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GEOLOGICAL REPORT - 1976 DRILLING

ARCTIC AND KING CLAIMS, WATSON LAKE M.D.

PREPARED FOR: R.SOWDEN, G. BOUCHARD.

105-H-3.

B.J.PRICE, M.SC., F.G.A.C.

SEPT. 24, 1976, VANCOUVER, B.C.

DD 82

GEOLOGICAL REPORT - ARCTIC JADE PROPERTY

INTRODUCTION:

During the period July 9 to August 3 1976, geologic mapping and "packsack" diamond drilling were done on the Arctic Jade property. Geological mapping was done by B.J.Price, M.Sc., and drilling was done by a crew of five men including supervisor G.Erasmus. Owners of the property, Mr. Roy Sowden, of Fort St. John and Mr. Gil Bouchard, of Kelowna, were present on the property for the first week, and staked two claims, Arctic Fraction and Arctic 3 on july 18, 1976. The camp was transported from the Robert Campbell highway by Bell Jet Ranger helicopter belonging to Frontier Helicopters Ltd., Watson Lake.

LOCATION AND ACCESS:

The property is located three miles west of milepost 85 on the Robert Campbell highway, north of Watson Lake, Y.T. The highway is a good gravel road; driving time from Watson Lake is less than two hours. A cat road has been built to the base of the mountain slope from approximately mile 87 on the highway, but from the end of the cat road, a climb of 2500 feet and three miles is necessary. At present the property is most easily reached by helicopter from Watson Lake. A location map is presented on the following page.

CLAIMS:

The property comprises six claims, as follows:

Claim No.	Record No.	Record Date	Owner
KING 5	Y64835	Sept 14, 1976	D.J.Sowden
KING 6	Y64836	Sept 14, 1976	D.J.Sowden
ARCTIC 1	Y93770	Sept 26, 1976	G.Bouchard
ARCTIC 2	Y93771	Sept 26, 1976	R.Sowden
ARCTIC FR		July 18, 1976	G.Bouchard
ARCTIC 3		July 18. 1976	R.Sowden

TOPOGRAPHY, VEGETATION, ETC.:

The claims cover the north and north-west flanks of a hill between elevations 5000 and 6000 feet above sea-level. Topography over most of the claim area is moderate to gentle, except for the eastern portion facing Frances River valley, which is very steep. A small nearly level area above a small tributary of the main creek, above the timber line was used for the campsite. Most of the property is above timber line, and where bare rock is not exposed, typically alpine vegetation is present. The main creek contains a good volume of water for the whole summer, but tributaries provide sufficient water for drill purposes in the early part of the summer when snow is melting. The area is free of permanent snow in early to mid-June , but snow can occur at any time during the summer. Permanent snow probably begins in early October.

GEOLOGY:

The jade occurrences are present in the eastern margin of the Campbell Range, an area characterized by predominantly sedimentary strata of Missippian - Devonian age, separated from underlying Cambrian and Precambrian strata by an angular unconformity.(Roots, 1966, G.S.C.Map 6-1966). Numerous irregular to sill-like ultramafic intrusives are present.

The ultramafic body at the King jade occurrence is completely serpentinized and strongly sheared, and contains numerous large inclusions of recrystallized limestone and other sedimentary rocks. These inclusions commonly measure hundreds of feet in maximum horizontal dimensions, for example the limestone cliff near base camp. Plastic deformation is visible in sandy laminae in the limestones and no doubt is present as well in the other inclusions. Margins of some, but not all the inclusions are altered to light green diopside, granular pink grossularite garnet, tremolite, "nephrite", chlorite, epidote, and probably clinozoisite. The irregular or lenticular masses of nephrite jade separate dark , tremolitized serpentine from

alteration assemblages and silicified metasedimentary rocks, which resemble "ribbon " chert. The alteration zones are easily visible in the bright green serpentine terrain and mark the location of potentially jade bearing material, giving an effective prospecting tool.

The main In place jade occurrence (area C on King 5 claim consists of a series of jade lenses trending northerly down a steep slope and dipping north-easterly under a shallow capping of diopside and siliceous to phyllitic metasediments. On strike from this occurrence, which contains considerable jade, are several other occurrences and talus masses originating from in-place material above. In- place jade is also present at location "B" on Arctic Fraction and in a thin band at location "A" on Arctic 2 claim.

Much jade is present inseveral areas as talus blocks ranging in size from several hundred pounds to over 100 tons. Little oxidation has taken place on the surface of the masses, but quality of the jade can rarely be determined from surface appearance.

1976 WORK PROGRAM:

The 1976 work program on the Arctic and King claims commenced on July 10 with property reconnaissance; a full camp was mobilized by truck and helicopter from Watson Lake on July 14 after several days organization. Camp was set up immediately and drilling began July 16. A crew of four drillers was supervised by G.Erasmus. Geological mapping was done by the writer during the period July 10 to July 18. Drilling of in- place and talus jade continued until August 3, when the camp was terminated and moved out to Watson Lake.

Diamond drilling was done using small Packsack drills (XRPS size bits) and water supplied by gravity hose line and occasionally small gasoline powered pumps. Total drilling footage was feet in holes. All jade masses were marked as to area and number with paint, and all core was correspondingly

marked. Core, because of its intrinsic value, was transported to the offices of Arctic Jade Ltd. in Vancouver, where it is stored. All material drilled was jade, and no detailed logs were prepared. Quality of the material varies from poor to medium,; much is somewhat opaque and talcy, and is softer than desired for good quality gem grade. The economics of production fro the property are considered marginal at this time. Complete drilling data are provided on a separate page and drilling areas are shown on the accompanying geological map.

RECCOMMENDATIONS:

Because of the limited amount of acceptable quality jade delineated in the drilling done to date and the difficulty of arranging transportation , no further drilling is reccommended. Because of the high tonnage of jade on the property, it remains a potential source of lower grade material. Core should be studied in detail and quality compared with that from other more readily accessible sources. Any production decision must depend on a thorough examination of costs and feasibility of sales.

Barry Price.

Barry Price, M.Sc., F.G.A.C.
Geologist.

LEGEND

CENOZOIC

QUATERNARY

16 Unconsolidated glacial and alluvial deposits

DEVONIAN AND (?) MISSISSIPPIAN

13 Brown and black shale, black and grey chert, quartzite, greywacke, chert-pebble conglomerate; 13a, fine-grained light grey limestone and minor dolomite; 13b, greenstone; 13c, serpentinite

SILURIAN AND DEVONIAN (?)

12 Fine-grained light to dark grey dolomite and quartzite; minor buff-grey dolomitic quartzite and silty to sandy dolomite

14 Rusty brown weathering fine-grained schistose and spotted biotite hornfels, fine-grained quartzite, black pyritic argillite, dense light green to grey calc-silicate hornfels and fine-grained marble; minor slate, silty limestone and greywacke; 14a, light grey thin-bedded fine-grained marble and calc-silicate hornfels. May include some 1 and 2

PROTEROZOIC

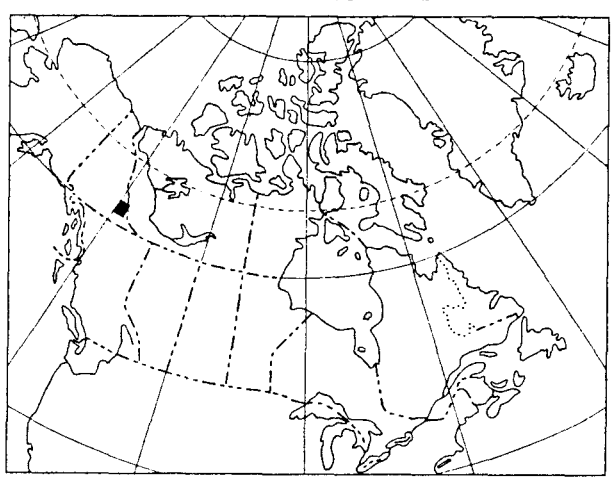
CAMBRIAN AND/OR EARLIER

3 Brown to red-brown weathering slate, phyllite, siltstone and fine-grained quartzite; 3a, green-grey slate and phyllite

1 Brown, grey, maroon and green shale; grey to green slate and phyllite, gritty feldspathic quartzite, quartz- and feldspar-pebble conglomerate, sandstone; 1a, minor limestone; 1b, light grey weathering, fine-grained grey limestone; 1c, mainly grey to green slate and phyllite; 1d, maroon and green shale and slate; 1e, mainly brown and grey shale and slate, minor maroon and green shale. 1d and 1e are probably equivalent and perhaps correlative with 1c

2 Quartz-feldspar-mica gneiss and schist, granitoid gneiss, feldspathic and micaceous quartzite, biotite schist, minor marble and skarn; numerous small granitic bodies, aplite and pegmatite; 2a, fine- to coarse-grained marble

A Highly altered, green to brown, megacrystic, coarse-grained biotite-quartz monzonite or granodiorite. Age uncertain



INDEX MAP

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DRILLING DATA - ARCTIC JADE SITE

AREA	TYPE	HOLES	FEET	TONS
"A"	talus	28	50	+90T
"B"	talus in place	15	13.2	+6 T
"C"	in place	25	data incomplete	
"D"	talus	16	data incomplete	
"E"	3	4	4.5	
"F"	talus	6	data incomplete	
"LC"	talus	8	12.5+	

TOTAL 169.3 feet

* data incomplete indicates all core not yet examined. Full figures will be supplied when recieved.

Barry Price.

Barry Price

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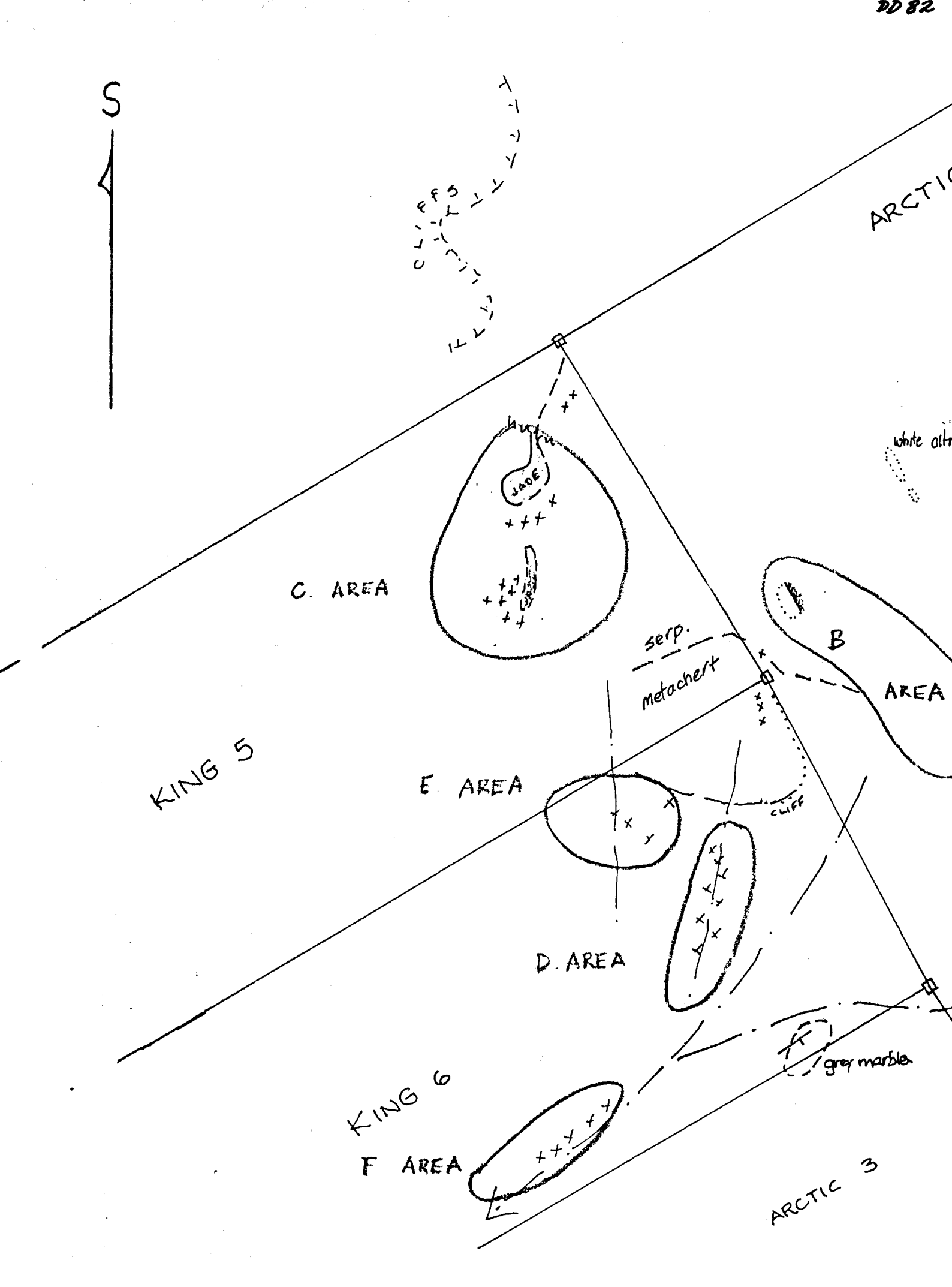
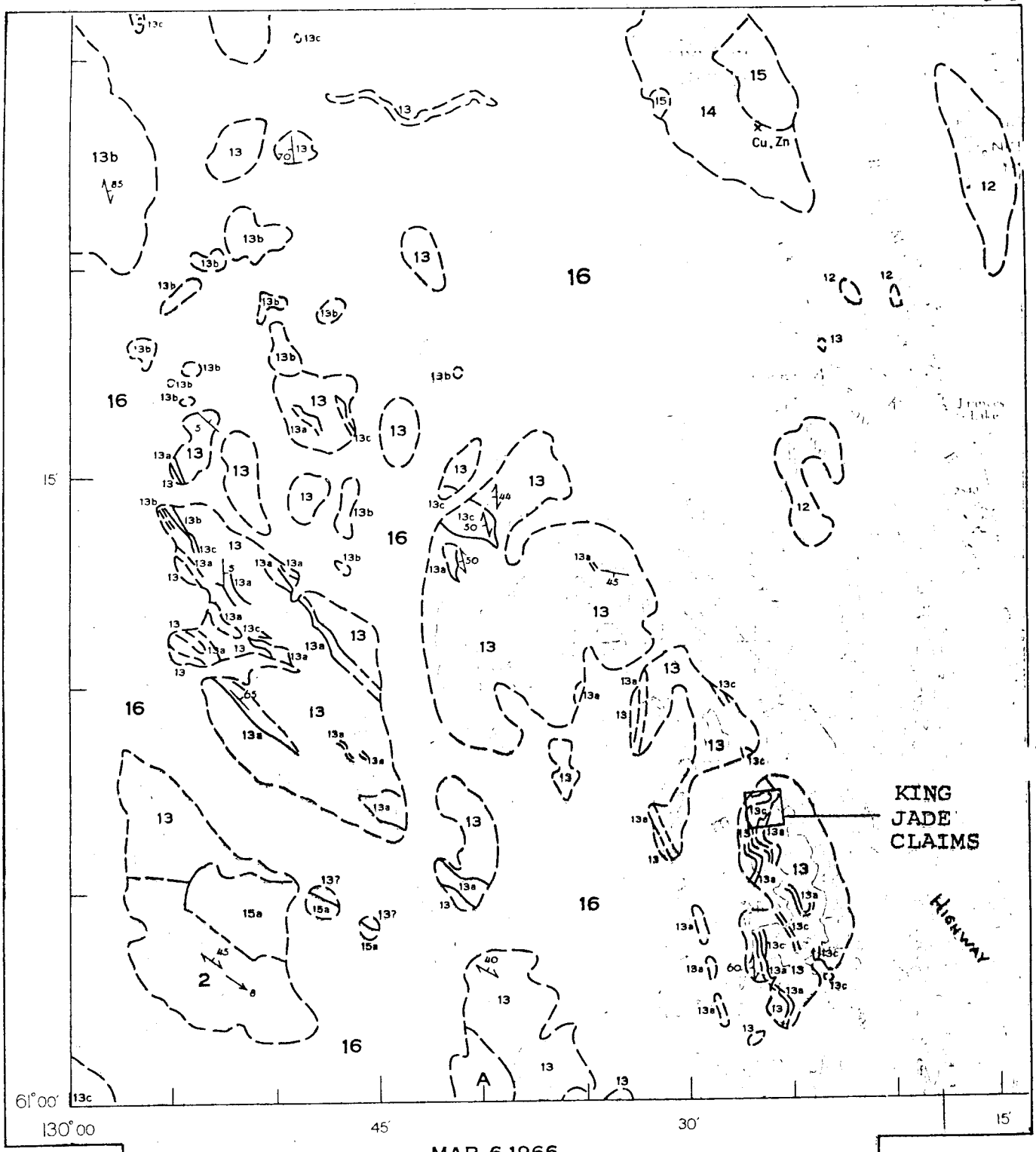

S
ARCTIC
white silt
JADE
C. AREA
serp.
metachert
B
AREA
KING 5
E AREA
CLIFF
D. AREA
grey marble
KING 6
F AREA
ARCTIC 3



MAP 6-1966

GEOLOGY

FRANCES LAKE

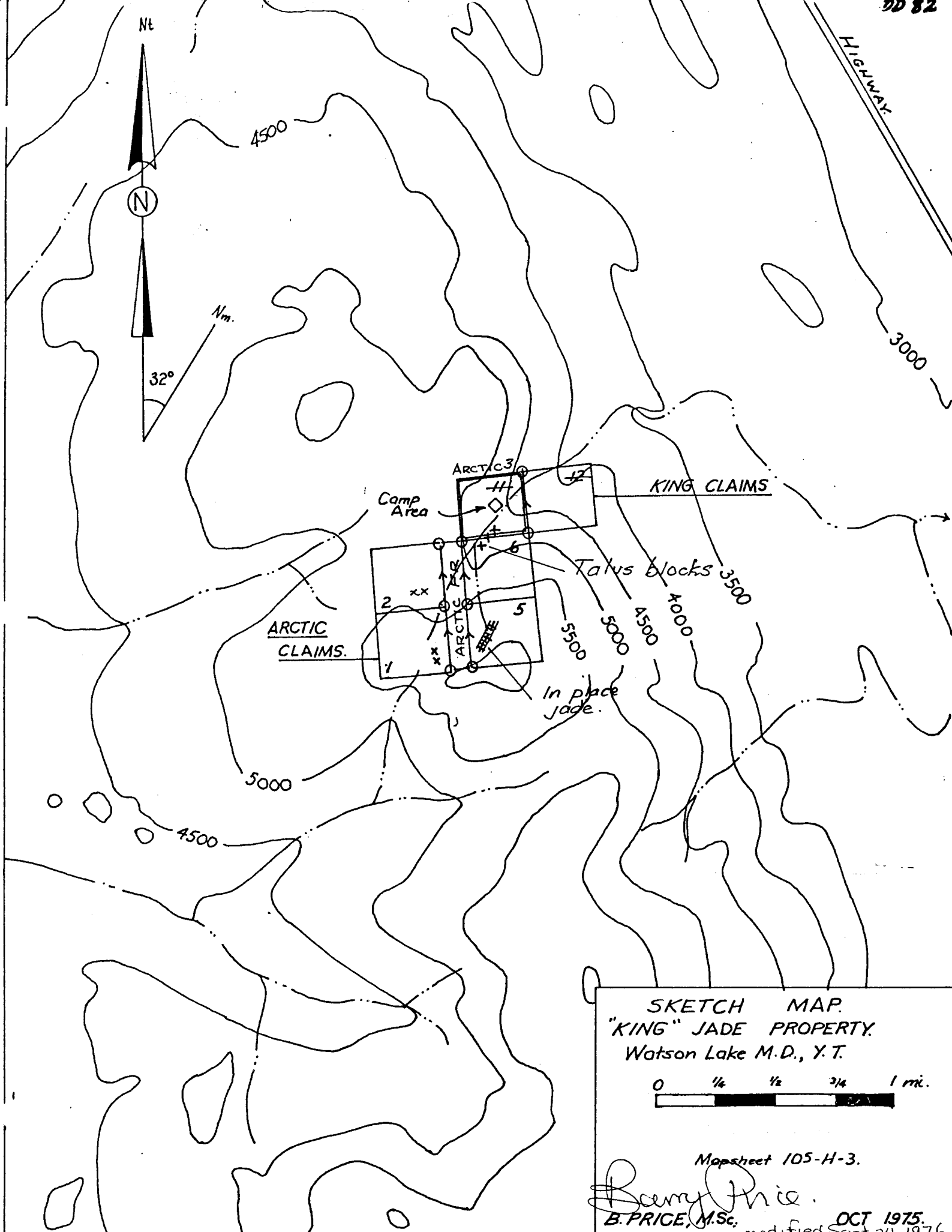
YUKON TERRITORY AND DISTRICT OF MACKENZIE

Scale 1:253,440

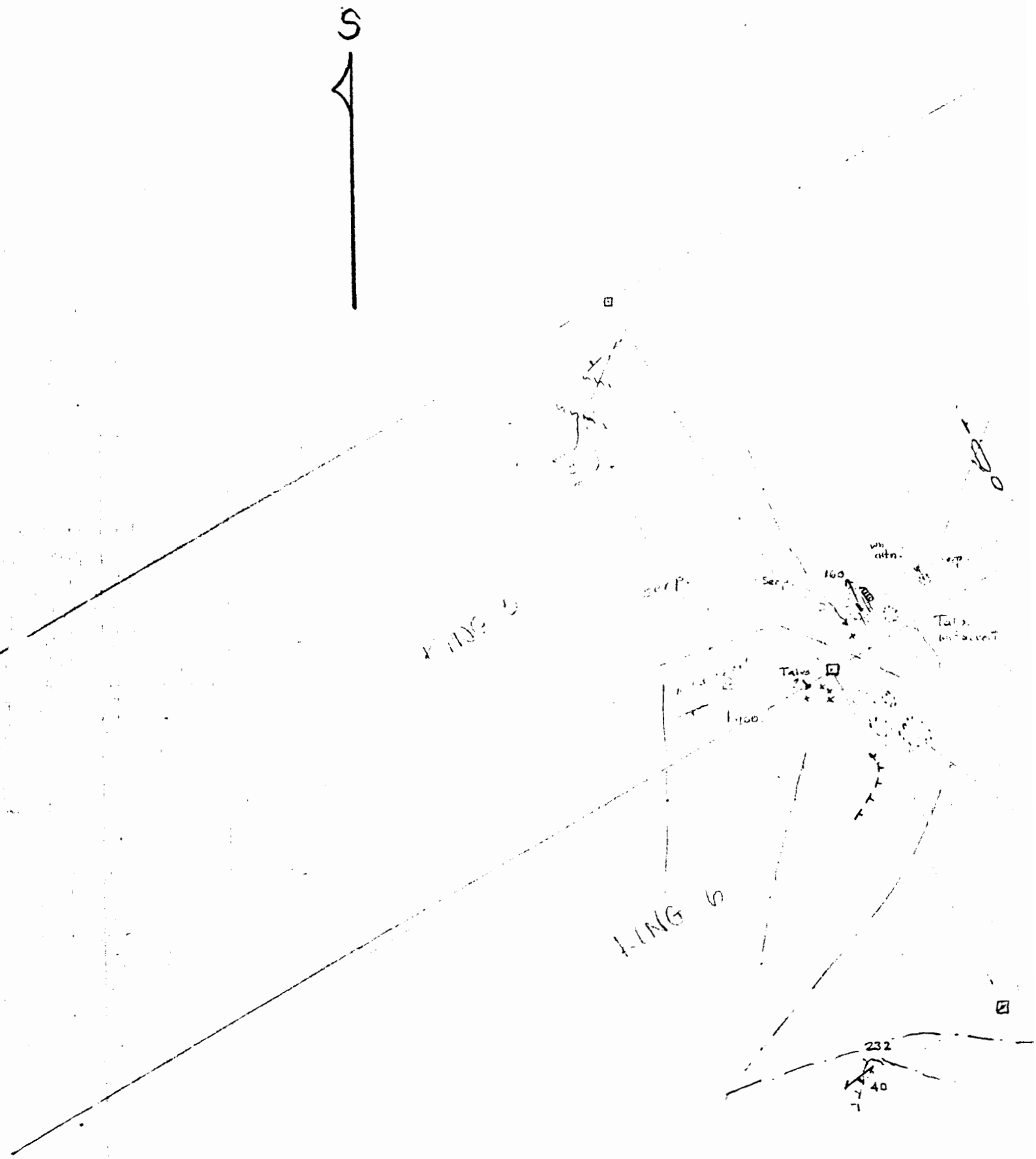
1 inch to 4 miles

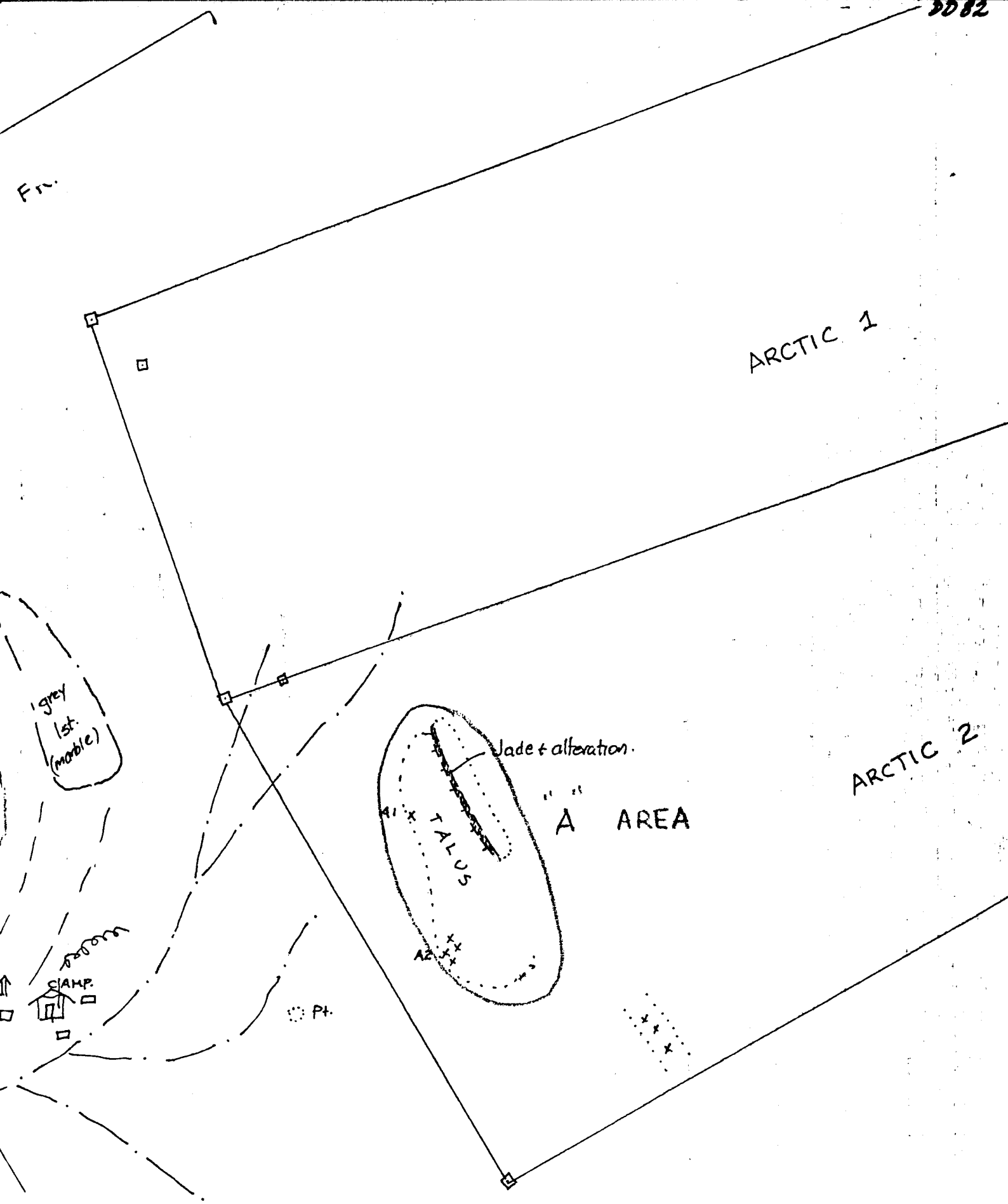
Miles 4 0 4 8 12 Miles

Kilometres 6 0 6 12 18 Kilometres


DD 82
HIGHWAY
Nt
N
Nm.
32°
4500
3000
3500
4000
4500
5000
5500
5000
4500
ARCTIC 3
KING CLAIMS
Camp Area
Talus blocks
ARCTIC CLAIMS.
ARCTIC
In place jade.
1
2
5
6
11
12
SKETCH MAP.
"KING" JADE PROPERTY.
Watson Lake M.D., Y.T.
0 1/4 1/2 3/4 1 mi.
Mapsheet 105-H-3.
Barry Price.
B. PRICE, M.Sc.
OCT 1975.
modified Sept 24 1976

Post
ctic 1
Talus
hard serp
#1 - Y64408. serp
flaky
flaky
serp
drops.
knobs
rubble - white rk.
dk mod
serp
Post 2 Arctic 1
Post 1 Arctic 2
Post 1 Y64409
2. Y64408
Altn
Altn
hard serp.
mixed altn - jade.
Al
JADE
flaky
serp
#2 - Y64409
Post 2 Arctic 2
Barry Price.
SCALE 1 in: 200'.


S
160
Talus
1100
232
40


Ft.
ARCTIC 1
ARCTIC 2
grey
1st.
(marble)
Jade + alteration.
A AREA
A1
TALUS
A2
CAMP.
Pt.
1
200
400 FT
Barry Price