Prospecting REPORT 84-#189 -# 12492

ON THE

RECORD NOS. 2930, 2594, 17517 to 17520

AINSWORTH AREA

SLOCAN MINING DIVISION

BRITISH COLUMBIA

N. Lat. 49042'30"

W. Long. 116°55'30"

NTS 82F/10W

for

EWING OIL CORP.

Suite 809

837 West Hastings Street

Vancouver, British Columbia

by

GEORGE KRUECKLES ESSMENT REPORT

Richmond, B.C. November 3, 1983 12,492

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#### INTRODUCTION

This report was prepared at the request of the Directors of Ewing Oil Corp., Suite 809, 837 West Hastings Street, Vancouver, British Columbia.

The purpose of this report is to review the current and previous work done on the Firebrand mineral claims and assess the mine-making potential of the property.

This report includes the information collected from a field examination of the claimed ground on October 16, 1983.

A program of mineral exploration is recommended.

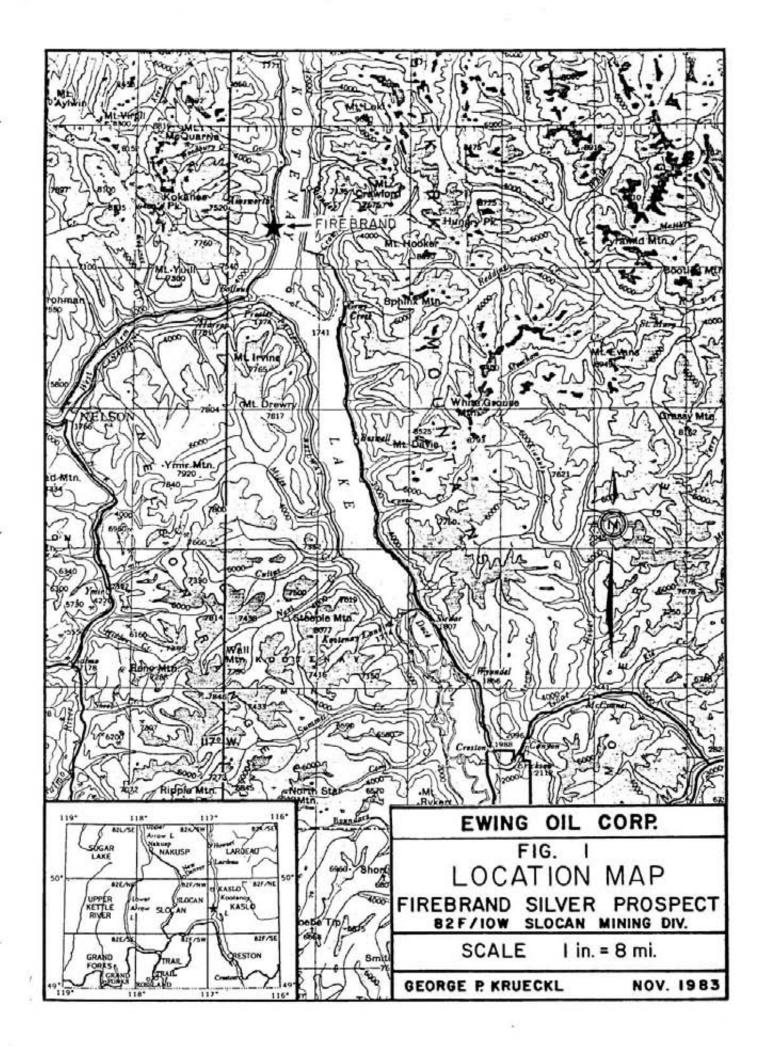
#### SUMMARY AND CONCLUSIONS

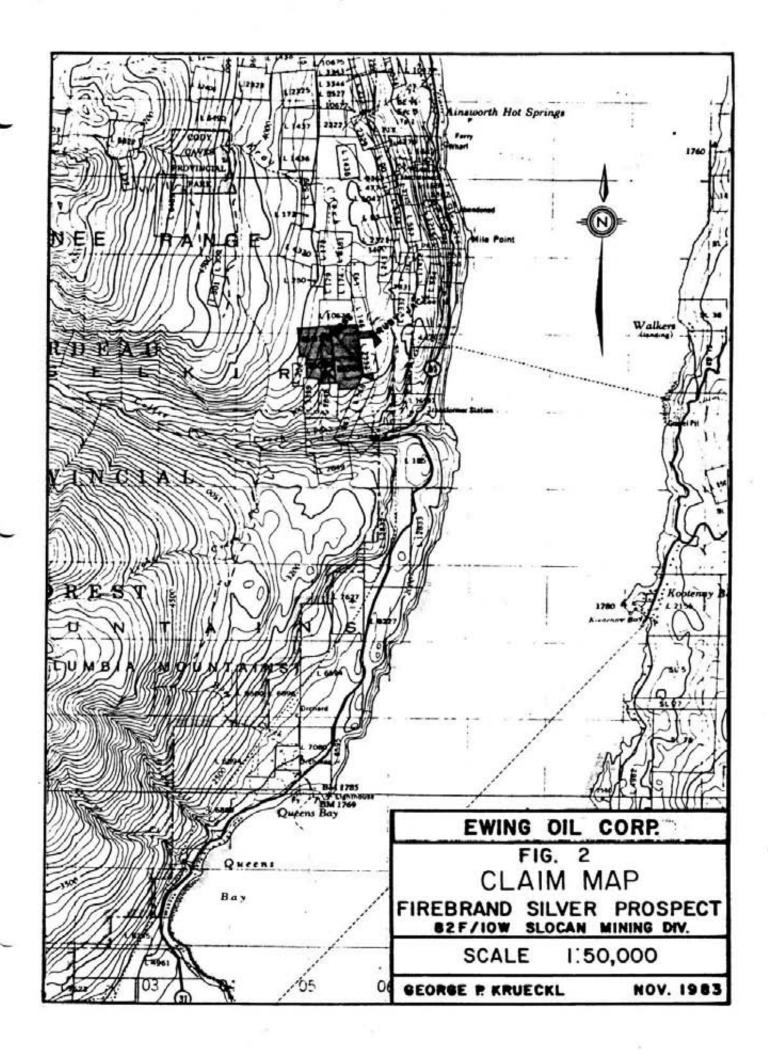
The Firebrand property is a silver-lead-zinc prospect, consisting of six claims covering an area of approximately 100 hectares located two miles south of Ainsworth Hot Springs on the west shore of Kootenay Lake, B.C. (Figure 1).

A dirt road of good quality passes over the eastern edge of the property making it very accessible for most of the year. The claims are located at elevation 3100 feet above sea level, approximately 300 feet higher than Kootenay Lake (Figure 2).

The history of the property dates back to the 1880's when a California millionaire, George T. Ainsworth, purchased the land and the first mineral claim, on Woodbury Creek, was Crown granted by Ainsworth in 1884. Since then, production in the Ainsworth camp has come from some 50 properties and to date has totalled close to 800,000 tons.

The Firebrand property is an old property, and the workings consist of two shallow shafts and a number of opencuts and a short adit. No detailed exploration work, including diamond drilling, has to date been carried out on this property. Reported production (1924) from the main shaft yielded 16 tons of ore, grading 114 oz. silver and 216 lbs. lead per ton.





A field inspection and sampling of the old workings confirm the existence of high silver-lead-zinc values. Two locations in the main shaft at 21½ feet and 44 feet yielded average assays of 22 oz/ton silver, 4% lead and 7% zinc. Two small stopes off the main shaft had been mined in earlier years, however these appeared to be unsafe for sampling.

It is concluded the Firebrand mineral claim should be explored further. Although the history of the area has not given large tonnage mines, those found were high grade and very profitable. A preliminary program of mineral exploration is recommended including trenching and diamond drilling at an estimated cost of \$50,000.

#### PROPERTY - LOCATION, ACCESS AND PHYSIOGRAPHY

The property is located on the west shore of Kootenay Lake, three kilometres south of Ainsworth, B.C., and approximately 300 feet higher in elevation than Kootenay Lake. A gravel and dirt road service the property from Ainsworth. The claims are accessible by motor vehicle for about eight months of the year.

The topography of the area is mountainous, relief ranging from 1750 to 7000 feet above sea level. The major portion of the mineral claims are on a relatively low relief ledge approximately 1000 metres wide. Water for drilling is readily available and the area is 75% forested.

#### CLAIM

The Firebrand mineral claims are located in the Slocan Mining Division in the NTS area 82F/10W (Figure 2).

Information on file with the British Columbia Ministry of Energy, Mines and Petroleum Resources is as follows:

Mineral Claim	Record No.	Record Date
Ruby-Jack Fr.	2930	July 1983
Moss Fr.	2594	June 1983
Moss	17517	December 1982
Moss	17518	December 1982
Moss	17519	December 1982
Moss	17520	December 1982

The Moss claims have been two post staked with their location line running north-south through the middle of the property.

#### HISTORY

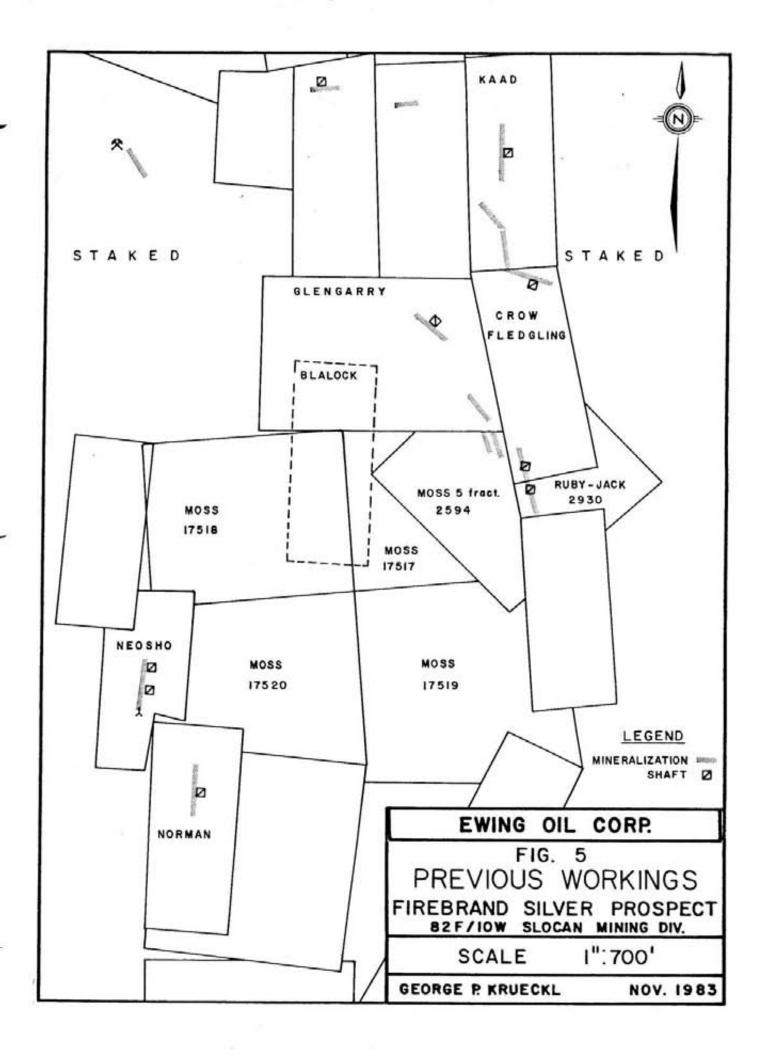
The history of the property dates back to the 1880's when a California millionaire, George T. Ainsworth, purchased the land and the first mineral claim, on Woodbury Creek, was Crown granted by Ainsworth in 1884. Since then, production in the Ainsworth camp has come from some 50 properties and to date has totalled close to 800,000 tons.

In the fifties and sixties much interest was given the area by such companies as Yale Consolidated Lead and Zinc Mines, Western Mines Limited, and Cominco Ltd. The similarity of the area with the Bluebell orebody was studied and extensive drilling programs were undertaken in the area north of the Firebrand property.

The history of some of the showings in the immediate vicinity of the Firebrand property are as follows (Figure 5).

Neosho Claim: Workings consist of two shafts and a tunnel. Originally worked from 1892 to 1896, production netted 74 oz/ton silver; property worked again in the 1920's and 1949 to 1950, production records for 1922, 1949 and 1950 showed the following:

Tons Mined	Silver	Lead	Zinc	
149	3,369 oz.	7,733 lbs.	17,213 lbs.	



<u>KRAO Property</u>: Initially worked between 1890 and 1908. In 1905 property sold for \$100,000. Between 1952 and 1956 Yale Lead & Zinc Mines Ltd. mined underground and shipped most of dumps. No production records available.

Norman Property: Vein parallel to Neosho vein separated by 260'. Workings consist of a shaft and open cuts. No production records available.

<u>Crow Fledgling Property</u>: Initially worked in 1890 to 1900. Workings consist of shaft and several open cuts and a long crosscut. No production records available.

Eden and Crescent Property: Workings consist of 400' adit, 120' winze and a stope that produced more than 10,700 tons.

Glengarry Property: Workings consist of a 65' inclined shaft, an adit and several open cuts. No production records.

#### REGIONAL AND LOCAL GEOLOGICAL SETTING

The Ainsworth area contains a complexly deformed group of sedimentary and volcanic rocks in various grades of regional metamorphism. They comprise part of the Kootenay arc, a major structural belt extending from Revelstoke to beyond the International Boundary. Within the Ainsworth area the sedimentary and volcanic rocks are truncated on the west by the Nelson batholith.

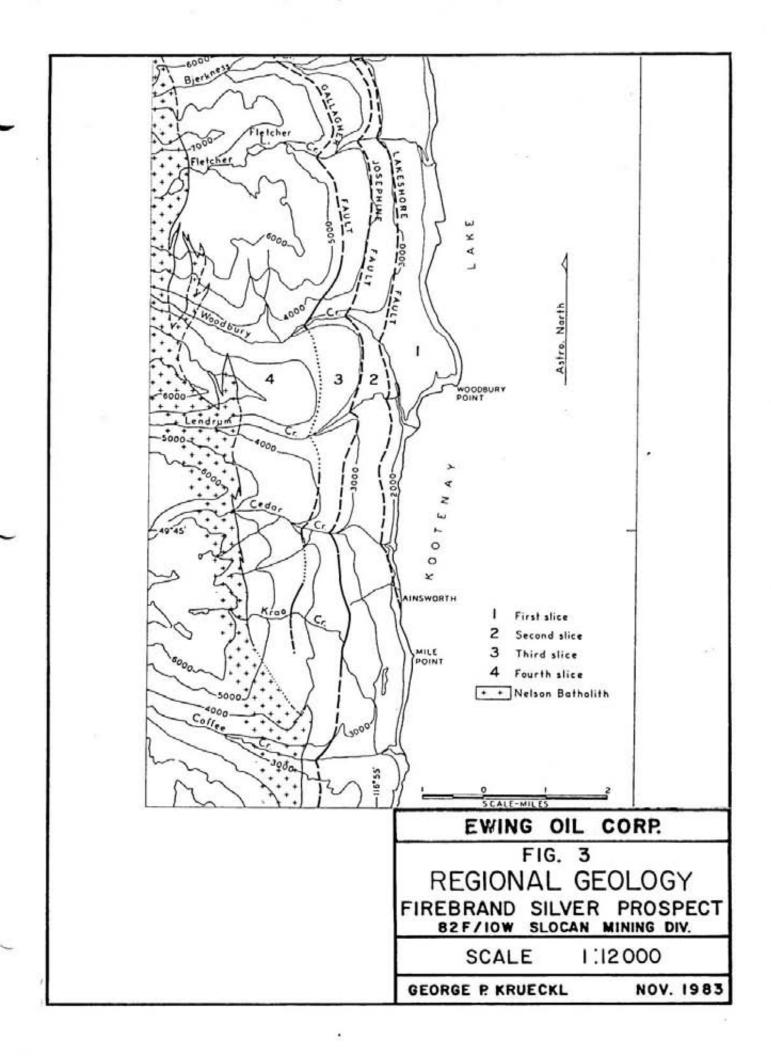
Because of complexities of the structure and vagaries of the metamorphism, it has not been possible to establish a stratigraphic succession within the area. Detailed studies in the area have shown formations to be repeated many times by folding and faulting, and that many of the lithological units, because of the structure, are discontinuous. Considerable interpretation has gone into the development of the geological picture presented.

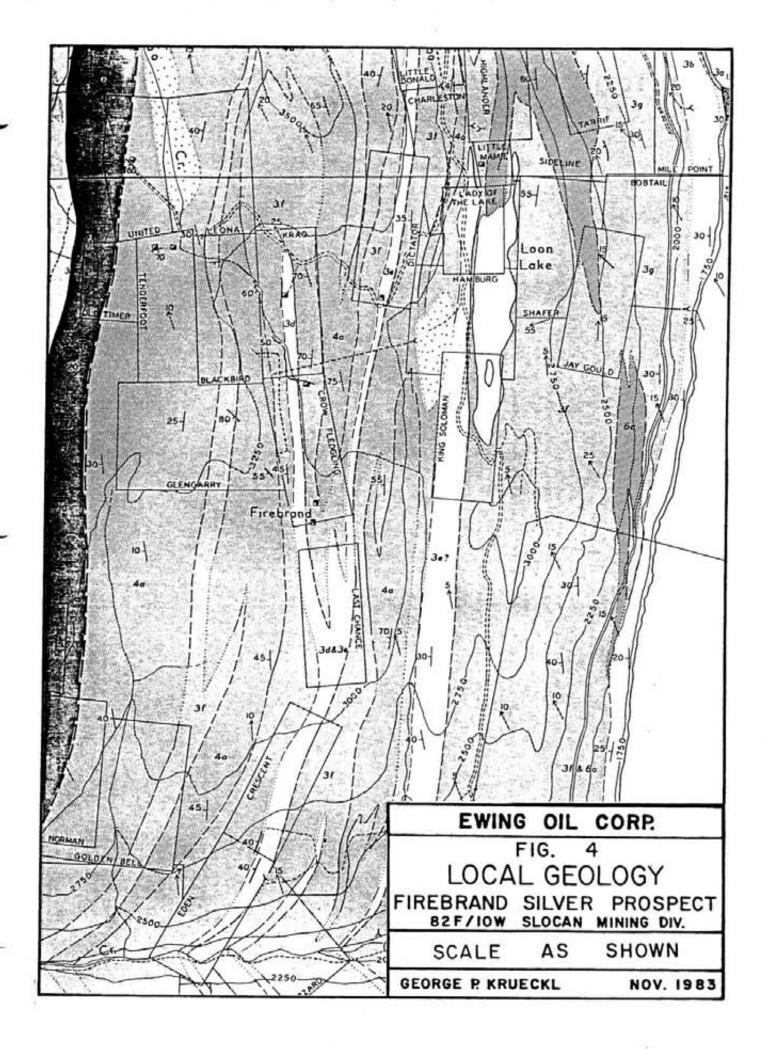
In the Ainsworth area the formations dip at moderate and steep angles to the west and are split by strike faults essentially parallel to the regional foliation. Three of these faults thought to be more significant than others have been named from east to west, the Lakeshore, Josephine, and Gallagher faults. They divide the area into four elongated slices trending north and dipping west (Figure 3).

The Firebrand property is situated on rocks of the second fault slice (Figure 4). These rocks consist of mainly fine-grained grey mica schists and micaceous quartzites interlayered with hornblende schists and gneisses. The hornblende schists and gneisses are intrusive sills. Some of the other formations are repeated several times by folding and faulting, the area has thin but fairly continuous layers of limestone, medium to coarsely crystalline and banded in shades of grey or white. They are interlayered with grey fine-grained mica schists and micaceous quartzites.

The west part of the Firebrand property consists of grey knotted schists which the Neosho workings are on strike with. A fine-grained limestone situated further west is also present on both properties. Going east on the property, grey knotted schist contacts hornblende schist and gneisses. The Norman workings are located at this contact. Down the middle of the property runs grey to brown micaceous quartzite, fine-grained mica schist, and limestone bands. Sink holes in the area are evidence of considerable limestone banding being present.

The Blalock crown grant covers this area, and is probably the reason for it being staked as there is mineralization and workings at this contact on the Glengarry Claim. The eastern part of this property is also underlain by the above mentioned rocks with a limestone belt running through it called the Krao limestone. This is the same geological environment as the Krao, Crow Fledgling, Eden and Crescent properties are in.





Geology by James T. Fyles 1960-1964	ARGILLITES, QUARTZITES, AND MICA SCHISTS		
	Sb Purplish grey massive argillite		
	50 Mainly black argillite		
LEGEND	3j Grey knotted schist		
	3i Dark grey slate, argillite, and limestone		
Areas of little or no outcrap	3h Interlayered argillite, quartzite, and blue-grey limestone		
NTRUSIVE ROCKS	Je Grey fine-grained mica schist		
62 Hornblendite			
Porphyritic granodiorite	31 Grey to brown micaceous quartzite, fine grained mica schist, minor limesto		
6a Granitic sills and lenses	Ze Garnet mica schist (Princess Formation)		
REEN VOLCANIC AND ASSOCIATED INTRUSIVE AND SEDIMENTARY ROCKS	26 Calcareous mica schist and silicate marblel Early Bird Formation!		
4d Interlayered chert, argillite, and green volcanic rocks	Geological contact		
	defined		
4c Massive green phyllite	approximate		
4b Green phyllite, metadiorite, and interlayered slate, chert and argillite	ossumed		
40 Hornblende schists and gneisses	Fault defined		
ARBONATE ROCKS	— approximate		
	assumed		
Se Mainly fine-grained grey dolomite	Vein showing attitude		
5d Fine-grained grey limestone	Attitude of foliation		
5c Blue-grey limestone and black argillite	Plunge of lineations and minor folds		
3k Fine-grained grey fetid limestone(Star and No.1 Limestone)	4 Adit portal		
Time-grained grey rend limestone Star and No. 1 Elmestone	> Underground working		
36-30 Grey and white crystalline limestone; 36 Lower Ainsworth; Je Upper Ainsworth;	■ Shaft		
3d Krao; 3. Dictator	★ Prospect or old working		
3a Calcareous hornblende gneiss	Main road		
	====== Side road		
	········· Trail		
	<ul> <li>Building</li> </ul>		
	Fossil locality		
	Scale 1000 0 1000 2000 Feet		
	Contour interval 250 Feet		
	To accompany Bulletin 53, B.C. Department		

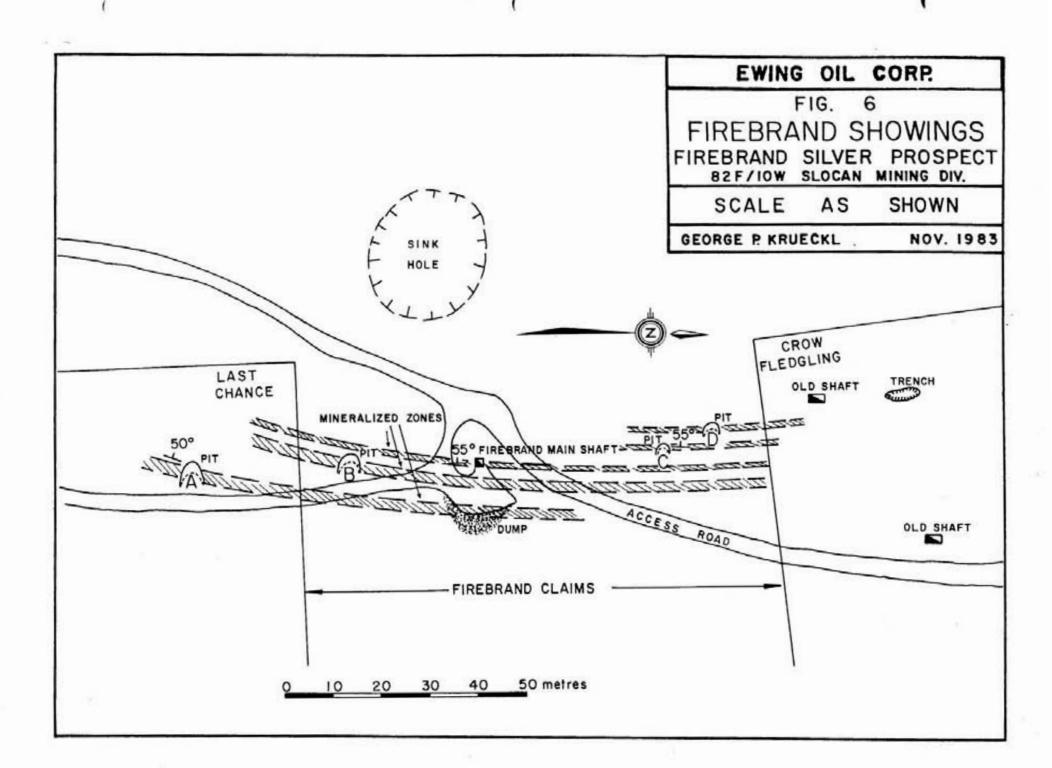
Due to the high degree of fracturing and shearing resulting from folding and faulting and the very strong leaching of the many limestone bands that is evident, the formations in the area have an unusually large volume of voids that have allowed access for mineralization. The Firebrand property is typical of the other adjacent properties that have been mineralized. The deposits in the area are veins, vein systems and shear zones which cut across various types of rock and various structures. The form of the orebodies is controlled by the vein or shear and the wall rocks. In the Ainsworth area, movements on normal faults and contrasting competencies in the wall rocks have been the principal control.

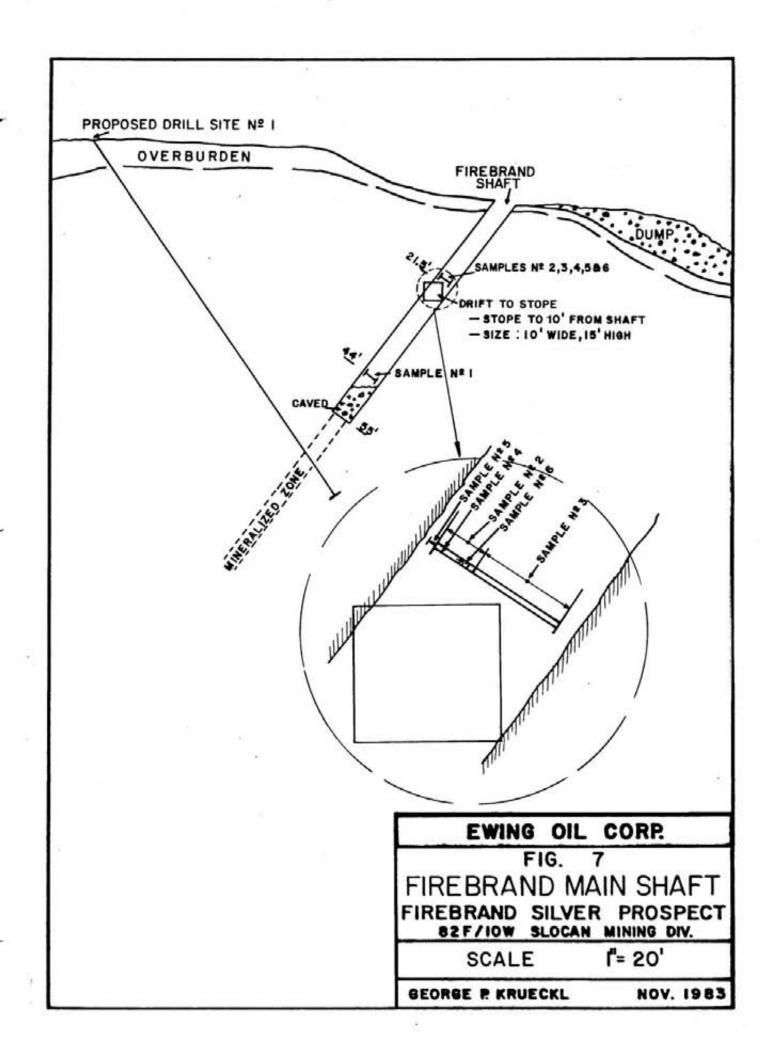
#### MINERALIZATION - ASSAYS

The Firebrand is an old property with little history of work done. The old workings are along zones of mineralization that strike north-south and dip 45 to 55 degrees to the west (Figures 4 & 5).

Twelve samples were taken from the various showings visited on the Firebrand property. The main shaft was accessible for sampling and six samples were taken. These are numbered 1 to 6 in the table following and Figure 7 shows their location. Overburden cover in the area is relatively light and a trenching program would expose the several zones of mineralization that appear to be present. These could be sampled. Several pits in the area have exposed some of the mineralized zones and samples 7 to 12 represent these. Figure 6 shows the location of the pits in relation to the main shaft.

Due to the good road access to the propety and the proximity of the road with the known mineralization, a diamond drilling program to investigage the depth of mineralization would be relatively inexpensive.





Sample #	Pb %	Zn %	Ag oz/ton	Remarks
1	1.39	12.80	13.50	At 44' in Shaft (3½' chip sample)
2	11.50	2.12	47.50	At 21½' in Shaft (12" chip sample)
3	3.86	0.71	22.10	At 21½' in Shaft (24" chip sample)
4	5.13	0.88	38.20	At 21½' in Shaft (3" HG Band)
5	3.75	1.25	9.95	At 21½' in Shaft (hanging wall sample)
6	12.95	2.50	58.00	At 21½' in Shaft (3" HG Band)
7	0.06	0.11	0.13	Pit A 7' sample Strike N15°E
8	0.78	0.12	3.30	Pit B 3' sample Strike N5°E
9	0.88	0.92	5.02	Pit B 3½' sample Strike N5°E
10	1.40	13.70	8.50	Pit C 2' sample Strike N-S
11	3.72	24.90	20.80	Pit D 2½" sample Strike N-S
12	0.08	13.80	22.50	Dump sample

#### CONCLUSIONS

It is evident from field investigations that the mineralization in the area occurs in several zones, the Firebrand shaft exposing only one of these. Sampling, measurements of strike and dip, and preliminary mapping by the writer of these showings as shown in Figure 6 suggest that more work involving detailed mapping, trenching and diamond drilling should be carried out on the property.

Although the geology map given in Figure 4 indicates no extensive limestone banding in the central part of the property, the presence of sink holes suggests a different geology. Detailed mapping and trenching would be required to give a better picture and possibly increase the mine-making potential of the property.

#### RECOMMENDATIONS

A four phase program of geochemical and geophysics surveyings, trenching, mapping, sampling and diamond drilling would be required to explore the mine-making potential of the property. Each phase would be contingent on the results of the previous phase. Since the property is very accessible, limited road building by bulldozer would be required. Trenching should be carried out with a backhoe tractor supported by a dozer to clear a path for the backhoe. Mapping and sampling of outcrops and trenches would follow. The area where known showings are located should be investigated in detail first, followed by less detailed work to the west. For Phase 3 diamond drill holes are initially recommended in the area of the Firebrand shaft and showings.

### ESTIMATED COST OF THE PROPOSED WORK PROGRAM

PHASE I (completed November 3, 1983)	
Site Investigation and Sampling	\$3,000
PHASE 2	
Survey grid @ 50 metre centres = 6 kilometres	\$1,500
Geochemical Sampling	3,500
Geophysics VLF-EM	2,000
Road Building, 1.5 kilometres	5,000
Trenching - 7 days @ \$1,000/day	7,000
Mapping & Sampling 30 days @ \$300/day	9,000
Engineering	2,000
Sub-total	\$30,000
PHASE 3	
Diamond Drilling 300 metres	30,000
Engineering & Bulk Sampling	5,000
Sub-total	35,000
PHASE 4	
Diamond Drilling 300 metres	30,000
Engineering & Bulk Sampling	5,000
Sub-total	35,000
TOTAL	\$103,000
	========

#### REFERENCES

Geology of the Ainsworth-Kaslo Area, B.C., by James T. Fyles - Bulletin No. 53.

#### CERTIFICATE

I, George P. Krueckl, of the City of Richmond, Province of British Columbia, hereby certify as follows:

- I am a Consulting Geological Engineer with an office at 4860 Fortune Avenue, Richmond, B.C., V7E 4H9.
- I am a registered Professional Engineer of the Province of British Columbia.
- I graduated with a degree of Bachelor of Science, Geological Engineering, from the University of Saskatchewan, 1962.
- I have practised my profession for 21 years.
- I have no direct, indirect or contingent interest in the shares of Ewing Oil Corp. or the Firebrand mineral claim, subject of this report, nor do I intend to have any interest.
- This report dated November 3, 1983 is based on a personal field examination I
  made on October 16, 1983, and from information gathered from available maps
  and reports.
- Permission is granted to publish this report dated November 3, 1983, in the Prospectus for Ewing Oil Corp. Written permission from the author is required to publish this report for any other purpose.

DATED at Richmond, Province of British Columbia, this 3rd day of November, 1983.

George P. Krueckl, P.Eng.

Consulting Engineer

# MIN-EN LABORATORIES LTD. 705 WEST 15TH STREET, NORTH VANCOUVER, B.C. V7M 1T2

PHONE: (604) 980-5814 OR (604) 988-4524

## Certificate of Assay

то:	Aries Management,	PROJECT No. Firebrand
	809-837 W. Hastings St.,	DATE:Oct.21/83.
	Vancouver, B.C.	File No3-1281

	Pb %	Zn %	Ag	
SAMPLE No.	12 %	D11 70	oz/ton	
1	1.39	12.80	13.50	
2	11.50	2.12	47.50	
3	3.86	.71	22.10	
4	5.13	.88	38.20	
5	3.75	1.25	9.95	
6	12.95	2.50	58.00	
7	.06	.11	.13	
8	.78	.12	3.30	
9	.88	.92	5.02	
10	1.40	13.70	8.50	
11	3.72	24.90	20.80	
Dump	.08	13.80	22.50	

MINE-EN Laboratories

Report Wrighting Consultion 5 days @ \$300 day Claim Map Typing Paper Copying	1500.00 2.00 49.00 8.47 41.90
Draughting Services 13 hours @ \$15.00 13 sheets 8½/11 Mylar @ \$.75 Air Fare	195.00 9.75
Vancouver to Caslgar return  Maps Air Photos 12 Assays-Pb, Zn, Ag @ \$18 each 12 Assays Sample Prep. @ \$3.00 each Super Rush Charges 5 Assays-Pb, Zn, Ag @ \$8.55 each (Geo-Chem) 5 Rock Sample Prep. @ \$ 2.50 each Super Rush Charges 9 Assays-Ag @ \$6.00 each 8 Assays-Pb, Zn, Au @ \$19.50 each 9 Assays Sample Prep. @ \$3.00 each Super Rush Charges	237.60 6.42 19.26 216.00 36.00 252.00 42.75 12.50 55.25 54.00 156.00 27.00 237.00

Total

3,157.90