

R. W. PHENDLER, P.Eng., GEOLOGICAL CONSULTANT,  
EXPLORATION AND MINING  
7360 DECOURCY CRES., RICHMOND, B.C. V7C 4E9 (604) 271-2588

R E P O R T

on

ASSESSMENT WORK (GEOLOGICAL MAPPING)

on the

DOE CLAIM (12 units) - 1429 (7)

NICOLA MINING DIVISION, BRITISH COLUMBIA

(50°07'20"N, 120°47'40"W)

92 I 2 W

for

TEXAS COMMONWEALTH RESOURCES LTD. (holder of claim)

and LAFAYETTE PETROLEUM CORP. (operator)

by

R.W. PHENDLER, P. ENG., (Consultant and author)

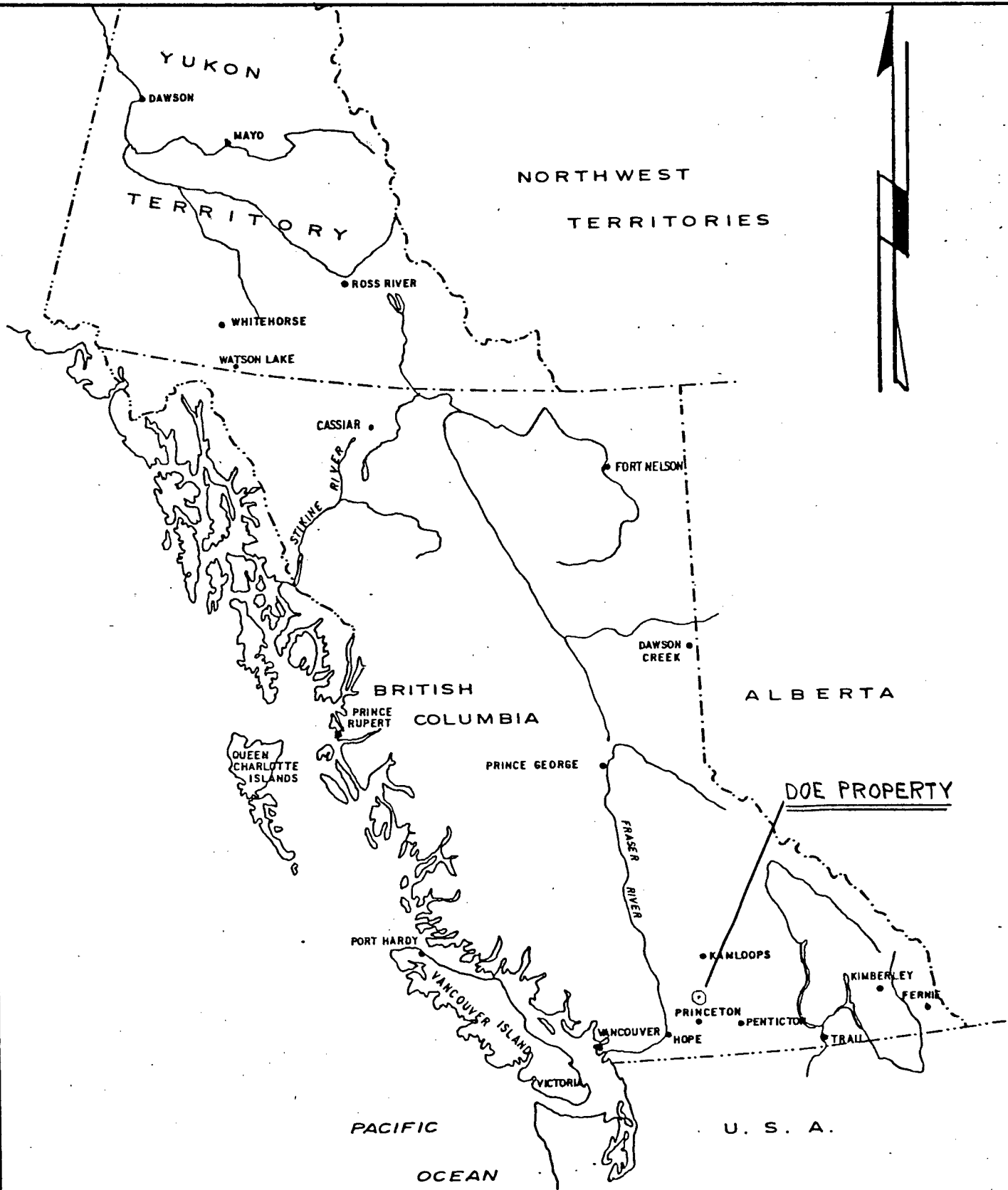
**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**


**12,514**

Vancouver, Canada

Date Submitted:

August 23, 1984



LOCATION MAP	
VANCOUVER	BRITISH COLUMBIA
<u>LAFAYETTE PETROLEUM CORP.</u>	
DOE PROPERTY, NICOLA MINING DIVISION	
SCALE 1:10,000,000	
0  200 Km	
NTS.	DATE JULY, 1984 FIG. No. 1

1" = 150 MILES

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ILLUSTRATIONS

- Fig. 1 - Location Map - 1 : 10,000,000 - frontispiece /
- Fig. 2 - Claim Map - Merritt Area - 1: 50,000 - page 11 /
- Fig. 3 - Geology Map - Doe Claim - 1: 5,000 - In folder /

## INTRODUCTION

The Doe claim which is the subject of this report consists of 12 units and is located at an elevation of 2,000 feet to 3,200 feet (600 - 1,000 meters) from one to three kilometers northwest of Merritt and 200 kilometers northeast of Vancouver in south central British Columbia. Access to the Doe property by car from Merritt is northwest on highway 8 (Spences Bridge road) for half a kilometer, thence northerly up the road to the reservoir and lookout (about one kilometer). The legal corner post (L.C.P.) of the claim is located on this road at an elevation of 720 meters.

By continuing northwestward along highway 8 past the lookout road for an additional 1.5 kilometer to 2.0 kilometers, the southwest corner of the Doe claim is transversed. Old exploratory trenches are located 100 - 200 meters northeast and upslope from highway 8.

The Merritt area is located within a broad copper metallogenic province that extends from Lake Chelan in Washington State in the south through Copper Mountain (Similkameen Mine), Princeton, Aspen Grove, the Highland Valley, Kamloops and apparently terminates north of Kamloops Lake. Throughout the belt Jurassic intrusive bodies of granodiorite, quartz diorite and diorite intrude the Upper Triassic rocks of the Nicola series, which consist mainly of volcanic and clastic rocks with interbedded flows and sediments. Sedimentary horizons which consist of grits, limestones and greywackes make up about 20% of the series.

Some of the earliest known mineral deposits in British Columbia were discovered in the Merritt area at Stump Lake between 1882 and

1884. These were lode silver-gold deposits of small size with the most productive being the Enterprise which produced 77,600 tons averaging 0.109 oz Au, 3.2 oz Ag, 1.4% Pb and 0.24% Zn between 1916 and 1944.

The most important property in the area, of course, is the Craigmont Mine, located 10 kilometers northwest of the Doe property. This deposit was brought into production in 1961 and produced over 30 million tons of ore averaging 1.5% Cu up to 1982 when it was closed down.

About two kilometers southwest of the Doe property, the Copper Belle prospect was first worked in 1908, when some shipments were made to the Trail smelter. The property was later acquired by R. Henderson and partners of Merritt, who made a shipment of 47 tons averaging 7.15% Cu to the Tacoma smelter in 1913. All work was carried out by open cuts and the mineral zones consisted of lenses of quartz with accompanying hematite, chalcopyrite and calcite in andesite.

The adjoining Anaconda claim contains showings of specular hematite in volcanics.

In the late 1950's discoveries of large porphyry copper deposits in the Highland Valley 30 kilometers to the northwest renewed exploration interest in the region.

In the late 1960's and early 1970's a number of low grade copper showings within Nicola volcanics were worked in the Aspen Grove area 20 kilometers south of Merritt but no producing mines resulted.

The Guichon Batholith which is centered in the Highland Valley area 15 kilometers to the northwest extends to within 8 kms of Merritt. A number of related outliers which also contain occurrences of copper mineralization are located 5 kilometers to the north and two kilometers to the west of the Doe claims. Many occurrences have received a considerable amount of attention in the past, both within the granitic intrusions and in the surrounding Nicola andesitic volcanics.

It is not known when the small pits and trenches were put down on the Doe claims.

The area in which the Doe claims are located has been staked a number of times during the last 20 years. In 1980 the Rick claims covered the south part of the present claim and in 1981 it is known that the Doe 1 - 11 claims were in good standing. In 1981 Mr. S. Kelly, P. Eng. examined the property for Search Resources Ltd.

On August 19, 1983 the writer examined the property and viewed the legal corner post and prepared a qualifying report.

The Doe property is held by Texas Commonwealth Resources Ltd. and negotiations are under way for Lafayette Resources Ltd. to option the claim.

The Doe property lies within an interesting geological environment and has the possibility of containing significant tonnages of low grade copper ores. Additional exploratory work is warranted.

WORK DONE

Between July 23 and July 26, 1984 geological mapping was carried out by the writer on the Doe claim. Mapping was carried out by pace and compass method on a scale of 1: 5,000. Mapping covered an area measuring 2000 meters by 1,500 meters, the long dimension striking east-west.

## GEOLOGY AND MINERALIZATION

The area in which the Doe property is located is underlain by andesite of the Nicola Group of Triassic Age in contact with granitic rocks a kilometer west of the claims. The Nicola volcanics are essentially fine to medium grained, massive and dark green in colour with minor basalt, agglomerates, tuffs, argillite and limestone. Many veins and disseminations of copper minerals have been found in the rocks of the Nicola extending from the Merritt area south to the Princeton area 90 kilometers to the south. Of particular interest was the Aspen Grove - Missezula Lake - Summers Creek area where widespread disseminated copper mineralization exists. The Ingabelle (Similkameen) property of Newmont Mines Ltd. at Princeton lies wholly within Nicola volcanics while the Craigmont copper mineralization is confined to a magnesium - iron - silica metasomatic zone (skarn) derived from a limestone band within the Nicola volcanic - sediment group.

Geological mapping carried out by the writer showed that the Doe claim is underlain by andesitic volcanics of the Nicola Group. The rocks range from aphanitic to a very coarsely porphyritic variety. Green or greenish grey types predominate but various shades of purple, red and light grey occur, together with rocks that are nearly black.

A band of light grey porphyritic andesite crosses the Doe property with a general east-west strike. This band is 400 meters across in the west and 125 meters wide from north to south in the east. The phenocrysts are composed of feldspars with crystals ranging up to 0.5 centimeters in length. The matrix is generally fine



grained but sometimes has a granular texture which is attributed to the presence of included tuffaceous material.

The volcanic rocks are generally massive with little discernable layering. One outcrop showed a general strike of N50°W and a dip of 20°NE.

Alteration on the property consists of minor epidote which occurs as thin veinlets.

Mineralization consists of a number of west-northwesterly striking narrow shear zones and fractures occupied by quartz, minor calcite associated with malachite specks. Four such veins were observed in the southwest corner of the Doe claim (see map). These veins dip from vertical to 65° to the southwest and have been explored by trenching in the past.

In the northeast corner of the claim a narrow mineralized (pyrite) shear zone was observed that has a bearing of N30°E and dips 30° NW. The rocks are limonite stained up to 10 meters from the shear.

A small caved trench was observed in the northwesterly unit of the 12 unit Doe claim that had a number of pieces of quartz-carbonate vein material on the dump. No mineralization was observed. In the same area a fist sized piece of heavily mineralized (malachite) float was observed in a widespread talus slope below some massive cliff like outcrops. Five chip and dump samples were taken during the geological mapping as follows:

<u>Sample No.</u>	<u>Width</u>	<u>Cu (ppm)</u>	<u>Ag (ppm)</u>	<u>Au (ppb)</u>
96001	0.5'	10	0.3	5
96002	0.1'	10	0.1	5
96003	0.5'	12	0.4	5
96004	dump	8	0.1	5
96005	0.5'	1466	0.3	5

All sample values except #96005 which runs 0.147% Cu are considered to be background values. Sample locations are shown on the accompanying geological map. Sample 96005 was taken from what appears to be the largest trench on the property. The structure has been opened up by two pits for a length of eight meters. Depth is about one meter.

The quartz -calcite stringers with minor pyrite and malachite are similar to a number of occurrences throughout the Nicola andesites. The structures are probably related to major northwest trending faults, one of which may run up the Nicola River Valley. An electromagnetic survey may disclose the presence of possible hidden fracture zones on the Doe property. This, in conjunction with a magnetometer survey, which should show any possible limestone bands within the volcanics should be carried out. A Geochemical survey for copper and silver would also be a useful exploration tool and is so recommended.

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ITEMIZED COST STATEMENT



a)	Geological mapping - R.W. Phendler, P. Eng. - July 24, 25, 1984	
	2 days at \$350/day .....	\$700.00
b)	Report and map preparation - R.W. Phendler, P. Eng.	
	Equivalent of 1½ days at \$350/day .....	525.00
c)	Motel Accommodation - 2 days Merritt - July 24,25/84-	79.18
d)	Meals - R. Phendler - 2 days at \$20/day " " " "	40.00
e)	Transportation - private car - Vancouver - Merritt	
	return - July 23 &25/84 -724 kms at 15¢ per km =	
		108.60
f)	Assays - Acme Analytical Lab - Vancouver (Aug. 14/84)	<u>52.50</u>
		Total = \$1,505.28

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C E R T I F I C A T I O N

I, R.W. PHENDLER, of 7360 Decourcy Crescent, in the Municipality of Richmond, in the Province of British Columbia, hereby certify as follows:

- 1) THAT I am a registered member of the Association of Professional Engineers of British Columbia - No. 4421 - 1963.
- 2) THAT I am a graduate of McGill University, Montreal, with a Bachelor of Science degree in geology.
- 3) THAT I have practiced my profession continually as mine, exploration and consultant geologist for the past 29 years in all parts of Canada, the U.S.A., Mexico, Peru, Colombia and Chile.
- 4) THAT I have no interest directly or indirectly in the Doe property nor do I own directly or indirectly, any shares of Lafayette Petroleum Corp. or Texas Commonwealth Resources Ltd.
- 5) THAT the information contained in this report was compiled as a result of my geological mapping of the claims referred to above between July 23 and 26, 1984 and a study of all exploration data.
- 6) THAT I hereby consent to the publication of this report.

  
R.W. PHENDLER P. Eng.  


ACME ANALYTICAL LABORATORIES LTD.  
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6  
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: AUG 10 1984

DATE REPORT MAILED: *Aug 14/84*...

### GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-3 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
THIS LEACH IS PARTIAL FOR MN.FE.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.  
- SAMPLE TYPE: ROCK CHIPS AU\* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

ASSAYER: *D. Toy* DEAN TOYE. CERTIFIED B.C. ASSAYER

ROY PHENDLER PROJECT # DOE FILE # 84-2060 PAGE 1

SAMPLE#	CU PPM	AG PPM	AU* PPB
96001	10	.3	5
96002	10	.1	5
96003	12	.4	5
96004	8	.1	5
96005	1466	.3	5
STD S-1/AU-0.5	122	31.4	520

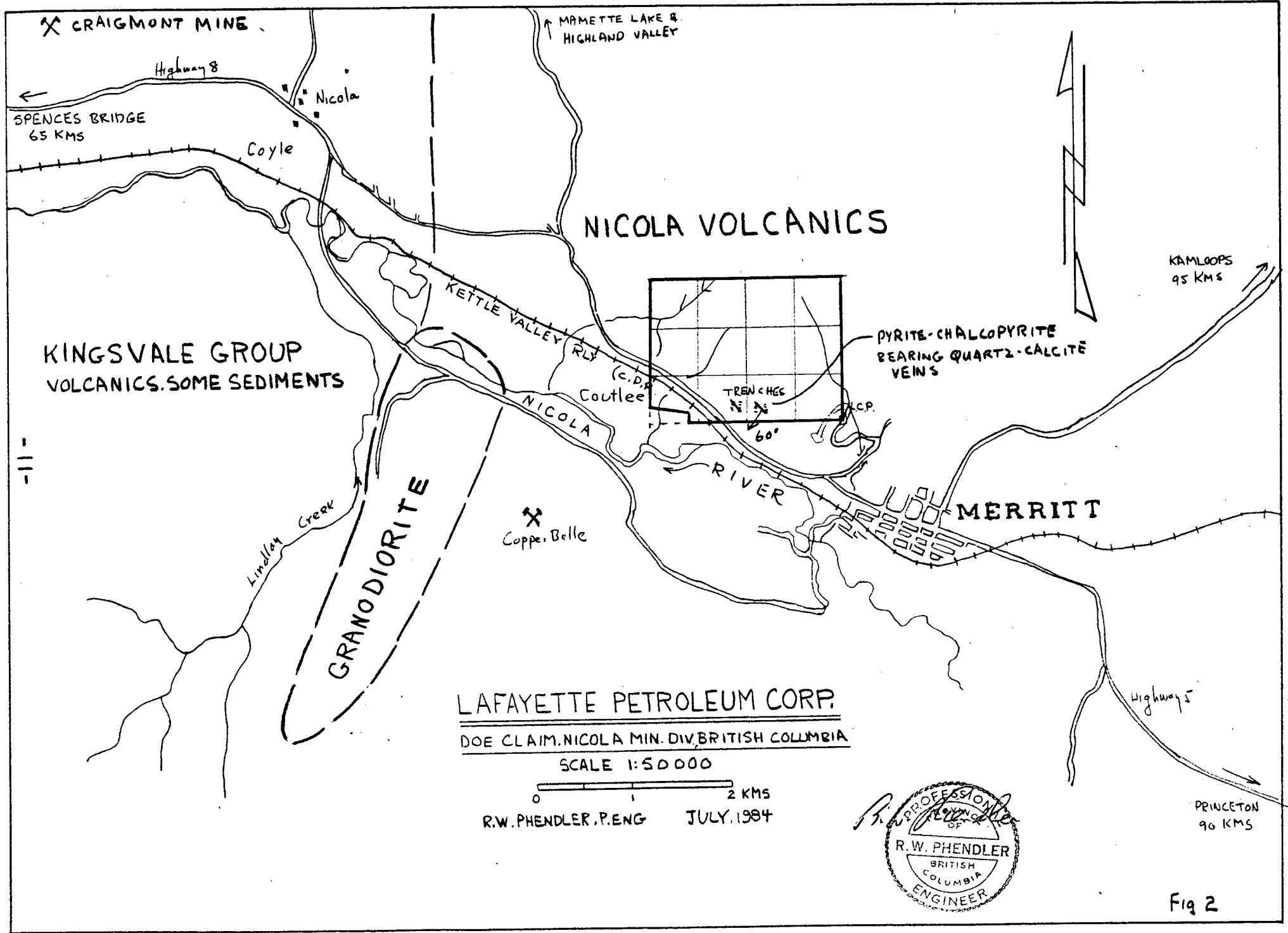
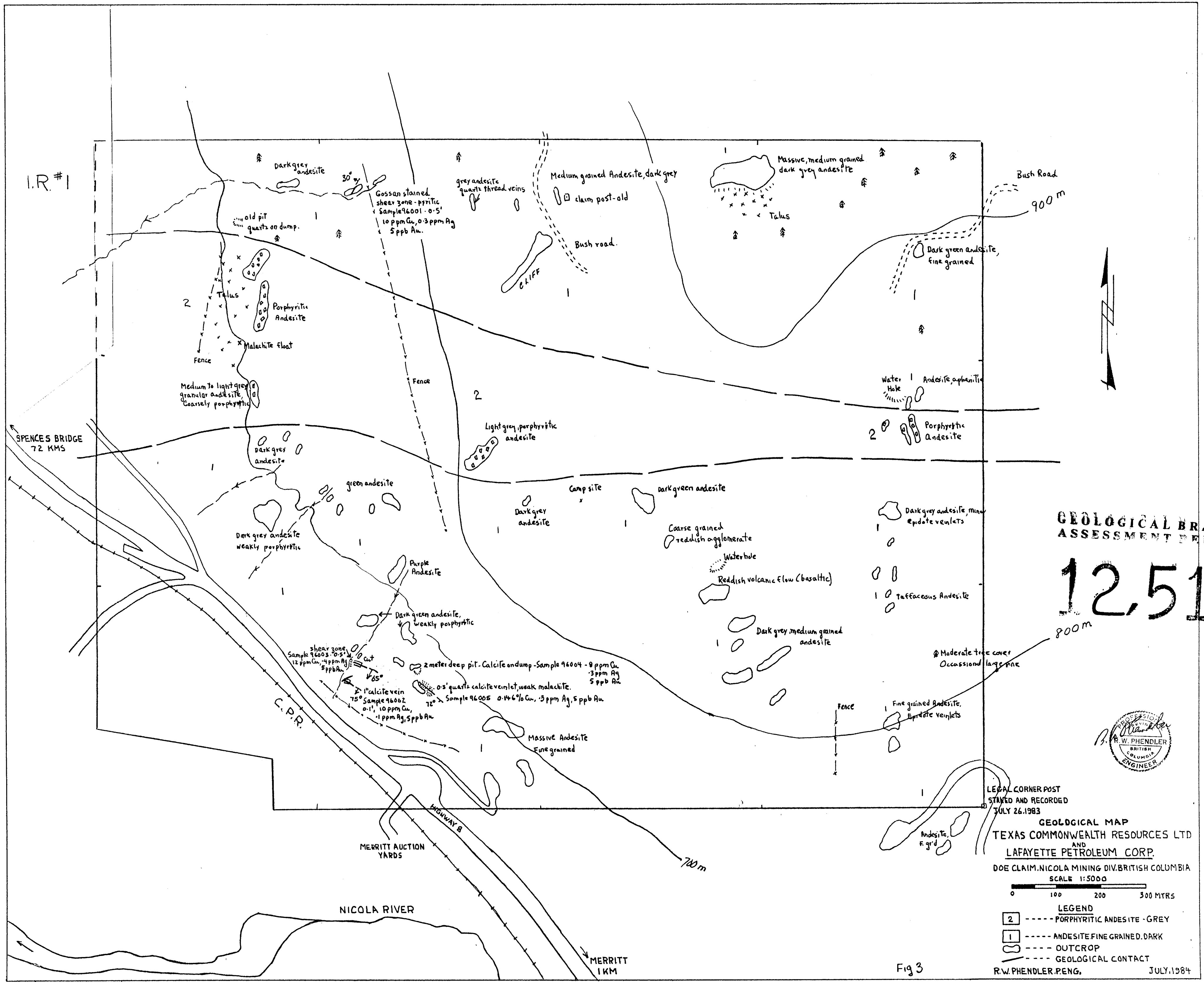
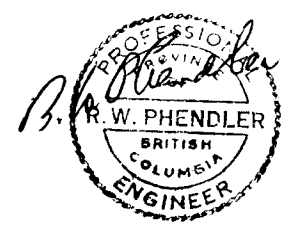


Fig 2



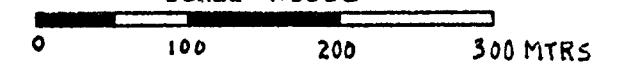
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LEGAL CORNER POST  
STAKED AND RECORDED  
JULY 26, 1983

**GEOLOGICAL MAP**  
TEXAS COMMONWEALTH RESOURCES LTD  
AND  
**LAFAYETTE PETROLEUM CORP.**  
DOE CLAIM, NICOLA MINING DIV. BRITISH COLUMBIA  
SCALE 1:5000



- LEGEND**
- 2 - - - - - PORPHYRITIC ANDESITE - GREY
  - 1 - - - - - ANDESITE FINE GRAINED, DARK
  - - - - - - OUTCROP
  - - - - - GEOLOGICAL CONTACT
- R.W. PHENDLER, P. ENG. JULY, 1984

Fig 3