

WEST KOOTENAY DISTRICT
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INTRODUCTION

There has been a 31 percent decrease in the "Notice of Work" forms filed in the Nelson office (Table 9). However, with some new and several major projects underway the level of exploration expenditures is close to 1984. The largest project is NORTHAIR MINES LTD's option with BP MINERALS and RIO ALGOM on the AYLWIN CREEK (87) project. To date an adit has advanced 521m with plans for a further 546m to be completed. This will be followed by 3049m of underground diamond drilling. By spending \$2.6 million Northair earns a 50 percent interest.

A bonanza type gold find has been made by prospector ALEX STREBCHUCK on HAILSTORM MOUNTAIN (88), four kilometres east of Tillicum Mountain. The geology is very similar to the ESPERAZNA/LA TEKO option. Near the city of Nelson LACANA MINING CORPORATION have drilled 15 holes (1326m) on the KENA CLAIMS (89) and have been successful in finding an auriferous pyrite breccia within Rosslund volcanics. At COCKLE CREEK (90) north of Duncan Lake NEWMONT EXPLORATION/SIBALD RESOURCES LTD. have drilled 13 holes (794m) on a tungsten prospect which is believed to be stratiform. In the Greenwood area SKYLARK RESOURCES and VISCOUNT RESOURCES LTD. continue to drill on the "O.B." CLAIMS (91) on a new silver gold vein which has been trenched for over 328m.

EXPLORATION

Minerals

In the Grand Forks area KETTLE RIVER RESOURCES/NORANDA/CANBEC joint venture have drilled 456m in the MARSHALL LAKE (92) area. On the CANBEC option 305m of trenching has been done and a new magnetite-pyrite zone has been found. In the BROOKLYN MINE area 183m of diamond drilling has been done. A few kilometres south of this area CONSOLIDATED BOUNDARY EXPLORATION and GRAND FORKS MINING have drilled 1982m on the PATHFINDER, CROWN and GOLDEN CROWN CLAIMS (93). The latter has had some gold intersections and a further 600m of diamond drilling is planned on this claim and the "HEK" CLAIM.

In the Nelson area RYAN EXPLORATION CO. has worked on four properties. Five rotary holes were drilled on the "STAR" CLAIM (94) group on Eagle Creek. The target is an auriferous pyrite zone in Nelson Plutonic rocks which was located by an I.P. survey. Soil geochemical surveys were carried on the "RON" (95) group of claims located near "Forty-nine Mile Creek" west of Nelson, and at the "STEWART" (96) claim group four miles west of Ymir. Percussion drilling was done at the ARLINGTON MINE (97).

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West of Nelson SNOW-WATER RESOURCES have completed 1646m of percussion drilling on Snow-Water Creek near the WHITEWATER MINE (98). Closer to Nelson ALGOMA INDUSTRIES AND RESOURCES LTD. is rehabilitating the adit at the KENVILLE GOLD MINE (99), and BP EXPLORATION CANADA LTD. has completed 1646m of diamond drilling at the WISCONSIN MINE (100).

In the Slocan area NORANDA EXPLORATION CO. LTD. has drilled two holes at the "L.H." MINE (101) for a total of 305m. Also in the Slocan area KILO GOLD MINES LTD. have rehabilitated the KILO and CAPELLA (102) adits.

South of Salmo NORANDA and FALCONBRIDGE LTD. (103) have staked large claim units on the Rossland volcanics. Extensive geochemistry and geophysics has been done, the target being massive sulphides within the volcanics.

In the Cranbrook area a deep hole has been drilled on the BAR claim by CRANBROOK JOINT VENTURE, LARAMIDE RESOURCES LTD., SKYLARK RESOURCES LTD., and NORANDA EXPLORATION CO. LTD. (104). The target being the "Sullivan Ore Horizon". The hole ended at 1550m.

DEVELOPMENTS

NORTHAIR MINES LTD. (87) are driving a 1067m tunnel on their AYLWIN CREEK property, to be followed by 3049m of underground diamond drilling. The exploration target is a diatreme which has a ring dyke breccia complex of approximately 300m length and is 30m in maximum width. This is called the "West Zone". Reserves to date are 1.81 million tonnes grading 2.93 grams of gold per tonne, 0.66 percent copper, and 9.3 grams of silver per tonne. This includes a high grade core of approximately 0.56 million tonnes grading 6.25 grams of gold per tonne, 0.94 percent copper and 13.9 grams of silver per tonne. The object of the present exploration is to find another arcuate zone. The main or "Willa Zone" has reserves of 3.4 million tonnes grading 1.48 grams of gold per tonne, 0.32 percent copper and 4.8 grams of silver per tonne. If brought to production this property could be the largest gold mine in British Columbia. Age dating of the volcanic rocks is in progress.

Present thinking is that these rocks are part of the lower Jurassic Rossland Formation. They were previously mapped as Triassic, or Lower Jurassic, Slocan group. It is considered unlikely that only one diatreme exists. If age dating confirms this interpretation, this target of large low-grade gold deposits in a diatreme environment would be valid not only in this area, but also in the rest of the known Rossland volcanics.

At the DENTONIA MINE (105) 90.7 tonnes of development ore produced 8.57 grams of gold per tonne and 68.57 grams of silver per tonne. A new interpretation of the rake of the ore indicates that the ore zones can be extended.

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North American Metals B.C. Inc., working under an option agreement with Chevron Minerals Ltd., tested the Bear zone underground for a strike length of 350 metres and reports that results of this program should improve the reserves of 1.146 million tonnes averaging 10.6 grams/tonne gold estimated by Chevron.

PORPHYRY GOLD DEPOSITS

Deposits of this type offer possibilities for bulk mining and continue to attract considerable interest throughout the province.

In the Quesnel Lake area Dome Exploration (Canada) Ltd. completed two substantial drill programs on its QR deposit (63). Gold occurs in intensely propylitized Upper Triassic volcanic rocks cut by a coeval and probably comagmatic differentiated high-level alkalic stock.

Trader Resources Corp. continued evaluation of its Yellow Giant property (30) on Banks Island where at least 10 separate gold occurrences are present in faulted panels of deformed and metamorphosed Paleozoic calcareous sediments cut by fractured granitic rocks.

In the Slocan, Northair Mines Ltd. carried out a major two-stage underground exploration program on the Willa property (95) where gold is found in silicified porphyries and highly propylitized, probably coeval volcanic rocks and intrusive breccias of the Lower Jurassic Rosslund Group.

In the Harrison Lake area, Kerr Addison Mines Limited continued drilling on the RN property (195). Gold occurs in quartz veins cutting Tertiary quartz diorite. Late-season drilling may be followed by underground exploration.

MANTO DEPOSITS

High-grade silver-lead-zinc replacement deposits, that have been compared by some to the Mexican manto deposits, have also been a target. The Midway deposit (9) consists of laterally continuous pipes of replacement mineralization along the contact between Devonian carbonate rocks and an overlying shale sequence. Grades average 18 per cent combined lead and zinc and 530 grams/tonne silver.

INDUSTRIAL MINERALS

On the industrial minerals scene, Cominco Ltd. conducted a major exploration program on the Aley niobium-bearing carbonatite deposit (68) east of Williston Lake. Cassiar Mining Corporation spent in excess of \$4 million on underground exploration of its McDame deposit (11) which is estimated to contain 62 million tonnes of high-grade asbestos ore. In the extreme northwest corner of the province, Queenstake Resources Ltd. entered into a joint venture with Haines Gypsum Inc. to explore the O'Connor Gypsum deposit (2). Drill-indicated reserves are 25 million tonnes of high-grade gypsum suitable for wallboard applications.

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TABLE 1. EXPLORATION AND DEVELOPMENT IN BRITISH COLUMBIA, 1986 (CONTINUED)
(Map numbers are keyed to Figure 2)

Map No.	Property/MINFILE Name (Owner/Operator)	Inventory No.	Mining Division	NTS	Lat.	Long.	Commodity	Deposit Type	Work Done; Remarks; Assessment Report No.
WEST KOOTENAY DISTRICT (CONTINUED)									
94	Carlboo 3-4 (A. Strebchuk)		Stocan	82F/13W	49°58'	117°39'	Au,Ag	vein	portal construction; drifting, 7 m; AR 12355
95	Willie (BP Canada, Rio Algom/Northair Mines)	82F/NW- 071	Stocan	82F/14W	49°53'	117°22'	Au,Cu,Ag	diatreme	underground diamond drilling, 5233 m; drill- indicated reserves, West zone, 849 400 t @ 5.49 grams/t Au, 0.82% Cu; Willie zone, 3.4 x 10 ⁶ t @ 1.48 grams/t Au, 4.8 grams/t Ag, 0.32% Cu diamond drilling by Noranda; AR 14135
96	LH (Andaurex Resources/ Noranda Exploration)		Stocan	82F/14W	49°53'	117°20'	Au,Ag,As, Cu	vein	
98	Star (Ryan Exploration)	82F/SW- 083	Nelson	82F/6W	49°27'	117°21'	Au,Ag,Cu	breccia?	reverse circulation drilling, 762 m
99	Referendum (T. Cherry)	82F/SW- 177	Nelson	82F/6W	49°25'	117°23'	Au,Ag,Si	vein	surface trenching; diamond drilling; AR 10239
100	Kena (O. Janout/Lacana Mining)	82F/SW- 273	Nelson	82F/6W	49°25'	117 16.4'	Au,Ag,Cu	vein	diamond drilling, 3049 m; AR 14023
101	Red Bird (Golden Eye Minerals)	82F/SW- 024	Nelson	82F/3W	49°	117 23'	Pb,Zn	replacement	6 NQ dth, 2692 m; AR 14960
102	Platinum Blonde (Suma Ventures/ Longreach Resources)	82E/NE- 009	Greenwood	82E/9W	49°34'	118 21'	Au,Ag,Cu, Pb, Zn, Pt	vein	diamond drilling, 1280 m; further 1524 m planned; AR 3717
103	Union (Sumac Ventures)	82E/NE- 003	Greenwood	82E/9W	49°34'	118°21'	Cu,Pb,Zn, Ag,Au	vein	surface diamond drilling, 610 m; underground rehabilitation
104	Skylark (Skylark Resources/ Viscount Resources)	82E/SE- 011	Greenwood	82E/2E	49°05'	118°38'	Ag,Au	vein	decline, 178 m; crosscut, 9.1 m; drifting, 54.9 m raise, 15.2 m; reverse circulation drilling, 427 m; AR 11757
105	Golden Crown/Winnipeg (Consolidated Boundary Exploration)	82E/SE- 032	Greenwood	82E/2E	49°04'	118°35'	Au,Ag,Cu	vein	diamond drilling; AR 8851
106	Hek, Hel (Consolidated Boundary Exploration)	82E/SE- 179	Greenwood	82E/1W	49°12'	118°28'	Au,Ag	massive sulphides	AR 13546

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163	L.H. Goldpac Investments	82FNW157	Slocan	82F/14W	Au, Cu	Silic. Volc.	11 ddh RD 500 m *
164	Willa Northair Mines Ltd.	82FNW071	Slocan	82F/14W	Au, Cu	Alk., Porph	14335 m in 94ddh, Drifting, Raise *
165	Standard Mine Silver Ridge Resources Inc.	82FNW180	Slocan	82F/14	Ag, Pb, Zn	Vein	Underg. Drilling * *
166	Silvana Dickenson Mines Ltd.	82FNW050	Slocan	82F/14W	Ag, Pb, Zn, Cd	Vein	740 m ddh Mostly UG * *
167	Abbot-Wagner Mikado Resources/Turner Energy	82KNW056	Slocan	82K/11E	Ag, Pb, Zn, Au	Replacement	7625 m 100 ddh Hauled 5000 tons *
168	Winslow Winslow Gold Corp./ Tri County Bldgs. Ltd.	82ENW025	Revelstoke	82K/11	Au	Qtz-Ca Vein	9 ddh 1100m Opened 3 Portals *
169	Goldfinch Windflower Mines/Granges Exp.	82ENW076	Revelstoke	82K/13E	Au	Qtz. Vein	Decline, 2 Levels, 1830 m ddh * *
170	Strebe Esperanza Exploration	*	Slocan	82F/13	Au	Skarn	15 ddh * *
171	Tillicum Mtn. Esperanza Exploration Ltd.	82FNW234	Slocan	82F/13	Au, Ag	Qtz. Skarn	9100 m (Sur & Ag) Stope Dev. 407 kt Reserves *
172	Giant Cominco Ltd.	82FSW109	Trail Creek	82F/4	Au	Porphyry	15 ddh, 1500 m RD 1000 m Clearing *
173	Rossland Mining Sch. Bryndon Vent. Inc./Antelope Res. Ltd.	82ESW023	Trail Creek	82F/3E	Au	Shear	7 ddh as of Oct.20 RD 1600 m EM/VLF
174	Rossland Claims Bryndon Vent. Inc./Antelope Res. Ltd.	*	Trail Creek	82F/4W	Au	Mass Sulph.	28 ddh as of Oct.20 RD 2000 m 35 km geoph
176	Golden Crown Cons. Boundary Exploration	82ESE032	Greenwood	82E/2E	Au, Ag	Vein	12ddh 610 m 604 m Drifting *
177	Skylark Viscount Resources	82ESE011	Greenwood	82E/2E	Au, Ag, Pb	Vein	680 m DG 1680m Surface ddh Prod. 110 tonnes/day *
178	Sylvester K Kettle River Res./Skylark Res.	82ESE046	Greenwood	82E/2E	Au	Mass. Sulph.	6 ddh * *
179	Star Cominco Ltd.	82ESE089	Nelson	82F/1W	Ag, Pb, Zn	Sedex	* * UTEM
180	Vinc Cominco	*	Fort Steele	82G/5M	Pb, Zn	Sedex	2 Deep ddh * *

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144	Star/Ron (Ryan Exploration)	82F/SW-083	Nelson	82F/6W	49°27'	117°21'	Au,Ag,Cu	Porphyry?	Reverse circulation drilling; large low-grade Cu-Au deposit
145	Wills (Northair Mines/ Rio Algom/BP Canada)	82F/NW-071	Slocan	82F/14W	49°53'	117°22'	Au,Cu,Ag	Diatreme	Underground development; new portal at 1100 m elev., decline from main level
146	Great Western Group (Lectus Developments)		Nelson	82F/6W	49°27'	117°18'	Au,Cu	Volcanic	21 ddh to Dec.; 182 Kt 5.1 g/t Au
147	Kena (Tournigan Mining)	82F/SW-237	Nelson	82F/6W	49°25'	117°16'	Au,Cu	Volcanic	Diamond drilling
148	Tillicum (Esperanza Explorations)	82F/NW-234	Slocan	82F/13E	49°59'	117°44'	Au,Ag	Vein	24 ddh, 3126 m; 182 Kt 20.5 g/t Au, 2.7 Mt 2.0 g/t Au; 100 tpd mill planned
149	Strebe (Esperanza Explorations)		Slocan	82F/13E	49°59'	117°39'	Au,Ag	Skarn	8 ddh
150	Goldfinch (Granges Exploration)	82K/NW-076	Revelstoke	82K/13E	50°49'	117°32'	Au,Ag	Vein	ddh, 8719 m; 158.7 Kt 8.57 g/t Au; 50 tpd pilot mill planned
151	Spyder (K-2 Resources/Ram Exploration)	82K/NW-045	Revelstoke	82K/13E	50°50'	117°37'	Ag,Pb,Zn, Au	Vein	28 ddh, 3000 m; 33.7 Kt 3.2 g/t Au, 171 g/t Ag, 4.22% Pb, 5.77% Zn
152	Eclipse (Triple M Mining/ Ram Exploration)	82K/NW-044	Revelstoke	82K/13E	50°47'	117°36'	Ag,Au,Pb, Zn	Vein	Diamond drilling
153	John L/Maggie May (Progressive Minerals)	82K/NW-103	Slocan	82K/06E	50°28'	117°14'	Au,Ag	Vein	Diamond drilling
154	Foggy Day (Progressive Minerals/ Skyworth Resources)	82K/NW-117	Revelstoke	82K/11W	59°35'	117°21'	Au,Ag,Pb, Zn,Cu	Vein	3 ddh, 1220 m
155	King Jack (King Jack Resources)	82F/NW-136	Slocan	82F/14W	49°45'	117°21'	Au,Ag	Vein	Surface and underground drilling
156	Meteor, Payday (Yukon Minerals)	82F/NW-137	Slocan	82F/14W	49°45'	117°21'	Au,Ag,Zn, Pb,W	Vein	Drifting and underground diamond drilling
157	Alpine (Granges Exploration/ Cove Energy)	82F/NW-127	Nelson	82F/11W	49°11'	117°15'	Au,Ag,Pb, Zn	Vein	Crosscutting for underground ddh stations
158	Kenville, Granite Poormen (Algonia Industries)	82F/SW-086	Nelson	82F/06W	49°28'	117°23'	Au,Ag,Pb, Zn,Co,W	Vein	Mine rehab.; test mill under construction
159	California (Ram Explorations)	82F/SW-169	Nelson	82F/06W	49°27'	117°18'	Au,Ag,Zn, Pb	Vein	Rehab. No. 3 level
160	Athabasca (Beatty Geological)	82F/SW-168	Nelson	82F/06W	49°28'	117°18'	Au,Ag,Pb, Cu	Vein	Re-opening No. 2 portal
161	Blackcock (O'Hara Resources)	82F/SW-076	Nelson	82F/06W	49°19'	117°08'	Au,Ag,Pb, Zn	Vein	Surface drilling; new portal

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