

HEDLEY  
883888

VBS → RG  
Kam/09



Province of  
British Columbia

Ministry of  
Energy, Mines and  
Petroleum Resources

# MEMORANDUM

TO: 200, 2965 Airport Drive, Kamloops, British Columbia V2B 7W8 Telephone: (604) 828-4566 Fax: (604) 828-4726  
R.E. Meyers November 2, 1995

FROM: M.S. Cathro, Regional Geologist

RE: Monthly Report for October, 1995

### HIGHLIGHTS:

Good results were released by Teck/Getchell from a Phase 2 drill program on the Rainbow #2 zone near Afton. Results are being studied by the Afton engineering department and a third phase of drilling is possible.

Geny Copper Corp. continue to report good results from their well-managed Getty North (Krain) SX-EW oxide copper project north of Highland Valley Copper. This is one of the largest projects in the region.

Art O'Bryan reports that mining has stopped earlier than expected at the Mascot Gold Tailings operation of Candorado Operating Co. Ltd. Roughly 50,000 tonnes remain in the old dumps. Leaching will continue this season and probably next year, followed by final closure.

Homestake reports the mining will stop at the Nickel Plate operation next August, with milling to stop in November.

### FIELD VISITS:

In early October, Vic Preto led an excellent three day field trip through Nicola rocks and porphyry deposits at Similco, Afton and HVC mines. It was attended by staff from GSB, LMPB (Kamloops) plus two industry geologists who are working on similar deposits.

On Oct. 5 I flew into the Cottonbelt Project of CanQuest Resource Corp. north of Shuswap Lake and reviewed this Sedex Pb-Zn-Ag project with geologists Gordon Gibson and Dave Blann. Gordon is testing a exploration model in which the thin, persistent sulphide horizon may be structurally thickened into "rods" or shoots (4 m thick by 100 m wide) on minor fold noses (not unlike Goldstream). The theory appears to be holding true, however, I feel it will still be difficult to develop much tonnage on these shoots. A more enticing target, but much more of a long shot, is to drill test the fold nose of the regional Mt Grace syncline, where the horizon could be substantially thicker. A 3200 m drilling program is nearly finished. (EXPLORE BC PROJECT)

Cottonbelt

I visited the Nickel Plate mine on Oct. 16 to discuss recent exploration results and closure plans with mine geologist Bill Wilkinson. Recent drilling on the adjacent Cahill option (EXPLORE BC) was generally disappointing, although there may be follow up in 1996. Homestake is reviewing options for disposal of their accumulated library of mine maps, drill logs, sections, drill core and other materials from throughout the Hedley district. Future exploration and economic development in this important gold district will be encouraged if we can assist in the preservation of at least some of this data.

Nickel Plate

During the month I made two brief visits to the field office for the Getty North Project (Krain deposit, MF92INE038) to view core and discuss the project with Steve Gower and Ken Northcote. Getty Copper Corp. continues to report encouraging oxide copper intercepts for this potential SX-EW producer located about 10 km north of HVC. In addition, the company has reported wide intercepts of primary sulphide mineralization with grades comparable to HVC. A \$1.8M budget will cover 10,000 m of drilling and metallurgical work until Feb. '96. Preliminary metallurgical results indicate good Cu recovery in oxide material with acid consumption "on the high side of acceptable" (this will be a critical economic factor).



Province of  
British Columbia

# MEMORANDUM

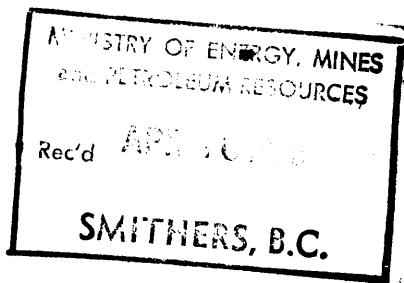
To: Tom Schroter

Date: 86-04-07

Here is a copy of Nickel Plate Gold  
Stage I as you requested.  
When you have finished with it could  
you please return it to Roy Crook?

Thanks.

Joe Truscott



Copied in part by VGS  
& ret'd Apr. 11/86



To: All Staff

December 12, 1986

Re: MEG TALK - NICKEL PLATE GOLD PROJECT

Speaker: Ron Simpson, Mascot Gold Mines

Date: Dec. 10, 1986

Intro: Tom Schroeter

Thanks: Ken Dawson

HISTORY: (Brief Highlights)

1898 - Key claims sold for reported \$60,000 to U.S. interest  
early 1900's - approximately 30 % of gold was contained in the flotation concentrates which were shipped to the smelter in Tacoma.  
- 1035 metre tram line constructed.

1912 - shaft started (Dickenson Incline) and completed in 1924 over a vertical range of 460 metres.

1930 - operations ceased.

1934 - mine re-opened.

1936 - Hedley-Mascot Fraction mining began and between then and 1945 production totalled approx. 250,000 ounces of gold from a 9 acre claim!

1955 - Nickel Plate Mine closed due to low gold price (fixing). Mining of 4m tons grading 0.43 ounces of gold per ton yielded 1.7 million ounces of gold (B.C.'s 4th largest producer).

1984-1985 - \$7 million raised in Flow Through Financing for Hedley project. Work included 170,000 feet of drilling in 650 holes (surface and underground).  
- Drilling was done on 23 metre (75 feet) centres.

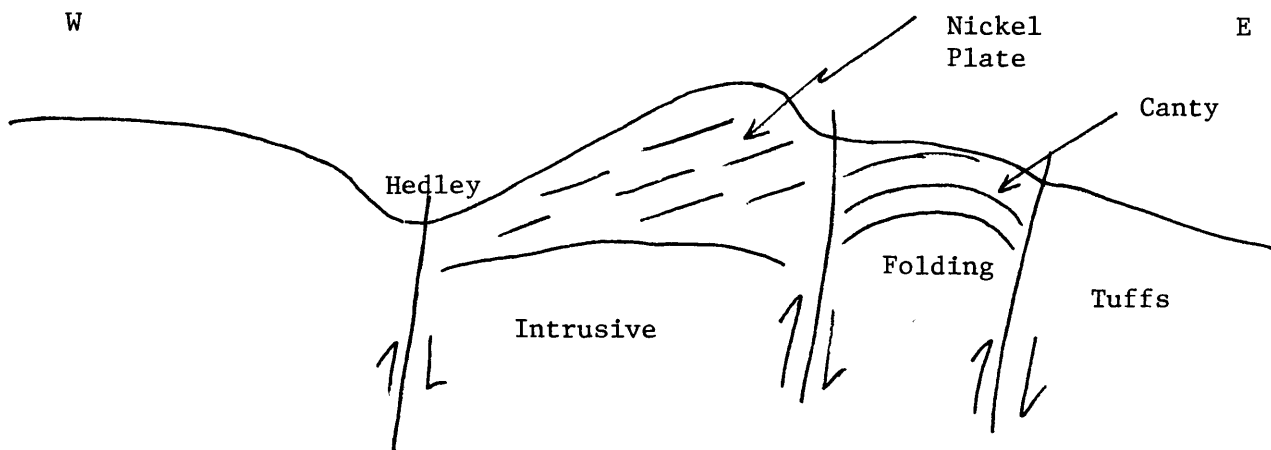
CURRENT RESERVES:

<u>Cut-Off (oz/ton)</u>	<u>Tons x 10<sup>6</sup></u>	<u>Grade (oz/ton)</u>	<u>Strip Ratio</u>
0.05	7.1	0.15	8.24:1

REGIONAL GEOLOGY:

- Deposition of sediments in back-arc basin ('Hedley sequence').
- Limestone boulder conglomerate (Copperfield Conglomerate) separates these sediments from overlying tuffaceous rocks of the upper Whistle Creek Formation.

- Conodonts from the underlying sediments give Norian, and Karnian ages.
- Two intrusive suites: i) Hedley diorites - av. 180 Ma. Stocks cluster around facies change and near the Bradshaw Fault i.e. tectonic control?!  
ii) Similkameen granodiorites - av. 150 Ma.
- Folding took place in mid to upper Jurassic.



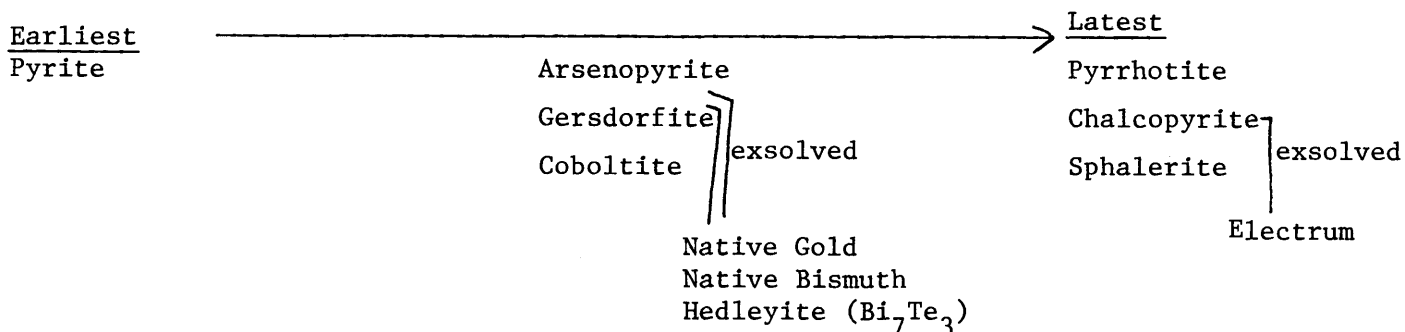
MINE GEOLOGY:

- West dipping skarns ( $\sim 25^\circ$ ).
- Stacked ore lenses within 100m thick 'favourable' horizon.
- Sills are skarned (i.e. gold mineralization post dates emplacement).
- Three stages of Skarn

<u>Prograde</u>	<u>Early Retrograde</u>	<u>Late Retrograde</u>
pyrox., garnet, scapolite, wollastonite	tremolite, calcite, epidote, (axinite)	calcite, quartz, chlorite, sulphides magnetite, gold
Magmatic fluids →	Magmatic & Meteoric →	Meteoric Fluids

- Exoskarn - pyroxene, garnet.
- 'Upper' skarn has a cherty-tuffaceous appearance and consists of pyroxene, potash feldspar and quartz.
- Endoskarn - diopsidic pyroxene.
- Ore 'beds' occur both above and below diorite sills.
- Chemical 'fronts' rather than old-fashioned "marble line".
- Early deformation episode aided in localization of mineralization (esp. good exploration guide underground).

ORE MINERALOGY:



- Close association of gold with bismuth.  
(Note: correlation coefficient = 0.94, very high).
- Cobalt has a 'rough' correlation also.
- Silver best correlates with copper minerals (esp. chalcopyrite), not with gold.
- Some gold enrichment in fault zones (with red 'mud' oxides).
- Source of gold?: magmatic from Hedley intrusions? (eg. B anbury).

MINE OPERATION:

	<u>\$ Canadian</u>
Capital Cost	69 million
Milling Rate	2700 tons per day
Payable Gold Recovery	88%
Personnel	150 - 160*
Operating Costs	\$170/oz gold produced \$25/ton ore milled
Annual Gold Production	140,000 ounces

\*Note: Already had 5000 applications.

MILLING:

- 2 cyanide stages.
- Gold recovery by Merrill-Crowe process.
- Dore bars.

MINING:

- Ore benches - 20 ft.
- Waste benches - 40 ft.
- Overall pit angle - 60 °.
- 65 ton haul trucks.

EXPLORATION GUIDELINES:

1. Favourable stratigraphic horizon - siltstones, limestones.
2. Spatial relationship to Hedley intrusions.
3. Soil geochemistry - good Au-As correlation.

4. Geophysics - combined magnetic and I.P.; VLF (esp. quartz-calcite shear zones).

QUESTIONS:

- a) Age of mineralization? - mid-Jurassic.
- b) Grind on ore? - 80% passing 400 mesh.
- c) Presence of breccia? - yes, underground - don't know significance yet.
- d) 'Flange' dykes - importance? - ore appears to follow the dykes 'up'.  
Skarn 'rolls' - good ore control (folding).
- e) Any problem milling/smelting with arsenic? - no!

COMMENT:

- Excellent talk.
- Great exploration success.
- Should provide good example.
- Other skarns? - eg. Tillicum, Tel.
- Regional potential - Canty, French Mine.



Tom Schroeter

Senior Regional Geologist

INTEROFFICE MEMORANDUM

VGS → RG  
-kamloops

Created: 18-Oct-1996 09:58am PDT  
Sent: 18-Oct-1996 10:24am PDT  
From: Mike Cathro of EI  
MCATHRO  
Title: Regional Geologist  
Dept: Employment & Investment  
Tel No: 828-4566

TO: See Below

Subject: Weekly Report

\*Nickel Plate Mine to close officially on Oct 25. We need to discuss the preservation of maps/sections/drill logs with them sometime soon. \*

\*Prospecting Course. Tentatively planned for Jan-April 1997 with Robin Whiteaker the primary lecturer and coordinator. KEG will subsidize Robin's wages to about \$700 so as to keep the fees down. I'm still working out the details with UCC.

\*Prosperity. Thank you note sent along with request for a project update talk for KEG monthly talks or conference.

\*Brassy property (near Wallachin). Ab Ablett advised that IP work is underway on this Craigmont-like Cu-Au skarn target. Optionee is Christopher James Gold Corp (Brian Higgs). Hope is to drill in new year.

\*Pellaire. Oct 10 news release gave details of grades of raises completed this year. 5 raises range from 0.82 opt Au over 4.2 ft to 1.76 opt Au over 4.5 ft. A raise extension above the fifth raise averaged 4.5 opt Au over a width of 4.68 ft and a length of 32 ft. These are good "direct-shipping" grades - if the whole shipment is in this range. The company expected to begin trucking an estimated 2160 tons of ore by Oct 15. The road will be kept open for 3 wks to allow the bulk sample to be trucked. I wonder how the snow will affect their plans.

\*Reliance (Menika Mining Ltd.). Drilling on hole 9 at 600 ft according to Joe and Eric. I wonder if Mr. Boitard will bother assaying the core on this project.

\*Bralorne. Now for surface mining on the Cosmopolitan Crown Grant (near the Love Oil adit I believe; surface trace of Peter vein). A trench 10 m by 100 m by 10 m deep will be dug. This will enable the company to begin milling this year.

Mike

Distribution:

TO: Rick Meyers of EI	( RMEYERS )
CC: Tom Schroeter of EI	( TSCHROETER )
CC: Jim Britton of EI	( JBRIITON )
CC: Eric Beresford of EI	( EBERESFORD )
CC: Joe Seguin of EI	( JSEGUIN )
CC: Eugene Mehr of EI	( EMEHR )
CC: Bruce Madu of EI	( BMADU )



December 2, 1991

To: V.A. Preto  
From: R.E. Meyers

## SOUTH-CENTRAL DISTRICT MONTHLY REPORT

November 1991

### DISTRICT HIGHLIGHTS

*MGM*

\* **MGM** Teck Explorations Ltd. completed a 1500 metre drilling program on the MGM property on McNaughton Lake, north of Revelstoke. The objective of the work was to test the extension of a stratiform Zn-Pb-Ag horizon identified and tested by Cominco Ltd. on the adjacent Bend claims. Mineralization occurs in Lower Cambrian Kinbasket Formation silicified dolomite near a facies change to shale (garnet-biotite schist); the combined work of Teck and Cominco, which included drilling, geophysical and geochemical surveys indicate that the sulphide horizon may be 5 km in strike length. One section of massive ore ran 10% Zn, 4% Pb and 2 oz/t Ag over 0.5 m.

\* **BRETT** This property may be back in business soon; Huntington Resources Inc. is negotiating with a mining contractor to take an underground bulk sample from the deposit.

\* **APEX AREA** Kilo Gold Mines Ltd. have reported encouraging gold values from drilling on a gold skarn property near Apex Mtn., near Hedley. This property lies on the south (back) side of Apex Mtn, NOT in view of the Ski Hill and not in the recreation area!!.

\* **BRALORNE** Louis Wolfin's Avino Mines and Resources Ltd. has made a deal to purchase the Bralorne-Pioneer mine from International Corona and partners E&B Exploration, Cathedral Gold and Geomex Ltd. Avino completed a major underground rehab, drifting, drilling and sampling program (\$400K reported) on Veins related to the King Mine. Access for the work was gained through the Bralorne workings.

*MILA*

\* **MILA** Goldbank Resources completed a 1400 metre-7 hole program on the MILA property east of Vavenby in Eagle Bay rocks. This recent work intersected 2 parallel zones of disseminated to massive sulfides with copper values in the 0.1-0.3% range; surface samples assayed up to 9% Zn and 0.435 g/t Au.

*HEDLEY*

\* **CANDORADO** Mines Ltd. has applied to expand its gold recovery operation at Hedley by adding the Hedley Mascot tailings deposits to their reserves. Gross reserves are in two lots; 186,000 tonnes grading 1.35 g/t Au, plus 175,000 tonnes grading 1.2 g/t Au . These are the same tailings deposits that Sumac Ventures applied to process in 1987-88.

LOG NO: DEC 06 1991 (3) VAN

ACTION:

*108* → Janice - xerox for property files

FILE NO: DG - Kamloops