# DU PONT OF CANADA EXPLORATION LIMITED

# GEOLOGICAL REPORT ON THE AUTUMN 1 CLAIMS

## VERNON MINING DIVISION

NTS: 82-E-15W

49°52' Lat., 118°57' Long.

Owner of claims: Du Pont of Canada Exploration Limited

Operator: Du Pont of Canada Exploration Limited

MINERAL RESOURCES BRANCH

L. K. Eccles

Date Submitted: September 15, 1978

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Geological Map, Dwg. No.U.78-5, Autumn 1 Claim In pocket

#### INTRODUCTION

#### (a) Location

The Autumn 1 claim group is located 8.1 km northeast of the junction of the Big White road and the CZ East Kettle Main logging road. The West Kettle River cuts diagonally through the southern half of the claim group. Elevations taken on the grid in the four northern units of the group range from 1563 m to 1667 m a.s.l.

### (b) Access

The CZ West Kettle Main forestry road can be followed for 5.6 km from the Big White road until it crosses the bridge over the West Kettle River. After crossing the bridge the road branches out in several directions, but keeping to the most northeasterly trending road which roughly parallels the West Kettle River the southeast corner of the claim group is crossed by the road.

A flagged trail from mile post 63, on the logging road leads into the cut grid lines in the north, 1/3, of the property.

### (c) Claim Definition

The Autumn 1 claim comprises 14 units. The record date of this claim is September 10, 1977. The current owner and operator is Du Pont of Canada Exploration Limited. The claims were staked as a potential uranium prospect.

### (d) Summary of Work Performed

To facilitate geological mapping, a grid was established over the north, 1/3, of the Autumn 1 group, bounded by posts 5N and 5N/2W to the south and 7N and 7N/2W to the north. Geological mapping (Dwg. No. U.78-5) was at a scale of 1: 2500 and covers 100 hectares, whereas the total area of the claim is approximately 350 hectares. In conjunction with the mapping, a gamma ray spectrometer was used to detect the occurrence of radioactive minerals. Elevations were checked with an altimeter at 50 metre intervals.

#### II PHYSICAL WORK

Physical work consisted of establishing a grid having a line spacing of 200 m, with stations established at 50 m intervals. The base line is oriented astronomic north and was positioned by chain and compass methods. Cross lines were cut using chain and compass methods for controls. The total length of the baseline is 1 km and the aggregate length of the cross lines measures 6 km.

### III GEOLOGY

### (a) Lithology

The rock types observed during the course of the mapping were Miocene plateau basalt possibly unconformably overlying Monashee Gneiss.

In outcrop, the basalt weathers to a rusty brown colour whereas fresh exposures are black and contain about 2% pale greenish-brown olivine phenocrysts. In places the basalt becomes quite vesicular and often black obsidian fragments up to several cm long are seen within the fine grained groundmass.

In the grid area the basalt was the only rock type observed in outcrop. The ridge along which the basalt was found has steep slopes rising abruptly from the more gentle sloping, lower ground area around it. Monashee gneiss, which was found in outcrop on the eastern claim line to the south of the grid is assumed to underly the Miocene plateau basalt, however, due to lack of outcrop, this contact relationship was not observed.

### (b) Structure

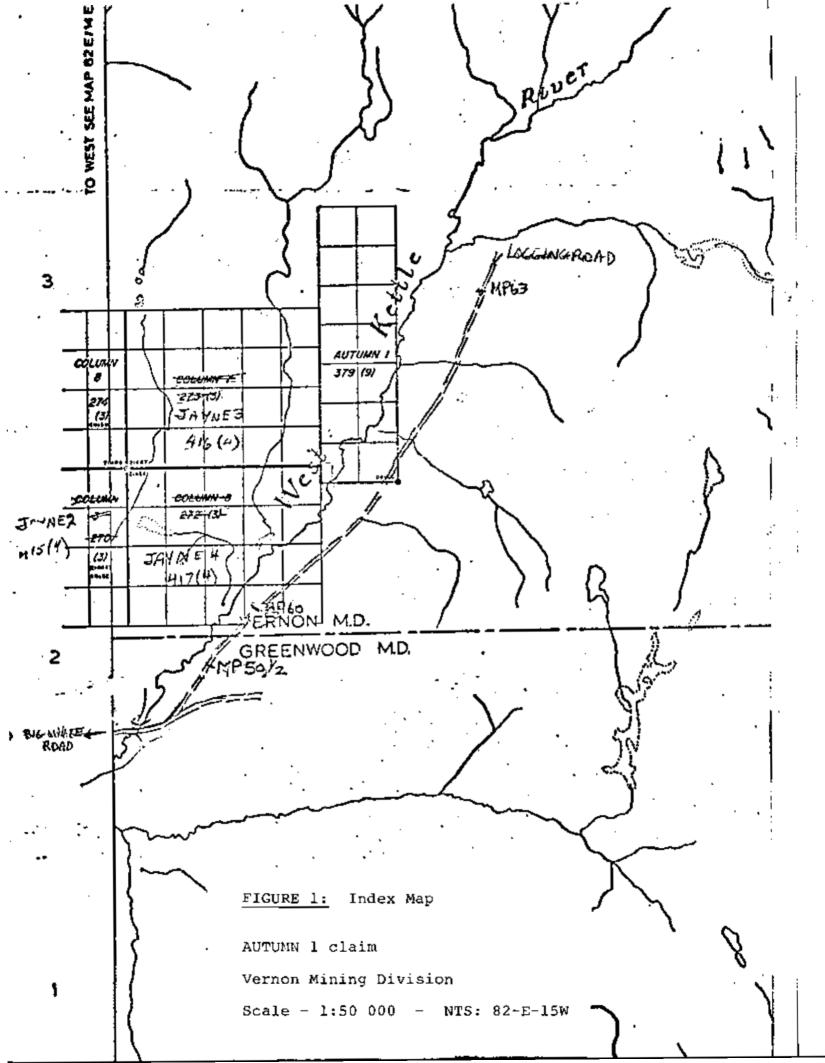
Mapping indicated that the plateau basalt is undeformed. Several terraces within the grid area indicate that there maybe several layers of basalt.

#### (c) Mineralization

No radioactive minerals were located on the mapped portion of the claim.

### (d) Conclusions

The mapping indicated the presence of a small Miocene plateau basalt mass. The fact that it occurs on a ridge with steep slopes around its perimeter possibly indicates that the basalt sits on top of another rock type. The other rock type could be the Monashee Gneiss which is found to the south of the basalt, however, this contact relationship was not observed.



### V QUALIFICATIONS

- I, Louise K. Eccles, do hereby certify that:
- I am a geologist residing at 782 West 22nd Avenue, Vancouver, British Columbia and employed by Du Pont of Canada Exploration Limited.
- 2. I am a graduate of the University of British Columbia with a B.Sc. degree in geology.
- I have practised my profession in geology continuously for the past 2 years in British Columbia and the Yukon and Northwest Territories.
- 4. Between September 1 and September 12, 1978, I directed a field programme on the Autumn 1 claim on behalf of Du Pont of Canada Exploration Limited.

Y Each

Louise K. Eccles September 15, 1978

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IN ACCOUN	NT WITH DU PONT OF CANADA EXPLORATION LIMITE	D		
TERMS	SUITE 102,155	O ALBERI		
_	Re: AUTUMN # 1 CLAIM			
	LINE CUTTING 7 Km @ \$ 110.00/km		S	770
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#### ΙV COST STATEMENT

(a)	Transportation

(a)	<u>Transportation</u>					
	(i)	Vancouver-Kelowna and return, Aug.28/78 and Sept.10/78; 846 km @ \$0.12/km x 1/5 (because 1/5 of time was spent on Autumn 1)	\$	20.30		
	(ii)	In support of assessment work, Sept.4 and 5, 1978; 2 days @ \$25/day + gas		64.95		
(b)	Geological Mapping					
	(i) Line Cutting					
		Autumn 1 claim, invoice of Sept.1978 attached		770.00		
	(ii)	Wages				
		Geologist, Sept.4, 5, 12, 1978; 3 days @ \$51.50/day		154.50		
		Assistant, Sept.4, 5, 1978; 2 days @ \$43.51/day		87.02		
	(iii)	Food and Accommodation				
		Geologist, Sept.4, 5, 1978; 2 days @ \$40/day		80.00		
		Assistant, Sept.4, 5, 1978; 2 days @ \$40/day		80.00		
(c)	Report Preparation					
	Draft	ing, Sept.14, 1978; 1 day @ \$96.37		96.37		
	Typin		50.37			

\$1,403.51

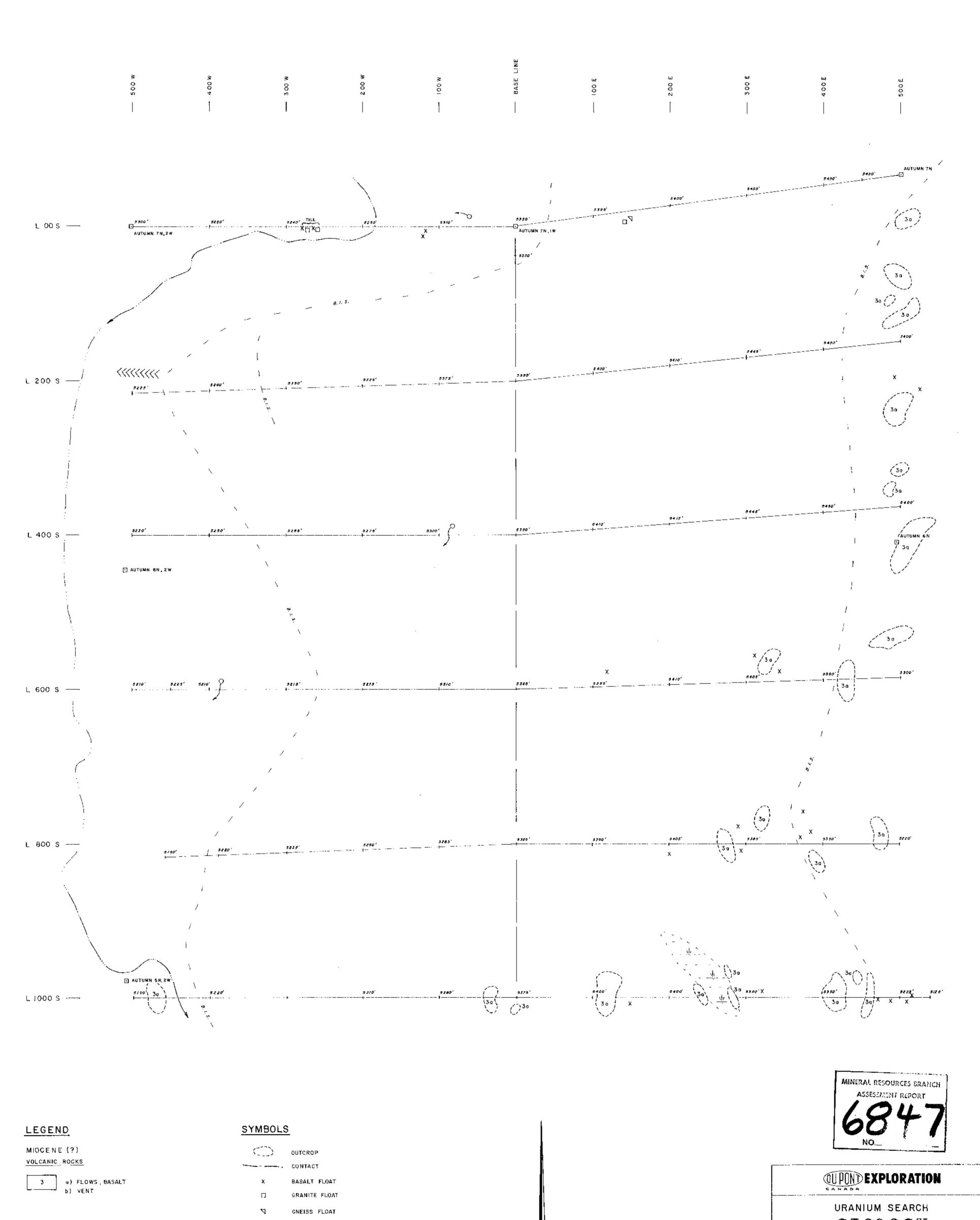
TOTAL

### VI ATTESTATION

- I, F. Marshall Smith do hereby certify that:
- I am a geologist residing at 6580 Mayflower Drive, Richmond, British Columbia and employed by Du Pont of Canada Exploration Limited.
- I am a graduate of the University of Toronto with a B.Sc. (Hon.) degree in geology.
- I am a registered Professional Engineer in the province of British Columbia.
- 4. I have practised my profession in geology continuously in Canada for the past 11 years.
- 5. I have supervised the work and training of Louise K. Eccles (author of the attached report) for the last four consecutive field seasons and have read the report of the work on the Autumn 1 claim supervised by Mr. G.A. Harron, M.Sc., P.Eng and can attest to the described work as being carried out in the described manner and to Ms. Louise K. Eccles being a competent and responsible geologist.

F. Marshall Smith September 14, 1978

FAladall Intl



CLAIM POST

CREEK

-- BREAK IN SLOPE

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ELEVATION IN FEET

. .... CLAIM LINE

 $\mathbb{G}\mathbb{E}\mathbb{O}\mathbb{L}\mathbb{O}\mathbb{G}\mathbb{Y}$ 

AUTUMN No.1 CLAIM WEST KETTLE RIVER AREA, BRITISH COLUMBIA

m 75 50 25 0 75 180 m SCALE TANCH J FEET N.T. 3. No. 1 82 E 15 MAPPED BY: L.K.E., . REVISED: DATE . 78 09 06 ACCT No.: 322 - 04 ORAWN BY . . K.J., J. . . DRWG. No. ( U.78 - 5

OATE : .78.09.14...