

SOUTH-CENTRAL REGION

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SUMMARY AND TRENDS

Exploration activity in South-Central BC decreased in 2008 to approximately \$68 million compared to last year's record high (Figure 4.1). This value, however, exceeds totals for many years prior to 2007. The transition of the New Afton project from exploration status through to a development project almost entirely explains the gap between the two years' totals.

Drilling activity is estimated at about 279 000 metres (Figure 4.2) a decrease of 15% from 2007. The number of significant projects, *i.e.* those with drilling or trenching and over \$500,000 in spending or significant regional impact, is estimated at 25. As in previous years, projects that were completing pre-feasibility and feasibility level studies - those requiring large amounts of capital as part of an advanced exploration effort - constitute over one-half of the cumulative total (Figure 4.3).

Junior companies were responsible for virtually all of the region's investment which is the ongoing trend seen for many years now. Fewer large financings were reported in the year compared to last year and it appeared many companies were funding 2008 programs with previous years' financings.

Higher metal prices for most of the year continued to influence exploration strategies with companies primarily targeting bulk-mineable copper-gold, copper-molybdenum and molybdenum porphyry deposits, high-grade gold-silver veins, and stratiform polymetallic massive sulphide deposits. In some of these projects, the potential mining envelopes are much greater at current commodity prices and "super pits" are proposed that incorporate mined out areas and newly drilled off resources. This scenario is well demonstrated at the **Copper Mountain** (copper-gold) and **Afton** (copper-gold) (Ajax, DM-Audra-Crescent) projects where considerable success has been achieved in defining new resources in mature camps. Porphyry copper-gold targets are perennial favorites in this region and this was shown by the **Lac La Hache**, **Taseko Lake**, **Taseko**, **Rateria**, **Prime-Man**, **Logan Copper** and **Miner Mountain** projects. Also noteworthy is the high level of molybdenum exploration, which is tracking both the price of the metal and the province's abundant opportunities for the metal. Significant programs for molybdenum were carried out at the **Crazy Fox**, **Isintok Lake**, **Empress**, **Copeland** and **Rabbit South** properties. Precious metals were explored for at the **Bralorne Mine** (gold), **Panorama Ridge** (gold), **Prospect Valley** (gold-silver),

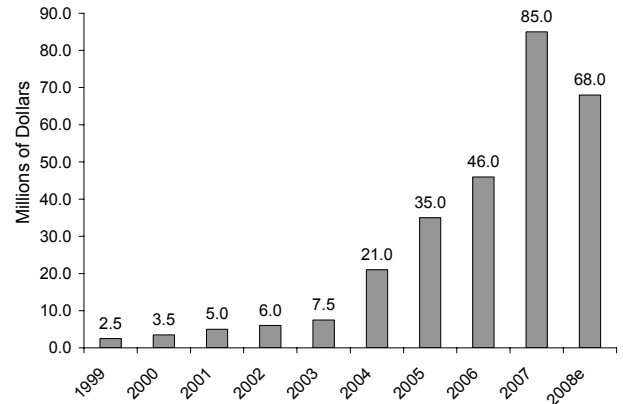


Figure 4.1. Annual exploration spending, in millions of dollars, South-Central Region.

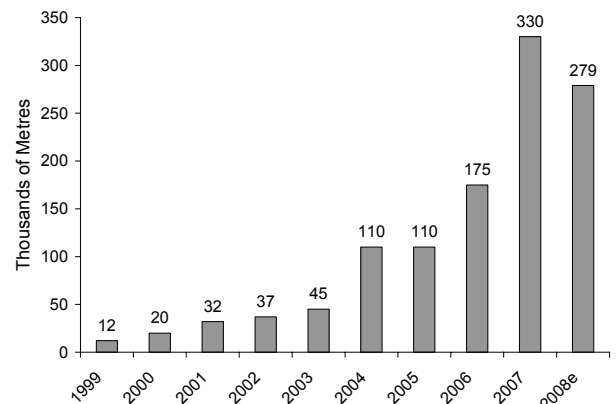


Figure 4.2. Annual exploration and development drilling, in thousands of metres, South-Central Region.

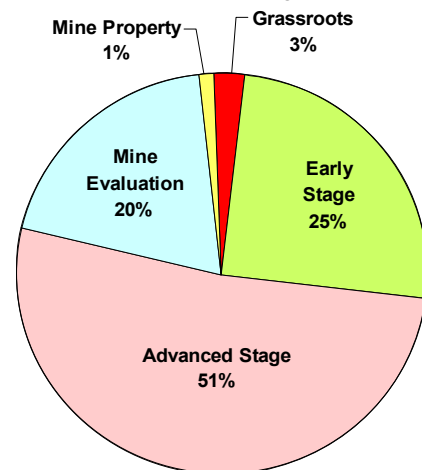


Figure 4.3. Annual exploration expenditures divided by exploration stage, South-Central Region.

and **Reliance** (gold-silver) projects. Stratiform polymetallic massive sulphide deposits were explored for at the **J&L** (zinc-lead-silver), **CK** (zinc-lead-silver), and **Cottonbelt** (lead-zinc-silver) projects.

Two projects in the South-Central Region are now engaged in the Environmental Assessment process: the **Prosperity** (copper-gold) and **Harper Creek** (copper) projects. Both saw a large amount of engineering work during the year as well as baseline work in support of the permitting process.

Several projects saw their largest exploration campaigns to date and undertook advanced exploration and feasibility level studies. These include the **Blue River** (tantalum-niobium) and **Ruddock Creek** (zinc-lead-silver) projects.

Amongst the operating mines, **Highland Valley Copper** continues to make a major capital investment in pit expansion, equipment procurement and on site improvements aimed at extending the mine's life to 2019. Mine development at the **New Afton** (copper-gold) project continued at an accelerated pace for most of 2008 with underground development and surface construction supporting the proposed start-up of mining late in 2009. This has since been delayed owing to current economic conditions.

All of the operating mines in the region are listed in Table 4.1 and shown on the map (Figure 4.4). In addition, the major exploration projects are listed in Table 4.2.

It appeared to be a slower year for reported discoveries in the South-Central Region. This may simply reflect this author's ability to connect with those individuals or companies that are making discoveries. At the **Blue River** (tantalum-niobium) project a new carbonatite body called the **Felix** has been reported. Northeast of Lac La Hache, a new zone of copper-gold porphyry mineralization has been reported at the **Bluff Lake** property.

At the **Rateria** copper-molybdenum property, drill results from Zone A appear to be a breakthrough discovery for the project. New copper and gold mineralization has been outlined at the **Miner Mountain** property at the South Zone and at a new gold-bearing caliche to the northeast of the Granby Zone. The Bonanza Trench at the **Panorama Ridge** property defines a new high-grade style of gold mineralization at this particular property. A magnetite skarn has been discovered at the **Iron Mist** project which is under current evaluation.

It is encouraging to see that most of the discoveries announced last year saw more exploration in this year.

METALS

Highland Valley Copper, a partnership of Teck, formerly Teck Cominco Ltd (97.5%), and Highmont Mining Company Ltd (2.5%), continues to invest a large

amount of capital and operations time towards the 2019 mine plan (Figure 4.5). At the operation, equipment is fully engaged in a multi-year stripping program aimed at the east wall push back at the Valley pit. For the next several years strip ratios will be nearly 1:1. Most equipment procured for continued mining is in place; the west wall push back is awaiting the amendment of the mine plan. Capital investment for 2008 is estimated at \$175 million. The operation employs 1015 workers.

Average daily mill throughput is estimated at around 121 000 tonnes/day or approximately 44 million tonnes for the year which is an increase of roughly 9% from 2007. Copper production is estimated at 114 000 tonnes compared to an actual production of 139 500 tonnes for 2007. Molybdenum production is forecast at around 1600 tonnes which is down from the actual production of 1860 tonnes in 2007. The lower production numbers are in part attributed to the greater portions of lower grade ore being mined from the Lornex pit which also realizes lower recoveries due to its higher clay content. The mine also produces minor by-product gold and silver.

On the heels of receiving a Mine Permit in the fall of 2007, New Gold Inc immediately began developing the **New Afton** porphyry copper-gold mine on the northwestern end of the Iron Mask batholith and centered on the former Afton open-pit mine site ten kilometres west of Kamloops (Figure 4.6). A business combination with Peak Gold Ltd and Metallica Resources Inc in mid-2008 created an intermediate mining company with more financial depth and producing mines. During 2008 an estimated \$165 million was proposed to be spent preparing the underground workings for block-cave mining as well as site preparation for the 11 000 tonne per day mill. Mill commissioning was on schedule for a late 2009 start up. De-watering at the Afton pit was proposed to occur throughout the year with the excess water to be pumped into the nearby Pothook pit. Citing capital market volatility and the company's current cash position a decision was made not to fast track development of the project. Under the revised plan, surface construction is to be suspended until the end of 2010 with full production to



Figure 4.5. Geodesic domes over ore stockpiles being installed at the Highland Valley Copper mine near Logan Lake.

be reached in the second half of 2012. Underground development at a reduced rate will continue until the bottom of the orebody is reached. A participation agreement with the Kamloops and Skeetchestn Indian bands was completed in March 2008 which provides for educational, employment, contracting and financial opportunities for the bands.

Several other mine-mill complexes remain on care-and-maintenance status. Many of these have been closed since the mid-1990s, awaiting higher metal prices and/or discovery of additional ore. They have permits and substantial infrastructure in place and represent opportunities for renewed mining or custom milling. These complexes include the **Goldstream** copper-zinc, **Blackdome** gold-silver, and **Bralorne** gold mines. Efforts at bringing these mines back into production are discussed in latter sections.

COAL

Located near the town of Coalmont, the small **Basin** thermal coal mine of Compliance Energy Corporation sold minor amounts of high volatile, bituminous B and C rank coal in 2008 from stockpiles.

INDUSTRIAL MINERALS

There are more than 15 industrial mineral quarries and processing plants employing over 250 people in the region. These operations provide stable jobs in many small to medium-sized communities including Kamloops, Kelowna, Lillooet, Cache Creek, Ashcroft, Princeton and Merritt. There are very good opportunities for additional growth in this sector due to the wide variety of rock types

TABLE 4.1 SOUTH-CENTRAL REGION FORECAST MINE PRODUCTION 2008

Mine	Operator	Deposit Type / Commodity	Forecast Production in 2008 (tonnes or kilograms)	Number of Employees	Proven and Probable Reserves (at Jan. 1, 2008)
Metals					
Highland Valley Copper	Teck Cominco Ltd / Highmont Mining Company Ltd	Calcalkalic porphyry Cu-Mo	114 000 Mt Cu, 1600 Mt Mo, minor Au and Ag	1015	451 000 000 Mt at 0.38% Cu and 0.007% Mo
Coal					
Basin	Compliance Energy Corp	Thermal coal	0	On care and maintenance	
Industrial Minerals					
Ashcroft	IG Machine and Fiber Ltd (IKO Industries Ltd)	Basalt (roofing granules)	~350 000 Mt	55 (plant & quarry)	
Bud	Absorbent Products Ltd	Bentonite		see Red Lake	
Buse Lake	Lafarge Canada Inc	Volcanic ash (alumina-silica)		see Harper Ranch	
Craigmont	Craigmont Mines Joint Venture	Magnetite tailings	60 – 70 000 Mt	~30 (plant; seasonal)	
Decor	Pacific Bentonite Ltd	Alumina, landscape rock		~2 (including trucking)	
Falkland	Lafarge Canada Inc	Gypsum	6000 Mt	see Harper Ranch	
Harper Ranch	Lafarge Canada Inc	Limestone	~220 000 Mt	32 (plant & 3 quarries)	
Kettle Valley quarries	Kettle Valley Stone Company	Ashlar, flagstone, thin veneer		~40 (plant & quarries)	
Pavilion	Graymont Western Canada Inc	Limestone	190 000 Mt	~34 (plant & quarry)	
Red Lake	Absorbent Products Ltd	Diatomaceous earth		40 (plant & 3 quarries)	
Zeotech Bromley Creek	Heemskirk Canada Ltd	Zeolite			



Figure 4.4. Mines, quarries and major exploration projects, South-Central Region, 2008.

TABLE 4.2 MAJOR EXPLORATION PROJECTS, SOUTH-CENTRAL REGION, 2008

Property	Operator	MINFILE	Commodities	Deposit Type	Work Program
Tulameen Platinum	Goldcliff Resource Corporation		Pt	Ultramafic hosted	P, G, GC, AB-GP (1533 km)
Afton Area (West Ajax, East Ajax, DM-Audra-Crescent)	Abacus Mining and Exploration Corp	092INE012, 13, 28, 30, 26	Cu, Au, Ag, Pd	Alkalic Porphyry	DD (~48 000 m), PF
Blue River Tantalum/Niobium (Upper Fir, Fir, Switch Creek)	Commerce Resources Corp	083D 005, 35	Ta, Nb	Carbonatite	DD (~20 000 m), A, BU (10 000 T), TR, R
Bralorne Camp (BK Zone)	Bralorne Gold Mines Ltd	092JNE164, 1	Au, Ag	Mesothermal Vein	DD, GC, UG (~200 m)
Crazy Fox	Newmac Resources Inc	092P 014, 15, 106	Mo, W	Porphyry	DD, TR
Harper Creek	Yellowhead Mining Inc	082M 008, 9	Cu, Ag, Au, Zn, Mo	Stratiform disseminated Porphyry	DD (~20 000) EN, FS
Isintok Lake	Jasper Mining Corp	092HNE100, 276	Ag, Cu, Mo	Porphyry	DD (~3900 m)
Lac La Hache (Aurizon, Peach Lake, Peach Melba, Ann North, Spout Lake, North and South Zones)	GWR Resources Inc	092P001, 2, 34, 35, 108, 120, 153	Cu, Au	Porphyry	DD (~20 000 m), TR, IP
Panorama Ridge	Goldcliff Resource Corp	082ESW052, 259	Au	Skarn	A, DD (6180 m), TR (1081 m)
Prospect Valley (Discovery South and North)	Spire Gold Corp		Au, Ag	Epithermal Vein	DD (11 200 m), TR, P, G
Prosperity	Taseko Mines Ltd	092O 041	Cu, Mo, Au	Porphyry	GD (660 m), ES, FS
Rabbit South	Global Hunter Corp	092INE045, 147, 130, 114, 71	Cu, Au, Mo	Porphyry	DD (3709 m)
Rateria	Happy Creek Minerals Ltd	092ISE092, 150, 60	Cu, Mo	Porphyry	DD (4000 m), IP, MAG
Reliance	Menika Mining Ltd	092JNE033	Au, Sb, Ag	Mesothermal Vein	DD (3000 m)
Ruddock Creek	Selkirk Metals Corp	082M 082, 83	Zn, Pb, Ag	Stratiform	UG (1150 m), UGDD (6000 m), A, BS, ES,
Taseko Lake	Galore Resources Inc		Cu, Mo, Au, Ag	Porphyry	G, P, GC, DD (5000 m)
J & L	Merit Mining Corp	082M 003	Zn, Pb, Ag, Au	Stratiform / VMS	UG (~500 m), EN
Cottonbelt	International Bethlehem Mining Corp	082M 086 (near)	Pb, Zn, Ag, Cu	Broken Hill Type SEDEX	DD (3000 m), GP
Logan Copper	SNL Enterprises Ltd	092ISE012, 190	Cu, Mo, Ag	Porphyry	DD(~3000 m)
Miner Mountain	Sego Resources Inc	092HSE078, 203	Cu, Au, Ag	Porphyry	TR (3200 m), G, GC, DD (~1200 m)
Copper Mountain	Copper Mountain Mining Corporation	092HSE001, 24	Cu, Au	Porphyry	DD (60 000 m), FS
CK	CMC Metals Ltd	082M224, 137, 225-228, 245-251	Zn, Pb, Ag	Stratiform / Broken Hill	TR, DD
Taseko	Great Quest Metals Ltd	092O033, 38	Cu, Mo, Au	Porphyry	DD (1567 m)
Copeland	Torch River Resources Ltd	082M 002	Mo	Skarn	DD (~3850m)
Prime-Man	Bearclaw Capital Corp		Cu, Au	Porphyry	DD (~2500 m), TR (~2000 m)

Work Program Abbreviations:

A = access; trail, road construction on claims; AB-EM = airborne electromagnetics; AB-MG = airborne magnetics; AB-RD = airborne radiometrics; BU (X tonnes) = bulk sample (weight in tonnes if known); CD = condemnation drilling; CQ = coal quality testing; CT = carbonization test (coal); DD (Xm) = diamond drilling totaling X metres; EN = environmental baseline studies/monitoring, remediation work; FS = feasibility studies; G = geology, mapping, etc; GC = geochemical sampling (rock, soil, silt, etc); GD = geotech drilling; GP = geophysics (general); IP = Induced Polarization; 3D-IP; MG = magnetics; MK = marketing-primarily for industrial mineral products; MS = metallurgical studies; OB = overburden drilling; OP-BU = open-pit bulk sample; P = prospecting; PD = percussion drilling; PF = pre-feasibility studies; PP = Pilot plant, R = reclamation; RC = reverse circulation drilling; TR = trenching, UG (X m) = X metres of underground development; UG-BU = underground bulk sample; UT = UTEM; VLF; WT = washability test (coal)



Figure 4.6. Panorama of the New Afton mine development of New Gold Inc just outside Kamloops showing major areas of work.

and deposits in the region, excellent transportation infrastructure, proximity to growing markets in western North America, and the relative ease of permitting.

The **Harper Ranch** limestone quarry of Lafarge Canada Inc continue to supply cement to meet strong demand in western Canada. Lafarge draws materials from the **Kamloops** cement plant and the **Falkland** and **Buse Lake** quarries, which provide gypsum and alumina-silica rock respectively.

The **Decor** pit of Pacific Bentonite Ltd supplies alumina-rich burnt shale to the Lafarge cement plant in Kamloops. The shale beds occur directly above the Hat Creek coal deposit, located west of Cache Creek. Although most of the material is sold to Lafarge, other marketing opportunities exist such as surfacing of baseball diamonds. The property is also known to host a large bentonite deposit which is being investigated for municipal engineering and tile manufacture applications.

Also near Cache Creek, Graymont Western Canada Inc operates the **Pavilion** limestone quarry and lime plant on the Pavilion Indian Reserve. Graymont has a forty-year lease with the Ts'kw'aylaxw First Nation who form the bulk of the employees at the mine.

East of Ashcroft, IG Machine and Fiber Ltd, a subsidiary of IKO Industries Ltd, operates the **Ashcroft** basalt quarry and roofing granule plant. The granules are sized and coated with one of several distinct colours on site, and then shipped by rail and truck to IKO asphalt shingle plants in Calgary, Alberta; Sumas, Washington; Chicago, Illinois and elsewhere in North America.

Craigmont Mines Joint Venture operates the **Craigmont** magnetite operation located near Merritt where tailings from the old Craigmont copper mine are processed. The plant normally operates on a seasonal basis (March to December), however, due to strong demand, processing may continue through the winter months in 2009. The magnetite is used in coal washing plants in western Canada and the Centralia mine in Washington State. Remaining tailings are forecast to be exhausted within the next one to two years and the company is evaluating several other possible feed sources.

At its plant in Kamloops, Absorbent Products Ltd manufactures cat litter, barn deodorizer, industrial absorbents, and carriers for agricultural products. These are prepared from diatomaceous earth mined from the **Red Lake** quarry northwest of Kamloops, and bentonite mined from the **Bud** quarry at Princeton.

The **Z1** (Ranchlands) zeolite quarry near Cache Creek is a small intermittent producer. Heemskirk Canada Ltd continues to market agricultural and absorbent products, produced from stockpiled zeolite at its plant in Lethbridge, Alberta. Zeolite is also mined from the nearby **Z2** quarry by Industrial Mineral Processors, a private company based in Calgary. The plant produces industrial absorbents for oil field clean-up, soil conditioner, barn deodorizers, feed binders, and cat litter.

At Princeton, the **Zeo-Tech/Bromley Creek** zeolite quarry is operated by Heemskirk Canada Ltd who transports the material to Lethbridge and prepares it for use as lightweight cement for oil and gas wells.

Opal Resources Canada Inc produces attractive fire opal gemstones and jewelry from the **Klinker** property, located west of Vernon. Opal occurs as fracture and vesicle-fillings in andesitic to basaltic laharic breccia of the basal Kamloops Group (Eocene). Presently the gemstone jewelry is marketed from a retail store in Vernon and is aimed at the BC tourist market; however, the company aims to develop other North American markets.

Decorative rock and dimension stone are produced at numerous small quarries throughout the region. The best known producer is the Kettle Valley Stone Company of Kelowna which sells flagstone, ashlar, facing stone and landscape rock mined from the **Nipple Mountain, Kettle Valley, Canyon** and **Gemini** quarries. Kettle Valley's workforce has grown to about 40 people year round, mainly employed in the Kelowna processing facility. The products include dacite ash, gneiss and basalt, and are mainly used in high-end residential and commercial developments in the western U.S.A. and in the Vancouver-Whistler area.

South of Revelstoke, D.G. Olsson produces, by hand, small amounts of micaceous-quartzite flagstone and facing stone at the **Begbie** quarry. Other small, hand-operated flagstone quarries exploit micaceous quartzite in the North Thompson area.

EXPLORATION HIGHLIGHTS

SOUTH THOMPSON AND THOMPSON RIVERS (KAMLOOPS – LOGAN LAKE – HIGHLAND VALLEY)

At the **New Afton** project of New Gold Inc, a Titan geophysical survey was completed in August aimed at exploring the potential continuation of the Iron Mask batholith below the Tertiary volcanics that define the northerly boundary of the Afton pit. Little work was done in 2008 to further explore the C-Zone and Deep C which are more than 1350 m in depth below the surface at the mine site and roughly 200 through 500 metres below the current reserves. A letter of intent was signed in November 2007 with neighboring company Abacus Mining and Exploration Corp around the Ajax pits (Figure 4.7). The agreement gives New Gold Inc access to deep mineral resources - below a conceptual pit being contemplated by Abacus - and gives the latter a much enlarged land position to explore.

Abacus Mining and Exploration Corp concentrated on its new ground in and around the **Ajax West and East** pits (Figure 4.8). Drilling between November and April of over 30 000 m has given the company a substantial amount of new information that it will incorporate into a global resource calculation anticipated late in 2008. Results such as hole AN-07-004, which intersected 356.1 metres grading 0.37% Cu and 0.22 g/t Au, illustrate the significance of the joint venture ground to the company's advancement of this project. A preliminary economic assessment is proposed as well whereby the company will examine the potential to develop a 60 000 tonne per day copper and gold open pit operation at the site.

The company also released results from late 2007 drilling of the Monte Carlo area, which lies east of the Ajax pits, and may represent a faulted offset of the orebody. More drilling is required to better understand the area, but results such as an intersection of 116.5 metres of 0.36% Cu and 0.21 g/t Au in hole AM-07-001 provide encouragement to further explore this area. Drilling of the DM and Rainbow zones in previous campaigns is reported to have confirmed an inferred resource in these zones of 60.1 million tonnes at a 0.2% Cu cut-off.

Other active properties around the Iron Mask batholith that saw minor amounts of work include: the **GM** claim group of Gold Mask Ventures Ltd, the **Galaxy** property of Discovery-Corp Enterprises Inc and the **K-CR** property which has been optioned to Christopher



Figure 4.7. Common access road to the Ajax pits area where a recent joint venture between these companies has been signed.



Figure 4.8. Drilling at the Ajax East pit near Kamloops by Abacus Mining and Exploration Corp.

James Gold Corp and renamed the **Copper Creek** project.

With funding from the Targeted Geoscience Initiative (TGI-3), the Geological Survey of Canada completed its multi-parameter airborne geophysical survey over the immediate Kamloops area to provide southern coverage contiguous to the 2006 Bonaparte survey.

Near Roper and Dominic Lakes, west-southwest of Kamloops, Global Hunter Corp completed fourteen holes at the **Rabbit South** molybdenum porphyry property. Previous work outlined a horseshoe-shaped mineralized zone associated with quartz monzonite of the Roper Lake stock where it intruded andesites and basalts of the Nicola Group. The bulk of the drilling was within areas of known mineralization and aimed at confirming previous drill results in support of defining the resource to a modern standard. Early lab results have shown elevated rhenium levels accompanying the molybdenite mineralization as seen in Hole RS-D-08-123 which intersected 91.8 metres of 0.07% Mo and 0.13 g/t Re. The company has reanalyzed 2005 and 2007 drill core pulps to further explore the significance of rhenium at the property.

Mine site exploration occurred during the year at the **Highland Valley Copper** mine, which is centered in the

Guichon Creek batholith, where Teck drilled several targets aimed at supporting the expansion plans at the mine. Work was undertaken at the Highmont pit and beneath the proposed west wall push back at the Valley Pit.

About 12 kilometres southeast of the Highland Valley mine, Happy Creek Minerals Ltd had a breakthrough year at the **Rateria** porphyry copper-molybdenum property. Drilling at Zone A intersected 177 metres of 0.366% Cu with a higher grade intersection of 42 metres of 0.865% Cu, 0.012% Mo and 4.36 g/t Ag in hole R08-05. Geological evidence suggests to the company that Zone A is part of a 5 kilometre corridor that has potential for similar levels of mineralization.

Just north of the Highland Valley mine, Getty Copper Inc continues to work on a pre-feasibility engineering study at the **Getty North** and **Getty South** porphyry copper deposits. Early in the year the company updated its stated resources and included estimates for contained molybdenum. The Company is proposing to utilize concentrate pressure oxidation and tailings vat leaching hydrometallurgical technology in its anticipated treatment of its resources. The project would produce cathode copper and molybdenum trioxide.

Further south in the Guichon batholith, Dot Resources Ltd completed additional geophysics at the **Dot** property, which contains the former producing Aberdeen Mine and Vimy showings, to define more drill targets. Last year's drill results were released and expanded both the southeast and northwest zones and suggested the zones may be in fact a singular mineralized horizon.

SNL Enterprises Ltd was active on the **Logan Copper** project located six kilometres east of the Highland Valley Copper mine. The property is reported to cover the Bethsaida phases of the Guichon batholith. The company completed a large MMI sampling and reconnaissance program and has drilled numerous combined geochemical and geophysical anomalies.

***NORTH THOMPSON RIVER – ADAMS LAKE
(CLEARWATER – BLUE RIVER)***

Commerce Resources Corp undertook its most concerted effort to date at its **Blue River** tantalum and niobium project (Figure 4.9). With the intention of completing a scoping study in early 2009, the company proceeded with bulk sampling of the Upper Fir for metallurgical studies as well as a 20 000 metre drill campaign (Figure 4.10). The company released a new resource estimate for the Upper Fir with an indicated resource of 14.68 million tonnes at 190 g/t Ta₂O₅ and 1300 g/t Nb₂O₅ and inferred resource of 19.81 million tonnes of 188 g/t Ta₂O₅ and 1612 g/t Nb₂O₅ at a 150 g/t Ta cutoff. Significant intersections of carbonatite encountered in the 2008 drill campaign should see the resources at the Upper Fir increase. The company aggressively undertook a regional exploration program in



Figure 4.9. Pyrochlore expressing prominently in a sample of weathered carbonatite at the Blue River Tantalum and Niobium project.



Figure 4.10. Drill core logging at the Blue River Tantalum and Niobium project of Commerce Resources Corp.

search of new carbonatite bodies as well as extensions to known ones: the company reported the discovery of the **Felix** carbonatite as one success of this program.

Selkirk Metals Corp continued a very aggressive program at the **Ruddock Creek** property located within the Script Ranges about 100 kilometres north of Revelstoke. Most of the company's efforts were directed at driving a decline toward the E-Zone. At 956 metres the footwall of the E-Zone was intersected and for the next 22 metres the company was able to get its first

comprehensive look at the zone. Further work has indicated that the decline, which ultimately reached 982 metres in length, does not traverse the entire width of the zone, estimated at 30-40 metres. The decline would have to be extended another 60 metres to achieve this. A 170 metre crosscut was completed at the end of the decline and four drilling stations were created. A bulk sample has been collected from the zone for ongoing metallurgical studies and advanced engineering and geological studies have been completed.

A substantial underground drill program was completed to infill and confirm the significant intersections from the previous surface drilling (Figure 4.11). Hole EUG-08-5 has produced one of the best results to date in intersecting 11.09 metres of 13.17% Zn, 2.32% Pb and 3.1 g/t Ag. The hole experienced drilling difficulties, as did several of the holes early in the program, such that some of the thickest parts of the mineralized horizon were not completely crossed. Results are pending for a significant number of the holes completed later in the fall drilling campaign. The company has announced it will proceed with a preliminary assessment of the project and in particular complete resource calculations for the portions of the E-Zone that have been adequately tested.

Inlet Resources trenched and drilled the **Broken Hill** property near Avola and 15 kilometres west of the Ruddock Creek property. At the property numerous Broken Hill-type zinc-lead-silver stratiform showings are found within calc-silicate sequences. Work was focused on the Mike and Denis showings which are sphalerite-bearing float and geochemical soil anomalies respectively. Drilling tested between the Navan and Pautler showings as well.

After completing its discovery hole CF07-41 in November 2007, Newmac Resources Inc has set out to define the extent of its new zone at the **Crazy Fox (Anticlimax)** porphyry molybdenum-tungsten property north of Little Fort (Figure 4.12). Piercing the zone from the east and west has shown that it extends over 800 metres to the south from where it was first encountered. Drillhole CF-08-57 intersected 305.9 metres of 0.04% Mo and 0.001% W with a higher grade interval of 78 metres of 0.06% Mo. Often holes finish in mineralization due to the greater depths required to drill off the zone and technical limitations of the drills.

At the **Harper Creek** copper project located 10 kilometres southwest of Vavenby, private company Yellowhead Mining Inc has filed a project description with the BC Environmental Assessment Office indicating its intention to move the project toward permitting. The deposit is comprised of tabular shaped zones of volcanogenic sulphide mineralization hosted within highly deformed Late Devonian metavolcanic rocks of the Eagle Bay Assemblage. At present the deposit contains an indicated resource of 450 million tonnes grading 0.323% Cu and an inferred resource of 142 million tonnes grading 0.326% Cu, both at a 0.2% Cu cut off.



Figure 4.11. Underground drilling of the E-Zone at Selkirk Metals Corp's Ruddock Creek project northeast of Avola (courtesy of Jay Fredericks).



Figure 4.12. Sample of molybdenite-bearing quartz vein in a float sample at the Crazy Fox property of Newmac Resources Inc near Little Fort.

The company completed its fourth phase of drilling in April and undertook a targeted geological program at the property. Much of the remainder of the year was spent re-logging and sampling core from previous drilling by Noranda and US Steel to obtain multi-element analysis and confirm prior results (Figure 4.13). Engineering studies are underway with respect to a mine design as well as field studies related to wildlife and environmental characterization. A memorandum of understanding has been signed with a Korean group to provide investment and future project financing rights to see the project through upcoming milestones.

Several other projects were active in the Adams Plateau with most exploring for volcanogenic massive sulphide mineralization within the highly prospective Eagle Bay Assemblage. On the **Moore** property near East Barriere Lake, Almo Capital Corp drilled targets identified by a previous induced polarization survey.



Figure 4.13. Old core being readied for re-logging at Yellowhead Mining Inc's Harper Creek project near Vavenby.

Eagle Plains Resources Ltd was back at the **Acacia** property near Adams Lake this year completing an airborne geophysical survey. Two recent copper and silver discoveries made at the **Honeymoon** property by prospector David J. Piggan were optioned to Acrex Ventures Ltd who undertook more grassroots exploration of this large land holding near the Harper Creek project and west of Adams Lake. Southeast of Barriere, Bitterroot Resources Ltd advanced its **SPN** project with further geological and geochemical work as well as an airborne VTEM survey.

CMC Metals Ltd drilled the **CK** property located northeast of Clearwater to provide infill and confirmation data at the New Zone which has been traced over a strike length of 1300 m and to depths of over 100 metres downdip (Figure 4.14). This property boasts numerous mineralized occurrences of the Broken Hill-type and the company proposes to move the project quickly through to a small-scale high-value mine. Results from winter 2007 drilling have been released with the best intersection reported in hole CK07-10 which cut 1.78 metres of 4.44% Pb and 22.32% Zn.

Partners Island Arc Exploration Corp and Rimfire Minerals Corporation released results for a 2007 winter drill program at the **Jake** property, a 2005 gold discovery by prospector Mo Kaufman which is located west of Clearwater. At the property mineralization consists of quartz with pyrrhotite, chalcopyrite, pyrite and bismuthinite in veins and stringers hosted by sheared andesite tuffs of the Devonian to Permian Fennell Formation. Drilling of induced polarization anomalies and trenched areas confirmed gold mineralization in several structures including the original Jake showing and the Jake Offset. Hole J-DDH07-04 intersected 1.25 metres of 11.34 g/t Au close to the surface at the Jake showing. Further induced polarization surveys were conducted in 2008 with proposed drilling to follow.

West of Little Fort, Candorado Operating Company Ltd trenched and drilled the **Deer Lake** property in search



Figure 4.14. Core logging at the CK project of CMC Metals Ltd located between Clearwater and Blue River along the Raft River.

of skarn and porphyry copper-gold mineralization. Two zones, the Road Showing and the Lightning Zone were the primary focus of this year's program. In 2007, drilling of hole DL07-10 at the Lightning Zone yielded several short intersections grading between 0.03 - 0.49% Cu and 0.16 - 1.06 g/t Au and an impressive interval of 1.0 m grading 2.2% Cu and 8.10 g/t Au. Nearby, Christopher James Gold Corp was active on their area properties conducting geological and geochemical studies and trenching. Several deposit styles are being pursued within Nicola Group volcanic rocks especially skarn mineralization similar to Candorado's property to the south. Black Panther Mining Corp has optioned and drilled the **Golden Loon** property just west of Little Fort. The company is pursuing nickel and cobalt mineralization within the Dum Lake Intrusive complex: a Triassic to Jurassic Alaskan-type ultramafic intrusive.

Kingsman Resources Inc followed up on last year's encouraging drill results on the **Luxor** property that yielded several intersections of 3 - 32.75 m with grades of 0.0214 - 0.0925% Mo in four holes with an expanded geophysical survey and geochemical and biogeochemical surveys. The company is targeting molybdenum mineralization within intrusive rocks of the Baldy batholith.

While searching for gold mineralization on the **Iron Mist** property located north of Kamloops, American Creek Resources Ltd identified the source of a large magnetic airborne anomaly to be a massive magnetite skarn. The company reports exposures of up to 1 metre width and 15 metres length have been found. The company is exploring the nature of the magnetite as a potential source of iron.

**SOUTHERN CARIBOO – CHILCOTIN
PLATEAU (TASEKO LAKES – 100 MILE
HOUSE)**

Exploration for porphyry copper-gold deposits was the focus of most work in the Cariboo-Chilcotin in 2008; however, the area is also well known for its high-grade gold-silver vein prospects. Both the provincial and federal geological surveys continued their geoscience programs in the region aimed at bolstering exploration activity and off setting the impacts of the Mountain Pine Beetle on the area's economy (Figure 4.15). Mitch Mihalynuk of the British Columbia Geological Survey and his crew completed regional mapping in the Puntzi Lake area to expand the area covered in 2007 that led to the discovery of five new mineral occurrences that year and a map pattern that showed there was far more Mesozoic rocks exposed in the area than previously known with potential for various styles of mineralization. In the same region, a till sampling and surficial mapping program was started by Travis Ferbey of the provincial Geological Survey.

The most significant project in this area is the **Prosperity** porphyry gold-copper deposit of Taseko Mines Limited, located southwest of Williams Lake. The deposit contains 487 million tonnes of proven and probable reserves at 0.22% Cu and 0.43g/t Au. The company continues with engineering studies and has completed new metallurgical work to confirm the character of ore feed. Some mill equipment with long lead times for procurement has been secured with payments. In July the project formally entered the Environmental Assessment process.

At the **Taseko Lake** porphyry copper, gold and molybdenum project, located 15 km south of the Prosperity project, Galore Resources Inc picked up where it left off last season with a significant drill program. The majority of the drilling was at the Hub property where hole 08TSK-06 was mineralized over its entire 305 metre length and returned 294 metres of 0.14% Cu and 0.01%



Figure 4.15. Mitch Mihalynuk of the BC Geological Survey undertaking field studies in the Beetle Impact Zone west of Williams Lake.

Mo. Also drilled were the Northwest Copper, Mad Major, Syndicate and Spokane prospects.

Nearby, Great Quest Metals Ltd drilled in and around the Empress deposit at the **Taseko** property in an effort to update historical resources and expand the deposit. The company reports that there were an increased number of dikes in this year's drilling compared to the main part of the Empress deposit to the west. This interrupted some of the longer mineralized intersections.

At the **Chilanko** property located north of Tatla Lake, Newmac Resources Inc reported interesting geological environments from a winter drill program at the property despite a lack of economic levels of mineralization. Intersections of native copper, chalcocite and bornite mineralization are reported to be similar to a red bed-style of deposition. In the spring an IP program was undertaken to further delineate targets through windows in the Miocene age basalts which cover most of the plateau area.

The **Blackdome** gold-silver mine and mill of J-Pacific Gold Inc is located northwest of Clinton and remains on care and maintenance. This underground mine operated in the 1980s and again briefly from October 1998 to May 1999. Mineralization consists of narrow, high-grade epithermal quartz veins. The 200 tonne-per-day mill is intact and the property has an historic inferred mineral resource of 124 120 tonnes grading 12.8 g/t Au and 33.7 g/t silver. Nearby, the company also holds the **Elizabeth** property where bonanza-grade mesothermal veins within the Blue Creek diorite intrusions are common. This year saw a break from the very active programs of the past few years as the company complied information and planned for upcoming programs.

Anglo-Canadian Uranium Corp released drill results from 2007 drilling at the **Stirrup** property located west of Clinton where epithermal gold-sulfide-quartz veins are hosted within marine sedimentary rocks of the Lower Cretaceous Jackass Mountain group. Intersections that ranged from 1.0 to 4.0 metres grading 0.59 - 4.87 g/t Au indicated some higher grade mineralization, but did not support the objective of defining a bulk tonnage target.

At the **Watson Bar** property north of Lillooet, Durfeld Geological Management Ltd continued a program of high-grading gold-silver-bearing mineralization in preparation for custom milling. At the property, quartz-sulphide veins and carbonaceous shear zones are hosted within feldspathic and volcanic lithic arenites of the early Cretaceous Jackass Mountain Group.

At the **Lac La Hache** porphyry copper-gold property of GWR Resources Inc, 2008 marks the 20th year of exploration at the property for the company (Figure 4.16). Work continued at the Aurizon zone on the Ann 1 property which is now better understood to be hosted by a hydrothermal breccia pipe that plunges steeply to the north within a larger zone of potassic-altered monzonite. Drilling at the Aurizon Zone is ongoing in an effort to model the extents of mineralization and perform a



Figure 4.16. Alain Plouffe of the Geological Survey of Canada continued field research in the Lac La Hache region. He is shown here measuring ice flow directions at the Lac La Hache project of GWR Resources Inc.

resource estimate. About 1 kilometre west of the Aurizon zone, the 2007 discovery of the **Peach 1** zone on the Ann 2 property was followed up with 22 drillholes which encountered mineralization over 300 metres in an east-west orientation. Unlike the Aurizon zone, mineralization in this zone is hosted within volcanic rocks that are in turn cut by monzonite dikes at the margin of a monzonite pluton.

Candorado Operating Company Ltd reports a discovery of copper-gold porphyry mineralization at the **Bluff Lake** property immediately north of GWR's property. Prospecting discovered a mineralized float boulder which contained 1.49% Cu and 8.1 g/t Ag. Follow-up drilling of geophysical and geochemical targets encountered mineralization including disseminated and fracture-controlled native copper as well as chalcopyrite, bornite and molybdenite. Assays are pending. Also in the area, drilling of the **Summer** property was proposed by operator Rio Minerals Ltd.

Happy Creek Minerals Ltd continued to evaluate the extensive and prospective holdings it has in the Boss Mountain area of the south Cariboo region. Regional scale potential has been demonstrated at the **Fox** tungsten-molybdenum skarn where 2007 drilling yielded intersections that ranged from 0.25 - 5.0 metres of 0.33 - 1.56% WO₃ and 0.5 - 1.7 metres of 0.51% Mo. Adjacent to the former Boss Mountain mine are the company's **Silverboss** and **Gus** properties which are being explored for seemingly discreet molybdenum and gold-silver mineralized systems associated with the Takomkane batholith. The company is also pursuing alkalic gold-copper porphyry mineralization at the **Hen, Hawk and Grey** properties located southeast of Boss Mountain.

Skygold Ventures Ltd drilled the **Spanish Creek** property this year as part of its search for sediment-hosted gold in similar geological settings to its flagship Spanish Mountain property. Located northeast of Canim Lake, the

property has a history of very large gold-in-soil anomalies within Triassic black phyllites that are stratigraphically equivalent to those at the Spanish Mountain property.

GOLD BRIDGE – BRALORNE – LILLOOET

The most advanced project in the famous Gold Bridge mesothermal gold-quartz vein camp is at the **Bralorne** mine of Bralorne Gold Mines Ltd which operated continuously from 1928 to 1971 and was the dominant contributor to the approximately 4.15 million ounces of gold that came from this camp. Infrastructure on the property includes extensive underground workings, an assay lab, mine offices and dry, a partially completed tailings pond and a small gravity/flotation pilot mill with a capacity of about 100 tonnes-per-day.

In 2008, the company extended its underground workings to the BK Zone, an unexplored gap between the King and Bralorne Mines which was discovered in 2007. Drifting along the 800 level, the zone was delineated in two mineralized areas: the first section running for a length of 40.84 metres and giving a weighted average grade of 28.89 g/t Au across an average width of 1.66 metres, and the second for a length of 24.69 metres and giving a weighted average grade of 18.0 g/t Au across an average width of 1.21 metres. To date drifting along the BK Zone has covered approximately one-third of the distance proposed and permitted. A new 440-metre decline has been proposed to intersect the BK Zone at the 575 level and allow further drifting along the structure. This will better define the zone and support shrinkage mining if adequate resources are delineated. The company has also undertaken a surface drilling program to further explore the structure of the BK zone.

Covenant Resources Ltd was active on its **Piebiter** property located six kilometres southeast and along strike from many of the structural zones of the Bralorne camp. The property hosts numerous recorded mineral occurrences and a large multi-element soil anomaly that remains untested.

The **Congress** gold property of Levon Resources Ltd is located 11 kilometres north of the Bralorne mine and on the north side of Carpenter Lake. The property has had some mining and substantial exploration between 1913 and 1989 including six adits with over 2300 metres of underground workings. In late 2007, a drill program was undertaken in the Gun Creek canyon aimed at testing the bulk tonnage potential of porphyry-style stockwork veins associated with dacite dikes and sills. The program revealed that the stockwork veins did not continue to depth and that mineralization encountered was similar to typical vein mineralization at the property. The best intercept came from a zone of rusty-weathering carbonate-quartz-arsenopyrite-stibnite veins that yielded 12.3 g/t Au over 3 m.

East of the Congress property near Marshall Lake, Gray Rock announced no significant mineralization was

encountered in the 2007 drill program on the **Silver Stream** property; however, recent chip sampling of shear zones at the property netted a 1 metre interval of 10.37 g/t Au along with highly anomalous lead and silver.

On the south side of Carpenter Lake and 10 kilometres northeast of the Bralorne Mine, Menika Mining Ltd drilled the Carter claim on the **Reliance** property. The program targeted a large MMI gold-silver-arsenic-antimony in soil anomaly.

Goldbridge Mining Ltd planned to trench and drill the **Little Gem and Jewel** property located northwest of Gun Lake. The Little Gem portion of the project is a gold-cobalt vein deposit within granitic rocks of the Coast Range igneous complex and has seen underground work in the mid-1950s. The company hopes to expand the known mineralization to outside of the high-grade pod that was subject to past work. The Jewel property is a high-grade gold vein and has seen surface exploration in the past.

Also northwest of Gun Lake, Durfeld Geological Management proposed an access and drilling project at the **Eldorado** property in the Nea Basin near the headwaters of Tyaughton Creek.

Cresval Capital Corp was busy on two properties it holds in the area: the **New Raven** and the **Bridge River Copper** projects. The New Raven project is a gold-quartz vein prospect located 15 km southwest of Lillooet. Work in the early 1990s followed up on float samples that assayed up to 12.21 g/t Au and identified five zones through trenching and shallow drilling. The company drilled the property this year with the aim of exploring deeper and at steeper angles in previously explored localities that were felt would benefit from better drilling geometry. At the Bridge River Copper project, located 40 km west-northwest of Goldbridge, the company explored for calc-alkaline porphyry copper-molybdenum-gold mineralization within the Bridge River Pluton. The property contains the Nichol, Russnor and BR showings.

Supreme Resources Ltd drilled the **Ample-Goldmax** property located nine kilometres southwest of Lillooet. Previous work has defined Mother Lode-style mineralization with quartz-carbonate-arsenopyrite-gold veins within greenstones and phyllites along a regional-scale fault zone. Visible gold is not uncommon at the property and reported in several instances in this year's drilling as well.

FRASER RIVER (CACHE CREEK – ASHCROFT – LYTTON – MERRITT)

Several programs were aimed at low-sulphidation epithermal gold-silver targets in the maturing Spences Bridge gold belt, located between Merritt, Spences Bridge and Lytton. Senior project geologist Larry Diakow of the British Columbia Geological Survey has completed another season of field research within mid-Cretaceous

rocks of the Spences Bridge Group in an area southwest of Merritt. In 2007, he identified intriguing sinter-exhalite horizons with geochemically anomalous metal contents hosted by Late Triassic Nicola Group strata. In 2008, he expanded 1:20 000-scale mapping of Cretaceous stratigraphy northwest and southeast of previous work to include geology around low sulphidation epithermal veins at the Prospect Valley prospect and new vein prospects at Shovelnose Mountain.

Consolidated Spire Ventures focused most of its efforts at the **Prospect Valley** property this year on the Discovery South and North zones (includes RM/RMX anomalies). Improved access to the property, located 30 kilometres west of Merritt, will allow more economical infill drilling in support of outlining a low-grade bulk-mineable target. Drilling at the Discovery zones in 2007 produced promising results such as 66.83 m averaging 0.9 g/t Au and 5.86 g/t Ag in hole DDH-2007-02. The company is also exploring the Bonanza zone to the south of the Discovery zones. Previous work identified a large area with quartz veins and stockwork within an amygdaloidal basalt host: the same rock types that, when combined with early faulting and hydrothermal alteration, host most mineralization at the property. Float samples within the Bonanza zone have assayed up to 43 g/t Au.

Nearby, Williams Creek Explorations Ltd remained active on the **Merit** property where they proposed to drill targets on Sullivan's Ridge.

Strongbow Exploration Inc focused the majority of its efforts at its Spences Bridge Gold Belt holdings on the **Shovelnose** property located 30 kilometres south of Merritt. Several recent discoveries on the property were further explored through progressive exploration leading up to trenching at the Line 6 and Mik showings. The best result was a 6.0 metre composite chip sample from the Line 6 showing that assayed 5.1 g/t Au in trench L6-XT-04. Gold mineralization is reported to be epithermal-style and related to shallow to moderately west dipping colloform-banded quartz veins hosted by silicified and clay altered felsic volcanic rocks. The company was not active on most of its other properties in the Belt. Results were released for last year's drilling at the Deadwood showing on the **Skoonka Creek** property where intersections ranged from 0.82 - 16.26 metres with grades of 0.42 - 6.43 g/t Au. Drill results from the **Ponderosa** property were disappointing and no further work has been completed.

Appleton Exploration Inc reported success trenching gold-in-soil anomalies at the **Dora** property located southwest of Merritt and between the Shovelnose and Prospect Valley projects. At the property trenching results of brecciated and silicified rhyolite with lesser andesite has produced results such as 2.74 g/t Au over 4 metres as seen in the F2 zone as well as 2.54 g/t Au over 2 metres in the F1 zone. Fall drilling of priority targets was proposed.

Anglo-Canadian Uranium Corp reported that its early 2008 drilling of the **Skoonka (B4, B5, B6)** project in

search of epithermal mineralization returned disappointing results.

SIMILKAMEEN RIVER (ASPEN GROVE – PRINCETON – HEDLEY)

This part of the region saw a dramatic rise in exploration activity mainly focused on porphyry copper-gold-molybdenum prospects. Anchoring this area is the former **Similco** (Copper Mountain-Ingerbelle) copper-gold mine at Princeton which has been on care and maintenance since 1996. Senior project geologist Nick Massey of the British Columbia Geological Survey has begun a research and mapping program within the area aimed at exploring the western Nicola Group as a potential host for massive sulphide-style mineralization. These rocks have experienced significant deformation and may be a different suite of rocks with higher potential for hosting this style of mineralization.

The largest drilling program in the province was undertaken at the **Copper Mountain** project of Copper Mountain Mining Corporation (Figure 4.17). Mineralization at the project is characterized as structurally controlled alkalic porphyry copper hosted within upper Triassic-Jurassic Nicola Group volcanic rocks of the southern Quesnel terrane. In the fall of 2007 a geophysical survey utilizing a Quantec Titan 24 Deep Earth Imaging system was completed: it proved to be a very effective tool in identifying substantial areas of high-chargeability both near the surface and at depth. Some 60 000 metres drilling followed in a progressively aggressive campaign that built upon its successes as the year went on. The bulk of the drilling was centered on defining the proposed “super pit” resource which incorporates previously mined Pits 1, 2 and 3. The deep roots to mineralization were demonstrated in drillholes, such as CM08P3-08. It ended in mineralization at a depth of 922 m below the bottom of Pit 3 and intersected 292 m of 0.55% Cu and included 98 m of 1.31% Cu. Two zones outside of the proposed super pit were drilled, the Pit 2 West Copper King and the Oriole zones. Both zones have the potential to add significant resources to the project with intersections such as 119 m of 0.40% Cu in hole CM08P2-140 and 36 m of 2.1% Cu and 22.7 g/t Ag in hole CM08OL-17 respectively.

A positive feasibility study was completed in July for Copper Mountain which contemplated a 35 000 tonne per day mill to be constructed at an estimated \$402 million capital cost. In the study the measured and indicated resource was stated as 169 million tonnes averaging 0.411% Cu and an inferred resource of 84 million tonnes averaging 0.344% Cu, all at a 0.25% Cu cut-off. Another achievement was the completion of a Memorandum of Understanding with Mitsubishi Materials Corporation which sees all the copper concentrate forward sold for the first 10 years of operation in exchange for an equity interest in the project and the arrangement of \$250 million project loan. In late October, the company announced it was proceeding with the development of the Copper Mountain project with the placement of long lead time equipment orders and re-establishment of site permits and improvements. Production start-up is anticipated in late 2010 subject to the company finalizing all financing, construction and permitting requirements.

Just four kilometres to the northeast of Princeton is the **Miner Mountain** property of Sego Resources Inc (Figure 4.18). Mineralization is generally hosted within microdiorite of the Nicola Group and there may be a genetic link to Deer Valley Fault to the west that juxtaposes these volcanic rocks with sedimentary rocks of the Eocene Princeton Group. Previous work on the Granby Zone has delineated an historic resource of 540 000 tonnes of predominantly oxide ore which grades 0.25 - 0.30% Cu. Starting last year, the company completed a very large trenching program aimed at bettering results of previous shallow cat trenching and exploring the relationship between the Granby and Regal Zones (Figure 4.19). Some of the best results released include 19 metres of 1.03% Cu and 0.25 g/t Au as seen in trench 22 over the Granby Zone. Drilling at both zones was undertaken. At the Granby Zone, typical grades encountered in trenching were reproduced in drilling; however, some of the better intersections such as 64.24 metres of 0.46% Cu, 0.14 g/t Au and 2.25 g/t Ag in hole MM-08-04 were stopped in mineralization due to difficult ground. The Regal Zone was confirmed as being a debris slide that has a potential origin from the Granby Zone to the east-northeast. Some new mineralization has been described at the South Zone located roughly 850 m to the south of the Regal Zone. Re-trenching at the zone has produced results, such as 32 m of 0.29% Cu and 1.0 g/t Au from Trench 36. Another new zone includes a



Figure 4.17. A panorama shot of the previously mined pits at the Copper Mountain project of Copper Mountain Mining Corporation south of Princeton (courtesy of Nick Massey).



Figure 4.18. A geologist with Sego Resources Inc prospecting the Miner Mountain property just outside of Princeton.



Figure 4.19. Geologists Stephanie McQueen and Curt Kauss review trenching plans at the Miner Mountain property just outside of Princeton.

gold-bearing caliche to the northeast of the Granby Zone. Both of these new zones appear to reflect second order fault-controlled mineralization from the Deer Valley Fault.

Approximately five kilometres south of the Copper Mountain project, Anglo-Canadian Uranium Corp drilled a single hole on the Friday property at the **Princeton Copper** project to test the contact of the Copper Mountain intrusions with Nicola Group volcanic and sedimentary rocks for copper-gold-palladium mineralization. The company has expanded its holdings in the area in light of current activity in the region.

Located 36 kilometres north of Princeton, Candorado Operating Company Ltd increased its share in the **Man/Prime** porphyry copper-gold property and proposed late fall drilling and trenching. Near Kentucky Lake, Bold Ventures Inc released drill results from last year's drilling at the **Kentucky Lake** property. The company tested the

Tom Cat showing to reproduce historical results and encountered mineralization over 44.5 m in hole K07-03; however, incomplete sampling yielded only shorter intervals such as 5.6 m of 0.53% copper. East of Kentucky Lake, Victory Resources Corporation drilled the **TOE & WEN** properties to test for gold-copper mineralization in a mesothermal quartz vein and porphyry copper mineralization respectively. Drill results near an old adit on the Toe property encountered chalcopyrite and pyrite mineralization that gave a near surface intersection of 1.0 m of 8.6 g/t Au and 0.24% Cu in hole VRW-08-02. Results at the Wen property included a small number of short, very low-grade copper intersections. Christopher James Gold Corp flew an airborne magnetic-radiometric survey over its **Big Kidd** property located near Aspen Grove this year.

Southwest of the village of Tulameen, along the Tulameen River, Huldra Silver Inc is proposing a small mine at the **Treasure Mountain** vein silver-lead-zinc project. This year the company restated the resources at the property to include 38 114 tonnes with 1018.95g/t Ag, 5.92% Pb and 5.09% Zn of indicated resource in the Hangingwall Domain, which also contains an inferred resource of 50 990 tonnes with 922.53 g/t Ag, 3.2% Pb and 4.9% Zn.

Goldcliff Resources Corp acquired the mineral rights over portions of the Tulameen ultramafic complex this year with the creation of the **Tulameen Platinum** property. They completed an airborne geophysical survey as well a large stream sampling program in search of gold, platinum and palladium mineralization. Also in the area, private company Magnetite Ridge Metals & Mining Ltd have excavated a bulk sample to test magnetite mineralization within clinopyroxenite for a potential starter pit on its **Magnetite Ridge** property. Potential uses for the magnetite include iron smelter feed and as a coal cleaning medium.

Goldcliff Resources Corp continued its exploration of the **Panorama Ridge** gold skarn project a few kilometres east of the historic Nickel Plate gold mine at Hedley. The property has numerous showings with wide zones of near-surface low-grade gold mineralization hosted within sedimentary rocks of the Hedley Formation of the Triassic Nicola Group. Last year's drill results were released from the York-Viking Zone which confirmed multiple gold horizons over a substantial area and yielded significant intersections such as 12.0 m of 1.41 g/t Au in hole DDH 27100. The bulk of the drilling this year was at the Nordic showing where, historically, gold grades are slightly higher than at the York-Viking but to date the zone has not been well characterized. Trenching and drilling were completed in and around the Bonanza Trench where late 2007 results gave values such as 140 g/t Au across 5.0 m. In 2008, channel sampling over a ten square metre area yielded fifty-five samples that averaged 27 g/t Au (Figure 4.20). The company also reports it has identified the bismuth telluride hedleyite in the Bonanza Trench, a mineral closely associated with



Figure 4.20. Consultant Grant Crooker showing the sawn channel samples in the Bonanza Trench at GoldCliff Resource Corp's Panorama Ridge property near Hedley.

other gold deposits within the Hedley camp.

Target Exploration and Mining drilled nine holes at the **Bradshaw Gold** project located ten kilometres southeast of the Nickel Plate Mine. The property hosts both high-grade veins as well as broader zones of low-grade gold within highly deformed chert of the Ordovician to Triassic Apex Mountain Complex. The best result came from hole BS08-05 which intersected 4.9 m of 1.98 g/t Au whilst there were numerous intersections that ranged from 0.8 - 11.1 m grading 0.95 - 2.33 g/t Au.

OKANAGAN VALLEY – SOUTHERN MONASHEES (KELOWNA – PENTICTON)

Almaden Minerals Ltd continues to evaluate the **Elk** (Siwash North) mesothermal gold-quartz vein project 45 kilometres southeast of Merritt, and just two kilometres south of Highway 97. The company has completed a scoping study and metallurgical work in support of advancing the project through to the resumption of mining and is reporting interest from various parties in the project. Results released from 2007 drilling, such as 3.16 m of 45.2 g/t Au in hole SND07506, reflect the high tenor of gold at the property.

Partners Molycor Gold Corp and Goldrea Resources Corp were active at the **Empress** property west of Summerland and 15 km south of the former Brenda Mine with a drill program that was initiated last fall. The property is west of and contiguous to the better known CrowRea property that was discovered by Goldrea in 1995. Previous work was done on the Empress property by Anaconda Canada Ltd in 1968 who followed up anomalous stream sediment samples with trenching and drilling. Mineralization is found as molybdenite-pyrite-chalcopyrite disseminations, veinlets and in quartz stringers hosted within porphyritic quartz monzonite rocks of the Middle Jurassic Osprey Lake batholith.

Better drilling orientation and molybdenite recoveries owing to diamond drilling rather than percussion drilling have given much improved results such as a very high-grade intersection of 0.180% Mo over 15 m as seen in hole Emp 19. The near surface position of much of the mineralization provides encouragement for the potential of an open pit resource.

Jasper Mining Corp was very busy at its **Isintok** molybdenum-copper-silver prospect, located southwest of Summerland and completed a thirty eight hole program this year. Previous work by Anaconda Canada Exploration Ltd and Canex Aerial Exploration Ltd delineated an historical near-surface resource of 23 million tonnes of 0.161% Cu and 0.04% Mo. Although explored as a porphyry exploration target, the company reported many high-grade molybdenum intersections that may warrant specific evaluation. Hole IS-08-34 is being touted as the modern discovery hole on the property where 94.67 m grading 0.086% Cu, 0.015% Mo, and 0.77 g/t Ag was intersected. The hole was sited on a coincident induced potential and geochemical target and contained the greatest density of potentially mineralized veins apparent in drilling to date.

Just 1100 m to the north of the former Brenda Mine, Bitterroot Resources Ltd was active on the **North Brenda** property and completed a geochemical and an induced polarization survey in preparation for further drilling. Results were released from late 2007 drilling and some promising long intersections included 297.5 m of 0.058% Cu and 0.019% Mo in hole NB07-11.

Almaden Minerals Ltd has dusted off its **Munro** copper-molybdenum property which it first acquired in 1986 and drilled in 1996 and 1997. Located 20 km south of the Brenda Mine, the property is thought to have genetic similarities to the mine and has yielded some interesting previous results, such as 14.8 m of 0.1% Mo with 15.1 g/t Ag and 0.27% Zn.

SHUSWAP LAKES – COLUMBIA RIVER – NORTHERN MONASHEES (REVELSTOKE)

International Bethlehem Mining Corporation through a wholly owned subsidiary owns the **Goldstream** copper-zinc mine-mill complex north of Revelstoke that lies in the heart of this region which is best known for its stratiform base-metal deposits hosted in cover sequences of the Monashee Complex. With a 1360 dry metric tonnes per day capacity, this custom mineral processing plant is permitted to custom mill off-site ore feed as well. The company continues to evaluate the zinc and copper-bearing tailings at the property for possible re-processing. This year the company planned to complete a new resource estimate of the tonnage of material grading higher than 1.5% zinc. Within the broader region the company holds several properties, known collectively as the Big Bend project, that it has been evaluating as potential feed sources for its mill. This year the company

was most active on the **Cottonbelt** property where it drill tested the hinge zone of the Mount Grace syncline for Broken Hill-type lead and zinc mineralization.

The **J&L** property of Merit Mining Corp is located 45 kilometres north of Revelstoke and was the subject of a large fall 2007 and early 2008 exploration program. At the property the Main and Yellowjacket zones of silver-lead-zinc stratiform mineralization are hosted by highly deformed metasedimentary rocks of the Proterozoic-Paleozoic Hamill Group. In late 2007, a concerted effort was made to establish a permanent camp at the property to allow for a significant underground development and drilling program. Work began on the rehabilitation of the 832 portal, slashing of existing workings and further development of upwards of 538 m of new decline to intercept the 830 workings of the Main Zone. Work was well underway when the company temporarily suspended work in August so that strategic resources could be deployed to the company's Greenwood project. Results from a late 2007 surface drill program were released which confirmed that there were several mineralized horizons within the Yellowjacket Zone with grades similar to those from previously published resource figures.

Nearby on the south flank of Frenchman Cap Dome, Torch River Resources Ltd drilled the **Mount Copeland** high-grade molybdenum skarn project. The property is a past producer that was active briefly as an underground operation between 1970 and 1973. Mineralization consists of disseminated, massive and stockwork-hosted molybdenite within syenite pegmatite and syenite aplite along a boundary of an extensive nepheline syenite body. The syenitic rocks in turn form sill-like bodies within calc-silicate metasedimentary rocks. Prior to going into production the property was reported to contain 163 278 tonnes of resources grading 1.09% Mo. The company's plans included drilling around the 6950 Glacier Zone where most of the previous production occurred in search of extensions to the mineralization.

OUTLOOK FOR 2009

The varied geology of the south-central region hosts many favorable environments for exploration including porphyry, high-grade vein and stratiform deposits. The area has been fortunate to have numerous highly motivated junior companies with sizeable budgets to evaluate some of the high quality deposits in the region. The late 2008 economic crisis, which appears to have caught most forecasters by surprise, makes it difficult to forecast mineral exploration activity in this region for 2009. There appeared to be fewer new financings over the course of the year which seems to suggest that exploration treasuries for many companies might be diminishing.

For the Highland Valley mine, the operation will continue balancing volatile commodity prices, foreign exchange rates, energy costs, ore-grade control and other

corporate commitments to maintain its profitability. The New Afton mine development will continue at reduced rates and hopefully there will be some reduction in capital construction costs with a slow down in the construction industry. All projects that have completed feasibility studies and stated resources will have to recheck their assumptions to ensure they move their projects ahead in prudent fashion.

Junior companies will be challenged with smaller budgets and those with cash resources might find many worthwhile projects available for acquisition. Prospectors with sharp eyes might again find new opportunities on opened ground from expiring tenures, in contrast to the last few years, where tenure acquisition was at record levels (Figure 4.21).



Figure 4.21. Edgar Mosley showing the hard work prospectors put into their claims at his Spar property near Tulameen.

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