NEIL O. WILLOUGHBY, B.Sc.H.
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Born: Toronto, Ontario, August 10, 1951

Languages: English, working knowledge of French & Spanish; phrases in Afrikaans, Mongolian and Inuinnaqtun

Education: B.Sc.H., Carleton University 1974, Ottawa, Canada

Thesis: The Geology and Petrography of the Central Diabasic Intrusion at Poza de la Sal, Spain.

Memberships:

Society of Economic Geologists
Canadian Institute of Mining and Metallurgy
Society for Mining, Metallurgy and Exploration
Association of Exploration Geochemists
Geological Association of Canada/Mineralogical Association of Canada
Northwest Mining Association
Prospectors and Developers Association
American Association for the Advancement of Science
New York Academy of Science
Archaeological Institute of America

To D & F

January 2000-February 2003

Position: **RESIDENT GEOLOGIST, WESTERN ARCTIC**

Minerals, Oil & Gas Division, Department of Sustainable Development, Government of Nunavut, Kugluktuk Regional Office

Duties:

- monitor and report on exploration and mining activities in the Kitikmeot (Western Arctic) Region to the Director of MOG and the Minister of DSD; promote Nunavut mining potential to industry.
- provide advice to Inuit Community Authorities and Inuit Associations on mining and environmental matters.
- assist local prospectors.
- deliver prospectors courses to the communities as part of the Nunavut Prospectors Program.
- teach introductory geology courses through CTS programs for local high schools.

Recent unpublished (publically available) papers:

1. The Identification of Mineral Deposits in Nunavut, for prospector courses.
2. Introduction to Geology, for high school students and prospectors.
3. Diamonds in the West Kitikmeot Region of Nunvut: The Coronation Gulf Diamond Rush, briefing note for the Minister.
4. Mineral Potential of the East Kitikmeot Region, for local Inuit interest groups.
5. Report on the Geology, Mineral Deposits and Mining Potential of the Coppermine River Area; part of a study for the Coppermine Heritage River Proposal

October 1999

Position: **CONTRACT GEOLOGIST**

Quincunx Gold Exploration Ltd., Waterdown, Canada & Ulaan Baator, Mongolia

Duties:

- geological mapping, sampling and reporting on the Shuteen Porphyry Copper-Gold Deposit, South Gobi Region, Mongolia.

January 1995-April 1998

Position: **CHIEF GEOLOGIST**

Quincunx Gold Exploration Ltd., Waterdown, Canada & Ulaan Baator, Mongolia

Duties:

- Field Manager on a three-year exploration project to evaluate the 4,000 sq km Harteeg Concession, South Gobi Region, Mongolia, for gold and copper potential.
- Reconnaissance and detailed geological mapping, sampling, trenching.
- Supervise soil geochemical surveys, geophysics (MAG, IP).
- Interpretation, diamond drill target selection, core logging.
- Coordinate activities with Mongol labourers and geologists.

Specific Projects:

1. Uhaa Hudag; auriferous quartz vein system in Carboneriferous sediments.
2. Ovoot Hyar porphyry copper-gold occurrence.
3. Kharmagtai porphyry copper-gold deposit; currently under option to Ivanhoe Mines.
4. Three week fly-camp Altai Range, Western Mongolia; evaluate a 4,000 sq km area of Carboniferous-Permian carbonates for Carlin-type gold potential; five-man Mongolian geology crew.

December 1989-December 1994

Position: **PRESIDENT**

NR&J Resource Associates Ltd., Toronto, Canada

Duties:

- President of a mineral exploration consulting and contracting company.
- Directing the business affairs of the company.
- Conduct contract geological/geochemical surveys, direct diamond drill programs, regional and detailed resource appraisals.

Specific Projects:

1. Surface and drift mapping, compile mine plans and sections, resource calculations of the past producing gold-silver Mary Ingaber Mine, Whitehall, Montana.
2. Detailed mapping and structural interpretation of the Granada Gold Mine (open pit), Abitibi Greenstone Belt, Rouyn, Quebec.
3. Delineation diamond drilling on the Fourax Gold Project, Abitibi Greenstone Belt, Malartic, Quebec; eventually mined by Placer Dome.
4. Geological mapping, trenching and sampling of the Albanel iron oxide copper-gold-silver project, Albanel Township, Elliot Lake, Ontario.

Client Reports:

May 1991: Report on the Mary Ingaber Gold-Silver Mine Property, Madison County, Montana.

January 1993: Geology and Structural Interpretation of the Granada Gold Mine Property, Rouyn Township, Quebec.

April 1986-December 1989

Position: **EXPLORATION MANAGER**

Canhorn Mining Corporation, Toronto, Canada (TSE-listed) & subsidiary United Reef Petroleums Limited (TSE-listed).

Duties:

- Direct and supervise exploration programs in Canada and the USA.
- Formulate exploration programs, budget proposals.
- Public shareholder presentations on company activities.
- Initiate option and joint venture agreements, property acquisitions.

Specific Projects:

1. Geological mapping, geophysical surveys and diamond drilling on the Aiken Russet Gold Project, Red Lake Greenstone Belt, Ontario; *discovery of a new gold-bearing structure*; currently (2002) under investigation by Placer Dome.
2. Extensive exploration/diamond drilling of the past producing Nickel Offset nickel-copper deposit, Sudbury, for PGE's.
3. Large exploration project including mapping, trenching, geophysics, soil geochemistry and diamond drilling on the Alder Gulch Gold Project, Virginia City District, Montana.

June 1978-October 1985

Position: **SENIOR GEOLOGIST**

MPH Consulting Ltd., Toronto, Canada

Duties:

- Carry out and supervise geological mapping, geophysical and geochemical surveys.
- Diamond drill and reverse circulation drill program supervision and logging.
- Mineral and exploration data compilations.
- Projects included uranium, gold and base metals (VMS, SEDEX) across Canada, parts of the USA and Paraguay, South America.
- Prepare qualifying reports for junior exploration companies seeking IPO's.

Specific Projects:

1. Detailed mapping, geophysics and diamond drilling on the past producing Amos Zn-Cu-Ag Mine (VMS), Abitibi Belt, Quebec.
2. Trenching and diamond drilling on the past producing Portis Gold Mine, North Carolina.
3. Uranium exploration and mapping of granitoids and carbonatite complexes, eastern Paraguay; *a JV between Anchutz Minerals of Colorado, the Japan Power Corporation and the Korean Electric Company.*
4. Mineral deposit database and geology map compilation of all gold and base metals mines, prospects and occurrences, greenstone belts of the provinces of Quebec and Ontario.

September 1977-April 1978

Position: **MAPPING GEOLOGIST**

Watts, Griffis & McOuat & Ab Va Khak Engineering, Teheran, Iran

Duties:

- Geological mapping at 1:50,000 scale.
- Microscopic studies of some 400 thin section specimens.

Project:

1. Part of a Canadian mapping, uranium and base metals exploration team examining ophiolite-melange belts, Cretaceous-Eocene flysch, Oligocene-Miocene volcanics in SE Iran and the Zahedan Granite Belt.

August 1977

Position: **GEOLOGIST**

MPH Consulting Ltd., Toronto, Canada

Duties:

- Geological mapping, uranium exploration and radon gas in waters survey, La Ronge and Wollaston Belts of Saskatchewan.

April-June 1977

Position: **GEOLOGIST**

Agnico-Eagle Gold Mines Ltd. & Sudbury Contact Mines Ltd., Toronto, Canada

Duties:

- Underground drift mapping and core logging at the Agnico Gold Mine, Joutel, Quebec (still in production in 2002).
- Linecutting and mapping on a gold and base metals project, Belleterre Greenstone Belt, southwestern Quebec.

April 1975-December 1976

Position: **MAPPING GEOLOGIST**

Geological Survey of South Africa, Department of Mines, Pretoria and Pietersburg, Republic of South Africa

Duties:

- Detailed and reconnaissance geological mapping and petrographic studies of the northern Transvaal and included the Limpopo Mobile Belt, Soutpansberg Supergroup of Proterozoic volcanics and sediments, Kaapvaal Craton and portions of the Bushveld Igneous Complex.
- Investigation of deposits of copper, graphite, coal, magnesite and gems.
- Detailed mineralogic/geologic appraisal of the Messina Copper Mine.

Publication:

1. 1981: Co-Mapper of 1:250,000 Sheet 2230 Messina.

Neil Willoughby, B.Sc.H.
Exploration Geologist
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Alex McPherson
Fx 604-943-0177
Ph 604-943-0729

August 13, 2003

Dear Alex;

A blurb on metal potential on your claims. The map is actually in colour, guess I should mail you one?

I'll work up a real exploration budget to cover your $60,000 assessment needs soonest.

Neil

Neil Willoughby

STM

POSSIBLY THIS MAY NOT BE OF YOU ANY GOOD / POSSIBLY IT MAY HELP.

ONE CLAIM IN GOOD STANDING

F TOLG 2 KATHY CALHOUN

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MINERAL POTENTIAL
ALEX MCPHERSON CLAIMS

GENERAL GEOLOGY: The claims are situated in the southern part of the Coronation Basin, an interlayered sequence of basaltic volcanic rocks and various sedimentary rocks of Late Proterozoic age (544-1000 million years ago). The claims are entirely covered by the volcanic rocks plus some related diabasic-gabbroic sills.

COPPER MINERALIZATION: The Basin has received considerable exploration attention in the past. Some 200 copper showings and a few copper deposits are documented in the basalts from work in the late 60's. Some copper resources were calculated. For instance the Dot 47 Deposit, located 30 kilometres northwest of the McPherson Claims, boasts 4 million tons of material at a grade of 2.96% copper. It also has some silver. The Coronation deposit with a resource of 1.3 million tons of 1.53% copper is situated 25 kilometres west-northwest of the Claims. Significantly, the Dot 47 Deposit sits on the regional northeast trending Teshierpi Fault. These showings are mostly contained in quartz-carbonate- (feldspar) veins.

BRECCIA PIPES: Dot 47 may be a breccia pipe, that is hydrothermal fluid pressure from depth has forced the minerals to or close to surface with such power that the host rock is severely fractured and shattered such that the rock collapses in on itself. The open spaces created then serve as a medium for mineral deposition.

URANIUM: Uranium exploration in the sedimentary sequences of the Coronation Basin was carried out in the early 80's and one small uranium deposit, the Pec, was uncovered. The deposit is in quartz-carbonate veins, again hosted by the northeast-trending Teshierpi Fault.

FAULT CONTROL ON MINERAL DEPOSITS: Researchers conclude that the significant mineral deposits in the area occur on northeasterly fault structures, particularly where they intersect north-south and east-west running faults. Both north-south and east-west fault zones have been found on the McPherson Claims.

NICKEL & PLATINUM: More recent activity over the last four years includes examination of the Coppermine Basalts for possible platinum group metals with associated nickel and copper. Precedent is set by the large nickel-palladium deposits of the Norli'sk Region, Russia which also are contained in Proterozoic continental flood basalts, similar rocks to those of the Coppermine area. This exploration model should be kept in mind while working in the Coppermine basalts.

COPPER ECONOMICS: The copper deposits themselves are at this time not economic, given the depressed price for copper, their remote location and of course the stiff competition from the huge copper mines in Chile and Southeast Asia (100's of millions of tons versus a couple of million tons). Mongolia also is soon to be a copper producing powerhouse.

POLYMETALLIC & IOCG DEPOSITS MAKE MORE ECONOMIC SENSE: But suppose there are other metals associated with the copper? Aside from silver, some workers have detected low values in gold and nickel in these copper-bearing veins. Research on various Proterozoic mineral deposits has suggested that the Coppermine Region may be a candidate for what is becoming known as Iron Oxide Copper Gold deposits, or IOCG, a polymetallic deposit-type found in some Proterozoic areas of the world, such as Australia, Sweden and the Northwest Territories.

IOCG & GBMZ: Several IOCG occurrences and two deposits occur approximately 500 kilometres south of the Coppermine area in the NWT. Fortune Minerals is currently examining the potential of IOCG deposits in the southern part of the Great Bear Magmatic Zone (GBMZ). This geological feature, highlighted on the accompanying map, consists of Early Proterozoic (1750-2500 million years ago) granitic intrusive rocks and some earlier volcanic and sedimentary rock sequences. Significantly, the zone extends northwards to the Coronation Basin and may in fact extend underneath the Basin as implicated on the map.

NICO & SUE-DIANNE DEPOSITS IN GBMZ, NWT: The Nico deposit has a resource of 42 million tonnes of 0.10% cobalt, 0.5 g/t gold, 0.12% bismuth plus some copper and silver. Sue-Dianne, described as a diatreme (breccia pipe) has 17.3 million tonnes of material outlined containing 0.72% Cu and 3.3 g/t silver. The similarities to Dot 47 I don't believe have ever been publicly made!

OLYMPIC DAM, AUSTRALIA: For your information the type locality for this style of deposit is the Olympic Dam Mine in Australia, which has a resource of 2 billion tonnes of1.6% copper, 0.6 g/t gold, 3.5 g/t silver, 0.6 kg uranium as well as cobalt, bismuth and rare earth elements. This would be a mine anywhere in Nunavut. Olympic Dam is also comprised of large breccia zones and diatremes, quartz-carbonate veins. Notice the uranium, which is also found in the Coppermine Basin. The breccias are described as being hematite (iron)-rich.

STRUCTURES, IT'S ALL ABOUT STRUCTURES: What is significant about the Nico and Sue-Dianne deposits is that they occur along the traces of northeasterly faults and at or close to intersecting east-west fault structures, the precise orientation of fault structures in the Coronation Basin and on the McPherson Claims.

URANIUM & SILVER DEPOSITS IN GBMZ; IOCG? Additionally, the quartz-carbonate hosted uranium deposits at Eldorado/Echo Bay and silver deposits at Terra and Northrim located at Great Bear Lake, approximately 50 kilometres southwest of the Coppermine area, in the GBMZ, also all occur along northeasterly fault structures. Perhaps these deposits are genetically related to IOCG models (?).

Why the GBMZ is not the scene of an exploration and staking rush for IOCG-type deposits is puzzling.

McPHERSON CLAIMS POTENTIAL: The potential to find the IOCG style of polymetallic deposit on or around the McPherson Claims is good, given a few constraints. First of all, such a deposit would lie underneath the Coronation Basin basalts, at depth, so not directly visible on surface. Second, to find such a deposit at depth would require some expensive and sophisticated geophysical surveying.

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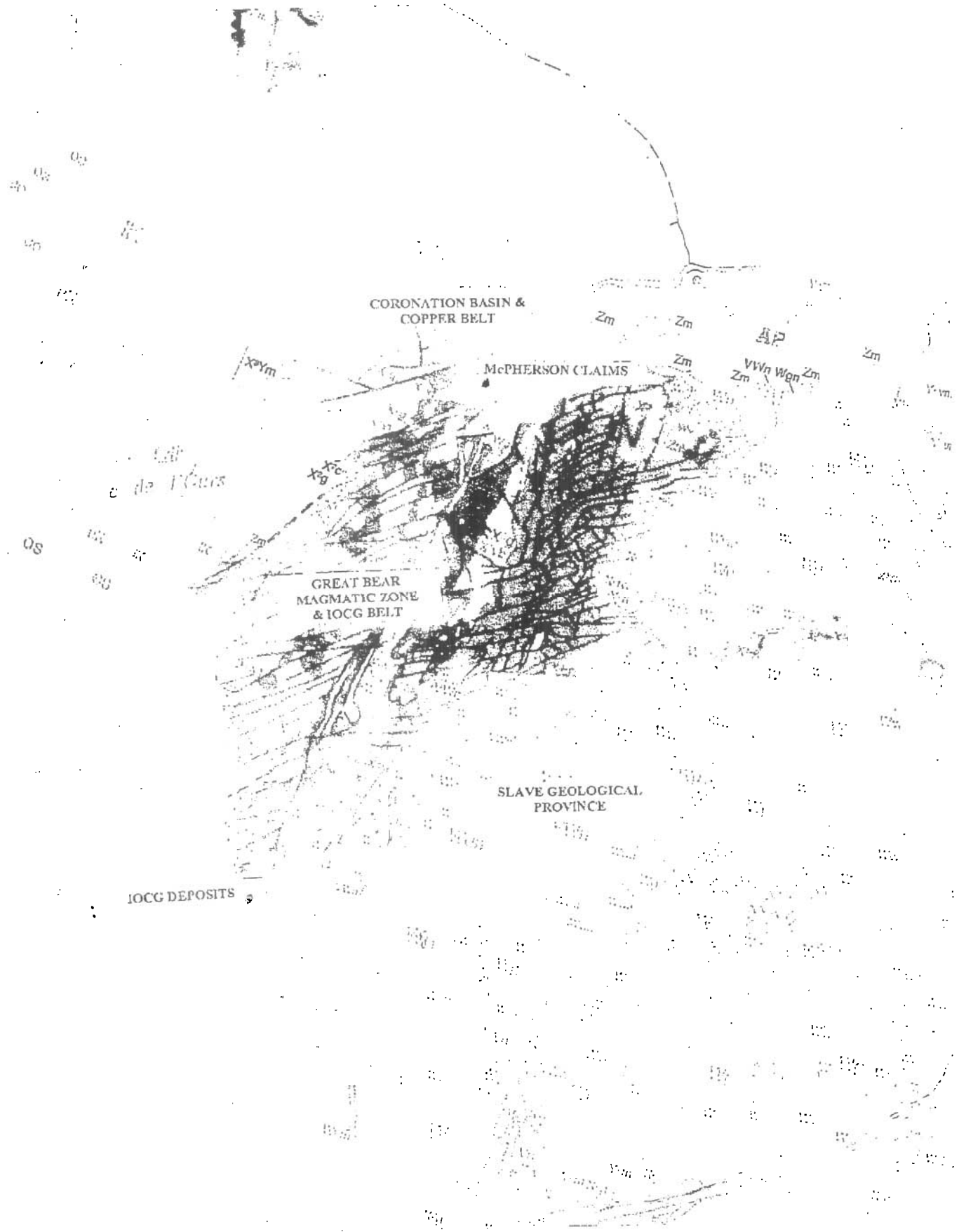
However in the interim, good structural mapping should determine if the significant host structures occur on the ground, that is vertical northeasterly regional faults and intersecting north-south and east-west faults. The Teshierpi Fault has been mapped in both the Coronation Basin basalts and the GBMG, indicating that at least some, if not all, of the area faults may be related to the IOCG mineralizing event found at Nico and Sue-Dianne.

Alex McPherson reports a significant mineralized east-west structure from his work in the 1960's. Although on a one day property visit with Alex we failed to locate this structure, we did visit one outcrop of basalt that was intensely hematite-altered; this is one of the main characteristics of IOCG deposits.

Neil Willoughby, B.Sc.H.
Exploration Geologist
Kugluktuk, Nunavut

August 13, 2003

? I DO NOT HAVE X RAY EYES / WHAT I WORKED ON WAS ON SURFACE.


CORONATION BASIN &
COPPER BELT
McPHERSON CLAIMS
GREAT BEAR
MAGMATIC ZONE
& IOCG BELT
SLAVE GEOLOGICAL
PROVINCE
IOCG DEPOSITS