

083270

ASSESSMENT REPORT

ON THE

PACO CLAIM GROUP

SOMERSET ISLAND
CANADIAN ARCTIC ARCHIPELAGO
LAT. 73° 27' N, LONG. 92° 38' W.

INCLUDING: GEOPHYSICS, GEOLOGY, SAMPLING, DRILLING
CARRIED OUT DURING: JUNE & JULY 1993

FOR

CYCLONE CAPITAL CORPORATION
700 - 555 WEST HASTINGS STREET
VANCOUVER, B.C.
V6B 4N5

BY

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NOVEMBER 1993

DEPARTMENT OF INDIAN AND
NORTHERN AFFAIRS
APR 21 1994
MINING RECORDER
YELLOWKNIFE, N.W.T

DATE: June 20/94 J. Bell
ENGINEER OF MINE'S FOR
CHIEF, NORTH. NON-RENT
RESOURCES BRANCH
THIS REPORT HAS BEEN EXAMINED AND
APPROVED AS TO TECHNICAL WORTH UNDER
SECTIONS 6 & 7 OF SCHEDULE II OF THE
CANADA MINING REGULATIONS AND
VALUED IN THE AMOUNT OF \$10,154.15

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1. SUMMARY AND RECOMMENDATIONS

PROPERTY: Two claims. 5,062 acres.

LOCATION: Somerset Island, N.W.T.

EXPLORATION OBJECTIVES:

Locate and evaluate the diamond potential of kimberlite intrusions within L.Palaeozoic carbonates.

1993 PROGRAM ELEMENTS:**a. AIRBORNE MAGNETIC SURVEY**

Covers all of the Paco claims, plus surrounding area.
The Paco anomaly was found as a result of this work.

b. GROUND MAGNETIC SURVEY

Data gathered over 4.95 km. of grid lines defined two dyke-like bodies having areas of 0.4 and 0.5 ha.

c. MAPPING AND SAMPLING

Sparse kimberlite rubble found within the magnetic anomalies. Rocks are fg, moderately magnetic, with rare chrome diopside and no garnet. Eight rock samples were collected.

This property would have been drilled but no water was available in the area.

RECOMMENDATIONS:

Tentative, pending receipt of sample results.
Possible drilling and bulk sampling.

2. INTRODUCTION

During the period June 10 to August 22, 1993, Cyclone Capital Corporation carried out a diamond exploration program on Somerset Island in the high arctic. Cyclone is operator for a group of B.C. registered companies which include:

Cyclone Capital Corporation;
Westpine Metals Ltd. and Alpine Exploration Corp.
Mayfield Engineering Ltd. and Hampton Green Funding Inc.
Westward Explorations Ltd. and Windarra Minerals Ltd.
Breckenridge Resources Ltd.

The general prospect area is that of a 20 km. wide belt which extends for 120 km. in a N.E - S.W. direction across the island, centered on latitude 73'30" N, longitude 92'00" W. Occurrences of kimberlite have been known within this belt since the 1970's. At three localities here: Batty, Peuyuk, and Nord; Diapros Canada Ltd. recovered micro-diamonds during their 1973 - 74 exploration program. Cominco also recovered microdiamonds at the Selatiavak site in 1974.

In April and May of 1993 Geonex Aerodat Inc. of Mississauga, Ont. carried out an airborne magnetic survey over the Somerset area of interest on behalf of Cyclone et al. The results of this work show a number of clearly defined anomalies. Known kimberlite intrusions were readily identified. Additional anomalies have proved, for the most part, to be the responses from previously unknown kimberlitic intrusions. The Paco property is one of a number of claim groups which have been acquired by Cyclone within the Somerset kimberlite belt. Surface work on the property in 1993 included: ground magnetics, mapping, soil and rock sampling and diamond drilling. The program was carried out from a central base camp with logistic support from Resolute by fixed-wing aircraft and locally by contract helicopter.

3. LOCATION, ACCESS AND LOGISTICS Fig. 1

The Paco claims are located on Somerset Island, some 160 km. at azimuth 152° from Resolute Bay, N.W.T. Coordinates of the centre of the claim group are 73°27' N. and 92°38' W. (NTS 58C/8).

Resolute is served year round by jet aircraft from both Montreal and Yellowknife, and by sea from Montreal during the brief period of ice-free conditions during late August and September.

A base camp was set up central to the operation at the head waters of the Elwin River (73°25'N, 92°05'W). Bradley Air Services provided Twin Otter logistic support from Resolute to the base camp and to various other tundra strips on the island. A Canadian Helicopters H500 - E under contract, provided local transport for personnel and equipment.

4. PROPERTY Fig. 2

The Paco property comprises the following registered mineral claims:

CLAIM NAME	REG. NO.	UNIT DIM.	OWNER	REG. DATE
Paco 1	F 37892	7 x 7	Cyclone	May 19/93
Paco 3	F 37896	7 x 7	Cyclone	June 14/93

5. REGIONAL GEOLOGY Fig. 3

Geology of the west side of Somerset Island is dominated by the belt of Precambrian gneisses of the Boothia Arch. To the east of this positive feature the island is covered by a continuous sequence of platform carbonates and minor clastic sediments (limestone, dolomite, and sandstone) of lower Palaeozoic age. The carbonates are for the most part flat lying; locally minor folding is evident.

The kimberlites of Somerset Island have been emplaced along structural features with apparent NE/SW, NW/SE, and N/S alignments. These may be related to basement structures and/or Mesozoic tensional structures which produced the interconnected graben system of the arctic

BARROW STRAIT

PRINCE
LEOPOLD
ISLAND

93W
74N

820000N

SOMERSET ISLAND

PACO CLAIM GROUP

ELWIN BAY

8115000N

BATTY BAY

810000N

CRESWELL BAY

450000E

500000E

550000E

N

KILOMETERS

0 10 20 30 40

CYCLONE CAPITAL CORPORATION

LOCATION MAP

PACO CLAIM GROUP

NTS: 58/A,B & D

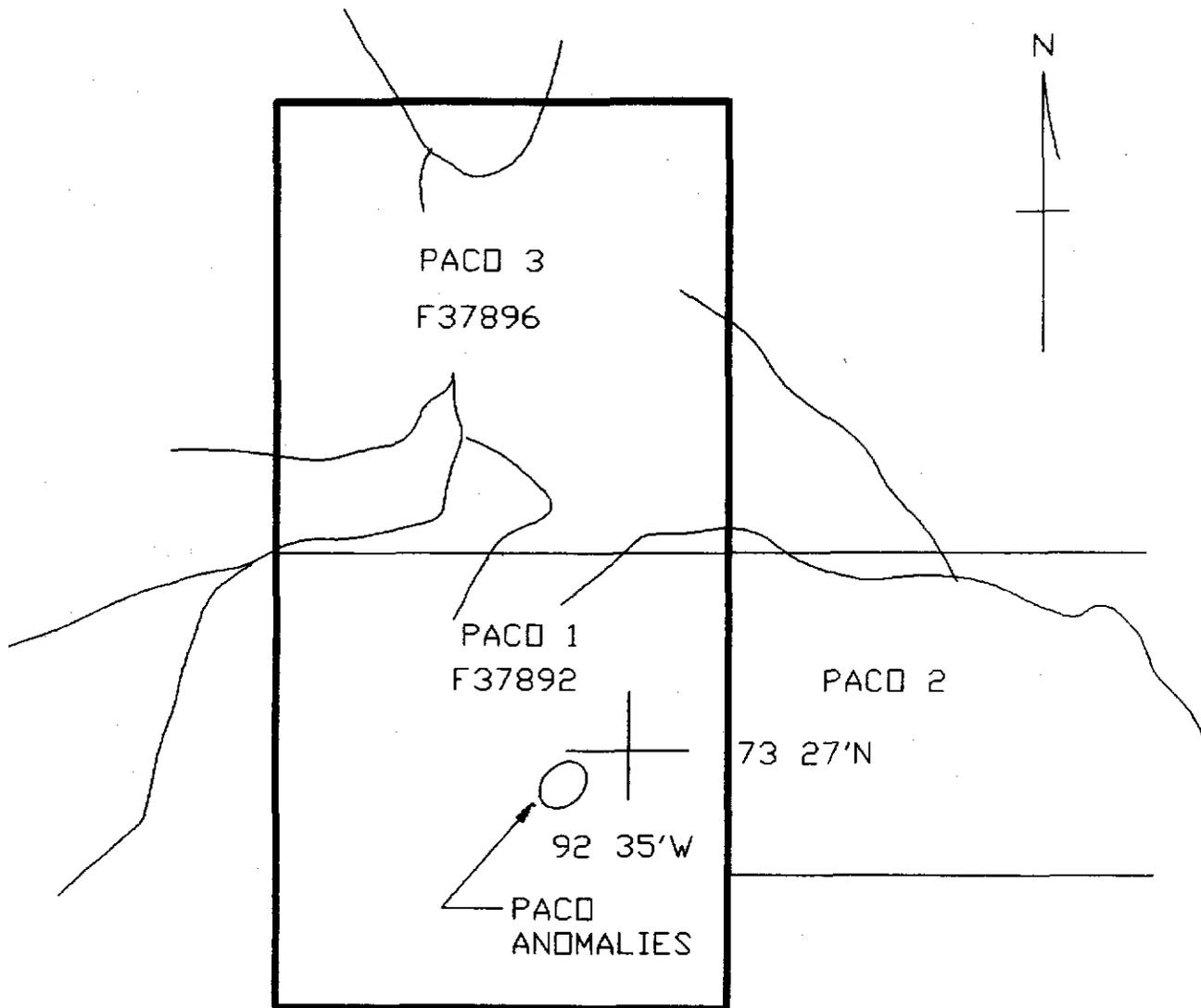
DATE: NOV/93

UTM ZONE 15

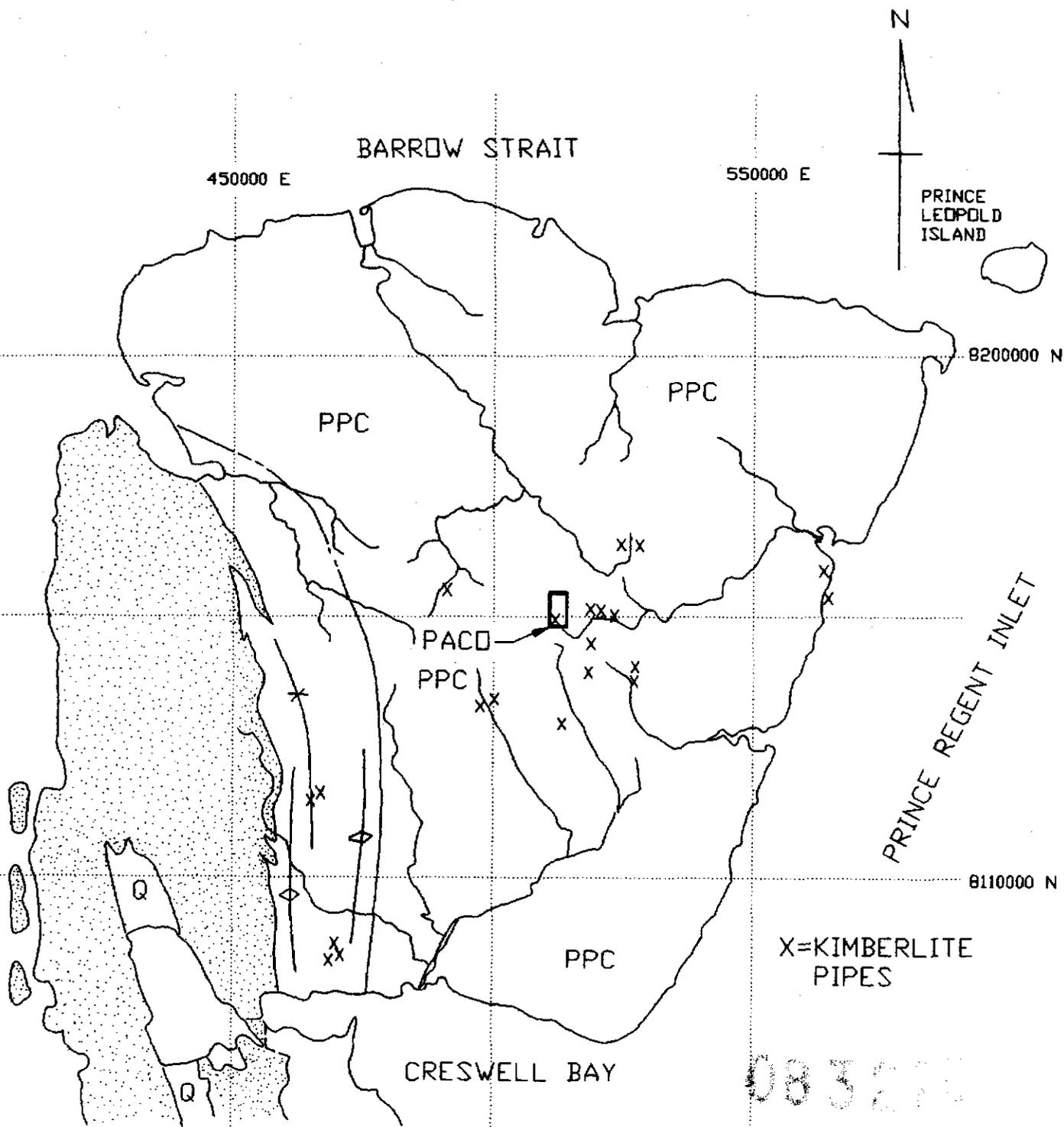
SCALE: BAR

REVISED:

DRAWING No.: FIG.-1



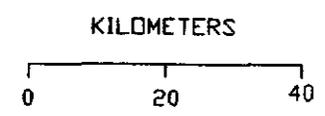
CYCLONE CAPITAL CORPORATION	
PROPERTY MAP	
PACO GROUP	
NTS: 58C/8	DATE NOV/93
SCALE: BAR	REVISED:
DRAWING No.: FIG.-2	



BOOTHIA ARCH
 XLINE ROCKS
 ARCHEAN

FOLD BELT

PLATFORM CARBONATES
 LOWER PALAEOZOIC



CYCLONE CAPITAL CORPORATION	
SOMERSET PROJECT	
REGIONAL GEOLOGY	
DATA: G.S.C.	DATE NOV/93
SCALE: BAR	REVISED:
DRAWING No.: FIG.-3	

islands. The position of diatremes along these features has no well-defined pattern. The age of the kimberlites is postulated to be Cretaceous.

The physiography of Somerset Island is that of a gently undulating plateau of about 300 to 400 meters elevation. A well developed dendritic drainage pattern is characterized by low gradients along the upper reaches of streams and high gradients within deeply incized canyons near the coast.

6. GEOPHYSICS

6 - 1. AIRBORNE MAGNETIC SURVEY Figs. 4, 5

During April and May, 1993, Geonex Aerodat Inc. conducted an aeromagnetic survey on behalf of Cyclone et al. over the Batty Bay area of Somerset Island.

Flight line spacing was nominally 200 meters. The survey instrument was flown at an average terrain clearance of 100 meters.

A total of 33,000 kilometres of data was collected during the survey over an area of approximately 6,375 square kilometres (Fig. 4). The information was processed by Geonex Aerodat and presented in profile and contour modes on 1:50,000 scale maps.

Most of the area surveyed is covered by relatively flat magnetic gradients as was expected, given the thick sedimentary cover of the eastern side of the island. A small proportion of the survey area, to the west of longitude 93°37' W. shows increased magnetic activity as a result of thinning sedimentary cover near the edge of the Boothia Arch with its tectonically complex meta-volcanic terrain.

A variety of fault directions are evident on the magnetic maps, which, in order of decreasing prominence, are: NE/SW, NW/SE and E/W.

Magnetic responses, attributed to kimberlitic intrusions, stand out clearly against the flat magnetic terrain. These are typically positive features of several hundreds to several thousands of nanoTeslas amplitude above background. The survey has clearly outlined all of the known kimberlite occurrences of the island. In addition, it has also revealed the

450000 E

500000 E

550000 E

BARROW STRAIT

PRINCE LEOPOLD ISLAND

820000 N

PPC

PPC

x|x

PACD

PPC

PPC

PRINCE REGENT INLET

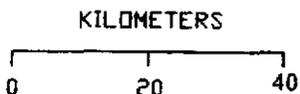
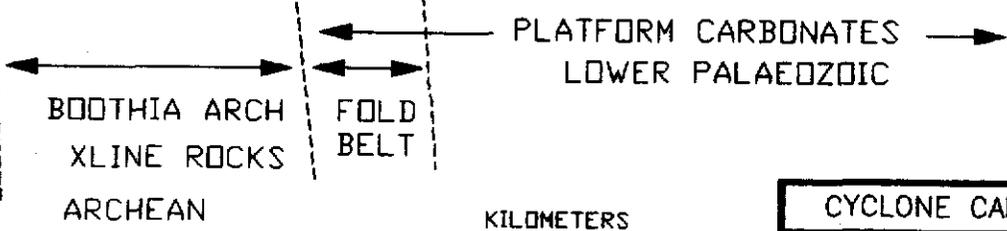
8115000 N

8110000 N

AREA OF AEROMAGNETIC SURVEY

N

CRESWELL BAY



CYCLONE CAPITAL CORPORATION	
SOMERSET PROJECT	
AREA OF AEROMAGNETIC SURVEY	
DATA: GEDNEX AERODAT	DATE: MAY 1993
SCALE: BAR	REVISED:
DRAWING No.:	FIG.-4

08 3 91

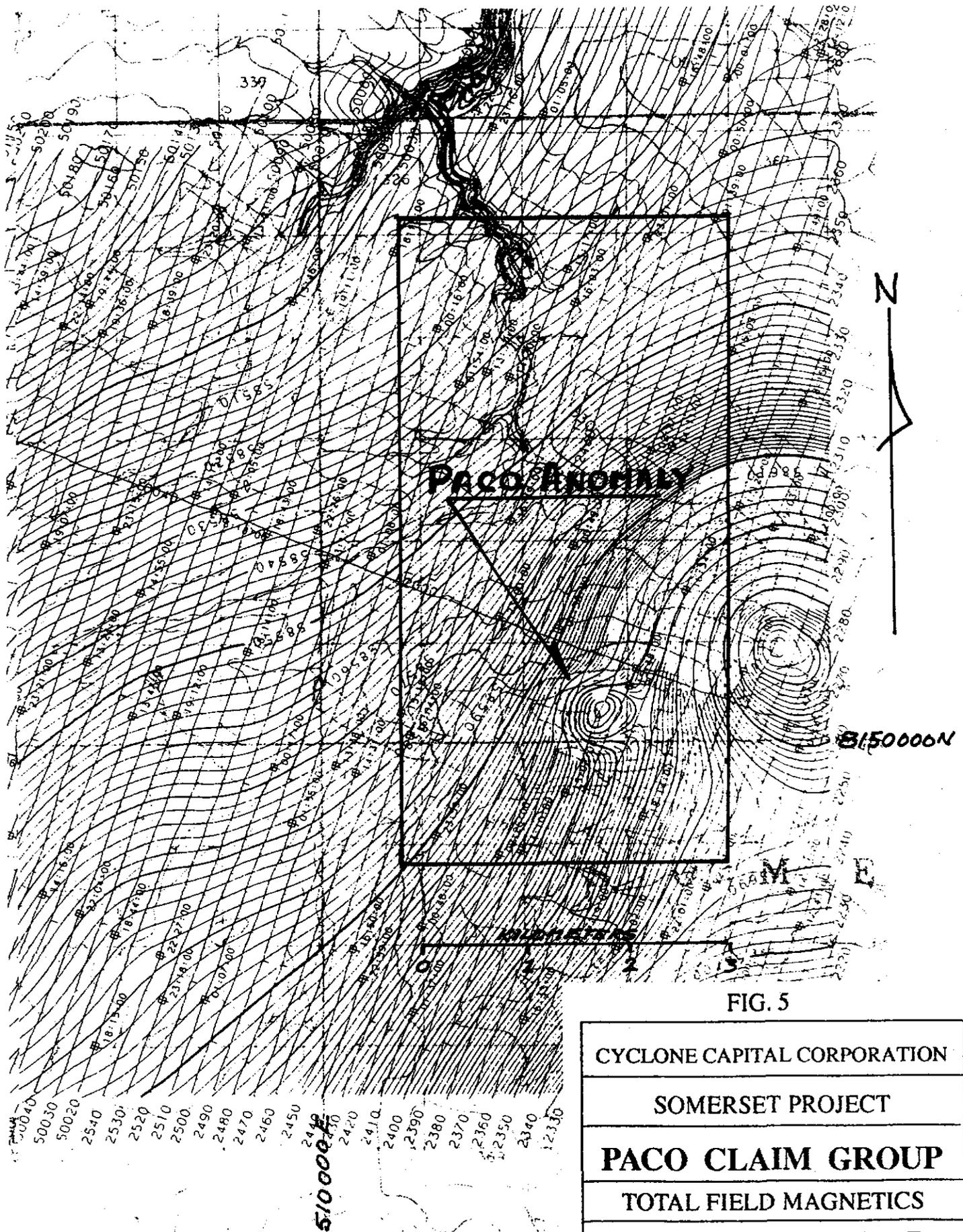


FIG. 5

CYCLONE CAPITAL CORPORATION

SOMERSET PROJECT

PACO CLAIM GROUP

TOTAL FIELD MAGNETICS

DATA: GEONEX AERODAT

SCALE 1:50,000

DATE MAY, 93

presence of a number of probable and possible, previously unknown, kimberlitic intrusions. Contoured results of the aeromagnetic survey which cover the Paco property are shown in Fig. 5.

The technical details and results of the complete survey are the subject of a report to Cyclone Capital by Geonex Aerodat dated October 1993. This report will be submitted for property assessment credits under separate title.

6 - 2. GROUND MAGNETICS

(after Boris Lum)

The objectives of the ground geophysical program were to locate and define aeromagnetic anomalies that may be related to kimberlitic intrusions. The geophysical methods employed were total field and vertical gradient magnetic surveys.

The magnetic surveys were successful in locating and defining all selected aeromagnetic anomalies, which vary over a broad range of amplitudes (15 nT to 1,000+ nT), surface dimensions, and geometry. The exploration methodology involved the use of air-photo interpretation, GPS for rough positioning (+/- 100 m), visual inspection from the air, and systematic surveying on grid lines to define the magnetic anomalies. An OMNI Plus magnetometer was used as a field recorder for these surveys. An OMNI IV magnetometer was used as a base station at Elwin camp to record diurnal drift. A base level reference of 58,250 nT was used in the data reduction.

Paco: UTM 512550 E, 8150200 N. **Fig. 6**

On June 29, 1993, a detailed magnetic survey was conducted on this property, to delineate an aeromagnetic anomaly. A total 4.95 km. of total field and vertical gradient magnetic data were recorded over a cross grid consisting of 11 survey lines and tielines.

The results of the magnetic survey outlined a pair of dyke-like magnetic features, trending east northeast, each about 20 - 50 m. in width and 200 - 250 m. in length. The first of these extends from line 2525 E to line 2725 E, immediately north of base line 300 N. It appears to be

comprised of two separate segments, one centred at 2725 E, with a maximum anomaly of 150 nT, and the other at 2700 E, with a maximum anomaly of 25 nT.

The second dyke extends from 2425 E, 080 N, to 2575 E, 125 N, and has a maximum anomaly amplitude of 225 nT.

The total field plot suggests a depth of burial of 10 m. or less, while the gradients indicate something closer to 20 m. The maximum amplitudes of this anomaly reach over 1400 nT above a smooth background of 58,500 nT.

The Paco anomaly is situated 16.6 km. west of the Elwin base camp.

7. PROPERTY GEOLOGY AND SAMPLING Fig. 7

Surface exposures at the Paco 1 anomalies were examined by D. Pawliuk and C. Joudrie on July 6, 1993.

The area is a broad smooth upland covered by residual clays and silts which carry fragments of the carbonate country rocks and locally some kimberlite rubble. The areas carrying kimberlite have been mapped on the basis of kimberlite vs. limestone percentage estimates of the surface material. These lie within or adjacent to magnetic anomalies. Three areas of kimberlite occurrence have been mapped. These correspond to the magnetic highs shown of Fig. 6.

Within the two northern areas the kimberlite content of surface material is generally less than 10 %. The areas outlined are irregular in shape due to solifluction. The forms of the underlying pipes are probably best defined by the magnetic response, both being roughly circular in shape, with diameters of 60 and 40 meters for west and east intrusions respectively.

The southern pipe is somewhat better exposed, with rubble areas showing up to 95% kimberlite. This feature seems to be elongated in form with dimensions of about 60 x 160 meters.

The kimberlite areas show weak colour anomalies due to the slightly elevated carbon content of associated clays. The kimberlites at Paco 1 are

light grey-brown, fine sucrosic textured and moderately magnetic. These rocks are calcite-rich and have weathered surfaces only slightly darker than that of local limestone fragments. They contain from 0.5 to 1.0 % of finely disseminated magnetite throughout. Limestone xenoliths up to 5 cm. across are common; notably within the southern pipe. These show various colours: brown, grey, cream, and apple green.

Chrome diopside is the only indicator mineral which was observed. This occurs rarely within the easternmost pipe as crystals up to 0.5 mm.

Eight grab samples were collected. These comprise 10 to 15 kg. of kimberlite fragments collected from the three exposed areas as shown on Fig. 7.

9. SAMPLE PROCESSING

Samples were shipped to Orex Labs, 6331 Beresford Street, Burnaby, B.C., V5E 1B3 for treatment in the following manner:

1. Rock samples are crushed to approximately 1/4 inch and ground to 2mm. Field concentrates from soil samples were sent directly for heavy mineral separation.
2. Sample is weighed and screened. Oversize is weighed then discarded, and undersize is slurried and fed into a vibrating hopper which discharges the slurry at a continuous and constant feed rate to a mechanized pan concentrator.
3. The pan concentrator concentrates the heavies at its centre while eliminating the lights over the pan edge. The tilt and speed of the pan, as well as the water added to the slurry, are adjusted to maximize retention of heavies. The recovery of heavy minerals, in the size range of 2.8 mm to 0.25 mm, is over 95%. Concentration ratio is in the order of 40:1. Typically a 20 kg till sample will yield about 500 gr of rough concentrate. The rough concentrate is dried.
4. Rough concentrate is sieved through a .25mm screen. The -.25 mm fraction is saved. The +.25 mm to -2.8 mm fraction is separated using heavy liquids - tetrabromoethane (SG2.96) and/or methylene iodide (SG 3.2).
5. Heavies are demagnetized with a hand magnet and then sieved to a +.6mm and a -.6mm product. The +.6mm product is saved and may be picked for indicators. The -.6mm product is passed through a Frantz Barrier Magnetic Separator, at varying magnetic intensities. Two products are produced - a paramagnetic fraction (slightly magnetic), and a non-magnetic fraction.
6. The paramagnetic fraction is picked for kimberlitic indicator grains. The non-magnetic fraction may be picked for diamonds, if they are suspected.
7. Electron probe microanalyses are carried out on the selected indicator grains to determine if they are of kimberlitic origin.

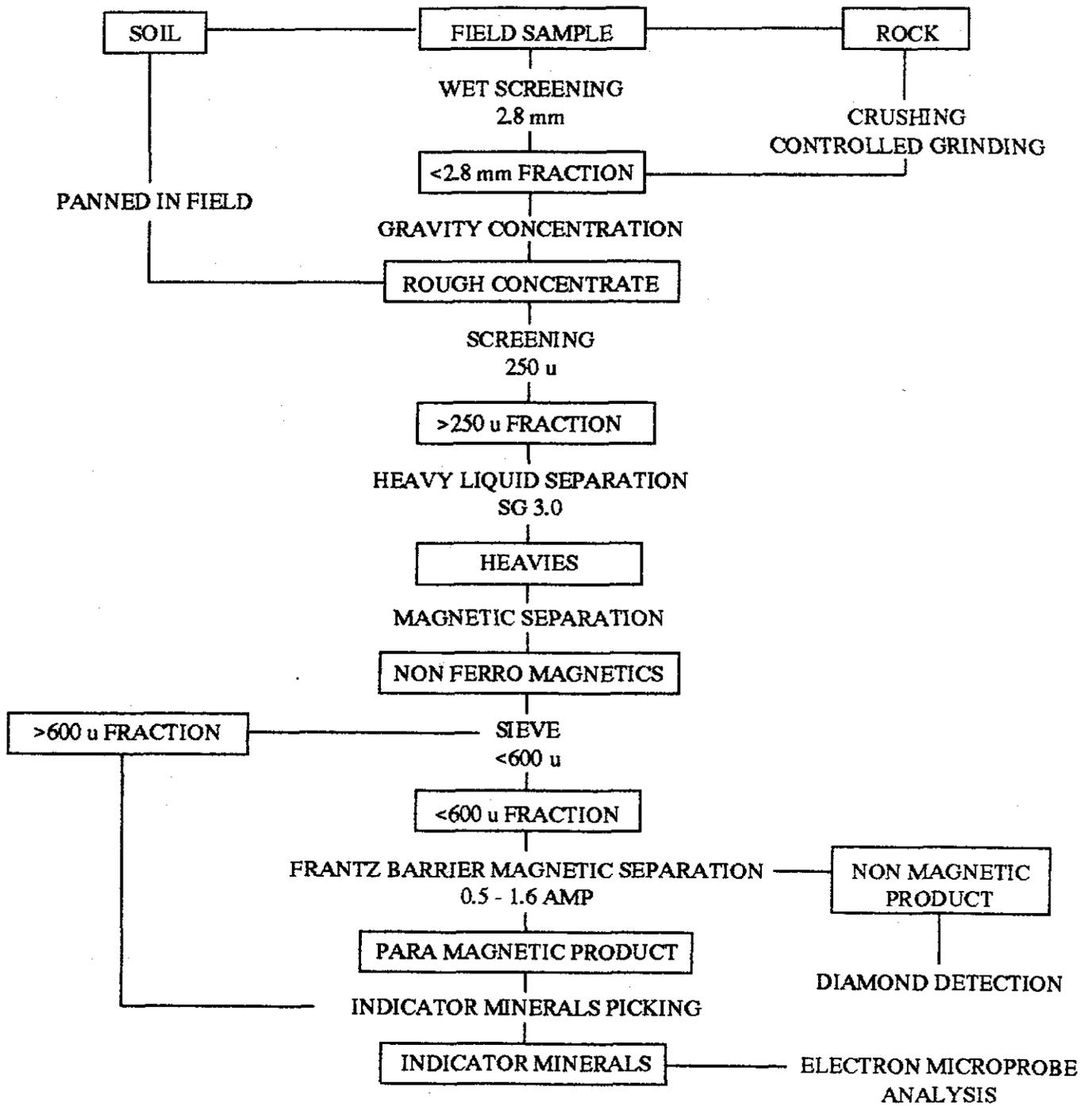


FIG. 8

CYCLONE CAPITAL CORPORATION	
SOMERSET PROJECT	
SAMPLE PROCESSING FLOW CHART	
DATA: OREX	NOV/93

APPENDIX I

PERSONNEL AND CONTRACTORS

GEOLOGICAL CREW:

Martin Anger	Student 48 Cadieux Ste. Therese Quebec, G7E 1A2
Martin Blake	Geologist 109 Midland Row Pasadena, NFLD, A0L 1K0
Leonard Gal	Geologist, M Sc. - Calgary 2552 East 54th Ave., Vancouver, B.C. V5S 1X4
Colin Joudrie	Geologist, B Sc. Queens 91 2 - 16 Ross St., Flin Flon, Man. R8A 0Y0
Mike Merante	Technician 28 Lauder Ave., Toronto, Ont. M6H 3E3
Dave Pawliuk	Geologist, B Sc. Alberta 4443 Dawn Place, Delta, B.C. V4K 4S1
Robert Potter	Geologist/Project Manager BA Sc, U.B.C. 61, M Sc (Applied) McGill 72 230 Tripp Road, Salt Spring Island, B.C. V8K 1K6

GEOPHYSICAL CREW:

On loan from Cominco Ltd.,
Suite 2200 - 120 Adelaide St. W.
Toronto, Ont. M5H 1T1

Boris Lum
Brian Powell
Gerry Lafortune
Richard Roberts

Geophysicist
Geophysicist
Technician
Technician

HELICOPTER

Canadian Helicopters Ltd.
2833h - 16th Avenue,
Markham, Ont. L3R 0P8

CREW:

Jeff Serpell

Pilot

FIXED WING:

Bradley Air Services
Resolute, NWT.

SAMPLE PROCESSING:

Orex Labs
6331 Beresford Street,
Burnaby, B.C. V5E 1B3

APPENDIX III

ENGINEER'S CERTIFICATE

I, Robert Potter of Saltspring Island, British Columbia, do hereby certify:

That I am a member, in good standing, of the Association of Professional Engineers of British Columbia;

That I am a graduate of:

University of British Columbia, BA Sc.
(Geological Engineering) 1961,
McGill University, M Sc. (Applied) 1972;

That I have practiced my profession since 1961;

That I personally supervised the 1993 exploration program on the Paco claims, on behalf of Cyclone Capital Corporation;

That the Statement of Expenditures incurred on the Paco claims during the 1993 exploration program (Appendix II) is a true accounting of said expenditures;

That I have no direct or indirect interest in the properties or securities of Cyclone Capital Corporation or of its affiliates.



Robert Potter, P. Eng.
November 22, 1993