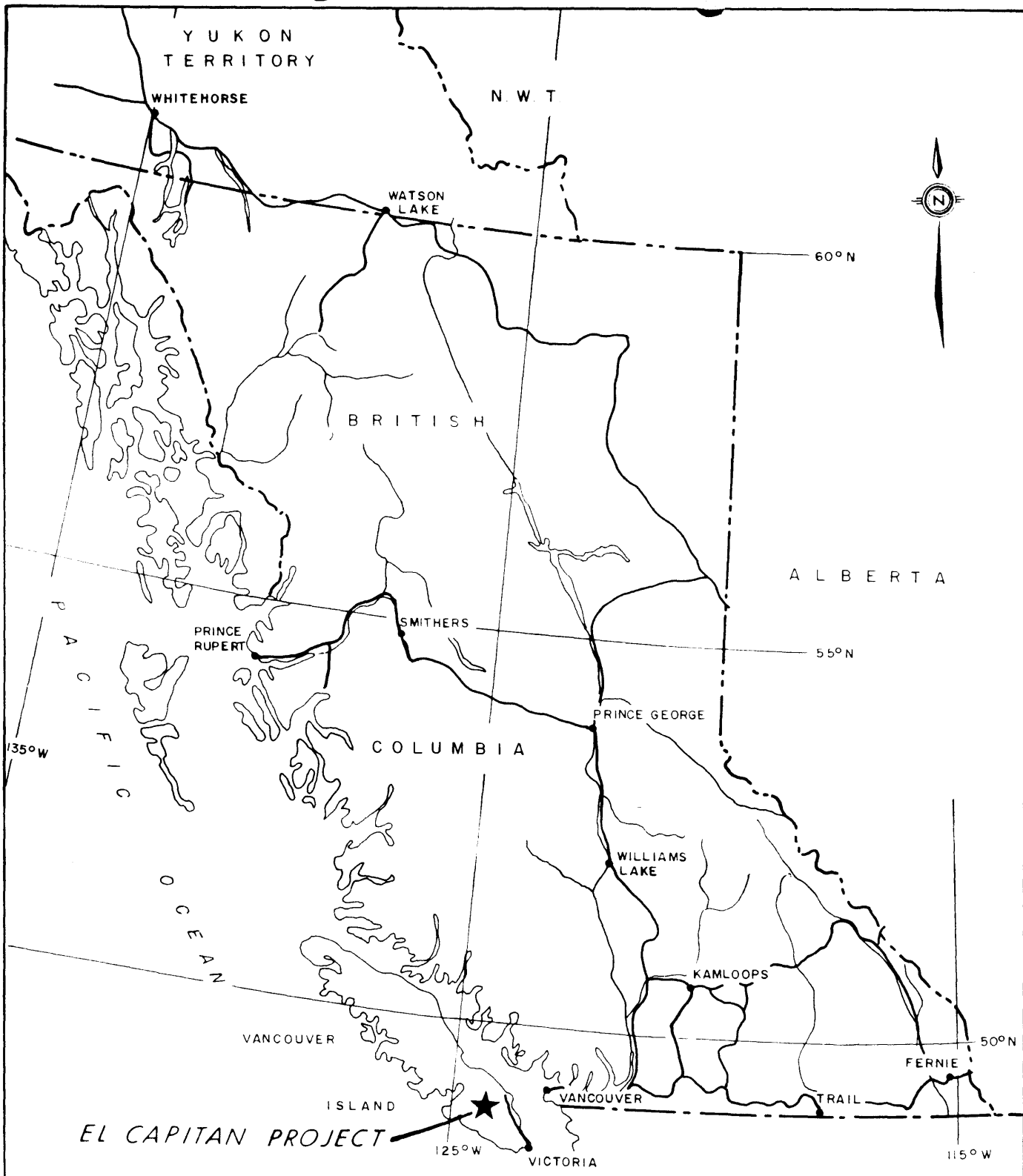
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**SUMMARY REPORT ON  
GEOLOGY AND LITHOGEOCHEMISTRY,  
SOIL GEOCHEMISTRY, MAGNETOMETER  
AND VLF-EM SURVEYS ON  
EL CAPITAN PROPERTY  
Capitan and Spaniard Claims  
Vancouver Island, B.C.  
Victoria Mining Division  
NTS 92C/16E; 48°57'N Lat., 124°13'W Long.  
for  
OMEGA GOLD CORPORATION  
November 28, 1988  
by  
Peter A. Christopher, PhD., P.Eng.  
Peter Christopher and Associates Inc.**

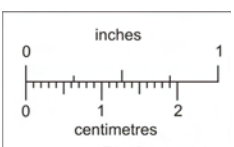


PROPERTY FILE

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EL CAPITAN PROJECT



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OMEGA GOLD CORPORATION	
GENERAL LOCATION MAP EL CAPITAN PROJECT VICTORIA MINING DIVISION	
Project No. V 293	By T N
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Drawing No. 1	Date NOVEMBER 1988

Peter Christopher & Associates Inc.

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## SUMMARY

The El Capitan property is underlain by Paleozoic Sicker Group rocks comprising Myra Formation intermediate to felsic volcanoclastic and tuffaceous rocks interbedded with cherty sediments and minor limestone of the Buttle Lake Formation. The Sicker Group rocks have undergone at least one phase of folding. The Triassic Vancouver Group Karmutsen Formation basalts unconformably overlie the Sicker Group in the northern and eastern portions of the property. Diorite to quartz diorite of the Jurassic Island Intrusions intrudes the Sicker Group in the southwestern portion of the property. Local, possibly Tertiary, feldspar and hornblende porphyritic dykes, sills and plugs intrude both Sicker and Vancouver Group rocks.

Disseminated and fracture-fill pyrite and pyrrhotite occur in most rock types in variable amounts. Chalcopyrite, minor bornite and malachite within quartz veins and shear zones crosscut the Karmutsen Formation.

Samples collected from the old El Capitan workings, driven on an east-west trending shear zone cutting the Karmutsen Formation, yielded up to 61.23 g/t Au, 57.4 ppm Ag, 80,345 ppm Cu and anomalous bismuth, nickel, arsenic and cobalt (sample 9681, composite grab from 1.5 m wide shear).

Quartz veins in this area contain chalcopyrite (10-15%), pyrite, malachite and limonite, and yield up to 240 ppb Au, 19.9 ppm Ag, 75,214 ppm Cu, 1006 ppm Pb and 303 ppm Bi (sample 9550, grab from 10-15 cm quartz vein). This area is approximately coincident with the Paint Pot showing.

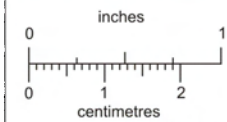
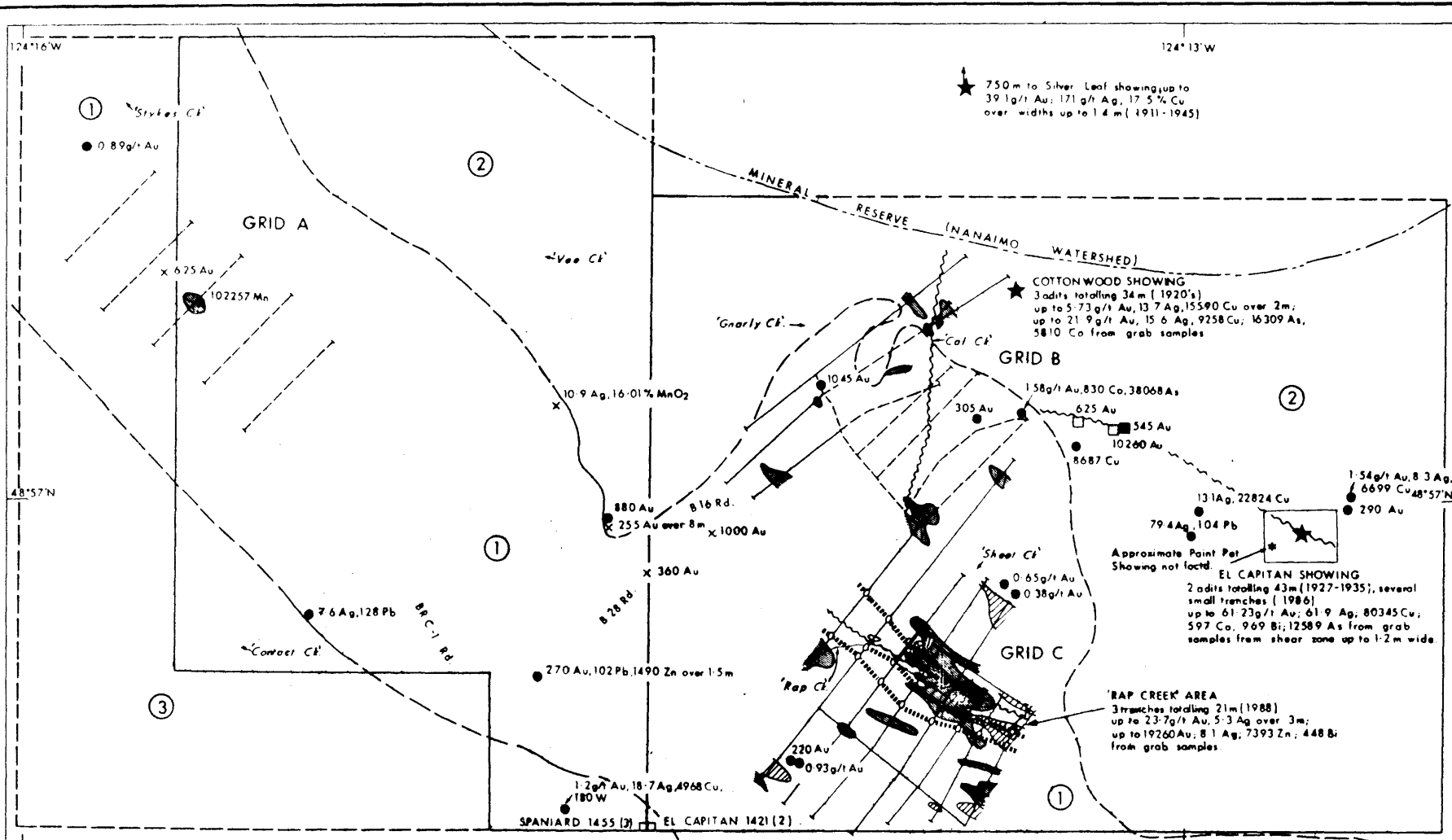
Three adits from the Cottonwood showing were relocated on the southwestern side of El Capitan Mountain. Grab samples collected from shears and quartz veins in Karmutsen Formation basalts in the showing area are anomalous in gold, copper, arsenic, cobalt, nickel and bismuth, with values up to 21.9 g/t Au, 15.6 ppm Ag, 117 ppm Bi (#9915), 15,590 ppm Cu (#9870), 16,309 ppm As (#9913), 5810 ppm Co (#9872) and 820 ppm Ni (#9909).

Structural trends in the area of 'Rap Creek' occur in northwesterly and west-northwesterly directions. Quartz veins and shear zones striking northwest contain higher gold concentrations than those which strike west-northwesterly. Assays returned from quartz veins include 23.6 g/t Au (chip along 3 m of a 2 to 10 cm wide vein), 6.62 g/t Au (grab of a 5 cm wide vein), and 3.15 g/t Au (grab of a 2 cm wide vein), locally associated with anomalous silver (to 8.1 ppm), copper (to 2314 ppm) and arsenic (to 1359 ppm).

A limestone bed in 'Rap Creek' contains several undulatory sulphide-rich horizons, from 2 to 25 cm wide. These horizons contain up to 75% pyrite, pyrrhotite, and arsenopyrite. Samples collected from this area, yielded up to 20.6 g/t Au, 4.3 ppm Ag, 887 ppm Cu, 523 ppm As and local manganese to 13,831 ppm.

Soil geochemistry over Grid C, has outlined a north-northwest trending gold, arsenic and copper anomaly over approximately 400 m long and up to 300 m wide, centred at approximately L4+00N. Concentrations of up to 2090 ppb Au, 587 ppm Cu and 459 ppm As were yielded within this zone which is in the 'Rap Creek' area.

The magnetometer survey over Grid C, outlined four narrow, west to northwest trending, magnetic highs. One of these features is coincident with a VLF-EM



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**GEOLOGY**

LOWER TO MIDDLE JURASSIC

3 Island Intrusions - quartz diorite, diorite

UPPER TRIASSIC

2 Karmutsen Formation - pillowed to massive mafic volcanics

UPPER PALEOZOIC

1 Sicker Group - bedded argillite, chert, siltstone, intermediate to mafic tuff, lapilli tuff, agglomeratic lapilli tuff, local minor limestone

**LEGEND**

**SYMBOLS**

Geological contact (defined, approximate or assumed)

Major shear zone (defined, approximate)

Rock sample collected by Peter Christopher with sample number

Rock sample (1988, 1986 or prior) with selected results in ppb for Au, ppm for other elements, unless otherwise specified

Area of highly anomalous rock samples

Silt sample (1988, 1986 or prior) with Au result in ppb

Soil geochemical anomaly (Au ≥ 40 ppb)

Magnetic high (≥ 1100 nT)

Selected VLF-EM conductor

Grid line (1986, 1988)

Claim boundary (dashed where overlapping prior claims, etc)

**ROCK SAMPLE RESULTS** (collected by P. Christopher)

Sample No.	Width (m)	Au (g/t)	Ag (g/t)	Other ppm
1	10	3.12	2.4	
2	select	6.21	4.4	603 Cu, 128 Ni, 464 As, 35 Pb, 56 Co
3	3	1.85	0.3	



**OMEGA GOLD CORPORATION**

**SUMMARY COMPILATION MAP**

**EL CAPITAN PROJECT**  
VICTORIA MINING DIVISION

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Drawing No: 1	Date: NOVEMBER 1988

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conductor. The VLF-EM survey indicates the presence of ten weak to strong conductors trending west-northwest to northwest. Continuous portions of the conductors range up to 400 m in length. The most significant conductors occur in the 'Rap Creek' area.

Phase I, consisting of geological mapping and sampling, soil sampling, trenching, VLF-EM survey, and a preliminary IP survey, are recommended at an estimated cost of \$125,000.

Phase II diamond drilling, contingent upon Phase I results, has been recommended at an estimated cost of \$250,000.

## 1.0 INTRODUCTION

MPH Consulting Limited, conducted an exploration program on the El Capitan property from September 20, 1988 to October 28, 1988. The work was commissioned by Mr. Jarl Whist of Omega Gold Corporation, who provided the funding for this project. The results and conclusions of this program are documented in a report entitled Report on Geology, Litho-geochemistry, Soil Geochemistry, Magnetometer and VLF-EM Surveys, El Capitan Property, dated November 25, 1988. The author visited the property on October 24, 1988 to confirm samples of the hand trenches in the Rap Creek area, but has relied heavily on data documented in the above report.

## 2.0 PROPERTY LOCATION, ACCESS, TITLE

The Dayton Developments Corp. El Capitan property, comprising the Capitan and Spaniard claims, is located about 7 km north of Youbou, B.C., in the Victoria Mining Division. The claims are centred at latitude 48°57'N and longitude 124°13'W on NTS mapsheet 92C/16 (Figure 1).

Access to the property is gained via paved road along the north side of Cowichan Lake about 16 km west of the community of Lake Cowichan, to the mouth of Cottonwood Creek, just west of Youbou. A well maintained logging road follows Cottonwood Creek for 11 km and gives 4WD access up to the old trail to Lomas Lake. The El Capitan underground workings are located about 2 km up the trail from the end of the road. The Spaniard claim is accessible by a logging road heading up Cottonwood Creek and branching off to the west. Currently, the central area of the property is being logged by CIP Inc.

The property comprises two contiguous mineral claims totalling 40 units as summarized below:

<u>Claim</u>	<u>Record No.</u>	<u>Units</u>	<u>Anniversary Date</u>	<u>Year Registered</u>
Capitan	1421(2)	20	February 19, 1992	1985
Spaniard	1455(3)	20	March 12, 1992	1985

The common legal cornerpost of the claims is situated on the road at about 580 m elevation on the southern boundary of the claims.

The Capitan and Spaniard claims are grouped as the Capitan Group (Notice to Group 613). The owner of both claims is Dennis Stecyk of Dayton Developments Corp., with Omega Gold Corporation earning an interest in the property.

### 3.0 HISTORY

The present El Capitan property, composed of the Capitan and Spaniard claims, encompasses the old workings of the El Capitan, Paint Pot, and Cottonwood prospects. The Silver Leaf prospect is located north of the Capitan claim within the Nanaimo District watershed, near the headwaters of a tributary of Jump Creek.

#### El Capitan

Surface stripping and a small drift (No. 1 Adit), driven on a 0.5 m oxidized vein within a shear zone were done prior to 1927. Further work was aided by construction of a cabin at Lomas Lake and trails to the cabin and the workings above, by the El Capitan Syndicate. In 1927, the No. 2 adit was driven westward for 15 m, 3 m below the No. 1 adit, along a shear striking  $100^{\circ}/80^{\circ}\text{S}$ , intersecting sulphide ribs. Assays returned up to \$39/ton Au. In 1928, in an attempt to get below the oxide zone, a drift was driven about 15 m below the first one, uncovering a 10 cm seam of ore on the footwall assaying 92.6 g/t (2.7 oz/ton) Au, 120.0 g/t (3.5 oz/ton) Ag, 15 cm of chalcopryrite ore on the hanging wall assaying 141 g/t (4.1 oz/ton) Au, 45 g/t (1.3 oz/ton) Ag, and 13% Cu separated by a 1.0 to 1.3 m oxidized interval. In 1932, the No. 3 adit was driven about 5 m into the west side of the mountain 50 m below the No. 2 adit on the east side by Lomas and Powell. In 1935, this adit was driven out to 65 m intersecting a well defined fault trending  $085^{\circ}/52^{\circ}\text{S}$  at 7 m to 23 m from the face. Only traces of gold and silver were returned from a 20 cm grey gouge zone. Abundant arsenopyrite was uncovered in a 35 cm wide fissure below this adit. (MMAR, 1927-1935; BCDM Bulletin 37)

The veins of two of the adits were sampled in 1955 by Dr. J.T. Fyles, geologist with the B.C. Department of Mines (Fyles, 1955). From 1978 to 1979, B. McClay of Trans Pacific Ventures Ltd. sampled the No. 1 adit which returned 467 g/t (13.6 oz/ton) Au across a 0.6 m width (McIntyre, 1979).

J.F. McIntyre for Strongbow Resource Corporation, recommended bulk sampling and rehabilitation of the underground workings to acquire a reliable grade estimate for the ore (McIntyre, 1983). This program was not initiated however, and the property was left to lapse.

Hence the staking of the present Capitan and Spaniard claims was completed by 12:05 a.m. on February 12, 1985. The property was optioned to Dayton Developments Corp. which conducted field work during October 1985.

Silt, soil, and rock samples were collected and trenches through chalcopryrite bearing quartz veins were blasted. Results from this work led to recommendations for further work by the writer (Christopher, 1986).

Gossanous dump material from the No. 1 adit assayed 138.8 g/t (4.05 oz/ton) Au and 87.7 g/t (2.56 oz/ton) Ag. The 1.35 m wide shear zone at 10 m into the No. 1 adit, averaged 28.25 g/t (0.824 oz/ton) Au. Soil geochemical anomalies were obtained in the area below Lomas Lake to the west, and on the Spaniard claim.

### **Cottonwood Prospect**

The Cottonwood prospect, first staked by M.L. Douglas, is a 2 m vein striking 045°, situated along the trail and traced for 165 m up the hill, at 1158 m elevation, 400 m northwest of Lomas Lake (MMAR 1927, 1928, 1929; BCDM Bulletin 37). This vein contains pyrrhotite, chalcopryrite and streaks of erythrite with assays of \$1.60/ton Au, 1.37 g/t Ag (0.04 oz/ton) and 4.7% Co. Between 1927 and 1929, Douglas, Lomas and Miller drove a 26 m upper adit, a 16 m lower adit, two small adits and two small crosscuts between the main adits. The lower cut shows the vein to be 2 m wide of which 65 cm on the footwall is fractured porphyritic basalt with minor mineralization then 35 cm of smaltite, chalcopryrite and pyrrhotite ore and a hanging wall of sparsely mineralized quartz with chalcopryrite and pyrrhotite. The upper cut (25 m above) shows a slightly mineralized quartz vein filling (chalcopryrite, pyrrhotite and trace cobalt). The Cottonwood showing was located and sampled by MPH this year.

### **Paint Pot**

In 1930, the Paint Pot showing, a 0.65 m oxidized chalcopryrite vein within a shear zone extending over 30 m, was staked by Martin Smith of Duncan (MMAR, 1930, BCDM Bulletin 1). Assay results include \$2.80 Au, 51 g/t (1.5 oz/ton) Ag and 6.1% Cu. It may be coincident with chalcopryrite-quartz veins trenched in 1985 (Christopher, 1986).

### **El Capitan Property (other)**

In October of 1986, MPH was commissioned by Dayton Developments Corp. to conduct geologic mapping, prospecting and rock sampling on the property. Two soil grids were established; Grid A on the Spaniard claim and Grid B on the Capitan claim. The southeastern extent of Grid B contained the best soil geochemical concentrations. The results of this work are documented by Thomae and Getsinger (1987) and summarized by the author (Christopher, 1987).

During November 1987, B. Thomae and J. Getsinger, geologists with MPH Consulting Limited spent three days conducting detailed geologic mapping and rock sampling along newly constructed logging roads B-16 and B-28 near the boundary between the Capitan and Spaniard claims. CIP Inc. was actively logging during this time. Structural orientations were plotted from data collected during this and previous work programs, however no particular structural trend appeared to favour gold mineralization. (Thomae and Getsinger, 1987.) The small data set, however, does not provide conclusive evidence.

## **4.0 REGIONAL GEOLOGY AND ECONOMIC SETTING**

The Duncan to Cowichan Lake area is predominantly underlain by a west-northwest trending sequence of Sicker Group rocks. These include felsic to intermediate volcanoclastic and volcanic rocks interbedded with chert and argillite of the Myra Formation. The Sediment-Sill Unit is transitional between the Myra Formation and overlying Buttle Lake Formation. It comprises bedded pelagic sediments intruded by numerous diabasic sills which may represent 'feeders' of the Karmutsen Formation basalts. The Buttle Lake Formation comprises mainly massive crinoidal limestone with intercalated chert and argillite beds near the base of the limestone. The Karmutsen Formation is a thick sequence of mafic volcanic rocks including pillowed, brecciated and commonly amygdaloidal basalt.



It overlies the Sicker Group unconformably. The Jurassic Island intrusions, fine to coarse-grained diorite to quartz diorite occur in large irregular masses, intruding rocks of the Sicker Group and Karmutsen Formation.

Felsic plugs, sills and dykes of a quartz and feldspar porphyritic texture occur locally throughout the area. They are similar to confirmed Tertiary occurrences in other areas of Vancouver Island, where they are often associated with gold mineralization.

Recent government geologic mapping in the Cowichan Lake area, includes work by Massey (1987). His mapping has led to proposed changes in the stratigraphic nomenclature introduced by J.E. Muller (1980).

For the purposes of this program, however, Muller's terminology has been retained because these formations correlated well over Vancouver Island and due to its significance from an economic point of view.

### **Economic Setting**

The Sicker Group, and to a lesser extent, the Vancouver Group of volcanics, have been explored intermittently since the 1890's for gold and base metal mineralization.

At Buttle Lake, approximately 120 km northwest of the El Capitan property, the Myra Formation hosts Westmin Resources' volcanogenic massive sulphide deposits. Initially discovered in 1917, it was not recognized as a volcanogenic deposit until the late 1960's. Ore minerals including sphalerite, chalcopyrite, galena, tetrahedrite-tennantite, minor bornite and covellite are hosted in pyritic, rhyolitic to rhyodacitic volcanic and pyroclastic rocks of the Myra Formation.

Reserves of the H-W are 13,901,000 t averaging 2.2% Cu, 5.3% Zn, 0.3% Pb, 2.40 g/t Au and 37.7 g/t Ag (Walker, 1983). From 1980 to 1982, 811,987 t of ore were milled, producing 7,306,880 kg Cu, 43,706,118 kg Zn, 6,455,040 kg Pb, 1,740 kg Au, 78,630 kg Ag, and 58,500 kg Cd.

Another volcanogenic massive sulphide deposit in the Sicker Group is the Twin J Mine near Duncan on Mount Sicker, 45 km southeast of the El Capitan property. Two parallel orebodies, 46 m apart, each containing pyrite, chalcopyrite, sphalerite and minor galena in a barite quartz-calcite gangue and chalcopyrite in quartz, occur in schists believed to have been derived from acidic volcanics (Myra Formation).

On the Lara property, Abermin Corp. traced the polymetallic volcanogenic massive sulphide Coronation and Coronation Extension Zones over a strike length of over 1500 m and to depths of 245 m. Average grades are 5.1 g/t Au, 111.4 g/t Ag, 0.81% Cu, 1.32% Pb, and 5.79% Zn over an average thickness of 3.9 m. A 162 m long high-grade zone within the Coronation Zone averages 8.2 g/t Au, 229.7 g/t Ag, 1.5% Cu, 3.1% Pb, and 14.9% Zn over an average thickness of 3.4 m. Recent exploration has located other similar horizon(s) up to 2.4 km long parallel to the Coronation Zone in the northern part of the property. The mineralized zones are hosted by felsic volcanics of the Myra Formation. An exploration adit has been completed on the property, and it has been sold to Laramide Resources.

Vancouver Island Gold Mine, located on the Yellow claim adjacent to the Debbie property near Port Alberni, is a joint venture between Nexus Resource Corporation and Westmin Resources Ltd. Westmin is currently involved in driving

an exploration adit on the Debbie property and are presently over half way through the mile long tunnel. New discoveries have yielded drill intersections of up to 4.25 g/t Au over 11.34 m and 3.50 g/t Au over 18.20 m from the 'Mineral Creek Zone' and 139.82 g/t Au over 14.36 m and 38.98 g/t Au over 13.50 m from the '900 Zone'. The gold is partly structurally controlled.

North of Cowichan Lake, several gold and copper showings occur. Within an approximately 5 km radius of the El Capitan property are the Amore, Silver Leaf, Cottonwood, El Capitan and Paint Pot showings which are quartz veins in shear zones cutting the Karmutsen Formation.

The potential for structurally controlled gold mineralization over other parts of the El Capitan is very good.

## 5.0 1988 EXPLORATION PROGRAM

The 1988 field exploration program, completed between September 20 and October 28, 1988, entailed geologic mapping, rock and soil geochemical and geophysical surveys over the El Capitan property.

Reconnaissance geologic mapping (1:5000 scale) was carried out over most accessible parts of the property (approximately 10 km<sup>2</sup>). Detailed mapping at 1:2500 scale, was performed over Grid C. A total of 510 rock samples were collected, 489 of which were analysed for Au by AAS and 30 elements by ICP at Acme Analytical Laboratories Ltd. of Vancouver. Rock samples which contained at least 300 ppb Au were assayed for gold.

Grid C was established over the south-central Capitan claim. The flagged, chain and compass grid comprises a 0.6 km baseline, oriented approximately parallel (128°) to structural trends in the 'Rap Creek' and 'Loon Creek' areas. Cross-lines were established at 218° with 100 m spacing and 25 m intervals. Lines 0+00, 4+00N, and 5+00N on Grid B (1987) were extended, and line 6+00N added on the northwest side of the grid.

A soil survey over Grid C, and the Grid B extensions involved the collection of 355 soil samples which were analysed for Au by AAS and 30 elements by ICP at Acme Analytical Laboratories Ltd. of Vancouver. Magnetometer and VLF-EM surveys were also conducted over Grid C (6.625 line-km).

Heavy metal concentrate samples (23) were collected and analyzed for gold and for 30 elements by ICP, also at Acme.

### 5.1 Property Geology

Geologic contacts between Paleozoic Sicker Group rocks and Triassic Karmutsen Formation basalts and Jurassic Island Intrusions diorite are essentially as previously mapped. Figure 1 shows the property geology at 1:20,000 scale.

On the El Capitan property, the Sicker Group (Unit 1) comprises a broadly folded sequence of bedded sediments and volcanoclastic rocks of the Upper Myra Formation, Sediment-Sill Unit and minor limestone of the Buttle Lake Formation. These rocks underlie most of the property.

Upper Triassic Karmutsen Formation (Unit 2) rocks comprise massive, pillowed, brecciated and tuffaceous mafic to intermediate rocks. Feldspar porphyritic diabasic sills within the Sicker Group have been included in Unit 2 as they may represent feeders to the Karmutsen volcanics. Previously, geologic mapping has included these within the informal 'Sediment-Sill' Unit.

Unit 3 comprises diorites and granodiorites of the Lower to Middle Jurassic Island Intrusions.

Feldspar porphyritic, and hornblende (biotite) porphyritic felsic to intermediate dykes of Unit 4 are probably Tertiary in age. They have been mapped locally in most areas of Vancouver Island where they are often associated with gold mineralization.

### **Structure**

Sicker Group rocks have undergone at least one episode of folding and low grade metamorphism. From west to east across the property, a series of antiforms and synforms occur. These generally strike in a northwesterly direction. Based upon a stereographic plot of poles to bedding by Thomae and Getsinger (1987b), the fold axis lineation is at approximately  $306^{\circ}/03^{\circ}$ , and the axial plane is at  $128^{\circ}/64^{\circ}$ SW. The majority of shear zones cutting the Sicker Group are also oriented in a northwesterly direction (as are numerous quartz veins).

A major west-northwest trending shear zone is approximately coincident with 'Rap Creek'. This shear zone is traceable for 450 m along strike. Secondary northwest trending shears are traceable for up to 20 m. Alteration within this zone includes carbonate, silica and local sericite. Quartz veins (discontinuous) approximately follow this trend.

From airphoto interpretation, three lineations were observed; (i) northeast trending along 'Vee Creek'; (ii) northeast trending coincident with 'Cal Creek', (which when mapped proved to be a continuous, steeply dipping, shear zone). The linearity of these features suggests very steep (west?) to vertically dipping faults; (iii) extending west from Lomas Lake, along the creek for approximately 350 m, and through a saddle on southeastern Mount Service. The eastern extension of this lineament passes close to the El Capitan Showing. Near Lomas Lake, a number of easterly to east-southeasterly striking shear zones, coincident with the lineament occur in the creek. A number of anomalous gold in rock values were obtained near this shear zone (sample 19947: 305 ppb Au; sample 9694: 184 ppb Au; sample 9954: 47 ppb Au). Further prospecting and mapping along the shear zone is recommended.

### **5.2 Mineralization**

Mineralization on the property, consists mainly of gold associated with chalcopyrite, arsenopyrite, pyrrhotite and limonitic gossans in shear zones. Three previously discovered gold showings, the El Capitan, Cottonwood, and Paint Pot, occur on the property. In addition, anomalous gold in rocks in the 'Rap Creek' area, was discovered this year and may be related to the 'Rap Creek' shear zone.

The most significant showing on the property, in terms of gold grades, is the El Capitan gold, silver and copper showing.

A limonitic, gossanous shear zone occurs along the south wall of a 3 m wide hornblende porphyry dyke cutting Karmutsen Formation basalts. The mineralized zone contains heavily oxidized pyrite, and chalcopyrite in quartz stringers.

A sample from Adit 1 in 1955 assayed 14.4 g/t Au and 10.3 g/t Ag over 0.6 m. In 1979, six samples from the same adit averaged 141.3 g/t Au, 44.2 g/t Ag, 2.16% Cu over 0.6 m.

Adit 2 (driven below Adit 1 into the same shear zone) samples have assayed up to 140.6 g/t Au over 0.15 m, 120 g/t Ag over 0.1 m and 13.1% Cu over 0.15 m. The Adit 2 portal appears to have been covered up by talus from above. It was not located during this program.

Samples collected from the El Capitan Showing area this year include mainly grab samples of limonitic shear zones and chalcopyrite and pyrite bearing quartz veins in Karmutsen Formation basalts. It appears that most of the samples carry anomalous gold + silver + copper + zinc + arsenic + cobalt + bismuth. The highest known gold assays are contained in samples from Adit 1.

The **Cottonwood** gold, silver, copper and cobalt showing is in a shear zone cutting Karmutsen Formation porphyritic basalts. It contains lenses of quartz, patches or lenses of massive pyrite, pyrrhotite, arsenopyrite and chalcopyrite. Erythrite coatings and minor smaltite have been reported. The sulphides in most cases are heavily oxidized. The shear zone is up to 9 m wide (of which 1.8 m is mineralized) and has been traced over 150 m.

Although no production was recorded, an upper (26 m) and lower (16 m) adit, two small adits and two small crosscuts between the main adits were driven.

Assays from previous sampling of the showing include: 6.8 g/t Au and 20.6 g/t Ag over 0.6 m, and 2.6 g/t Au, 1.4 g/t Ag and 4.7% Co from an erythrite coated sample.

According to field work done this year, the Cottonwood Showing occurs between 1180 and 1205 m (near the Nanaimo Watershed boundary) on the west side of El Capitan Mountain. Only three of the adits were located however, and are termed 'lower' (1180 m) 'middle' (1190 m) and 'upper' (1205 m). The 'lower' and 'middle' adits appear to correspond to the two previously mentioned small adits.

The 'Lower Adit' measures 9.7 m to the face, in an easterly direction. A feldspar porphyritic dyke(?) occurs on the footwall of a 15 cm wide shear zone at the face. Relatively unaltered Karmutsen Formation basalt occurs along both walls and back of the adit.

Three chip samples of narrow shear zones within the adit did not contain significant gold concentrations (2 to 9 ppb). A grab sample from the tailings pile (9872) assayed 1.92 g/t Au, in addition to 5.9 ppm Ag, 9047 ppm Cu, 9494 ppm As, 569 ppm Ni and 5810 ppm Co with 33 ppm Bi.

The 'Middle Adit', approximately 20 m east of the 'Lower Adit' was driven for 5 m in an easterly direction, into a 3 m wide gossan within Karmutsen Formation basalts. It follows a shear which is locally quartz-filled (25 cm wide), to the face of the adit. Sample 9864, assayed 0.27 g/t Au over 50 cm along this zone.

A sample of a 2 cm wide quartz vein containing 2% pyrrhotite contains 1.03 g/t Au with 898 ppm Cu. Quartz veins and veinlets cutting the basalt, trend approximately parallel to the main shear zone. Within the adit, two narrow (2 to 4 cm) quartz veins sampled at the face, contained from 1.03 g/t Au and 898 ppm Cu (9863) to 5.63 g/t Au, and 4999 ppm Cu, 4735 ppm As, 404 ppm Ni and 1266 ppm Co (9865).

Surface grab samples of 1 to 4 cm quartz veins which contained pyrrhotite and pyrite, in the immediate vicinity of the Cottonwood 'Middle Adit', assayed up to 8.43 g/t Au (9909) with 2111 ppm Cu, 12,285 ppm As, 820 ppm Ni and 1712 Co.

Selected samples of the host basalt containing disseminated pyrite and pyrrhotite, assayed up to 1.51 g/t Au with 470 ppm Cu, 636 ppm As and 298 ppm Co (9911).

Only weakly anomalous concentrations of silver were contained in the quartz veinlets and host basalt of the Cottonwood Showing. A grab sample of limonitic(?) gossan (9915) from west of the portal assayed 21.9 g/t Au, 15.6 ppm Ag, 9258 ppm Cu, 8953 ppm As and 117 ppm Bi.

The relative concentrations of these elements are similar to the gossanous shear zone of the El Capitan Showing, which suggests that perhaps mineralization is from a common episode of hydrothermal activity or contact metamorphism. Anomalous bismuth, often associated with skarn mineralization occurs in both the El Capitan and Cottonwood Showings, as well as the 'Rap Creek' area.

The 'Upper Adit' was driven at 070° along a limonitic, gossanous, 5 m wide shear zone(?) which dips steeply to the northwest, for approximately 20 m. The host rock is chloritic, limonitic Karmutsen Formation basalt whose original textures are poorly preserved due to alteration.

Chip samples (2 m widths) were collected at 5 m intervals along the back of the adit. Sample 9870, from a 2 m chip of limonitic basalt, 15 m from the portal, contained 5.73 g/t Au, 13.7 ppm Ag, 15,590 ppm Cu, 2376 ppm As and 44% Fe. A chip sample (1 m) from brecciated basalt across the back of the portal contained 1.44 g/t Au, 1748 ppm Cu and 3790 ppm As.

Mineralization within 'Rap Creek' appears to be associated with one of two structural trends in the area. Quartz veins and shears oriented in a north-westerly direction contain higher gold concentrations (as in 'Rap Creek'), relative to the more major west-northwest trending structures.

A 4 to 10 cm wide, pyrite and pyrrhotite bearing quartz vein, exposed over approximately 7 m, oriented at 143°/35°NE was sampled. Initially, grab sample 9714 yielded 6.62 g/t Au, 3.1 ppm Ag and 44 ppm Bi. Samples 9978 and 9979 were 2 m and 3 m chip samples along the strike of vein, yielding: 18.3 g/t Au, 5.2 ppm Ag, and 40 ppm Bi (sample 9978), and 23.66 g/t Au, 5.3 ppm Ag, 423 ppm Cu, and 33 ppm Bi (sample 9979).

Shears within 'Rap Creek' show carbonate alteration, and in 'Cal Creek' carbonate flooding. Sample 9545, from 'Rap Creek', is a chip sample over 1.5 m of 2 to 3 cm wide carbonate veins contained in a shear oriented at 128°/74°S, which yielded 2.37 g/t (1840 ppb) Au and 2289 ppm Mn.

The limestone in 'Rap Creek' (line 5S) contains several undulatory sulphide-rich horizons, varying from 2 to 25 cm in width. The horizons are approximately conformable to the upper contact of the silicified limestone. Intense shearing occurs in this area. Up to 75% pyrite, pyrrhotite and arsenopyrite occur in these zones. The recrystallized limestone contains trace to 2% finely disseminated pyrite.

Limestone sampled in 'Sheet Creek' near the end of line 3S, contains approximately 3% disseminated pyrite and minor quartz veins to 1 cm wide, however, no significant base or precious metal concentrations. A 20 cm wide jasper horizon, in 'Sheet Creek' containing 1-3% pyrite and 2% pyrrhotite, occurs between an overlying limestone bed (5 m thick) and underlying altered tuff. A grab sample contained 52 ppb Au (sample 9881).

Three 'hand dug' trenches in the Rap Creek area were designed to better expose auriferous zones. Trench #1 (T-1), located on line 5S, 4+50E is approximately 7 m long. Trench #2 (T-2), located approximately 25 m below Trench #1, on the south side of 'Rap Creek' is 6.5 m long. Trench #3 (T-3), located about 10 m below line 3S, 3+25E, is 7.5 m long.

T-1 was intended to better expose a number of randomly oriented massive sulphide horizons, within recrystallized limestone. Initial grab samples collected from this location yielded: 5.04 g/t Au, 4.3 ppm Ag, 344 ppm Cu, and 523 ppm As in sample 9538, and 20.6 g/t Au, 2.5 ppm Ag, 887 ppm Cu, 19 ppm Bi and approximately 21% Fe in sample 9477. Six additional samples were collected from this trench, four of which returned elevated gold values.

The silicified limestone exposed in T-1, varies from light to medium grey, locally crystalline and barren of sulphides, to dark grey, intensely silicified, sheared and sulphide-rich (3-5% crystalline pyrite, arsenopyrite(?), and pyrrhotite).

The undulatory sulphide horizons range from 4 to 40 cm wide. A 2 to 25 cm wide sulphide horizon, occurs at the contact between limestone and strongly fractured grey-green and maroon coloured, silicified tuff at the east end of the trench. Sample 9893 yielded 101 ppb Au and 402 ppm Cu over 0.25 m. Near the centre of the trench, another sulphide horizon occurs at the contact between limestone light green cherty(?) tuff. Sample 9890 yielded 1.10 g/t Au and 436 ppm Cu over 2 m.

Along the eastern half of the trench is an approximately 1 m wide zone of sheared limestone cut by subparallel quartz stringers (<3 mm wide). This zone strikes 116°/subvertical. A sample (9891) from this zone yielded 73 ppb Au.

T-2 was dug to uncover possible extensions of the sulphide horizons in T-1. Precious and/or base metal concentrations were not contained in the four rock samples collected.

The trench exposed a light to medium green, chlorite and locally sericite altered, fine-grained tuff with minor randomly oriented quartz stringers <4 mm wide. The rock is locally gossanous, with 2-3% disseminated pyrite. A small, 2 to 3 cm wide shear zone, oriented at 022°/55°SE was exposed, however the massive sulphide horizons in T-1 do not extend as far as T-2.

T-3 was intended to better expose a 15 m wide section of strongly fractured, cherty tuff, with local massive pyrrhotite pods (20 to 30%) and quartz, adjacent to a 1 m wide shear zone oriented at 124°/82°NE. Initial grab samples of sulphide pods contained 3.15 g/t Au, 6.6 ppm Ag, 304 ppm As, 1150 ppm Cu and approximately 20% Fe in sample 9983; and 14 ppb Au, 1.0 ppm Ag, 944 ppm Cu, 90 ppm W and approximately 26% Fe in sample 9878. Five chip samples were collected from T-3, however anomalous concentrations of precious and/or base metals were not contained in any of the samples.

The trench exposed light to medium grey-green, cherty tuff with local gossanous zones containing disseminated pyrrhotite and pyrite. Locally, the tuff is cut by randomly oriented quartz stringers.

The writer visited the property on October 24, 1988 and did minor resampling of the trenches in the 'Rap Creek' area. A 'check' of sample 9714 and 9979 and 9978 along 10 m which contains a nil to 10 cm wide quartz vein containing weathered pyrite, yielded 3.12 g/t Au, 2.4 g/t Ag, 43 ppm Cu and 4 ppm As (from Sample 1).

A selected grab (sample 2) of a quartz, pyrrhotite, and pyrite bearing zone, cutting limestone in contact with tuff of the Sicker Group, yielded 6.21 g/t Au, 4.4 g/t Ag, 603 ppm Cu and 464 ppm As. A 3 m chip sample from the tuff/limestone contact, north along the new cut contained 1.85 g/t Au, 0.3 g/t Ag, 218 ppm Cu and 6 ppm As.

In other areas of the property, reconnaissance type traverses have led to significant findings. Grab samples from Stykes Creek contained up to 0.89 g/t Au in a cherty tuff (9454). A shear zone cutting tuff in 'Sheet Creek' contained 0.65 g/t Au (9450), and a quartz filled shear zone in 'Gnarly Creek' contained 1045 ppb Au, 4.4 ppm Ag and 3864 ppm Cu (9510). Southeast of Lomas Lake, a sample of sheared basalt containing chalcopyrite, yielded 162 ppb Au, 13.1 ppm Ag, 22,824 ppm Cu and 294 ppm As (9963). These areas warrant more detailed mapping and chip sampling across the zones.

#### **Discussion of Thin Sections**

Two unpolished and 5 polished thin sections were made from auriferous rocks collected in various areas of the property, to determine the types of sulphides and sequence of events related to mineralization.

Sample 9479, collected about 600 m up 'Rap Creek' from the SPR 100 Road was described in the field as a medium to dark grey tuff containing 2-3% fracture pyrite and 1% finely disseminated pyrite. A thin section of the hand specimen, however, reveals that this rock was derived from a fine-grained granite or granodiorite (probably of the Jurassic Island Intrusions) in which feldspars and mafic minerals have undergone possible hydrothermal alteration. Perhaps anomalous gold (1130 ppb) and copper (1579 ppm) concentrations in this sample are associated with this hydrothermal activity.

Sample 9679, described as a pyritic breccia within a shear zone from the eastern portion of the Capitan claim, appears to be a hydrothermally altered intermediate to mafic volcanic rock (Karmutsen Formation) which has undergone brecciation and silicification. Anomalous concentrations of precious and/or base metals however are not contained within this sample.

The mineralized auriferous shear zone of Adit 1 was sampled as 9681 and contains up to 15% copper sulphides and oxides as well as 10% pyrite. A polished thin section showed that the host rock comprises a clay-like, irregularly laminated rock which underwent either low grade alteration and/or hydrothermal activity. Mineralized solutions during or after this activity, deposited sulphides along bedding planes. The most likely time sequence is pyrite-chalcopyrite-hematite-goethite and limonite. This sample contains 61.2 g/t Au, 57.4 ppm Ag, 80,345 ppm Cu, 969 ppm Bi, 561 ppm As, and 479 ppm Ni.

Sample 9983, a 4 cm quartz vein cutting chert from the south side of 'Rap Creek' assayed 3.15 g/t Au with weakly anomalous silver and copper concentrations. From polished thin section, this rock appears to be a green banded pelitic rock with abundant organic matter. The rock has undergone silicification and pyritization. Inclusions of chalcopyrite suggest that pyrite is replacing chalcopyrite. Sulphide mineralization and silicification appear to have proceeded simultaneously along bedding planes and crosscutting fractures.

Sample 9872 from the tailings pile of the 'lower' adit of the Cottonwood Showing, comprises an epidote-altered mafic volcanic, with up to 35% pyrrhotite, 3-5% chalcopyrite, 1-2% arsenopyrite with <1% goethite and calcite in the polished thin section. Sulphides may be of hydrothermal origin (1.92 g/t Au, 5.9 ppm Ag, 9047 ppm Cu, 9494 ppm As, 569 ppm Ni, 5810 ppm Co, and 33 ppm Bi).

Sample 9866, also from the Cottonwood Showing is from a 4 cm wide pyrrhotite vein in the 'Middle' Adit, which contained 5.63 g/t Au, 2.1 ppm Ag, 4999 ppm Cu, 4735 ppm As and 1266 ppm Co. The host rock appears to have been altered to epidote and replaced by quartz and mineralized with pyrrhotite 15-20%, arsenopyrite (1-2%), chalcopyrite (3-5%) and pyrite (2-3%). Again mineralization is thought to have resulted from hydrothermal activity.

A polished thin section of sample 9538, a recrystallized limestone from 'Rap Creek', shows that it has been silicified and mineralized with pyrite, arsenopyrite and iron-oxide. Recrystallization probably resulted from metamorphism and/or hydrothermal activity. Calcite veining followed silicification as it crosscuts all other mineral assemblages.

### 5.3 Stream Sediment Survey

Pan concentrated silt samples (23) were collected from various drainages on the El Capitan property. One to two kilogram samples were collected using a 10-mesh sieve. The heavy mineral fraction was further concentrated using a flotation procedure, then analyzed for Au by AAS and 30 elements by ICP.

Thirteen of the samples yielded gold concentrations ranging from 35 ppb Au to 545 ppb Au.

Streams draining the eastern side of Mount Landale on the southeast Capitan claim, contained up to 532 ppb Au (12A-88) near the Sicker Group/Karmutsen Formation contact. Follow-up should entail prospecting upstream.

Silt 21-88, collected from one end of Lomas Lake, contained 545 ppb Au. Silt samples collected in 1986 from the creek draining Lomas Lake, yielded 10,260 ppb Au from near the west side of the lake, and 625 ppb Au from 180 m downstream.



Although the anomalous gold may be the result of downslope movement from the El Capitan gold showing, the possibility of a more local source should be thoroughly examined by prospecting in the immediate area.

Samples 16-88, 17-88, and 5-88 were collected from 'Rap', 'Loon', and 'Sheet' Creeks respectively. This area is underlain by sheared rocks including Upper Sicker Group rocks which are known to carry anomalous gold. Silts from 'Rap Creek' contained 175 ppb Au, 305 ppm Cu, 247 ppm Cr, and 115 ppm As. Silts from 'Loon Creek' contained 75 ppb Au, and 1.0 ppm Ag, and from 'Sheet Creek' contained 46 ppb Au, 418 ppm Cu and 143 ppm As. These anomalous gold concentrations may reflect gold mineralization upstream associated with the shear zone(s) cutting Buttle Lake limestone.

#### 5.4 Soil Geochemistry

A total of 355 soil samples was collected from the B-horizon (at depths from 5 to 25 cm) along approximately 8.75 km of grid lines. Samples were analysed for Au by AAS and for 30 elements by ICP at Acme Analytical Laboratories Ltd. of Vancouver.

Grid C, located in the south-central Capitan claim, consists of seven northeast trending lines spaced at 100 m. The grid was established to follow up anomalous gold contained in rock samples collected from northwest trending shear zones and quartz veins in the 'Loon Creek' and 'Rap Creek' areas. The area is underlain by northwest trending Upper Sicker Group rocks and locally cut by feldspar porphyry dykes.

Grid lines were oriented in a northeasterly direction to crosscut regional strike. Areas of anomalous (>40 ppb) gold are shaded on the summary compilation map (Figure 1).

Grid B (established during 1987 by MPH) covers the Sicker/ Karmutsen contact and the westward projection of the El Capitan auriferous shear zone.

Lines 4+00N and 5+00N of Grid B were extended southwest this year as far as 'Death Creek' to test the limits of anomalous copper in soils along 'Gnarly Creek'. Active logging prevented longer extensions. Line 5+00N was also extended northeast toward the Cottonwood Showing. Line 6+00N covers an area containing anomalous lithochemical values and anomalous copper concentrations along 'Gnarly Creek'. Line 0+00 was extended southwest to test the extent of anomalous gold and copper in soil along this line.

Geostatistical analyses including frequency plots and cumulative frequency histograms were computer plotted for all soil geochemistry data collected by MPH for gold, copper and arsenic. This led to the depiction of the following limits for contour intervals:

	<b>Au</b> (ppb)	<b>Cu</b> (ppm)	<b>As</b> (ppm)
Strongly Anomalous	640	640	
Anomalous	160	320	184
Above Background (Threshold)	40	160	46
Sample Population	477	469	469

Gold, copper and arsenic anomalies occur over a broad zone in the 'Rap' and 'Sheet' Creeks area. They are northwest to north-northwest trending, approximately coincident with the major shear zone in Rap Creek.

The gold anomaly is centred about 4+00N extending from L2+00S to L6+00S. Averaging 150 m wide, it may be open to the east. Gold concentrations from 41 ppb to 2090 ppb occur within this zone. Smaller, weakly anomalous, northwest trending zones occur southwest of the main anomaly.

The arsenic anomaly (54 ppm to 459 ppm) occurs from L3+00S to L6+00S. It appears to follow the ridge on the north side of 'Rap Creek', averaging 40 m wide, and open to the east.

Anomalous copper (162 ppm to 587 ppm) occurs from L2+00S to L6+00S at 0+50N to 5+50N, and is open to the east.

This area is underlain by sheared and locally quartz veined rocks of the Upper Sicker Group where sulphide-rich zones in limestone and quartz veins contain anomalous gold.

North of the main anomaly, from L3+00S to L1+00N, centred at 6+00N, anomalous copper (80 to 604 ppm) forms a zone open to the west. Spot anomalies of arsenic (to 217 ppm) are locally coincident with the copper anomaly.

Isolated gold, copper and arsenic anomalies occur over Grid B extensions. The copper anomaly previously observed in 'Gnarly Creek', appears to be only 50 m wide (but open to the north), with from 187 ppm to 280 ppm Cu. A concentration of 45 ppb Au is approximately coincident with the anomalous copper. On L6+00N at 4+00E is a spot gold anomaly of 127 ppb. A small arsenic and gold anomaly occurs at L5+00N. In the 'Cal Creek' area, (at L5+00N) a 50 m wide zone containing gold (to 90 ppb Au) and arsenic (to 150 ppm As) occurs. Gold concentrations of 790 ppb and 74 ppb occur at the southern extent of L4+00N.

## 5.5 Magnetometer and VLF-EM Surveys

Total field magnetic and VLF-EM surveys were carried out over all of Grid C and the southerly extension of Line 0 of Grid B for a total of 6.625 line-km, surveyed at 25 m intervals. Mr. Kevin Lund, B.Sc., of MPH Consulting Limited supervised and interpreted the geophysics.

### 5.5.1 Magnetometer Survey

The magnetometer survey was carried out with a Geometrics G-816 proton precession magnetometer. Four narrow, west-northwest trending magnetic 'highs' of variable strike length were outlined. One of these features is coincident with VLF-EM conductor 2 in the vicinity of L5+00S through L7+00S near 3+50E. Three magnetic features located to the grid south appear open to the east (upslope).

These magnetic 'highs' may reflect local concentrations of magnetite and/or pyrrhotite. A common trend is observed between magnetometer highs and VLF-EM anomalies and regional trend.

### 5.5.2 VLF-EM Survey

The VLF-EM survey was carried out with a Sabre, model 27 receiver. This survey measures distortions caused by local changes in conductivity, of the primary field emanating from a network of military, very low frequency radio transmitters. The Sabre receiver was tuned to a transmitting station in Seattle, Washington. An azimuth of 128° to the Seattle transmitter provides adequate coupling with regional stratigraphic and structural trends.

VLF-EM data indicates ten west-northwest to northwest trending, strong to weak conductors. Continuity of the conductors is questionable in some areas. Continuous portions of conductors occur over up to 400 m of an overall 700 m length.

All ten conductors are thought to reflect bedrock responses, however a number of them could be at least partly due to overburden or topographic effects. The following includes the location and nature of the conductors.

The most significant conductors (2 and 3) are located in the vicinity of 'Rap Creek'. Conductors 2 and 3 are approximately parallel to each other and to 'Rap Creek', which they flank to the south, while conductor 1 occurs at a slightly divergent angle north of the creek. Conductors 1, 2 and 3 may reflect the shear zone and/or lithologic change.

Conductor 2 is coincident with a narrow magnetic 'high'. This combination may indicate pyrrhotite/ magnetite sulphide mineralization in a shear zone. Conductor 2 warrants further investigation by prospecting.

## **6.0 PROPOSED WORK PROGRAM**

Fill-in grid lines will be established for Grid C, for a 50 m line spacing, followed by soil sampling at 25 m intervals. Magnetometer, VLF-EM surveys and geologic mapping and rock sampling will be conducted along these new lines.

Detailed mapping, prospecting and rock sampling will be carried out along the west slope of Mount Landale to trace out the limestone exposed in 'Rap' and 'Sheet' Creeks.

A preliminary IP survey will be conducted along lines 5+00S, 6+00S, and 7+00S, to confirm VLF-EM conductors 1, 2, and 3; and along L3+00S, to test the strike projection of these conductors. Contingent upon favorable results, further IP coverage of Grid C will follow.

Trenching will be undertaken in the area of the main gold, copper and arsenic anomaly near Rap Creek after prospecting.

Prospecting and mapping in the Mount Service area, will delineate the contact between the Sicker Group and Karmutsen Formation and explore the airphoto lineament which may be related to the auriferous shear of the El Capitan Showing.

Detailed geologic mapping, prospecting and rock sampling in the central property area will be undertaken, as this area was unsafe during 1988, due to active

logging. Contingent upon favorable results, soil geochemistry and geophysical surveys may be warranted.

Geologic mapping, prospecting and rock sampling on the west slope of El Capitan Mountain and in 'Cal Creek' may extend the Cottonwood shear zone.

The above program is recommended in two phases. Phase I, to consist of geologic mapping, rock sampling, soil sampling, trenching, and geophysical surveys (VLF-EM and IP) at an estimated cost of \$125,000; Phase II, diamond drilling, contingent upon favourable Phase I results, at an estimated cost of \$250,000.

### 6.1 Phase I

#### Fieldwork:

Personnel	\$45,075	
Food and Accommodation	8,855	
Equipment Rental	11,000	
Analyses	14,791	
Helicopter	3,000	
Transportation, Communications, Supplies	2,750	
Administration @ 15%	<u>3,081</u>	
		\$88,552
Contingency @ 15%		<u>13,283</u>
		\$101,835
Consulting		6,784
Report		<u>16,420</u>
	Estimated Phase I cost, say	<u><u>\$125,000</u></u>

### Phase II

#### Fieldwork:

Personnel	\$ 31,500	
Food and Accommodation	6,545	
Equipment Rental	7,560	
Helicopter	13,750	
Analyses	5,938	
Transportation, Communications, Supplies	5,480	
Drilling and site preparation	105,000	
Administration @ 15%	<u>19,525</u>	
		\$195,298
Contingency @ 15%		<u>29,295</u>
		\$224,593
Consulting		8,855
Report		<u>16,543</u>
	Estimated Phase II cost, say	<u><u>\$250,000</u></u>

### 6.2 Schedule

Phase I is estimated to require six weeks to complete, followed by eight weeks for the Phase II diamond drill program.

## 7.0 CONCLUSIONS

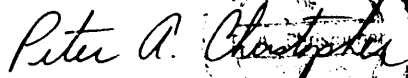
1. The El Capitan property is underlain by Paleozoic Upper Sicker Group rocks comprising bedded volcanoclastic and tuffaceous rocks of the Myra Formation interbedded with cherty sediments and minor limestone of the Buttle Lake Formation. These have undergone at least one phase of folding. Triassic Vancouver Group Karmutsen Formation basalts unconformably overlies rocks of the Sicker Group. Diorite to quartz diorite of Jurassic Island Intrusions occurs in the southwest Spaniard claim and may be near surface El Capitan Showing. Tertiary(?), feldspar and hornblende porphyritic dykes, plugs and sills occur locally.
2. Disseminated and fracture-fill pyrite and pyrrhotite, are contained in most rock types. Gold occurs with copper and arsenic in quartz veins and shear zones.
3. Structural trends in the area of 'Rap Creek' occur in northwesterly and west-northwesterly directions. Quartz veins and shear zones oriented northwest appear to contain higher gold concentrations than those oriented west-northwest.
4. A limestone bed in 'Rap Creek' contains several undulatory sulphide-rich horizons, varying from 2-25 cm in width. These horizons contain up to 75% pyrite, pyrrhotite and arsenopyrite.
5. Alteration includes silicification, carbonate, iron carbonate, chlorite, minor sericite and epidote.
6. Anomalous gold appears to occur more frequently nearer the Sicker/Karmutsen contact.
7. The El Capitan Showing which cuts basalts of the Karmutsen Formation has yielded up to 61.23 g/t Au, 57.4 ppm Ag, 80,345 ppm Cu and anomalous bismuth, nickel, arsenic and cobalt in samples collected from Adit 1 in 1988.
8. Quartz veins in the area contain 10-15% chalcopyrite. Samples contained up to 240 ppb Au, 19.3 ppm Ag, 75,214 ppm Cu, 1006 ppm Pb and 303 ppm Bi. These veins may be what is commonly referred to as the Paint Pot showing.
9. Samples from shears and quartz veins in the Cottonwood Showing area are anomalous in gold, copper, arsenic, cobalt and nickel as well as bismuth.
10. Grab samples collected from outcrop during reconnaissance-style creek traverses, have uncovered significant gold concentrations in shear zones along 'Stykes', 'Gnarly' and 'Loon' and 'Lomas' Creeks.
11. A north-northwest trending coincident gold, arsenic and copper in soil anomaly occurs in the Grid C area over about 400 m, centred at approximately L4+00N. Concentrations of up to 2090 ppb Au, 587 ppm Cu and 459 ppm As were yielded from this area.
12. The magnetometer survey over Grid C outlined four narrow, similar magnetic features which trend west to northwest, one of which is coincident with the VLF-EM conductor.
13. The VLF-EM survey outlined ten weak to strong conductors trending west-northwest to northwest. Continuous portions of the conductors range up to 400 m in length. The most significant conductors occur in the Rap Creek area.

### 8.0 RECOMMENDATIONS

Based on encouraging results from exploration conducted on the property during this and previous years, it is recommended that:

1. Geologic mapping and prospecting in the central property be carried out where active logging prevented doing so this year.
2. A possible projection of the Cottonwood shear zone to the west, outlined by anomalous gold in soil and rock be examined.
3. Follow-up by prospecting in areas of anomalous silt samples on the east side of Mount Landale, and the area west of 'Cal Creek' where Silt 14 contained anomalous gold, be undertaken.
4. Geologic mapping and prospecting be conducted on the west slope of Mount Service to outline the Sicker/Karmutsen contact and to explore an airphoto lineament.
5. The strike projection of the sulphide-rich limestone interval be followed along 'Rap Creek', 'Sheet Creek' and 'Lomas Creek', while sampling structures which crosscut it.
6. The airphoto lineament which extends from the west end of Lomas Lake be explored.
7. Follow-up be undertaken in the 'Rap' and 'Sheet' Creek areas, where a broad zone of coincident anomalous gold (to 2090 ppb), copper (to 587 ppm) and arsenic (to 459 ppm) occurs centred at approximately line 4+00N.
8. An IP survey be conducted on Grid C over lines 5, 6 and 7 where three strong conductors were indicated. If effective, then additional IP coverage may be warranted over the remainder of the grid.
9. Fill in grid lines be added to Grid C, providing 50 m line spacing. Soil sampling, magnetometer and VLF-EM surveys, and detailed geologic mapping be carried out over these lines.
10. Trenching be undertaken to expose and examine soil geochemical and geophysical anomalies in the Grid C area.

Respectfully submitted  
PETER CHRISTOPHER & ASSOCIATES INC.



Peter A. Christopher, PhD, PEng.

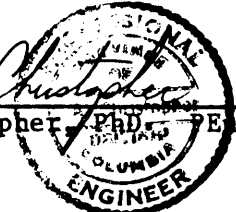
Vancouver, B.C.  
November 28, 1988

**CERTIFICATE**

I, Peter A. Christopher, with business address at 3707 West 34th Avenue, Vancouver, British Columbia, do hereby certify that:

1. I am a consulting geological engineer registered with the Association of Professional Engineers of British Columbia since 1976.
2. I am a Fellow of the Geological Association of Canada and a member of the Society of Economic Geologists.
3. I hold a B.Sc. (1966) from the State University of New York at Fredonia, a M.A. (1968) from Dartmouth College and a Ph.D. (1973) from the University of British Columbia.
4. I have been practising my profession as a Geologist for over 21 years.
5. I have no direct or indirect interest, nor do I expect to receive any interest directly or indirectly in the property or securities of Omega Gold Corporation.
6. I have based this report on field examinations conducted by me on October 16th and 25th, 1985, a review of government and company reports on the property and results of geochemical, prospecting, and geological programs conducted for Dayton Developments Corp. between October 15th and 26th, 1985, and from October 8 to October 19, 1986. A property examination on October 24, 1988 included resampling in the area of 'Rap Creek' to confirm anomalous gold results.
7. I consent to the use of this report by Omega Gold Corporation in any Filing Statement, Statement of Material Facts, Prospectus or assessment report issued by the company.

November 28, 1988

*Peter A. Christopher*  
 Peter A. Christopher, Ph.D., P.Eng.  


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