GEOPHYSICAL REPORT

on the GARY claims,
located about 15 miles SSW of Macmillan Pass,
on the North Canol Road.
Claim sheet 105-O-1, 63°04'N 130°13'W.

by
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June 9-15, 17-20, 23-30 and July 31, Aug. 1, 1975

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I. INTRODUCTION AND GENERAL GEOLOGY

In June of 1975 Ogilvie Joint Venture carried out geological, geochemical and geophysical (gravity) work on the GARY claims, located about 15 miles SSW of Macmillan Pass, on the North Canol Road (Fig 1). This report deals with the results of the geophysical survey, separate reports being submitted on the geological and geochemical surveys.

The GARY claims were staked in 1974 to cover the extension of bedded barite that outcrops on the MOOSE claims and that has similarities to the barite at the TOM Pb-Zn-Ag deposit some 7 miles to the NNE. Interest in the GARY property, which has little outcrop, was enhanced when some soil samples (1974 survey) were found to have anomalous zinc contents (to 1600 ppm). The 1975 work was intended to more accurately define the anomalous zones by geochemical sampling and a gravity survey on a cut grid.

Outcrop is poor on the GARY claims but the bedded barite (to 100' thick) exposed on the adjoining MOOSE claims is thought to extend onto the GARY claims, under overburden that reaches a thickness of at least 30' in places. The barite, associated siliceous argillites, underlying black shale and overlying argillite and siltstone are thought to be of Ordovician-Silurian age, older than the Devonian shales that host the TOM deposit (see separate geological report). No lead or zinc has been detected by prospecting on the available outcrops on the GARY claims.

The general geology of the region in the vicinity of the GARY claims is shown on the Niddery Lake sheet (open file map 205) of the Geological Survey of Canada.

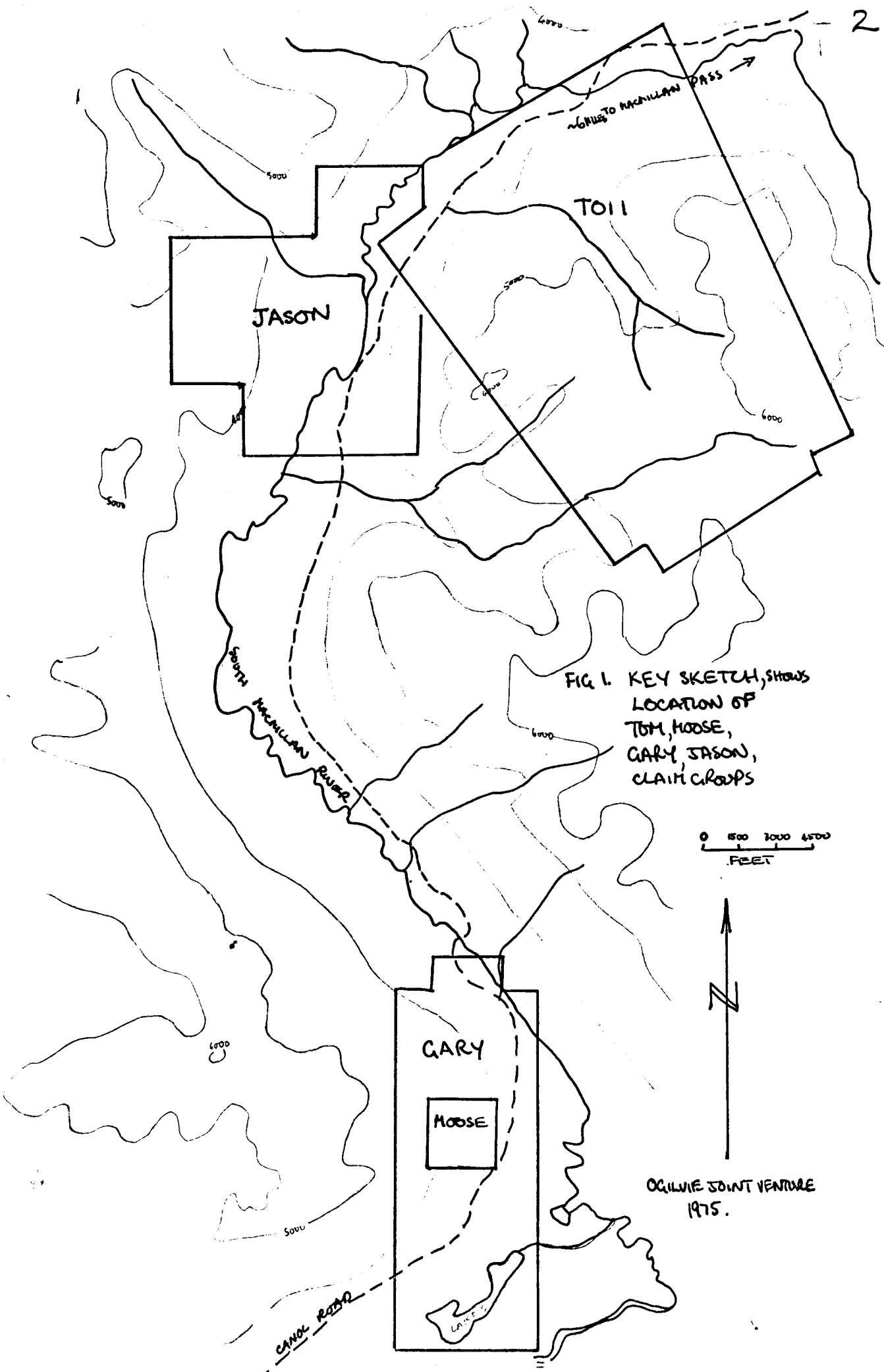

FIG 1. KEY SKETCH, SHOWS LOCATION OF TOM, MOOSE, GARY, JASON, CLAIM GROUPS

OGILVIE JOINT VENTURE
1975.

II. LIST OF CLAIMS

Claim Name	Holder	Recording Date
GARY 4	C. McDaniel	Aug. 21-23, 1974
" 16	R. Wigen	"
" 28-31	J. Thorkelson	"
" 32-38	D. Zuter	"

III. TECHNIQUES EMPLOYED IN GEOPHYSICAL WORK

Including tie lines, 36,000 feet of line were cut. These lines run east-west on both sides of a north-south zero line, are spaced 1000' apart with stations at 100' intervals along the lines marked by pickets.

The level survey and gravity work were carried out by Peter Walcott and Associates of Port Coquitlam, B.C. The SCINTREX CG2 gravity meter used measures variations in the Earth's gravity field to an accuracy of ±0.01 mgals. Values of observed gravity were obtained every 100' along the picket line. Corrections for meter drift were made by tying-in to previously established base stations at intervals not exceeding 2-3 hours. Drift of over 0.10 mgal/hr was not allowable. Elevations of gravity stations were determined by rod and transit (SOKKISHA TM-20C Theodolite) using the stadia method. Errors in the tying-in of loops were kept to a minimum, this being dependent on the severity of the topography, but was less that 1.0 ' per loop. Two gravity base stations were established from the main base station and the closure on these was 0.02 mgal.

A density of 2.5 was used in calculation of the gravity results.

IV. RESULTS AND INTERPRETATION

In Fig 2 gravity data are shown in profile form with anomalous values determined by subtraction of assumed regional values and contours

are drawn for .5 and 1 mgal anomalies. On line 20N the barite is exposed, giving good geological control on the interpretation of the gravity data further to the south, where overburden obscures nearly all outcrops. From geological observations it appears that the eastern gravity anomaly reflects the approximately 100' thick barite sheet in the steep east limb of a major fold while the western anomaly reflects the more moderate-dipping west limb of the fold. For further details of the geology and a cross section see separate geological report.

It therefore appears that the folded barite sheet continues at least as far as line 10S.

V. CONCLUSIONS AND RECOMMENDATIONS

Two strong gravity anomalies have been identified and can be related to a folded barite sheet that outcrops in the northern part of the grid. The western anomaly continues to line 10S and it is possible the barite related to it continues even further, perhaps under deepening overburden or to greater depth in the host shale. The western gravity anomaly trends into, although it does not coincide with, the zone of Zn and Ba anomalies between lines 10S and 30S and it seems possible that a mineralised barite horizon is present at depth in this area. Several thousand feet of exploratory drilling to test the barite horizon should be considered.

VI. PERSONNEL EMPLOYED

T. Pham, field worker; present address unknown
P. Sidney, field worker; Teslin, Y.T.
G. Gamache, field worker; Maple Ridge, B.C.
P. Walcott, geophysicist; 605 Rutland Ct., Pt. Coquitlam, B.C.
A. Cameron, surveyor, "
P. Charlie, field worker; "

VII. QUALIFICATIONS OF C. L. SMITH, AUTHOR

Education: Carleton College, Northfield, Minn., U.S. - B.A. rec'd 1959
University of B.C., Vancouver, B.C. - M.Sc. rec'd 1962
University of Idaho, Moscow, Ida., U.S. - Ph.D. rec'd 1966

Employment: 1970-present: Consulting geologist, Vancouver, B.C.
1968-1970: Director and Exploration Mgr., Spartan Explorations
1966-1968: Chief Geologist, Atlas Explorations Ltd.
1965-1966: Senior Geologist, Kerr-Addison Mines Ltd.

Professional: Registered Professional Engineer, Association of Professional Engineers, Province of British Columbia

VIII. EXPENDITURES

Helicopter: 8 hrs @ $140/hr	$ 1120.00
Fuel: 128 gal @ $1.20/gal	150.00
Salaries	1100.00
Subsistence	1500.00
Equipment and expediting	150.00
Walcott geophysical survey	4,200.00
Total	$ 8,220.00

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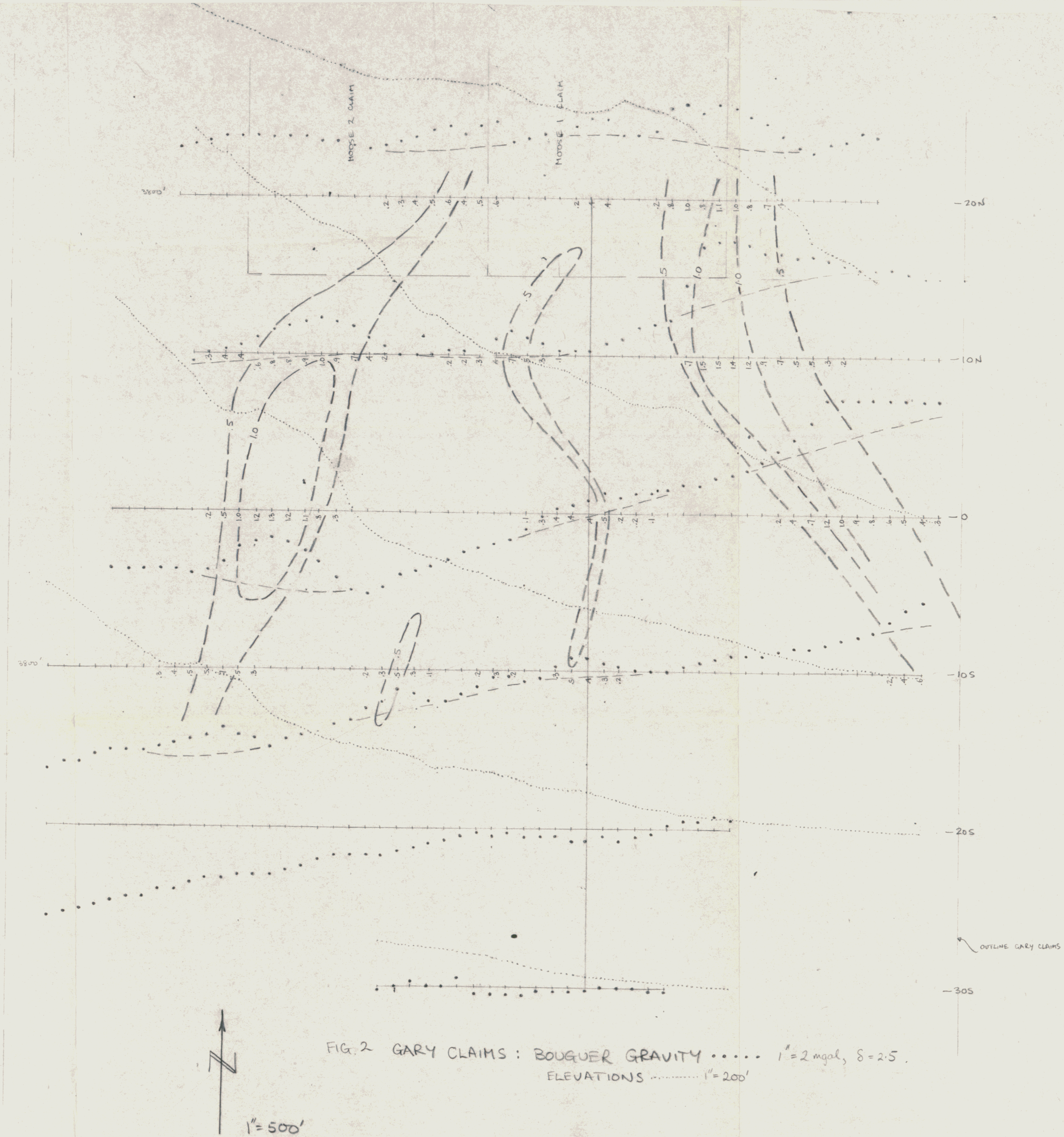

FIG. 2 GARY CLAIMS : BOUGUER GRAVITY • • • • • 1" = 2 mgal, δ = 2.5
ELEVATIONS .... 1" = 200'

OGILVIE JOINT VENTURE 1975