COREV

opt Ag over 13.1 ft (AR 22113). In the TV zone altered locally flow-banded rhyolite breccia some 100 m wide contains from 5 ppb to 40 g/t Au in 1 meter sample intervals. Gold is associated with pyrite, pyrrhotite and trace sphalerite. Very locally the rhyolite is chloritized, as it is at Eskay Creek. The rhyolite is in contact with black mudstone containing bedding-parallel veins(?) of pyrite. It is interesting to note that soil gold values are only 20-65 ppb immediately downslope of high gold values in bedrock. Geologic mapping and an IP survey were in progress and 2000 m of drilling is planned for this highly prospective property.

\*Exploration on the Snip (104B 250) and Bronson Option properties was reviewed with Ken Donner, Jennifer Garratt and Steve Metcalf on Aug 23. Cominco is encouraged by this season's discovery of the Twin West zone, the first promising find after several years of exploration. The Twin West vein consists of massive pyrite with a similar NW trend as the 150 vein that is being mined in the footwall of the Twin vein. Twin West is narrow but continuous and locally high grade (227 g/t Au over 30 cm). It is segmented into three blocks by north faults. An ore shoot 100 m long by 50 m high has been indicated by surface drilling. Drilling (9000 m to date and continuing with 2 machines) has progressed to the western extremity of the Snip claims and will proceed onto the Sky fractional claim, part of the Bronson Option from International Skyline. Drilling further west on the Jim claims is also anticipated. Holes drilled on the Jim property in 1992-93 were collared too far south to test the Twin West zone.

Four 800 meter length holes were drilled in 1995 on the eastern segment of the Bronson Option claims, but with poor results. The target was to test a pyrite-sphalerite vein (with low-grade gold) at depth in hope of better grade. A pyrrhotite-sphalerite

ductile shear (without gold) was intersected.

Mining at Snip continues at 460 tpd with a 12 g/t Au cutoff and operating cost of \$145/ ounce. Reserves as of January 1995 are 625,000 tonnes at 26.4 g/t Au, sufficient until the 4th quarter of 1998. Mine exploration of the Twin zone has been modestly successful in locating ore up-plunge to the southeast. Exploration continues in that direction as progressively higher exploration drifts are driven from the spiral ramp as it is developed.

FARAST

\* On the Forrest (104B 380) property in the Iskut region Pamicon Developments is conducting a 4500 ft drill program for Abacus Minerals. Gold occurs within Paleozoic Stikine assemblage but is thought to be related to early Jurassic intrusions and is controlled by northerly structures, possibly related to the nearby Forrest-Kerr fault. Work is being supported by EXPLORE BC. I met briefly with Cameron Scott on site on Aug 23.

JSKAT Woll. \*Iskut wollastonite (104B 123) 15 km west of Snip mine on Zippa Mountain, was explored by a brief sampling and mapping program by MineStart Management for Super Twin Resources. I spoke with the field workers on Aug 23 but did not visit the property. Geological setting is a skarn associated with a 4 km long nepheline syenite body intrusive into Paleozoic Stikine Assemblage. Wollastonite occurs as a thin, 70-80% pure, stratigraphic horizon traced about 300 meters with associated pyroxene and brown melanite garnet (titaniferous andradite). The operator claims a potential resource of two million tons.

Wojdak M.R. Aug. 95



Au equivalent for broken rock and 30 g/t Au equivalent for rock in-situ. Material up to 20 g/t Au is dumped in Albino Lake as a mitigation measure for ARD waste rock. In the EA project report 13.4 g/t Au (0.4 oz/t) was the stated cut-off. The Ministry should initiate discussion with Homestake and MELP of creating a low-grade stockpile at Eskay Creek. An aggressive exploration program, 35 000 metres of drilling, is planned for 1996.

SNIP

\*Snip Mine was examined on March 7 with mine geologist Bruce Coates. Lots of concern about pending takeover by International Skyline. The central body of the Twin zone has largely been mined. Work is focusing now on the edge ("ragged fringe") of the Twin ore zone, with a corresponding shift from mechanized to (higher cost) conventional stopes. For example, at the east end of the orebody, east of the Red cross-fault ore consists of transverse stringers between a footwall and hanging wall shear and there is no well defined vein. Interestingly, the transverse stringers have the same orientation as the veins mined by Skyline on Johnny Mountain. Current operating concerns are shortages of waste and tailings backfill and insufficient mine exploration and definition drilling. Crown pillar recovery will resume this summer. Cutoff grade is an issue. Cominco has set it at 12 g/t Au but there is some indication that International Skyline would reduce it to 8 g/t Au. I was not able to determine what this would add in tonnes and mine life. Production to the end of 1995 was 800 000 tonnes at 28.5 g/t Au. Forecast mine production is:

<u>Year</u>	Tonnes/day	<u>Tonnes</u>	Grade (g/t Au)
1996	430	157 000	27.2
1997	420	153 000	25.4
1998	300	110 500	26.4
1999	80	30 000	22.3
		450 500	26.1

The Twin shear is a normal fault with 28° oblique slip displacement. A (drag?) fold at the west end of the Twin zone has a similar plunge (25°). Ore-type and grade variation in the Twin vein is more lateral than vertical, perhaps aligned with a similar gentle rake. This suggests that exploration prospects are better along strike than to depth.

\*T-West exploration project was reviewed with Snip mine geologist Bruce Coates on March 6. The 150 portal was collared last November to explore the T-West massive pyrite shear vein discovered last year by surface drilling. The T-West zone comprises about 30 drill intercepts from 0.1 to several metres wide. Most are sub-ore grade (<12) gm/t Au) but there are two possible ore shoots. T-West is roughly on strike west of the Twin zone and initially was correlated with it but now is correlated with the Tailings shear in the footwall of the Twin vein. The Monsoon Lake lineament contributes to correlation problems. For many years it was regarded as a significant fault but recent work has shown it to have no offset. T-West dips 75° SW where it is crosscut near the portal but is interpreted to flatten to an inconvenient 35° just 250 m along strike. Two exploration drifts have been driven from the 150 portal. The footwall incline extends 250 metres and will be used to drill upholes to explore and prove up 29 600 tonnes at 21.4 g/t Au indicated by surface drilling in 1995. The hanging wall drill drift, to test T-West down-dip, will be about 375 m long when completed to the western border of the mining lease in April. The Sky fractional claim to the west is held by the Snip J.V. under option from International Skyline, and Cominco owns the Jim claims west of the Sky fraction. Underground drilling, scheduled to begin later in March, will include a long hole in search of the Twin structure. Surface drilling to test for a possible extension of T-West onto the Jim claims is to begin this summer.

\*Table Mountain (Cusac Gold Mines Ltd) was visited on March 27. Mine geologist Mike Glover gave me a tour of new development headings in the Lily vein. Most of the rich

Created: 01-Aug-1996 01:46pm PDT Sent: 01-Aug-1996 03:10pm PDT

From: Ted Hall of EI

TJHALL

Title. Regional Manager

Dept: Employment & Investment

Tel No: 847-7385

TO: See Below

Subject: Northwest Region Update, August 1, 1996

### ISSUES:

- \* Doug Flynn and Ron Brow attended the scene of the July 24th fatalities at Nolan Mine near Atlin, and the investigation is continuing. Doug will be returning to the scene with Ray Heistad next week to gather further information.
- \* Broman Lake Indian Band have refused Huckleberry's offer of compensation for locating a powerline through their reserve, forcing the company to apply for an amendment to their Project Approval Certificate to relocate the line.
- \* The second meeting of the Huckleberry Mine Aboriginal Liaison Committee on July 9th was very poorly attended. Unless committee members demonstrate a commitment, future meetings will be postponed until the Cheslatta court challenge has been resolved.
- \* Prime Resources applied to Cassiar Forest District on July 24th for an SUP to construct extension of Iskut Road to the for the purpose of hauling Eskay ore to the Snip mill. The district forest manager has indicated that the application is considered "deficient", that Prime may be hoping "...to subvert the Bronson Slope EA process", and that the company should not expect approval to commence construction this calendar year.
- \* The Telkwa Coal ARD subcommittee have finalized their review of

Manager Smith

# INTEROFFICE MEMORANDUM

Created: 16-Aug-1996 09:52am PDT Sent: 16-Aug-1996 10:22am PDT

From: Doug Flynn of EI

**DFLYNN** 

Title. District Inspector

Dept: Employment & Investment

Tel No: 847-7386

TO: See Below

Subject: Northwest region update, August 16, 1996

TO: See Below

Subject: Northwest Region Update

#### Issues:

Prime Resources Group Incs' application for a road connection from the existing Eskay Creek mine road to the Snip Mine seems to be causing some hand wringing amongst the EA and MoF people involved in permitting it. Perhaps the crash of the DC 4 aircraft on wednesday will expedite the approval of the application. The DC 4 was on contract to fly concentrate to Wrangell, Alaska. This crash is the fifth associated with the Snip site. Two DC 3s, a Bristol Freighter, a Beech 18 and a Norseman made their last landings here. Current loss of life; three.

An unreported accident at a small sand and gravel pit was investigated on tuesday and wednesday. Twenty year old worker got caught up in an underside return idler. If not for the quick action of a coworker there would have been a fatality. Accident happened on August 1 and was reported to WCB in Terrace. They nor the operators reported the accident to us.

#### ADMIN:

Normal operations

D.W. Flynn Northwest Region

#### Distribution:

TO: Fred Hermann of EI

( FHERMANN )

TGS-Ragional Marger Smithes

# INTEROFFICE MEMORANDUM

Created: 18-Oct-1996 10:43am PDT

Sent:

18-Oct-1996 01:30pm PDT

From:

Doug Flynn of EI

**DFLYNN** 

Title.

District Inspector

Dept:

Employment & Investment

Tel No:

847-7386

TO: See Below

Subject: North West Region - Weekly Update

### Issues:

It has come to my attention that the Fraser Institute is holding a one day conference, Tuesday, October 22, Hyatt Regency Hotel, on "Mining in British Columbia: Eliminating Uncertainty & Encouraging Investment." Is there going to be a ministry presence at this conference? There certainly appears that there will be critisicms of the EA and mine review processes.

Redfern Resources Tulsequah project report is being distributed by the EAO office for screening.

The NWMDRC will be holding a meeting on November 6 to discuss Prime Resources Group Inc's SUP application for extension of the Iskut road to the Snip Mine site. Prime has also given notice that they would like to table some treatment options for the new ore found at Eskay Creek,

Huckleberry Mine Aboriginal Liaison Committee site tour, originally set for October 23 has been rescheduled to coinside with the next committee meeting date, November 12, 1996. The tour will originate at the MoF office in Houston at 8:00 AM. The meeting will be held on site after the tour.

Homestake Canada has indicated that they will be submitting mine plans for the Twin West Zone. This is an existing exploration development immediately above the western end of the tailings pond.

#### Admin:

Bryan Good at Myra Falls this week. Balance of staff in office.

regards

Created: 18-Oct-1996 01:49pm PDT Sent: 18-Oct-1996 01:51pm PDT

From: Tom Schroeter of EI

TSCHROETER

Title. Senior Regional Geologist

Dept: Employment & Investment

Tel No: 660-2812

TO: Paul Wojdak of EI

( PWOJDAK )

Subject: '96 Overview - NWBC

Paul, can you provide me with a few notes/comments on: Serpentine Lake (Polar Jade) jade property (e.g. NOW), and Twin West zone development at Snip? Thanks, Tom

Created: 23-Oct-1996 02:34pm PDT Sent: 23-Oct-1996 02:39pm PDT

From: Paul Wojdak of EI

**PWOJDAK** 

Title. Regional Geologist

Dept: Employment & Investment

**Tel No:** 847-7391

TO: Tom Schroeter of El-

Subject: T-West

( TSCHROETER )

#### Tom:

More on T-West, Drilling at 20 m spacing gave poor results. Rather than going to 10 m spacing (20,000 m of drilling required!) the decision was made to try mining the best shoot, that Ken Donner outlined at Rock Talk. The 12 gm cut off may be raised to 15 g/t because of the distance to truck the ore.

Cheers, Paul

Created: 23-Oct-1996 09:38am PDT Sent: 23-Oct-1996 10:14am PDT

From: Paul Wojdak of EI

**PWOJDAK** 

Title. Regional Geologist

Dept: Employment & Investment

**Tel No:** 847-7391

TO: Tom Schroeter of EI

( TSCHROETER )

Subject: 96 overview

Hi Tom,

Thanks for the golf photos and Stockwatch news releases. Finally our Northern Miner subscription is coming in again.

1) Polar Jade- I only have info from Notice of Work. Polar Gemstones Ltd. is operator and Greenrock Explorations is owner. Address for both is 1160 Strathaven Dr. North Van (contact is Earl Matheson, 924-0858). Site manager is Tony ritter. The excavation is the result of many years work and there was not much change this year. The amount excavated this year is 2mX4mx20m. The camp was expanded quite a bit this year.

2) T-West drilling results have been spotty. the vein width is 1 metre max. I talked with Bruce Coates a few weeks agago but both he and Ken Donner are he and Ken Donner are off-site untill next week. I am guessing that the plan is to extract the small ore shoot that was outlined last winter. I will confirm/ elaborate with Ken next week and get back to you.

Paul

SNIP

Created: 06-Dec-1996 08:55am PST

VGS -> Keg. May

Sent: 06-Dec-1996 09:49am PST

From: Paul Wojdak of EI

**PWOJDAK** 

Title. Regional Geologist

Dept: Employment & Investment

**Tel No:** 847-7391

TO: Doug Flynn of EI

( DFLYNN )

subject: Weekly update

Snip concentrate is being "piggybacked" with Eskay shipments to DOWA smelter in Japan. Premier Gold's dealings with Cominco and then Homestake on treating Snip conc seem (from speaking with Ted Kenney) to have been fairly acrimonious.

Bruce Bried will be the new Manager at Snip.

Premier Gold continues to calculate ore reserves (from the latest round of U/g drilling) and conduct a feasibility study of re-opening the mine. It seems c lear that if

Westmin can find a buyer, Premier will be sold.

Cominco is very interested in the 1800 units staked by Tizard Exploration in the Kechika trough south of Watson Lake. Together with 1400 units staked in Cry Lake (104I) following the RGS release, the Cassiar-Watson Lake area promises to be active next year.

Porcher Island Gold are just completing 6800 ft of drilling at a cost of \$750,000. Drilling is scheduled to resume in late Jan/ early Feb. They envisage an on-site mill rather than shipping to Premier.

YGS-XG--Pr.(reo

#### INTEROFFICE MEMORANDUM

Created: 07-Mar-1997 04:55pm PST 07-Mar-1997 04:57pm PST Sent:

From: Bob Lane of EI

BLANE

Title. Regional Geologist

Employment & Investment

Tel No: (604) 565-4244

TO: See Below

Subject: Lane Weekly Report, March 2-8.

Lane Weekly Report for March 2 - 8.

# MINING and DEVELOPMENT PROJECTS

There are reports of friendly native roadblocks in the Blackpine I.R. area of the Omineca Mining Road (passed on by the Forest Service). The threat of such actions were implied Tuesday at the Carrier Sekani Tribal Council Forum held at Stoney Creek, south of Vanderhoof.

#### EXPLORATION MONITORING

Gibraltar. / Exploration / Ore definition drilling has begun on the Connector zone, between the Gib East and Pollyanna open pits. The program calls for 32 to 35 diamond drill holes totaling approx. 5000 metres. The near surface Connector zones hosts significant oxide copper reserves which will be processed as SX-EW ore. However the intent of the drill program is to identify reserves of sulfide or millable ore beneath the oxide blanket.

#### OTHER

Exploration in BC will be edited, formatted and produced through Victoria (GSB and Communications), but will not likely be available until late May.

Attended Smithers Rock Talk X and presented a review of mining related activity in the Northeast-Central Region. Approximately 55 were in attendance. Also took part in a tour of the Snip gold mine -- Snip employees, including Mine Manager Bruce Bried and Mine Geologist Trent Black, gave an excellent overview and tour of the operation.

Bob.

### Distribution:

Ed Beswick of EI TO: ( EBESWICK ) Ken Macdonald of EI TO: ( KFMACDONALD ) TO: Jamie Pardy of EI ( JPARDY ) TO: David Pow of EI ( DPOW ) Ron Smyth of EI TO: RSMYTH )

-> SN/P

## INTEROFFICE MEMORALJUM

Created: 28-Apr-1997 11:53am PDT Sent: 28-Apr-1997 12:03pm PDT From: Bish Bhagwanani of EI

BBHAGWANANI

Title. Mineral Statistician
Dept: Employment & Investment

Tel No: 952-0512

TO: Tom Schroeter of EI ( TSCHROETER )

Subject: RE: 1996 Production - Snip

Gold production = 117828.5 oz, silver: 51950 oz, copper: 103.19 tonnes. Tonnes milled for Jan - Oct 1996 period is 128369, which puts your figure of tonnage in right ballpark.

Cheers,

Bish.

## INTER FFICE MEMORAL JUM

Created: 08-May-1997 07:25am PDT Sent: 08-May-1997 07:31am PDT

From: Paul Wojdak of EI

**PWOJDAK** 

Title. Regional Geologist

Dept: Employment & Investment

Tel No: 847-7391

TO: Tom Schroeter of EI ( TSCHROETER )

Subject: Snip gold production

Good sunny Smithers morning to ya!

Finally had time to follow up with Bruce Bried (mine manager) at Snip. He confirmed Snip 1996 gold production to be 123,589 ounces.

I sent him a fax with the two figures and the "problem" that 117,828 was the official figure in Victoria, in hope that he might offer an explanation. However he did not shed any light, just confirmed 123,589 oz.

Paul

VOS-> ESKAY.

# INTEROFFICE MEMORANDUM

Created: 08-Sep-1997 04:39pm PDT Sent: 08-Sep-1997 04:52pm PDT

From: Peter Ostergaard of EI

POSTERGAARD

Title. Assistant Deputy Minister Dept: Employment & Investment

Tel No: 952-0132

TO: Ron Smyth of EI (RSMYTH)
TO: Wallace Bergen of EI (WBERGEN)
TO: Fred Hermann of EI (FHERMANN)
TO: Denis Lieutard of EI (DLIEUTARD)

CC: Terri Starkes of EI ( TSTARKES )

Subject: Meeting with Ron Parker, Homestake

The DM and I met this morning with Ron Parker. It was primarily a courtesy call. Points of interest:

-I was asked to convey Homestake's sincere thanks to staff for our work on the mill approval process; hope to get it running before Christmas -mill will allow lower grades to be mined and stimulate exploration

-workforce is increasingly living in Smithers (less so in Vancouver); about 35% are Tahltans and Homestake has a training program for those interested in underground.

-Homestake will not proceed with seeking approvals for the road to Snip: the road should have been built when Snip was first constructed, as the \$ 7 to 10 million cost does not justify the savings when the Snip mine has only 2 years left.

-road reclamation (cut/fill seeding) is ongoing

-spending \$2 mm at Snip, \$4 mm at Eskay, and \$1.5 million south of Eskay at the recently acquired Kinrich (sp?) property.

1 768-> RG -Sm. Hers

INTEROFFICE MEMORANDUM

Created: 13-Mar-1998 08:54am PST Sent: 13-Mar-1998 09:15am PST

From: Paul Wojdak of EI

PWOJDAK

Title. Regional Geologist

Dept: Employment & Investment

Tel No: 847-7391

TO: Bob Lane of EI (BLANE)
TO: Mike Cathro of EI (MCATHRO)
TO: Robert Pinsent of EI (RPINSENT)
TO: Paul Wilton of EI (PWILTON)
TO: Tom Schroeter of EI (TSCHROETER)

Subject: Northwest Region weekly report

# MINE SITE DEVELOPMENTS

Table Mountain-Cusac Gold Mines released final production data for 1997. Gold production was 8331 ounces from processing 26,501 tons at an average grade of 0.341 opt. Net loss was \$7.7 million due to substantial decrease in ore grade, lower recovery and lower gold price compared to 1996. the company announced that it does not expect to resume mining during 1998, due to depleted reserves and low price. Geological data was reviewed in hope of generating new, high grade exploration targets.

Golden Bear- Construction of the Totem Creek leach pad and mining of the Ursa deposit has been postponed due to low gold price. Having sold forward at \$379 per ounce, North American Metals is able to fulfill its gold delivery commitments by purchasing gold on the market at no risk for a gain of \$9.7 million. Mining of the Kodiak A deposit and operation of the Fleece Bowl leach pad will continue in 1998 as planned.

Endako Feasibility study in progress to install in-pit crusher and conveyor system. Potential benefit is lower operating cost. Enhanced cash flow could finance stripping for pit expansion and prolonged mine life.

Snip-Drilling of two deep exploration targets was unsuccessful and the mine appears certain to close next year. Targets were:

- (a) a 500 meter bite down plunge on the Twin zone (no shear or Twin zone dike encountered)
- (b) beneath Bronson Creek, north of Twin zone, in search of a parallel structure (drilled thru Red Bluff porphyry into siltstone and porphyry dikes with no structure encountered).

EXPLORATION

JG3 > RG -Smithers

#### INTEROFFICE MEMORANDUM

Created: 01-May-1998 04:02pm PDT 01-May-1998 04:51pm PDT Sent:

Paul Wojdak of EI From:

**PWOJDAK** 

Title. Regional Geologist

Dept: Ministry of Energy & Mines

Tel No: 847-7391

TO: See Below

Subject: Weekly report, May 1

Visited (Huckleberty with high school student, Phillip Krauskopf (future geologist?) on April 30. East zone starter pit is several benchs into ore and new mine geologist Steve Blower (from Similkameen) has identified the key structural control, an ESE fault. The East zone dike/stock is localized by the fault and highest grade copper (+1% Cu) is on the south (footwall) of the fault. Pit cut-off grade is 0.26-0.30% Cu. The mine is trying to manage production based on ore hardness (actually facture density). Mill through-put ranges from 700-1100 tonnes per hour. Discussed property exploration potential which is good, the edges of the deposit etc were not well drilled. Mine buildings are only about 30 meters from the East zone ultimate pit. Start-up mill problems are mainly solved but the mill was down for pump and conveyor repairs, and concentrate trucks were not running for a time due to repairs on the access road, parts of which are in terrible (spring) condition. Planned production for 1998 is 6.6 million tonnes at 0.625% copper. To date mine grade is slightly better than estimated from exploration drilling so that 0.65-0.66% might be achieved. The high grade East zone starter pit contains about 14 mT and mining of the lower grade Main zone will begin in 1999, before returning to the East pit.

Bren-Mar Resources will begin drilling on the Turnagain Nickel prospect on May 4/5. Aim to visit on May 20.

Discussed Snip line and future directions of Prime Resources with Bruce Brited (Snip manager). Snip expected to close March, 1999. Estimated gold content of tailings pond is about 80,000 ounces (Skyline interested). Most of which would have been recovered if a cyanide mill had been installed, but that might have required an additional 2 years in mine approval- hence the resource was forsaken. Possible new directions (in light of Walter Segsworth, new top man): More aggressive exploration/development, Prime paid about \$75 million in tax last year (great stats for Iskut-Stikine LRMP but not for shareholders), perhaps an expanded interest to include base metals (Segsworth's Noranda, Westmin background) and

perhaps international opportunities (Homestake focus is on targets of + 3 M 02 Au, frime focus on Smaller languist.