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# **REPORT ON THE 1992 GEOLOGICAL AND GEOCHEMICAL** ASSESSMENT WORK ON THE **CONTACT PROPERTY**

Liard Mining Division, B.C. October 21, 1992

Location:

- 1. 2 km N of Cassiar, B.C.
- 2. 104 P/5
- 3. Latitude: 59° 17'N Longitude: 129° 53'W

For:

KOKANEE EXPLORATIONS LTD.

1440 - 625 Howe Street

Vancouver, B.C.,

V6C 2T6

By:

Gregory F. Smith, B.Sc.

Aurum Geological Consultants Inc. 412-675 West Hastings Street

Vancouver, British Columbia

V6B 1N2

GEOLOGICAL BRANCH SSESSMENT REPORT

December 30, 1992

22778



# Province of British Columbia

Ministry of Energy, Mines and Petroleum Resources

# ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S)	TOTAL COST
GEOLOGICAL AND GEOLYEMICAL	# 6,236.0a
AUTHORIS) GREGORY SMITH SIGN	ATURE(S)
DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED PROPERTY NAME(S) CONTACT PROPERTY	OCT 14, 1992 YEAR OF WORK 1996
COMMODITIES PRESENT PA - Ay - Au	
B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN	104401-
MINING DIVISIONARP	NTS 104P 15 GITUDE 129° 53' W
LATITUDE S.7 LONG	GITUDE
NAMES and NUMBERS of all mineral tenures in good standing (when work (12 units); PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified 8	
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	,
OWNER(S)	
11) KOKANEE EXPLORATIONS LTD. (2)	
MAILING ADDRESS	
1440-625 Howe ST	
Van., B. C. V6C 2T6	
OPERATOR(S) (that is, Company paying for the work)	
(1) SAME (2)	
MAILING ADDRESS	
SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization,	size, and attitude):
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REFERENCES TO PREVIOUS WORK	

### SUMMARY

The Contact property consists of four contiguous mineral claims totalling 60 units located north of Cassiar, British Columbia. The property is currently accessible by road via the Cassiar Mine Haul road which runs along the eastern boundary of the claims.

The claims lie within the Ominica Belt. Rocks consist of volcanic and sedimentary units of Precambrian to Jurassic age deposited along the western margin of ancient North America. A suite of Cretaceous granitoid intrusions (Selwyn Plutonic Suite) intrude the stratified rocks as plugs, plutons and batholiths. One such pluton is found on the property intruding the sedimentary rocks.

Interest in the ground developed in 1991 when significant gold mineralization was discovered at Dublin Gulch, Yukon using the Fort Knox, Alaska deposit model. The Dublin Gulch deposit is hosted by a pluton of the Selwyn Plutonic Suite.

Previous work has identified skarn deposits within and adjacent to the current property. The largest of these, the Kuhn Zone North is reported to contain 409,300 tonnes @ 0.48% W and 0.13% Mo. Regional stream sediment surveys by the Geological Survey of Canada and the B.C Ministry of Mines obtained anomalous results in copper, molybdenum, antimony, arsenic and tungsten from creeks draining the property.

In 1992 the claims were examined by Aurum Geological Consultants Inc. to determine their economic potential. The granitic intrusive in particular was examined for associated gold mineralization. A total of 15 samples were collected all of which returned gold values less than five ppb. One sample containing finely disseminated molybdenite contained 106 ppm Mo. Alteration ranged from a weak yellowish green staining to a moderately developed stockwork of quartz veins.

Based on these results, a program of prospecting, geological mapping and geochemical sampling is recommended.

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#### INTRODUCTION

This report was prepared at the request of the directors of Kokanee Explorations Ltd., owner of the Contact 1-4 claims, herein after called the Contact property. Its purpose is to assess the property's economic potential and to satisfy assessment requirements through a description of exploration work carried out in 1992.

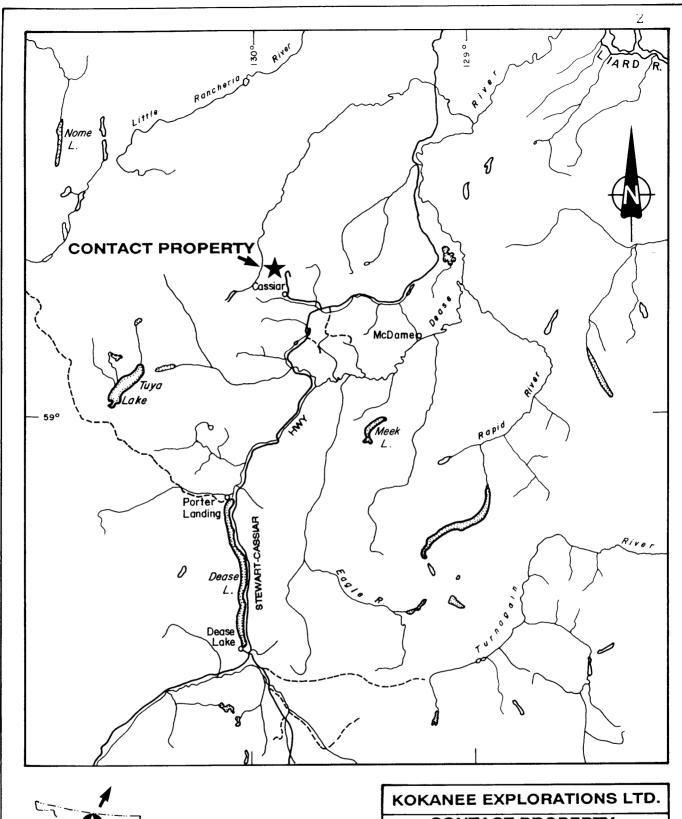
The property is located approximately two kilometers north of Cassiar, British\_Columbia (Figure 1) in the Liard Mining Division, and is accessible by road.

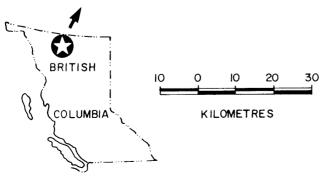
Exploration work carried out in 1992 consisted of geological mapping and geochemical sampling and prospecting for the purpose of locating gold deposits. Field work was carried out on October 21, 1992 by; R. Hulstein, B.Sc., FGAC, P.Geo., Al Doherty, B.Sc. and, Greg Smith, B.Sc., of Aurum Geological Consultants Inc. This years work was hindered by extensive snow cover. Previous work is summarized from published reports and maps.

## **LOCATION AND ACCESS**

The Contact property is located two kilometers north of Cassiar, British Columbia (Figure 1). The claims are centered at approximately 59° 17′ N latitude and 129° 53′ W longitude within NTS map area 104P/5.

Access to the property in 1992 was by truck from Watson Lake, Yukon. Watson Lake, 100 kilometers north by road from Cassiar, is the site of the nearest supplies and hotel accommodations. The Cassiar Mine Haul road abuts the eastern boundary of the property, however with the closure of the Cassiar Mine the future reliability of this road is uncertain. A "Cat" trail crosses the central portion of the property.





**CONTACT PROPERTY** LIARD MINING DISTRICT, BRITISH COLUMBIA

# **LOCATION MAP**

Aurum Geological Consultants Inc.

NTS 104/P5

DRAWN BY GS Scale 1:1000000 FIGURE I

# PHYSIOGRAPHY, CLIMATE AND VEGETATION

The Contact property covers an area of mountainous terrain five kilometers northwest of Mount McDame. Elevations on the property range from 1200m to 1950m above sea level. The terrain is rugged with sharp peaks flanked by steep slopes with local cliffs and felsenmeer covered ridges. Several cirques lie within the property boundaries.

An interior west-coast type climate with moderate precipitation of 50 cm\_ annually, warm summers and cold winters typifies the area. The property is usually snow free from late June to mid September. Some snow on the uppermost northeast facing slopes may remain year round.

Much of the property is above timberline. Ground cover consists of moss, alpine plants, dwarf willow and birch. Sparse spruce forest covers the slopes below timberline. Recent Pleistocene glaciation has scoured the slopes and as a result outcrop is good (25%) except on lower ridge slopes and forested areas. A large portion of the property is covered by felsenmeer and talus.

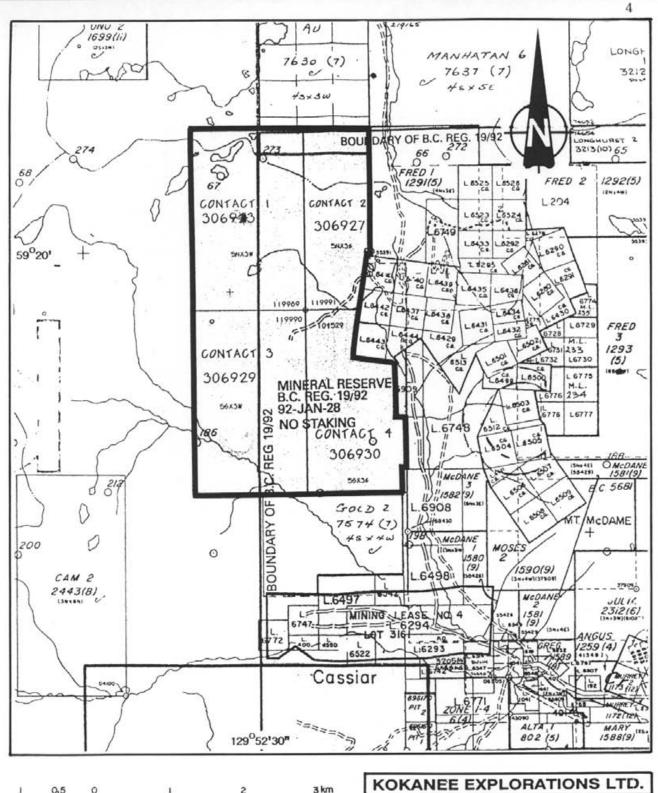
#### **PROPERTY**

The Contact property (Figure 2) consists of four contiguous unsurveyed mineral claims totalling 60 units and covering approximately 3700 acres (1500 hectares). The claims are held in accordance with the British Columbia Mineral Tenure Act. The claims were staked by Aurum Geological Consultants Inc. for Kokanee Explorations Ltd. on December 21, 1991. Claim data are as follows:

CLAIM NAME	RECORD No.	UNITS	EXPIRY DATE
Contact 1	306923	15	Dec. 21, 1993*
Contact 2	306927	15	Dec. 21, 1993*
Contact 3	306929	15	Dec. 21, 1993*
Contact 4	306930	15	Dec. 21, 1993*

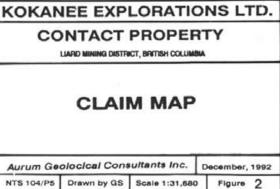
<sup>\*</sup>subject to approval of 1992 assessment work.

The claims are shown on B.C. Mineral Titles Reference Map 104P/5W, Liard Mining Division, and are known collectively as the Contact property.





Cliam data from British Columbia Mineral Titles Map 104P05W.



#### HISTORY

Placer gold was discovered on McDame Creek, approximately 20 km east of the property, in 1874. The area received little exploration until 1943 when the Alaska Highway was completed. The Cassiar Asbestos Deposit, two kilometers east of the property, was put into production in 1950 and produced continuously until 1992 when mining stopped.

The Contact skarn, covered by the current property, was first staked in 1951. Harvest Queen Mill and Elevator Company drilled the showing in 1954 leading up to Fort Reliance Minerals shipping 25 tons of skarn ore from underground operations in 1954. The shipment produced 10,451 grams of silver, 25 kilograms of copper, and 1,947 kilograms of lead. Cassiar Asbestos explored the area in 1968 using airborne magnetometer surveys (Crosby, 1968).

The area was restaked in 1978 and optioned to Shell Canada Resources who explored for tungsten and molybdenum between 1979 and 1982. In excess of \$425,000 was spent on mapping, geochemical surveys, geophysics, trenching, and diamond drilling (Moffat, 1982). Shell outlined three significant tungsten-bearing skarn deposits; one in the north-central part of the Contact property, and two immediately north of the current property.

Aurum Geological Consultants Inc. staked the Contact 1-4 claims for Kokanee Explorations Ltd. on December 21, 1991. Aurum completed a one day field examination on October 21, 1992. The current exploration model is focused on gold deposits hosted by granite intrusives. This became an attractive target with the discovery of the Fort Knox gold deposit, located near Fairbanks Alaska, and the discovery of similar intrusive hosted gold at Dublin Gulch, Yukon.

### **GEOLOGY**

# Regional Geology

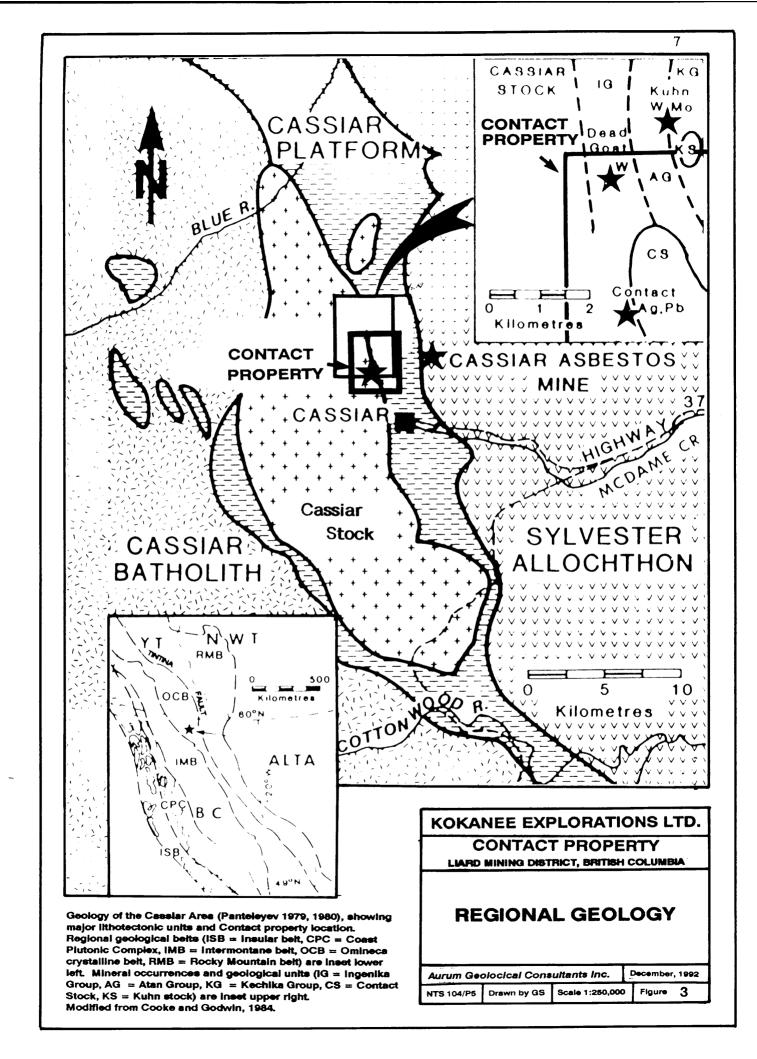
The Contact property lies within the Ominica Belt (Wheeler et al., 1991) of the Western Cordillera (Figure 3). Stratified rocks consist partly of displaced North American strata of the Cassiar terrane, ranging in age from Hadrynian to Early Mississippian. These rocks are structurally overlain by the Sylvester allochthon, which occupies the core of the McDame synclinorium (Gabrielse, 1963).

In the McDame and Cassiar map areas, components of the Sylvester allochthon range at least from Early Mississippian to Late Triassic age, and include marginal basin and arc volcanic-sedimentary sequences, and subcrustal ultramafic complexes (Nelson et al., 1989b). Structure is dominated by northwest-trending faults including the Tintina Fault, located 75 km east of the property.

The Tintina fault generally follows the Mesozoic suture which separates ancestral North America from accreted terranes. At least 450 km of dextral strike slip movement has taken place along the Tintina fault since latest Cretaceous or Early Tertiary time (Tempelman-Kluit, 1979). This movement has caused older stratified rocks to be offset and juxtaposed against themselves along the fault.

Two suites of granitoid intrusives, ranging from Paleozoic to Cenozoic age, related to underplating and or subduction, are found on both sides of the Tintina fault. Granitoid emplacement peaked during the Early - Middle Cretaceous (Tempelman-Kluit, 1981). The Western Suite granitoid intrusives found west and southwest of the Selwyn Basin are predominantly granodiorite in composition and are associated with porphyry copper - molybdenum and copper skarn deposits. The Eastern or Selwyn Plutonic Suite of granitoid intrusives are distributed along a northwest trending arcuate belt within the Selwyn Basin. The granitoids are mainly granitic in composition and are associated with tin, tungsten, and molybdenum mineralization.

The Dublin Gulch deposit is hosted by a quartz monzonite pluton of the Selwyn Plutonic Suite (Tempelman-Kluit, 1981). The Cretaceous stock underlaying the Contact property also appears to be part of the Selwyn Plutonic Suite.



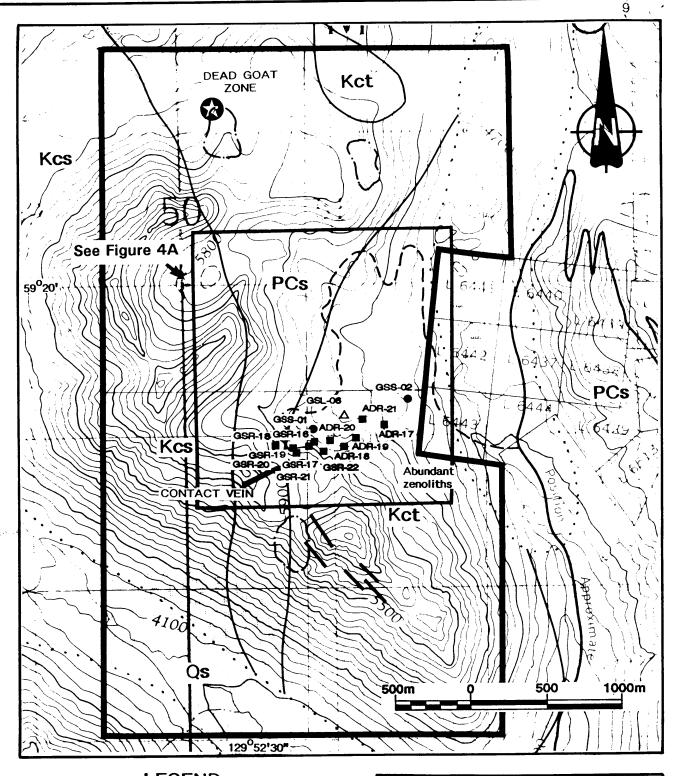
# **Geology of the Contact Property**

The following is taken largely from a private company report by Crysi Exploration (1992). The Contact property is underlain by a north-northwestern trending 35 - 65 degree easterly dipping sequence of Proterozoic-Ordovician carbonate and pelitic sediments, forming the western limb of the McDame synclinorium. The eastern margin of the Cassiar stock is exposed cutting the stratigraphy (Figure 4).

At least two generations of late-phase granitoids of the Cassiar stock have invaded the sediments in a series of cupolas paralleling the eastern contact of the stock. One cupola, the Contact stock, underlies the east-central portion of the claim block. This stock is separated from the main Cassiar stock by a 200-300 meter wide strip of metasediments which contain mineralized skarn zones within the carbonate units.

The 2 x 4 km contact stock is roughly elliptical and elongate north-south. One small satellite body occurs immediately north of the pluton. The predominate intrusive phase of the stock consists of pinkish-gray, medium to coarse grained porphyritic granite. Potassium feldspar phenocrysts measuring 1 x 2 cm in size make up 20-30% of the rock. Near the margins of the stock a light-gray equigranular granite phase is present.

Hornblende and biotite occur locally in both phases of the intrusion composing 2-3% of the rock. Quartz-feldspar porphyry dikes and aplite dikes are exposed in several outcrops within the Contact stock. Within the dikes disseminated pyrite, pyrrhotite and more rarely chalcopyrite can reach up to 5% total sulfides by volume. Large areas of xenoliths outcrop in the southeastern portion of the intrusive. Preliminary reconnaissance mapping in 1992 indicates that the granite contact is far more irregular than is currently shown on Figure 4.



# **LEGEND**

Lithologies Quarternary

stream deposits Qs

Cretaceous

Kcs Cassiar Stock

Contact Stock Kct

Proterozoic-Cambrian PCs limestone, quartzite and shale

Symbols

geological contact

geochemical anomaly stockwork veining

- rock sample location
- soil sample location

silt sample location

KOKANEE EXPLORATIONS LTD.

CONTACT PROPERTY
LIAND MINING DISTRICT, BRITISH COLUMBIA

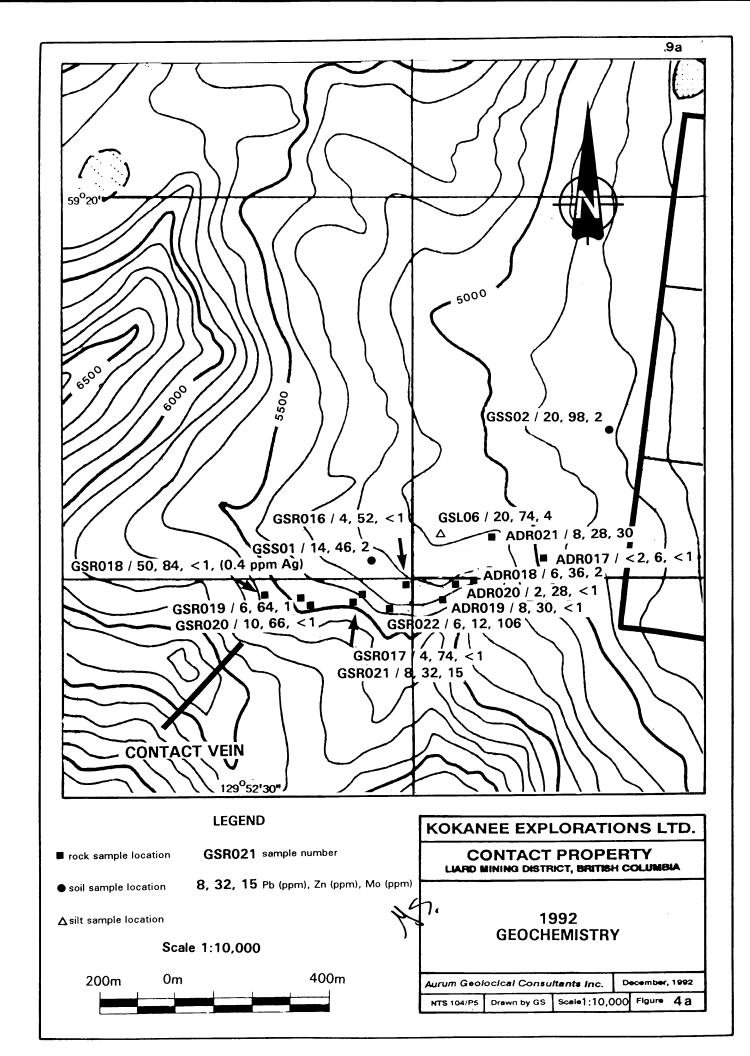
**PROPERTY GEOLOGY** AND **MINERALIZATION** 

Aurum Geolocical Consultants Inc.

December, 1992

Scale 1:25,000 NTS 104/P5 Drawn by GS

Figure



#### MINERALIZATION

Significant mineralization discovered to date on or near the Contact property consists of tungsten-copper-zinc-molybdenum skarns. Due to the snow cover these showings were neither sought nor located in 1992, however there locations are plotted on Figure 4 using information from publicly available reports. Work in 1992 was directed towards testing the granite for bulk-tonnage disseminated gold potential.

### **Previous Work**

The Contact lead-zinc-silver-bismuth skarn vein is a past producing mine located in the center of the claim block (BCDM Minfile, 104P 04). Mineralization is found in highly contorted Proterozoic marbles sandwiched between the Cassiar and Contact stocks. The deposit is composed of two east-west striking fissure veins up to 1.2 meters in width which crosscut the marbles. The minerals associated with the calcite-quartz veining are magnetite, sphalerite, pyrite, arsenopyrite, alabandite, chalcopyrite, tetrahedrite, bismuthinite and native silver and bismuth. Limited underground development produced 10,451 grams of silver, 25 kilograms of copper, and 1,947 kilograms of lead from 25 tonnes of ore. No record of gold content is available.

Three tungsten-molybdenite skarn deposits (Kuhn Zone North, Kuhn Zone South, Dead Goat Zone) located within and immediately north of the property were drill tested by Shell Minerals between 1979 and 1982. BC Minfile describes the main showing as massive calc-silicate skarn in semi-continuous layers up to 10 meters thick along the western contacts of marble layers. Scheelite, molybdenite, pyrite, pyrrhotite, and rare magnetite form coarse disseminations interstitial to the calc-silicates. Layered magnetite skarn and retrograde massive pyrrhotite-sphalerite skarn are found as pods and veins replacing other skarn facies. The Kuhn Zone North, one kilometer north of the Contact property, was the largest deposit with a drill indicated reserve of 409,300 tons grading 0.48% WO<sub>3</sub> and 0.134% MoS<sub>2</sub>, with an additional 78,700 tonnes grading 0.50% WO<sub>3</sub> (BCDM Minfile, 104P 071).

In the northern section of the current property drilling on the Dead Goat skarn (Moffat, 1982) intersected mineralization within the associated intrusive similar to the current bulk-tonnage disseminated gold target. Hole 80-B-4 contained 58.9 meters of porphyritic quartz monzonite with disseminated pyrite, hematite, and minor magnetite and molybdenite. This and similar non-skarn drill-intercepts were for the most part not analyzed. None of the samples from Shell's exploration were analyzed for gold.

White and clear quartz veins containing pyrite, molybdenite, scheelite and bismuthinite are present within the Cassiar stock near the southern margin (Crysi, 1992). Generally the veins strike southeast and dip to the northeast at low angles. Many of the veins have druzy quartz cavities with thin sericitic envelopes developed along the vein margins. The veins have never been analyzed for gold. Due to snow and weather conditions this area was not examined as part of the 1992 field program.

#### 1992 Results

Disseminated pyrite (<0.5%) was the most common sulfide noted within the intrusive during the 1992 examination. Pyrite was locally concentrated on fractured surfaces or in quartz veinlets. Veining and fractures were neither strong nor exceptionally common. Traces of arsenopyrite, molybdenite and possibly chalcopyrite were noted along with the pyrite. Quartz veinlets and penetrative fractures or joints have local sericitized, chloritized, or bleached selvages.

A sample of megacrystic granodiorite, GSR-22, containing a trace amount of visible disseminated molybdenite at hand-specimen scale returned 106 ppm Mo. The only other anomalous element for this sample is anomalously low levels of iron; 0.32% Fe versus an average for similar rocks of 2.5%. Two other samples of megacrystic granodiorite returned weakly anomalous levels of molybdenum; ADR-021 with 30 ppm Mo, and GSR-021 with 15 ppm Mo.

As is typical of the Selwyn Plutonic Suite, hornfels is moderately well developed adjacent to the granite intrusive. The hornfels commonly contain disseminated and blebs of pyrite, pyrrhotite, and chalcopyrite and locally arsenopyrite. A sample collected in 1992, sample GSR-016, of mineralized hornfelsed material returned 4.17% iron, 15 ppm Co, and 20 ppm copper but all other elements including gold and silver were background or below detection limits.

#### **GEOCHEMISTRY**

## **Previous Work**

# **Stream Sediment Samples**

At least 20 stream sediment samples have been collected from streams draining the property (Figure 5). In 1978 the Geological Survey of Canada released regional stream sediment and water geochemical data, GSC Open File 562, for the McDame map sheet (Hornbrook et al., 1990). Fieldwork by the British Columbia Ministry of Mines in the Cassiar area completed in 1978 and 1979 included the collection of 112 stream sediment samples (Panteleyev, 1978 and 1979). The 76 samples collected in 1978 and the 36 samples from 1979 were intended as an orientation survey to assist in the interpretation of the regional data.

Five samples collected by the GSC and 14 from the BCDM work are from streams draining the property. Results of stream sediments collected in the area of the Contact property are summarized in Table 1. Using geochemical thresholds established as part of the 1979 sampling ten of the nineteen samples were anomalous. Anomalous elements include silver, copper, lead, zinc, cobalt, molybdenum, and tungsten.

# **Soil Samples**

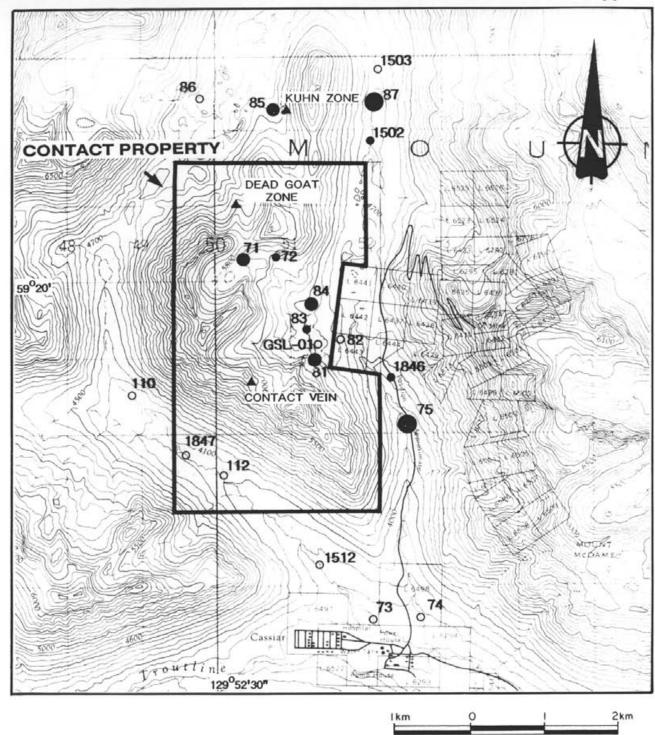
Shell Canada Minerals collected at least 1,106 soil samples (Moffat, 1980) within and adjacent to the current Contact property, as part of their exploration for tungsten-molybdenite skarn deposits. The majority of samples were collected immediately north of the Contact property, however, a significant part of the current ground was covered. The samples were analyzed for tungsten, molybdenum, zinc, and copper. Moffat (1980) calculated background levels for the first three elements as 30 ppm, 5 ppm, and 185 ppm respectively.

# 1992 Results

Twelve rock (seven outcrop and four float), two soil and one silt samples were collected on the Contact property in 1992. All samples were analyzed for total gold and silver content, and for 29 additional elements including As, Bi, W, Mo, and Te.

Results for the work carried out are shown on Figure 4. Sample descriptions are in Appendix A and complete analytical results are included in Appendix B. Significant lithogeochemical results are discussed previously under 'mineralization'.

All samples returned less than five ppb gold and only one sample contained detectable (>0.2 ppm) silver; GSR-018 with 0.4 ppm Ag. No significant concentration of anomalous metal values are noted.



# LEGEND

stream sediment sample number

- O non-anomalous sample location
- single element anomaly location
- two element anomaly location
- three element anomaly location

NOTE: See Table 1 for geochemical values and anomalous thresholds.

# KOKANEE EXPLORATIONS LTD.

# CONTACT PROPERTY

LIARD MINING DISTRICT, BRITISH COLUMBIA

# **GEOCHEMISTRY**

Aurum Geolocical Consultants Inc.

December, 1992

NTS 104/P5 Drawn by GS Scale 1:50,000

Figure 5

Table 1

# CONTACT PROPERTY Stream Sediment Samples

### **GSC 1978**

Sample No.	Ag	Cu	РЬ	Zn	Co	U	W	Mo
1502	0.1	56	6	192	45	4.2	2	5
1503	0.1	40	5	132	20	7	7	5
1512	0.1	4	4	32	4	19.8	2	4
1846	0.1	24	10	86	14	14.3	32	5
1847	0.1	2	8	24	2	17.8	2	2

### **BCEMPR 1978**

Sample No.	Ag	Cu	РЬ	Zn	Co	U	W	Mo
71	0.3	352	24	195	29	8	14	10
72	0.3	34	54	205	13	24	3	10
73	<0.3	3	8	55	7	21	2	3
74	0.3	52	16	313	15	5	2	8
75	0.8	46	11	438	13	6	2	16

#### **BCEMPR 1979**

Sample No.	Ag	Çu	Pb	Zn	Co	U	W	Мо
81	0.7	28	10	86	13	5	26	2
82	<0.5	30	32	164	17	13	11	3
83	<0.5	34	15	120	23	23	9	5
84	1.5	50	18	368	18	10	11	8
85	<0.5	56	12	172	22	8	62	7
86	<0.5	11	10	54	3	46	12	5
87	0.6	61	15	273	30	10	9	3
110	<0.5	8	17	61	5	34	12	2
112	<0.5	7	8	39	3	25	<6	6

# Kokanee 1992

	NORMINCE 1002										,
	Sample No.	Ag	Cu	Pb	Zn	Co	U	W	Mo	Au	
ł	GSL-01	<0.2	18	20	74	7	<10	6	4	<5	ļ

Est, Anomaious Threshold

0.56 57.8 43.3 277.8 26.4 126.5 25.2 15.7

- from BCEMPR 1979

### References

GSC Open File #562, 1978, 104P BCEMPR Geological Flektwork, 1978, p. 51-60 BCEMPR Geological Flektwork, 1979, p. 80-88

- Anomaious Results Appear Shaded
- GSC and BCEMPR samples not analyzed for gold.

## **CONCLUSIONS AND RECOMMENDATIONS**

Kokanee Explorations Ltd.'s Contact property covers a Cretaceous granite pluton, the Contact stock, and dikes hosted by sedimentary rocks of the Cassiar terrane and the Sylvester allochthon. Veins within the intrusive carry pyrite, molybdenite, scheelite, and bismuthinite. Large areas of xenoliths indicate that portions of the stock have recently been unroofed. Widespread tungsten and molybdenum mineralization occur within skarn zones along the margin of the intrusives. The molybdenite-bismuthinite quartz veins within the Contact stock have never been analyzed for gold.

The Contact lead-zinc-silver-bismuth skarn vein is a past producing mine located in the center of the claim block. Limited underground development produced 10,451 grams of silver, 25 kilograms of copper, and 1,947 kilograms of lead from 25 tonnes of ore. No record of gold content is available. Three tungsten-molybdenum skarn deposits (Kuhn Zone North, Kuhn Zone South, Dead Goat Zone) are located within and immediately north of the property. The Kuhn Zone North, one kilometer north of the Contact property, was the largest deposit with a drill indicated reserve of 409,300 tons grading 0.48% WO<sub>3</sub> and 0.134% MoS<sub>2</sub>, with an additional 78,700 tonnes grading 0.50% WO<sub>3</sub>.

The 12 rock samples collected in 1992 all returned non-detectable levels of gold. Rocks samples consisted largely of megacrystic granite variably altered, weakly mineralized, and irregularly cut by quartz-vein stockworks. Three samples contained anomalous levels of molybdenum.

Stream sediment samples from creeks draining the north and east sides of the property, collected by the Geological Survey of Canada and B.C. Ministry of Mines, returned anomalous values. Anomalous elements include silver, copper, lead, zinc, cobalt, molybdenum, and tungsten. Samples were not analyzed for gold.

Mineralized rock samples and anomalous stream sediment samples indicate potential exists for undiscovered mineralization on the Contact property. The property is underlain by favorable lithologies and structures and it should be further explored for gold mineralization. The following is recommended:

- 1. Compile a 1:5,000 scale orthophoto map of the Contact property incorporating all available geological, geochemical and remote sensing data to better identify potential exploration targets.
- 2. Further exploration consisting of prospecting, geological mapping and rock, soil and, stream sediment geochemistry should be carried out over and adjacent to the known granite intrusives
- 3. Any further work (geophysics, trenching, etc.) is contingent on results of the above work.

Respectfully submitted;

December 30, 1992

Gregory F. Smith, B.Sc.

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### STATEMENT OF QUALIFICATIONS

# I, GREGORY F. SMITH, hereby certify that:

- 1. I am a geologist with AURUM GEOLOGICAL CONSULTANTS INC., 412-675 West Hastings Street, Vancouver, British Columbia.
- I am a graduate of Saint Francis Xavier University with a degree in geology (B.Sc., 1987) and have been involved in geology and mineral exploration continuously since 1984.
- 3. I am a member of the Geological Association of Canada, a member of the Canadian Institute of Mining and Metallurgy, and a member of the British Columbia and Yukon Chamber of Mines.
- 4. I have no direct or indirect interest in the properties of Kokanee Explorations Ltd.
- 6. I am the author of this report on the Contact property, which is based on my personal examination on the ground October 21, 1992, information supplied to me by Kokanee Explorations Ltd., and on referenced sources.
- 7. I consent to the use of this report, in a company report or statement, provided no portion is used out of context in such a manner as to convey a meaning differing from that set out in the whole.

December 30, 1992

Gregory F. Smith, B.Sc.

# STATEMENT OF COSTS Contact 1-4 Claims

Field Work

**Professional Services** 

Roger W. Hulstein, B.Sc., P.Geo.;

3 days @ \$350/day, October 20-22, 1992: \$1,050.00

Gregory F. Smith, B.Sc.;

3 days @ \$320/day, October 20-22, 1992: 960.00

R. Alian Doherty, B.Sc.;

2 days @ \$350/day, October 20-21, 1992: 700.00

Subtotal: 2,710.00

**Expenses** 

Meals and Accommodations:\$450.00Truck Rental (\$100/day \* 2 days):200.00Analytical (15 samples):419.42Field Supplies:211.17Radio Rental:15.00

Accounting charge;

10% of \$1295.59: <u>129.56</u>

Subtotal: 1,425.15

GST (#R100341692) 7% of \$4,135.15: <u>289.46</u>

Total Field Expenses: \$4,424.61

Research and Report Preparation

<u>Professional Services</u>

Gregory F. Smith, B.Sc.;

5 days @ \$320/day: \$1600.00

Nov. 16-20, 1992

**Expenses** 

Photocopies (125 @ \$0.15): \$18.75

Laser Printing: 25.00

Report Materials: 50.00

GST (#R100341692) 7% of \$1,693.75: <u>118.56</u>

Total Report Expenses: \$1,812.31

TOTAL VALUATION OF 1992 ASSESSMENT WORK: \$6,236.92

# APPENDIX A Rock Sample Descriptions

	ontect Claims/Kokenee Explorati	one Ltd. Area: Caselar, British Columbia, NTS 104P/5 Samplers	: GS/RAD/RH	Date:	Octobe	r, 1992				
Semple Yumber	Location	Description	Attitude	Width	Au	Ag ppm	As ppm	BI PP#	PP##	Te ppm
3SR-16	Contact #2, 5500'	Float: Chloritized metasediment, fine grained, grey-green, 2% pyrite and chalcopyrite, ocerse biotite associated with suffices.	Float	Greb	<8	<0.2	2	<2	<2	
3 <b>5R</b> -17	Contact #2, 175m SW R-016	Greb from outcrop: Grenodiorite, 20%-2 zenolithe (gnelee/grenite), 10% feldeper phenocrysta, <1% pyrita, locally jointed @ 20cm-1 m.	046/70w Jointa	Greb	<5	<0.2	<2	<2	<2	< 0.05
3SR-18	Old cat road near old shack	Float: Silloffled limestone, brown exide coating on fracture surface, epidote aftered.	Floet	Grab	<5	0.4	<2	2	3	< 0.05
38R-19	Contact #2, 50m S of R-018	Chip from outcrop: megacrystic granodiorita, trace visible sulfides.	062/62W joints	25cm	<8	< 0.2	<2	<2	<2	< 0.05
3SR-20	25m sest of R-019	Composite grab from outcrop: Megacrystic granodicrite, rusty, silicified and fractured, trace poddy pyrite.	052/62W Joints	1.0m	<5	<0.2	<2	<2	<2	0.05
9SR-21	~75m east of R017	Float: megacrystic granodicrite, nonrusty, no visible suffices, 5% Biotite/hornblende.	Float	Greb	<5	<0.2	. 4	<2	<2	< 0.05
38R-22	Contact #4, ~75m E of R021	Float: Coarse grained nonnegacrystic granodicrite, ruety patches rimming pyrites/marics, trace pyrite, 5% biotite/hornblende, trace disseminated Molybdenite crystals.	Floet	Greb	<5	<0.2	<2	<2	4	< 0.05
ADR-017	Contact #4, 5000'	Granite: medium grained, quartz >25%, biotite schilleren, pyrite to 1%. Silicified, limonitized. Sample contains quartz veins. Quartz le recrystallized and granular. Bright yellow reflections in quartz.	Floet/boulde	Chip	<5	<0.2	2	2	<2	< 0.05
ADR-018	Contact #4, 5500'	Mafio echilleren, quartz rich black partially digested zenolkhe in megacrystic granits. Pyrite >1%, Biotite segregations, rusty weathering/limonitized.	outcrop	grab	<5	<0.2	<2	<2	<2	< 0.05
ADR-019	Contact #4, 5300'	Granits: Mediun grained biotite granite, quartz >25%, biotite 5-10%. Freeh appearance, light grey. Rare orthoclase megacrysts.	outcrop	grab	<5	<0.2	<2	<2	<2	< 0.05
ADFI-020	Contact #4, 5200'	Similar to ADR-019 above.	outcrop	grab	<8	<0.2	2	<2	<2	< 0.05
ADR-021	Contact #4, 5100'	Biotite granite, fresh appearance, some chloritized hornblende In patches, trace pyrite about biotite-hornblende.	Floet	Greb	<5	<0.2	<2	<2	3	< 0.05
GSL-06	100m NW of ADR-21	Streem sediment sample	Sik	Sit	<5	<0.2	6	4	6	< 0.05
Q <b>SS</b> -01	Contact #4, 5350'	Soli sample	Soll	Soll	<5	<0.2	<2	6	2	< 0.05
GSS-2	Contact #4, 4900'	Soli Sample	Soli	Soll	<5	< 0.2	8	<2	4	0.05

# APPENDIX B Analytical Methods and Reports



# **Chemex Labs Ltd.**

Analytical Chemists \* Geochemists \* Registered Assayers 212 Brooksbank Ave., North Vancouver British Columbia, Canada V7J 2C1 PHONE: 604-984-0221

D: KOKANEE EXPLORATIONS LTD.

C/O 1440 - 625 HOWE ST. VANCOUVER, BC V6C 2T6

CONTACT Project :

Comments: CC: ALLAN DOHERTY CC: GEOFF CHATER

Page er:1-/ Total F s :1 ner :1-A

Certificate Date: 05-NOV-92 Invoice No. : 19223743 P.O. Number :

:KKG

Account

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Sample	PRI		Au ppb Ag ppm FA+AA Aqua R	<b>X</b> 1 %	) As	Ba ppm	Ве	Bi ppm	Ca %	Cđ ppm	Co ppm	Cr	Cu	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Min Mingra
ADR-017 ADR-018 ADR-019 ADR-020 ADR-021	205 205 205 205 205 205	274 274 274	<pre>&lt; 5 &lt; 0.2 &lt; 5 &lt; 0.2</pre>	0.41 3.33 0.83 0.69 0.62	2 < 2 < 2 2 < 2	10 40 90 70 80	< 0.5 1.5 < 0.5 < 0.5 < 0.5	2 < 2 < 2 < 2 < 2		< 0.5 < 0.5 < 0.5 < 0.5 < 0.5	6 14 4 4 3	247 205 176 146 139	43 12 1 1 6	1.79 4.02 2.13 1.82 1.65	< 10 10 10 10 10	< 1 < 1 < 1 < 1	0.19 0.77 0.64 0.49 0.51	< 10 10 70 60	0.24 1.33 0.58 0.47 0.46	50 165 230 180 170
GSR-016 GSR-017 GSR-018 GSR-019 GSR-020	205	274 274	<pre>&lt; 5 &lt; 0.2 &lt; 5 &lt; 0.2 &lt; 5 &lt; 0.4 &lt; 5 &lt; 0.2 &lt; 6 &lt; 0.2 &lt; 6 &lt; 0.2 &lt; 6 &lt; 0.2 &lt; 7 &lt; 0.2 &lt; 7 &lt; 0.2 &lt; 8 &lt; 0.2 &lt; 8 &lt; 0.2 &lt; 8 &lt; 0.2 &lt; 9 &lt; 0.2 &lt;</pre>	2.38 2.15 5.91 1.33 2.08	2 < 2 < 2 < 2 < 2	90 450 60 150	0.5 < 0.5 1.0 < 0.5 < 0.5	< 2 < 2 2 < 2 < 2	0.65 6.09 0.66	< 0.5 < 0.5 < 0.5 < 0.5 < 0.5	15 13 9 10	141 123 86 81 154	20 8 13 4 20	4.17 3.83 1.74 2.97 4.54	10 10 < 10 10 < 10	< 1 < 1 < 1 < 1 < 1	0.87 1.57 0.30 0.91 1.65	20 30 < 10 40 20	1.27 1.51 0.32 1.04 1.14	290 410 220 355 320
G#R-021 GSR-022	205 205		< 5 < 0.2 < 5 < 0.2	0.81	< 2	100 20	0.5	< 2 < 2	0.26 0.27	< 0.5 < 0.5	< 1	157 150	7 10	2.04 0.32	10 < 10	< 1 • 1	0.62	50 10	0.53	190 40



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3: KOKANEE EXPLORATIONS LTD.

C/O 1440 - 625 HOWE ST. VANCOUVER, BC V6C 2T6

Project : CONTACT

Comments: CC: ALLAN DOHERTY CC: GEOFF CHATER

Page Jer :1-B Total Pages :1 Certificate Date: 05-NOV-92 Invoice No. :19223743

P.O. Number Account :KKG

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1DW-017	205 274	< 1	0.01	8	190	< 2	< 2	1	2	0.02	< 10	< 10	7	< 10	6	€ 2	€ 0.05
DR-018	205 274	2	0.05	24	240	6	4	8	8	0.15	< 10	< 10	65	< 10	36	< 2	< 0.05
DR-019	205 274	< 1	0.07	3	430	8	< 2	4	11	0.16	< 10	< 10	41	< 10	30	< 2	< 0.05
LDR-020	205 274	< 1	0.06	3	510	2	< 2	3	10	0.10	< 10	< 10	33	< 10	28	< 2	< 0.05
DR-021	205 274	30	0.06	3	480	8	< 2	3	16	0.12	< 10	< 10	33	< 10	28	3	< 0.05
SR-016	205 274	< 1	0.03	30	380	4	4	4	3	0.10	< 10	< 10	48	< 10	52	< 2	< 0.05
SR-017	205 274	< 1	0.12	10	850	4	< 2	8	39	0.28	< 10	< 10	8.8	< 10	74	< 2	< 0.05
SR-018	205 274	< 1	0.12	21	280	50	2	6	323	0.15	< 10	< 10	35	< 10	84	3	< 0.05
ISR-019	205 274	1	0.09	5	870	6	< 2	4	27	0.20	< 10	< 10	67	< 10	64	< 2	< 0.05
38R-020	205 274	< 1	0.06	13	560	10	2	12	9	0.41	< 10	< 10	85	< 10	66	< 2	0.05
35R-021	205 274	15	0.07	4	790	8	2	4	14	0.13	< 10	< 10	38	< 10	- 32	< 2	< 0.05
3SR-022	205 274	106	0.04	2	510	6	< 2	1	21	0.10	< 10	< 10	7	< 10	12	4	< 0.05

CERTIFICATION:



# Chemex Labs Ltd.

Analytical Charrists \* Geochernists \* Registered Assayers

212 Brooksbank Ave., North Vancouver British Columbia, Canada V7J 2C1 PHONE: 604-984-0221

To. KOKANEE EXPLORATIONS LTD.

C/O 1440 - 625 HOWE ST. VANCOUVER, BC V6C 2T6

Project: CONTACT Comments: CC: ALLAN DOHERTY CC: GEOFF CHATER

Page Number I-A Total Pages 1 Certificate Date05-NOV-92 Invoice No. 1-9223744 P.C. Number Account

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# Chemex Labs Ltd.

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C/O 1440 - 625 HOWE ST. VANCOUVER, BC V6C 2T6

Project: CONTACT

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