

861439

March 31, 1990

OPAL LAKE PROPERTY

Nik 71-76, Ted 10, Hank 57 Mineral Claims  
NTS 104 J / 13 W  
Atlin Mining Division, British Columbia

1 9 9 0    E X P L O R A T I O N    P R O G R A M  
Phase II - August 20, 1990 to September 5, 1990

SUMMARY

Field Period: August 20 to September 5

Exploration Program

- 1) Preparation
- 2) Geochemistry
- 3) Geology
- 4) Access & Site Preparation
- 5) Diamond Drilling
- 6) Reclamation
- 7) Data Compilation

March 31, 1990

**OPAL LAKE PROPERTY**

Nik 71-76, Ted 10, Hank 57 Mineral Claims  
NTS 104 J / 13 W  
Atlin Mining Division, British Columbia

**1 9 9 0 E X P L O R A T I O N P R O G R A M**  
Phase I - August 1, 1990 to August 20, 1990

**SUMMARY**

**Field Period: August 1 to August 20**

**Exploration Program**

- 1) **Preparation:** Personnel, contracts, permits, bonds, basemaps, orthophotos.
- 2) **Linecutting:** 15 kilometres of baseline and grid.
- 3) **Geochemistry:** 600 soil, 120 rock chip samples.
- 4) **Geology:** Prospecting, mapping.
- 5) **Geophysics:** 15 line kilometres Mag/VLF-EM.
- 6) **Trenching:** 450 m<sup>2</sup> of trenching (150m x 3m).
- 7) **Data Compilation:** Evaluation of results, progress reports, final preparation.

PROGRAM

PHASE I AND PHASE II

August 1, 1990 to Sept. 5, 1990

1. PROJECT PREPARATION  
File work permits, bonds. Invite bids and select contractors for diamond drilling.
2. MOBILIZATION/DEMObILIZATION  
Establish tent camp on Opal Lake.
3. LINECUTTING  
Establish baseline and grid for soil and geophysical survey control, using a four-man crew.
4. GEOCHEMICAL SURVEYS  
A total of 600 soil samples are to be collected by a two-man crew.
5. GEOPHYSICAL SURVEYS  
One operator, utilizing an EDA Omni Plus Mag/VLF-EM system, will survey new grid.
6. GEOLOGY  
Prospect, map and sample across property. Log drill core.
7. TRENCHING  
Blaster to trench and test pit designated areas.
8. DIAMOND DRILLING  
BQ core drilling to test two areas.  

- Nickel City zone	4 holes - 1 set-up	800 metres
- Old Drill site	2 holes - 1 set-up	<u>200 metres</u>
		1,000 metres
9. RECLAMATION  
All available crew to backfill trenches and pits, and seed. Drill sites seeded.
10. DATA COMPILATION  
Evaluation of results, assessment work filing, final report preparation.

**OPAL LAKE PROPERTY**

**DESCRIPTION - 1990 EXPLORATION PROGRAM  
August 1, 1990 to Sept. 5, 1990**

**Introduction:**

Exploration on the Opal Lake gold, nickel property during 1989 has outlined an extensive listwanitic and ankeritic alteration zone which hosts chalcedonic quartz veins and breccias containing millerite mineralization and low gold concentrations (up to 523 ppb Au). The Nickel City zone and an old drill site on Opal Lake are target areas for trenching and drilling.

A two phase program is recommended to test the property. Phase I will involve prospecting, soil sampling and geophysics to explore ground to the north of the Nickel City zone. Trenching of the Nickel City zone and the old drill site will better focus drill targets during this phase. Phase II will involve diamond drilling of targets defined by Phase I exploration.

**Nickel City Zone:**

Several opaline quartz, chalcedony, and black quartz veins and breccias are exposed in old trenches (1957) and in outcrop across the zone. The veins and breccias are up to 0.5m in width, host visible millerite up to 5%, contain gold concentrations of up to 5.23 ppb, and generally strike 40 to 50 degrees, dipping steeply to the northwest.

Further geophysical surveys and trenching is required to focus drill targets roughly defined by the 1989 exploration program.

**Old Drill site:**

Samples of BQ size diamond drill core from the 1957 exploration program returned gold concentrations from ankerite and carbonitized serpentinite of 305 and were cored at roughly 60 feet. Trenching near the drill site is required to locate the ankerite horizon in the carbonitized serpentinite. Diamond drilling will sample the horizon at depth.

Opal Lake Property

Phase I

Cost Estimate - 1990 Exploration Program

August 1, 1990 to August 20, 1990

Mobilization/Demobilization:

1 Cook	(2 days @ \$225/day)	\$ 450.00
1 Geologist	(2 days @ \$275/day)	550.00
4 Field Techs	(2 days @ \$175/day)	1400.00
1 Prospector/Blaster	(2 days @ \$225/day)	450.00
Helicopter	(10 hrs @ \$750/hr)	7,500.00
Hotel	(7 Mandays @ \$25/manday)	175.00
Food	(7 Mandays @ \$20/manday)	140.00

Salaries & Personnel

1 cook	(20 days @ \$250/day)	5,000.00
1 geologist	(25 days @ \$300/day)	7,500.00
4 line cutters	(6 days @ \$200/day)	4,800.00
- 2 soil samplers	(6 days @ \$225/day)	2,700.00
- 1 EDA operator	(6 days @ \$250/day)	1,500.00
1 Project manager	(5 days @ \$325/day)	1,625.00
1 Prospector/blaster	(20 days @ \$250/day)	5,000.00
- 1 Assistant	(10 days @ \$200/day)	<u>2,000.00</u>
		\$40,790.00

Professional and Technical

Geophysicist	(3 days @ \$275/day)	\$ 825.00
Draftsman	(10 days @ \$225/day)	<u>2,250.00</u>
		\$ 3,075.00

Grid Preparation

Cutting, Blazing, Flagging & picketing	(15 km @ \$100/km)	\$ 1,500.00
----------------------------------------	--------------------	-------------

Geochemical Analysis

Rock Chip Samples	(AU + 30 EL ICP)	120x\$20	2,400.00
Soil Samples	(AU + 30 EL ICP)	600x\$15	<u>9,000.00</u>
			\$12,900.00

Helicopter

Contract Rate	(10 hrs @ \$750/hr)	\$ <u>7,500.00</u>
---------------	---------------------	--------------------

**Sub-total**

**\$64,265.00**

Phase I con't

Rentals

Camp equipment	(20 days @ \$100/day)	\$ 2,000.00
EDA OMNI PLUS SYSTEM	(6 days @ \$200/day)	1,200.00
	(10 days @ \$100/STBY)	1,000.00
Generator	(20 days @ \$25/day)	500.00
Computer	(20 days @ \$25/day)	500.00
Plugger	(10 days @ \$50/day)	500.00
Chainsaws	(20 days x 2 @ \$25/day)	1,000.00
Field gear	(20 days @ \$15/day)	300.00
Radio telephone	(20 days @ \$25/day)	500.00
Hand-held radios	(4 x 20 days @ \$20/day)	1,600.00
Jet-B Barrel Dep	(10 x \$80/BBC)	800.00
Water Pump	(20 days @ \$50/day)	<u>1,000.00</u>
	<b>Sub-total</b>	<b>\$10,900.00</b>

General Expenses

Exploration Bond		\$ 5,000.00
Camp Construction		500.00
Camp Supplies		900.00
Drafting Supplies		750.00
Dynamite, Caps, etc.		2,000.00
Expediting	(20 hrs @ \$40/hr)	800.00
Groceries	(95 mandays @ \$25/M.D.)	2,375.00
Filing Fees		500.00
Freight & Express		650.00
Fuel & Oil		300.00
Hotel		500.00
Insurance (EDA, Liab., etc.)		750.00
Maps, Airphotos, Publications		100.00
Office Supplies, Printing		850.00
Petrographics	(10 TS @ 100/TS)	1,000.00
Propane		200.00
Telephone/Postage		600.00
Travel	(2 x \$460) + (2 x \$300) + (2 x \$1000)	3,520.00
Trucking	(4 x \$180)	<u>720.00</u>
		<b>\$22,015.00</b>

**Page Sub-total** **\$32,915.00**

Phase I

<b>Sub-total</b>	<b>\$97,180.00</b>
<b><u>15% Admin. fee</u></b>	<b><u>\$14,577.00</u></b>

**TOTAL ESTIMATED COST - PHASE I - 1990** **\$111,757.00**

Opal Lake Property

PHASE II

COST ESTIMATE - 1990 EXPLORATION PROGRAM  
August 20, 1990 to September 5, 1990

Salaries & Personnel

1 cook	(15 days @ \$250/day)	\$ 3,750.00
1 Geologist	(15 days @ \$300/day)	4,500.00
1 Prospector/Blaster	(15 days @ \$250/day)	3,750.00
1 Assistant	(15 days @ \$200/day)	3,000.00
1 Project Manager	(5 days @ \$325/day)	<u>1,625.00</u>
		<b>\$16,625.00</b>

Contractors

4 diamond drillers  
9 crew

Professional & Technical

Draftsman	(5 days @ \$225/day)	1,125.00
-----------	----------------------	----------

Geochemical Analysis

Core samples	(AU + 30 EL ICP) 80 x \$20	1,600.00
--------------	----------------------------	----------

Assays

Core samples	(AU, AG, CU, HG) 80 x \$25	2,000.00
--------------	----------------------------	----------

Rentals

Camp equipment	(15 days @ \$100/day)	150.00
Generator	(15 days @ \$25/day)	375.00
Computer	(15 days @ \$25/day)	375.00
Plugger	(5 days @ \$50/day)	250.00
Chainsaws	(5 days @ \$25/day)	125.00
Field Gear	(15 days @ \$15/day)	225.00
Radio Telephone	(15 days @ \$25/day)	375.00
Hand-helds	(15 days x 2 @ \$20/day)	<u>600.00</u>
		<b>\$2,475.00</b>

**Sub-total**

**\$23,825.00**

Phase II con't

General Expenses

Camp Construction	\$	500.00
Camp supplies		500.00
Drafting supplies		350.00
Expediting (25 hrs @ \$40/hr)		1,000.00
Groceries (125 mandays @ \$25/M.D.)		3,125.00
Filing Fees		200.00
Freight & Express		600.00
Fuel & Oil		550.00
Hotel		400.00
Insurance		250.00
Maps, Airphotos, Publications		100.00
Office Supplies, Printing		100.00
Petrographics		1,000.00
Propane		500.00
Telephone, Postage		500.00
Travel (2 x \$460) + (4 x \$300)		2,120.00
Trucking (4 trips x \$180)		720.00
		<u>\$12,515.00</u>

Diamond Drilling

BQ core (1,000 m x \$98/m) (includes operators, fuel)		98,000.00
----------------------------------------------------------	--	-----------

Helicopter

Contract Rate 20 hrs @ \$750		15,000.00
------------------------------	--	-----------

Reclamation

Backfilling, seeding		<u>4,000.00</u>
----------------------	--	-----------------

Page Sub-Total \$129,515.00

Phase II

Sub-total	\$153,340.00
15% Contingency	<u>23,001.00</u>

Total cost estimate - 1990 Phase II \$176,341.00

Total Phase I & II \$288,098.00

georpts  
bona  
alm AT&T