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**EXPLORATION PROCEDURES**

at the

**SKYLARK - OB MINE SITE**

**Greenwood Mining Division,**

**British Columbia**

## **PREAMBLE**

The words "ore" and "production" have often been mistaken as synonymous. In reality "ore", meaning a mineral which can be "produced" at a commercial profit, is more closely related to "production" than is the reverse. Mining plants have gone into "production" which later have been proven to be non-profitable. So the difference between "production" and "ore" must be supervised and well defined. "Ore" can be used in "ore reserves" in the exploration, development and production modes.

Ore Reserves, which is the target of any legitimate exploration or development program, is classified into three groups. In May, 1943, the United State Bureau of Mines and the United States Geological Survey published the following definition of ore classes. Until then there had been a hodge-podge of definitions.

### **Proven Reserves**

Proven Reserves consists of mineralization for which tonnage is computed from dimensions revealed in outcrops, trenches, underground workings or drill holes and for which the grade is computed from the results of detailed sampling. The sites for inspection, sampling and measurement are so closely spaced and the geological character is so well defined that the size, shape and mineral content are established. The computed tonnage and grade are judged to be accurate within ... "90% confidence limits."

### **Probable Reserves**

Probable Reserves is mineralization for which tonnage and grade are computed partly from specific measurements, samples and/or production data and partly from projection for a reasonable distance on geological evidence. The site available for inspection, measurement and sampling are too widely or otherwise inappropriately spaced to outline the mineralization completely or to establish its grade throughout.

## **Possible Reserves**

Possible Reserves is mineralization for which quantitative estimates are based largely on broad knowledge of the geologic character of the deposit and for which there are few, if any, samples or measurements. The estimates are based on an assumed continuity or repetition for which there ... "are reasonable geological indications."

Another point of interest which will define "exploration" as opposed to "production" is the size of the mineral reserves and the proposed size of the mill. A mineral explorationist will continue to run his exploration program as long as he is "building up" reserves. The size of the mill and the mine's eventual life expectancy will depend upon the final size of the reserves. Proven and Probable Reserves can be lumped together for this purpose (Toronto Stock Exchange and Vancouver Stock Exchange). Possible Reserves are too risky and are not included because of this reason.

Under normal conditions, a mine will announce production following a Final Feasibility Study which intimately details ore reserves and locations, production costs and possible profits, capital expenditures and approaches to raising this funding, and life expectancy of the mine.

## INTRODUCTION

The writer was requested by Mr. Herb Shear, P.Eng., President of Skylark Resources Ltd. ("Skylark") to define the category of work undertaken by Skylark since facing the portal in April, 1986 and the first flow-through offering concerning NIM funds in March, 1987, to the present date. It should be noted that Viscount Resources Ltd. ("Viscount") as a joint venture partner in the undertaking, is also a partner in this report. It should be noted that references to Skylark automatically include Viscount.

All prior reports to the company had been of an internal nature. The writer was approached concerning this report as he had no previous contact with the property in question (past or present) nor with the individuals involved with the Skylark operation.

It should be noted that the Skylark operation near Greenwood, B.C. is a joint venture with Viscount Resources Ltd., the owners of the claims termed OB, directly adjoining to the south. Skylark has worked itself into a 50% partnership on the OB claims by a series of work programs and payments.

## HISTORY

In 1892, the original Skylark Crown granted claim was staked with an 80 foot inclined shaft driven on the vein in 1897. Work in the immediate vicinity of the Crown grant resulted in some 2,030 tons of sorted ore being shipped by 1940.

Surface exploration within the immediate area was initiated in 1968. A new discovery zone outlined some 1,500 feet to the southwest of the old shaft was discovered in 1983. Subsequent surface work delineated a possible ore structure of modest dimensions, underlain by another possible mineralized zone. In April, 1986, the adit portal was faced and the adit decline funded by public and private monies until November, 1986. On March 17, 1987, an agreement for \$1,200,000 in flow-through funds was finalized by the partners with NIM Resources and Company, Limited Partnership. This later funding was instrumental in continuing the underground 1987 exploration program under the Canadian Exploration Expenditures auspices. Private funding was utilized in the 1988 program.

### **1986 Work Program**

This program consisted of surface diamond drilling and underground exploration and was funded by public and private financing. The main emphasis of the program was to determine the mining parameters and the consistency of the precious metal values within the presently outlined mineralized structure. By this time, surface drilling had defined an erratically mineralized footwall zone, named the "Serp", underlying the main "H" zone.

The incline adit (-15<sup>o</sup>) was collared in April, 1986 and before the working season was officially closed in October, 1986, 567 feet (172.8 metres) of drive was completed, a 35 foot (10.6 metres) raise was driven from this drive and a 265 foot (80.7 m) level, the #1 level, established on the "H" vein. From the level, three raises were driven up the vein with one breaking through to surface for safety and ventilation purposes while the other two stopped within the crown pillar and will eventually serve as heading raises when production begins. In the meantime their prime purpose has been to show ore continuity and grade. Total length of these three raises was 403 feet (122.9 metres).

The 1986 underground workings achieved their purpose in exploring the "H" zone on a specific level and tracing it through to surface. This is exploration procedure preparing for an ultimate production decision.

During 1986, Skylark faced off their decline adit and prepared for a lengthy exploration program. All underground work was done on the adit on the "H" zone as shown:

Adit - 999 feet (304.5 metres)

"H" zone - 777 feet (236.9 metres)

No work was done on the Serp zone.

All work was thoroughly checked and belongs within the C.E.E. guidelines although no flow-through funding was used.

### **1987 Work Program**

It is axiomatic with underground exploration that:

- (a) The deepest, or a deep level be found from which to start upward stopeing operations. It is imperative that good grade mineralization, coupled with tonnage, be available from this level;
- (b) That thoughtful layouts be utilized to ensure the possibility that ore reserves, both grades and tonnage, could be constantly upgraded and/or moved into a higher category, i.e., proven; and
- (c) That the raises, drifts, cross-cuts, etc. could be of substantial assistance in demonstrating the continuity of the ore, supply cost figures as incomplete as they may be and finally, being of mining location once production began.

Such were the objectives of the 1987 program at Skylark. The flow-through money was designated to explore as deep as possible on the "H" zone while probing the "Serp"

zone. If present tonnage and grade could be substantially improved, the possibilities of their own mill, in place of haulage to an outside custom mill, would be substantially ameliorated.

The original drift, #1, was advanced to its full limited then connected to the decline by an ore pass. It must be kept in mind that during exploration, broken muck must be disposed of, normally to an ore or waste pile on surface.

A second deeper level, #2, was established 150 feet (45.7 metres) down dip, to the southeast, from the original level. Mineral continuity was established by drifting north and south along the "H" zone. To maintain good ventilation into the lower areas of the mine, a raise originating at the face of a cross-cut from a deeper mine location was run up to the #2 level, then on to the #1 level.

At the lowest elevation of the decline, a deep cross-cut which cut weak "H" mineralization was raised upon with the objective being the #2 level. The mineralization petered out thus leaving the impression that the #2 level was the ore bottom.

It was from the lower levels of the decline adit that preparations were made and carried out to explore the "Serp" zone. This zone lies to the west of the "H" zone and strikes north-south on the average. A cross-cut followed by a dual boxhole raise led to the S-1 Serp level which continued for some 285 feet to the west. A southward drift, termed S-2, was started some 80 feet from the initial starting point of S-1 Serp level. Both "Serp" drifts have as immediate objectives, good intersections obtained in surface drilling. To the end of 1987, neither had reached their objective.

At a point 285 feet from the beginning of S-1, S-3 level was started as the northern extension of S-1 level. Its objectives - to explore the zone adjacent to two separate mineralized intersections in a drill hole and to generally advance along the trend of the "Serp" zone.

During 1987, some 536 feet of underground drilling in 8 holes was conducted with the initial purpose of upgrading the ore reserve tonnage and grade.

During 1987, a total of 1,154 feet (351.8 metres) of decline, 1,142 feet (348 metres) of "H" ore zone excavating, including raises, and 621 feet (189 metres) of "Serp" zone excavating totalling in all 2,917 feet (889 metres) of underground tunnelling was completed. The writer has thoroughly examined the location, the purpose and the results of these excavations and will qualify them as being within the Canadian Exploration Expense guidelines.

### **The 1988 Work Program**

During December of 1987, several developments happened. First, the flow-through money advanced by NIM ran out. To bridge the gap expected until cash flow developed, a private placement of stock was made resulting in some \$500,000 being placed in the Skylark treasury. There is no further need for justification from here on as to Canadian Exploration Expenses disposition.

Secondly, there were internal discussions based on internal documents regarding a production decision. Company executives and management felt they could bypass the normal Feasibility Study as their internal reports supplied them with sufficient, highly relevant facts regarding production costs.

On January 7, 1988, production underground was officially started with the opening of the 1-180 stope from the upper level and shortly thereafter from the 4-195 on the lowest level. Several forms of stoping were introduced with the present sub-level and pillar being the likely permanent candidate. Presently being prepared for production is the 1-170 stope from the #1 drift. All production as visualized at present is to be from the "H" zone. However, the Serp zone will continue to be explored at a later date.



The following table lists the 1988 monthly underground and milling progress. The Dankoe Mill received Skylark shipments in March, 1988.

<u>Month</u>	<u>Mined</u>	<u>Milled</u>	<u>(Waste)</u>	<u>Cumulate Tonnage</u>
January	755	1,152	609	1,364
February	1,486	--	--	2,850
March	1,849	1,820	--	4,699
April	1,624	3,186	51	6,374
May	1,519	3,569	301	8,194
June	<u>2,228</u>	<u>1,511</u>	<u>270</u>	<u>10,692</u>
	9,461	11,238	1,231	10,692

The Skylark and Viscount Joint Venture east of Greenwood has been handled efficiently and professionally. It is the writer's opinion that all CEE funds were properly directed towards the exploration phase.

W.G. Hainsworth, P.Eng.

**APPENDIX**  
**CERTIFICATE**

I, W.G. Hainsworth, P.Eng., of Vancouver, B.C. do hereby certify:

- (1) That I am a Consulting Geologist residing at 836 West 13th Avenue, Vancouver, B.C.
- (2) That I am a graduate of the University of Western Ontario, London, Ontario, Bachelor of Science Degree, Honours Geology.
- (3) That I have practiced my profession for some 35 years.
- (4) That I have been a continuous member of the Association of Professional Engineers of British Columbia since 1965 and am a Professional Geologist registered with the Association of Professional Engineers, Geologists and Geophysicists of Alberta since 1979.
- (5) That I have no financial interest, direct or indirect, in either Skylark Resources Ltd. or Viscount Resources Ltd., and do not expect to obtain any such interest.
- (6) That the information contained in this report is based on perusal of all pertinent information made available by the joint venture partners to the writer.
- (7) That consent is herewith given to Skylark Resources Ltd. and Viscount Resources Ltd., to use any or all material from this report in their presentation to Revenue Canada.

W.G. Hainsworth, P.Eng. (B.C.)  
P. Geol. (Alta.)

Vancouver, British Columbia  
August 2, 1988