

INTRODUCTION

With the exhaustion of the bulk of the open pit reserves from the "Mother Shoot" area of the Siwash Deposit in 1994, activity for 1995 will focus primarily on reserve development, commencing with the recently completed program of decline extension to provide a stage for ore outline drilling. With the exception of a small drill indicted block below the 1590 level centred on Section 2200E and ore grade mineralization with limited strike potential exposed along the east rib of 1611 stope and the west wall of the open pit, current reserves at the Elk Property are based on relatively wide spaced drilling with undemonstrated grade continuity.

The target of the proposed 1995 exploration/development program is to establish a mineable reserve sufficient to support an on-going economic operation at the Siwash Mine. A five stage approach to developing underground reserves from the present development is proposed:

- I. Grid drilling of the down dip extension of the vein between Sections 2050E and 2350E to the 1490 meter elevation on a 20 meter by 20 meter pattern.
- II. Fill in drilling around favourable intersections to a minimum 10 meter by 10 meter pattern.
- III. Fill in surface drilling on a 25 meter by 25 meter pattern to outline potential open pit reserves and test potential u/g reserves not accessible from current workings.
- IV. Drifting and raising on vein to move drill defined reserves into a proven/probable category.
- V. Carry out sufficient stoping on a suitable block in the steeper dipping vein to test mineability.

All mining/development activities are contingent on the results of the Stage I and Stage II drilling programs.

Stage I. Underground grid drilling 20m by 20m

A total of 2900 meters of NQ diamond drilling is proposed in 77 holes on a 20m by 20m grid pattern. The holes will be drilled from the lower section of the main decline and from decline "E". This will evaluate a vein area of approximately 25,000 square meters from the bottom of the pit to a down-dip extent of 150 meters. An estimated 400 core samples will be analyzed for Au and 30 element ICP.

Stage II. Underground Fill-in drilling 10m by 10m

Significant drill intercepts generated by the Stage I program will be followed up by drilling on 10m by 10m centres. A total of 2900 meters of fill-in drilling in 77 holes is estimated based on follow-up of 25% of the Stage I holes. An estimated 400 core samples will be analyzed for Au and 30 element ICP.

Stage III. Surface diamond drilling

Surface drilling totalling 3500 meters in 56 holes is proposed for 3 areas of the Siwash Deposit. Two ore shoots indicated at the east and west ends of the deposit by wide-spaced drilling will be followed up with holes spaced on 25m centres. In addition, the vein structure immediately west of the open pit will be drilled at 20m by 10m spacings to determine the extent of high grade vein which extends beyond the western wall of the pit. Indications of significant high grade reserves may justify future expansion of the pit along strike to recover additional ore. An estimated 350 core samples will be analyzed for Au and 30 element ICP.

Mine Maintenance and Drilling Support (J.A. McCormack)

Provision is made for maintaining security, pumping, ventilation, mine dry facility and drilling water supply for the standby and drilling period prior to commencement of the proposed Stage IV and V development and test stoping programs. It is assumed that Stage IV will commence in early July contingent on drill results at which time the Mine Development Contractor will be responsible for maintenance of mine services. Provision is made for maintaining pumping and ventilation services in the mine from the end of the Stage IV and V program until year end. It is assumed that the Mine Contractor will demobilize his equipment for the winter.

Stage IV. Development of indicated reserves (J.A. McCormack)

An allowance is made to carry out 200 meters of drift development and 200 meters of raising, on vein, in up to 5 drill indicated blocks, as well as 50 meters of access cross cuts from the existing ramp. All drift development on the vein will be supported by adequate timber sets and lagging and the vertical development will be driven as two compartment cribbed raises. It is expected that development advances will average 6 meters per day.

Where practical the vein will be "resued" to minimize dilution. Each face will be sampled and mapped as it advances. Drift headings will be maintained as small as practical using a "microscope" to remove broken rock.

All mining activities will be carried out by a mining contractor under close geological supervision.

Stage V. Test Stoping (J. A. McCormack)

The extraction of reserves in the 1611 block by post and stull stoping in 1993 and 1994 has demonstrated a viable technique for mining with minimal dilution in the flatter lying zone above the "hinge". Development on the steep dipping vein in 1993 and 1994 encountered poor ground conditions associated with a highly altered and faulted hangingwall. All work to date on vein has indicated the need for immediate positive support to control the hangingwall during development and stoping activities.

The limited test stoping carried out in the recent program has demonstrated that shrinkage stoping is not practical due to the ground support required to maintain the integrity of the hangingwall during mining and the subsequent draw of broken ore. The shrinkage mining test did demonstrate the ability to mine at widths of 1-1.2 meters using a cap and post as interim hangingwall support for each lift. A test of "resued" footwall drifting was abandoned due to high losses of ore into the fill. A longhole blasting test resulted in excessive dilution from up to 3 meters of hangingwall cave.

It is anticipated that cut and fill mining with hydraulically placed sandfill to "tight" fill each lift and the use of timber posts and caps as required for interim support during mining will be feasible at widths of 1-1.2 meters. Underhand cut and fill with cemented sandfill (UCF) is considered preferable to overhand stoping primarily as it will eliminate any losses of gold into the fill and is expected to provide generally superior ground conditions during mining. Development costs for each method are similar. Preliminary modelling indicates that productivity using UCF will be about 20 tons per stope per day.

Since potential ore blocks will be developed with an undercut drift and cribbed raise during the Stage IV development program an undercut and fill stoping test will commence simply by mining down from the top access of the chosen block. For a test stope, cemented fill would be supplied from a commercial concrete plant in either Kelowna or Merritt. A suitable pump would be rented to transfer the fill from surface to the test stope via a 75-100mm pipeline installed in the ramp. To test the stoping method at least 4 lifts should be completed producing approximately 850 tons of bulk sample diluted to 1.2 meters width. The stoping could be done in a 45 day period with some overlap of the Stage IV Development program, completing the program by October 31.

**ESTIMATED COST OF 1995 RECOMMENDED EXPLORATION
AND DEVELOPMENT PROGRAM**

Personnel

2 Geologists	2 x 9 mo x 4300/mo	.....	\$77,400	
2 Core Assistants	2 x 7 mo x 3400/mo	.....	47,600	
1 Cook	5 mo x 4300/mo	.....	21,500	
	Sub Total	.....	146,500	
	Benefits	.....	15,500	\$162,000

Underground Diamond Drilling

5800m	x	60/m	.....	348,000	
Core sample analyses	800	x	25/samp	.....	20,000
Mob and drill moves				.....	12,000
Cementing	150 holes	x	140/hole	.....	21,000
					401,000

Surface Diamond Drilling

3500m	x	55/m	.....	192,500	
Core sample analyses	350	x	24/samp	.....	8,400
Mob & site prep.				.....	8,100
					209,000

Decline Extension, Maintenance and Drilling Support (JAMc)

Complete 1994 decline (Feb)			.....	290,000	
(Mar, Apr, May, June, Nov, Dec, Jan)	7 mo	x	40,000/mo	.....	280,000
Purchase cable & install				.....	30,000
					600,000

Vein Development (JAMc)

Access drifts	50m	x	1300/m	.....	65,000
Vein drifts	200m	x	1750/m	.....	350,000
Vein raises (cribbed)	200m	x	1800/m	.....	360,000
Assays/analyses	600	x	25/samp	.....	15,000
					790,000

Test Stopping (JAMc)

Undercut & fill	850 tons	x	235/ton	.....	200,000
Fill line installation				.....	12,500
Assays/analyses	100	x	25/samp	.....	2,500
					215,000

General Expenses

Equipment and supplies				.....	8,000
Food and accommodation	1400 mandays	x	25/md	.....	35,000
Vehicle rental & operation	3 x 7 mo	x	1800/mo	.....	37,800
Office trailer rental	7 mo	x	700/mo	.....	4,900
Genset rental & operation	7 mo	x	1500/mo	.....	10,500
Freight and express				.....	6,800
Computer plotting				.....	8,000
Office supplies & printing				.....	6,000
Telephone & postage				.....	6,000
					123,000

Total estimated cost of 1995 success contingent
recommended exploration and development program
on the Siwash Gold Deposit

\$2,500,000

Other Property Exploration**Elk, Crest, Pen, Bank, Swan, Wind, Wave and Au Properties****Recommended Exploration Programs****Budget Forcast****February 1, 1995 to January 31, 1996****SUMMARY**

Period:	Field:	June 1 to October 31, 1995
Program:	Preparation:	Project planning, permits, personnel
	Geochemistry:	2600 soil samples, analyze Au.
	Trenching:	1000m; 600 chip samples, analyze Au.
	Overburden Drilling:	700m; 1150 overburden samples, analyze Au.
	Diamond Drilling:	1500m; 250 core samples, analyze Au and 30 elem ICP
	Reclamation:	Backfill trenches, grass seeding.
	Data Compilation:	Evaluation of results. Report preparation.
Estimated Cost:		\$300,000

INTRODUCTION:

The Elk, Crest, Pen, Bank, Swan, Wind, Wave and Au properties are located in the area between Princeton, Merritt and Kelowna in southern British Columbia. They cumulatively total 1387 claim units.

All of the properties lie near the contact between a granitic batholith and the Nicola volcanic-sedimentary assemblage. Gold occurrences are known on the Elk, Crest and Pen claims and gold geochemical anomalies are present on Bank, Swan, Wind and Wave. Exploration targets are gold-bearing vein, stockwork or skarn deposits.

All of the properties have soil geochemical grids with 200m by 50m sample spacings and various stages of fill-in sampling in anomalous areas. Further fill-in geochemistry is proposed for some priority anomalies while more advanced exploration by trenching or overburden drilling is recommended for better-defined targets. Reconnaissance diamond drilling is proposed on the Elk and Pen properties where trenches have exposed gold-bearing vein structures.

ELK:

- Reconnaissance diamond drilling on wide spacings to test vein structures at four locations 1 to 3 km south of the Siwash Deposit; 200 core samples to analyze for Au and 30 element ICP.

Lake Zone	4 holes x 80 m	=	320 m
End Zone	2 holes x 80 m	=	160 m
Discovery Zone	3 holes x 80 m	=	240 m
South Zone	8 holes x 80 m	=	<u>640 m</u>
			1,360 m

CREST/PEN:

- Fill-in soil sampling in the 10-square mile main target area; 1400 soils.
- Trench selected geochemical anomalies in same area as 1994 trenching; estimated 400m of trenches, 300 chip samples.
- Reclaim 1995 trenches and excavations done in 1994.
- Diamond drill 4 holes totalling an estimated 140m on the Pen property to test a 1.0 foot quartz vein excavated in 1994 which assayed 1.4 oz/ton Au; 50 core samples.

BANK:

- Complete road surface and culvert installations on 3.5 km road begun in 1994 to provide access to geochemical targets.
- Overburden drilling to sample soil horizons at depth in areas of anomalous gold geochemistry and to determine overburden depth; 40 holes estimated to total 400m at 4 or 5 locations, 650 overburden samples.
- Excavator trenching in areas of shallow overburden to explore for the source of anomalous gold geochemistry; estimated 300m at 3 or 4 locations, 150 rock chip samples.

SWAN:

- Prospect gold geochemical anomalies to determine targets to be followed-up by overburden drilling or, in areas of shallow overburden, trenching.
- Some logging and road building may be required to access the targets.
- Allow 300m overburden drilling, 500 overburden samples and 300m of trenching, 100 rock chip samples.

WIND AND WAVE:

- Fill-in soil sampling to better define gold geochemical anomalies indicated by wide-spaced soil grids. Wind 800 samples, Wave 400 samples.

AU:

- Reclaim trenches excavated in 1994