CANADIAN OCCIDENTAL PETROLEUM LTD.

MINERALS DIVISION

GEOLOGY, GEOCHEMISTRY AND GROUND RADIOMETRICS

of the

STAKE 1 and 2 CLAIMS

Claim Sheet 92I/8W, 9W

Lat.: 50°30'N
Long.: 120°29'W

STAKE 1 - Tag # 29165, Units 1-15

STAKE 2 - Tag # 21966, Units 1-15

KAMLOOPS MINING DIVISION, British Columbia

by

J.R. Hill, B.Sc.

Covering Work Completed During July 28th to August 2nd, 1979

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PLANS ACCOMPANYING REPORT

SUMMARY

The STAKE 1 and 2 claims were staked in June 1978, to cover a stream sediment uranium anomaly generated from the original Princeton/Nicky data. Follow-up stream sediment and water sampling, plus prospecting, was carried out during the summer of 1978. The follow-up work produced a number of anomalous silt and water values originating in streams draining the area. One sample contained 180 ppm U, collected from a stream draining the southwest quadrant of the property.

Detailed geological mapping, geochemical sampling and a scintillometer survey were completed over a portion of the claims by a 5-person crew during the period of July 23rd to August 2, 1979. Soil samples were analysed for uranium, while rock chip samples were analysed for uranium and thorium. All work was done at a scale of 1" = 400' (1 cm = 48 m) on 800' (244 m) pace and compass lines.

The area has been shown to be underlain by intrusives belonging to the Early Tertiary interior phase of the Nicola Batholith underlying volcanics of the Eocene Kamloops Group. The most recent survey described the intrusive as a perthitic megacrystic biotite-quartz-diorite. The volcanic was described as a porphyritic olivine basalt. In at least one area, (southwest corner), the volcanic is believed to have been extruded through the intrusive via a fault-controlled vent. The basalt has formed a steep-sided, isolated knob which may represent the top of a volcanic plug that just reached surface and stopped before attaining significant areal extent. Associated with the volcanic activity, or with later

mineralization events, was the release of some amount of uraniferous material as evidenced by the higher uranium content of the volcanic and the intrusive in the contact zone.

Soil samples were collected along the 800' (244 m) lines at 200' (61 m) intervals. Samples ranged in value <0.5 to 390 ppm U with a mean value of 0.5 ppm U. A number of single and multi-point soil anomalies were defined. The majority of the higher level anomalies ($\geqslant 10$ ppm U) correlated with the drainage systems of the area which had already been shown to contain anomalous uranium. The background contour (1.0 ppm U) reflected the structural trends underlying the area, especially the trend of the inferred fault zone which is believed to have controlled the emplacement of the volcanic plug in the southwest corner.

A scintillometer survey was carried out on the 800' (244 m) grid with readings recorded every 100' (30 m). All values greater than or equal to 18 c.p.s. were considered anomalous, compared to a mean of 13 c.p.s. Based on the 16 and 18 c.p.s. contours, a major anomalous zone has been defined which parallels and basically overlies the same inferred fault zone in the southwest which is believed to have controlled the volcanic activity. Thus, the anomalous radiometric zone appears to reflect the inferred geological structure of the area, and provides additional evidence for the presence of some degree of associated uranium mineralization.

There is, sufficient evidence to conclude that there is present, to some degree, uranium mineralization which is related either to faulting activity, emplacement of the basalt, or a combination of the two events. Further work on the property should concentrate on the major, fault-controlled valley in the southwest corner. The work should include prospecting, geophysics to define the contact zone, followed up by diamond drilling.

INTRODUCTION

The STAKE 1 and 2 claims were staked on June 21, 1978 to cover a stream sediment uranium anomaly picked up during the original Princeton/Nicky survey of 1973/74. Values up to 113 ppm U were obtained in a stream draining the west-central portion of the area. A total of 30 units were staked by Eastern Associates Ltd., Whitehorse, Y.T.

Follow-up geochemical sampling, completed during the summer of 1978 produced stream sediment anomalies up to 160 ppm U, and stream water anomalies up to 8.9 ppb U.

This report will describe the geology of the claim area and the results obtained from a soil and rock geochemical sampling survey, as well as a scintillometer survey completed by Canadian Occidental Petroleum Ltd., Minerals Division, during the period of July 28th to August 2nd, 1979. The work was done to determine the cause of the water and sediment uranium anomalies located in streams draining the area.

LOCATION AND ACCESS

The STAKE 1 and 2 claims are recorded on claim maps 92I/8W and 92I/9W in the Kamloops Mining Division, British Columbia. The property is located just north of Lac Le Jeune, approximately 19 km

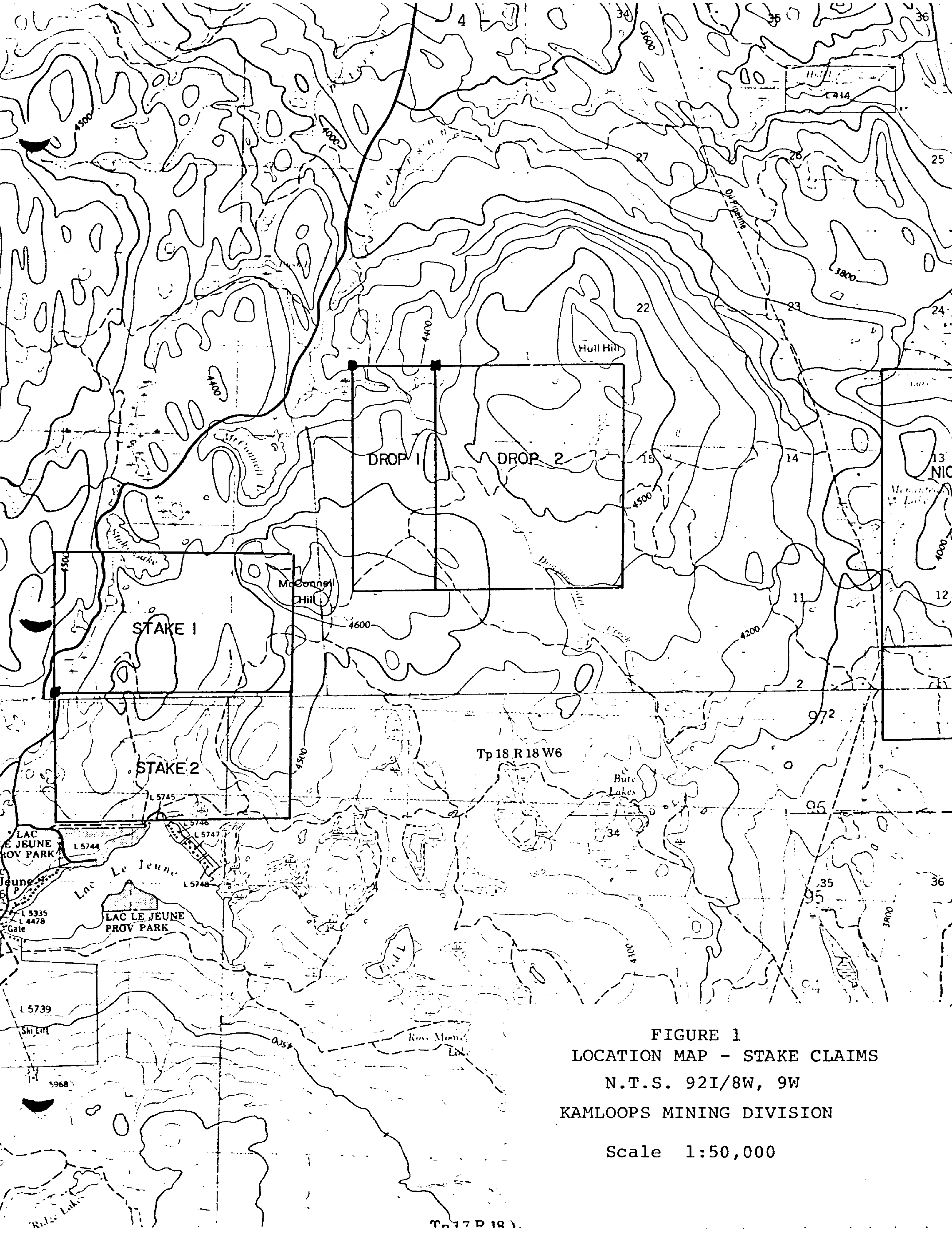


FIGURE 1
LOCATION MAP - STAKE CLAIMS
N.T.S. 92I/8W, 9W
KAMLOOPS MINING DIVISION
Scale 1:50,000

south south-west of the city of Kamloops (See FIG. 1).

Access is via the Ashcroft/Logan Lake road which borders the west side of the property and the Lac Le Jeune Provincial Park road which borders the south side of the property.

VEGETATION

The entire area lies below the tree-line and is covered with moderately thick coniferous forest. Occassional patches of second growth are scattered over the property. Stream valleys are usually thick with underbrush, but hillsides are generally quite open.

PREVIOUS WORK

During the original Princeton/Nicky Program in 1973/74, 11 stream silt samples were collected in the area. Values ranged from 2.3 to 113 ppm U, with all samples analysed by neutron activation. On this information, the STAKE 1 and 2 claims were staked in June, 1978 to cover the anomaly.

Follow-up geochemical sampling was carried out within the area of the STAKE claims, and surrounding it, on July 7th and September 3rd, 1978. Detailed sampling of lakes and streams produced a total of 56 sediment samples, 49 water samples and 3 heavy mineral samples. Portions of the area were also prospected with scintillometers and 2 rock chip samples were collected for geochemical analysis. Stream and lake sediment values ranged from 7 to 160 ppm U, with a background of 3.3 ppm U; while water values ranged from 2.1 to 8.9 ppb U with a background of 0.9 ppb U.

Heavy mineral samples contained up to 2.5 ppm U, with 2000 ppb Au from one sample collected in the originally anomalous stream.

Detailed results from the follow-up geochemical work completed last summer are contained in the report "Geology and Geochemistry of the STAKE Claim Group, J.R. Hill, November, 1978".

WORK COMPLETED

Line Cutting

In most cases, the claim lines of the STAKE group formed the boundary lines of the grid. The western boundary of the 2 claims was chained and picketted as the baseline, the eastern boundary was chained and picketted as TL68E, and the northern boundary of STAKE 1 formed L97N. The southern boundary of the grid was actually cut and chained as L24N. A total of 5.4 line miles (8.6 line km) was "cut" by Futura Developments Ltd., White-horse, On July 28th and 29th, 1979.

Intermediate east-west cross-lines at 800' (244 m) intervals were paced and compassed by various members of the Canadian Oxy crew. A total of 8.6 line-miles (13.8 line km) was flagged out.

Geological Mapping

Geological mapping of the STAKE grid was completed on the 800' (244 m) lines by J.R. Hill and E.F. Parry during the period of July 28th to August 2nd, 1979. A total of 16.3 line-miles (26.1 line km) was mapped to cover a total area of 1.9 sq. mi. (4.9 sq. km) at a scale of 1" = 400' (1 cm = 48 m).

Geochemical Survey

Soil sampling was completed on the 800' (244 m) lines by J. Bracken, G. Rahme and T. Van Wiechen during the period of July 28th to August 2nd, 1979. A total of 472 soil samples were collected at 200' (61 m) intervals on the grid, and were analyzed for uranium. Rock chip samples were also collected at 1000' (305 m) intervals and analyzed for uranium and thorium. A total of 12 rock chip samples were collected. Chemex Labs Ltd., Vancouver, completed 484 uranium determinations and 12 thorium determinations.

Scintillometer Survey

A scintillometer survey was carried out on the 800' (244 m) grid in conjunction with the soil sampling. Readings of total background radiation were recorded at 100' (30 m) intervals using an URTEC UG-130 scintillometer. The work was completed by J. Bracken, G. Rahme and T. Van Wiechen. A total of 892 readings were recorded over 16.3 miles (26.1 km) of line.

Names and Addresses of Personnel

J.R. Hill Canadian Occidental Petroleum Ltd., #311, 215 Carlingview Drive, Rexdale, Ontario	Party Chief
E.F. Parry Same address as above.	Senior Assistant
J. Bracken Same address as above.	Junior Assistant
G. Rahme Same address as above	" "
T. Van Wiechen Same address as above.	" "

PHYSIOGRAPHY

Relief over the area is 150 m, the highest point being McConnell Hill in the northeast corner of the property, with an elevation of 1600 m. The volcanic unit which underlies portions of the area tends to form isolated, rock-walled knobs with vertical sides displaying well-developed columnar jointing. The drainage is highly disorganized and intermittent, but generally follows south-southwestward trending swampy channels into Lac Le Jeune.

GEOLOGY AND ROCK GEOCHEMISTRY

Introduction

The oldest rocks in the area are volcanics of the Upper Triassic Nicola Group (Cockfield, 1948) which outcrop at the extreme western margins of the property. Intrusive rocks which have been classed by Preto (1979) as part of the Early Tertiary interior phase of the Nicola batholith, underly the majority of the western half of the area and are overlain by volcanics and sediments belonging to the Eocene Kamloops Group to the east.

The most recent mapping on the property has defined two units. The intrusive was described as a perthitic megacrystic biotite-quartz-diorite which underlies the majority of the area. Isolated occurrence of the volcanic unit overlie, and may perhaps intrude the intrusive forming the elevationally higher, isolated knobs described previously. The volcanic unit was described as a porphyritic olivine basalt. No evidence of the sedimentary members of the Kamloops Group were found outcropping, although they have been described further north in the Kamloops area by Ewing (1978).

There was very little outcrop over the grid (1%).

One of the most obvious models of uranium mineralization in such a geological environment is "unconformity-type" mineralization whereby uranium has been leached from older granitoid rocks to be precipitated in younger overlying fluviatile sediments, such as have been described as forming the basal unit of the Kamloops Group. However, as mentioned, this sedimentary sequence has not been traced as far south as the area of the STAKE claims. Uranium mineralization may also be associated within the intrusive itself. Models include: 1) intragranitic veins associated with the deuteric phase of the intrusive, 2) porphyry uranium mineralization found in granitoids, or 3) deposits of uranium located within fault and shear zones, as a result of deep leaching of granitoids. Finally, and probably the more likely theory, suggests the mineralization may be associated with the extrusion of the basalt through fault-controlled vents cutting the intrusive, with the development of a metasomatic mineralization event hosted by either the volcanic member or the intrusive.

General Geology

The rock units as have been identified during the most recent mapping of the STAKE claims, are listed in Table 1 below.

TABLE 1: Table of Formations

2. porphyritic olivine basalt.
1. perthitic megacrystic biotite-quartz-diorite.

Unit one underlies the majority of the area with two isolated outliers of Unit 2 mapped in the central portion of the claims, and in the northeast corner. The intrusive unit (Unit 1) has been correlated with the Early Tertiary interior phase of the Nicola batholith and has been described as a medium to coarse-grained, biotite-quartz-diorite with K-feldspar porphyroblasts up to 5 cm in size. The volcanic unit has been correlated with the Middle Eocene Kamloops Group and occurs as a very fine-grained to aphanitic, very fresh porphyritic olivine basalt. In one isolated outcrop, the volcanic unit was observed in contact with the intrusive.

Description of the Rock Units

Unit 1: is a medium to coarse-grained biotite-quartz-diorite to granodiorite with K-feldspar porphyroblasts varying in size 0.5 to 5.0 cm across. The unit displays a highly variable texture and grain size with a tendency towards a poorly developed, foliated texture in places. Quartz can be present as relatively coarse-grained, irregularly shaped clots in quantities of 15-20%, but is usually present as a very fine-grained, equigranular mosaic of anhedra intermingled with varying proportions of plagioclase and K-feldspar anhedra. Biotite is the dominant mafic mineral, usually fresh, but may be rimmed with chlorite. It occurs in quantities varying 15-20%, but is not evenly distributed, tending to occur in clots and stringers which are often intermixed with some fine-grained epidote. The perthitic porphyroblasts make up 5% of the total rock. They tend to contain small marginal inclusions of the other rock minerals. There are accessory amounts of magnetite, apatite and sphene disseminated through the rock.

The unit is generally quite fresh, except for minor alteration of biotite to chlorite. Where the intrusive contacts with the overlying volcanics, however, a higher degree of alteration is present. This consists of hematization of the biotite as well as alteration of the plagioclase to kaolin (?). A thin section report of an intrusive sample collected near a contact with the volcanics, suggested a metamorphic, rather than an igneous origin for this rock. Reasons include the erratic variations in grain size and texture, the presence of porphyroblasts rather than phenocrysts of K-feldspar, the abundant inclusions of the biotite within feldspar, and the rather uneven distribution of the constituent minerals. Rather than suggesting the rock is a metamorphosed arkosic sandstone, such indicators could also characterize an igneous rock which has undergone metasomatic alteration, i.e. associated with the extrusion of the volcanic (see thin section report in "Geology and Geochemistry of the STAKE Claim Group, J.R. Hill, November, 1978").

Unit 1 is characterized in the field by a scintillometer response averaging 22 c.p.s.

Unit 2: is a very fine-grained, porphyritic olivine basalt with abundant small phenocrysts of olivine and occasional phenocrysts of pyroxene. A thin-section report also noted very sparse phenocrysts of nepheline and plagioclase. The olivine phenocrysts form small, rounded crystals up to 3 mm across, but usually less than 1 mm. The olivine is usually partly replaced by secondary minerals, predominantly iddingsite. The groundmass is extremely fine-grained, and consists of plagioclase, clinopyroxene and magnetite. The thin-section study also reported the occurrence of xenolith of what was described as sedimentary material, but which may actually represent a fragment of the metamorphosed igneous country rock.

The volcanic unit, in outcrop, is very black and very hard. Fracture surfaces usually display carbonate coatings. Outcroppings form steep-sided, isolated knobs up to 25 m in height, displaying well-developed columnar jointing on cliff faces.

In outcrop, the unit is characterized by a scintillometer response averaging 10 c.p.s.

Structure and Alteration

A steeply-dipping contact between the Eocene volcanics and the intrusive unit was observed in outcrop within the main anomalous stream valley in the southwest quadrant of the property. The volcanic flow appears to have been extruded through the intrusive, perhaps via a fault zone as defined by the valley. Thus, the isolated knob of olivine basalt, mapped adjacent to the contact, may represent the top of a volcanic plug, extruded during Eocene times through a fault-controlled vent, which just reached surface and stopped before attaining significant areal extent. The fact that this isolated knob of basalt displays vertical columnar jointing, suggests a horizontal cooling surface, thus the implication that the outcrop represents the upper cooling surface of the volcanic plug. Similar occurrences over the property can be found in the northeast corner where a large, what appears to be isolated, knob of olivine basalt has been mapped; and in the southeast corner, just off the grid. The outcrops appear to be surrounded on at least three sides by the intrusive, thus the inference that they represent the remnants of isolated volcanic vents rather than a single flow unit.

Alteration within the two units was only observed at or near the actual contact zone between the olivine basalt and the biotite-quartz-diorite. The quartz-diorite tended to display hematization of the mafic minerals and alteration of the plagioclase to clay minerals. There was also a degree of minor foliation evident in the quartz diorite, in proximity to the volcanic unit. The basalt tended to be highly fractured with abundant yellowish to greenish-coloured carbonate precipitates on fracture surfaces. As mentioned previously, a thin-section study of the biotite-quartz-diorite taken from near the contact, suggested the rock was of metamorphic origin. However, taking into account it's location in the field, this same alteration is more than likely a result of contact metasomatic activity related to the extrusion of the volcanic material.

Economic Geology

Only very minor, what appears to be uranium mineralization, was observed in the volcanic unit at the contact with the intrusive. It consisted of a light yellowish to greenish coloured carbonate precipitate occurring on fracture surfaces of the olivine basalt. A chip sample of the basalt, including some of the carbonate material, was found to contain 13.5 ppm U. Slightly higher concentrations of uranium were also found in a sample of the intrusive taken from this same contact outcrop. In all, a total of 12 rock chip samples were collected over the property, and analysed for uranium and thorium (See PLAN 1). Analyses, listed in Appendix IV, showed a range of 0.5 to 4.5 ppm U and 6 to 21 ppm Th in Unit 1; 0.5 to 13.5 ppm U; 2 to 10 ppm Th in Unit 2. While samples from the quartz diorite averaged 2 ppm U, the contact sample contained 4.5 ppm U. As well, samples from the basalt averaged 0.5 ppm U, while the sample collected from the contact outcrop contained 13.5 ppm U.

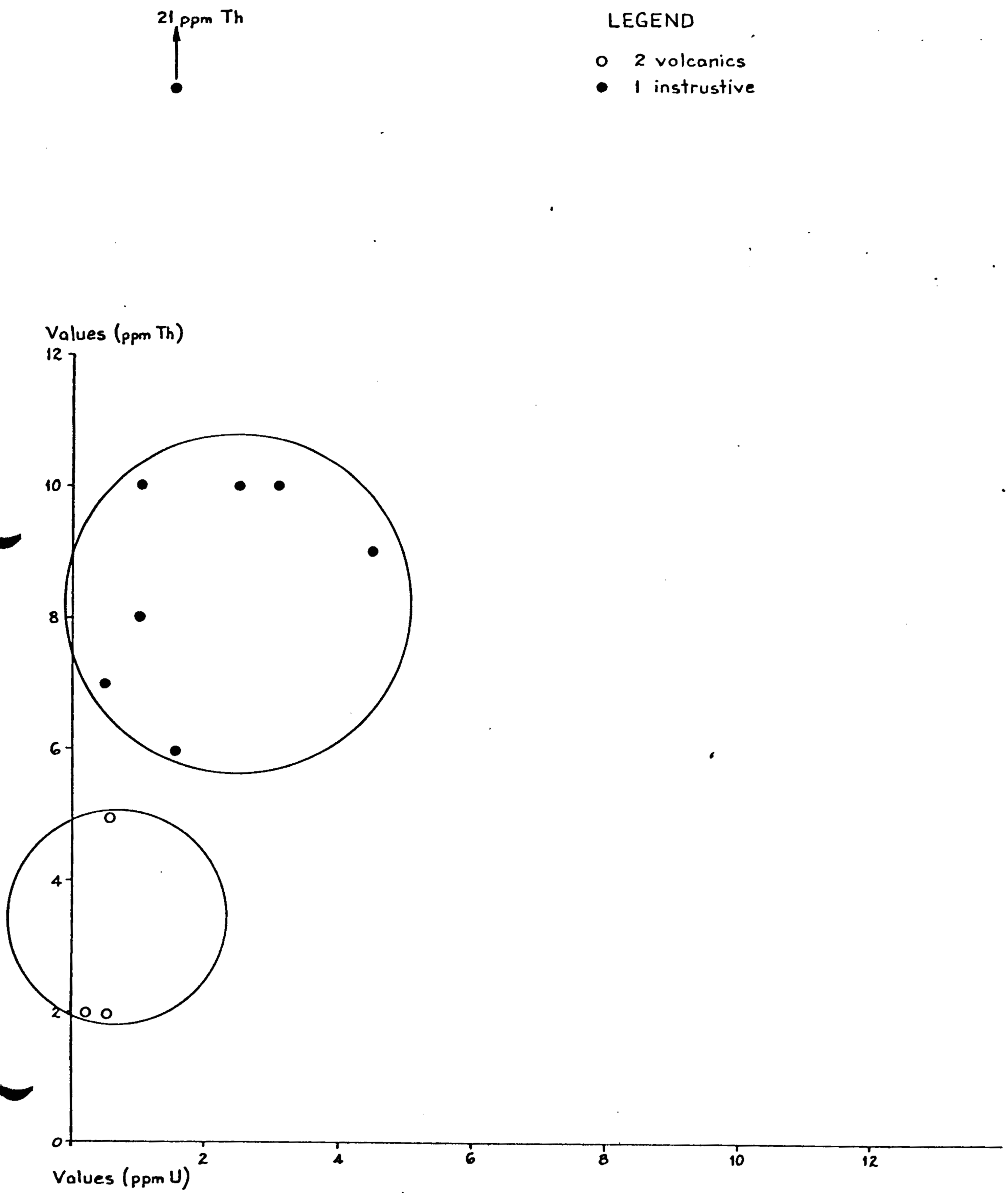
A plot of the uranium versus the thorium content of each rock sample can be seen in Fig. 2. The samples basically tend to group according to rock type. TABLE 2 in Appendix II lists the rock chip samples according to rock type, U and Th content and U/Th ratio.

Summary of the Geology

In summary, we therefore have anomalous uranium in stream sediments originating within a valley which apparently represents a fault-controlled vent zone in the quartz diorite intrusion through which was extruded the olivine-basalt during Eocene times. Associated, to some degree, must have been the release of uraniferous material within the contact zone, which is represented by the present-day carbonate deposits on fracture surfaces in the volcanic unit. Thus, the stream anomalies may have resulted from the build-up of uranium trapped in this higher than background carbonate material; or the anomalies may represent more significant deposits of uranium located at depth within the contact zone.

FIG. 2.

SCATTERGRAM OF URANIUM vs. THORIUM IN STAKE ROCKS.



SOIL GEOCHEMISTRY

Soil Development

The majority of the STAKE area was found to be underlain by soils displaying horizon development characteristic of a brown forest soil. All soils on the property have developed in well-drained environments within a parent material of glacial origin.

The profile of a typical brown forest soil on the STAKE property consisted of a 2-4 cm black A-horizon, highly organic consisting of decaying forest litter. A well developed B-horizon immediately underlay the "A" and consisted of a yellowish brown sandy silt with some root material. The B-horizon averaged 25 cm in thickness. The C-horizon or parent material consisted of an undisturbed, medium-brown, clayey silt with abundant rounded exotic cobbles to boulders.

For practical purposes, all soil samples collected during the most recent sampling survey on the STAKE property were collected from a depth 10 - 15 cm below ground level. This depth is well within the B-horizon which has been found to be the most metal-enriched horizon in soils of well-drained forested areas.

Sampling Procedures

The sampling area was covered by lines at 800' (244 m) intervals extending east from the N-S trending baseline. The lines were compassed, chained and flagged by members of the Canadian Oxy crew, and soil samples were collected along the grid lines at 200' (61 m) spacing.

All soil samples were stored in special, heavy-duty, prenumbered kraft envelopes, semi-dried in the field, and sent to Chemex Labs Ltd., Vancouver, for uranium analysis.

Laboratory Procedures

See Appendix I.

Standard Samples

To check the reproducibility and quality of the analytical work, standard samples were sent to the lab as part of each regular shipment. From the pre-numbered sequence of sample envelopes, 5 out of every 100 were set aside to be filled with the standard material. A moderately high uranium content standard was taken from the B-horizon of a soil pit located in a known, anomalously-enriched area. The material was made as homogeneous as possible and put in the standard envelopes.

The analytical results for the standard samples and their reproducibility are listed in TABLE 3 (Appendix II). Generally, the accepted figures for reproducibility of results in applied geochemistry is 30% for values 1 - 10 ppm, 20% for 10 - 50 ppm, and 10% for +50 ppm. For the most part, the STAKE standards are in accordance with the acceptable figures for their range of values. The few samples which show greater than 30% variance from the mean, are probably a result of poor homogeneity of the standard sample, rather than laboratory error. In particular, it is highly unlikely that the unusually anomalous value of sample number 79PR07287 is a result of laboratory error.

Statistical Treatment of Results

To determine mean and anomalous values for uranium, the element values obtained from the laboratory (Appendix III) were grouped into fixed ranges (Table 4 in Appendix II). A histogram of the frequency distribution was constructed (Figure 3) and an arbitrary best-fit curve was drawn through the majority of the data. Where this curve intersected the abscissa defined the cut-off for the "normal" or background population and thus, all values lying to the right of the cut-off were considered anomalous.

From Figure 3, the normal population shows a mean of 0.5 ppm U, with a cut-off value of just greater than 1.5 ppm U. Thus, all values $\geqslant$ 2.0 ppm U are considered anomalous. There is a slight tendency towards bimodality evident in the distribution, with the presence of a large anomalous population made up of values $\geqslant$3.0 ppm U. This group comprises 6.3% of the total sample set.

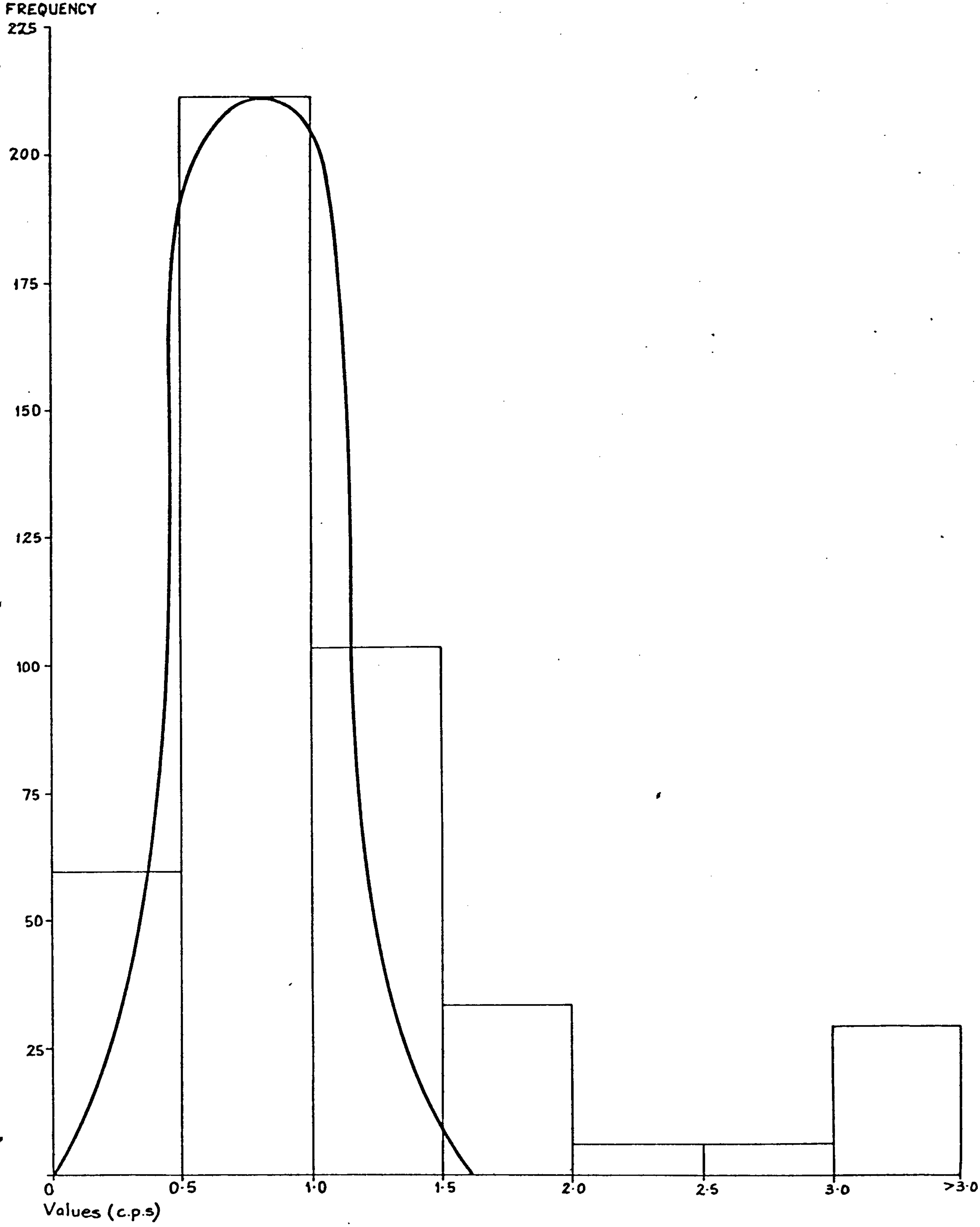
Results of the Soil Sampling Survey

Laboratory results for the soil samples were plotted on PLAN 2. Values ranged $<$0.5 to 390 ppm U. On the Plan, a completely filled northwest quadrant of the sample station symbol represents an anomalous value. Laboratory results were contoured to better delineate the areas of interest using a contour interval of 1-3-10 ppm U (PLAN 3).

Discussion of Anomalies

Based on the 3.0 ppm U contour, a total of 8 single-point and 6 multi-point anomalies have been defined. The majority of the higher level anomalies, as defined by the 10 ppm U contour, correlate

FREQUENCY DISTRIBUTION OF URANIUM IN STAKE SOILS.



with the drainage systems of the area, which have already been shown to contain anomalous uranium. Especially obvious are, 1) the anomalies which overlie the drainage system paralleling the highway along the western boundary of the area; 2) the anomalies overlying the stream in the southwest corner, which apparently follows a fault-controlled valley; and 3) the soil anomaly overlying the stream draining the southeast corner of the grid. The majority of the remaining, less significant soil anomalies are scattered over the property with no apparent relation to the drainage or to underlying geological trends.

An examination of the background contour (1.0 ppm U level) shows a dominant trend to the north-northeast. This can be considered a reflection of the major drainage patterns, but with a more obvious, more dominant trend reflecting the inferred structural trends of the area. In particular, a major continuous zone is defined by the background contour in the western portion of the area, which corresponds in part to the paralleling drainage system, and in part to the inferred fault zone in the southwest corner. Therefore, the obvious interrelation of both factors is quite evident in the soil geochemistry of the STAKE area.

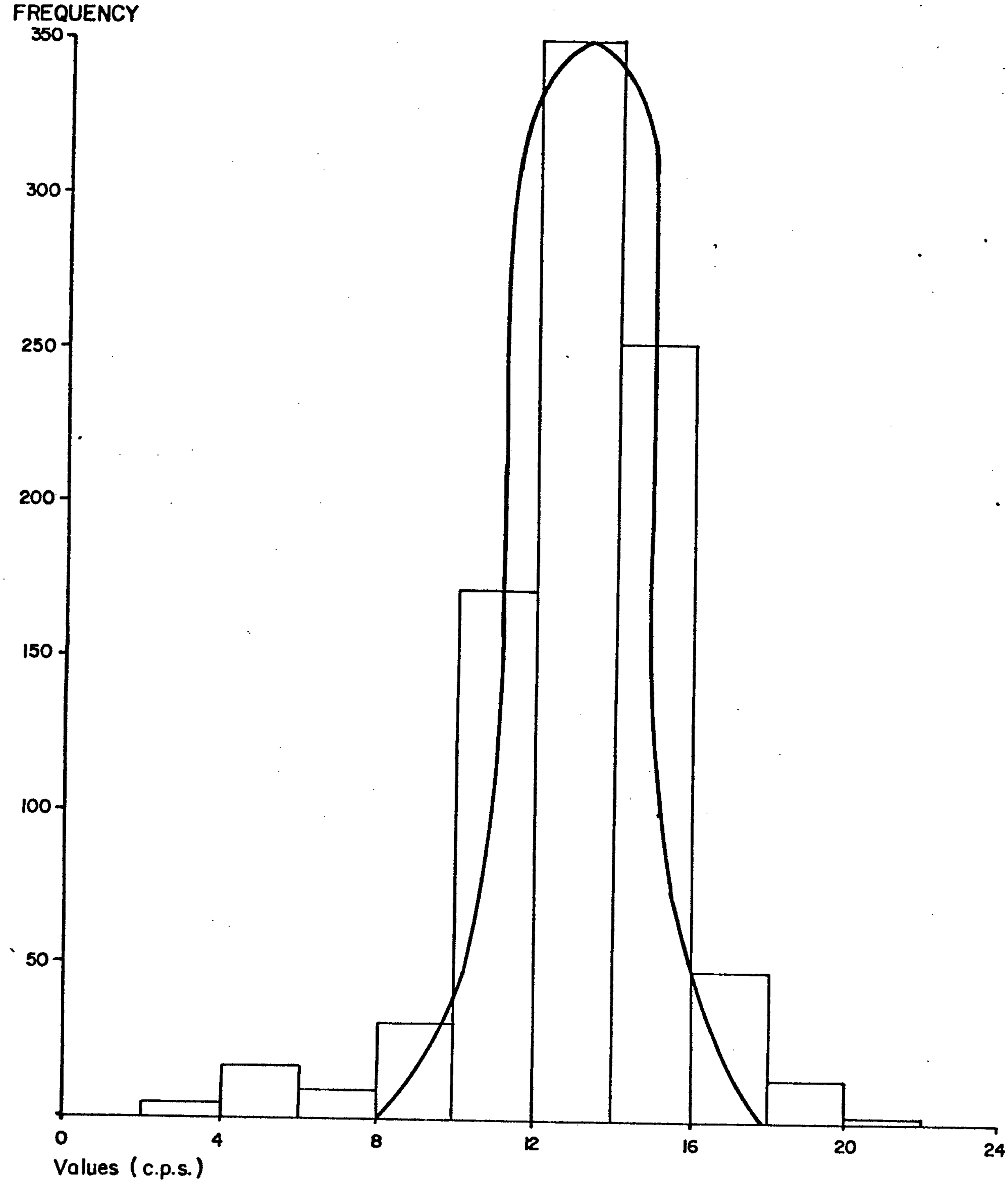
SCINTILLOMETER SURVEY

A ground radiometric survey was conducted on the 800' (244 m) grid, in conjunction with the soil sampling program. Readings of total background radiation were recorded at 100' (30 m) intervals along the lines, using a hand-held URTEC UG 130 scintillometer set on the TC2 channel, from a height of approximately 1 m above ground level. The TC2 channel measured all energies above 0.40 MeV over an integrating time of 10 seconds.

PLAN 4 shows the contoured scintillometer results. To determine mean and anomalous values, the readings were first grouped into fixed ranges (Table 5 in Appendix II), and a histogram of the frequency distribution was constructed (Fig. 4). An arbitrary best-fit curve was drawn through the majority of the data, and where this curve intersected the abscissa defined the cut-off for the "normal" or background population. All values lying to the right of the cut-off were considered anomalous. From Fig. 4, the cut-off for the STAKE scint data was just less than 18 c.p.s., therefore, all values greater than or equal to 18 c.p.s. were considered anomalous, compared to a mean value of approximately 13 c.p.s.

Based on contour levels of 16 and 18 c.p.s., a major anomalous zone trending north north-east has been well defined in the western portion of the claims. The trend overlies the inferred fault which, as has been suggested, is believed to have controlled the emplacement of the olivine-basalt plug. The anomalous zone corresponds closely with similar trends displayed in the soil geochemistry results. However, what is most important, is that the scintillometer anomalies are not related entirely to the distribution of outcrops, as has been the case in many other properties. The anomalous zone does seem to reflect the inferred geological structure underlying the area, and provides additional evidence for the presence of some degree of uranium mineralization.

FREQUENCY DISTRIBUTION OF STAKE SCINTILLOMETER RESULTS



CONCLUSIONS AND RECOMMENDATIONS

An examination of the compilation map (PLAN 5), provides a summary of the data collected to-date from the STAKE property.

Geological mapping of the area has recognized the occurrence of at least one volcanic event which has resulted in the extrusion of the olivine-basalt through what is believed to be a fault-controlled vent in the older intrusive unit. According to the rock geochemistry results, associated with the volcanic activity, or with later mineralization events, was the release of uraniferous material. Further evidence leading to this conclusion lies in the presence of; 1) anomalous uranium in the sediments of a stream which follows this fault-controlled valley; 2) soil geochemical anomalies partially overlying the fault zone, and extending further north; and 3) anomalous scintillometer trends which correspond with the inferred fault zone. There is also evidence to suggest that a similar environment may exist underlying the anomalous stream valley in the southeast corner of the grid.

Sufficient evidence has been produced to conclude that there is present, to some degree, uranium mineralization which is either related to faulting activity, related to the emplacement of the basalt, or related to a combination of the two events.

Further work on the STAKE property should include detailed prospecting of the anomalous stream valley in the southwest corner, in an effort to determine if additional mineralization is exposed or if there is additional evidence for a fault-controlled origin. The actual contact outcrop should also be re-examined to determine in what form the uranium mineralization exists in both the basalt and the diorite. Ideally, some form of geophysical work should be initiated in an effort to determine the position, and perhaps the nature of the contact between the two units. Such work may generate a suitable target for diamond drilling.

Respectfully submitted,

Johannes R. Hill

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Author's Qualifications

Johannes R. Hill

Education - Graduated Queen's University,
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B.Sc. Honours in Geology, 1975

Work Experience - Employed as Canadian Occidental Petroleum Ltd. field exploration geologist since 1975. Carried out and supervised geological programs across Canada based out of Minerals Division office, Toronto, Ontario.

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Cockfield, W.E., 1948. Geology and Mineral Deposits of Nicola map-area, British Columbia. Geol. Surv., Canada, Mem. 249, 164 pp.

Preto, V.A., Osatenko, M.J., McMillan, W.J., Armstrong R.L. 1979. Isotopic dates and strontium isotopic ratios for plutonic and volcanic rocks in the Quesnel Trough and Nicola Belt, south-central British Columbia. Can. J. Earth Sci., 16, pp. 1658 - 1672.

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APPENDIX I.

LABORATORY PROCEDURES

Appendix I - Laboratory Procedures

1. Soil Samples

Samples are sorted and dried at $50^{\circ}C$ for approximately two hours. The dried material is passed through a -80 mesh (177 micron) screen; fine material is retained for analysis and coarser material discarded.

2. Rock Samples

The entire sample is crushed. If necessary (> 250 gm), the sample is split on a Jones splitter, the reject being retained for a short period. The split fraction is pulverized such that 90% passes a 200 mesh (74 micron) sieve.

3. Geochem Procedures

A).. Uranium (Fluorometric)

A 1-gram sample of -80 mesh soil or -200 mesh rock is digested with hot $HClO_4$ - HNO_3 to strong fumes of $HClO_4$ for approximately 2 hours. The digest is cooled, diluted to volume and mixed.

An aliquot is extracted into methyl isobutyl ketone (MIBK) with the aid of an aluminum nitrate-tetrapropyl ammonium hydroxide salting solution. The uranium in the MIBK is determined by evaporating a portion of the MIBK in a platinum dish and fusing with a mixture of Na_2CO_3 - K_2CO_3 - NaF. The fluorescence of the fused flux is measured to determine the uranium content.

Detection limit is 0.5 ppm.

B). Thorium (Neutron Activation)

A 1-gram sample of -80 mesh soil or -200 mesh rock material is weighed into a polyethelene vial and heat sealed. Samples, along with standards, are then irradiated for sufficient periods to receive a neutron dose of 1 - 3 X $10^{15}/CM^{2}$. Following irradiation, samples are cooled for at least one week and thorium is determined by the measurement of its characteristic gamma ray using a semiconductor (Ge/Li) detector.

Detection limit is 1 ppm.

APPENDIX II

TABLES

TABLE 2

DETAILS OF ROCK SAMPLES AND ANALYSES - STAKE ROCKS

SAMPLE NUMBER	LOCATION	ROCK UNIT	DESCRIPTION	U (ppm)	Th (ppm)	SCINTILLOMETER RESPONSE (c.p.s.
79PR7901	L40N/16E	2	Massive xeno-liths of 1.	0.5	5	18
7902	L40N/16E	1	Hematized, contact zone.	4.5	9	24
7903	L40N/16E	2	Carbonate on fractures, con-tact.	13.5	9	24
7904	L56N/22E	1	Slightly folia-ted.	1.5	6	23
7905	84N/37E	1	Slightly altered.	2.5	10	30
7906	L88N/65E	2	Massive, cliff-face.	0.5	2	8
7907	L97N/68E	1	Unaltered.	3.0	10	21
7951	L48N/13E	1	Slightly foliated.	1.0	10	28
7952	L48N/14E	1	Slightly foliated.	1.5	21	
7953	L48N/20E	2	Massive	<0.5	2	
7954	L80N/29E	1	Boulder ?	0.5	7	24
7955	L64N/32E	1	Unaltered	1.0	8	27

TABLE 3

REPRODUCIBILITY OF STAKE STANDARD SOIL SAMPLES

SAMPLE NO.	VALUE (ppm U)	% VARIANCE FROM MEAN
79PRO7010	7.5	53
7032	4.5	8
7059	5.0	2
7080	7.0	43
7093	5.0	2
7150	6.0	22
7178	6.0	22
7193	5.0	2
7211	6.0	22
7238	5.0	2
7254	5.5	12
7271	2.0	59
7287	60 ?	-
7312	2.5	49
7332	4.5	8
7351	2.0	59
7371	6.0	22
7408	4.0	18
7423	5.0	2
7442	5.0	2
7468	5.0	2

4.9 = Mean

TABLE 4

FREQUENCY DISTRIBUTION OF URANIUM IN STAKE SOILS

INTERVAL (ppm U)	FREQUENCY	% FREQUENCY	% CUMULATIVE FREQUENCY
<0.5	59	13.2	13.2
0.5 - 0.9	211	47.3	60.5
1.0 - 1.4	103	23.1	83.6
1.5 - 1.9	33	7.4	91.0
2.0 - 2.4	6	1.3	92.3
2.5 - 2.9	6	1.3	93.6
≥3.0	28	6.3	100
	446		

RANGE = <0.5 - 390 ppm U

MEAN = 0.5 ppm U

ANOMALOUS = ≥3.0 ppm U.

TABLE 5

FREQUENCY DISTRIBUTION OF STAKE SCINTILLOMETER RESULTS

INTERVAL (c.p.s.)	FREQUENCY	% FREQUENCY	% CUMULATIVE FREQUENCY
3,4	4	0.4	0.4
5,6	16	1.8	2.2
7,8	9	1.0	3.2
9,10	31	3.5	6.7
11,12	170	19.1	25.8
13,14	350	39.2	65.0
15,16	252	28.2	93.2
17,18	47	5.3	98.5
19,20	12	1.4	99.9
21,22	1	0.1	100.0
	892		

RANGE = 4 - 21 c.p.s.

MEAN = 13 c.p.s.

ANOMALOUS = ⩾18 c.p.s.

APPENDIX III

LABORATORY GEOCHEMICAL RESULTS

SOILS

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: [redacted] 984-0221
AREA CODE: 604
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division,
Ste. 311 - 215 Carlingview Dr.,
Rexdale, Ontario M9W 5X8

ATTN: PROJECT: Prinic - Stake - Soil CC: J. Hill

CERTIFICATE NO. 49281
INVOICE NO. 31864
RECEIVED Aug. 2/79
ANALYSED Aug. 14/79

SAMPLE NO. :	PPM U
79 PR 7001	0.5
7002	0.5
7003	1.0
7004	0.5
7005	0.5
7006	0.5
7007	1.5
7008	0.5
7009	0.5
7010	7.5
7011	0.5
7012	1.0
7013	1.0
7014	1.0
7015	1.0
7016	1.0
7017	0.5
7018	0.5
7019	1.0
7020	1.0
7021	1.0
7022	1.0
7023	1.0
7024	1.0
7025	1.0
7026	1.5
7027	1.0
7028	0.5
7029	0.5
7030	1.0
7031	1.5
7032	4.5
7033	0.5
7034	0.5
7035	0.5
7036	1.0
7037	1.5
7038	0.5
7039	0.5
79 PR 7040	0.5

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: Hart Bichler

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: [redacted] 984-5221
AREA CODE: 604
TELEX: 043-52597

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 49282
INVOICE NO. 31864
RECEIVED Aug. 2/79
ANALYSED Aug. 14/79

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division,
Ste. 311 - 215 Carlingview Dr.,
Rexdale, Ontario M9W 5X8

ATTN PROJECT: Prinic - Stake - Soil CC: J. Hill

SAMPLE NO. :	PPM U
79 PR 7041	0.5
7042	0.5
7043	1.0
7044	0.5
7045	0.5
7046	12.5
7047	35
7048	0.5
7049	0.5
7040	14.0
7051	0.5
7052	0.5
7053	0.5
7054	0.5
7055	1.0
7056	1.0
7057	1.0
7058	1.0
7059	5.0
7060	390
7061	1.5
7062	1.0
7063	0.5
7064	0.5
7065	1.5
7066	0.5
7067	1.5
7068	1.0
7069	2.0
7070	0.5
7071	0.5
7072	1.0
7073	0.5
7074	1.0
7075	1.0
7076	0.5
7077	1.0
7078	1.0
7079	1.0
79 PR 7080	7.0

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: Hart Bichle

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: [redacted] 984-0221
AREA CODE: 604
TELEX: 043-52597

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 49283

INVOICE NO. 31864

RECEIVED Aug. 2/79

ANALYSED Aug. 14/79

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division,
Ste. 311 - 215 Carlingview Dr.,
Rexdale, Ontario M9W 5X8

ATTN: PROJECT: Prinic - Stake - Soil CC: J. Hill

SAMPLE NO. :	PPM U
79 PR 7081	6.0
7082	0.5
7083	1.0
7084	0.5
7085	0.5
7086	1.5
7087	<0.5
7088	3.5
7089	1.0
7090	1.0
7091	1.5
7092	<0.5
7093	5.0
7094	1.0
7095	0.5
7096	0.5
7097	0.5
7098	1.0
7099	0.5
7100	1.0
7129	15.0
7130	0.5
7131	<0.5
7132	1.0
7133	<0.5
7134	0.5
7135	<0.5
7136	0.5
7137	<0.5
7138	<0.5
7139	0.5
7140	<0.5
7141	1.0
7142	0.5
7143	<0.5
7144	<0.5
7145	1.5
7146	1.5
7147	0.5
79 PR 7148	0.5

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: Hart Bichler

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: [redacted] 984-0221
AREA CODE: 604
TELEX: 043-52597

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 49284
INVOICE NO. 31864
RECEIVED Aug. 2/79
ANALYSED Aug. 14/79

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division,
Ste. 311 - 215 Carlingview Dr.,
Rexdale, Ontario M9W 5X8

ATTN:
PROJECT: Prinic - Stake - Soil CC: J. Hill

SAMPLE NO. :	PPM U
79 PR 7149	1.0
7150	6.0
7151	0.5
7152	1.0
7153	6.0
7154	1.0
7155	7.5
7156	0.5
7157	0.5
7158	0.5
7159	0.5
7160	0.5
7161	1.0
7162	0.5
7163	1.5
7164	1.0
7165	1.0
7166	53
7167	1.0
7168	1.0
7169	1.0
7170	1.0
7171	1.0
7172	1.0
7173	1.5
7174	0.5
7175	3.0
7176	1.0
7177	0.5
7178	6.0
7179	0.5
7180	1.0
7181	1.0
7182	1.0
7183	1.5
7184	1.0
7185	2.0
7186	1.0
7187	0.5
79 PR 7188	1.5

CERTIFIED BY: Hart Bichler

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: [redacted] 984-0221
AREA CODE: 604
TELEX: 043-52597

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 49285

INVOICE NO. 31864

RECEIVED Aug. 2/79

ANALYSED Aug. 14/79

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division,
Ste. 311 - 215 Carlingview Dr.,
Rexdale, Ontario M9W 5X8

ATTN: PROJECT: Prinic - Stake - Soil CC: J. Hill

SAMPLE NO. :	PPM U
79 PR 7189	2.0
7190	1.0
7191	0.5
7192	1.0
7193	5.0
7194	2.5
7195	0.5
7196	1.0
7197	1.0
7198	0.5
7199	1.0
7200	1.0
7201	1.0
7202	1.0
7203	0.5
7204	0.5
7205	0.5
7206	0.5
7207	1.0
7208	1.0
7209	1.0
7210	1.5
7211	6.0
7212	1.0
7213	5.0
7214	1.0
7215	1.0
7216	1.0
7217	1.5
7218	0.5
7219	0.5
7220	2.0
7221	1.5
7222	2.5
7223	0.5
7224	0.5
7225	0.5
7226	0.5
7227	1.0
79 PR 7228	0.5

CTA MEMBER CANADIAN TESTING ASSOCIATION

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CHEMEX LABS LTD.

212 BROOKSBANK AVE.
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AREA CODE: 604
TELEX: 043-52597

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 49286

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division,
Ste. 311 - 215 Carlingview Dr.,
Rexdale, Ontario M9W 5X8

ATTN: PROJECT: Prinic - Stake - Soil CC: J. Hill

INVOICE NO. 31864
RECEIVED Aug. 2/79
ANALYSED Aug. 14/79

SAMPLE NO. :	PPM U
79 PR 7229	0.5
7230	0.5
7231	0.5
7232	0.5
7233	0.5
7234	0.5
7235	0.5
7236	1.0
7237	0.5
7238	5.0
7239	14.5
7240	22.5
7241	0.5
7242	0.5
7243	0.5
7244	0.5
7246	26
7247	0.5
7248	0.5
7249	0.5
7250	0.5
7251	0.5
7252	0.5
7253	0.5
7254	5.5
7255	3.5
7256	1.0
7257	0.5
7258	0.5
7259	0.5
7260	1.0
7261	0.5
7262	0.5
7263	0.5
7264	0.5
7265	1.5
7266	0.5
7267	1.5
79 PR 7268	0.5

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CHEMEX LABS LTD.

212 BROOKSBANK AVE.
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AREA CODE: 604
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CERTIFICATE NO. 49287
INVOICE NO. 31864
RECEIVED Aug. 2/79
ANALYSED Aug. 14/79

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division,
Ste. 311 - 215 Carlingview Dr.,
Rexdale, Ontario M9W 5X8

ATTN: PROJECT: Prinic - Stake - Soil CC: J. Hill

SAMPLE NO. :	PPM U
79 PR 7269	0.5
7270	0.5
7271	2.0
7272	0.5
7273	<0.5
7274	0.5
7275	0.5
7276	0.5
7277	0.5
7278	<0.5
7279	1.0
7280	0.5
7281	0.5
7282	0.5
7283	0.5
7284	1.0
7285	0.5
7286	<0.5
7287	60
7288	1.0
7289	7.0
7290	0.5
7291	1.5
7292	0.5
7293	0.5
7294	0.5
7295	0.5
7296	1.0
7297	0.5
7298	0.5
7299	1.0
7300	0.1
7301	0.5
7302	<0.5
7303	<0.5
7304	<0.5
7305	1.0
7306	1.0
7307	0.5
79 PR 7308	0.5

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: Hart Bichle

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: [redacted] 984-0221
AREA CODE: 604
TELEX: 043-52597

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 49288
INVOICE NO. 31864
RECEIVED August 2, 1979
ANALYSED August 14, 1979

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division
311 - 215 Carlingview Dr.,
Rexdale, Ont.
ATTN: M9W 5X8

c.c. Penticton, Kamloops
PRINIC-STAKE-SOIL

SAMPLE NO. :	PPM U
79 PR 7309	<0.5
7310	1.0
7311	1.5
7312	2.5
7313	0.5
7314	<0.5
7315	0.5
7316	0.5
7317	7.0
7318	<0.5
7319	2.5
7320	1.0
7321	<0.5
7322	<0.5
7323	<0.5
7324	0.5
7325	1.0
7326	0.5
7327	<0.5
7328	1.5
7329	2.0
7330	2.5
7331	2.5
7332	4.5
7333	<0.5
7334	1.5
7335	0.5
7336	0.5
7337	1.0
7338	1.0
7339	1.5
7340	0.5
7341	<0.5
7342	<0.5
7343	<0.5
7344	<0.5
7345	<0.5
7346	<0.5
7347	<0.5
79 PR 7348	<0.5

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: Hart Bichle

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: [redacted] 984-0221
AREA CODE: 604
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• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 49289
INVOICE NO. 31864
RECEIVED August 2, 1979
ANALYSED August 14, 1979

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division
311 - 215 Carlingview Dr.,
Rexdale, Ont.
M9W 5X8

ATTN:

c.c. Penticton, Kamloops
PRINIC-STAKE-SOIL

SAMPLE NO. :	PPM U
79 PR 7349	2.0
7350	1.5
7351	2.0
7352	<0.5
7353	0.5
7354	<0.5
7355	<0.5
7356	<0.5
7357	0.5
7358	0.5
7359	1.5
7360	0.5
7361	1.5
7362	0.5
7363	<0.5
7364	0.5
7365	1.0
7366	0.5
7367	0.5
7368	1.0
7369	4.5
7370	1.0
7371	6.0
7372	1.0
7373	0.5
7374	0.5
7401	0.5
7402	0.5
7403	0.5
7404	1.0
7405	0.5
7406	0.5
7407	0.5
7408	4.0
7409	1.5
7410	0.5
7411	0.5
7412	6.0
7413	0.5
79 PR 7414	0.5

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: Hart Bichler

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: [redacted] 984-0221
AREA CODE: 604
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 49290
INVOICE NO. 31864
RECEIVED August 2, 1979
ANALYSED August 14, 1979

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division
311 - 215 Carlingview Dr.,
Rexdale, Ont.
ATTN: M9W 5X8

Penticton, Kamloops (c.c.)
PRINIC-STAKE-SOIL

SAMPLE NO. :	PPM U
79 PR 7415	0.5
7416	0.5
7417	1.5
7418	0.5
7419	0.5
7420	3.0
7421	0.5
7422	0.5
7423	5.0
7424	0.5
7425	0.5
7426	0.5
7427	0.5
7428	0.5
7429	1.0
7430	0.5
7431	0.5
7432	0.5
7433	0.5
7434	0.5
7435	0.5
7436	0.5
7437	0.5
7438	0.5
7439	0.5
7440	0.5
7441	0.5
7442	5.0
7443	3.5
7444	<0.5
7445	<0.5
7446	<0.5
7447	<0.5
7448	11.5
7449	1.0
7450	2.5
7451	5.5
7452	7.0
7453	<0.5
79 PR 7454	<0.5

CTA MEMBER CANADIAN TESTING ASSOCIATION

CERTIFIED BY: Hart Bichle

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: [redacted] 984-0221
AREA CODE: 604
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 49291
INVOICE NO. 31864
RECEIVED August 2, 1979
ANALYSED August 14, 1979

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division
311 - 215 Carlingview Dr.,
Rexdale, Ont.
M9W 5X8

ATTN:

c.c. Penticton, Kamloops
PRINIC-STAKE-SOIL

SAMPLE NO. :	PPM U
79 PR 7455	<0.5
7456	<0.5
7457	0.5
7458	0.5
7501	0.5
7502	<0.5
7503	<0.5
7504	<0.5
7505	<0.5
7101	<0.5
7102	<0.5
7103	<0.5
7104	<0.5
7105	0.5
7106	<0.5
7107	<0.5
7108	0.5
7109	4.5
7110	<0.5
7111	<0.5
7112	<0.5
7113	0.5
7114	0.5
7115	<0.5
7116	0.5
7117	1.5
7118	0.5
7119	0.5
7120	0.5
7121	0.5
7122	4.0
7123	1.0
7124	0.5
7125	0.5
7126	0.5
7127	0.5
79 PR 7128	0.5

CERTIFIED BY: Hart Bichler

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: [redacted] 984-0221
AREA CODE: 604
TELEX: 043-52597

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CERTIFICATE OF ANALYSIS

TO: Canadian Occidental Petroleum Ltd.
Minerals Division
Ste. 311 - 215 CArlingview Dr.
Rexdale, Ont. M9W 5X8

ATTN:
PROJECT: PRINIC-STAKE CLAIMS CC: J. Hill

CERTIFICATE NO. 49513
INVOICE NO. 32083
RECEIVED Aug. 12/79
ANALYSED Aug. 23/79

SAMPLE NO. :	PPM U
79PR 7459	0.5
7460	1.0
7461	1.0
7462	1.5
7463	1.0
7464	10.5
7465	1.0
7466	1.0
7467	0.5
7468	5.0
7469	0.5
7470	1.5
7471	0.5
7472	0.5
7473	0.5
7474	0.5
7475	0.5
7476	0.5
7477	0.5
7478	0.5
7479	0.5
7480	0.5
7481	0.5
7482	1.0
7483	0.5
7484	1.0
7485	0.5
7486	0.5
7487	1.0
7488	1.0
7489	0.5
79PR 7490	6.5

CTA
MEMBER
CANADIAN TESTING
ASSOCIATION

CERTIFIED BY: Norman F. Cardan

APPENDIX IV

LABORATORY GEOCHEMICAL RESULTS

ROCKS

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J2C1
TELEPHONE: 984-0221
AREA CODE: 604
TELEX: 04-352597

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 49268
INVOICE NO. 31845
34009 - Th only
RECEIVED August 2, 1979
ANALYSED August 13, 1979

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division
311 - 215 Carlingview Dr.,
Rexdale, Ont.
ATTN M9W 5X8

c.c. Penticton
PRINIC-STAKE-ROCK

SAMPLE NO. :	PPM U	PPM Th	U/Th Ratio
~~7901~~	~~0.5~~	~~5~~	~~0.1~~
7902	4.5	9	0.5
7903	13.5	9	1.5
7904	1.5	6	0.25
7905	2.5	10	0.25
~~7906~~	~~0.5~~	~~2~~	~~0.25~~
7907	3.0	10	0.3
7951	1.0	10	0.1
7952	1.5	21	0.07
7953	<0.5	2	0.12
~~7954~~	~~0.5~~	~~7~~	~~.07~~
7955	1.0	8	0.12

CTA
MEMBER
CANADIAN TESTING
ASSOCIATION

CERTIFIED BY: D.F. McAdam

APPENDIX V

Report by C.F. Gleeson, PhD., P.Eng.

Geochemical Consultant

October 19, 1979

STAKE

Geology: Biotite granodiorite - much chlorite and hematite alteration with a neck (?) of Eocene basalt.

Rock analyses: $CaCO_3$ fracture in the basalt (#7903) contains 13.5 ppm U. A sample of biotite quartz diorite, highly hematized contains 4.5 ppm U. The outcrop registered 24 cps.

Geochemistry: Several linear anomalous zones (3 - 53 ppm U) trending about 030T (as defined by the 1 ppm contour) are present in the soils. The anomalies are underlain by granodiorite. The anomalies define 030^{o} structures which cut the granodiorite.

Weak scint anomalies (<20 cps.) have the same N 30^{o} E trend and in places overlap with the soil anomaly.

Conclusions: U on this property is probably structurally controlled in 030 T fractures in granodiorite and basalt. No further work.

STATEMENT OF EXPENDITURES

CLAIMS STAKE 1-2 (30 Units)

RECORD NUMBERS 1251-1252

		Pro-rated Costs
Salaries and Benefits		$ 3,892.29
Travel and Accommodation		548.53
Drafting and reproduction		295.30
Consultant		142.01
Camp costs and supplies		1,178.76
Rental of equipment		1,329.45
Administration @ 10%		738.66
SUB TOTAL		8,125.00
Linecutting 8.7 km @ $218	$ 1890.00[2]	
Geochemical analyses	1245.64[3]	
PAC	-	3,135.64
TOTAL		$ 11,260.64

Notes

1) Pro-rated on basis of 25 man-days worked on claims conducting geological/geochemical/geophysical surveys out of a total of 798 man-days spent on these surveys during Project Prinic (see attached breakdown on following sheet)

2) Linecutting completed by Futura DevelopmentsReg'd.,Penticton, B.C.

3) Geochemical analyses completed by Chemex Labs, Vancouver, B.C.

PROJECT PRINIC EXPENDITURES- 1979

Geological,Geochemical/Geophysical Surveys
Excl.linecutting, drilling,staking and geochemical analyses

Salaries and Benefits	$ 124,242
Travel and Accommodation	17,509
Drafting and Reproduction	9,426
Consultant	4,533
Camp Costs and Supplies	37,626
Rental of Equipment	42,436
Administration @ 10%	23,578
TOTAL	$ 259,350[1]

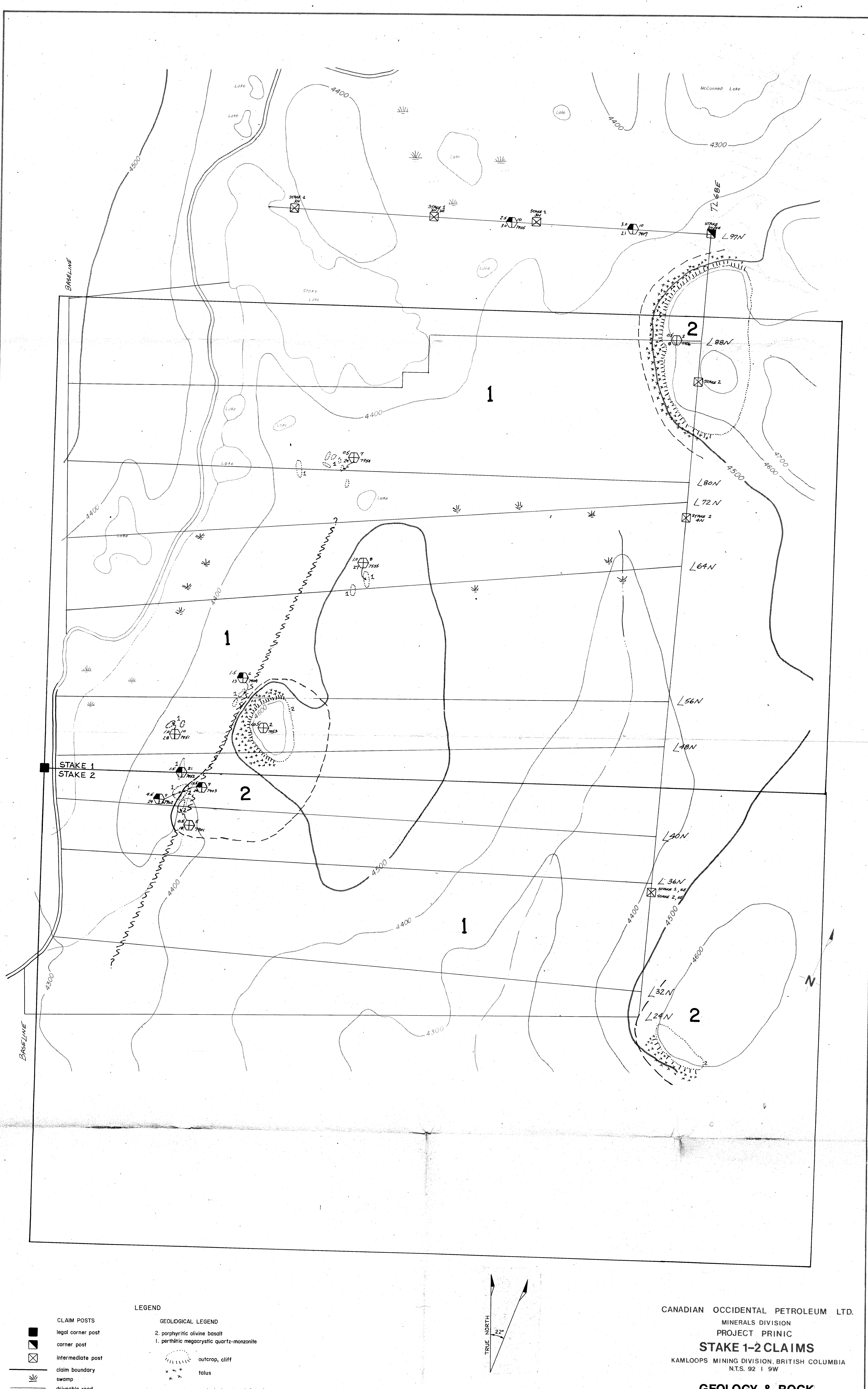
Note:

[1]A total of 798 man-days was spent carrying out geological/geochemical/ geophysical surveys during summer 1979 on Project Prinic (refer attached man-day breakdown)

PROJECT PRINIC EXPENDITURES

1979 FIELD WORK (excluding drilling, geochem analyses staking)

	Claim	No. of Man-Days Work	Pro-rated Survey[1] cost @$325/man-day	No. of miles(km) of linecutting	Linecutting Cost @$350/1.m.(or $218/km)
1)	MAR 1-2	35	$ 11,375	5.5(8.9)	$ 1,925
2)	WAS 1-2	15	4,875	9.1(14.6)	3,185
3)	GLAD 1-4) 5-10)	11	3,575	—	—
4)	SEC 1	20	6,500	8.5(13.7)	2,975
5)	FIN 1-2	10	3,250	-	-
6)	NIC	50	16,250)		
		45	14,625)	28.2(45.4)	9,870
		40	13,000)		
7)	FRED 1-2) 3-5)	20	6,500	14.8(23.8)	5,180
8)	LINK 1-3	144	46,800	33.5(53.9)	11,725
9)	BALD 1-4	55	17,875	36.6(58.9)	12,810
10)	ENEAS 1-5	44	14,300	11.1(17.9)	3,885
11)	TOK 1-4	70	22,750	41.8(67.3)	14,630
12)	DEMUTH 1	10	3,250	5.4(8.7)	1,890
13)	DARK 1-5	32	10,400	32.4(52.1)	16,524
14)	COMA 1-3	2	650	-	-
15)	FOX 1	10	3,250	4.2(6.8)	1,470
16)	MEL 1-2	20	6,500	6.4(10.3)	2,240
17)	SHORT 1	-	-	-	-
18)	SHIN 1-2	-	-	-	-
19)	CLARK 1-6	125	40,625	19.4(31.2)	6,790
20)	DROP 1-2	15	4,875	3.4(5.5)	1,190
21)	STAKE 1-2	25	8,125	5.4(8.7)	1,890
	TOTAL	798	$259,350	233.3(375.4)	$98,179



LEGEND

CLAIM POSTS

- legal corner post
- corner post
- intermediate post
- claim boundary
- swamp
- driveable road
- stream

ROCK GEOCHEMISTRY

Sample Site — ppm U, ppm Th, Scintillometer Response

Anomalous — ≥1·5ppm U

GEOLOGICAL LEGEND

2. porphyritic olivine basalt
1. perthitic megacrystic quartz-monzonite

- outcrop, cliff
- talus
- geological contact, inferred
- geological contact, proven
- fault, inferred

CANADIAN OCCIDENTAL PETROLEUM LTD.

MINERALS DIVISION

PROJECT PRINIC

STAKE 1–2 CLAIMS

KAMLOOPS MINING DIVISION, BRITISH COLUMBIA
N.T.S. 92 I 9W

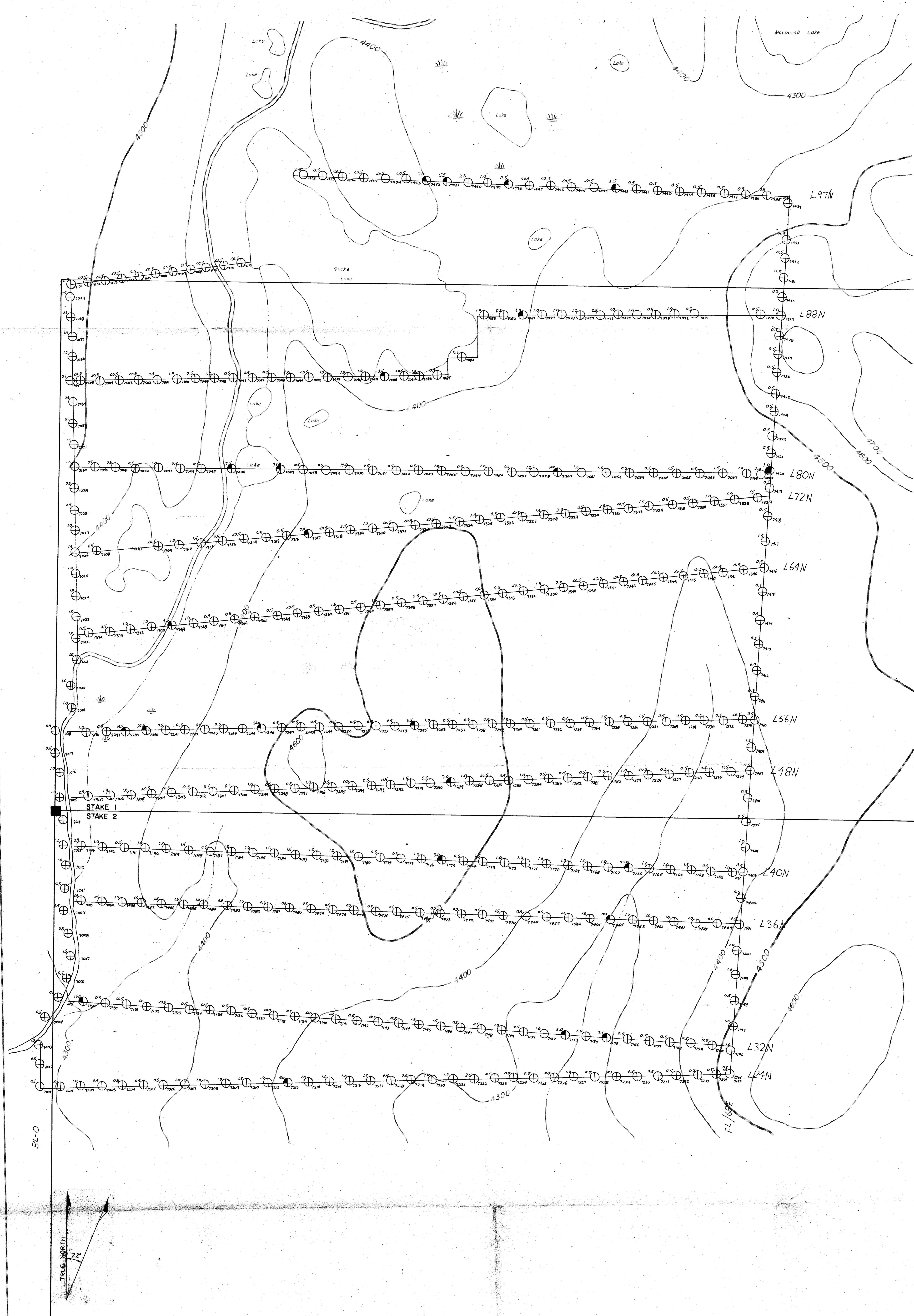
GEOLOGY & ROCK GEOCHEMISTRY

SCALE IN FEET
400 0 400 800 1200

AUGUST 1979

PLAN 4

7994



LEGEND

SAMPLE SITE

ppm U
79PR Sample Number

ANOMALOUS

≥3.0 ppm U
79PR Sample Number

Legal Corner Post

Claim Boundary

CANADIAN OCCIDENTAL PETROLEUM LTD.

MINERALS DIVISION

PROJECT PRINIC

STAKE 1-2 CLAIMS

KAMLOOPS MINING DIVISION, BRITISH COLUMBIA

N.T.S. 92 I 9W

SOIL GEOCHEMISTRY URANIUM

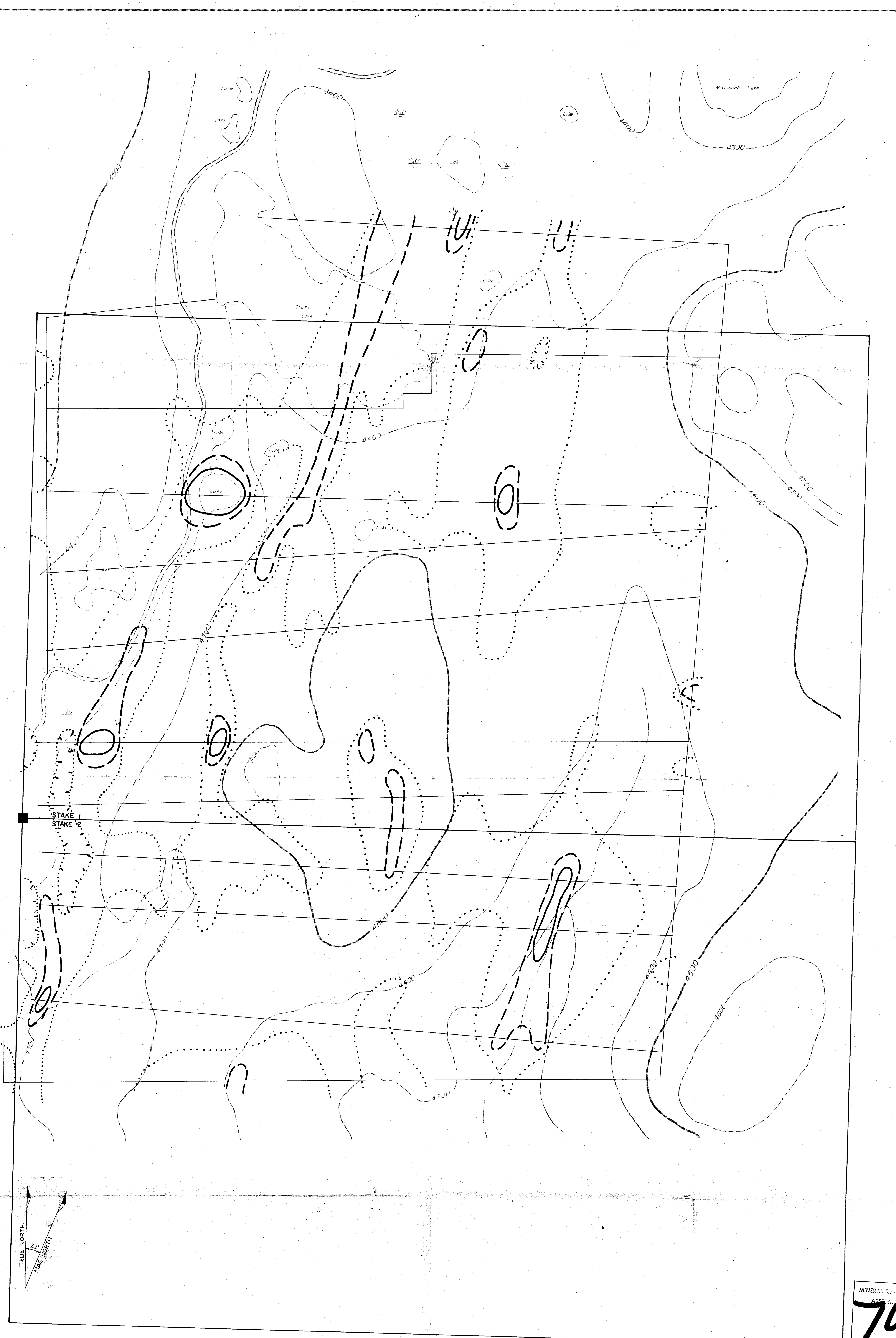
SAMPLE LOCATION AND VALUE

SCALE IN FEET

400 0 400 800 1200

AUGUST 1979

PLAN 2



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 7994

CANADIAN OCCIDENTAL PETROLEUM LTD.
MINERALS DIVISION
PROJECT PRINIC

STAKE 1–2 CLAIMS

KAMLOOPS MINING DIVISION, BRITISH COLUMBIA
N.T.S. 92 I 9W

SOIL GEOCHEMISTRY
URANIUM
CONTOURED VALUES

SCALE IN FEET
400 0 400 800 1200

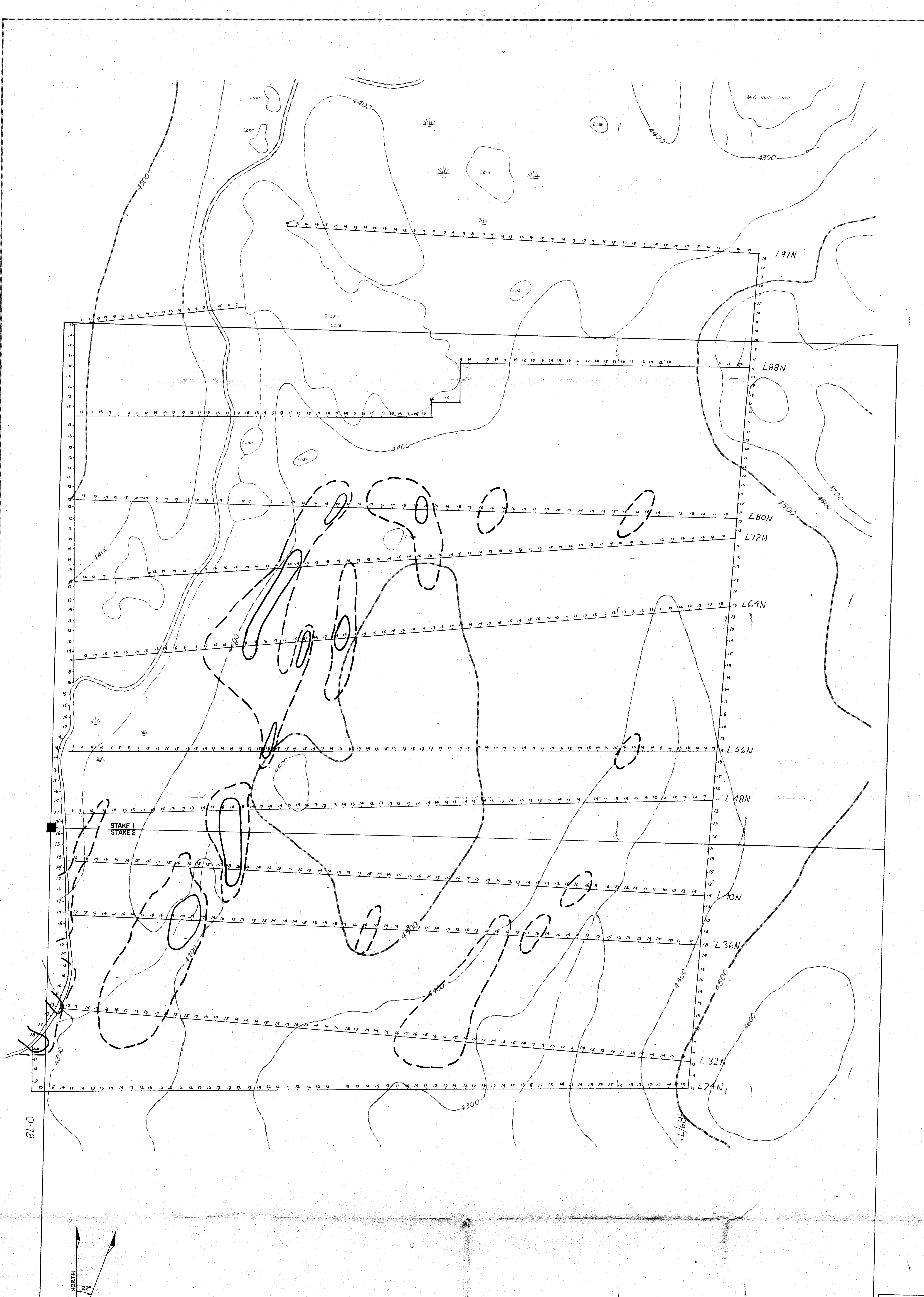
AUGUST 1979 PLAN **3**

LEGEND
U contours in ppm

10 ppm U
3 ppm U
1 ppm U

Legal Corner Post

Claim Boundary



7994

LEGEND

Scintillometer contours in c.p.s.
Urtec Model UG 130 TC 2 at 10 secs.

——— 18 c.p.s.

– – – 16 c.p.s.

■ Legal Corner Post

——— Claim Boundary

CANADIAN OCCIDENTAL PETROLEUM LTD.

MINERALS DIVISION

PROJECT PRINIC

STAKE 1-2 CLAIMS

KAMLOOPS MINING DIVISION, BRITISH COLUMBIA

N.T.S. 92 I 9W

SCINTILLOMETER SURVEY

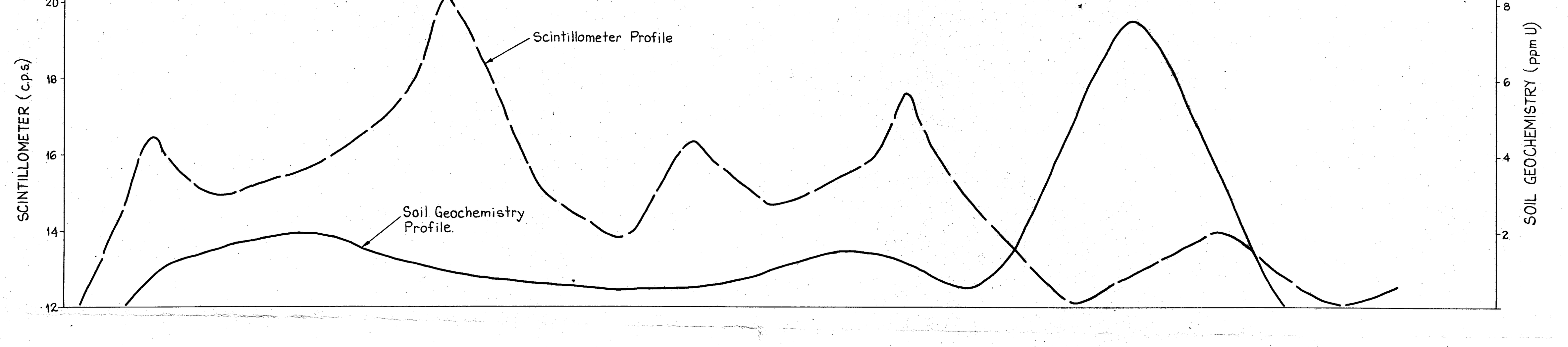
RADIOMETRIC CONTOURS

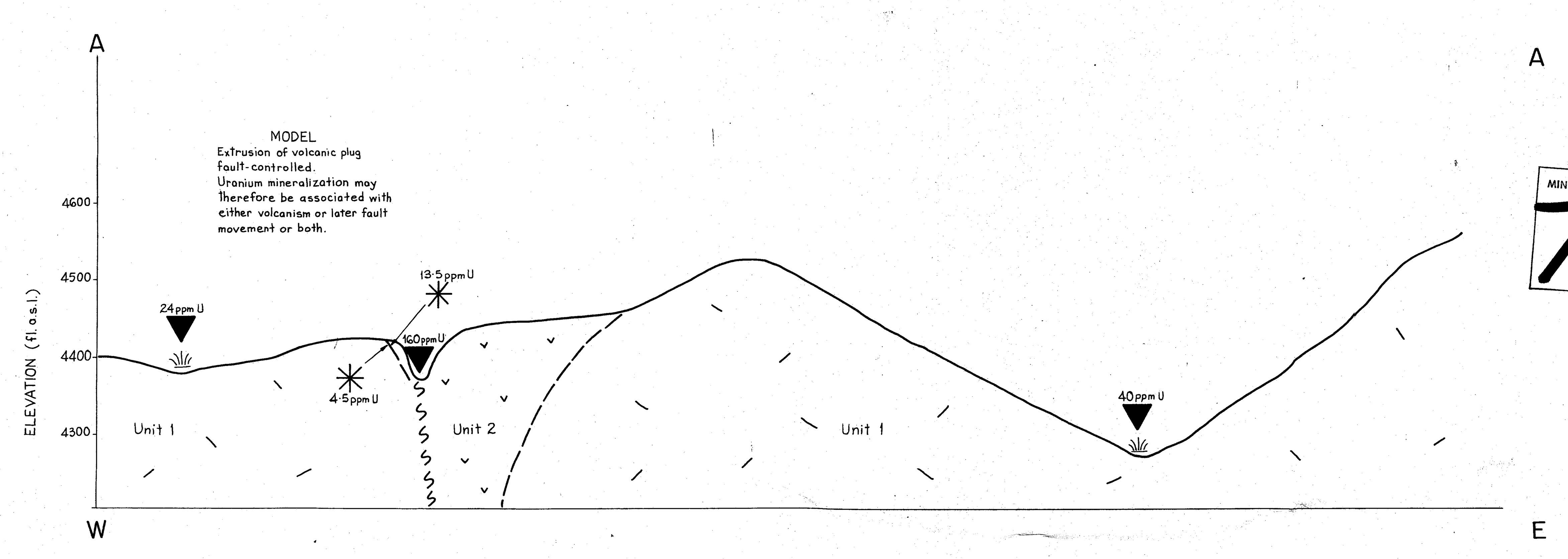
SCALE IN FEET

400 0 400 800 1200

AUGUST 1979

PLAN 4





SCHEMATIC CROSS-SECTION A-A.

LEGEND

- Soil Geochemistry 3·0 ppm U Contour
- Scintillometer 16 c.p.s. Contour
- Rock Geochemistry ≥ 1·5 ppm U
- Sediment Geochemistry 1978 Survey > 10·0 ppm U

GEOLOGICAL LEGEND

2. porphyritic olivine basalt (Eocene)
1. perthitic megacrystric quartz-monzonite (Jurassic)

- geological contact, inferred.
- fault, inferred
- legal corner post
- claim boundary

CANADIAN OCCIDENTAL PETROLEUM LTD.

MINERALS DIVISION

PROJECT PRINIC

STAKE 1–2 CLAIMS

KAMLOOPS MINING DIVISION, BRITISH COLUMBIA

N.T.S. 92 I 9W

COMPILATION OF GEOLOGY, SOIL GEOCHEMICAL AND RADIOMETRIC ANOMALIES

SCALE IN FEET

400 0 400 800 1200

AUGUST 1979

PLAN 5