1988 YUKON MINING AND EXPLORATION OVERVIEW



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MINERAL RESOURCES DIRECTORATE NORTHERN AFFAIRS PROGRAM, YUKON DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

November, 1988

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1988 YUKON MINING AND EXPLORATION OVERVIEW

YUKON EXPLORATION AND GEOLOGICAL SERVICES DIVISION NORTHERN AFFAIRS PROGRAM, YUKON DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

LODE MINING AND DEVELOPMENT

With higher base metal prices and dropping precious metal prices, Yukon mines experienced a year of mixed results. Curragh Resources Inc. mined zinc, lead and silver from the FARO open pit and United Keno Hill Mines Ltd mined high grade silver and lead veins underground at KENO HILL. Mount Skukum Gold Mining Corp. mined gold-bearing quartz veins underground at MT SKUKUM and Canamax Resources Inc./Pacific Trans-Ocean Resources Ltd mined gold from the KETZA RIVER underground oxide deposit. Smaller operations were also actively Corporation and Nadahini Coal Whitehorse Coal mining in the Yukon. Corporation mined coal from the WHITEHORSE COAL and WHISKEY LAKE mines. Anoorag Resources Ltd mined rhodonite from the MARLIN (Evelynn Creek) Inc./Skukum Gold Inc. continued underground Resources Omni property. exploration and conducted a test mining program on the SKUKUM CREEK property. Silver Hart Mines Ltd conducted a feasibility study on the CMC property near Rancheria.

FARO Zinc-Lead (-Silver) Mine

Curragh Resources Inc. benefited from higher zinc prices which were up 35% to over \$1.20/Kg. Production from the FARO deposit to September 30, 1988 was 3.1 million tonnes of ore containing 89.6 million Kg lead, 108 million Kg zinc and 86.1 million grams of silver. A strike which began on June 10, 1988 ended 27 days later when the Steelworkers Union signed a contract designed to last for two and one half years. Production for the months of June and July was down by 50% but is not expected to be down for the year overall. Forty-five percent of the lead and zinc concentrate is exported to Europe, 45% is exported to the Far East and 10% is exported to Australia. The mine employs 470 people (not including contractors) after the hiring of 60 new employees in August, 1988. In 1991, production from the FARO orebody will switch from an open pit to an underground operation, the remaining reserves lasting until 1993. At the start of 1988 open pit reserves were 17.5 million tonnes grading 3.04% lead, 4.77% zinc and 38 g/t silver. Underground reserves were 2 million tonnes grading 4.59% lead, 7.0% zinc and 61 g/t silver.

Exploration and development continues on the GRUM, VANGORDA and DY deposits on the Vangorda Plateau. The main stripping on the VANGORDA and GRUM deposits will begin in 1989. A borrow pit is currently being excavated on the GRUM open pit site for road construction. VANGORDA, scheduled for production in 1992, contains approximately 7.5 million tonnes of 3.8% lead, 4.9% zinc, 54 g/t silver and 0.8 g/t gold, of which about 6 million tonnes is mineable by open pit. Current work on the VANGORDA deposit includes geotechnical and reserve definition drilling. GRUM, with geological reserves of about 30.6 million tonnes grading 3.4% lead, 5.8% zinc, 57 g/t silver and 1.0 g/t gold, is slated for production in 1993. Approximately 24 million tonnes of the GRUM deposit is mineable by open pit. The DY deposit has reserves of 21 million

later dissolved with acid. Smelting takes place in an onsite furnace and a dore bar is then poured. Oxide reserves from the PEEL, RIDGE and BREAK ZONES are 390 000 tonnes grading 15.3 g/t gold. Sulphide reserves are 390 000 tonnes grading 8.6 g/t gold. Diamond drilling totalling 757 metres on the surface and 439 metres underground was completed. Vertical development totalling 330 metres and inclined development totalling 1376 metres were completed in the mine which now has total of 3600 metres of lateral development. Canamax Resources Inc. and Pacific Trans-Ocean Resources Ltd estimate that the mine will be producing 1 860 000 grams of gold per year by 1989, and processing of sulphide ore may begin by 1991. Initial operating costs are \$365 Canadian but are expected to drop to \$275 Canadian within a year. A total of 100 people are presently employed at the mine.

SKUKUM CREEK Gold Property

Omni Resources Inc./Skukum Gold Inc. continued development of the SKUKUM CREEK Property in the Wheaton River valley. Over 6000 metres of diamond drilling was conducted on the surface and underground. Drifting continued on the RAINBOW and KUHN ZONES and a new adit was collared at the 1350 level. Along a subdrift of the 1350 level in the KUHN ZONE a newly discovered high grade zone averaged 29.3 g/t gold and 198 g/t silver over 36 metres. In the RAINBOW ZONE, test mining was conducted and 3200 tonnes of ore were processed. Dilution was estimated to be 10%, and the ore grade was 18% higher than indicated by drilling. Tonnage was 21% higher than drilling had indicated and 90% of the gold and silver was recovered using a cyanide-flotation process. Drill-proven reserves currently stand at 745 000 tonnes grading 7.7 g/t gold and 307 g/t silver with an additional 119 000 tonnes grading 8.95 g/t gold and 170 g/t silver.

WHISKEY LAKE Coal Mine

Nadahini Mining Corporation at Ross River produced an estimated 10 000 tonnes of bituminous coal from the WHISKEY LAKE deposit to feed the concentrate drier at the Faro mill. Over 15 240 m of reverse circulation drilling was performed by September 30, 1988 in order to prove reserves for next season.

WHITEHORSE COAL Coal Mine

Whitehorse Coal Mining Corporation mined approximately 2721 tonnes of coal from the WHITEHORSE COAL (Mt Granger) property. Thirty-six tonnes of coal were sold to Yukon College for use in their furnaces.

MARLIN (EVELYNN CREEK) Rhodonite Mine

Anooraq Resources Ltd continued to mine rhodonite from the MARLIN property near Evelynn Creek. Last year 20 tonnes were mined and shipped to customers to the south. Rhodonite is a manganese silicate valued as a decorative stone.

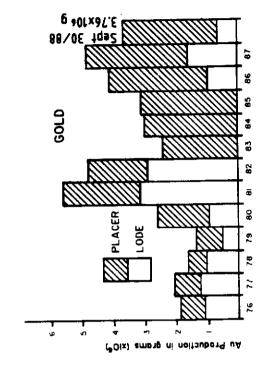
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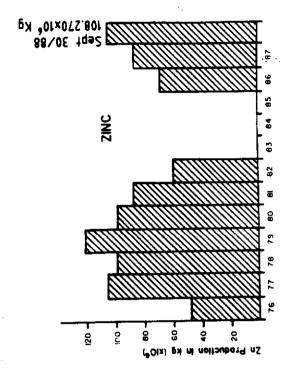
Mine	Operator	Producti to Sept : Tonnes	0/88	Commod	ity	Drilling Metres	Underground Development Metres
United Keno Hill Mines	United Keno Hill Mines Ltd	68 989	25	33 852 K 53 390 K 56 610		951 RS 875 RPU 580 DU	429 HORIZ 434 VERT
Faro Mine	Curragh Resources Inc.	3 069 896	108 01	74 361 K 17 513 K 95 000		1 613 DS	·.
Vangorda Property	Curragh Resources Inc.				Pb Zn Ag	2 965 DS	
Grum Property	Curragh Resources Inc.				Pb Zn Ag	640 DS	
Ketza River Mine	Canamax Resources Inc.	62 122	41	12 831 7 465	g Au g Ag	757 DS 439 DU	330 VERT 1 376 INCL
Mt Skukum Mine	Mt Skukum Gold Mining Corp.	28 597	18	87 834	g Au	1 642 DU	101 HORIZ
Whitehorse Coal Mine	Whitehorse Coal Corp.	2 721			Coal		
Whiskey Lake Mine	Nadahini Mining Corp.	10 000			Coal	15 240 RS	

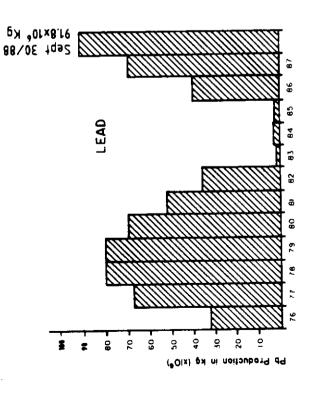
U-Underground S-Surface R-Rotary Drilling RP-Rotary Percussion Drilling D-Diamond Drilling HORIZ- Horizontal Development VERT- Vertical Development INCL- Inclined Development

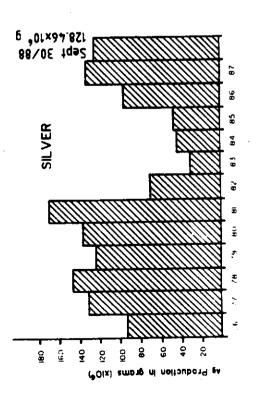
^{*} Total expected millfeed for the FARO mine in 1988 is 4.4 million tonnes of comparable grade

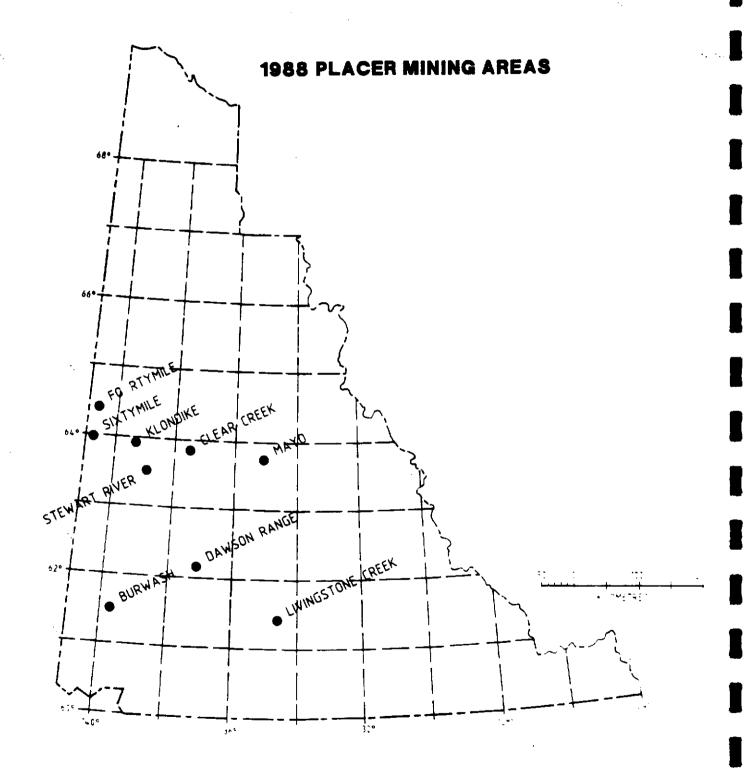
YUKON METAL PRODUCTION











PLACER MINING

The placer industry again was a major contributor to the Yukon economy in 1988. Gold presented for royalty payment to 15 November amounted to 4744 kg (152 555 crude oz) with a value of approximately \$CAN 65 000 000. The last time that this weight of gold was exceeded was in 1917 when 13 dredges and several large-scale hydraulic operations were active. This year's record production is probably a function of larger earth-moving equipment, better recovery plants and the declaration of gold mined in previous years. There were approximately 210 operations with a total work force of between 600 and 700 people. As usual, the bulk of the production was from unglaciated areas: Klondike, Indian, Sixtymile and Lower Stewart River drainages.

Staking activity was comparable to 1987: 2336 claims and 280 one to five mile (1.6 to 8 km) leases were staked. Total placer dispositions at 1 November were 17 227 claims and 466 leases, or about 2500 miles (4023 km) of potential placer ground.

Gold City Resources Ltd is one of the major producers in the Indian River area, which saw greatly increased production in 1988. The Gold City operation has three active open pits: Quartz, McKinnon and Ruby. Production is estimated at 25-50 sluice-run ounces (709-1417 g) per day from each of the pits. The gravels are processed through 3 large sluice boxes and three large pumps capable of handling 6000-8000 gallons (27 276-36 368 l) per minute. Operating costs are estimated at \$325/oz (\$11.46/g).

Rise Resources Ltd reported September production from its Indian River property averaged 75 to 100 fine oz (2126 to 2835 g) of sluice-run gold per 22 hour shift, a substantial increase over 1987. A major stripping program was undertaken in October and November in preparation for the 1989 season.

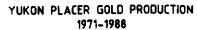
Queenstake Resources Ltd installed a new trommel-screen sluice plant at Maisy Mae Creek in July, 1988, and began developing a new area downstream with an estimated four years of potential reserves. Initial 1988 production (to June 30) was 552 fine oz (15 649 g) from Maisy Mae Creek and 288 fine oz (8165 g) from Black Hills Creek.

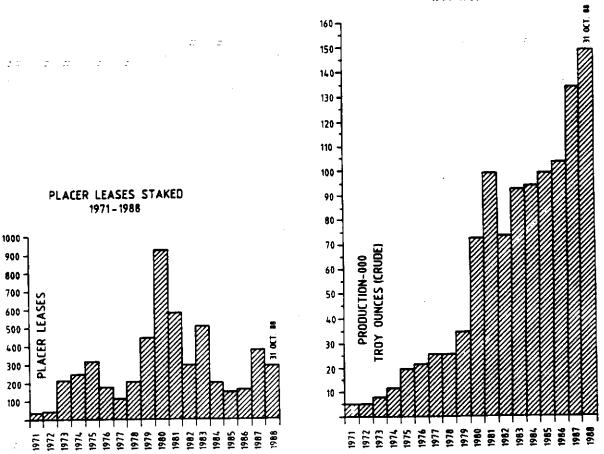
Lode Resources Corporation trenched and sampled gold-bearing gravels on Matson Creek. Mineable reserves were indicated on the right limit of the creek and large potential reserves were identified on the upper reaches. Dump samples from the 1988 testing had a weighted average gold content of 0.03 oz/yd 3 (1171.9 mg/m 3). Up to 40 000 oz (30 288 cubic metres) of unfrozen pay gravels were outlined.

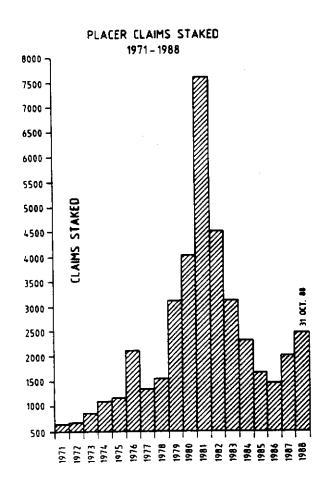
Grandex Resources Ltd reported production to June 15 of 900 oz (25514 g) raw gold from their Swede Creek property near Mayo.

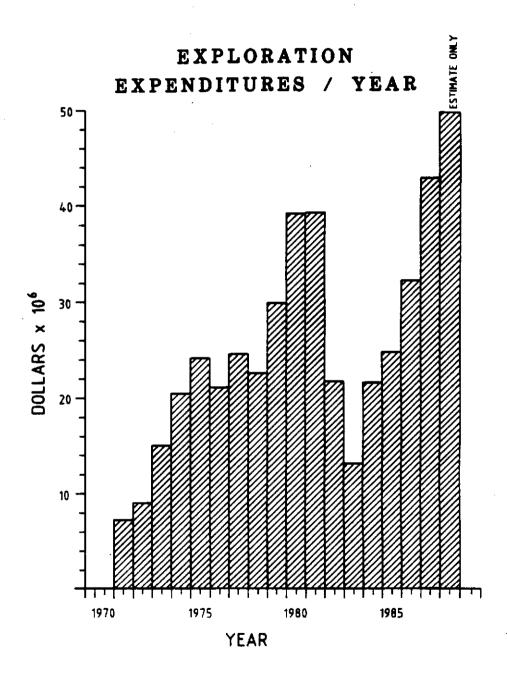
Granges Exploration Ltd mined on their LEE property on 60 Mile Creek in 1988, and expected to produce 2000-3000 oz (56 699-85 049 g) gold during the season.

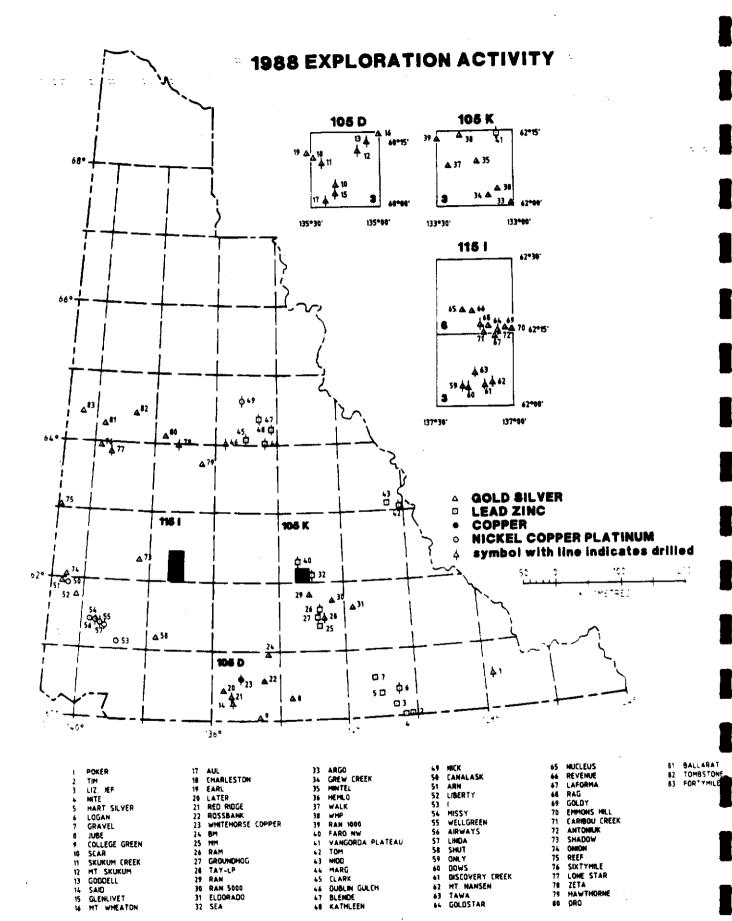
Berglynn Resources Ltd voluntarily suspended their application for a water licence to mine the Lousetown area near Dawson to allow intervenors a chance to appear before a public hearing. However, a \$50 000 drilling program was carried out on the property.











SIXTYMILE LONE STAR ZETA HAWTHORNE DRO

DISCOVERY CREEK HT. NANSEN TAWA

62 HT NANSE 63 TAWA 64 GOLDSTAR

ROSSBANK
WHITEHORSE COPPER
BM
HM
RAM
GROUNDHOG
TAY-LP
RAN
DAN SADD

27 HAN 30 RAN 5000 31 ELDORADO 32 SEA

LOGAH GRAVEL

JUBE COLLEGE GREEN SCAR SKUKUM CREEK HT SKUKUM

MT SKURUM GOBOELL SAID GLENLIVET MT WHEATON

JUBE

- EXPLORATION ACTIVITY

Mineral exploration in Yukon continued at a high level in 1988. Interest in gold, silver and platinum group elements remained high, while copper, zinc and nickel aroused new interest due to their current relatively high prices. Much of the exploration was directed toward properties which have reached the pre-feasibility or feasibility stage. More than 30 drill programs were reported, ten of these on properties with significant proven reserves.

NASH CREEK AREA

Recent finds in the Nash Creek area attracted considerable attention and highlight the 1988 exploration season in Yukon. Drilling on NDU Resources Ltd's MARG volcanogenic massive sulphide deposit outlined 2 282 300 tonnes of drill-indicated and probable reserves grading 2.0% Cu, 2.6% Pb, 5.1% Zn, 65.1 g/t Ag and 1.03 g/t Au. On NDU's BLENDE property, fault-controlled breccia zones in dolomite contain sphalerite and galena. The best of three holes intersected 86.3 m grading 9.1% combined Pb-Zn and 106.3 g/t Ag. On the NICK property, a highly unusual shale-hosted SEDEX-type nickel-platinum deposit was investigated by Archer, Cathro & Associates (1981) Ltd for NDU and Pak-Man Resources Ltd.

WHITEHORSE AREA

In the Whitehorse area, Omni Resources Inc. discovered a high-grade ore shoot which averaged 29.3 g/t Au and 197.8 g/t Ag along 36.6 m of the new 1350 m level drift on the SKUKUM CREEK gold-silver property which is expected to begin production in the near future. The gold and silver occur in mesothermal quartz veins and quartz-sulphide breccia associated with rhyolite and andesite dykes along major fault zones in Cretaceous quartz monzonite. A number of other epithermal and mesothermal gold targets are under exploration in the surrounding area. Deep drilling on Omni's GODDELL property intersected two gold-bearing zones associated with a hydrothermally-altered andesite dyke Two new high-grade gold-silver veins were discovered by Adastral Resources Ltd on the AUL property near Bennett Lake, with chip samples assaying up to 11 663 g/t Ag and 0.89 g/t Au across 1.6 m and float samples grading up to 31.9 g/t Au and 21 977 g/t Ag. Trenching by New Era Developments Ltd on the RED RIDGE property also yielded excellent results. At the EAST ZONE, high-grade material averaged 947.3 g/t Ag over a width of 0.68 m and a strike length of 20 m, with individual samples ranging as high as 27 790 g/t Ag and 11.6 g/t Au. Following the mid-year shutdown of its MT SKUKUM mine, Mt Skukum Gold Mining Corp. returned to exploration and recently discovered a new structure, the TANGO vein, which is at least 350 m long and varies from 10 to 40 m wide. Samples from the vein have not yet been assayed. On the ROSSBANK property at Marsh Lake, B. Cofer excavated gold and silver-bearing quartz stringers associated with quartz-carbonate-mariposite alteration along a major lineament. These and other showings along the same trend resemble those in the Atlin District of northern British Columbia and the Mother Lode district of California.

RUBY RANGE

Gold-bearing quartz-carbonate veins in schist have recently been found near Killermun Lake. In 1988 Archer, Cathro explored the SHUT property for Pezgold Resources Ltd under an option agreement with Silverquest Resources Ltd and

Dalbianco Syndicate. Chip samples grading up to 30 g/t Au over 0.37 m were taken from hand trenches in the EAST zone and float samples assaying up to 126.9 g/t Au occur along a 1.5 km geochemical anomaly in the WEST zone.

DAWSON RANGE

Mesothermal to epithermal gold and silver-bearing veins and breccia zones with associated large alteration haloes in the Mt Freegold and Mt Nansen areas are deeply oxidized and make attractive heap leach targets. In the Mt Freegold area almost 8 million tonnes of low-grade oxide material averaging about 1 g/t Au are divided between the ANTONIUK and NUCLEUS deposits which are operated by Archer, Cathro for Big Creek Joint Venture and Chevron Resources Ltd. Rotary drilling on these properties in 1988 outlined areas of higher grade material suitable for a trial heap-leach operation. Other Mt Freegold area drill programs including Rea Gold Corporation's RAG and GOLDY, Noranda Exploration Co. Ltd's EMMONS HILL and Doron Explorations Inc.'s CARIBOU CREEK all reported good results. On the CARIBOU CREEK property, one hole intersected 173.8 g/t Au and 78.9 g/t Ag over 1.2 m. Assays have not yet been published for the remaining 11 holes but all are reported to contain visible gold in chalcedonic quartz stringers. In the Mt Nansen area, BYG Natural Resources Inc. intersected thick sections of massive sulphide ore below oxides in the BROWN-MCDADE deposit. Total reserves on the MT NANSEN property including the WEBBER and HUESTIS zones are estimated at almost half a million tonnes of 13.4 g/t Au and 198.9 g/t Ag. All three zones are open along strike and to depth. Noranda, Aurchem Exploration Ltd and Kerr Addison Mines Ltd explored other promising discoveries nearby.

KLUANE RANGES

Nickel, copper and platinum group elements are hosted by differentiated mafic-ultramafic sills which intrude Permo-Pennsylvanian sedimentary and volcanic rocks in southwest Yukon. Archer, Cathro operated the All-North Resources Ltd WELLGREEN project where an extensive surface and underground drill program increased reserves to 18 200 000 tonnes grading 0.67% Cu, 0.36% Ni, 0.89 g/t Pt and 0.45 g/t Pd plus significant amounts of other platinum group elements, gold, silver and cobalt. Drilling and trenching on the adjoining ARCH and LINDA properties encountered disseminated mineralization comparable to that at WELLGREEN, and one LINDA drillhole assayed 3.51% Ni, 1.66% Cu, 2.74 g/t Pt, 7.13 g/t Pd and 3.04 g/t of other platinum group elements across 1.2 m. Several other companies including Nathan Minerals Ltd, Lodestar Explorations Ltd, Harjay Exploration Ltd and Polestar Exploration Inc. explored similar targets.

TINTINA TRENCH

Following a small staking rush in late 1987, several properties along the Tintina Trench were explored this summer by a number of players including Prime Explorations Ltd, Welcome North Mines Ltd and Noranda. Grew Creek-type epithermal gold deposits associated with Tertiary rhyolite form the main target. Outcrop along the floor of the Tintina Trench is almost non-existent and explorationists used airborne geophysical surveys and Landsat image analysis to identify major faults and areas of rhyolite subcrop. On the GREW CREEK property itself, Golden Nevada Resources Ltd and Noranda drill-tested the main zone over a strike length of 550 m and a depth of 175 m.

KETZA-SEAGULL DISTRICT

Gold and silver-bearing mantos and veins are related to buried Cretaceous intrusions in the Ketza and Seagull uplifts. Canamax Resources Inc.'s KETZA RIVER gold mine began production early this year. On the GROUNDHOG property, Yukon Minerals Corporation started an adit to explore the No. 2 and 3 veins underground. Reserves of 273 000 tonnes grading 7.5% combined Pb-Zn, 137.1 g/t Ag, 1.37 g/t Au and 500 g/t Cd are estimated in these two zones. On Fairfield Minerals Ltd's RAM property, Cordilleran Engineering Ltd drill-tested five areas with 31 drillholes. On Cominco Ltd's TAY-LP property, Comox Resources Ltd began drilling several large arsenic anomalies which may represent the strike extension of a known gold-bearing quartz-pyrrhotite vein system.

RANCHERIA DISTRICT

Silver-bearing veins and mantos are widespread in the Rancheria area. major properties in the advanced stage of exploration are the Fairfield/Total Energold Corporation LOGAN zinc-silver deposit and the Silver Hart Mines Ltd HART SILVER project. Reserves on the LOGAN property are estimated at 6.8 million tonnes grading 7.24% Zn and 25.7 g/t Ag. Deep drilling by Cordilleran on the steeply-dipping LOGAN MAIN ZONE intersected significant mineralization in 4 of 5 drillholes including 23 m of 10.08% Zn. The HART SILVER property is at the post-feasibility stage and no exploration was done this summer, but a \$10 million deal was signed with Morgan-Gundy to put the property in production. Cordilleran reported the discovery of a 30 x 400 m oxide zone on the Chevron Minerals Ltd/Fairfield TIM property. A selected chip sample averaged 352.4 g/t Ag and 9.12% Pb over 4 m, while individual grab samples ran as high as 1248.3 g/t Ag and 49.4% Pb. Pak-Man Resources Ltd and 2001 Resource Industries Ltd drilled the nearby LIZ and JEF properties and determined that both structures are continuous to depth. The NITE and GRAVEL properties, both operated by Archer, Cathro for Big Creek Resources Ltd, are still in the early stages of exploration but both properties show evidence that similarly mineralized veins are present. Manganese-stained vein material from the GRAVEL property contained up to 3770 g/t Ag and 1% Pb.

KENO HILL DISTRICT

High-grade silver and gold veins are associated with mid-Cretaceous stocks. At Elsa, United Keno Hill Mines Ltd drilled 277 rotary holes to explore ten separate areas for new high-grade silver-lead ore shoots, and 298 m of exploration drifting was done from the BELLEKENO adit. West of the KENO HILL district, Arctex Engineering Services Ltd explored the HAWTHORNE property for R. Riepe. Samples of quartz veins adjacent to the SCHEELITE DOME tungsten-gold skarn returned values as high as 63.4 g/t Au and 674.7 g/t Ag. Twenty-one chip samples along a 118 m long vein averaged 1.06 g/t Au across 1.28 m. Similar veins occur on the Queenstake Resources Ltd DUBLIN GULCH property, where Can Pro Development Ltd drilled five of the more promising ones and discovered a new vein which assayed 41.1 g/t Au over 1 m.

MACMILLAN PASS AREA

Interest in the MacMillan Pass area revived in 1988 with Cominco's option of the TOM property, a 9 283 700 tonne shale-hosted lead-zinc-silver deposit grading 6.19% Pb, 7.49% In and 69.4 g/t Ag. Three of four deep holes drilled into the downdip extension of the WEST ZONE penetrated lead-zinc-silver-barite mineralization.

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1988 EXPLORATION ACTIVITY IN YUKON

1. PORKER (HYLAND GOLD)
(PIGLET, QUIVER, BOAR & SOW claims)

95 D 12
Archer, Cathro & Associates (1981) Ltd for Silverquest Resources Ltd, NDU Resources Ltd and Adrian Resources Ltd

Gold occurs in quartz-calcite veins, breccia and graphitic shear zones cutting weakly metamorphosed limestone, phyllite and quartzite. The mineralized zones appear to be controlled by large north-trending faults. The common vein minerals include arsenopyrite, pyrite, scorodite, calcite and siderite. Jamesonite and chalcopyrite are also present.

In 1988 work on the property included comprehensive VLF-EM and IP surveys, more than 4 km of bulldozer trenching, detailed soil and rock geochemistry, four diamond drillholes totalling 376 m and 6.6 km of new

roads.

The trenching exposed zones of oxide mineralization assaying up to 6.6 g/t Au across 20 m. Core recovery was poor and the drill results were

inconclusive.

2. TIM
105 B 1
Cordilleran Engineering Ltd for Chevron Minerals Ltd, option from Fairfield Minerals Ltd

Silver-lead-zinc replacement-type mineralization comparable to the nearby MIDWAY deposit occurs along a limestone-phyllite contact in Lower Cambrian sedimentary rocks. The mineralization is hosted by manganese and iron oxides.

Work in 1988 included soil sampling, mapping, an IP survey,

construction of an access road and 18 trenches totalling 2712 m.

The 1988 trenching uncovered an oxide zone up to 30 m wide with a strike length of at least 400 m. Selected results from this zone include a 4.0 m chip sample averaging 352.4 g/t Ag and 9.12% Pb, and grab samples containing 1248.3 g/t Ag, 49.5% Pb and 978.8 g/t Ag, 32.0% Pb respectively. Two other oxide zones were found on the property. These zones are 2 and 5 m wide but the length of each is still unknown.

3. LIZ, JEF
(LIZ, JEF, MUT, TIN, HUNTER claims)
105 B 2
Pak-Man Resources, 2001 Resource Industries Ltd, option from D.
Schellenberg and H. Hibbing

At the LIZ showing, argentiferous galena occurs in a northeast-trending shear zone which cuts Lower Cambrian marble along its contact with Cretaceous granodiorite. The JEF showing lies approximately 1.5 km to the northeast, where up to 8 g/t Ag occurs in oxidized material along a fault which strikes 1680 and dips steeply east.

Work in 1988 consisted of soil geochemistry, magnetometer and VLF-EM surveys and detailed mapping over both showings. Eleven NQ holes totalling 743 m were drilled on the LIZ showing and 4 holes totalling 205 m were

drilled on the JEF. Drilling indicated both structures are continuous to depth, and oxidized to a depth of 127 m below surface.

4. NITE 105 B 7 Archer, Cathro & Associates (1981) Ltd for Big Creek Resources Ltd

Argentiferous galena and minor gold occur along a northeast-trending fault where it cuts Cretaceous granodiorite of the Cassiar batholith.

In 1988, soil sampling was done over a 1 \times 1.5 km grid and a manganese

gossan was hand trenched.

Significant Pb-Ag anomalies indicate the presence of several mineralized zones.

5. HART SILVER (MIDNIGHT) (CMC, CAR, SAB, BEA, SH claims) 105 B 7 Silver Hart Mines Ltd

Freibergite and argentiferous galena occur in northeast-trending vein crosscutting granodiorite and Paleozoic sedimentary rocks. Hydrothermal reaplcements of marble horizons are also mineralized. veins are generally surrounded by 3-4.5 m of clay alteration.

Following a feasibility study in early 1988, a \$10 million deal was signed with Morgan-Gundy to put the property into production. No further

work was done on the property pending finalization of the deal.

6. LOGAN 105 B 7-10 Cordilleran Engineering Ltd for Fairfield Minerals Ltd and Total Energold Corporation

A stockwork-vein zinc-silver deposit occurs in a northeast-trending fault zone 8000 m long which cuts granitic rocks of the Cassiar batholith. The MAIN ZONE deposit, drill-tested to a vertical depth of 275 m, is contained in a tabular fault-bounded body 50 to 100 m wide by 1100 m long which dips 700 to the northwest. Quartz veins, stockworks, breccia bodies and silicified zones in highly altered granodiorite or andesite dykes amounts of pyrite, smaller sphalerite and tetrahedrite, cassiterite, pyrrhotite and galena. Preliminary geological contain reserves are 6.8 million tonnes grading 7.24% Zn and 25.7 g/t Ag.

A high-grade core zone within the orebody grades 14.4% Zn and 67.2 g/t Ag. Exploration in 1988 consisted of Zn-Ag-Sn soil sampling in the WEST zone, and 25 km of IP surveying, 15 excavator trenches totalling 2412 m,

and 44 NQ diamond drill holes totalling 6771.44 m on the MAIN zone.

No significant results were obtained from the EAST and WEST zones, but good results were obtained from deep drilling and trenching of the MAIN Down-dip testing of the MAIN zone intersected significant mineralization in 4 of 5 drillholes, such as 23 m of 10.08% Zn intersected by hole #100. Trenching returned better than expected silver values over the deposit, such as 5.0 m of 347.3 g/t Ag in Trench 804.

7. GRAVEL (GRA, SHA, REV claims) Archer, Cathro & Associates (1981) Ltd for Big Creek Resources Ltd

Manganese-stained vein material containing galena and grading up to 3770 g/t Ag and 1% Pb occurs along east-trending fault systems cutting Lower Cambrian carbonate rocks and muscovite schist intruded by Mid-Cretaceous quartz monzonite and younger quartz-porphyry dykes and sills.

Hand trenching and geochemical surveys were carried out in 1988 over

the central part of the property.

Silver and lead anomalies outlined the known mineralized zones and indicated several other areas of interest.

8. JUBE (JUBE, TOP, TOG claims) 105 C 5 Dunvegan Exploration Ltd

Gold occurs with galena and chalcopyrite in quartz veins associated with quartz-carbonate-mariposite alteration along the contact between peridotite and volcanic rocks of the Permo-Triassic Cache Creek Group. The initial vein was 3 m thick, exposed in five blast pits over a strike length of 76 m. It contained disseminated galena, chalcopyrite, malachite and azurite and appeared to abruptly change direction from a 1400 to a 0930 trend. Grab samples from this vein returned values as high as 22.4 q/t Au.

Blast trenching and bulldozer trenching in November, 1988 exposed a new galena-bearing vein 3 m thick. The vein strikes 130° and dips 50° NE and is enveloped by graphitic silicified wallrock and massive talc alteration. Vuggy cavities and minor chalcedonic banding in the vein suggest a high-level epithermal system. Two specimens of oxide material containing quartz, malachite, azurite and 1-2 mm flecks of visible gold were turned up by the blast but similar material has not yet been seen in place. No assays are yet available.

9. COLLEGE GREEN (AFI claims) 105 D 2 Omni Resources Inc.

Rhyolite and porphyritic andesite dykes intrude Mesozoic sedimentary and volcanic rocks.

In 1988 the access road was upgraded and limited bulldozer trenching was done in anomalous areas. Rock samples returned anomalous gold and silver values.

10. SCAR 105 D 3 Omni Resources Inc., Noranda Exploration Co. Joint Venture

Three major geochemically-anomalous shear zones occur in granitic rock

cut by a plug of rusty-weathering rhyolite.

A single diamond drill hole more than 300 m long was drilled in 1988 to test one of the shear zones. No significant mineralized intersections were found.

11. SKUKUM CREEK (MT REID)
(WH, ERN, KIR, TEX, OMNI, TREE FR.)
105 D 3
Omni Resources Inc., Skukum Gold Inc. Joint Venture

Mesothermal gold and silver-bearing veins of quartz and quartz-sulphide breccia occur with rhyolite and andesite dykes along major fault zones in Cretaceous quartz monzonite. Pyrite, arsenopyrite, galena, sphalerite and stibnite occur with the gold and silver. Present reserves are 747 110 tonnes of 7.71g/t Au and 307.2 g/t Ag, plus an additional 119 210 tonnes of 8.95 g/t Au and 169.7 g/t Ag.

The 1988 exploration program consisted of over 6000 m of surface and underground diamond drilling. Underground drifting was done on the RAINBOW and KUHN zones and a new adit was collared at the 1350 m level.

A highlight of the underground drifting was the discovery of a high-grade ore shoot in the KUHN zone at the 1350 m level. Along 36.6 m of drift, sampling averaged 29.3 g/t Au and 197.8 g/t Ag.

12. MT SKUKUM (GLEE, MOE, BUTTE, KUKU, CHIEF, WOOF, PUP, CHU CLAIMS) 105 D 3 Mt Skukum Gold Mining Corp.

Gold occurs in epithermal veins in an Eocene caldera complex. In 1988, 8229.6 m of exploration diamond drilling was done on the property. A new high-level epithermal vein was found late in the summer. This vein, named the TANGO, is at least 350 m long, has an average width of 10 m and is exposed over a vertical elevation of 200 m. The vein lies on a major regional geophysical anomaly.

13. GODDELL(POP claims)105 D 3Berglynn Resources Ltd, Skukum Gold Inc.

Gold occurs in a hydrothermally-altered west-southwest trending shear zone intruded by felsic and intermediate dykes.

Up to 19 October, 1988 four diamond drill holes had been completed

totalling approximately 2000 m.

The deeper drill holes intersected two main zones of gold-bearing mineralization. The lower, higher-grade zone is associated with a swarm of gold-bearing andesite dykes containing pyrite, arsenopyrite and sphalerite.

14. SAID (SAID, THE, WATT, PLUS claims) 105 D 3 Pacific Trans-Ocean Resources Ltd

Epithermal gold and silver-bearing chalcedonic quartz veins and sinter occur along a 3.5 km northeast-trending fault zone. Numerous north-trending faults crosscut and offset the vein structure.

Exploration in 1988 included prospecting, mapping, rock and soil geochemistry, a legal survey, five bulldozer trenches, some road construction and 8 diamond drill holes totalling 814.2 m.

15. GLENLIVET 105 D 3 Pacific Trans-Ocean Resources Ltd

Northwest-trending fault zones cut Tertiary felsic tuff intruded by rhyolite plugs.

Exploration in 1988 consisted of trenching and rock sampling of the

SCARLET zone.

Trenching exposed a 2-3 m wide zone of clay gouge along a rhyolite-tuff contact over a strike length of 2-3 km. Soil samples from the trenches returned up to 3.2 g/t Au.

16. MT WHEATON 105 D 3 Academy Resources Ltd

A selected 15 kg bulk sample returned values of 129.9 g/t Ag and 93.6 g/t Au.

17. AUL 105 D 3 Adastral Resources Ltd

Gold and silver occur in steeply-dipping veins in an alteration zone about 30 m wide. A number of shallow drill holes on the discovery showing in 1988 revealed surface oxidation to depths greater than 30 m.

Two new high-grade veins were discovered in 1988. The STEVE vein is nearly vertical and has been traced for 91.4 m. The best of three chip samples across the vein returned assays of 6109.6 g/t Ag and 16.3 g/t Au over 2.1 m including 23 697.7 g/t Ag and 67.4 g/t Au over 0.46 m.

The CONNIE vein, 48.8 m east of the STEVE vein, dips 600 west and can be traced for 146 m along strike. The best of three chip samples across the vein assayed 11 663 g/t Ag and 0.89 g/t Au across 1.6 m including 48 296 g/t Ag and 3.9 g/t Au over 0.2 m.

Prospecting along the MOUSE zone approximately 1.6 km from the discovery zone confirmed the presence of high-grade float. The best of several float samples assayed 31.9 g/t Au and 21 976.6 g/t Ag.

18. CHARLESTON

105 D 3.4

(HO, ISLAND claims, CHARLESTON Crown Grant)

Total Erickson Resources Ltd

Gold and silver occur with galena, pyrite and sphalerite in a vuggy northwest-striking quartz vein 700 m long and up to 2 m wide. Samples return up to 67.9 g/t Au and 1053.2 g/t Ag. Four other similar veins occur on the property.

The property was remapped, chip sampled and trenched in 1988.

19. EARL (EARL, PLUS claims) 105 D 3.4 Pacific Trans-Ocean Resources Ltd

granodiorite and underlain by Cretaceous property is The dykes cutting Paleozoic schist. north-trending rhyolite quartz-sulphide veins are traceable in float over a strike length of approximately 300 m.

In 1988 the property was surveyed and two trenches were excavated and sampled. One of the trenches exposed a quartz-sulphide vein over a width of 2 m.

20. LATER 105 D 5 Pacific Trans-Ocean Resources Ltd

Gold occurs in quartz veins associated with Eocene rhyolite dykes emplaced along northeast-trending fault zones.

Exploration in 1988 consisted of rock and soil geochemistry, limited

geological mapping and four trenches.

A brecciated quartz vein 2 m side was traced for 125 m along a marble-rhyolite contact. Grab samples of vein float assayed up to 8.4 g/t Au.

21. RED RIDGE (FOUR F, PCG, RUFF claims) 105 D 6 New Era Developments Ltd

Gold and silver occur in veins and shear zones associated with

Tertiary rhyolite and andesite dykes.

In 1988 an \$800 000 two-stage exploration program was completed. The first stage consisted of an extensive soil sample grid over the main The second stage involved completion of an access road, bulldozer trenching of the known showings and geochemical anomalies, and 23 diamond drillholes totalling 1524 m.

As a result of the geochemical program, several new anomalous areas The following results were obtained from the various were found.

showings:

VANCE ZONE: Chip samples returned values to 204 g/t Ag over 0.75

m. DON ZONE: A 0.3 to 1 m vein is exposed over a strike length of Chip samples taken across the vein at 1 to 1.5 m intervals returned values up to 10.1 g/t Au and 1518.8 g/t Ag over 0.5 m. A chip sample from an additional trench 175 m along strike of the DON zone assayed 2.1 g/t Au and 744.0 g/t Ag over 0.5 m. Seven diamond drillholes intersected highly broken rock in the zones of interest and most of the core was not recovered.

EAST ZONE: Chip samples taken across the vein at 1.5 m intervals along a 20 m strike length averaged 946.3 g/t Ag across 0.68 m, including one sample of 1930 g/t Ag across 1.0 m. Backhoe trenching uncovered additional parallel veins which returned values up to 112.7 g/t Ag over

 $0.76 \, \text{m}.$ SADDLE ZONE: Quartz veins 0.05 to 0.52 m wide occur in a silicified shear zone up to 4.9 m wide with clay gouge in the footwall. Galena, pyrite and chalcopyrite occur in the veins. Chip sampling at 1.5 m intervals along a 175 m strike length returned values up to $6.\bar{1}$ g/t Au and 432.3 g/t Ag over 0.5 m, with narrower veinlets containing up to 23.3 g/t Au, 620 g/t Ag and 8.4 g/t Au, 1388.5 g/t Ag over 4-5 cm widths. Eight diamond drill holes tested the SADDLE ZONE over a 175 m strike holes encountered significant alteration. The best All intersections were 28.5 g/t Au over 0.12 m in hole SR88-11, 4.2 g/t Au over 1.1 m in hole SR88-10 and 4.0 g/t Au, 75.1 g/t Ag over 0.73 m in SR88-12.

uncovered trenching Bulldozer ZONE: MILLER galena-sphalerite-quartz pods in a 3 m wide carbonate-pyrite alteration

zone. Chip samples returned up to 469.7 g/t Ag over 0.8 m. Six diamond drillholes were drilled in this zone to October 31. Galena mineralization was encountered in the shallower holes, and the deeper holes intersected a quartz-carbonate stockworkbelow 22.9 m.galena-sphalerite-quartz pods and veins.

WESTERN ZONE: Grab samples assayed up to 2245.7 g/t Ag.

ROSSBANK (ROSSBANK, DONNY claims) 105 D 9. 10 Aurum Geological Consultants Inc. for B. Cofer

Gold and silver occur in and adjacent to quartz-sulphide veins in mafic volcanic and sedimentary rocks and serpentinite of the Cache Creek Group. The quartz-sulphide veins are associated with several zones of quartz-carbonate-mariposite alteration and appear to be controlled by large east-trending faults and associated northwest-trending shears.

In 1988, the MCCLINTOCK ZONE at the south end of the property and the CREEK ZONE at the north end of the property were explored with a network

of roads and bulldozer trenches and mapped at a scale of 1:1000.

Chip sampling of a galena-pyrite vein in the McClintock zone returned 1.08 g/t Au, 126.5 g/t Ag and 10.62% Pb over 0.3 m. Several other grab samples returned gold values in the 2.3-3.7 g/t range.

23. WHITEHORSE COPPER (BEST CHANCE, BLACK CUB NORTH) 105 D 11 Hudson Bay Mining and Smelting Ltd

Chalcopyrite and bornite occur in skarn where roof pendants of Triassic limestone are enclosed by Cretaceous granodiorite on the west

side of the Whitehorse batholith.

In 1988, one diamond drillhole tested the gold potential of the small BLACK CUB NORTH deposit and another hole was drilled on an untested skarn zone outcropping on the haul road north of the BEST CHANCE deposit. The two holes totalled approximately 182.9 m.

24. BM 105 D 16 L. Carlyle, D. MacDonald

Felsic dykes cutting gabbro and basalt host copper and gold mineralization. The dykes strike approximately north and dip steeply east.

In 1988, geological mapping, VLF-EM and soil geochemical surveys were

done on the property.

Soil samples returned gold values up to 1660 ppb and copper values up to 261 ppm. Significant values of As, Ni, Co and Cr were also obtained.

25. MM 105 F 7 Curragh Resources Inc.

Discontinuous stratiform lenses of Cu-Pb-Zn occur in Mississippian felsic to intermediate volcanic rocks.

Three trenches were excavated over the surface showings. One of the intersected weathered disseminated sulphides in felsic trenches

metavolcanic rocks. The other two trenches intersected pegmatitic quartz veins with local iron staining.

26. RAM (RAM, MAT claims)
(RAM, MAT claims)
105 F 9,10
Cordilleran Engineering Ltd for Equity Silver Mines Ltd, option from Fairfield Minerals Ltd

Syenite and latite dykes intrude normal and thrust-faulted Cambrian to Devonian sedimentary rocks and Mississippian volcanic and sedimentary rocks. Various types of mineralization including galena-sphalerite-quartz-siderite veins, replacement massive sulphides and pyrrhotite-pyrite or magnetite-pyrrhotite skarns have been found along the intrusive contacts.

In 1988, five areas with visible mineralization or geochemical and geophysical anomalies were tested with 31 BQ drillholes totalling 3723 m.

Twenty-three of the drillholes intersected mineralization. On the GRAYLING zone 3 of 9 holes intersected massive sulphide and 5 were drilled on IP anomalies caused by graphitic phyllite. Seven holes on the SKARN zone intersected up to 114 m of massive and disseminated pyrrhotite-pyrite skarn. The MOUSE zone is a magnetic and IP anomaly exposed over a length of 1000 m and a variable width of up to 200 m. Four of five holes on the MOUSE zone intersected massive and disseminated magnetite skarn 50-140 m thick. The VOLE showing is marked by a soil and IP anomaly. Five of six drillholes penetrated 2-4 m silicified pyrrhotite-pyrite-arsenopyrite zones over a minimum strike length of 300 m. The TROUT zone lies 600 m along strike south of the VOLE showing. Four holes on the TROUT zone returned similar pyrrhotite-pyrite-arsenopyrite mineralization over a strike length of 90 m.

27. GROUNDHOG 105 F 10 (HV, MPR claims) Yukon Minerals Corp., Perrex Resources Ltd

High-grade silver veins occur in Cambrian to Silurian carbonate and phyllite. The mineralization occurs in three forms: massive argentiferous galena with minor freibergite grading to 3857 g/t Ag, freibergite-quartz grading to 17 142 g/t Ag and galena-sphalerite in 3-12 m wide zones of multiple veins which average 7% combined Pb/Zn and 137-206 g/t Ag.

Work in 1988 consisted of prospecting and geological mapping, bulldozer and backhoe trenching and diamond drilling. Forty-five HQ holes were drilled totalling 2438 m. A 3x3x304 m exploration adit was commenced

in September to cut the number 2 and 3 veins 182.9 m below surface.

Mineralization in zones 2 and 3 occurs over a strike length of 1 km and a vertical extent of 198 m. The two zones are subparallel and separated by about 305 m on surface. Drill-indicated reserves for these zones are estimated at 273 000 tonnes grading 2.5% Pb, 5% Zn, 137.1 g/t Ag, 1.37 g/t Au and 500 g/t Cd.

Drilling on the PN, LUCKY and GROUNDHOG zones indicated smaller structures with higher grade silver-lead mineralization. A 20.6 tonne bulk sample of selected vein material from the PN and LUCKY zones was processed by the smelter at Trail, B.C. and graded 75% Pb, 4354.2 g/t Ag, 0.5% Zn and 1.2% Cu.

28. TAY-LP 105 F 10 Comox Resources Ltd, option from Cominco Ltd

An extensive gold-bearing quartz-pyrrhotite vein system occurs in Lower Paleozoic marble, calc-silicate and biotite schist along the inferred trace of the Seagull Creek fault. The vein system ism marked by a train of mineralized boulders which contain between 3.4 and 27.4 g/t Au.

In 1988, detailed VLF, IP and magnetometer surveys were carried out over large EM conductors and several large arsenic anomalies on the south part of the grid. Diamond drilling commenced in October, 1988. Three to five holes are planned totalling 457.2 m.

29 . RAN 105 F 15-16 Prime Explorations Ltd, International Rhodes Resources Ltd

Permian limestone and volcanic rocks and Tertiary volcanic and

sedimentary rocks underlie the RAN claims.

Exploration in 1988 included mapping and prospecting, soil and humus geochemistry, Landsat image interpretation, production of orthophoto maps and airborne geophysics.

Numerous airborne EM anomalies and fault lineaments were outlined. Low order gold-mercury anomalies were detected in areas underlain by Tertiary volcanic rocks.

30. RAN (RAN 399-668, 5000-5017 claims)

105 K 15. 16

Prime Explorations Ltd (operator), Halcyon Resources Ltd

Permian and Tertiary volcanic and sedimentary rocks underlie the property.

Exploration in 1988 included mapping and prospecting, soil and humus geochemistry, airborne geophysics, an orthophoto topographic map and a

Landsat image interpretation.

Numerous weak airborne EM anomalies and a number of faults were defined. Low-order gold and mercury anomalies were found in areas of Tertiary volcanic rocks.

31. ELDORADO (S8 claims) 105 G 12 A. Carlos

Arsenopyrite occurs with minor galena and chalcopyrite in rusty-weathering Klondike schist.

Prospecting and rock geochemistry in 1988 yielded encouraging gold values.

32. SEA (EAST SWIM BASIN) (SEA, CAPA, ECKO claims) 105 K 2 Curragh Resources Inc.

The property is covered by thick glacial till overlying the upper Mt Mye Formation of Lower Cambrian age.

Three holes were drilled in 1988 to test gravity, EM and geochemical

anomalies for stratiform lead-zinc deposits. The source of the geochemical anomalies was not found. The gravity anomaly was due to a bedrock high and EM conductors were interpreted as wet or clay-rich zones in the till. The only sulphide intersection consisted of 0.5 m of massive pyrrhotite.

33. ARGO (RAN claims) 105 F 15. 105 K 2. Noranda Exploration Co. Ltd, Argo Development Corp.

The property is largely covered by glacial till overlying Paleozoic limestone and phyllite.

Work in 1988 included surficial and bedrock mapping, till and humus sampling, airborne geophysical and ground magnetometer surveys.

34. GREW CREEK (CANYON, GRAND claims) 105 K 2 Noranda Exploration Co., Golden Nevada Resources Ltd

Epithermal gold occurs in quartz-sericite alteration zones in felsic

volcanic rocks of Tertiary age in the Tintina Trench.

In 1988, magnetometer and IP surveys were done on the TARN zone, which lies 1981 m southeast of the main ore zone, and an airborne geophysical survey was done over the property as part of a regional survey contracted by Prime Explorations Ltd. An extensive drilling program on the MAIN zoneincluded 60 diamond drill holes totalling 16 200 m and 13 reverse circulation rotary drillholes totalling 1650 m.

By April the MAIN zone had been tested over a strike length of about 550 m and a vertical depth of 175 m and still remained open to the northwest. To the southwest, drillhole and magnetic data suggested the

ore zone was offset by a fault.

Assays were reported in May for five mineralized intersections in hole 88-59, drilled in the MAIN zone, as follows:

di (lied ili one intellement)							
INTERVAL	LENGTH	Au	Ag				
(m)	(m)	(g/t)	(g/t)				
32.0-33.5	ì.5	4.8	7.2				
48.6-50.1	1.5	5.1	8.6				
111.7-113.2	1.5	5.8	15.4				
126.7-131.2	4.5	4.1	13.4				
140.1-141.7	1.5	16.8	287.6				
17011 4141	- • -						

35. MINTEL (CAN claims) 105 K 2 Noranda Exploration Co. Ltd, Mintel International

Tertiary quartz-feldspar rhyolite porphyry intrudes Paleozoic limestone and phyllite. Glacial till covers most of the property.

Work in 1988 included surficial and bedrock mapping, till and humus sampling, and airborne geophysical and ground magnetometer surveys.

36. HEMLO (RAN claims) 105 K 2.3 Akito-Lori, Noranda Exploration Co. Ltd

Minor Paleozoic phyllite and Tertiary rhyolite outcrop on the largely till-covered property.

In 1988 surficial and bedrock mapping, till and humus sampling, airborne geophysical and ground magnetometer surveys were done.

37. GREW CREEK 105 K 3 (RAN 721-754, 801-834, 961-994, WALK, RUN, KOKO claims) Prime Explorations Ltd (operator), Norman Resources Ltd, Gigi Resources Ltd

Permian volcanic rocks and limestone and Cretaceous and Tertiary

volcanic and sedimentary rocks underlie the property.

Work in 1988 included mapping and prospecting, soil and humus sampling, airborne geophysics, a Landsat image interpretation and an orthophoto topographic map.

The exploration identified areas of Tertiary volcanic rocks and numerous airborne geophysical anomalies, but no significant geochemical

anomalies were found.

38. WHP 105 K 3 W.H. Pinkenburg

The property lies within the Tintina Trench and is underlain by volcanic and ultramafic rocks of the Anvil Allochtonous assemblage.

Work in 1988 consisted of prospecting, soil sampling, hand trenching

and 4.6 m of packsack drilling.

One of nine geochemical samples taken was weakly anomalous in As.

RAN (RAN 755-790, 835-870, 915-960, 995-1040 claims) 105 K 3-4 Prime Explorations (operator), Baywest Capital Equities Corp.

Cretaceous and Tertiary sedimentary and volcanic rocks overlie Permian volcanic rocks and limestone in the Tintina Trench.

No ground work was done in 1988 but an airborne geophysical survey, a Landsat image analysis and an orthophoto map of the property were made.

40. FARO NORTHWEST (FARO, TV, TSS and HECK claims) 105 K 6 Curragh Resources Inc.

Calc-silicate and pelitic schist of the Vangorda and Mt Mye formations on the southwest margin of the Anvil batholith form a favourable setting for stratiform lead-zinc deposits.

Detailed geological mapping at a scale of 1:5000 was done. Diamond drilling totalling 300 m was planned, contingent on the results of the mapping.

The mapping delineated a favourable stratigraphic package which could

host stratiform lead-zinc deposits offset by right-lateral movement along the Tintina Fault.

41. VANGORDA PLATEAU 105 K 6 Curragh Resources Inc.

Five holes totalling 1100 m were drilled in an area immediately northeast of the Vangorda lead-zinc deposit in order to estimate fold closure and refine the stratigraphy of the upper Mt Mye formation. Only minor sulphides were intersected containing little or no zinc.

42. TOM 105 0 1 Cominco Ltd, under option from Hudson Bay Mining and Smelting Ltd

A stratabound lead-zinc-barite deposit occurs in black shale of the Devono-Mississippian Earn Group. The orebody is deformed into a double-plunging anticline with the long axis aligned north-south. Hudson Bay Mining and Smelting Ltd estimate combined reserves of 9 283 700 tonnes grading 69.4 g/t Ag, 7.49% Zn and 6.19% Pb.

In 1988, the TOM deposit and its environs were remapped on surface at a scale of 1:2500 and deep drilling was carried out to test the downdip extension of the WEST ZONE orebody. Four NQ and HQ holes were drilled

totalling 2224.5 m.

Three intersections of lead, zinc, silver and barite mineralization were encountered.

43. NIDD 105 01, 2 Cominco Ltd

Low-grade sphalerite occurs with iron sulphides, iron carbonate and

minor galena in black shale of the Devono-Mississippian Earn Group.

In 1988 the access road from the North Canol Road was upgraded and repaired. Sixteen km of old grid lines were re-cut and and IP survey was carried out.

44. MARG (TUDL, MARG claims) 106 D 1

Archer, Cathro & Associates (1981) Ltd for NDU Resources Ltd, SMD Mining Co. Ltd and Noranda Exploration Co. Ltd

Volcanogenic massive sulphides are hosted by a sequence of metavolcanic and metasedimentary rocks of uncertain age. The Discovery zone consists of two sub-parallel sulphide lenses each about 213 m long.

Exploration in 1988 consisted of MAXMIN and PULSE surveys, aerial

photography, road construction and diamond drilling.

Initial diamond drilling consisting of 4169.1 m in 26 holes tested the discovery zone to a depth of 229 m downdip. Two good intersections from hole #12 were released as follows:

Pb Zn Αq INTERCEPT Cu HOLE (%) (g/t) (g/t)(%) (%) (m) 9.2 109.7 1.8 4.8 3.1 3.7 12 5.9 106.2 1.4 3.3 2.0 6.0

This zone is still open to depth and partially open along strike. A preliminary reserve calculation based on the first 18 drillholes gave

1 544 907 tonnes of drill-indicated reserves grading 2% Cu, 2.6% Pb, 5.1% Zn, 68.6 g/t Ag and 1.0 g/t Au plus an additional 531 986 tonnes of drill-inferred reserves grading 1.9% Cu, 2.4% Pb, 5.1% Zn, 61.7 g/t Ag and 0.92 q/t Au.

Indications of other zones have been found elsewhere on the property such as an intersection of 3.5 m of 2.0% Cu, 2.9% Pb, 5.6% Zn, 68.6 g/t Ag and 0.9 g/t Au in hole 88-22, collared 152.4 m west of the Discovery zone.

45. CLARK

106 D 2

Archer, Cathro & Associates (1981) 1td for NDU Resources Ltd under option from W. Ramage and Van Bibber Placer Development Co.

A manto-type lead-zinc-silver deposit occurs in limestone and graphitic schist.

Three 1988 diamond drillholes totalling 256.3 m gave inconclusive and generally disappointing results.

46. DUBLIN GULCH (MAR GOLD)

106 D 4

Can Pro Development Ltd for Queenstake Resources Ltd

Gold-bearing quartz-sulphide veins cut juxtaposed thrust-faulted panels of late Proterozoic to Early Cambrian Grit Unit, Mississippian Keno Hill Quartzite and Permian limestone intruded by Cretaceous granodiorite in the Dublin Gulch area.

The 1988 diamond drilling program funded by Can Pro concentrated on the VICTORIA, AURUM, NO. 23, NEW VEIN and CATTO vein systems drilled by Queenstake in 1986. The program successfully extended the tested portion of these vein systems to 100 m in length and 170 m down dip. The PATRICIA (formerly the NEW VEIN) and CATTO vein systems are the most economically significant. In the CATTO vein, intersections of 3.49 g/t Au across a true thickness of 1.6 m and 11.2 g/t Au across 2.7 m were reported. The PATRICIA vein returned similar grades over a narrower width.

A new vein system was discovered in the bed of Dublin Gulch where a 1

m chip sample returned 41.1 g/t Au.

47. BLENDE

106 D 7

Archer, Cathro & Associates (1981) Ltd for NDU Resources Ltd

Sphalerite, galena and minor pyrite, chalcopyrite and sulphosalts fill open spaces in pipe-like breccia bodies and tabular fracture zones in Helikian dolomite.

Work in 1988 consisted of prospecting, aerial photography and three diamond drillholes totalling 717.8 m. Results of the drilling include the following intersections:

INTERCEPT Pb Zn Ag HOLE (g/t)(%) (m) (%) 5.4 3.7 106.3 86.25 88-2 1.8 89.1 3.7 132.28 88-3

48. KATHLEEN

106 D 8

International Prism Exploration Ltd

Silver, lead and zinc occur in breccia zones in dolomite. In 1988 a camp was established and a 42-hole drill program was undertaken. Environmental studies were carried out as a prerequisiste to constructing an access road to the property.

49. NICK
106 D 11
Archer, Cathro & Associates (1981) Ltd for NDU Resources Ltd and Pak-Man
Resources Ltd, option from Cooke Yukon Syndicate.

Nickel and platinum occur in a shale-hosted SEDEX-type deposit.
Work in 1988 included mapping, geochemical sampling and four diamond

drill holes totalling 362.4 m.

Drilling confirmed the presence of stratiform vaesite-pyrite mineralization at the base of the chert section. The best intersection was 2.9% Ni over 10 cm in hole #88-1.

50. CANALASK (CT, WR claims) 115 F 15 Lodestar Explorations Ltd

The CT and WR claims were part of the original CANALASK property. The only rock exposed on the claims is variably silicified pyritized tuff of Pennsylvanian age outcropping with Permian greywacke and argillite on the bank of the White River.

Magnetometer and VLF-EM surveys were conducted in 1988.

On the WR claims several moderate to weak magnetic highs appear to correlate with underlying stratigraphic units. Four strong VLF conductors were observed trending 120° .

Two moderate VLF conductors were outlined on the CT claims.

51. ARN
115 F 15
Archer, Cathro & Associates (1981) Ltd for Kluane Joint Venture

Several copper and gold-bearing skarn showings are scattered along the contact between a Cretaceous diorite stock and Pennsylvanian and Permain volcanic and sedimentary rocks.

Work in 1988 consisted of soil geochemistry and magnetometer and

VLF-EM surveys.

The geophysical work outlined favourable geological contacts along which quartz-magnetite skarns were formed. The skarn contained up to 82.3 g/t gold along with high copper values.

52. LIBERTY (CWL claims) 115 F 16 Harjay Exploration Ltd

Gold-bearing quartz and quartz-carbonate veins up to 20 cm wide occur in silicified green tuff of Pennsylvanian age. Grab samples returning up to 13.7 g/t Au were taken in 1987 from a vein containing 2% chalcopyrite, 2% galena and 1% pyrite.

Prospecting in 1988 located another area of narrow quartz veins containing galena and chalcopyrite 250 m upslope which may represent the

faulted offset of the main showing.

BURNEY BURNEY

53. I, IV, V 115 G 2, 15, 16 Montgomery Consultants Ltd for Polestar Exploration Inc.

Ultramafic intrusions in the Kluane Range carry nickel, copper, platinum and palladium values. In 1988, exploration consisted of VLF, magnetometer and geochemical

surveys.

54. MISSY 115 G 5 Lodestar Explorations Ltd

The claims cover aeromagnetic anomalies beneath gravel flats of the anomalies lie on trend The River. Donjek copper-nickel-platinum-bearing ultramafic sills on the AIRWAYS WELLGREEN properties.

Reconnaissance magnetometer and soil geochemical surveys were done in 1988. Two strong magnetic highs were outlined and many of the geochemical samples returned moderate to strongly anomalous Pt, Pd and Au values. The

most strongly anomalous sample contained 300 ppb Pt.

55. WELLGREEN 115 G 6

Archer, Cathro & Associates (1981) Ltd for All-North Resources Ltd, a wholly-owned subsidiary of Galactic Resources Ltd

Discontinuous massive sulphide lenses are overlain by a 5 to 30 $\,\mathrm{m}$ disseminated net-textured of to zone thick overlying and pyrrhotite-chalcopyrite-pentlandite gabbro in clinopyroxenite at the base of a layered Upper Triassic mafic-ultramafic intrusive complex. The property was mined briefly in 1973-1974 by Hudson Yukon Mining Co., a subsidiary of Hudson Bay Mining and Smelting Ltd. Mineralization has been outlined over a 2 km strike length to a depth of 600 m below surface.

In 1988, the 4250 level of the underground workings was rehabilitated and a 150 m crosscut was made on a northerly heading. Thirty-four underground exploratory holes were drilled totalling 5500 m. On surface, 37 diamond holes were drilled totalling 6073 m and 3 km of bulldozer

trenches were excavated.

Reserves were estimated in July at 18 200 000 tonnes grading 0.67% Cu, 0.36% Ni, 0.89 g/t Pt and 0.45 g/t Pd plus values in Rh, Ir, Ru, Os, Au, Ag and Co. Metallurgical work showed that approximately 94% of the copper, 77% of the nickel, 68% of the platinum and 71% of the palladium can be recovered from a bulk sulphide concentrate using conventional flotation techniques.

56. AIRWAYS (ARCH) (MUS, BARNY, AMP, EUGENE claims) 115 G 6

Archer, Cathro & Associates (1981) Ltd for Rockridge Mining Corp., Pak-Man Resources Inc., All-North Resources Ltd and Chevron Minerals Ltd

Pyrrhotite, pentlandite and chalcopyrite occur as disseminations and lenses in and adjacent to Lower sulphide massive differentiatedultramafic sills that intrude Pennsylvanian and Permian tuff, volcanic breccia, siliceous argillite and andesite and basalt flows.

In 1988, road construction and bulldozer trenching was done on the property, followed by three diamond drill holes totalling 173.5 m. Minor prospecting was also done on a gold showing on the EUGENE claims.

All drillholes produced broad intersections of low-grade Cu-Ni-Pt-Pd mineralization. The best intersection, which occurred in hole A88-2,

averaged 0.29% Ni, 0.15% Cu, 0.41 g/t Pt and 0.45g/t Pd over 41 m.

57. LINDA (KLU claims)

115 G 6

Archer, Cathro & Associates (1981) Ltd for Rockridge Mining Corp., 2001 Resource Industries Ltd. All-North Resources Ltd and Chevron Minerals Ltd

Pyrrhotite, pentlandite and chalcopyrite occur as disseminations and rare massive sulphide lenses in and adjacent to Lower Triassic differentiated ultramafic sills that intrude Pennsylvanian and Permian tuff, volcanic breccia, siliceous argillite, andesite and basalt flows.

Exploration in 1988 consisted of road construction, bulldozer trenching, soil geochemistry, magnetic and VLF surveys and 246.3 m of

diamond drilling in 3 holes.

Drilling was confined to the western part of the property and tested beneath narrow massive sulphide lenses exposed in a creek cut. The best assay came from hole L88-1 which returned 3.51% Ni, 1.66% Cu, 2.74 g/t Pt, 7.13 g/t Pd, 0.99 g/t Ir, 0.65 g/t Os, 0.51 g/t Rh and 0.89 g/t Ru across

Soil sampling in the eastern part of the property outlined a multi-element anomaly similar to those on the nearby WELLGREEN property. Trenching of the anomalies exposed numerous broad zones of low-grade

mineralization similar to the WELLGREEN ore.

BURWASH (GLEN) (EL, JAN, NAN, SUE, AND etc. claims) 115 G 6 Nathan Minerals Inc.

Gold occurs in Pennsylvanian andesite tuffs intruded by a large differentiated mafic-ultramafic sill of Triassic age and Oligocene porphyry dykes. Showings with up to 3% nickel and 2% copper as massive and disseminated sulphides suggest the sill may also host platinum-group elements.

In 1988 an airborne VLF-magnetometer survey was followed up on the ground using a magnetometer and a GENIE instrument. Some soil samples were also taken in selected areas. The work was severely hampered by record rainfall in the area which washed out most of access roads and necessitated considerable reconstruction.

Interesting geophysical and geochemical anomalies were detected.

58. SHUT (SHUT, LIB AND BETH claims)

Archer, Cathro & Associates (1981) Ltd for Pezgold Resources Ltd, option from Silverquest Resources Ltd and Dalbianco Syndicate.

Quartz-biotite gneiss and schist with minor calcareous horizons is cut by northwest-trending vein faults. Two mineralized areas 6.4 km apart have been discovered. In the EAST zone, several quartz-carbonate veins contain gold and arsenopyrite. Specimens grade up to 123 g/t Au and samples from hand trenches grade up to 30 g/t Au over 0.37 m.

In 1988 geochemical surveys were done, each covering an area of about

1 x 2 km. A significant gold and arsenic anomaly with gold values ranging between 100 and 1500 ppb coincides with the EAST zone vein exposures and extends 1524 m to the edge of the grid. Two other geochemical anomalies were also defined in this area.

Float samples assaying up to 126.9 g/t Au were taken from the WEST zone. In this area soil sampling outlined a 100-1300 ppb Au anomaly over 1524 m long which coincides with the area of mineralized float and extends

off the grid in both directions.

59. ONLY 115 I 3 Kerr Addison Mines Ltd

Pyrite, pyrrhotite and local chalcopyrite, scorodite and arsenopyrite, malachite and possible rare molybdenite are associated with rhyolite-quartz monzonite plug intruding intermediate to felsic Mt Nansen volcanics.

In 1988, 15 hand pits were dug to bedrock and a 25 m hand trench was

excavated.

North-trending zones of silicification and clay alteration were identified. Rock samples from the trench and the pits showed weak gold A possible correlation between copper and gold values was enrichment. noted.

60. DOWS 115 I 3 Noranda Exploration Co. Ltd, option from E. Curley

A wide zone of quartz veins, breccia and clay alteration is associated

with rhyolite dykes intruding Paleozoic? gneiss.

Soil sampling, magnetometer and IP surveys were carried out in 1988. Six trenches were excavated and diamond drilling is currently underway. Five holes are planned totalling 400 m.

A good soil anomaly is coincides with magnetic and resistivity lows in

the area of the trenches.

61. DISCOVERY CREEK (WEDGE, RAS, LGCS, MSL and GOULTER leases) 115 I 3 Aurchem Exploration Ltd

Gold, silver, lead and zinc occur in multiple parallel veins associated with porphyritic andesite to rhyolite dykes in granodiorite. In 1988, 11 widely-spaced diamond drill holes totalling 1219.2 m

identified a number of vein zones where further work is required.

62. HT NANSEN (DOME etc. claims) 115 I 3

Archer, Cathro & Associates (1981) Ltd for BYG Natural Resources Inc. and Chevron Minerals Ltd

Gold and silver occur in a number of quartz-sulphide vein zones which cut Paleozoic metamorphic rocks and Cretaceous quartz monzonite stocks, feldspar porphyry dykes and plugs, andesitic flows and pyroclastic rocks.

The veins strike northwest and dip from 80° NE to 45° SW. Depth of total oxidation ranges from 0 to 100 m depending on the type of mineralization

and the orientation of the vein.

Exploration in 1988 consisted of road construction, bulldozer and excavator trenching, stripping, underground rehabilitation and 5397 m of diamond drilling in 85 holes. Most of the drilling was done on the BROWN-MCDADE zone on 17 section lines evenly spaced along a 500 m strike Holes intersected the mineralization at approximately 20 m intervals along each section line.

The 1988 drillholes extended the open pit reserves to depth and indicated a potential area for bulk underground mining of higher grade Deeper holes penetrated massive sulphide mineralization which continues to depths greater than 125 m below surface. intersected 23 m of mineralization at depth in the footwall of the BROWN-MCDADE zone which graded 12.0 g/t Au and included 3 m of 32.2 g/t

According to the latest estimate (October) total proven and probable reserves stand at 324 666 tonnes of 13.4 g/t Au and 100.1 g/t Ag including 130 362 tonnes of well oxidized ore grading 11.3 g/t Au and 100.1 g/t Ag which can be extracted by open-pit mining with a 2.5:1 stripping ratio.

Reserves for the entire property including the BROWN-MCDADE, HUESTIS and WEBBER zones now stand at 455 935 tonnes grading 13.4 g/t Au and 198.9

g/t Ag. All three zones are still open along strike and to depth.

63. TAWA 115 I 3 Archer, Cathro & Associates (1981) Ltd for Freegold Venture

Gold and silver occur in northwest-trending veins and associated feldspar porphyry dykes which cut a Cretaceous granodiorite stock on the east flank of Mt Nansen. The veins range from a few cm to 3 m wide and occur in gouge zones 1-10 m wide. Bands of massive arsenopyrite, pyrite and galena flank the quartz veins.

Trenching in 1988 exposed numerous mineralized stringers. KLAZA (NORTH) zone a chip sample assayed 43.2 g/t Au and 101.8 g/t Ag over The best surface assay from the BRX (SOUTH) zone was 1.6 g/t Au and

1280.9 g/t Ag over 1.7 m.

Diamond drilling was confined to the BRX zone where six holes encountered several mineralized stringers. The best intersection was 6.17 g/t Au and 129.9 g/t Ag across 1.4 m.

64. GOLDSTAR (Augusta etc. claims)

115 I 6

Archer, Cathro & Associates (1981) Ltd for Big Creek Joint Venture, option from G. Harris and E. Weinecke

East-trending veins and related quartz-feldspar dykes cut a pendant of Paleozoic? metamorphic rocks on Mt Freegold. Limy horizons in the metamorphic rocks have formed magnetite skarns. The principal vein is the MARGARETE, which contains an average of 4.1 g/t Au over a width of 3-4 m.

The AUGUSTA zone contains erratic high-grade pods grading up to 366.0

g/t Au over 5 m. In 1988, limited sampling of the AUGUSTA zone was undertaken to determine the nature of the highest grade material.

65. NUCLEUS
(NUCLEUS, MEC, ERL claims)
115::I 16::
Archer, Cathro & Associates (1981) Ltd for Big Creek Joint Venture and Chevron Resources Ltd

Disseminated gold mineralization occurs in erratic chalcedonic veins along northwest-trending faults cutting Paleozoic? metasedimentary rocks and Cretaceous granodiorite. Quartz-feldspar dykes and massive argillic alteration appear to be related to the mineralization. A large low-grade deposit has been outlined with 4.1 million tonnes of oxide reserves grading 1.06 g/t Au.

Shallow rotary drilling was done in 1988 to identify near-surface reserves of higher grade material suitable for a trial heap leach operation. Thirty-five holes were drilled totalling 1312 m. Two

bulldozer-excavator trenches were also dug.

A number of good intersections were reported including 34.9 g/t Au over 13.7 m. The higher grade material appears to be very localized, as it was not found in nearby drillholes. Tonnage and grade calculations are not yet complete but a small deposit with 100 000-200 000 tonnes of heap-leachable oxide ore grading better than 2.0 g/t Au is anticipated.

66. REVENUE

115 I 6
Archer, Cathro & Associates (1981) Ltd for Big Creek Joint Venture, option from Yukon Revenue Mines Ltd

A body of Late Cretaceous cataclastic rocks ("Revenue Breccia") occurs in a fault-bounded block surrounded by Cretaceous quartz monzonite. Copper-gold-tungsten mineralization occurs along the southern fault boundary of the breccia and disseminated gold mineralization occurs along argillically-altered major northwest and northeast-trending structures.

Two HQ holes were drilled in 1988 totalling 295.6 m.

Low gold values were obtained from an intensely clay-altered breccia zone. The drillholes failed to confirm good gold values found at surface.

67. RAG

115 I 6

Rea Gold Corporation and Verdstone Gold Corporation, option from Dominion Explorers Inc. and R.A. Granger.

Gold and silver occur with sulphides in fractured tourmalinized quartz monzonite.

One hole was drilled on the property in 1988 which assayed 32.9 g/t Au over 2.0 m.

68. GOLDY

115 I 6

Rea Gold Corporation and Verdstone Gold Corporation, option from Dominion Explorers Inc. and R.A. Granger.

Gold and antimony occur in quartz vein material associated with clay-altered rhyolite porphyry.

Ten 1988 drill holes returned gold values ranging from 1 g/t to 7.5 g/t over widths of 2 to 10 m.

69. EMMONS HILL (DART) 115 I 6 Noranda Exploration Co. Ltd

Stibnite, chalcopyrite and pyrite occur in quartz veins and breccias associated with Tertiary quartz-feldspar porphyry dykes which intrude Paleozoic gneiss and Cretaceous granodiorite.

In 1988, 12 reverse-circulation holes totalling 468 m were drilled on

the property. Good results are reported adjacent to an old shaft.

70. CARIBOU CREEK 115 I 6 Doron Explorations Inc.

Visible gold occurs in a northwest-trending quartz stockwork zone in syenite cut by quartz-feldspar porphyry dykes.

Detailed geochemical prospecting, VLF-magnetometer surveys, surface

trenching, mapping and diamond drilling were carried out in 1988.

The first of twelve holes encountered a 1.2 m section of quartz stringers in a brecciated graphitic siltstone which assayed 173.8 g/t Au and 78.9 g/t Ag. The breccia zone was observed in other drillholes over a minimum strike length of 91.4 m and is an average of 2.7-3 m wide. Assays from the other 11 drillholes are not yet available, but all are reported to show visible gold.

72. ANTONIUK

115 I 6

Archer, Cathro & Associates (1981) Ltd for Big Creek Joint Venture, option from Discovery Mines Ltd

Gold occurs along late-stage faults and fractures in a felsic diatreme intruded by quartz-feldspar porphyry dykes. The diatreme consists of heterolithic breccia and intrudes Cretaceous granodiorite and syenite. associated with weak argillic alteration and minor The gold is disseminated sulphides. Reserves of low-grade oxide ore are 3.73 million tonnes grading 1.13 g/t Au.

Rotary drilling was done in 1988 to outline near-surface reserves of higher grade material suitable for a trial heap leach operation.

Thirty-five holes were drilled totalling 1087 m.

The drill results confirmed earlier tonnages and grades calculated for the upper 20 m of the deposit in the best-mineralized area.

73. SHADOW 115 J 8 Kerr Addison Mines Ltd

Anomalous levels of gold and antimony occur in intensely silicified rhyolite breccia along a 2 km north-trending lineament. The breccia is part of a north-trending rhyolite dyke swarm intruding Cretaceous andesite and granodiorite.

Work in 1988 included soil sampling and VLF surveys along the main

lineament.

Soil samples gave a generally poor response. Weak arsenic anomalies were detected near the lineament. A maximum value of 45 ppm antimony occurred on the lineament. Weak linear VLF anomalies possibly indicate a weak or deep conductor.

74. ONION

115 K 2

Archer, Cathro & Associates (1981) Ltd for Rexford Minerals Ltd and Kluane Joint Venture

Nickel and copper occur with quartz-carbonate alteration along the contact between a subvertical ultramafic sill and Pennsylvanian volcanic breccia and tuff.

Soil sampling, magnetometr and VLF-EM surveys were done in 1988.

Coincident geochemical anomalies, magnetic highs and VLF conductors were defined along the footwall trace of the ultramafic sill.

75. REEF 115 N 2 Moosehorn Exploration Ltd (I. Warwick)

High-grade gold-quartz veins cutting granodiorite are exposed on the summit ridge of the Moosehorn Range.

excavated and backhoe trenches were Bulldozer

north-trending veins in 1988.

Results of the trenching and bulk sampling using a small portable mill confirm the existence of numerous 10 to 15 cm high-grade veins across the claim group. Average grades are reported to be 102.8-137.1 g/t Au. The veins appear to be regularly spaced 50-100 m apart and are associated with zones of propylitic alteration in the host pluton.

76. SIXTYMILE 115 N 15 Esso Minerals Canada Ltd

Up to 8% pyrite occurs in altered Tertiary andesite and volcanic breccia. Traces of sphalerite, chalcopyrite and galena are disseminated in a siliceous volcanic breccia matrix.

In 1988 an extensive magnetometer survey was done and 1988 placer pits

were mapped and sampled.

Anomalous Au, Ag, Cu, Pb, Zn, As, Sb and Hg values were obtained. A high-level epithermal system is suggested by the pattern of alteration and the geochemical values.

77. LONE STAR 115 0 14 Arbor Resources Ltd, Dawson Eldorado Mines Ltd

In 1988, two high-grade gold-bearing shear veins were located in Eldorado Creek valley near French and Gay Gulches, and angular gold with scheelite was found in float on the south-facing slope of Bonanza Creek. Trenching and sampling was planned for November.

78. ZETA (DAWSON SILVER) 115 P 14, 116 A 3 Danra Resources Ltd, option from Noranda Exploration Co. Ltd

Silver-bearing sulphide mineralization occurs with tourmaline in quartz veins associated with iron and clay alteration, along fault zones which cut Ordovician sedimentary rocks and Cretaceous syenite.

A total of 608.7 m of diamond drilling in 4 holes returned the

following results:

	HOLE #	WIDTH	Ag
		(m)	- (g/t)
	88-1	. 3.2	2643.0
•	88-2	2.4	251.9
	88-3	0.4	273.6
	88-4	2.1	99.8

79. HAWTHORNE (GANT, ADE claims) 115 P 16 Arctex Engineering Services for R. Riepe

Northwest-striking gold, silver and antimony-bearing quartz veins cut quartz-mica schist of the Proterozoic-Lower Cambrian Grit Unit. Nearby, several mid-Cretaceous plutons intrude the schist and associated limy units, forming the SCHEELITE DOME tungsten-gold skarn. The veins vary from 0.05 to 2.5 m wide and 50 to 250 m long and consist mainly of quartz with minor arsenopyrite. Sericite alteration occurs in the surrounding schist. The veins are cut by a massive stibnite-quartz breccia. Twenty-one chip samples taken in 1987 along the 118 m main vein averaged 1.06 g/t Au across 1.28 m.

In 1988, soil sampling outlined a large northwest-trending gold anomaly. Some hand trenching was also done. Three grab samples taken from trenches and dumps assayed 63.4 g/t Au, 2.6 g/t Au and 38.9% Sb and

1.03 g/t Au, 4.19% Sb and 674.7 g/t Ag respectively.

80. ORO (IDA, ORO claims) 116 A 4 Noranda Exploration Co. Ltd

Minor veining occurs in a bleached and silicified hornfels zone around a Cretaceous granodiorite stock which has intruded Ordovician-Silurian Road River chert and argillite.

Exploration in 1988 consisted of geological mapping, soil and rock

chip sampling and a minor magnetometer survey.

Widespread anomalous values of gold and arsenic were obtained in the hornfels zone.

81. BALLARAT 116 B 5

Homestake Mineral Development Co. Ltd

The property is underlain by intercalated felsic to mafic volcanic rocks and epiclastic sediments.

Reconnaissance-scale geological mapping and rock sampling was done in

1988.

Nothing of interest was discovered on the property.

82. TOMBSTONE (TING, NOTING, STONE claims) 116 B 7 Chevron Minerals Ltd

the throughout disseminated mineralization is Uranium pseudoleucite-tinguaite phase of the strongly-differentiated Tombstone syenitic stock of Cretaceous age.

Prospecting in 1988 located a number of narrow precious metal-bearing quartz veins cutting massive coarse-grained syenite adjacent to the

pseudoleucite tinguaite.

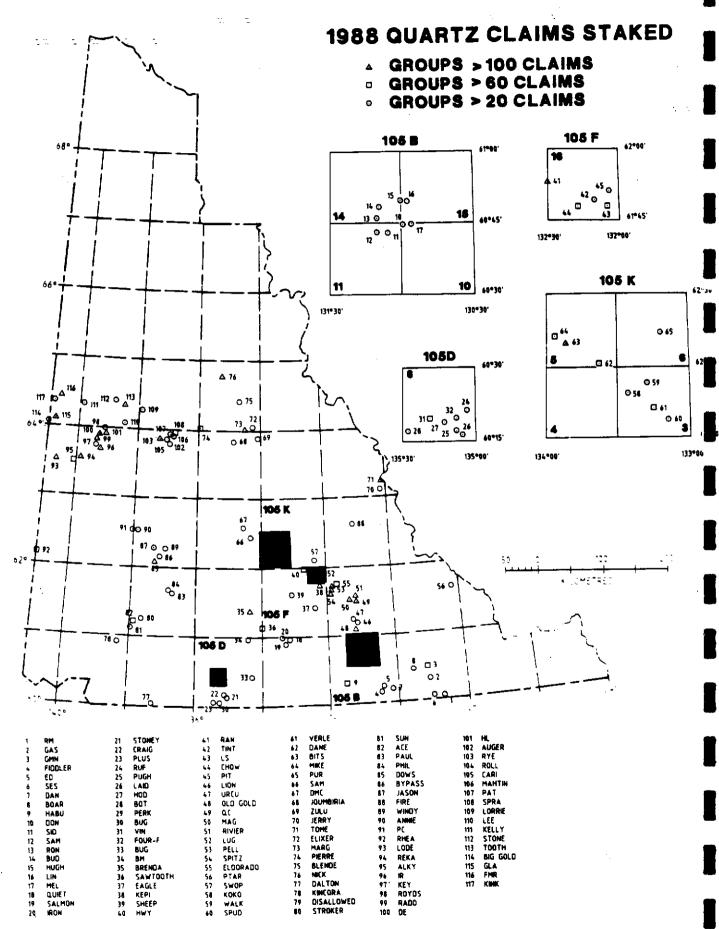
83. FORTY MILE 116 C 7 Homestake Mineral Development Co.

A few weakly mineralized quartz veins have been found hydrothermally-altered Nasina series schist and limestone intruded by small ultramafic stocks and sills.

Work in 1988 consisted of rock sampling and geological mapping at a

scale of 1:5000.

Anomalous geochemical results were obtained from some alteration zones.



GROUPS OF GREATER THAN 20 CLAIMS STAKED IN 1988 (to October 31)

NTS	Claim Name	No.	Company/Staker
10E A 2	RM	47	A. MERCIER, F. MCMILLAN, J. SHELDON
105 A 2		21	GLIMMER RESOURCES INC.
105 A 2,6,7	GMN	64	GLIMMER RESOURCES INC.
105 A 6 105 B 1	FIDDLER	24	M. NIELSEN
105 B 1	ED	37	FIRST YUKON SILVER RESOURCES INC.
105 B 1	SES	34	FAIRLADY ENERGY INC.
105 B 3	DAN	122	D. SCHELLENBERG
105 B 5,12	BOAR	28	ARCHER, CATHRO & ASSOC. (1981) LTD
105 B 7,8	HABU	68	H. HIBBING
105 B 10,11	DON	48	M. HOLLOWAY
105 B 11	SID	48	M. HOLLOWAY
105 B 11,14		48	M. HOLLOWAY
105 B 11,14	RON	48	M. HOLLOWAY
105 B 14	BUD	48	M. HOLLOWAY
105 B 14,15	HUGH	48	M. HOLLOWAY
105 B 14,15	LIN	48	M. HOLLOWAY
105 0 15	MEL	48	M. HOLLOWAY
105 B 15	QUIET	22	S.D. MACDONALD
105 C 14 105 C 14	SALMON	42	G. CLARK
105 C 14	IRON	48	G. CLARK
	STONEY	32	T. MORGAN
105 D 2	CRAIG	26	J. MOREAU
105 D 3	PLUS	111	PACIFIC TRANS-OCEAN RESOURCES LTD
105 D 4 105 D 6	RUF	28	NEW ERA DEVELOPMENTS LTD
	PUGH	20	G. DAVIDSON
105 D 6 105 D 6	LAID	42	RANGER PACIFIC MINERALS LTD
105 D 6	HOD	46	SKUKUM GOLD INC.
105 D 6	BOT	51	SKUKUM GOLD INC.
105 D 6	PERK	24	BARKER CREEK PLACER EXPLORATION CORP.
105 D C	BUG	53	SKUKUM GOLD INC.
105 D 6	VIN	112	SKUKUM GOLD INC.
105 D 6	FOUR-F	51	J. JOBIN, P. MACDONALD, L. BRAULT
105 D 8	BUG	25	DUNYEGAN EXPLORATION CO. LTD
105 D 16	BM	40	L. CARLYLE
105 E 8	BRENDA	188	E.V.E.M. LTD
105 F 4	SAWTOOTH	60	G. CLARK
105 F 8	EAGLE	24	MCCRORY HOLDINGS LTD
105 F 9,16	KEPI	280	WELCOME NORTH MINES LTD
105 F 10,11	SHEEP	48	B. BUCHANAN
105 F 15	HWY	60	NORANDA EXPLORATION CO. LTD
105 F 15,16	RAN	338	PRIME CAPITAL CORP.
100 1 10,10	Man		WILDFIRE RESOURCES LTD
105 F 16	TINT	40	R. ETZEL
105 F 16	LS	60	A. CARLOS
105 F 16	CHOM	92	DEL NORTE CHROME CORP.
105 F 16	PIT	20	A. JOHN, F. CHARLIE
105 G T	LION	30	M. KILBÝ, G. GORZINSKI
105 G 1	URCU	20	L. TOMMY
105 G 2, B 1		120	WELCOME NORTH MINES LTD
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R. & P. ETZEL
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                                        WELCOME NORTH MINES LTD
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                              128
              RIVIER
105 G 10,11
                                        NORTHERN DYNASTY EXPLORATION LTD
                              78
              LUG
105 G 12
                                         IMPERIAL METALS CORP.
                              161
              PELL
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                                         DEL NORTE CHROME CORP.
                              120
              SPITZ
105 G 12
                                         NORANDA EXPLORATION CO. LTD
                              78
              ELDORADO
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                                         G. MACKAY
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               SWOP
                                         NORMAN RESOURCES LTD
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               KOKO
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               SPUD
105 K 3
                                         DOMINION EXPLORERS INC.
                              70
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               VERLE
                                         P. ETZEL, J. & L. LADUE, F. CHARLIE
                              82
               DANE
105 K 5
                                         P. ETZEL, J. & L. LADUE, D. O'BRIEN
                              112
               BITS
105 K 5
                                         GOLDEN RUM RESOURCES LTD
                              60
               MIKE
105 K 5
                                         J. LAKE, L. LADUE, P. ETZEL
                              44
               PUR
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                                         M. VANWERMESKERKEN, M. RENNING
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               SAM
105 L 8
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                                         G. CARLSON
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                                         J. MOREAU
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                                         COMINCO LTD
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                                         ARCHER, CATHRO & ASSOC. (1981) LTD
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106 D 1
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106 D 1,2,
               MARG
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                                         J. MOREAU
                               72
               PIERRE
106 D 4
                                         ARCHER, CATHRO & ASSOC. (1981) LTD
                               49
               BLENDE
106 D 7
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                               138
               NICK
106 D 11,14
                                         TOTAL ERICKSON RESOURCES LTD
                               58
               DALTON
 115 A 3
                                         R. STACK
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               KINCORA
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                                         ARCHER, CATHRO & ASSOC. (1981) LTD
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               STROKER
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                                          D. MAKKONEN
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               SUN
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                                          ARCHER, CATHRO & ASSOC. (1981) LTD
                               94
 115 H 4
               ACE
                                          DAWSON ELDORADO MINES LTD
                               28
 115 H 10
               PAUL
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               DOWS
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               BYPASS
-115 I 3
                                          DORON EXPLORATION INC.
                               22
               JASON
 115 I 6
                                          M. RENNING, M. VANWERMESKERKEN
                               22
 105 J 12
               FIRE
                                          L. LEBEDOFF, R. TETRAULT,
                               48
 115 I 7
               WINDY
                                          R. STACK, G. HARRIS
                                24
                                          R. GRANGER
 115 I 12, J 9 ANNIE
                                          R. GRANGER
                                32
 115 I 12, J 9 PC
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                                          P. YANISAW
                                30
 115 0 14
                ROYDS
                                          ARBOR RESOURCES LTD
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                RADO
                                          DAWSON ELDORADO MINES LTD
                                171
                DE
 115 0 14
                                          ARBOR RESOURCES INC.
                                          DAWSON ELDORADO MINES LTD
                                146
 115 0 14,15
                                          ARBOR RESOURCES INC.
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115 0 15	AUGER	20	B. MACLEAN
115 U 15 115 P 14		168	GOLDEN RUM RESOURCES LTD
115 P 14	N1E -	48	GOLDEN RUM RESOURCES LTD
115 P 14,15	KULL	50	WALHALA EXPLORATIONS LTD
- 115- P=15			J. MOREAU
115 P 15	MAHTIN	20	
115 P 15	PAT	32	LAKE FLY-IN FISHING
	SPRA	81	TOTAL ERICKSON RESOURCES LTD
115 0 11	01 11.7	- -	
	I ABBTE	59	WALHALA EXPLORATIONS LTD
	LORRIE		NORANDA EXPLORATION CO. LTD
116 B T	LEE	50	
116 B 5	KELLY	51	B. WONDGA
116 B 7	STONE	23	ARCHER, CATHRO & ASSOC. (1981) LTD
116 B 8	TOOTH	180	TOTAL ERICKSON RESOURCES LTD
	BIG GOLD	24	L. TURNER
			DAWSON ELDORADO MINES LTD,
116 C 2	GLA	121	DAMSON ELDOKADO MINES EID,
			RISE RESOURCES INC.
116 C 7	FMR	124	J. MOREAU
116 C 7	KINK	25	W. CLAXTON
110 6 /	VTHV		



1988 ACTIVITY REPORT

YUKON EXPLORATION AND GEOLOGICAL SERVICES DIVISION INDIAN AND NORTHERN AFFAIRS CANADA

INTRODUCTION

Exploration and Geological Services Division (EGSD) consists of six geologists, an office manager, a map sales manager and a secretary. The Division is part of the Mineral Resources Directorate of the Northern Affairs Program (NAP) along with the Mineral Rights and Mining Engineering Divisions. NAP is one of five programs of Indian and Northern Affairs Canada, and in Yukon is responsible for mineral resources development in much the same way as any provincial department of mines. The projects described below were funded either by EGSD or through the Canada-Yukon Economic Development Agreement (EDA).

STAFF ACTIVITIES

Steve Morison - Acting Chief Geologist

- Handled daily administrative duties.

- Coordinated and prepared field season activities for Geology Division Staff.

- Met with Land Claims personnel and attended related meetings.

- Served as a witness for the Crown at hearings regarding the misuse of placer claims in the Wheaton River area.

- Supervised summer COSEP (Career-Oriented Summer Employment

Program) students.

- Contributed to 1988 Yukon Mining and Exploration Overview
- Approved assessment reports under the Yukon Placer Mining Act.
- With Scott Smith (Agriculture Canada) presented an illustrated lecture entitled "Goldfields, Glaciers and the Migration of Man - Two Million Years of Change in Yukon". The lecture was sponsored by the "Yukon News" and toured five Yukon communities.

Fieldwork

- Mapping and property visits in the Klondike, Fortymile, Sixtymile, Mayo and Atlin areas.

Supervised fieldwork undertaken by Vic Levson (COSEP student)
 in the Klondike, Livingston Creek, and Martin Creek areas.
 Studied Quaternary sections in the Stewart River area with Owen Hughes of the Geological Survey of Canada.

<u> Grant Abbott - Minerals Geologist</u>

Edited reports to be published in Yukon Geology, Volume 2
 Supervised and coordinated fieldwork for 1988 EDA mapping

projects.

- Edited several EDA maps and reports, including EGSD Open files 1987-2 and 1987-3, (redrafted), and EGSD Open files 1988-1 and 1988-2.

- Acted as scientific authority during negotiations to renew the Canada-Yukon Minerals Sub-Agreement of the EDA, and helped prepare a Cabinet submission outlining the program.
- Contributed to 1988 Yukon Mining and Exploration Overview.
- Presented a paper entitled "Recent Developments in Yukon Geology and Exploration", at a conference regarding the Metallogeny of Northwestern B.C. in Smithers, B.C.

Fieldwork

Carried out short studies on several mineral deposits in the area east of Mayo.
 Visited most active mineral properties in Southern and East-Central Yukon.

Trevor Bremner - Staff Geologist

- Prepared and compiled 1988 Yukon Mining and Exploration Overview.
- Prepared and compiled Yukon Exploration 1987.
- Processed and approved assessment reports under the Yukon Quartz Mining Act.
- Taught geology at the Selkirk Street School summer field camp.
 Wrote a paper on the Whitehorse Coal property for inclusion in Yukon Geology, Volume 3.

<u>Fieldwork</u>

Continued 1:50 000 scale mapping of the Wellgreen Mine and surrounding area.
 Visited mineral properties in the Dawson Range (115 I), Kluane area (115 F,G) and Atlin area.

Bill LeBarge - Acting Staff Geologist

- Contributed to Yukon Exploration 1987.
- Operated and maintained H.S. Bostock Core Library and coordinated the aquisition of several thousand metres of core from properties in the Rancheria District, the Klondike District, and in Northwestern British Columbia.
- Summarized placer assessment reports for publication in Placer Exploration volume.
- Contributed to 1988 Yukon Exploration and Mining Overview.

<u>Fieldwork</u>

- Organized and participated in field trips for visiting
 Geological Survey of Canada scientists to mineral deposits such as Wellgreen, Mt. Skukum, Lonestar and Grew Creek.
- Visited several properties in the Dawson Range, the Kluane area and the Mayo-McQuesten area.
- Measured Quaternary sections in Livingstone Creek and Martin Creek areas with Vic Levson.
- Began a mapping project in the Marsh Lake area (105 D 8,9,10)

Diane Emond - Staff Geologist

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- On maternity leave until August 31, 1988.
- On half-time until February, 1989 to write up fieldwork for publication in Yukon Geology, Volume 3. - Completed a paper on the Oliver Creek area.

- Visited the RUM mineral occurrence near Clear Creek and the HAWTHORNE mineral occurrence near Scheelite Dome.

Beth Phillips - Map Sales Manager

- Operates the Canada Map Office, which distributes topographic maps, Geological Survey of Canada publications and EGSD open files and publications.

- Supervised summer COSEP students.

- Reorganized and updated airphoto library and index maps.

The Division sponsored fieldwork for the following projects:

John Dickie (Msc thesis) - Dalhousie University Sedimentology of the Laberge Group near Whitehorse

Ralph Rushton (Msc thesis) - University of Alberta Dr. Tony Christie - Geological Survey of New Zealand (on secondment to Geological Survey of Canada to complete special projects) Eocene Volcanic Rocks of the Grew Creek Gold Deposit

Dr. Gary Yeo - Acadia University, Nova Scotia Geological Investigation of Lazulite and other Phosphate Minerals in the Rapid Creek area, Northern Yukon

Alain Plouffe (Msc thesis) - Carleton University Feasibility of Drift Prospecting for Gold in the Tintina Trench

Micheal Spicuzza (Msc thesis) - University of Texas A Study of the Quiet Lake Batholith

Ken Ridgway (PhD thesis) - University of Rochester Relationship of Denali Strike-Slip Fault Movement to Stratigraphy of Amphitheatre Formation

Addi Germann and Robert Schattner - Technical University -Aachen, Germany - Mineral Deposits of the Rancheria District

CANADA-YUKON ECONOMIC DEVELOPMENT AGREEMENT (EDA) - MINERAL RESOURCES SUBAGREEMENT

Program 1 - Geological Mapping and Related Studies

Dr. Larry Hulbert - Geological Survey of Canada Geochemistry and Geochronology of Layered Intrusions in the Kluane area, Yukon.

Dr. Richard Armstrong - University of British Columbia Radiometric age dating in the Wheaton River Area - A project in conjunction with geological mapping of NTS maps 105 D 2,3,6,11 by Al Doherty and Craig Hart of Aurum Geological Consultants Ltd.

Al Doherty and Craig Hart, Aurum Geological Consultants Ltd. Whitehorse Project - 1:50 000 scale mapping of areas 105 D 2,11

Reports Released EGSD O.F. 1988-1 "Geology of Gravel Creek (105 BlO) and Irvine Lake (105 B ll) map areas, Southeastern Yukon", Donald C. Murphy, Tesso International Consulting Co.

EGSD O.F. 1988-2 "Preliminary Geology of Fenwick Creek (105 D 3) and Alligator Lake (105 D 6) map areas", A. Doherty and C. Hart, Aurum Geological Consultants Ltd.

<u>Program 2 - Geochemical Surveys - Administered by Geological</u> Survey of Canada

Reports Released

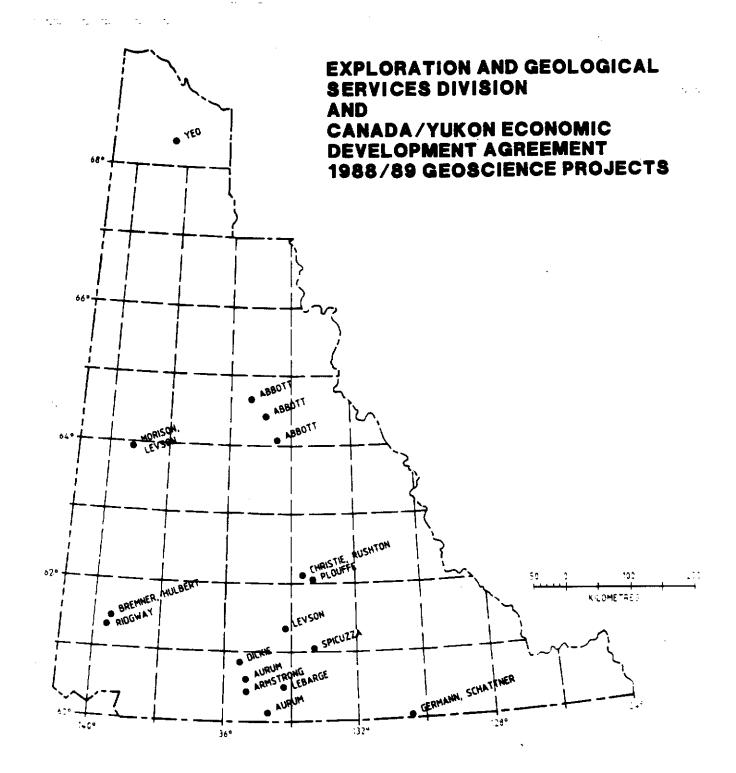
G.S.C. O.F. 1648 - NTS 105 G - Finlayson Lake

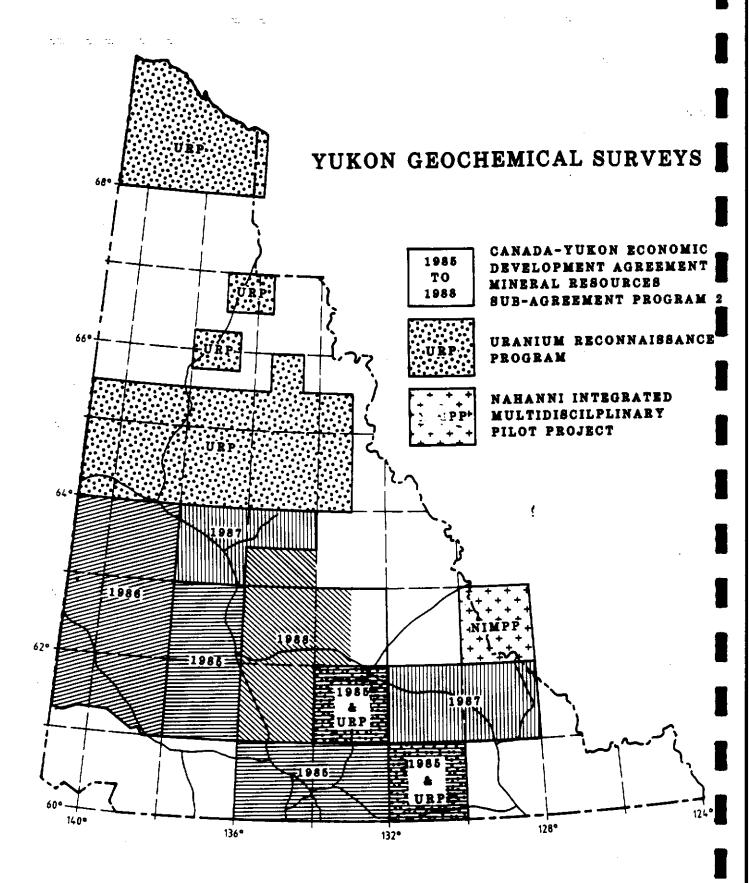
G.S.C. O.F. 1649 - NTS 105 H - Frances Lake

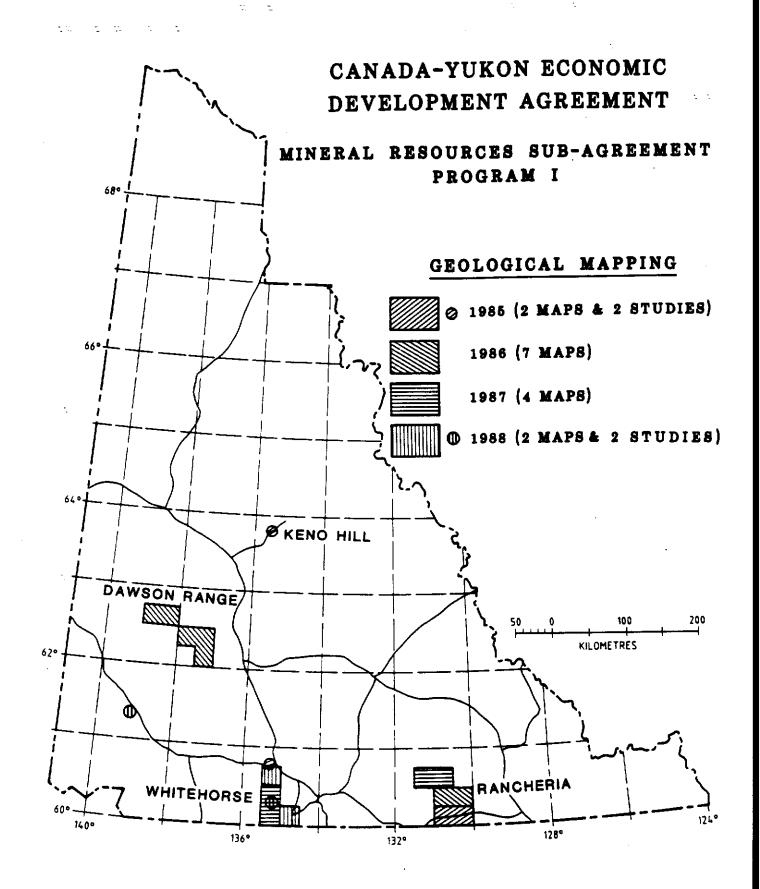
G.S.C. O.F. 1650 - NTS 105 M - Mayo (North Half) NTS 115 P - McQuesten

Fieldwork

NTS Map Sheets 105 E, 105 K (west half), 105 L, 105 M (south half).







1988 PROSPECTORS' ASSISTANCE PROGRAM SUMMARY

LIST OF PROSPECTOR S

NAME

- S. Jonathan
- J.P. Ross
- O. Chippett
- J. Latinen
- R. Berdahl
- D. MacDonald
- B. Mooney
- L. Carlyle
- T. Morgan
- F. Charlie
- A. John
- D. Gondor
- E. Curley
- P. Rousseau
- O. Davis
- J. Smith
- E. Smith
- A. Fred
- B. Jack
- J.B. Smith
- K. Hudson
- G. Freiburgs
- E. Johnson
- J. Dodge
- J. Jack
- J. Seward
- J.G. Smith
- J. Enoch
- E. Smarch
- G. Skellenger
- B. Richardson

SUMMARY OF PROSPECTORS' ASSISTANCE AND EXPLORATION INCENTIVES PROGRAM YUKON GOVERNMENT

During the last three years, the Yukon government has made \$3.4 million in incentive funding available to the mining industry, through two programs. The Prospectors' Assistance Program contributes up to \$5,500 towards the travelling and operational expenses of qualified individuals carrying out prospecting activities in the Yukon. The Exploration Incentives Program provides a 25% rebate of eligible expenditures for approved exploration projects carried out on valid mineral properties in Yukon. The contribution is limited to \$50,000 per year, to a maximum of \$100,000 per property. Applications are reviewed by a committee of Yukon government and DIAND representatives. A summary of the 1988 PAP and EIP projects are on the following pages.

NAME	PROPERTY	NTS	COMMIT MENT
			F.
PLACER PROJECTS	N. HENDERSON CK	115006	28,200.00
David Laurenson	TWENTYMILE CREEK		11,300.00
Goldmark Minerals Ltd.	MINTO CREEK	115P09	25,000.00
Gulderand Mining Corp.	THIRTEENMILE CK.		6,250.00
Thirteen Mile Resources Ltd.			50,000.00
Fortymile Placers	FORTYMILE RIVER		13,600.00
Coleton Construction Ltd.	BLACKHILLS CREEK	Subtotal	\$134,350.00
		Subcocar	\$154,550.00
HARDROCK (QUARTZ) PROJECTS	2000	115N02	27,500.00
Moosehorn Exploration Limited Partnership	REEF	115N02 115G05	45,000.00
Pak-Man Resources Inc.	BARNY		42,588.59
All-North Resources Ltd.	WELLGREEN	115G05	
Klondike Gold Mining Corporations	PER	115N15	22,500.00
Big Creek Resources Ltd.	REVENUE/NUCLEUS	115106	37,500.00
Danran Resources Ltd.	ZETA	115P14	22,100.00
Rexford Minerals Ltd.	NAT	115106	37,500.00
Croesus Resources Inc.	BOZO	115N15	20,000.00
Aurchem Exploration Ltd.	GOULTER	115103	37,500.00
First Yukon Silver Resources Inc.	JACK	105B02	17,500.00
Chevron Resources Ltd.	TIM	105B01	37,500.00
Welcome North Mines Ltd.	KEPI-STAR	105F09	16,500.00
Silverquest Resources Ltd.	WASH	115G06	50,000.00
Canamax Resources Inc.	MOUNT HUNDERE	105A10	45,000.00
Orpex Minerals Incorporated	MATT	105B10	25,000.00
Carlyle Geological Services Ltd.	BM	105D16	13,000.00
Dunvegan Exploration Ltd.	BUG	105D08	40,500.00
Rockridge Mining Corporation	KLU	115G06	45,000.00
2001 Resource Industries Ltd.	LIZ	105B01	37,500.00
	LUG	105G12	11,250.00
Northern Dynasty Explorations Ltd.	PIGLET	95D05	34,231.50
Norman Resources Ltd.	PEERLESS	105D02	
Golden Feather Mines Limited	JEFF	105F10	25,000.00
Yukon Minerals Corporation	QUIET	105C14	3,300.00
Yukon Concentrators Ltd.	LOGAN	105B07	37,500.00
Getty Resources Ltd.	MOUNT NANSEN	115103	37,500.00
B.Y.G. Natural Resources Inc.	TUDL	106D01	50,000.00
NDU Resources Ltd.		115H04	1,300.00
John Peter Ross	CLIFF	105K03	1,250.00
William Henry Pickenburg	WHP	Subtotal	\$871,020.09

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