

MAP NO.: 115 0 14  
ASSESSMENT REPORT X  
PROSPECTUS  
CONFIDENTIAL X  
OPEN FILE

DOCUMENT NO: 092849  
MINING DISTRICT: Dawson  
TYPE OF WORK: Trenching

REPORT FILED UNDER: HLX Resources Ltd.

DATE PERFORMED: October 17-29, 1989

DATE FILED: March 30, 1990

LOCATION: LAT.: 64° 00'N  
LONG.: 139° 12'W

AREA: Klondike  
VALUE \$: 7136.00

CLAIM NAME & NO.: MOON 48 YA 79718  
MOON 53 YA 79723

WORK DONE BY: S. Tomlinson (Hughes Lang Exploration Ltd.)

WORK DONE FOR: HLX Resources Ltd.

DATE TO GOOD STANDING:

REMARKS: #91 DAWSON Four trenches were excavated by hand on a steep slope on the property. All trenches reached bedrock which varied from one to two metres in depth. Channel samples were taken from the bedrock in the bottom of the trenches. Samples were analyzed for gold and 32 other elements. No significant gold assays were obtained, although a silver value of 2.6 ppm was detected in trench 4.

*Indexed  
June 22/90  
Summarized - Feb 25/91*

**YUKON ASSESSMENT REPORT**

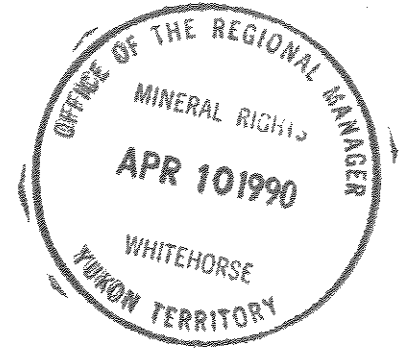
PROPERTY: **Moon Claims**

NTS MAP SHEET: **1150/14**

LATITUDE: **64°01' N**

LONGITUDE: **139°12' W**

CLAIMS AND GRANT NUMBERS: **Moon 48 YA79718**  
**Moon 53 YA79723**



OWNER OF PROPERTY: **HLX Resources Ltd.**

ADDRESS: **#1900 - 999 W Hastings Street**  
**Vancouver, B.C.**  
**V6C 2W2**

TELEPHONE: **(604) 687-6600**

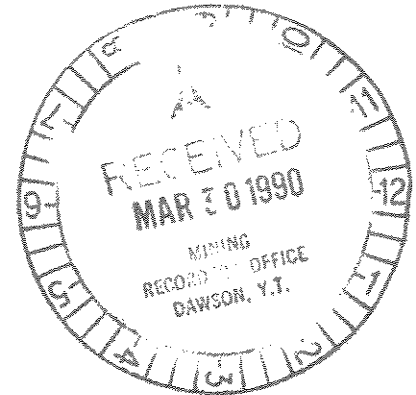
OPERATOR: **HLX Resources Ltd.**

TYPE OF WORK: **Trenching**

DATES WORK WAS DONE: **October 17 - 29, 1989**

AUTHOR OF REPORT: **Scott Tomlinson, B.Sc.**

LIST OF PERSONNEL: **Scott Tomlinson,**  
**Hughes Lang Explorations Ltd.**  
**Jerry Bryde**  
**Henry Reining**





This report has been examined by  
the District Evaluation Unit  
under section 53 (4) Yukon Quartz  
Act and is allowed as  
presentation work in the amount  
of \$ 7136.00

*W. H. Bay*  
for Regional Manager, Exploration and  
Geological Services for Commissioner  
of Yukon Territory.

**TRENCHING REPORT  
ON THE  
MOON CLAIMS**

**DAWSON MINING DISTRICT, YUKON**

**SUMMARY**

The HLX Resources Ltd.'s Moon quartz claims are located in the Klondike Mining District of northwestern Yukon Territory, approximately 10 km east-southeast of Dawson City. The claims are situated along the valley of Bear Creek. These claims are adjacent to and overlie some of the most significant placer gravel deposits in the Klondike.

Mineral exploration in the Klondike has occurred since the late 1800's, but almost all efforts have concentrated on placer deposits. Lode gold exploration has consisted mostly of individual efforts to find high grade vein structures, although a few larger programmes involving trenching and drilling have also been carried out. The most successful venture was the Lone Star Mine, which produced 8,435 tons grading 0.148 oz/ton between 1912 and 1914.

In 1983, several companies of the Hughes Lang Group began to acquire and explore ground in the Klondike for hard rock gold potential. Work included multiple geological, geochemical, and ground geophysical surveys, two airborne geophysical surveys, trenching, and diamond and rotary drilling.

The 1989 programme was designed to test a geochemical anomaly outlined in a previous exploration programme.

Results to date are inconclusive as to the source of either the geochemical anomaly or the placer gold in Bear Creek. A more detailed geochemical grid followed by trenching is recommended.

## TABLE OF CONTENTS

	Page
SUMMARY .....	i
TABLE OF CONTENTS .....	ii
FIGURES AND TABLES .....	iii
1. INTRODUCTION .....	1
1.1 LOCATION AND ACCESS .....	1
1.2 PHYSIOGRAPHY AND CLIMATE .....	4
1.3 CLAIM INFORMATION .....	5
1.4 HISTORY AND PREVIOUS PRODUCTION .....	6
1.5 PREVIOUS WORK .....	7
1.6 WORK COMPLETED 1989 .....	7
2. GEOLOGY .....	8
2.1 GENERAL GEOLOGY .....	8
2.2 PROPERTY GEOLOGY .....	10
2.3 ECONOMIC GEOLOGY .....	11
3. TRENCHING .....	13
4. CONCLUSIONS .....	15
5. REFERENCES .....	16
6. STATEMENT OF PROFESSIONAL QUALIFICATIONS .....	18
7. COST STATEMENT .....	19

**FIGURES**

Figure 1: LOCATION MAP .....	2
Figure 2: CLAIM MAP .....	3
Figure 3: REGIONAL GEOLOGY OF THE KLONDIKE .....	9
Figure 4: TRENCHING LOCATION MAP .....	14

**TABLES**

Table I : CLAIM STATUS .....	5
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**APPENDIX**

CERTIFICATES OF ANALYSES .....	20
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**TRENCHING REPORT  
ON THE  
MOON CLAIMS**

**DAWSON MINING DISTRICT, YUKON**

1. INTRODUCTION

This report covers the field programme completed between October 17 and October 29, 1989 under the supervision of Project Geologist Scott Tomlinson of Hughes Lang Explorations Ltd. (formerly Mark Management Ltd.).

1.1 LOCATION AND ACCESS

Dawson City is, and has been since the early gold rush days of 1897 and 1898, the principal population and supply centre of northwestern Yukon. Until 1953 it was also the territorial capital. It can be reached via the two-lane, all-weather, Klondike Highway from Whitehorse on the Alaska Highway, a distance of 535 km (333 miles). Dawson City is presently served by scheduled flights from Whitehorse where connections to Vancouver or Edmonton are available.

The mineral claims are located 10 km east-southeast of Dawson City in the famous Klondike Mining District as shown in Figure 1. The claims are located along the valley of Bear Creek are plotted in Figure 2.

Terrestrial coordinates for the center of the claim block are as follows:

64° 01' North Latitude  
139° 12' West Longitude.

Excellent access to the property is provided by the well maintained Bear Creek Road which connects with the Klondike Highway approximately 10 km east of Dawson City. Several recently completed unimproved roads provide good access for 4X4 trucks within much of the claim group.

KLONDIKE REEF MINES LTD.

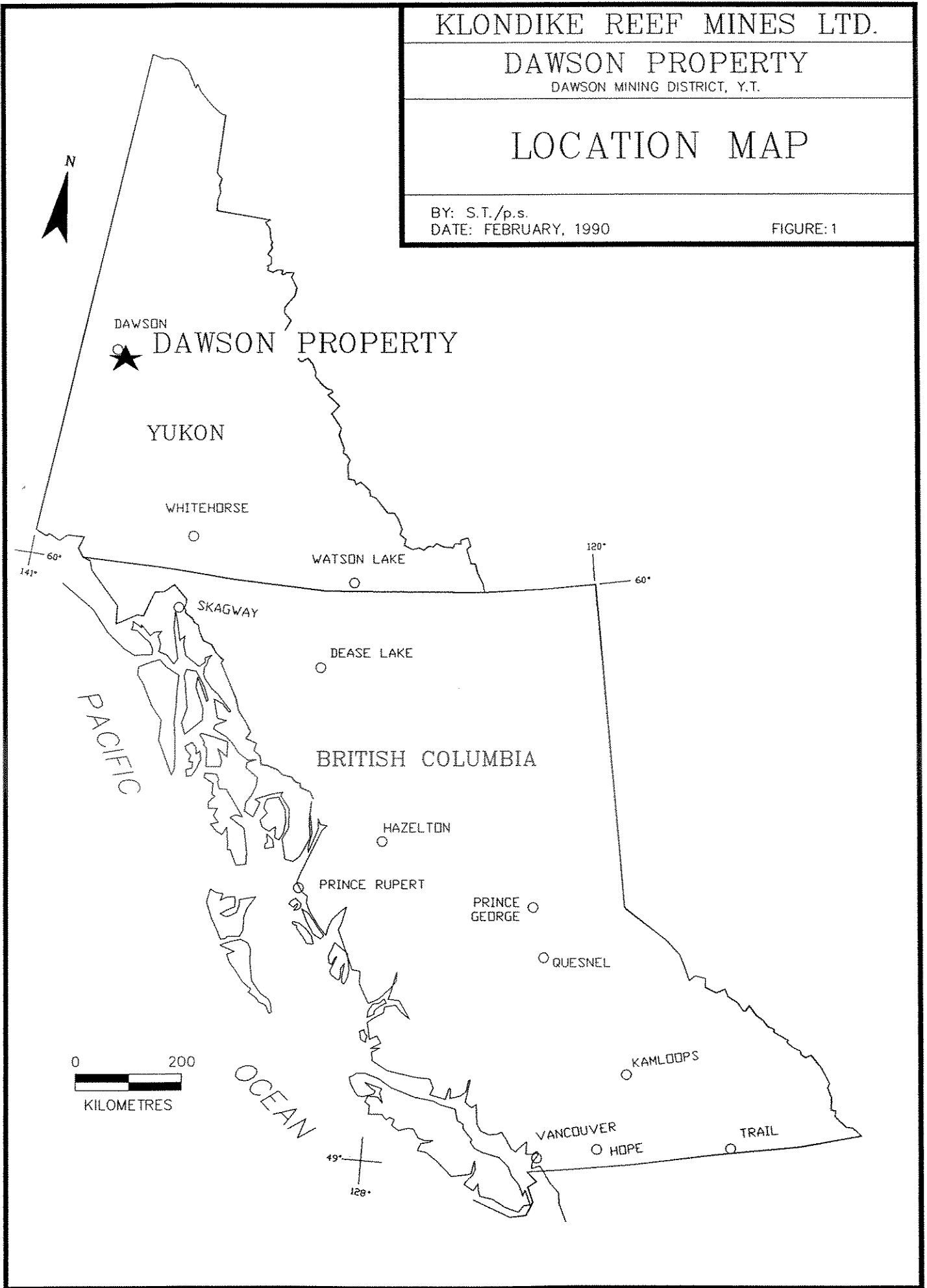
DAWSON PROPERTY

DAWSON MINING DISTRICT, Y.T.

LOCATION MAP

BY: S.T./p.s.  
DATE: FEBRUARY, 1990

FIGURE: 1



DAWSON CITY

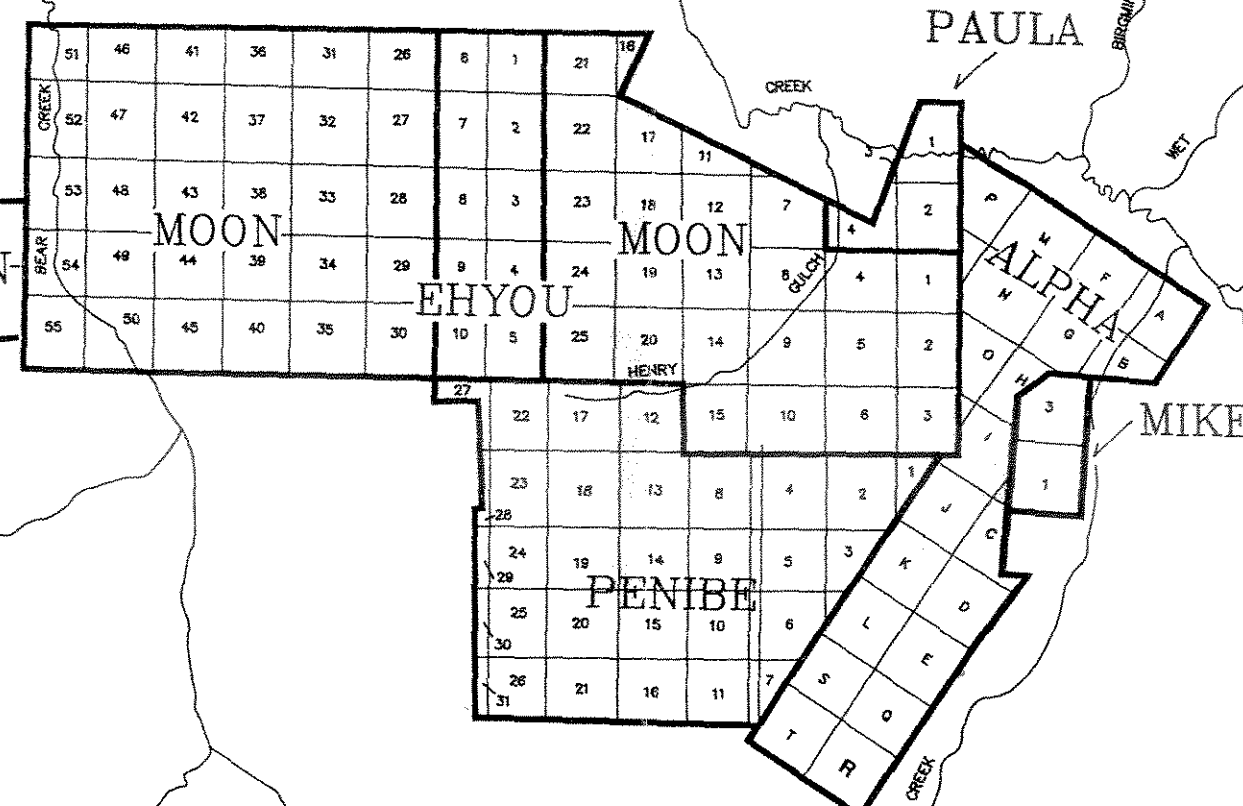
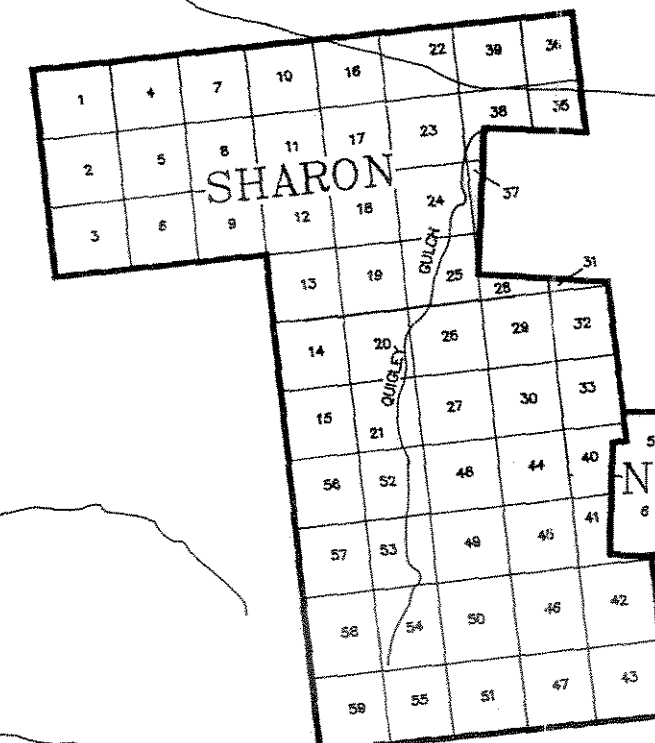
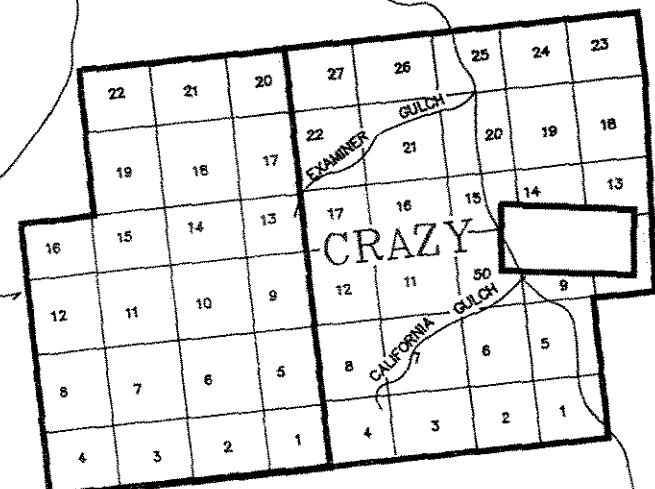


YUKON RIVER

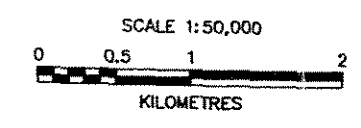
KLONDIKE RIVER

RIVER

LADY



BONANZA CREEK



HLX RESOURCES LTD.  
DAWSON PROPERTY  
DAWSON MINING DISTRICT, Y.T. NTS: 115 0/14

**CLAIM MAP**

EY: S.T./p.s.  
DATE: MARCH, 1990

FIGURE: 2

## 1.2 PHYSIOGRAPHY AND CLIMATE

The Klondike region forms a part of the Yukon Plateau or upland surface which, locally, occupies an area between the Pacific and Alaskan Mountain Ranges to the west and northwest, the Ogilvie Mountains to the northeast and east, and the Dawson Range to the southwest and south.

The region has been described as a typical example of a thoroughly dissected upland which was elevated at one period in its history into a high plateau. This plateau was subsequently deeply eroded by a multitude of small streams, tributary to the main water courses. A secondary uplift resulted in further deepening of the valleys from 150 m (500 ft) to 200 m (700 ft). Portions of the old valley-bottoms, still covered with thick accumulations of gravel forming terraces of varying width, border the newer valleys (McConnell, 1905; also, G.S.C. Mem.84, 1957). Today, the valleys are flat and wide in their lower reaches, but gradually narrow toward their head waters into steep-sided gulches ending in broad, amphitheater-shaped bowls.

Locally within the Klondike region, the drainage is dominated by the northerly flowing Yukon River and its westerly flowing tributaries, the Klondike River on the north and the Indian River on the south. The intervening Klondike area to the east of the Yukon River is a gently rolling, mature and deeply dissected upland with tributaries to the Klondike and Indian Rivers radiating from a more or less centrally located topographic and drainage high point known as King Solomon Dome, located approximately 32 km (20 miles) southeast of Dawson City.

The Klondike proper occupies an area of approximately 30 by 60 km (18 by 37 miles), its long axis extending southeasterly from Dawson City which is situated at the northwestern apex of the main gold-producing region. Elevations within the Klondike range from 320 m (1050 ft) at Dawson City to 1295 m (4048 ft) at the top of King Solomon Dome, a span of approximately 975 m (3000 ft). The principle gold-producing streams of the Klondike originate near, and radiate in a general way from, King Solomon Dome, flowing eventually into the Klondike River on the north and the Indian River on the south and thence into the Yukon River.

The Klondike region was not glaciated and, as a result, the deeply weathered, pre-glacial, gently rolling upland surface has been preserved. A thick covering of decomposed schist, usually intermingled with slide rock, mantles the side hills nearly everywhere. On the ridges the covering is less; the schists, often worn into fantastic shapes, occasionally project above surface or crop out along the sides of the steeper hills.

The region has a northern continental climate, characterized by low precipitation and a wide temperature range. The winters are intensely cold and long, while the summers, although short, are pleasant with cool nights and warm days. Because of the land form there is a tendency for local micro-climates to develop at the bottom of steep valleys which involves higher summer maxima and lower winter minima than are recorded in Dawson City. Precipitation is only about 30 cm (12 inches) per year with more rain in summer than snow in winter. Most of the mountain ridges are free of snow by mid-July, but frost may occur at any time during the summer. As a rule, precipitation is so low that shortages of water for placer mining are sometimes experienced.

Vegetation is mixed boreal forest and tundra. Immature and stunted stands of aspen, balsam, poplar, and birch are present in the valley bottoms and are beginning to reclaim the older mining areas. Softwood timber consisting mainly of white and black spruce are limited to slopes and ridge tops. Permafrost is usually found on north facing slopes while south facing slopes thaw during the summer. The freezing - thawing action on the south facing slopes allows for much larger stands of timber.

### 1.3 CLAIM INFORMATION

The property is located in the Dawson Mining District of northwestern Yukon Territory and is comprised of 233 quartz mining claims as shown in Figure 2. A complete list of HLX Resources Ltd.'s claims follows in Table I:

TABLE I

#### CLAIM STATUS

#### COMPLETE LIST OF REGIONAL CLAIMS

Claims	Grants	Anniversary	Operator
ALPHA A-P	YA79850-YA79865	22 May	HLX Resources
ALPHA Q-T	YA84286-YA84289	24 Jul	HLX Resources
CRAZY 1-27	YA79611-YA79637	17 Feb	HLX Resources
EHYOU 1-10	YA79870-YA79879	22 May	HLX Resources
LADY 1-22	YA88034-YA88055	11 Jun	HLX Resources
MIKE 1	YB17462	29 Jul	HLX Resources
MIKE 3	YB17464	29 Jul	HLX Resources
MOON 1-55	YA79671-YA79725	27 Feb	HLX Resources
NIAN 5-6	YA79915-YA79916	15 Jun	HLX Resources
NIAN 11-12	YA79921-YA79922	15 Jun	HLX Resources
PAULA 1-4	YA79866-YA79869	22 May	HLX Resources
PENIBE 1-31	YA84296-YA84326	24 Jul	HLX Resources
SHARON 1-33	YA79638-YA79670	22 Feb	HLX Resources

SHARON 35-39	YA84291-YA84295	24 Jul	HLX Resources
SHARON 40-59	YA84408-YA84427	1 Aug	HLX Resources

#### 1.4 HISTORY AND PREVIOUS PRODUCTION

The colorful history of discovery, development and subsequent mining of placer gold in the Klondike has been documented by many authors and historians and is therefore treated only briefly herein.

The earliest reported discovery of gold dates to the mid-1880's, but not until the phenomenally rich 'Klondike Discovery' in 1896 on Bonanza Creek and the subsequent gold rush of 1897-98 was much interest paid to the area. Gold production from the Western Cordillera of Canada to the end of 1978 totals 35 million ounces, of which over 11 million ounces were produced from the Klondike.

The mining history of the Klondike can be divided into four overlapping periods: 1) hand and primitive mining, 2) dredging, 3) dormant and 4) renewed activity.

Hand and primitive mining methods lasted about nine years (1896 to 1905) and were undertaken usually by individuals or small groups. Production through these early years was estimated by McConnell in 1905 to have been over 5.5 million ounces; this production was primarily by shaft sinking and drifting along bedrock or by open-cut mining. When water was available and the topography allowed the use of hydraulicking operations, good results were possible.

The first dredge was introduced in 1903, and although there were some non-production years during the start of this period, the last dredging operation ceased production in 1966. During the more than 60 years of dredging over 400 million yards of creek and river gravels were treated and more than 5.5 million ounces of gold recovered.

Dredging operations began to decline in the late 1950's and ended in 1966, initiating a 10 to 20 year dormant period. During this time only a few individuals worked their claims on a part-time basis.

In 1977, interest and activity resumed with the increase in the price of gold. Today the area is very active; many operators have introduced the largest earth moving equipment available, and for five months a year the area is alive with small and medium-sized operations re-working or re-examining the area.

The earliest known staking for lode deposits was in 1899 on an auriferous quartz vein known as the Corthay Vein (Maclean, 1914). This vein was later mined by the Lone Star Company. Three showings exist near the Moon Claims on Bear Creek; these are the Virgin, Jean, and Gordon. All of these occurrences are quartz veins that contain gold values, but no systematic exploration has been done any of them.

#### 1.5 PREVIOUS WORK

The present claim block was staked in February 1984 for Gallant Gold Mines Ltd., which later became HLX Resources Ltd., in 1989.

In May 1984, Questor Surveys Ltd. of Mississauga, Ontario was contracted to fly an INPUT electromagnetic and magnetic survey over the northern portion of the Klondike. This survey outlined a number of anomalous areas which were followed up later during the 1984 field season.

In the summer of 1984 soil lines were run along the claim lines and a total of 291 soil samples were taken and analysed for 11 elements, including gold.

In December, 1986 and January, 1987 Aerodat Geophysics of Mississauga, Ontario conducted a low level helicopter supported airborne geophysical survey. This survey measured magnetic, electromagnetic, and VLF-EM responses. Also in January of 1987, one diamond drill hole was drilled on the property, 87GAL-1. The 84 m deep hole was located at the south-east end of the claim block (on Moon 54) near Bear Creek. The hole intersected interlayered quartz muscovete schist and quartz graphite schist, and had significant crosscutting shear and fracture zones as well as quartz carbonate veining. The entire hole was analysed for gold and 30 additional elements, but there were no significant anomalies.

#### 1.6 WORK COMPLETED IN 1989

The 1989 field programme was designed to test the soil anomalies outlined in 1984. To this end, four hand trenches were excavated and sampled.

## 2. GEOLOGY

### 2.1 GENERAL GEOLOGY

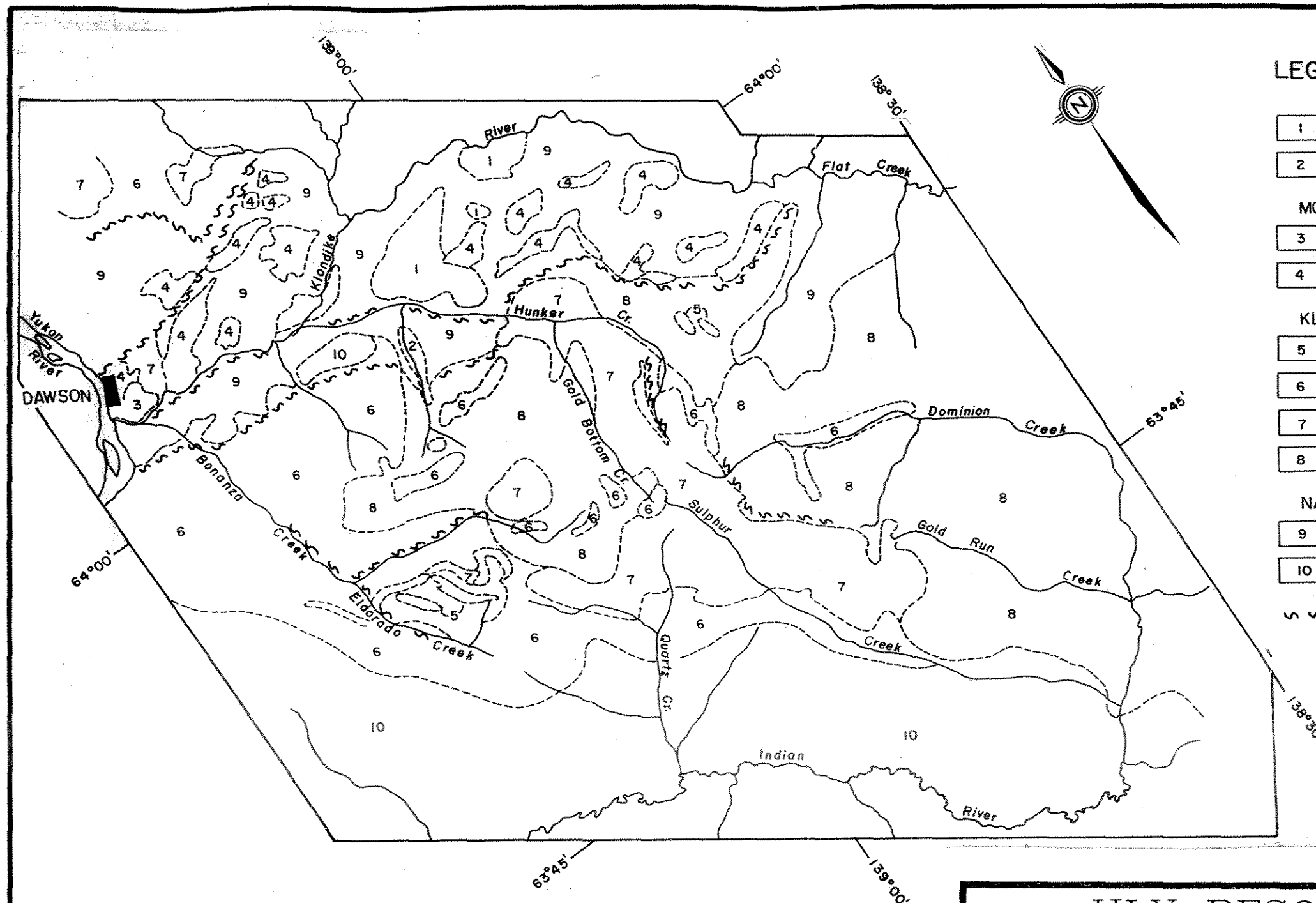
Bedrock exposures amount to less than one percent of the area and are generally confined to gulches, recent landslide areas, and road cuts. The Klondike district was first mapped by Bostock (1942), and more recently by Metcalfe (1981) and Debicki (1984 and 1985). Bedrock in the Klondike area is generally grouped into five major units which are, from oldest to youngest, the Nasina Series, the Klondike Series, the Moosehide Assemblage, early Tertiary volcanics/volcanoclastics and Tertiary intrusives. An overview of the geology is shown in Figure 3.

Rocks of the Nasina Series consist of graphitic schists, graphitic quartzites and siliceous marbles with minor chlorite schists and muscovite schists. These rocks have been metamorphosed to grades ranging from upper greenschist to middle amphibolite facies, and appear to have been derived from marine offshore sedimentation similar to that found along continental shelves. Field studies indicate that the Nasina Series pre-dates the Klondike Series; thus, an age of formation in the late Carboniferous to mid-Permian is likely.

Most rocks exposed in the Klondike district predominantly belong to the Klondike Series. These are quartzofeldspathic schists containing varying amounts of chlorite, muscovite and sericite. They have undergone upper greenschist to middle amphibolite grade metamorphism and at least four separate deformational events. This series appears to represent water lain arkosic sediments and rhyolitic to andesitic tuffs derived from a succession of stratovolcaniclastic venting. The minimum estimated age of formation of the Klondike Series lies within the middle Permian. The Klondike formation has a conformable basal contact with the structurally underlying rocks of the Nasina Series (Metcalfe), although field studies indicate a low angle thrust contact.

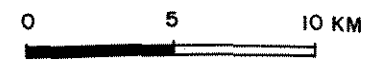
To the west the Klondike Schists are in contact with a blocky weathering, granitic textured, biotite-quartz-feldspar orthogneiss. Thin section studies of these rocks indicate that they were originally medium to coarse grained plutonic rocks of granodiorite to quartz diorite composition, and may represent the magmatic source for those tuffs now comprising the Klondike Series. Zircon dating of these rocks indicates an age of emplacement between Late Devonian and early Carboniferous (Mortensen).

The age of metamorphism of the Klondike and Nasina Series formations has been placed in the Late Triassic (Metcalfe).



**LEGEND**

- 1 QUARTZ FELDSPAR PORPHYRY
- 2 CLASTIC SEDIMENTS AND VOLCANICS
- MOOSEHIDE ASSEMBLAGE**
- 3 MASSIVE GREENSTONE AND DIABASE
- 4 SERPENTINITE AND ALTERED ULTRAMAFIC ROCKS
- KLONDIKE SERIES**
- 5 MUSCOVITIC QUARTZITE
- 6 MUSCOVITE AND QUARTZ MUSCOVITE SCHIST
- 7 CHLORITIC SCHIST
- 8 MUSCOVITIC AND CHLORITIC QUARTZITE AND FELDSPATIC QUARTZITE
- NASINA SERIES**
- 9 CARBONACEOUS PHYLLITE AND SCHIST
- 10 METAGRANODIORITE
- — FAULT (NATURE UNCERTAIN)



NOTE: MODIFIED FROM MORTENSEN, 1985

**HLX RESOURCES LTD.**  
**DAWSON PROPERTY**  
 DAWSON MINING DISTRICT, Y.T.  
**REGIONAL GEOLOGY**  
**OF THE KLONDIKE**

BY: S.T./p.s.  
 DATE: MARCH, 1990

FIGURE: 3

Structurally overlying rocks of the Klondike and Nasina Series are occurrences of greenstone and altered ultramafics belonging to the Moosehide Assemblage. Included in the ultramafic unit are a variety of rock types including massive, partially serpentinitized peridotite (harzburgite), massive to sheared serpentinite, silica-carbonate altered serpentinite, and talc-carbonate schist. Massive greenstone and strongly altered, fine to medium grained diabase are exposed in several steep bluffs in the vicinity of Dawson. These rocks are unfoliated and form part of a slab of greenstone and serpentinite that underlies the southwestern slope of the Midnight Dome east of Dawson. Occurrences of greenstone and ultramafic rocks are commonly found along the sheared contact between the Klondike and Nasina Series rocks. They are thought to represent exotic slices of uncertain origin (ophiolite?), structurally emplaced during thrust faulting.

Gently folded andesitic volcanics and clastic sediments belonging to the Carmacks suite are present in the Last Chance Creek area. These rocks were considered to be early Tertiary in age, however, recent work on similar rocks in the Indian River area suggests that these rocks are middle Cretaceous in age.

Intrusive rocks are present as numerous dykes and sills ranging in nature from diabase to rhyolite. These have been dated as Tertiary to early Quaternary in age. Larger Tertiary intrusive bodies are rare in the Klondike except for a rhyolite porphyry stock that outcrops along Hunker Creek. Isotopic dating (Debicki) indicates that the porphyry is approximately 50 to 60 million years old.

Figure 3 is a generalized geologic map of the Klondike showing the approximate distribution of the Klondike Schist.

## 2.2 PROPERTY GEOLOGY

The geology of the property, as currently understood, was chiefly determined from the examination of trenches, road cuts and diamond-drill core, and the interpretation of geophysical information, as there are few outcrops. The property is underlain almost entirely by facies of the Klondike Schist. Lithological and structural continuity has been disrupted by folding and faulting. Age relationships of the various lithologies are largely unknown since tops cannot be determined and contacts are either gradational, interlayered, or faulted.

Rocks on the property are comprised of well-foliated, rust-yellow weathering, light grayish-green, undifferentiated chloritic schists, muscovite schists, and quartz-sericite schists. These schists are interbedded with narrow lenses of calcareous graphitic schist, particularly along Eldorado Creek, and with

fine-grained, massive, tan weathering, grey-brown micaceous quartzites. Graphitic schists are traceable as marker horizons in stratigraphy.

The micaceous schists and quartzites commonly contain up to 15% small, blue quartz eyes. The quartz eyes may represent crystals, tuff fragments, or porphyroblasts.

To the west of the claim group the Klondike Schists are in contact with a blocky weathering, granitic textured, biotite-quartz-feldspar orthogneiss. Thin section studies of these rocks indicate that they were originally medium to coarse grained plutonic rocks of granodiorite to quartz diorite composition, and may represent the original magma for those tuffs now comprising the Klondike Series.

All formations are interrupted by a number of north to north-west trending, magnetite bearing, quartz-feldspar porphyry (rhyolite) and diabase dykes which may be up to 60 m wide. Diabase dykes often contain serpentine alteration near surface; previously these had been mis-interpreted as thin ultramafic bodies. The dykes cut most structural trends but are offset by more recent northwest striking faults. The dykes may occupy old fault zones, and in places apparent offsets in strata of up to 300 m are recorded. No extensive metamorphic halos are reported to be associated with these dykes.

Numerous quartz and quartz-carbonate lenses and pods dot the hillsides on the property. These are mostly stretched along the primary foliation plane within the schists, and were likely metamorphically produced. Thin section studies indicate that the quartz developed under stress under moderately deep-seated, possibly mesothermal conditions. The majority of these lenses have a mappable strike length of under 100 m and widths of 30 to 100 cm. Quartz veins often contain galena, and are thought to be of a higher temperature mesothermal origin. The margins of quartz veins are often lined with pyrite, and in places visible gold has been found within the oxidized boxworks of pyrite (trench samples) at the quartz-country rock contact.

### 2.3 ECONOMIC GEOLOGY

With few exceptions, economic geology of the area has always been focused on the placer deposits. Since production began in 1896, the Klondike district southeast of Dawson City has been the source of more than half the placer gold produced in western Canada. This amounts to over 11 million ounces which at today's price represents over five billion Canadian dollars.

The only historical evidence of economic lode mineralization are the Jean, Virgin, and Gordon showings, located four kilometres upstream from the mouth of Bear Creek. Assays as high as 25.5 g/t Au and 10.0 g/t Ag have been recorded (Debiki).

Exploration done by Mark Management has confirmed the possibility of economic mineralization by locating gold in soils in several areas.

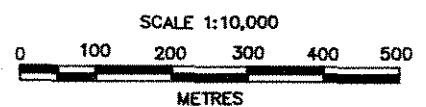
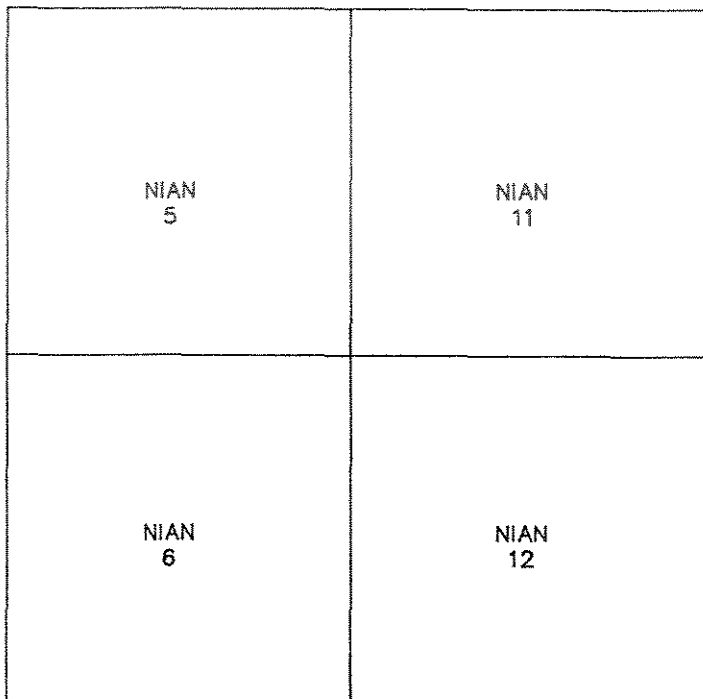
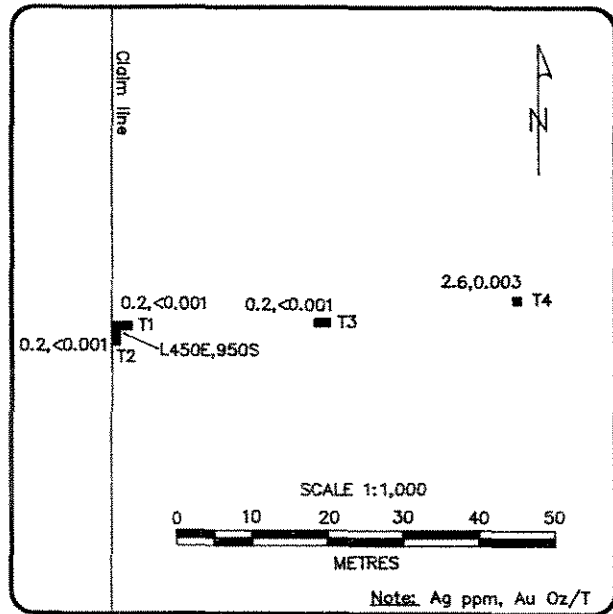
### 3. TRENCHING

A total of four trenches were excavated on the property. They were dug at, and uphill from, the site of one of the highest gold analyses from the 1984 soil sampling programme. Trench locations are shown in Figure 4.

The trenches were excavated by hand due to the very steep slope on which they were located. All of the trenches reached bedrock and are from one to two metres deep. The bedrock exposed in the bottom of the trenches were channel sampled.

The samples were sent to Chemex Labs Ltd in North Vancouver, where they were crushed to -200 mesh. The samples were screened for metallics to ensure that coarse grained gold would be assayed. Gold was assayed using the Fire Assay - Atomic Absorption method, and 32 additional elements were analyzed using the Inductively Coupled Plasma - Atomic Emission Spectrometry technique.

The analytical results are listed in the Appendix. No significant gold assays were returned, although T4 did have a minor silver anomaly of 2.6 ppm.



MOON 46-55		MOON 36-45		MOON 31-35	
51	46	41	36		31
52	47	42	37		32
53	48	43	38		33
54	49	44	39		34
55	50	45	40		35

MOON 46-55

MOON 36-45

MOON 31-35

L450E,0S

L450E,950S

L450E,2150S



LEGEND

1.2,35 | Ag ppm, Au ppb

□ Area of 1989 hand trenching

Note: Soil sampling done in 1984

HLX RESOURCES LTD.

MOON CLAIMS

DAWSON MINING DISTRICT, Y.T. NTS: 115 0/14

TRENCHING LOCATION MAP

BY: S.T./p.s.  
DATE: MARCH, 1990

FIGURE: 4

#### 4. CONCLUSIONS

Since the mineral claims of HLX Resources Ltd. are situated over Bear Creek, one of the significant placer creeks in the Klondike, the property has a good potential for hosting the bedrock source for placer gold. Exploration programmes to date have been successful in locating areas anomalous in gold although the cause of the anomalous values remains unclear.

Further work is necessary to determine the source of the placer gold in Bear Creek. Specifically, a detailed soil sampling programme, followed by hand and bulldozer trenching, in the vicinity of other known soil anomalies is required.

Respectfully submitted;

  
Scott Tomlinson

## 5. REFERENCES

- Bostock, H.S.,**1957; Yukon Territory-Selected Field Reports of the Geological Survey of Canada, 1893 to 1937: Geol. Surv. of Canada, Memoir 284.
- Boyle, R.W.,**1979; The Geochemistry of Gold and its Deposits: Geol. Surv. of Canada, Bulletin 280, p. 350-357.
- Cairnes, D.D.,**1912; Quartz Mining in the Klondike District: Geol. Surv. of Canada, Sum. Rept. for 1911, pp. 4,17-40: Also Geol. Surv. of Canada, Memoir 284, P. 343-351.
- Debicki, R.L.,**1984; Bedrock Geology and Mineralization of the Klondike Area (West), 1150/14, 15 and 116 B/2,3: Indian and Northern Affairs Canada.
- DeCarle, R.J.,**1984; Airborne Electromagnetic Survey, Mark Management Limited, Dawson Area, Yukon Territory: File No. 26023, Commissioned Report.
- Desborough, George A.,**1970; Silver Depletion Indicated by Microanalysis of Gold from Placer Occurrences, Western United States: Econ. Geol., v.65, no.3, p.304-311.
- Dufresne, M.B.,**1986; Origin of Gold in the White Channel Sediments of the Klondike Region, Yukon Territory. Master of Science Thesis, University of Alberta, 166 pp.
- Gleeson, C.F.,**1970; Heavy Mineral Studies in the Klondike Area, Yukon Territory: Geol. Surv. of Canada, Bull. 173, 63 pp.
- Grunenberg, P. and Troup, A.,**1985; Geological, Geochemical and Geophysical Report on the Dawson Property: Unpub. Rept., 42pp.
- Grunenberg, P. and Troup, A.,**1986; Geological, Geochemical and Geophysical Report for Work Performed by Mark Management Ltd.: Unpub. Rept., 42 pp.
- Grunenberg, P.,**1987; Geological, Geochemical, and Diamond Drill Report for Work Performed by Mark Management Ltd. on the Dawson Property: Unpub. Rept., 51 pp.
- Grunenberg, P.,**1987; Geological, Geochemical, and Diamond and Rotary Drilling Report on the Lone Star Property: Unpub. Rept., 49 pp.
- Grunenberg, P.,**1988; Geological, Geochemical, Geophysical, and Diamond and Rotary Drilling Report on the Lone Star Property: Unpub. Rept., 49 pp.

**Grunenberg, P., 1989;** Geological, Geochemical, Geophysical and Trenching Report for Work Performed by Mark Management Ltd.: Unpub. Rept., 63 pp.

**MacLean, T.A., 1914;** Lode Mining in Yukon; An Investigation of Quartz Deposits in the Klondike Division: Can. Dept. of Mines, Mines Br. Pub. 222, Ottawa.

**McConnell, R.G., 1905;** Report on the Klondike Gold Fields: Geol. Surv. of Canada, Annu. Rep., pt. B, v.14, p. 1-71.

**Metcalf, P., 1981;** Petrogenesis of the Klondike Formation, Yukon Territory, a Thesis Presented to the University of Manitoba in Partial Fulfillment for the Requirements for the Degree of Master of Science in Department of Earth Sciences, University of Manitoba.

**Milner, M.W., 1977;** Geomorphology of the Klondike Placer Gold Fields, Yukon Territory. Indian and Northern Affairs Canada (Whitehorse), Final Report, 157 p.

**Mortensen, J.K., 1986;** Bedrock Geology and U-Pb Geochronology of the Klondike District, West-Central Yukon Territory, Geological Survey of Canada.

**Roche, W.J., 1916;** The Yukon Territory; Its History and Resources: an Issue by the Ministry of the Interior, Ottawa.

**Tuck, R., 1968;** Origin of the Bedrock Values of Placer Deposits: Econ. Geol., v. 63, no. 2, p. 191-193.

**VanAngeren, P.D., 1986;** Compilation Report on the Lone Star Property, Dawson Mining District, Y.T.: Unpub. Rpt. for Dawson Eldorado Mines Ltd.

**Walcott, P.E. and Associates Ltd., 1987;** A Report on Magnetic and Electromagnetic Surveys, RON 17-22. (Unpublished Report for Arbor Resources Inc.)

**Walcott, P.E. and Associates Ltd., 1987;** A Report on Magnetic and Induced Polarization Surveys, RON, SYNDICATE, RJ, DN, ND, DE claims and LOTS. (Unpublished Report for Arbor Resources Inc. and Kangel Resources Ltd.)

## 6. STATEMENT OF PROFESSIONAL QUALIFICATIONS

SCOTT TOMLINSON, B.Sc.

## ACADEMIC

1983  
UNIVERSITY OF BRITISH COLUMBIA  
B.Sc. IN GEOLOGY

## PROFESSIONAL

JUNE 1986 - FEBRUARY 1990  
HUGHES LANG EXPLORATIONS STD.  
PROJECT GEOLOGIST  
Responsible for regional and detailed exploration programmes in Dawson, Yukon, and central and western British Columbia. Also, was involved in monitoring placer mining operations.

JUNE 1985 - MAY 1986  
GEWARGIS GEOLOGICAL CONSULTING LTD.  
PROJECT GEOLOGIST  
Responsible for detailed exploration programmes in central and south-western British Columbia and southern California.

JUNE 1984 - NOVEMBER 1984, JUNE 1983 - NOVEMBER 1983  
MARK MANAGEMENT  
GEOLOGIST  
Worked on regional and detailed exploration programmes near Atlin, British Columbia.

## SUMMER EMPLOYMENT

JUNE 1982 - SEPTEMBER 1982  
B.C. HYDRO  
SENIOR ASSISTANT  
Worked on an assessment project for a reservoir dam in western British Columbia.

JUNE 1981 - SEPTEMBER 1981  
MARK MANAGEMENT LTD.  
JUNIOR ASSISTANT  
Worked on a regional and detailed exploration programme near Quesnel, British Columbia.

7. COST STATEMENT

**COST STATEMENT  
HLX RESOURCES LTD.  
MOON CLAIMS  
TRENCHING**

Salaries, Wages and Benefits:			
Scott Tomlinson, 4days @ \$160		\$ 640.00	
Jerry Bryde, 4days @ \$150		600.00	
Henry Reining, 4days @ \$150		600.00	\$ 1,840.01
General Costs: (12/205 X \$49,409.98)*			2,892.29
Assays & Analyses - Chemex Labs:			
4 samples for Au and 32-element ICP @ \$21.25			85.00
Report Preparation:			<u>2,318.71</u>
 Total Trenching Cost:			 \$ 7,136.00

\*General Cost Breakdown for 205 mandays:

Supplies:	\$ 2,753.47
Drafting:	249.83
Consultan Fees:	
Adder Exploration	124.99
Archean Eng.	7,475.00
Brian Hester	4,149.36
Fuel:	2,156.85
Food/Accommodation:	10,590.66
Field Tel Service:	1,187.83
Shipments:	2,224.54
Maintenance:	2,258.83
Rentals:	
Norcan 4wd	1,239.12
Appian 4wd	12,300.00
Ezekiel Equip	2,050.00
Chainsaw	90.00
Deakkin c/spltr	75.00
Archibalds' Strg	200.00
ATC	160.00
Fixed Wing	<u>124.50</u>
 Total General Cost	 \$49,409.98

APPENDIX  
CERTIFICATES OF ANALYSES



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
212 BROOKSBANK AVE., NORTH VANCOUVER,  
BRITISH COLUMBIA, CANADA V7J-2C1  
PHONE (604) 984-0221

To: HUGHES LANG EXPLORATIONS LTD.

1900 - 999 W. HASTINGS ST.  
VANCOUVER, BC  
V6C 2W2

A8931047

Comments: ATTN: ART TROUP CC: SCOTT TOMLINSON

## CERTIFICATE A8931047

HUGHES LANG EXPLORATIONS LTD.  
PROJECT : DAWSON  
P.O.# :

Samples submitted to our lab in Vancouver, BC.  
This report was printed on 4-DEC-89.

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
207	4	Assay: Crush, split, pulv -150
238	4	ICP: Aqua regia digestion

### \* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
998	4	Au oz/T: 1 assay ton	FA-AAS	0.001	20.00
921	4	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
922	4	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	200
923	4	As ppm: 32 element, soil & rock	ICP-AES	5	10000
924	4	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
925	4	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
926	4	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
927	4	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
928	4	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
929	4	Co ppm: 32 element, soil & rock	ICP-AES	1	10000
930	4	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
931	4	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
932	4	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
933	4	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
951	4	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
934	4	K %: 32 element, soil & rock	ICP-AES	0.01	10.00
935	4	La ppm: 32 element, soil & rock	ICP-AES	10	10000
936	4	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
937	4	Mn ppm: 32 element, soil & rock	ICP-AES	5	10000
938	4	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
939	4	Na %: 32 element, soil & rock	ICP-AES	0.01	5.00
940	4	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
941	4	P ppm: 32 element, soil & rock	ICP-AES	10	10000
942	4	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
943	4	Sb ppm: 32 element, soil & rock	ICP-AES	5	10000
958	4	Sc ppm: 32 elements, soil & rock	ICP-AES	1	100000
944	4	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
945	4	Ti %: 32 element, soil & rock	ICP-AES	0.01	5.00
946	4	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
947	4	U ppm: 32 element, soil & rock	ICP-AES	10	10000
948	4	V ppm: 32 element, soil & rock	ICP-AES	1	10000
949	4	W ppm: 32 element, soil & rock	ICP-AES	10	10000
950	4	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000



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1900 - 999 W. HASTINGS ST.  
VANCOUVER, BC  
V6C 2W2

Project: DAWSON

Comments: ATTN: ART TROUP CC: SCOTT TOMLINSON

Page No: 1-A  
Tot. Pages: 1  
Date: 4-DEC-89  
Invoice #: I-8931047  
P.O. #:

## CERTIFICATE OF ANALYSIS A8931047

SAMPLE DESCRIPTION	PREP CODE	Au oz/T	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
89 MOON-T1	207 238	< 0.001	0.50	0.2	35	230	< 0.5	< 2	0.14	< 0.5	1	11	2	0.96	< 10	< 1	0.32	10	0.07	100
89 MOON-T2	207 238	< 0.001	0.42	0.2	45	180	< 0.5	< 2	0.10	< 0.5	1	11	2	1.10	< 10	< 1	0.37	10	0.04	110
89 MOON-T3	207 238	0.001	0.50	0.2	105	260	< 0.5	< 2	0.03	< 0.5	< 1	11	1	1.13	< 10	< 1	0.53	10	0.03	65
89 MOON-T4	207 238	0.003	0.44	2.6	675	260	< 0.5	< 2	0.02	< 0.5	< 1	9	3	0.65	< 10	< 1	0.40	40	0.02	80

CERTIFICATION :

*B. Coughlin*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

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## CERTIFICATE OF ANALYSIS A8931047

SAMPLE DESCRIPTION	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
89 MOON-T1	207 238	1	0.01	6	180	14	< 5	2	13	< 0.01	< 10	< 10	1	< 10	30
89 MOON-T2	207 238	1	0.01	5	170	6	< 5	2	12	< 0.01	< 10	< 10	1	< 10	46
89 MOON-T3	207 238	1	0.01	6	180	12	< 5	1	13	< 0.01	< 10	< 10	1	< 10	34
89 MOON-T4	207 238	1	0.01	3	140	24	< 5	1	9	< 0.01	< 10	< 10	1	< 10	24

CERTIFICATION :

*B. Coughlin*