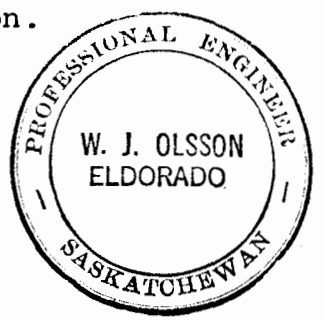
ELDORADO NUCLEAR LIMITED

This report is submitted as per the Surface Exploration Permit Guide, in accordance with the re-issuance of Exploration Permit MX 18/76 by the Atomic Energy Control Board on April 15, 1977.

William Olsson.



REPORT ON DIAMOND DRILLING PROGRAMME
Bond 1 - 96 Claims

Mayo Mining District Y.T.
Claim Sheet 106D/10

Lat. 64°40'N Long. 134°57' W

October, 1977

W.J. Olsson Geologist

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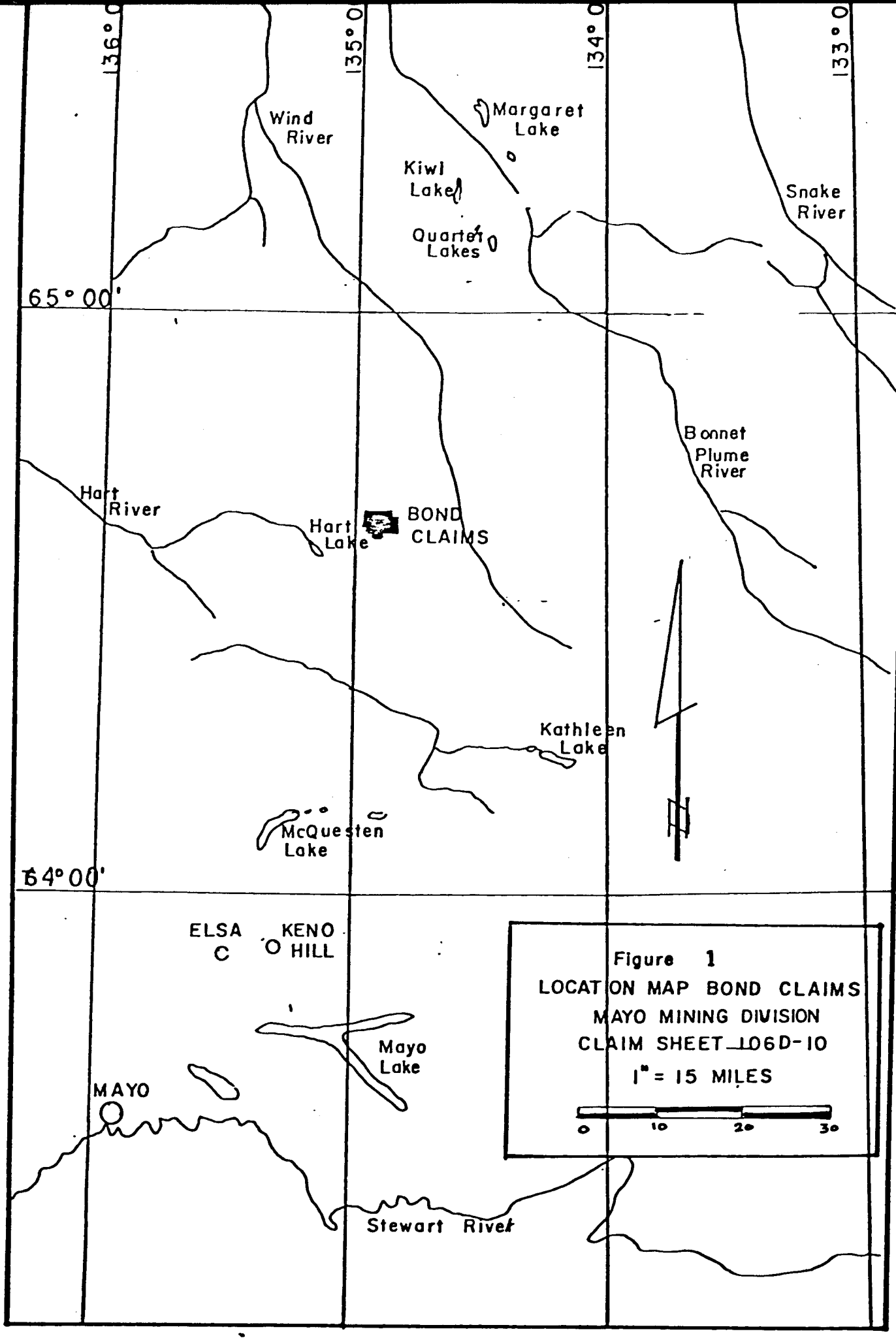
FIGURES


136° 0
135° 0
134° 0
133° 0
Wind River
Margaret Lake
Kiwi Lake
Quarter Lakes
Snake River
65° 00'
Bonnet Plume River
Hart River
Hart Lake
BOND CLAIMS
Kathleen Lake
McQuesten Lake
64° 00'
ELSA
KENO HILL
Mayo Lake
MAYO
Stewart River
Figure 1
LOCATION MAP BOND CLAIMS
MAYO MINING DIVISION
CLAIM SHEET 106D-10
1" = 15 MILES
0
10
20
30

INTRODUCTION

Location and Access

The Bond 1-96 mineral claims are located approximately 100 miles north of Mayo, Yukon at 134°57' longitude and 64°39' latitude (NTS ref 106 D/10). Access to the property is by helicopter from Mayo. Access to the area is via Mayo to Hart Lake by float-equipped, fixed-wing aircraft and to the property by helicopter.

Previous Work

In 1961, L.H. Green of the Geological Survey of Canada began mapping the Dawson, Larsen Creek and Nash Creek areas of the Yukon Territory at a scale of 1:250 000. His work was published as G.S.C. Memoir 364 in 1972. The Bond Claims are located in the north central portion of the Nash Creek map.

The first radioactive occurrence on Bond Creek was located in late August 1974 by Ogilvy Joint Venture. Subsequent prospecting by Archer-Cathro and Associates Ltd. located the Bond II occurrence resulting in further staking of the area. Grid soil geochemical and radiometric surveys were performed over the claim group in 1975. Trenching and sampling of the occurrences took place at the same time. A diamond drill programme under the supervision of geologists employed by Eldorado Nuclear Limited was conducted. A total of 391.5 feet was drilled. Several radioactive zones were intersected and have been previously reported.

1977 FIELD PROGRAM

Objectives

A diamond drill programme was carried out over the Bond II occurrence to determine whether mineralization detected in the 1976 drill programme extended along strike and whether it was confined to the breccia horizon. During the 1976 drill programme it appeared magnetite was concentrated in breccia zones, some of which were mineralized with uranium. A magnetometer survey was therefore conducted over the area previously drilled to confirm a relationship between magnetite and uranium mineralization.

Logistics

Work on the Bond claims in 1977 was conducted under Exploration Permit MX18/76 issued to Eldorado Nuclear Limited for work in the Yukon Territory by the Atomic Energy Control Board; Land Use Permit Y75J217 issued by the Regional Director, Forests and Lands Division, Department of Indian Affairs and Northern Development, and Water Use Permit Y2A3-0590 issued under Section 11 of the Northern Inland Water Regulations.

Eldorado Nuclear Limited activated a company-owned Winkie diamond drill set up to drill IAX core. Equipment was shipped to Whitehorse where driller W. Umpherville assembled and checked the gear. Mobilization from Whitehorse was by truck to Mayo where a DHC 3 Otter was utilized to fly the crew and gear into Hart Lake. A Bell 206 helicopter was used to transport men and equipment into the camp site on Bond Creek.

Drilling commenced on June 23 and was completed on July 12. The drill camp was supervised by Eldorado geologist William Olsson under the guidance of District Geologist Colin Riley. A total of 16 holes involving 1,140 feet of drilling was carried out with an average daily footage of 57 feet achieved. The drill core is stored in the core warehouse of the Department of Indian Affairs and Northern Development in Whitehorse. Representative samples of the individual holes are in the Eldorado office in Ottawa.

Problems encountered during the programme included missing parts, inadequate hose, heavy overburden conditions and poor weather.

Geophysics

A ground magnetometer survey utilizing a Barringer GM 122 proton magnetometer, was conducted by C. Riley and W. Olsson over the Bond II occurrence. An orientation survey on lines 50 feet apart running over the 1976 drill targets was carried out with a station interval of 10 feet. The data obtained during this survey confirmed the association of magnetite with uranium mineralization. An expanded survey was then conducted on a total of 23 lines 50 feet apart. The station-interval was 10 feet and the average length of survey line was 600 feet. A few off-scale readings were observed, however the general peak of the values tended to be 200 to 250 gammas above the background (58,000γ). The anomaly threshold is considered to be 58,500 gammas.

Diamond Drilling

Initially, 7 drill holes, 150 feet in length were laid out to be drilled on an azimuth of 190^{o} with a dip of -45^{o}. The first hole was laid out to investigate the downward extension of the radioactive zone intersected in the northern-most hole drilled in 1976. Also, it was

intended to verify whether or not the magnetite-uranium relationship is a valid concept. Two holes were laid out on a section 150 feet to the west and four holes were laid out 150 feet to the west of the 1976 drill section to complete step-out sections across the magnetic zone.

A total of 16 holes were eventually collared during the programme. Five holes were abandoned due to difficult overburden conditions. Some core was recovered from two of the five holes. Six holes were completed to a depth of 150 feet. One hole was abandoned at 91 feet due to difficult drilling conditions. An intermediate hole 51 feet long was drilled in order to complete the cross-section. Core recovery was better than 90%.

Results

(a) Geophysics

The orientation magnetometer survey carried out over the area drilled in 1976 confirmed the presence of a magnetic anomaly coincident with a radioactive breccia zone. The data from the expanded survey delineated two distinctive trends; the northern trend is linear and ends rather abruptly to the east; the southern trend appears to arc towards the south and is open to the southeast. It is felt the western end of the northern anomaly is truncated by a fault running parallel to and underneath Bond Creek.

(b) Diamond Drilling

The data obtained in this year's diamond drilling coupled with that obtained in 1976 has clearly defined the stratigraphy in the vicinity of the Bond II showing. A

sequence of mudstones, phyllite, and intercalated volcanic beds are present in contact with a brecciated unit considered to be explosive in origin. The upper strata dip approximately 40^{o} to the north and appear to be conformable with one another.

The mudstone, phyllite and volcanic units tend to be fine to very fine grained, are well bedded and are moderately fractured. Fractures tend to contain limonite and to be hematized. Some magnetite and/or sulphide material is present along fractures. The contact between the upper units with the explosive breccia varies from gradational (hole B-5) to fault controlled (hole B-14).

The explosive breccia unit is the host rock for the uranium mineralization. The matrix consists of chlorite-carbonate material and is crudely foliated. (The foliation dips 30^{o} to the north). Locally the matrix is highly crenulated. Lenses and pods of sulphide material are present throughout, however concentrations tend to correspond to radioactive zones. Concentrations of magnetite are found as disseminated euhedral to subhedral crystals in the matrix as well as in the form of fracture-filling material. The fragments of the breccia consist of barite material and/or quartz-feldspar material. They constitute 30% to 60% of the unit and exhibit a pink to purple hue in the radioactive zones.

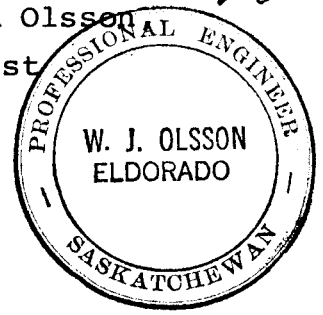
DISCUSSION

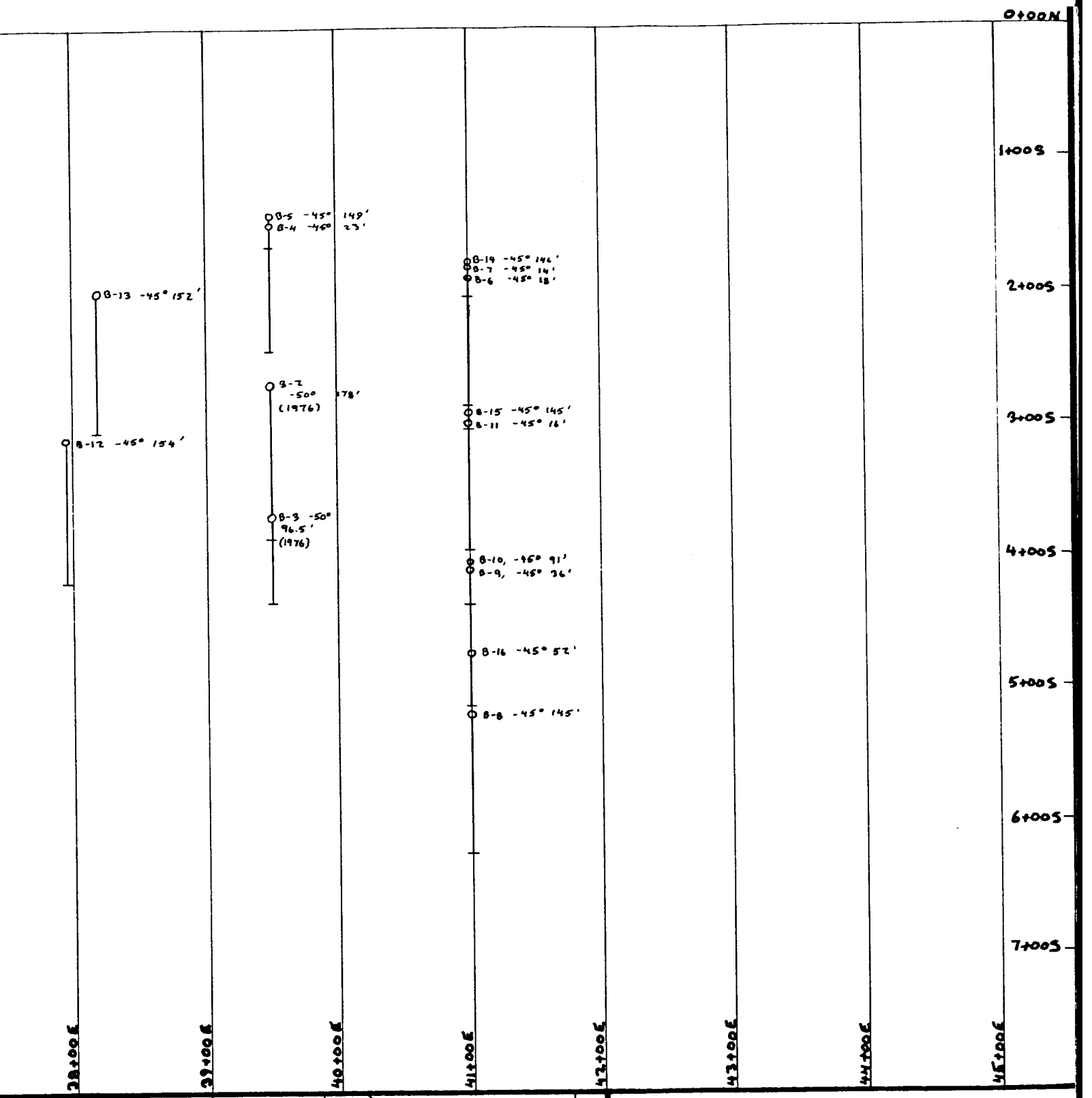
The ground magnetometer survey has shown that there is a direct corresponding relationship between the magnetic anomaly in the vicinity of the Bond II occurrence and the breccia zones within the bedrock unit. Diamond drilling has shown while magnetite is present in all of the bedrock units, it tends to be concentrated within the breccia unit. Similarly, sulphide material is found in all of the bedrock units, but significant concentrations are found only within the breccia unit. The magnetite, sulphide material and radioactive mineralization are all concentrated within the explosive breccia unit due to a selection of areas of increased porosity and dilatancy in the breccia horizon by the solutions emplacing the minerals.

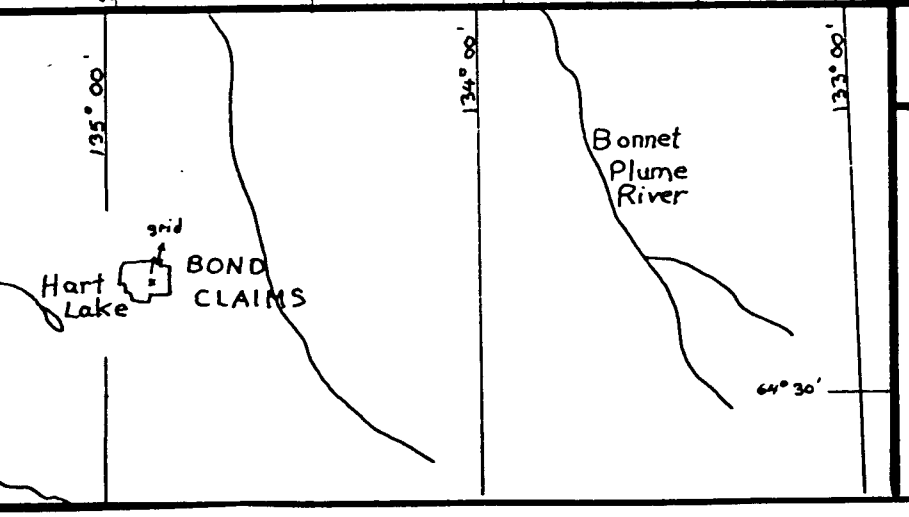
The 1977 diamond drilling program on the Bond claims verified that uranium mineralization is restricted to the breccia horizon. The radioactive zone is truncated to the east of 30+50E but is open to the west. It would appear that a fault, running parallel to and beneath Bond Creek has cut the westward extension to the mineralized zone. This would account for the lack of mineralization on the west side of Bond Creek.

Assay values for samples of the radioactive intersections encountered in the 1977 drill program have failed to increase the thickness of the radioactive zone and have not significantly increased the tonnage.

William Olsson
Geologist







ELDORADO NUCLEAR LIMITED

PROJECT BOND CLAIMS D.D. LAYOUT

DISPOSITION

SECTION PLAN VIEW

HOLE B-2 to B-16 incl.

COMPLETED B-2,B-3 1976;B-4 to-16'77

LOGGED BY W. OLSSON

SCALE 1" = 100'