'78- #36- #6631

6631

REPORT ON GEOLOGICAL,

GEOCHEMICAL, RADIOMETRIC

AND AEROMAGNETIC SURVEYS

on the

REEF 1 to 10 CLAIMS

WINFIELD AREA, VERNON MINING DIVISION

NTS: 82L/3W

Latitude: 50°04' North

Longitude: 119°20' West

Owner/Operator: Union Oil Company of Canada Ltd.

Consultant: K.L. Daughtry & Associates Ltd.

Vernon, B.C.
February 10, 1978

By: K.L. Daughtry, P.Eng.
P.P. Nielsen, Geophysicist
W.R. Gilmour, Geologist

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6631
MAP NO.

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INTRODUCTION

Location, Access Topography

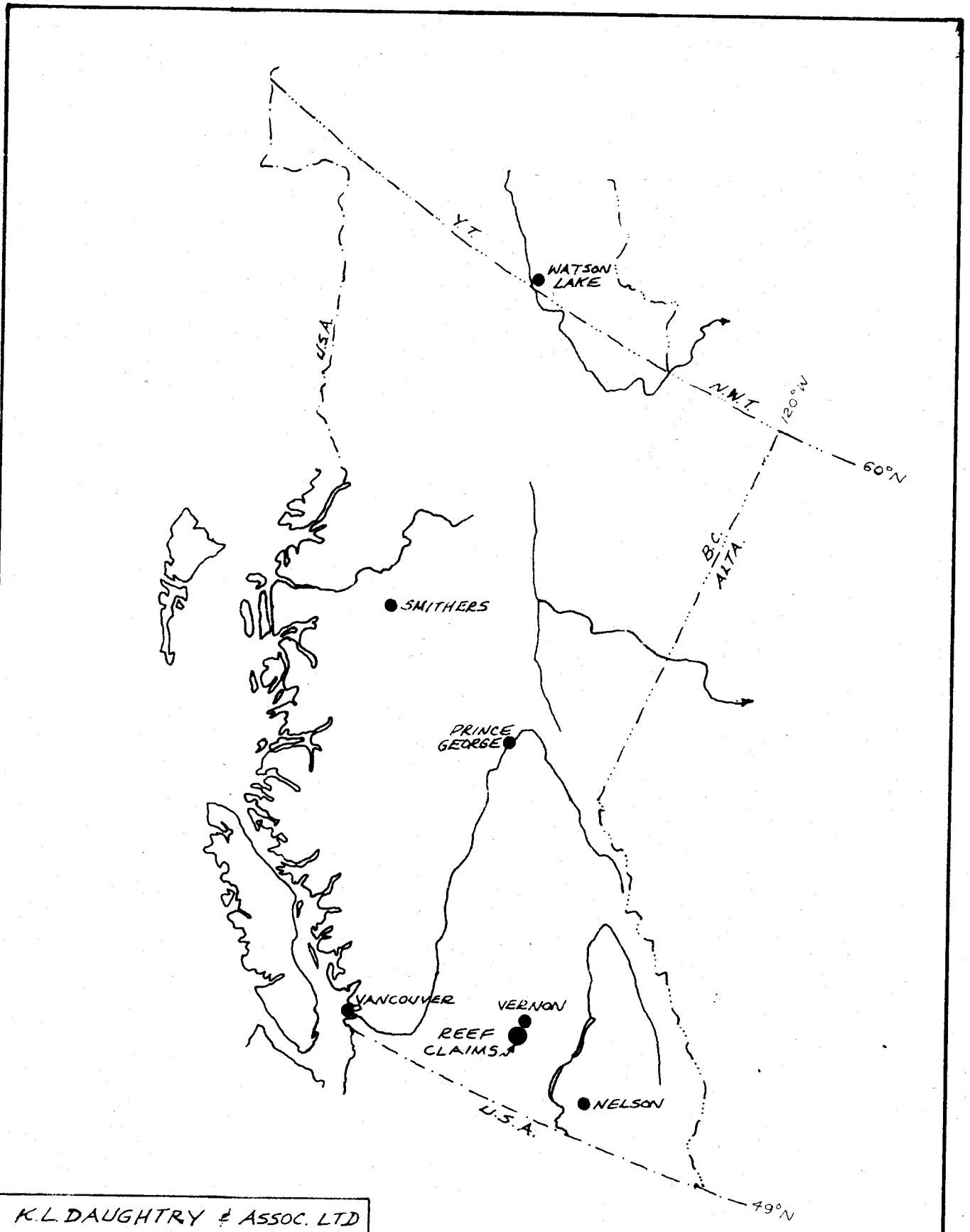
The REEF 1 to 10 claims are on the east side of the Okanagan Valley above Woods Lake in south central British Columbia. (Figure 1, 2) The property extends from Vernon Creek on the south to Oyama Lake on the north. The town of Winfield is 4 km west of the south end of the claim block, and the nearest major centre is Vernon, 20 km to the north. The centre of the property is at 50°04'' north latitude and 119°20'' west longitude and the National Topographic System reference is 82L/3W.

All parts of the property are within a few hundred metres of logging or bush roads. Most claims are accessible from the Beaver (Swalwell) Lake or Clark Creek roads from Winfield; the northernmost claims are accessible from the Oyama Lake road.

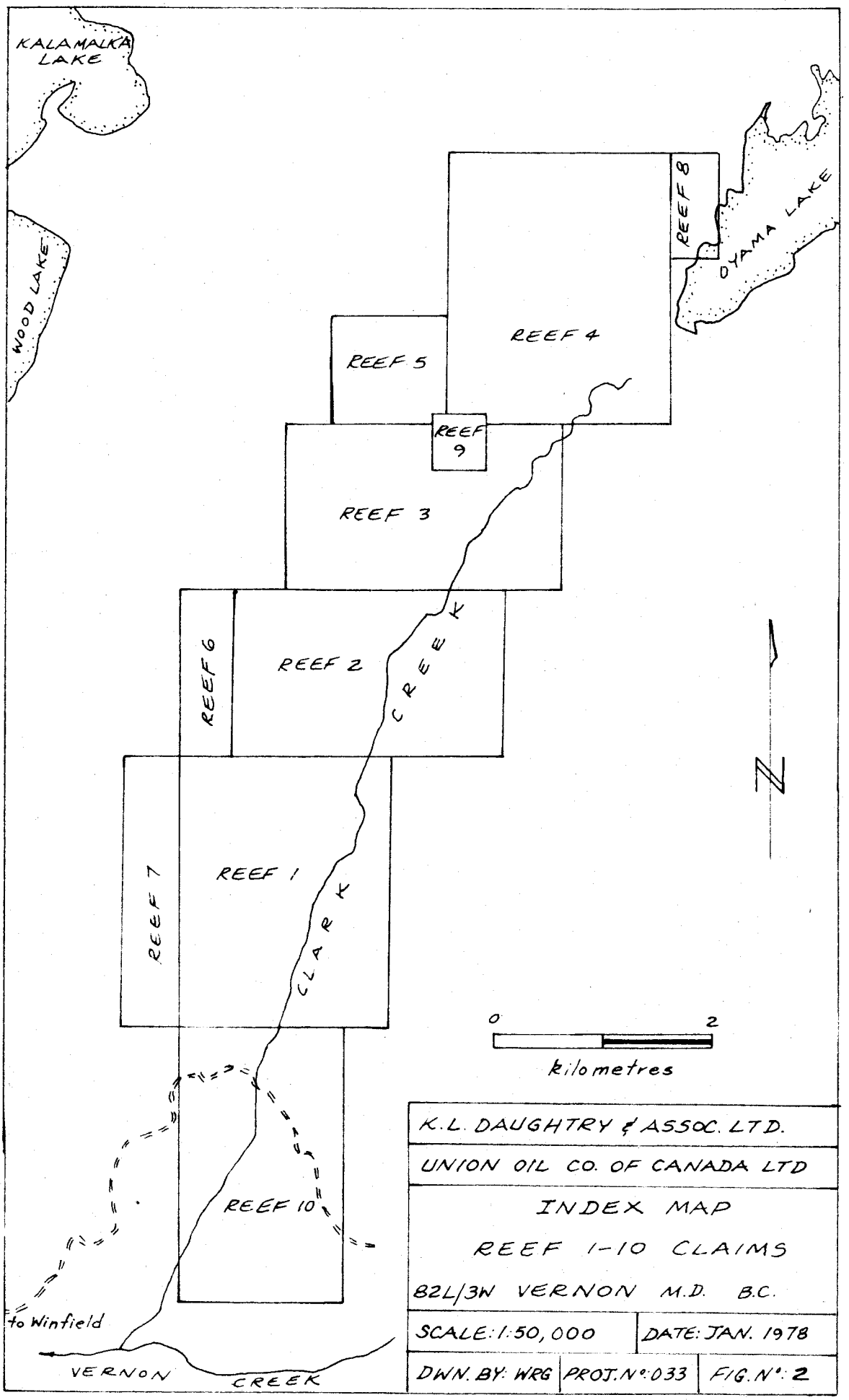
The property straddles the long string of cliffs which mark the break of slope between the Okanagan Highland and the main Okanagan Valley, and topography varies from rolling upland to steep or precipitous valley slopes. Elevations vary from 750 m at Vernon Creek on the south edge of REEF 10 to 1500 m above Oyama Lake on REEF 4.

Property

The REEF property is in the Vernon Mining Division and consists of the REEF 1 (20units), REEF 2 (15 units), REEF 3 (15 units), REEF 4 (20 units), REEF 5 (4 units), REEF 6 (3 units), REEF 7 (5 units), REEF 8 (2 units), REEF 9 (1 unit) and REEF 10 (15 units), record numbers 202, 203, 204, 238, 239, 240, 241, 242 and 371, 406 respectively. The claims were staked by contractors and title transferred to Union Oil Company of Canada Ltd. of 335-8th Avenue S.W., Calgary, Alberta.



K.L. DAUGHTRY & ASSOC. LTD
UNION OIL CO. OF CANADA LTD
LOCATION MAP REEF CLAIMS
JAN. 1978 FIG. NO. 1


KALAMALKA LAKE
WOOD LAKE
OYAMA LAKE
REEF 8
REEF 4
REEF 5
REEF 9
REEF 3
REEF 2
REEF 6
REEF 1
REEF 7
REEF 10
CREEK
CLARK
CREEK
VERNON
to Winfield
N
0
2
kilometres
K.L. DAUGHTRY & ASSOC. LTD.
UNION OIL CO. OF CANADA LTD
INDEX MAP
REEF 1-10 CLAIMS
82L/3W VERNON M.D. B.C.
SCALE: 1:50,000
DATE: JAN. 1978
DWN. BY: WRG
PROJ. N°: 033
FIG. N°: 2

Parts of the REEF property have been staked or covered by placer mining leases at various times in the past. In the 1930's considerable exploration activity followed the discovery of placer gold in Tertiary sediments above the south end of Woods Lake. Activity has been sporadic ever since, but at the time of the staking of the REEF claims there were no current placer holdings in the area.

The REEF claims were staked to cover an extensive channel of unconsolidated stream deposits which overlie a Mesozic granite and older metamorphic basement and are overlain by younger plateau basalt flows. The environment is similar to that at several important uranium deposits in the general area.

Work Programme

A geological map of the entire property (2500 hectares) has been prepared at a scale of 1:10,000 based upon field mapping and photogeological interpretation. More detailed mapping at a scale of 1:2500 was completed in the area of old placer workings on REEF 1 and 7.

Geochemical sampling of rocks, unconsolidated channel sediments and stream and spring waters accompanied the geological mapping. A total of 41 samples were collected.

Radiometric readings were taken at all outcrops encountered during mapping, and a single airborne traverse of about 9 km was conducted across part of the claims.

An aeromagnetic survey totalling 13½ line-km was flown on a grid over the area of the property in order to define the basement/basalt contacts in areas of overburden or heavy snow cover.

Ground control for all of the above work was provided by 1:10,000 topographic base maps and aerial photographs blown up from published material. The unseasonal advent of winter conditions precluded completion of much of the planned programme, and the interpretation of the geology on the northern part of the property is based on limited ground traverses reinforced by airborne survey work and photogeology.

GEOLOGY

The geological setting of the area of the REEF property is complex. Layered gneiss, pegmatite, quartzite and marble of unknown age are intruded by Jurassic, Cretaceous and Tertiary plutons. Regional compressional tectonic deformation culminated in the Cretaceous, and was followed by tensional displacement along regional block faults. Tertiary drainage patterns in the area were controlled in part by these block faults, and numerous volcanic vents apparently developed along the fault lines.

At the REEF property, pre-Tertiary rocks include metamorphic gneiss and pegmatite, and younger, probably Cretaceous, granitic rocks. The contact between granite and gneiss is thought to trend northwesterly from the northeastern part of REEF 2 through the southwestern part of REEF 3, with the granite to the southwest (Figure 3).

A large stream channel was developed in these basement rocks in the Tertiary. The drainage appears to have run parallel to the prominent north-northeasterly topographic lineament between lower Vernon Creek and Oyama Lake which presently is occupied by Clark Creek. This lineament is probably one of the numerous normal faults which characterize the Okanagan Valley graben system. At some time in the Tertiary, possibly during the Oligocene or Miocene, a volcanic vent developed on the fault line immediately south and west of the present Oyama Lake. Basalt extruded from this vent flowed southerly along the drainage channel. Repeated extrusions resulted in a series of extensive thin flows which covered the unconsolidated stream sediments of the channel.

Oyama Lake now occupies a basin north of the vent and drains westerly through a shallow depression to Kalamalka Lake. Clark Creek follows the

eastern edge of the basalt flows for much of its course and may have developed along an erosional weakness at the contact between the basalt and the original valley wall.

The stream sediments are interbedded sands and gravels. The predominant lithology is a compact white gravel with well-rounded pebbles of white quartz and quartzite, with lesser granite, pegmatite, and gneiss, in a matrix of white quartz sand. The thickest individual gravel beds seen to date are about 1.5 m thick, but most are less than 0.5 m. Rusty staining is common along some layers, suggesting the presence of pyrite, and fragments of carbonaceous material occur.

Lenses and layers of sand are common. One of the largest of these is exposed in one of the old placer workings on REEF 7, (Figure 4). The sand is medium to dark grey and brown with abundant carbonaceous material and coaly lenses. Figure 5 shows the detailed stratigraphy of the lower 6 m of sediments overlying granite in a placer exploration open cut in the southwest corner of REEF 1.

Limited exposures of the sediments prevent an accurate determination of general attitudes within the channel, but it appears that the deepest part of the channel is to the east of the exposures under the basalt capping. Slumping of sediments and basalt along the line of cliffs in common, and the actual thickness of sediments cannot be measured. It is estimated that the sediments, where exposed, are at least 10 m thick.

In areas of heavy overburden, it is sometimes possible to trace the channel sediments by noting the abundance of quartz pebbles in the overburden.

The overlying volcanic rocks occur in a series of widespread, thin, overlapping flows of dark grey to black, hard, dense, very-fine grained basalt and olivine basalt with interbedded layers of tuffaceous rock. The individual

flows are from 10 to 20 m thick. Flow edges are commonly marked by vertical cliffs with abundant talus, or by sharp, steep slopes covered by overburden. Flow tops are flat or gently sloping. These topographic features enable the individual flows to be traced for long distances on the ground and by means of photogeology. The distribution of the overlapping flow layers in a long, narrow belt trending south-southwest from the presumed vent at Oyama Lake suggests deposition in a relatively narrow valley.

It is reasonable to assume that the old stream channel lies west of Clark Creek beneath the capping basalt and extends from near Oyama Lake southerly to near Vernon Creek.

GEOCHEMISTRY

Twelve water samples were collected in 100 ml poly bottles from small creeks, springs and seeps near the contact between basement and sediments. These samples were shipped to Bondar-Clegg and Co. Ltd. in North Vancouver for analysis by the standard fluorimetric technique. Uranium content varied from 0.1 ppb to 2.5 ppb. On the basis of regional information, three samples in the area of exposed sediments may be considered anomalous. These samples, with values of 0.8, 0.9, and 2.5 ppb uranium, were collected from springs emanating from the basal gravel beds.

Twenty-eight rock samples were collected from exposures of granite basement, channel sediments and basalt, and shipped to Bondar-Clegg and Co. Ltd. for analysis. All rock samples were crushed to -80 mesh and analyzed for uranium and thorium. Three different uranium analyses were conducted on each sample. Total uranium (U_T) was determined by X-ray fluorescence, uranium leachable by hot nitric acid was determined by normal fluorimetric analysis (U_N) and uranium leachable by a weak solution of sodium carbonate (Up) was also determined by fluorimetric analysis. Total thorium (Th_T) was determined by X-ray fluorescence. Comparison of these results enables an estimate of the amount of uranium in the rock present as primary resistate minerals vs leachable or soluble minerals.

Samples of granite generally contained from <1 to 3 ppm U, with the uranium present in both resistate and leachable minerals. One sample of rusty weathered granite (D2962) immediately below basal sediments (Figure 4) contained 94 ppm U_T, 80 ppm U_N, and 9 ppm Up, indicating the presence of an anomalous concentration of ore minerals of uranium. Thorium content of granite samples was always <1 ppm.

The samples of sandstone, siltstone and conglomerate yielded variable results (Figures 4, 5). Uranium content varied from <1 to 46 ppm U_T, <0.2 to 18 ppm U_N, and <0.2 to 12 ppm U_P. Several samples from the main placer workings on REEF 7 (Figure 4) yielded anomalous values and the ratios of U_N and U_P to U_T suggest the presence of ore minerals. Thorium content of sediments generally varied from <1 to 6 ppm but one sample, RF 1, contained 224 ppm Th (and 46 ppm U_T).

An analysis of the -80 mesh fraction of 10 samples of sediment from the placer workings on REEF 1 (Figure 5) for U_N indicates that the uranium content of matrix material is considerably higher than that of the rock as a whole.

The basalt sample contained only 1 ppm U and <1 ppm Th.

GEOPHYSICS

Radiometric Survey

All outcrops encountered during mapping were measured for radioactivity with gamma-ray detecting instruments. Two McPhar TV-1A discriminating scintillometers and a Geometric GRS-101 scintillometer were used. Readings are shown on Figures 3, 4 and 5.

Total count, in counts per second, varied from 40 to 60 cps (TV-1A) in basalt. Counts on the second and third channels of the TV-1A, (U_T Th and Th respectively) were corresponding low, varying from 2.7 to 3.0 cps (U + Th) and 0.8 to 1.3 cps (Th).

In granite, levels of radioactivity varied widely. Total counts generally ranged from 80 to 130 cps on the TV-1A and from 50 to 75 cps on the smaller GRS-101. At several points in the granite near the base of the overlying fluvial sediments, anomalous radiometric levels were measured. Readings on the TV-1A varied from 150 to 730 cps and on the GRS-101 from 90 to 135 cps. TV-1A second channel readings (U + Th) varied from 5.5 to 27 cps and third channel (Th) readings from 1.5 to 4.3 cps. The highest reading (730/27/4.3 cps) was at the site of the rock sample D2962 mentioned above which contained 94 ppm U.

Radiometric readings in the channel sediments were also highly variable. TV-1A readings generally ranged from 58 to 122 cps on total count, 2.8 to 6.7 cps U + Th, and 0.7 to 1.3 cps Th. Anomalous readings ranged from 130 to 730 cps total count, 7.0 to 27 cps U + Th, and 1.8 to 5.8 cps Th.

Generally good correlation exists between anomalous radiometric and geochemical samples. The channel sediments are tentatively traced southwards from

the last known exposure on the basis of slightly higher total count readings in overburden generally corresponding to areas in which white quartz pebbles occur.

An attempt to trace the channel southwards by a systematic radiometric survey using an Exploranium DISA-400A gamma-ray spectometer was begun but was halted by early snowfall. The results of this work are shown on Figure 6.

Aeromagnetic Survey

General Comments:

The helicopter-borne magnetic survey was carried out over the area of the property to assist in the geological mapping of the contact between Tertiary basalts and underlying granites in order to define areas of potentially uranium-bearing sediments.

Theory of Method Used:

The aeromagnetic method was used to quickly and efficiently measure variations in the magnetic susceptibility between the rock types previously observed over parts of the survey area and to delineate any important structures which might be present.

The magnetometer used was a total-field intensity nuclear precession type instrument. Included is a sensor consisting of a cylindrical bottle of kerosene within a direct current-bearing coil horizontally oriented in a "bird" towed below the helicopter on an 25 m cable.

Direct current is passed through the cable for a fixed time causing the proton orbit planes of the hydrogen atoms in the kerosene to align perpendicularly to the axis of the coil.

The current is then automatically shut off allowing the orbit planes to return to their natural random orientation generating a "die-away" envelope at a frequency proportional to the magnetic field present.

This signal is fed to a receiver circuit in the magnetometer console where it is converted to gammas and recorded on an analog strip-chart recorder. A reading is made every second and is accurate to ± 1 gammas.

Field Procedure and Survey Specifications:

The magnetometer and ancilliary equipment was mounted in a chartered Bell-206 Jet Ranger helicopter owned by Vernon Helicopters Ltd., which was based in Vernon, B.C. and piloted by Mr. R. Biggs.

Proposed flight lines spaced 400 to 500 metres apart were ruled on an airphoto enlargement (Scale 1:10,000) in an east-west direction and used as the main control by the navigator. The pilot was responsible for maintaining a 120 m terrain clearance of the helicopter by aid of a Bonzer Radar altimeter. An average ground speed of 80 km/h (50 mph) was maintained.

Good navigational control was facilitated by very low wind velocity, the high resolution photo blow-up and numerous land-marks including lakes, swamps, creeks and rock-bluffs.

Fiducial marks were impressed on the chart-recorder by the navigator pressing a foot-pedal. Corresponding numvers were marked on the airphoto enlargement to determine actual flight paths.

A total of 3.75 hours of flying time including an orientation survey and ferry time to and from Vernon was required to complete the survey.

Instrument Specifications:

The following instrument package rented from McPhar Instrument Corp., consisted of the following:

1. Geometrics Model G-803 Proton Magnetometer and bird.
2. Bonzer MK10 Radar Altimeter, antenna and console.
3. Foot pedal fiducial counter.
4. Two Hewlitt-Packard Model H.P. 7155 Analog Strip-chart Recorders.

Data Compilation and Presentation:

The fiducial numbers marked by the navigator on the airphoto enlargement were connected by inked straight lines to indicate the actual flightpath along the grid-lines and transferred to a mylar overlay of a controlled topographic map of the property area (scale: 1:10,000)

Gamma values for the fiducial points and any other maximum or minimum values between fiducial points were plotted on a working print of this map and contoured at 100 gamma intervals above a datum of 57,000 gammas total field intensity. The contours were then transferred to the controlled mylar overlay which also indicated important land marks. On the finished map, fiducial numbers and gamma values were omitted for reasons of clarity.

Discussion of Results and Interpretation:

The aeromagnetic total field values varied from a low of 57,005 gammas at the east end of flight-line 20 to a high of 58590 gammas at the head of Clark Creek on flight-line 7 for a total relief of 1585 gammas over the area surveyed.

Generally the isomagnetic contours strike north-easterly subparallel to Clark Creek. These elongate high and low features trending from Oyama Lake south-westwards are due to lava flows believed to have been extruded from a volcanic vent, represented by the 1200 γ contour, at the south end of Oyama Lake. The flows filled a stream channel slightly west of the present position of Clark Creek.

The magnetic pattern representing these flows appears to be complicated either by thinning of the lavas as they flowed southwesterly, or by increased erosional effects, and by terrain effects especially along the cliffs observed from line 10 to line 16 west of Clark Creek along the aeromagnetic low (800 γ contour).

The 900 gamma "low" along Clark Creek from line 14 to line 16 inclusive could represent a window of basement through the volcanic rocks.

The 1000 gamma contour at the easterly end of line 23 conforms well to known lava outcrops.

The northwest two-thirds of the survey area exhibits very low magnetic relief and is likely due to an acidic intrusive rock such as granite or granodiorite.

The local "high" ($>1300\ \gamma$) at the northwest corner of the claim block represents a basic dyke observed along the road at the locality.

The area above 1100 gammas to the northwest and across Oyama Lake is believed due to mafic gneiss.

Respectfully submitted,

K.L. Daughtry

P.P. Nielsen

W.R. Gilmour

Vernon, B.C.
February 10, 1978

COST STATEMENT

A. Airborne Magnetometer Survey (flown Feb. 8)

132 km @ $30/km		$3960.00

B. Geology, Geochemistry, Ground Radiometric Survey, Photogeology

Professional Services

W.R. Gilmour (Nov. 17-18, 21-26, 30; Dec. 1-5, 8-9, 12-13, 22; Jan. 4-7) 13.5 days @ $150/diem	$2025.00	
K.L. Daughtry P.Eng. (Oct. 25-26, 31; Nov. 21-22, 24-28, 30; Dec. 5, 22) 10 days @ $200/diem	2000.00	
P.P. Nielsen (Dec. 5, 8) 2 days @ $175/diem	350.00	
J.W. Davis (Oct. 25) 1 day @ $175/diem	175.00	
T. Kikuchi PhD.P.Eng. (Oct. 25) 1 day @ $250/diem	250.00	
	$4800.00	$4800.00

Transportation

4 wheel drive (Oct. 25; Nov. 18-25, 30; Dec. 5, 8)		
rental 10 days @ $20/diem	$200.00	
mileage 556 miles @ 20¢/mile	111.20	
gas, oil	65.06	
	$376.26	$376.26

Room & Board

T. Kikuchi & J. Davis (Oct. 25) @ $35/diem	$70.00

Palynology

-preparation & analysis of 3 samples by D. McIntyre (Union Oil) @ $75.00	$225.00

Radiometric Rentals

2 TV1-A	@ $217.10/mo.	$434.20	
1DISA-400A	@ $400.00/2 wks.	400.00	
1 GRS-101	@ $100.00/mo.	100.00	
		$934.20	$934.20

Geochemical Analysis (Bondar-Clegg & Co. Ltd.)

12 water samples	U @ $3.25	$ 39.00	
1 silt sample	U @ $3.25	3.25	
28 rock samples	U,Th (X.R.F.) @ $5.40	151.20	
	U (HNO_3) @ $2.75	77.00	
	U (CO_3) @ $4.40	123.20	
10 rock samples	U (HNO_3, -80 mesh) @ $3.25	32.50	
shipping		7.60	
		$433.75	$433.75

Miscellaneous

Supplies	$15.00
Maps, airphotos	$82.40
Printing	$17.61
Telephone	$33.99
Secretarial	$80.00
TOTAL	$11028.59

STATEMENT OF QUALIFICATIONS

I, Kenneth L. Daughtry, of Tronson Road, R.R. #4, Vernon, British Columbia, do hereby certify that:

1. I am a consulting geologist in mineral exploration.
2. I have been practising my profession in Canada, the United States and Ireland for thirteen years.
3. I am a graduate of Carleton University with a Bachelor of Science degree in geology and chemistry.
4. I am a member in good standing of the Associations of Professional Engineer of British Columbia, Ontario and Yukon, and a Fellow of the Geological Association of Canada.
5. This report is based upon knowledge of the REEF property gained during the conduct of an exploration programme in 1977-78.

K.L. Daughtry & Associates Ltd.

K.L. Daughtry, P.Eng.

STATEMENT OF QUALIFICATIONS

I DO HEREBY STATE THAT:

1. I am the co-author of this report and carried out the airborne survey described herein.
2. I have been actively and responsibly involved in all aspects of mining geophysics in Canada, the United States, Africa and Australia over the past thirteen years.
3. I graduated with a B.Sc. degree in Geophysics from the University of B.C. in 1969.
4. I am the President of Nielsen Geopysics Ltd. with business address at #205-2910-30th Ave., Vernon, B.C.
5. I am a member of the S.E.G., C.I.I.M., and the B.C.G.S.

P.P. Nielsen, B.Sc.

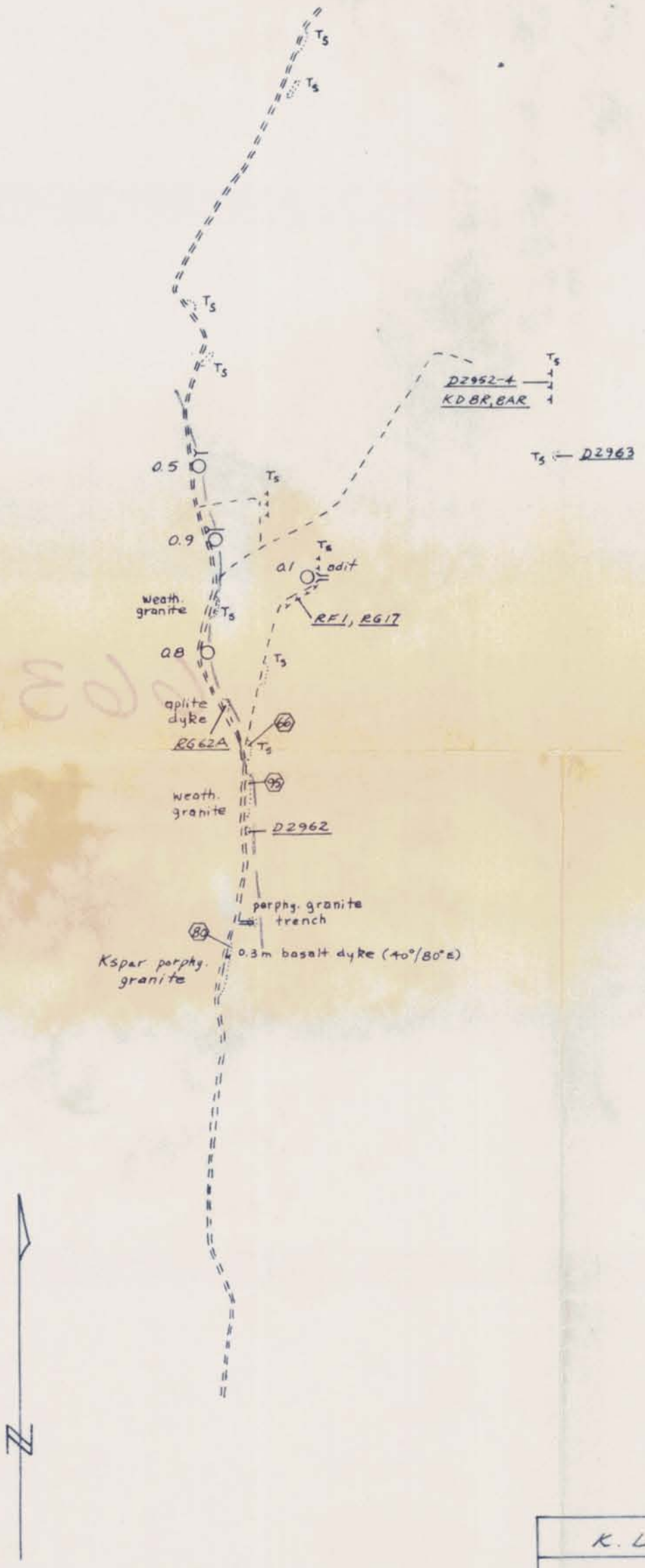
STATEMENT OF QUALIFICATIONS

I, William R. Gilmour, of the city of Vernon in the provice of British Columbia, hereby certify that:

1. I am a geologist with residence at 8015 Westside Road, Vernon, B.C. V1B 1Y4
2. I am a graduate of the University of British Columbia, Bachelor of Science (Geology), 1970
3. I am a Fellow of the Geological Association of Canada.
4. I have practised as a geologist in mineral exploration for 7 years in British Columbia and the Yukon.

W.R. Gilmour

Sample N°	Rock Geochemistry (ppm) U_T	U_N	U_p	Th_T	Geology	Radiometrics c.p.s. T_1	T_2	T_3	TV1A
D2952	14	9	2	5	dirty, greyish s.s.				
D2953	14	5	0.6	5	dirty, greyish s.s.	~ 150	7.5	2.0	
D2954	1	5	<0.2	1	rusty, brown S.S.				
KDBR	<1	0.8	<0.2	<1	c.g. sandstone	98	7.1	2.0	
KDBAR	15	6	1	<1	coalified wood				
D2963	9	9	5	<1	sediments				
RF1	46	18	12	224	rusty, hard siltstone	350	17	5.8	
RG17	1	2	0.2	6	rusty, hard silt-stone	135 c.p.s. Exploranium GRS-101			
RG62A	<1	0.8	<0.2	<1	aplite dyke				
D2962	94	80	8	<1	weathered granite	730	27	4.3	



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LEGEND

MIOCENE (?)

- basalt
- T_S conglomerate, sandstone, mudstone

CRETACEOUS (?)

- porphyritic granite; aplite

- water sample (ppb U)
- open cut
- collapsed adit
- c.p.s. Exploranium GRS-101
- geological contact

0 100 metres

N.B. Ground control - compass & topolite survey

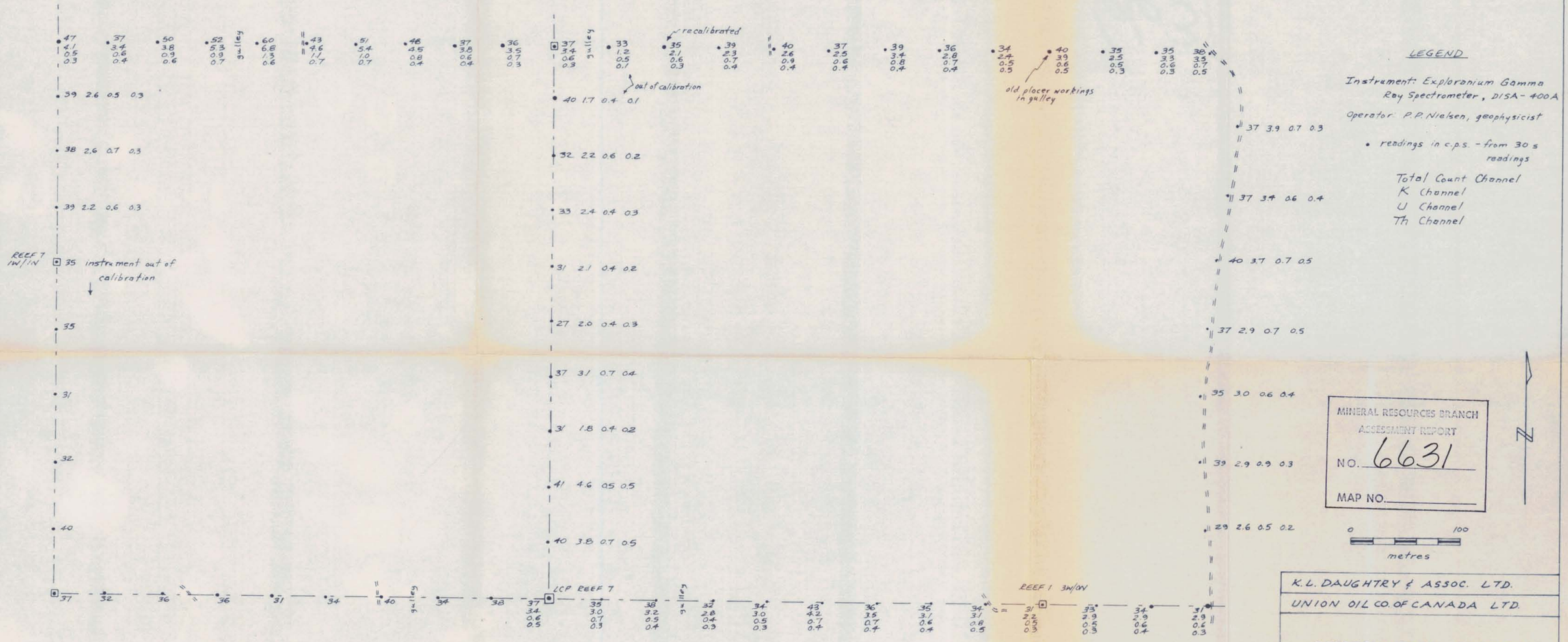
MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6631
MAP NO.

K. L. DAUGHTRY & ASSOC. LTD.

UNION OIL CO. OF CANADA LTD.

GEOLOGY, GEOCHEMISTRY & RADIOMETRICS
on former PML 111
REEF 7 CLAIM
VERNON M.D. B.C.

SCALE: 1:2,500	DATE: DEC. 1977	
DWN. BY: WRG	PROJ N°: 033	FIG. N°: 4



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K.L. DAUGHTRY & ASSOC. LTD.

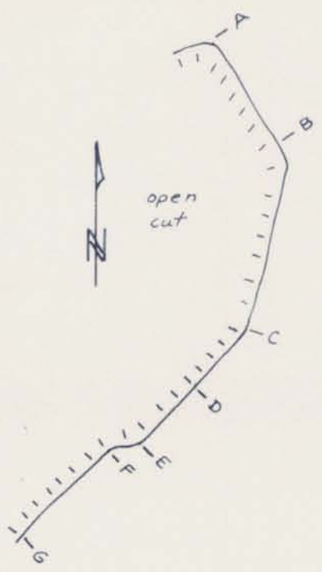
UNION OIL CO. OF CANADA LTD.

SPECTROMETER SURVEY

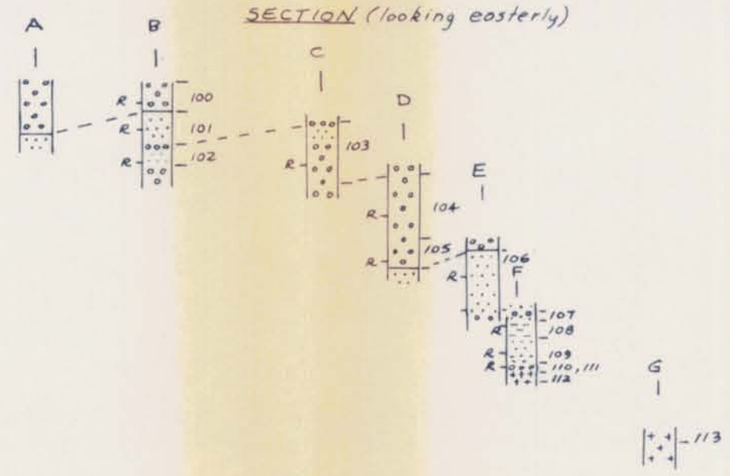
REEF 1 & 7 CLAIMS
VERNON M.D. B.C.

SCALE: 1:2,500	DATE: DEC. 1977
DWN. BY: WRG	PROJ. N°: 033
FIG. N°: 6	

PLAN



SECTION (looking easterly)



0 5 metres

LEGEND

Sample Number	thickness	Spectrometer Readings (R) on TV1A (103) in c.p.s. T_1	T_2	T_3	Geology	Rock Geochemistry U_T	U_N	U_p	$U_{N\ -80\ mesh}$	Th_T
RG-100	0.5 m	80	4.8	1.1	- quartz pebble congl. - well rounded, slightly flattened pebbles - 4 cm - 50% pebbles are quartz	< 1	0.6	< 0.2	2	< 1
RG-101	0.6 m	58	2.8	0.7	- clean, light grey sandstone	< 1	0.2	0.2	0.8	< 1
RG-102	0.3 m	63	3.7	0.7	- 5 cm band of pebbles then s.s. grading into congl.	1	0.4	0.2	0.8	< 1
RG-103	1.0 m	75	4.2	1.0	- quartz pebble congl.	< 1	1	0.4	2	< 1
RG-104	1.0 m	62	3.7	1.2	- quartz pebble congl.	< 1	0.4	< 0.2	2	< 1
RG-105	0.55 m	75	3.5	0.8	- quartz pebble congl. - sandier than above	< 1	< 0.2	< 0.2	0.8	< 1
RG-106	1.0 m	77	5.0	1.0	- clean, arkosic s.s. with quartz pebbles	1	1	< 0.2	1	< 1
RG-107	0.18 m	90	5.3	1.3	- sandy, qtz. pebble congl. with rusty bands, crossbedding	< 1	1	0.2	0.6	< 1
RG-108	0.27 m	122	6.7	2.2	- grey, silty clay with rusty band at top	1	0.6	0.2	—	< 1
RG-109	0.42 m	117	6.7	1.3	- interlayered s.s. and silt with qtz. pebbles	3	1	0.2	1	< 1
RG-110	0.05 m	130	7.0	1.8	- hard, dark brown pebble congl.	3	0.8	0.2	—	< 1
RG-111	0.10 m	200	9.2	2.7	- weathered granite	1	0.6	0.2	—	< 1
RG-112	0.15 m				- granite	2	2	0.2	—	< 1
RG-113	grab sample				- granite (c.g.)	< 1	2	0.4	—	< 1

thickness of sediments 5.87 m

T_1 total count
T_2 U + Th
T_3 Th

U_T X.R.F.
U_N HNO_3 extraction; fluorimetric
U_p $NaCO_3$ leach; fluorimetric
$U_{N\ -80\ mesh}$ U_N on -80 mesh fines
Th_T X.R.F.

6631

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6631
MAP NO.

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OPEN CUT 114-1

REEF 1 CLAIM

VERNON M.D. B.C.

SCALE: 1:100	DATE: DEC. 1977	
DWN. BY: WRG	PROJ. N°: 033	FIG. N°: 5

Oyama Creek

Hayton Creek

to OYAMA

Ribblesworth Creek

Clark Creek

Oyama Lake

REEF 8

REEF 5

REEF 4

REEF 9

REEF 3

REEF 6

REEF 2

REEF 7

REEF 1

REEF 10

LCP ECHO 1

basalt

layered, contorted gneiss, granitic dykes

till; basaltic tuff fragments

sandy granitic soil

tuff frags in till

basalt flow

basalt flow edge

see Fig. 4

see Fig. 5

see Fig. 6

porphyritic granite

weathered

pg-cut by basaltic dyke 25cm wide at 160°/80°E

recent sandy gravel

recent sandy gravel

very vesicular basalt

sandy soil

till

to WINFIELD

to Swalwell Lake

basalt cliff

M 24.5

M 23

M 22.5

M 22

M 21.5

M 19.5

2150 2500 2750 3000 3250 3500 3750 4000 4250 4500 4750

N

LEGEND

MIOCENE (?)

- b — basalt flows
- s — sedimentary rocks (poorly to moderately consolidated) - chiefly quartz pebble conglomerate; sandstone, siltstone, mudstone

CRETACEOUS (?)

- pg — pinkish, porphyritic granite; aplite (a)
- g — slightly foliated granite

pre-MESOZOIC

- m — metamorphic rocks

outcrop

basalt cliff

gP white, rounded quartz pebbles in till/soil

geological contact (defined, approximate, assumed)

rock sample $U_T / U_N / U_P - Th_T$ (see Fig. 5 for explanation)

water sample (ppb U) / silt sample (ppm U)

c.p.s. on GRS-101

c.p.s. on TV1A

total count channel / U_N + Th ch. / Th ch.

c.p.s. on TV1A (T.C. channel only)

pw old placer workings

legal claim post

location claim post

claim line

N.B. ground control from airphotos

base map from gov't. 1:50,000 map

elevation contours in feet

0 300 metres

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REEF CLAIMS

VERNON M.D. B.C.

SCALE: 1:10,000	DATE: JAN. 1978	
DWN. BY: W.R.G.	PROJ. N°: 033	FIG. N°: 3

KALAMALKA LAKE

WOOD LAKE

OYAMA LAKE

To OYAMA

Creek

Clark Boundary

Reef Claims

TL

To WINFIELD

To SWALWELL LAKE

N

LEGEND

—4000— Topographic Contour (500 Ft interval)

—1000— Isomagnetic Contour (100 gamma interval)

– – – Gravel Road

N.B.- GAMMAS ARE TOTAL FIELD ABOVE 57,000 γ DATUM
- GROUND CONTROL FROM AIR PHOTOS
- BASE MAP FROM GOVT. 1:50,000 MAP

0 500
METRES

NIELSEN GEOPHYSICS LTD.

UNION OIL CO. OF CANADA LTD.

AEROMAGNETIC SURVEY
ISOMAGNETIC CONTOUR MAP
REEF CLAIMS

VERNON M.D. 82L/3W

SCALE: 1:10,000 | DATE: FEB. 1978

DWN BY: PPN | PROJ. N°: 033 | FIGURE N°: 7

6631

MINERAL RESOURCES BRANCH
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