TECHNICAL REPORT ON THE GRIFFITH PROPERTY

ONTARIO, CANADA

Prepared For:

NORTHERN IRON CORP.

Author:

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NI 43-101 Report

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(Source – Northern Iron Corp.)

Item 3.0: SUMMARY

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Terms of Reference

4.1: Preparation of Report

Form 43-101F Technical Report titled "***Technical Report On The Griffith Property, Ontario, Canada***" has been prepared for **Northern Iron Corp** ('NIC'), Suite 658, United Kingdom Building, 409 Granville Street, Vancouver, B.C., Canada, V6C 1T2 by Christopher Hutchings, P. Geo., President, **KIEX Consulting Limited** ('KIEX'), 8 White's Road, Carbonear, NL, Canada, A1Y 1A4 at the request of Mr. Raul Sanabria, EurGeol., P. Geo., Vice President Exploration of Northern Iron Corp., May 11, 2011. Mr. Hutchings is a qualified person and has an independent relationship with respect to Northern Iron Corp.

4.2: Purpose of Report

This Technical Report has been prepared for Northern Iron Corp. with respect to a *Qualifying Transaction*. The Griffith property has recently been determined *Material* with respect to a prospectus filing by the issuer.

4.3: Sources of Information

Sources of technical information and data specifically related to the Griffith property are Ontario Geological Survey and Ontario Ministry of Northern Development Mines and Forestry assessment files and publications, Canadian Institute of Mining and Metallurgy publications, Geological Survey of Canada publications and a Northern Iron Corp. Technical Report. Other citations are specified in the text of this document and/or Item 23.0: References. Published scientific papers provided general geological information for Bruce Lake Township including documented mineral deposits in the vicinity. Additional data was sourced from Northern Iron Corp. correspondence with the author.

4.4: Scope of Personal Inspection

Scope of a personal inspection involved a brief property visitation (September 29, 2010) by Christopher Hutchings, prior to commencement of Northern Iron Corp. drilling program, to observe mineralized outcrop locations and the property in general. Onsite discussions at Griffith were held with Northern Iron Corp. Vice President, Exploration - R. Sanabria, M. Sc., EurGeol., P. Geo., field guide for the inspection.

Item 5.0: RELIANCE ON OTHER EXPERTS

<u>Disclaimer</u>

This technical report has been prepared by the author (qualified person) exclusively without reliance on other experts. Independent verification of legalities and nontechnical issues is beyond the scope of this report. Use of the report for project financing and filing on SEDAR is permitted by the author.

Item 6.0: PROPERTY DESCRIPTION AND LOCATION

6.1, 6.2, 6.3, 6.4, 6.5: Property Area, Geographic Location, Mineral Tenure, Issuer Title & Interest, Boundary Location

Griffith property, approximately 1,776 hectares in size, consisting of 11 unpatented contiguous ground staked mining claims comprised of 111 claim units, is situated on NTS Map Sheet 052K/14SE, Bruce Lake Township, Red Lake Mining Division, District of Kenora, Northwest Ontario. Approximate centre of the property is located at Longitude 92°22'40"W; Latitude 50°48'37"N (473,440mE, 5,628,240mN – NAD 83, Zone 15).

Mining properties staked under the **Ontario Mining Act** give the claim holder exclusive rights to explore for any mineral staked on Crown land with the exception of sand, gravel and peat. Ground staked claims do not include surface rights and are not legally surveyed. Expenditures of $ 400.00 annually per 16 hectare claim unit for approved assessment work, non-applicable to Year I, are required with respect to Year II and subsequent years until the claim holder applies for a mining lease.

Ontario Ministry of Northern Development, Mines and Forestry (MNDMF) lists the registered holder (Internet Mining Claim Information May 16, 2011) of the Griffith property claims as Northern Iron Corp. (100.00%). Larry Kenneth Herbert transferred

100% interest in claims numbered 4241228, 4241227, 4241226, 4229705, 4212693, 4222833, 4229700, 1184105, 4222834, 4229701 and 4229702 to Northern Iron Corp. 2010-Aug-04. The claims are in good standing.

6.6: Location of All Known Mineralized Zones Relative to Outside Boundaries

Two banded iron formation (BIF) mineralized zones, historically designated as the North Deposit and South Deposit, are predominant with respect to location circa the property centre. Open pits typify the magnetite occurrences. Both pits are currently flooded. An irregular claim boundary occurs in close proximity and mimics the west perimeter of the North Pit. The South Pit is centralized between the respective, east, south and west claim boundaries.

6.7: Issuer's Property Interests and Agreements

To the extent known by the author:

Northern Iron Corp. has acquired outright ownership (100%) of the Griffith property claims transferred August 4, 2010 from Larry Kenneth Herbert, including all technical information in the possession of Hebert with respect to a purchase agreement dated January 5, 2010. Hebert received 2,000,000 common shares in the capital of Northern Iron Corp. and $ 6,000.00 cash paid by NIC within 30 days of raising $ 500,000.00 of equity capital. Hebert retains the right to a 1% royalty on net smelter returns (NSR Royalty) from the claims. The agreement excludes any surface rights which will be retained by Hebert.

6.8: Environmental Liabilities to Which the Property is Subject

The author is unaware of any environmental issues affecting the Griffith property, 2010, and understands environmental studies were not required nor conducted by Northern Iron Corp. or Larry Kenneth Herbert.

6.9: Permits to be Acquired and if Obtained

The author understands, with respect to the Griffith property 2010 program, exploration or environmental permits were not required. Northern Iron Corp. followed general Canadian and Ontario exploration guidelines in adherence to the Ontario Mining Act, 'A Practitioner's Guide for Planning and Permitting a Mineral Development Project in Ontario'.

Currently, 2011, the author understands an application for a permit to dewater the North Pit is in the process of being submitted by the issuer to Ministry of Northern Development, Mines and Forestry/Ontario Ministry of the Environment. Requested water quality tests, performed during February 2011 with respect to the North Pit and Bruce Lake returned satisfactory results meeting water quality specifications. However, though water quality meets regulations, the issuer is required to obtain a Category 3 permit due to the quantity of water and duration of pumping. An impact assessment study is required before NIC applies for a permit and the study will need to be included in the application. The author also understands the body of water comprising the North Pit will not be regarded as fish habitat. On April 11, Fisheries and Oceans Canada informed the issuer of its decision not to apply the fish habitat protection provisions of the Fisheries Act to the North Pit of the former Griffith Mine.

6.10: First Nations Issues

The author understands Northern Iron Corp. is not aware of any First Nations issues.

Item 7.0: ACCESSIBILITY, CLIMATE, LOCAL RESOURCES - INFRASTRUCTURE AND PHYSIOGRAPHY

7.1: Accessibility

The Griffith property is situated approximately 26 km north of Ear Falls and connected to Paved Route 105 by the Griffith Mine Road to the east, a distance of approximately 1.5 km. Excellent access throughout the property is provided by an extensive network of mine hauling and gravel roads left from the Griffith Mine operations.

7.2: Climate

Red Lake District, situated in northwest Ontario experiences a continental climate, warm summers and cold winters, temperatures ranging from 27^{o}C to lows of -30^{o}C, winter lasting until April or May and freeze-up by mid-November. Drilling is often carried out in the winter months due to snow cover facilitating mobility.

7.3-7.4: Local Resources – Infrastructure

The Township of Ear Falls, located on the north shore of Lac Seul, having a population of 1,153 persons is situated 69 km south of the Municipality of Red Lake, the primary industrial centre for the Red Lake Mining District.

The site of world class gold mining operations, a very skilled mining labour force is attracted to Red Lake, having a population of 4,526. Specifically in the Ear Falls area, in addition to mining, forestry, lumber production and hydroelectric power are important primary industries. The area is a very popular tourist hunting, fishing and wilderness experience destination.

Transportation within the Red Lake District is by road, rail or air. Paved Route 105 connects Ear Falls and Red Lake with the Trans Canada Highway (Route 17), 100 km to the south. Ore was moved from the Griffith Mine (closed) via railway - the rail bed stills exist - connecting with the Canadian National Railway line to the south. Small airfields in relatively close proximity to Griffith are situated at Ear Falls and Red Lake.

Surface rights to a portion of land included on the Griffith property are held by the Township of Ear Falls and Ontario Inc.; sufficiency of surface rights for mining operations has to be determined. Potential tailings storage areas, potential waste disposal areas and potential plant processing sites are in place from the historical Griffith Mine. Sufficiency and availability for impending future mining operations would require determination. Water sources are available, locally; sufficiency requires determination. West of the property, a power line sub-parallels Route 105. A remnant of the Griffith mining operation is a capped natural gas pipeline situated in proximity to the property.

7.5: Physiography

Griffith property, having a general elevation of 350m asl, borders Bruce Lake; Pakwask Lake occurs to the west beyond claim boundaries. The property is predominantly situated on dry ground with gentle topography, interspersed by two open pits and forest screens. Vegetation varies from grasses, coniferous and deciduous trees. Surficial geology consists of five map units. Mine tailings consisting of fine to very fine sand, 1-15 m thick predominate. Flanking to the north and west are slivers of Holocene organic deposits, peat and muck, 1-4m thick. Late Wisconsinan deep water glaciolacustrine laminated to varved clay, silt and fine sand; 1-50 m thick, is ubiquitous beyond the general property area. A unit of drift and bedrock occur as two patches in close proximity, roughly corresponding with the North Pit area; glacial drift within the vicinity is 1-3m thick in depressions. Four small patches of glacial outwash consisting of sand and gravel, 1-4m thick, occur immediately west of the property. Ice flow direction from glacial striations is predominantly 270^{o}.

Item 8.0: HISTORY

8.1: Prior Ownership and Ownership Changes

Griffith property, located on the western shore of Bruce Lake, was originally staked in 1953 by L. Dempster, J. Dempster and A. C. Mosher, employees of a syndicate managed by **Calmor Mines Limited**.

Iron Bay Mines Limited was formed in February 1954 and acquired the property.

An option agreement between Iron Bay Mines Limited and the **Cleveland-Cliffs Iron Company** in 1959 resulted in the undertaking of a joint venture program, at least until 1960.

The property was optioned in 1963 to **Taconite Lake Iron Co. Limited**, a subsidiary of **Pickands Mather & Co.** This option, on behalf of Pickand Mathers & Co. and **The Steel Company of Canada, Limited** (Stelco) gave Pickand Mathers & Co. exclusive rights for a two year period to explore and evaluate the Bruce lake property.

Taconite Lake Iron Co. Limited exercised its option, April 27, 1965, acquiring a 75-year lease on all mining lands held by Iron Bay Mines Limited in the Bruce Lake area.

Taconite Lake Iron Co. Ltd. assigned all its interest in the property to The Steel Company of Canada, Limited (Stelco) by indenture, August 16, 1965. The property was named the *Griffith Mine* and Pickands Mather & Co. were the managing operators. Stelco, March 1966, publicly announced the decision to bring the mine into production by 1968.

Iron Bay Mines Limited and Calmor Mines Limited changed names, in June 1966, to become **Calmor Iron Bay Mines Limited**.

The Northern Miner, 1973, stated the property was leased from Calmor Iron Bay Mines and the Iron Bay Trust (both listed TSE) and also Chimo Gold Mines held shares in each company. Late in 1978, Calmor Iron Bay and International Mogul Mines (Ontario) Limited amalgamated to form Calmor Iron Bay Mines (1978) Limited.

This company [name changed to **Calmor Iron Bay Mines (1979) Limited**] became a wholly owned subsidiary of International **Mogul Mines Limited** in 1979.

Following the 1986 mine closure, the property was withdrawn from staking.

Larry Kenneth Herbert acquired 100% ownership of claims staked on his behalf by D. M. Robertson in 2008, 2009 and by R. M. Quedent in 2009. Herbert's 100% interest was transferred, August 4, 2010; to **Northern Iron Corp.**, the current claim holder.

8.2: Previous Exploration and Development

<u>19th Century</u>

Discovery of iron formation at Bruce Lake may be attributed to D. B. Dowling, Geological Survey of Canada. In 1894, Dowling initially recorded the presence of BIF on the western shore of Bruce Lake and commented on its possible future economic importance.

<u>20th Century</u>

During the 20th Century, progressively larger exploration programs were undertaken with successive favourable results, eventually leading to development of the Griffith Mine. Details of the initial finding and subsequent involvement of Canadian and American corporations are described below:

Several conflicting accounts of discovery and early exploration of the Bruce Lake iron formation exist: (1) The 1912 Ontario Bureau of Mines Report described the earliest reference to BIF located at Bruce Lake: "Several beds of dark, fine-grained, stratified rock, containing a great amount of magnetite and specular iron ore, outcrop on the shore of Little Shallow lake, now known as Bruce Lake". (2) The first published account of the iron formation at Bruce Lake was by E. L. Bruce in 1924 for Ontario Department of Mines. (3) Shklanka (1970) referring to Bruce's report mentions "some drilling at the sites of the North and South Deposits as the search for secondary enriched zones in the iron formation continued". (4) Energy, Mines and Resources, Ottawa, reported the drilling refers to two holes drilled in 1912. The author is uncertain whether or not description (1) refers to Dowling.

Following the staking of 90 claims, preliminary exploration, in 1953, under the management of Calmor Mines Limited, consisted of trenching, sampling and dip needle surveys.

Iron Bay Mines Limited, formed in February 1954, acquired the property, staking an additional 33 claims, and undertook geological and magnetic surveys and drilled 29 holes totalling 13,062 feet (3,981.30 m). The diamond drill core was subjected to concentration tests in 1955.

A joint venture program involving further development and test work commenced following a 1959 option agreement between Iron Bay Mines Limited and the Cleveland-Cliffs Iron Company. The North and South deposits were partially stripped in 1959 and pilot mill tests on were completed in 1960 at Michigan College of Mining and Technology. Results showed 67.2% Fe in the concentrate for a 41.5% weight recovery and 90.2% iron unit recovery. A 60-ton bulk sample tested at the Cleveland-Cliffs laboratory indicated that the crude ore as amenable to autogenous grinding.

Taconite Lake Iron Co. Limited, a subsidiary of Pickands Mather and Co. optioned the property in 1963. From 1963 to 1964, 17 holes, totalling 10,126 feet (3,086.40 m) were drilled and 170 tons of ore shipped to Hibbing, Minnesota for testing showed that high grade pellets with 66.20% Fe and 4.50% silica could be obtained by grinding to -325mesh.

The Steel Company of Canada, Limited acquired all interest in the property from Taconite Lake Iron Co. Limited in 1965 and in March 1966, publicized its plans to bring the property, and renamed the *Griffith Property*, into production by 1968.

Ten holes, totalling 9,517 feet (2,900.78 m) were drilled in 1966.

Under Pickands Mather's supervision, Canadian Bechtel Limited, the engineering and construction contractor, commenced clearing and excavation for the plant buildings in March 1966. The plant was designed for a capacity rate of 13,000 long tons (dry) crude ore per day for an 86.28% magnetic iron unit recovery, i.e., about 4,200 tons of pellets per day. A primary crushing plant was designed to crush run-of-the mill ore to a nominal 8-inch size. Processing and service facilities were housed under one roof to provide a more efficient operation and facilitating communications and logistics. The complex was 416 feet long, 262 feet wide and 120 feet high (126.80m x 79.86m x 36.58m). Eight major elevations were required in the building so that the concentrating and pelletizing equipment could be properly located and serviced. The plant had a service extension housing and laboratories, maintenance shops, garage, warehouse, locker rooms, and safety and first-aid rooms. A section of the building contained The Griffith Mine's offices and training rooms. Located apart from the main complex was a truck storage building including space for 12 45-ton trucks. Other service facilities included a pumping station at the lake to supply process make-up and utility and a highly efficient sewage system.

A single-line track railway spur line for transportation of pellets was completed in October 1967 by Canadian National Railway, connecting the property with Amesdale, Ontario, 67 miles (107.8 km) south. The pellets were shipped to Thunder Bay, Ontario and stored at the stocking and shipping facilities owned and operated by The Valley Camp Coal Company of Canada Limited for Canadian National Railway prior to shipping by water to Selco's Hilton Works at Hamilton, Ontario. Electric power was acquired from an Ontario Hydro transmission line, 3.2 km west of the property. A Trans-Canada pipeline provided natural gas for the induration furnaces and plant heating systems. The 6-inch, welded steel pipeline running 73 miles (117.48 km) to the plant is still present on the property and currently capped off (observed by the author). Operations required a work force of 450 persons, eventually housed in Ear Falls by the Ontario Housing Corporation at a complex consisting of single and multiple dwellings.

The North Deposit open pit was expected to be 5,500 feet long, 2,100 feet wide and 1,100 feet deep (1676.40m x 640.08m x 335.28m). Stripping operations began at the North Pit on June 1, 1966 and due to the location of the deposit which was partially under the lake, it was necessary to dyke off parts of Bruce Lake and also construct a tailings retention dyke between the north and south basins of the lake. By June, 1966, construction of a dredging disposal basin was in progress. The dykes, with an overall length of 2 miles (3.2 km) were completed over a two year period.

The first pellets were produced on February 26, 1968 from ore taken solely from the North Deposit and the first shipment was made March 13.

From 1967 to 1972, some 68 holes, totalling 17,186 feet (5,238.29m), were diamond drilled.

Between 1972 and 1974, the South Deposit was developed and brought into production.

Since 1974, both pits were mined. An SL/RN (Stelco Lurgi / Republic National) kiln, a direct reduction kiln which achieved 89-93 per cent metallization was added to the mine facilities. The first sponge iron was produced from this SL/RN kiln on-site reduction plant, May 1975. Diamond drilling to determine bank stability was carried on regularly. Exploration or developmental drilling was not performed between 1975 and 1980. Installation of plant equipment to recover fine iron from flotation tailings was begun in 1978.

The mine operated at full capacity until the end of June 1982 and then at 2/3 capacity for the rest of the year.

Announcement of closure on April 1, 1985, was made November 15, 1984; however, on December 24, 1984, postponement of closure was deferred to April 1, 1986. Following closure of the Griffith Mine on March 31, 1986, remediation was carried out, building structures were removed and the two open pits subsequently flooded.

Components of the Griffith Mine, with respect to development, consisted of the North Pit, South Pit, Plant, Kiln, West waste Rock Storage Area, East Waste Rock Storage Area, South Waste Rock Storage Area, Mine Dyke, East Mine Dyke, West Mine Dyke, Divider Dyke, West Road Dyke, Perimeter Dyke, Primary Tailings Basin, Secondary Tailings Basin, Spoil Basin and South Basin.

8.2.1: Historical Drilling

Historical drilling by Iron Bay Mines Limited, Taconite Lake Iron Co. Limited and Stelco/Pickans Mather & Co. between 1954 and 1972 totalled 15,206.78 meters (49,891 feet) from 124 diamond drill holes. However, drilling for the 1954-1986 period totalled 18,288.00 meters (60,000 feet) according to a 1986 statement by Stelco/Pickans Mather & Co.

Crude ore grading was based on diamond drilling, as the angle drilling was designed to intercept all geological horizons. The drill core was composited according to geological horizons and laboratory work was done on these composites which were correlated to actual mill results. The core was split several times; part of the remaining core was given to the Ministry of Natural Resources at closure.

The author understands archived core from the Griffith property does not exist with the exception of the donation to the Ontario Provincial Government; the core was either obviously utilized on site and/or discarded upon cessation of operations. Also, when the operation closed, records were apparently destroyed, which included drill logs, assays, drilling location maps, mining plans and sections.

A search by the author show a total of 31 summary logs - no assays, plans or sections - covering 24 holes drilled in 1954, 6 holes in 1956 and 1 hole in 1959, totalling 3,810.91 meters (12,503 feet) by Iron Bay Mines Limited (assessment file 52K14SW0011) and a total of 6 drill logs covering 3 holes drilled in 1963, 1 hole in 1966 and 1 hole in 1971 totalling 1,036.62 meters (3,401 feet) by Pickans Mather & Co. (*in* NIC files) apparently exist. A grand total of 4,847.53 meters logged in summaries, from 37, inclined, AX(?) core size, diamond drill holes or approximately 26.5% of 18,288.00 meters survived to the extent known by the author. Precise UTM coordinates are, at best, an educated guess. Information related to historical drilling procedures was not located by NIC or the author. Procedures, in the author's opinion, were probably similar to industry counterparts with the exception of file destruction. Information per historical drill hole normally required by NI 43-101 disclosure and ultimate use for future interpretation is considered inconsequential by the author.

Historical analytical values, in the author's opinion, are unreliable, strictly not in accordance with modern **CIM Exploration Best Practices Guidelines** with respect to NI 43-101 reporting. However, since the Griffith Mine was a significant producer, values should be considered template guidelines. The author did not locate documentation with respect to security procedures followed by either corporation for their respective drilling programs. Precise collar elevations are unknown by the author with the exception of the surviving summary logs. Down hole deviations were corrected (observed on logs by the author). Collar locations were based upon a ground grid system, requiring verification on a UTM coordinate system. It is the author's opinion, based upon available information, re-establishment of drill collar locations and elevations should be attempted though information value is not critical due to the paucity of historical drilling data. Exploratory methods and standards (QA/QC programs) in Canada, half a century ago, are acknowledged to be different. Further verification of historical drilling results, in the author's opinion, is not necessitated but should be followed up pending any queries related to modern programs.

21st Century

Exploration carried out by M. A. Dehn in 2008 on behalf of Larry Kenneth Hebert, consisted of a small trenching program totalling 10 trenches/pits. Trenches, typically 50.0m in length and 4.0m deep, encountered overburden, not reaching bedrock and the anticipated schistose greywacke or iron formation. Several vertical holes to test the interpreted strike of the iron formation between the north and south pits were recommended. Dehn specifically mentioned "most of the historic documentation of the Griffith Mine was destroyed with the mine closed".

8.3: Historical Resources

Historical resources estimates are listed as chronologically accurate as possible for pre-mining (exploratory), mining operations and post-production phases of the Griffith Mine. The author understands actual hardcopy calculation documentation for historical estimates, either does not exist or isn't readily available. The author observes Provincial Government references to corporate estimations are repetitious quotes dating from pre-mining to post-production. Classification of historical estimates corresponding to equivalent 2005 CIM Definition Standards categories – Inferred Mineral Resource, Indicated Mineral Resource, Measured Mineral Resource, Probable Mineral Reserve and Proven Mineral Reserve – are unknown to the author and cannot be validated by the author.

Shklanka (1970), in the author's opinion, identified Iron Bay Mines Limited as the original source of historical resources for the Griffith property. "By 1960, Iron Bay Mines Limited in its 6th Annual Report estimated that property contained a minimum of 250,000,000 long tons of crude ore which could produce an estimated minimum of 100,000,000 long tons of concentrate. More recent figures on the property are not available. However in 1968 reserves for the North Deposit are quoted (Northern Miner 1968) as sufficient to produce 1.5 million tons of concentrate per year for 25 to 30 years". "Preliminary test work on bulk samples and drill core indicated little variation in the iron content for the North and South Deposits with samples from the South Deposit grading 31.0 percent and from the North Deposit grading 29.3 percent (Iron Bay Mines Limited, 6th Annual Report)".

Stelco (1966) announced the property contained 250,000,000 tons of crude ore grading 32% Fe from which 100,000,000 tons of concentrate could be produced. The North Deposit alone was estimated to be able to produce 1.5 million tons of concentrate per year for 25-30 years (EMR). Run-of-pit ore grades were about 26% Fe. A concentrate averaging 66.5% Fe and 4% SiO_2 was expected by grinding to -325M (Shklanka, 1968).

A later estimate of the ore contained in the two deposits was 120,000,000 tons averaging 29% total iron having an overall weight recovery of 32% and magnetic iron unit recovery of 86.28%, to produce a concentrate containing 68.8% Fe. This estimate was noted by EMR (source and date were not specified) and currently recorded in MNDMF file MDI52K14SW00002.

Stelco/Pickans Mather & Co. (1986) "at closure an estimated 41,000,000 tons of concentrate remained within the north pit planned ultimate limits and 2,000,000 in the south pit". Grade was not quoted (Author Unknown). This estimate, in the author's opinion, is the original and possibly the only source with respect to un-mined in-situ pit mineralization. Lavigne and Atkinson (1986), Red Lake Resident Geologist Area, stated iron "ore" reserves remain at 41,000,000 tons @ 29% Fe. Open File Report 6261 by Lichtblau et al (2011) states "there is an estimated 120,000,000 tons of iron-bearing rock grading 29% iron remaining (MDI#52K14SW00002)".

The author, in accordance with Section 2.4 of the Instrument has indentified the source and dates of the historical estimates. Relevance and reliability of the historical estimates, in the opinion of the author, would both have to be taken in same context and be considered a guideline. Actual calculation records of the historical estimates apparently do not exist for reference with the possible exception of the 1960 Iron Bay Mines Limited, 6th Annual Report, which refers to initial pre-mining historical resources and not the post-production remaining in-situ historical resources. The author is unaware of any recent estimates available to issuer. Historical estimates, in the author's opinion, are not compatibly stated with respect to Sections 1.2 – **Mineral Resource** and 1.3 – **Mineral Reserve** of the Instrument.

8.4: Property Production

Griffith property produced iron ore from 1968 until 1986 closure for the Steel Company of Canada, Limited. Production from 1968-1982 was approximately 20 million tons (pellets). Through its lifetime, the Griffith Mine removed a total of 183, 200,000 tons of crude ore, rock and surface from two open pits (excluding dredging) and produced 22,850,000 tons of iron ore pellets, grading 66.7% Fe from 78,800,000 tons of crude grading 23.9% Fe. Ontario Geological Survey Open File Report 6261, (2011) quoted, between1968-1986, the Griffith Mine produced 22,850,000 tons pellets grading 66.7% Fe (pellets). Production figures taken from the Mineral Deposit Inventory (MDI) stated in Open File 6261 was 82,031,500 tons ore grading 30% (ore) estimated from pellet production.

At full plant production rate of 1,500,000 tons of pellets annually, over 12,000,000 tons of material (crude ore, rock and surface) was moved from the open pits each year. During a three year tax exempt period, 1970, 1971, 1972, about 6,000,000 tons of all material was mined. Between 1973 and 1982, annual all material averaged 12,875,000 tons with a high in 1977 of 14,200,000 tons. Production initially came from the North Pit until the South Pit commenced mining in 1973.

The first iron ore pellets were shipped from the mine site on March 13, 1968. Production reached rated capacity of 1.5 million tons annually in 1970 and continued at this rate until 1982 when, due to depressed markets, the mine shut down for 3 months. The mine produced 60 percent of rated annual production that year, 50 percent of rated in 1983, 63 percent in 1984 and 50 percent in 1985; closure was March 31, 1986.

Item 9.0: GEOLOGICAL SETTING

9.1: Regional Geology

The Griffith property is situated within the Western Superior Province, North Caribou Superterrane and Uchi Domain (East Uchi Subprovince). The North Caribou superterrane is the largest domain with Mesoarchean ancestry of the Superior Province. Basement consists of ca. 3.0 Ga juvenile plutonic and minor volcanic belts upon which were deposited early (2.98-2.85 Ga) rift-related and younger (2.85-2.72 Ga) arc sequences. The Uchi domain preserves a ca. 300 m.y. record of tectonstratigraphic evolution along the southern margin of the North Caribou superterrane. The Berens River plutonic arc complex and English River subprovinces bound the Uchi-Confederation greenstone belt to the north and south, respectively. The Birch-Uchi belt, similar to Red Lake belt, has been affected by two penetrative regional deformational events; both are characterized by greenschist and amphibolite-facies regional metamorphism.

9.1.1 Local Geology

Neoarchean age (2800-2600 Ma) rocks of the English River and Confederation assemblages, Bluffy Lake and Wenasaga Lake batholiths and the Bruce Lake pluton, locally occur in the immediate vicinity of Karas property. Within the English River assemblage are iron formations.

9.1.2 Mineral Deposits

Red Lake, a prolific, diversified mining district, is considered to be one the largest gold mining camps in Canada. Exploration for gold, iron and base metals has been ongoing since the early 20^{th} Century. Iron formation deposits directly relevant to this report, in the Red Lake District, specifically along the Uchi-English River subprovince boundary include Bluffy (Whitemud property), Kesaka (El Sol property), Avis (Papaonga property) and the closed Griffith Mine (Griffith property). The magnetite-bearing deposits have similar geological characteristics. Deposits/properties are held by Northern Iron Corp. and listed by the Ontario Geological Survey as currently not being mined.

9.2: Property Geology

Property bedrock geology consists of Archean iron-formation and greywacke of the English River assemblage, Birch-Uchi Belt, Superior Province, located on the western shore of Bruce Lake. A major portion of the iron formation originally underlay the lake. The iron formation, interbedded with greywacke and biotite schist, is situated discontinuously on the northwest, west and southwest margin of the Bruce Lake pluton having variable composition. Five map units from east to west are granodiorite of the Bruce Lake pluton, greenschist to amphibolite grade interlayered metagreywacke and mafic to felsic metavolcanics enveloping three units of banded iron formation, primarily silicate and iron oxide facies, consisting respectively of 28 % Fe, 22% Fe and 15% Fe from magnetite. The iron formation is complexly folded and thickened within the vicinity of two zones known as the North Pit and South Pit deposits. A narrow band of iron formation is inferred to be continuous between the two pits.

Item 10.0: DEPOSIT TYPES

Stratiform iron deposits of the Canadian Shield include Lake Superior and Algoma-type iron formations. Canadian Algoma-type iron-formations are the second most important source of iron ore after the taconite and enriched deposits in Lake Superior-type iron-formations. Iron deposits in Algoma-type iron-formations consist mainly of oxide and carbonate lithofacies that contain 20 to 40% Fe as alternating layers and beds of micro- to macro-banded chert or quartz, magnetite, hematite, pyrite, pyrrhotite, iron carbonates, iron silicates and manganese oxide and carbonate minerals. The deposits are interbedded with volcanic rocks, greywacke, turbidite and pelitic sediments; sequences are commonly metamorphosed. Griffith Mine is a typical northern Ontario Algoma-type iron formation deposit.

Item 11.0: MINERALIZATION

11.1: Overview

Current Griffith Mine status is inactive. Archean banded iron formation (BIF) is the only known geological unit of potential economic value on the property hosting the North Pit Deposit and the South Pit Deposit. During mining operations, crude ore was supplied from the two open pits, separated along strike by a distance of 1.25 km. Iron formation is of the Algoma-type, and consists predominantly of magnetite oxide facies (taconite) mineralization – magnetite rich chert interlayered with hematite rich chert. Both pits are currently water flooded; individual descriptions of the two BIF occurrences with respect to historic documentation follow:

11.2 Occurrences

11.2.1 North Pit Deposit

The North Pit Deposit is north trending and crescent-shaped consisting of magnetite-quartz (chert, jasper) iron formation interlayered with hematite rich chert and some intercalated greywacke. Originally, a protective dyke had to be constructed prior to mining due to the deposit's location beneath the lake. Outlined dimensions of the North deposit, 1970, were 2000' in length, having a variable width of from 200 feet at the northern end to about 600 feet at the southern end due to folding producing repetition of units. Shklanka (1968) indicated width to be 1000 feet. EMR states the North deposit is approximately 1,000 feet wide and continuous over about 7,400 feet and has a soluble iron content of approximately 29.3%. Symons, et al (1983) states specific gravity for economic ore with an average of 31% total Fe has a SG of 3.60 g cm^{-3}. The pit was designed with an overall slope angle of 53½ ^{o} and a grade on haul ramps of 10%. Elevations of benches numbered A to J – are 1135' to 820' (345.94 to 249.93m) asl. Current dimensions of the North Pit stated after 1986 closure is approximately 6,000' long x 2,000' wide x 335' deep (1,828.8m, 609.6m x 102.10m); planned ultimate depth was 1,100 feet (335.28m).

The iron formation is interbedded with meta-greywackes, and consists mainly of magnetite rich chert, interlayered with hematite rich chert, locally magnetite rich biotite schist and, near diorite intrusions, recrystallized magnetite rich chert. Hematite rich layers occurring on the eastern edge of the iron formation in the north pit where several granodiorite dykes intrude were termed the outer massive unit in the mine stratigraphy. Contact metamorphism has recrystallized the banded iron formation proximal to the intrusion and increased the metamorphic grade to the amphibolite facies. Historical diamond drilling indicated the possibility of faulting, but evidence was not encountered.

Surviving plan and cross section, October 1985, delineate the BIF into 3 subdivisions for production purposes – 15% magnetite, 22% magnetite and 28% magnetite, the latter occupying the bulk and centre of the deposit flanked by thinner strips of lesser magnitude.

The iron formation is complexly folded with many minor drag folds occurring along the limbs of the major folds. The North Deposit is folded along a northeast trending axis into two synclines and centre anticline. The structures trend N30^{o}E and plunge about 35 degrees to the south. The limbs of the folds dip steeply at 75^{o} to 89^{o} and the southwest limb of the west syncline is overturned due to secondary or minor folds.

Magnetite in various grades was encountered interbedded with amphibolite grade schists from 219.80m depth to the end of the hole DDH GR-10-01 at 429.16m depth, which ended still in magnetite rich ore drilled in the vicinity of the outer massive unit. The highest grades of Fe intersected were 2.0m of mineralization grading 38.78% Fe with an average grade of 25.26% Fe of the whole mineralized banded iron formation intersected.

Silica content for DDH GR-10-01 was 49.48% in the mineralized sections. The magnetite-rich beds encountered in drill core, and those exposed on surface at the north end of the North Pit, were typically 0.5 to 20.0m thick. Interbeds had significantly less magnetite, but were usually comparatively thin, (0.2-0.4m thick). Abundant cherty bands were common in metasediments for a couple of meters above and below the banded iron formation. Magnetite rich beds bearing 5%-10% specular hematite and hematite rich seams were encountered sporadically from 399.50m to 424.00m depth, interspersed with magnetite-quartz and amphibolite grade schist interbeds. The hematite bearing beds were often 0.5m to 1m thick and easily identified by their reddish streak. Hematite seams were often only a few cm thick, though could have increased the grades of Fe reported in intervals in which they occur. The magnetite was slightly recrystallized and coarser grained proximal to the instrusive body.

NIC observations indicate drilling supported the rough accuracy of the North Pit deposit model - several folded layered banded iron formations of varying grades similar to those recorded during the operation of Griffith Mine - acquired from previous work and the existing 1985 Griffith Mine documents. The outer massive unit, a deposit marker bed, was recognized and confirmed and the Bruce Lake pluton was observed to extend westward into the deposit at depth.

11.2.2 South Pit Deposit

The South Pit Deposit is north trending and in plan, pear-shaped, consisting of magnetite-quartz (chert, jasper) iron formation with hematite rich chert and some intercalated greywacke. Dimensions cited were approximately 800 feet wide and about 3,000 feet long and the deposit has a soluble iron content of approximately 31.0%. The pit was designed with an overall slope angle of 53½ ^{o} and a grade on haul ramps of 10%. Elevations of benches numbered A to H – are 1145’ to 900’ (349.00m to 274.32m) asl. Current dimensions of the South Pit stated after 1986 closure is approximately 2,500’ long x 1,500’ wide x 280’ deep (762.00m x 457.20m x 85.34m); planned ultimate depth was 420 feet (128.01m). Subsequent flooding beyond the pit boundaries encompasses an area approximately 1.0 x 2.0 km. The South Deposit is geologically similar to the North Deposit and is folded into an open overturned syncline in a NNE direction (axial trend is S27^{o}W) with a steep west-dipping north limb (65^{o} to 75^{o}) and an east-southeast limb dipping moderately to the south; the syncline with associated minor folds plunges at 59^{o} southwesterly. Thickening at the crest involves intraformational folding of the iron formation, the dominant structure being an overturned anticline, with a north-northeast-trending axial trace, located on the east limb near the axial region of the main fold.

Item 12.0: EXPLORATION

12.1: General

The 2010 exploration program on the Griffith property by Northern Iron Corp consisted of diamond drilling a single hole on the North Pit Deposit. Program coordination, NIC and contractor personnel were under the direct supervision of Raul Sanabria, EuroGeol., P. Geo., the company’s qualified person with respect to the project.

12.2: Drilling

An initial drilling program consisting of one hole was undertaken by NIC, autumn 2010. Site of the hole with respect to the North Pit Deposit was selected from interpretation of collected archived geological and data and, in part, validation of previous work. Particulars are described in Item 13.0: Drilling.

Item 13.0: DRILLING

13.1 Summary and Interpretation

The 2010 diamond drilling program undertaken by Northern Iron Corp., October 13-15, consisted of a single inclined hole GR-10-01 (429.16 meters), drilled at the Griffith North Pit. DDH GR-10-01located on the southeast extremity of the pit targeted folded iron formation. Core was not oriented. Summary logs, plan and cross section were examined by the author. The author did not observe RQD documentation with the summary log provided by the issuer. The NIC drilling program, in the opinion of the author, is satisfactory.

NIC interpreted DDH No. GR-10-01 drilling supported the rough accuracy of the north pit deposit model acquired from previous work and the existing Griffith Mine documents. Magnetite in various grades was encountered interbedded with amphibolite grade schists from 219.80m depth to the end of the hole at 429.16m depth, which terminated in magnetite rich ore. Thus, the derived North Pit model consisting of several folded layered banded iron formations of varying grades is in-part, initially validated. The author is in agreement. Based upon results of a single drill hole, true thickness and mineralization orientation are unknown.

13.2: Drilling Procedures

Drilling, utilizing contractor services of More Core Diamond Drilling Ltd. of Stewart, B.C., was conducted using one B-15 skid drill was moved and supported with a bulldozer and a low bed haul truck. Pick-up trucks were used to transport the drilling crews and geologists to and from the drill site. The program was based out of the Trillium Motel in Ear Falls, Ontario. The drilling was done on two 12 hour shifts per day.

A 100m access skid road and a pad area were cleared to provide access to the drill site. A wooden drill pad was not constructed, and the drill was placed directly on levelled ground, further levelled with the use of a CAT bulldozer and some logs. WAAS enabled GPS surveying of the drill hole collar locations was done at the end of the program by Northern Iron Corp's on-site geologist. The 'zero' elevation mark for all down hole measurements was surface. Topography contours were used as the elevation surface for the drill hole. Collar elevation is approximately 350m asl.

The drilling site was selected to test the main Griffith ore body located in the North Pit. It was designed to cut the fold limbs perpendicular to strike and the main purpose was to validate the grade and confirm the rough geometry of the ore body outlined from previous work and mine records. The site for the hole (GR-10-01) was on an overgrown haul road leading down into the North Pit on the southeast side of the pit. The hole had an azimuth of 254° and an initial dip of 45°, the hole was designed to cut the interpreted folded iron formation normal to the sub-parallel limbs.

After each 12 hour drilling shift the core was mobilized to Ear Falls, Ontario by Northern Iron Corp. or More Core Diamond Drilling secured in trucks and is currently stored and secured in a core shack facility in Ear Falls, rented by Northern Iron Corp. from Ackewance Exploration & Sve from Red Lake. The core was geo-technically and geologically logged by Northern iron Corp’s personnel. Core recovery was approximately 100%. Prior to logging, drill core was fitted and cleaned, core examined for general lithology, structure and mineralization. Estimates of magnetite content in the iron formation were visually made and the different components of the iron formation and surrounding lithologies were noted and coded. Following completion of drilling, casing was left in the hole and the casing entry point was marked with a cut branch and flagging tape. Procedures, in the author’s opinion, are quite satisfactory.

13.3: Drill Hole Surveys

The drill was positioned on the ground and aligned with a flagged foresight and was later checked by the project geologist using a WAAS enabled GPS. Drill hole collar inclination was set using a carpenter’s inclinometer. Down hole surveys were conducted approximately every 50m down hole with a Ranger single shot down hole survey tool purchased from Ranger Survey Systems Canada, Inc. owned by More Core Diamond Drilling Ltd. and operated by the drill crew. However since the instrument was affected by the magnetic field associated with the iron formation, only measurements of inclination were accepted as valid. Down hole azimuths were assumed to be the same as the collar azimuth. The author agrees this methodology is acceptable.

Item 14.0: SAMPLING METHOD AND APPROACH

Core sampling and cutting by NIC were restricted to mineralized intervals of banded iron formation containing appreciable amounts of magnetite. Sample intervals were laid out nominally at 3m intervals, but were also delimited at lithic contacts at shorter intervals. Non-mineralized commercial siliceous gardening stone was inserted into the sample stream as field blanks at a ratio of 20 true samples to 1 field blank.

Sample intervals and numbers were marked on the cut side of the core post-cutting using red lumber crayons. Metal tags containing sample number and interval information were stapled into core trays near the beginning of each sample. The field blank tag was included and positioned just behind the tag of the preceding sample. After samples were marked and tagged, the core boxes were photographed with core wet.

All of the core samples were sawn in half using a diamond saw. One half of the core was returned to the core box and the other half was packaged and labelled as individual samples for transport to Red Lake SGS preparation facility. Blank samples were prepared given sequential sample numbers and inserted where indicated.

Upon termination of logging, lids were screwed into all core boxes, and boxes were stored, cross-piled in the yard outside the Ear Falls core shack. Ackewance Exploration & Svc rented the core shack, located in Ear Falls to Northern Iron Corp. and undertook drill core cutting, sample packaging and core storage under NIC supervision. Chain of custody involved personal delivery of samples in sealed tamper proof plastic sample bags stored in tied rice bags transported to the SGS preparation laboratory, Red Lake by NIC personnel.

The author is not aware of any drilling or sampling factors with respect to the 2010 program that could affect the accuracy and reliability of results, with respect to material impact. Sampling by NIC is understood to be representative and unbiased, in the author's opinion. Parameters to establish drill standardized core sampling intervals would seem to be based upon magnetite distribution and intersection lengths of the BIF host. Sampling method included continuous sampling of mineralized sections and included high, low grade and intermediate non-mineralized intervals.

Item 15.0: SAMPLE PREPARATION, ANALYSES AND SECURITY

15.1: Sample Preparation

All in-lab sample preparation mandated by Northern Iron Corp. was performed by SGS, Red Lake facility, and splits were sent to SGS Lakefield for iron ore XRF analysis. Each sample was weighed in air and weighed when submerged in water. Each of the drill core samples including the field inserted blank were cone-crushed dry to 75% passing 2mm, split to 350g and pulverized to 85% passing 75µm.

The author understands there was no aspect of sample preparation involvement by employees, officers, directors or associates of the issuer.

15.2: Analysis

Analytical records observed by the author show Northern Iron Corp. submitted 52 drill core samples for analysis at the Lakefield, Ontario, Canada laboratory of SGS Canada Inc. having ISO 9001 and ISO/IEC 17025 accreditation. Signed Certificate of Analysis (LR Report: CA02591-Nov10 – Final Report) dated November 23, 2010, analysis included SiO_2, Al_2O_3, Fe_2O_3, MgO, CaO, Na_2O, K_2O, TiO_2, P_2O_5, MnO, Cr_2O_3, V_2O_5, Ni, Zr and S reported as percentage. Whole rock analysis was by XRF with the exception of S using whole rock analysis by CSA (carbon-sulphur analyzer).

15.3: Quality Assurance – Quality Control (QA-QC)

Control quality by SGS consisted of analyzing 2 laboratory duplicates. Northern Iron Corp. QA/QC measures undertaken involved insertion of 3 field blanks with the submitted samples (55 in total).

Field blanks showed only minor contamination, with the highest value being 1.90 % Al_2O_3 and all other values being less than or equal to 1. This is deemed acceptable contamination, and the results are therefore considered reasonably accurate. Laboratory duplicates had an average discrepancy error of 5.44%, mainly due to differences in Zr and S values between duplicate samples. The greatest error in Fe% between duplicates was an increase of 1.05% in the duplicate sample. Discrepancies, in the author's opinion, are insignificant.

15.4: Adequacy

Sample preparation, security and analytical procedures utilized by Northern Iron Corp., in the opinion of the author, are considered to be sufficiently adequate based upon meticulous documentation and current excellent preservation state of archived core.

Item 16.0: DATA VERIFICATION

A verification attempt of NIC drilling results was not undertaken by the author. NIC took one representative 3.0 meter length sawn ¼ core size sample from DDH GR-10-01 following the author's instructions who was not onsite to personally supervise selection, cutting and bagging the sample. The author understands assays of the field duplicate were not undertaken by the issuer and did not receive notification to prepare this document until May 11, 2011.

Item 17.0: ADJACENT PROPERTIES

The author understands the definition of adjacent properties with respect to the Instrument is not applicable to this form 43-101F1 Technical Report in accordance to National Instrument 43-101 Standards of Disclosure for Mineral Projects, 2005, Part 1, Definitions and Interpretation, Subsection 1.1 (a) – "adjacent property" means a property in which the issuer does not have an interest. Adjacent iron formation properties within the immediate Red Lake Mining Division area of direct concern to the issuer are Karas, Whitemud, El Sol and Papaonga; properties in which Northern Iron Corp. holds interest.

Item 18.0: MINERAL PROCESSING AND METALLURGICAL TESTING

The author is unaware of such testing having been undertaken to date on the Griffith property. Item 18.0 is not applicable to this Form 43-101F1 Technical Report.

Item 19.0: MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

The author is unaware of such estimates having being undertaken to date on the Griffith property. Item 19.0 is not applicable to this Form 43-101F1 Technical Report.

Item 20.0: OTHER RELEVANT DATA AND INFORMATION

The author is unaware of other data and/or information relevant to the Technical Report that is not contained in this document.

Item 21.0: INTERPRETATION AND CONCLUSIONS

21.1: Results and Interpretation

Visually, BIF within the confines of the previously mined Griffith Mine open pits, particularly the North deposit, essentially has not been seen for 25 years due to coverage by water. Initial diamond drilling and geological interpretation by Northern Iron Corp. have confirmed the presence of a banded iron formation body of unsubstantiated parameters with respect to the North Deposit.

Specifically remaining in-situ mineralization in the North Pit appears to be an upright structure undefined in three dimensions and internal anatomy. Although a former producer, this reasoning is qualified by paucity of critical documentation - historical drill core, drill summaries, assays and mine geological records, especially plans and sections.

Drilling by the issuer confirmed the presence of several folded units of BIF referenced to surviving pit plan and cross section records, supporting the model of banded iron formation folding, historically outlined and interpreted as two steeply dipping synclines, one having an overturned limb, and a centre anticline, folded along northeast trending axis and plunging to the south.

The author considers Griffith property to be early stage not advanced. Attributes of the North Deposit are currently undefined and historical references require complete re-evaluation. It is the author's opinion an acute lack of data renders remaining in-situ mineralization of the North and South deposits as 'uncertain' in terms of NI 43-101 context and strict CIM Definition Standards with respect to Mineral Resources or Mineral Reserves.

To outline mineralization (tonnage and grade) having significant magnitude for further appraisal, certain aspects with respect to the North Pit Deposit have to be recognized: (1) the pit dimensions are large and the floor is currently underwater, (2) continuity of intersections between holes has to be sufficiently demonstrated, (3) uniformity or non-uniformity in grade with depth and along strike and (4) structural complexity have to be determined.

Based upon current understanding of the deposit from available information, the author considers these issues require address with respect to comprehensive delineation and evaluation. Primarily, tangible essential information on the North Deposit is lacking.

Delineation drilling, as part of a two-phase work program, in the author's opinion, is required on Griffith North Pit Deposit to validate the historical 'reserves' and determine if sufficient parameters are present for eventual NI 43-101 compliant Mineral Resource to Mineral Reserve estimation.

Phase I dewatering is necessitated to initiate Phase II drilling. Upon receipt of permits, the issuer proposes to completely drain the North Pit over an expected 3 to 4 month period to expose the pre-existing 1986 pit floor utilizing high capacity pumps to expel the water, approximately 20 million cubic meters, into adjacent Bruce Lake. The author agrees dewatering is required prior to initiation of a comprehensive evaluation by drilling.

Phase II drilling proposed to test the mineralization to a maximum depth of 333m, concurrent with the historical ultimate pit design, is designed to cut the deposit perpendicularly by drilling 32 inclined holes on 13 lines, a total of 12,000 meters. It is anticipated drilling would adequately increase confidence levels regarding correlation between holes and any irregular distribution of the mineralization to provide a better understanding of the deposit.

21.2: Conclusions

The Griffith property, a closed/inactive historical banded iron formation mine, hosts currently unsubstantiated non-compliant resources/reserves with respect to NI 43-101 context. Positive upgradeable potential and traits for hosting economic BIF mineralization with respect to the North Pit deposit require detailed evaluation. First pass evaluation by Northern Iron Corp. achieved its objective regarding existence of the iron formation target via very preliminary validation by a single drill hole. A definition drilling program is required to delineate mineralization continuity and grade for subsequent undertaking of NI 43-101 compliant resource/reserve estimation.

Item 22.0: RECOMMENDATIONS

22.1: Recommended Work Program

Recommendations for a Phase I and Phase II work program include dewatering of the North Pit and subsequent implementation of diamond drilling to investigate the in-situ iron formation.

Phase I

1. An impact assessment study and initiation of the application process should be undertaken to acquire permits with respect to dewatering.

2. Upon procurement of appropriate permitting, dewatering should be initiated and the North Pit should be completely drained to the 1986 floor level.

Phase II

1. A diamond drilling program, totalling 12,000 meters, consisting of 32 inclined holes on 13 lines spaced at 100 meters, should be aimed at delineation of mineralization continuity determination within the historical pit confines to intersect mineralization below the 1986 pit floor level at 101.20m and penetrate to the ultimate pit depth of 335.28m. Drilling along each line is intended to perpendicularly crosscut the deposit. Holes have collar spacing of approximately 50 meters starting on historical Bench A; 300^{o} azimuth and -45^{o} inclination with depths varying between 190 and 400 meters. The target, the North Pit Deposit iron formation, is currently located under approximately 101.2m of water. Implementation of drilling is contingent upon successful dewatering.

2. The re-exposed pit should be geologically mapped and sampled to aid drilling procedure decisions.

3. Concurrent with drilling, outline of the North Pit and drill collars locations should be accurately surveyed.

4. Although non-essential to the success of the project, relocation of any collars indicated in surviving historical drill log summaries with respect to the current pit perimeter should be attempted and any archived drill core located in provincial drill core libraries should be re-logged and assayed.

5. Future core analysis should include specific gravity determinations tied to Quality Assurance / Quality Control (QA-QC) programs.

6. Geological modelling should be initiated to attain a better understanding of the targeted iron formation.

7. Independent interpretation of the re-drilled deposit should be undertaken.

KIEX recommends a proposed budget of $ 4,000,000.00 to undertake the program. Advancement to Phase II is contingent upon receipt of positive results received from Phase I.

Item 4.0: INTRODUCTION

Terms of Reference

4.1: Preparation of Report

Form 43-101F Technical Report titled "***Technical Report On The Griffith Property, Ontario, Canada***" has been prepared for **Northern Iron Corp** ('NIC'), Suite 658, United Kingdom Building, 409 Granville Street, Vancouver, B.C., Canada, V6C 1T2 by Christopher Hutchings, P. Geo., President, **KIEX Consulting Limited** ('KIEX'), 8 White's Road, Carbonear, NL, Canada, A1Y 1A4 at the request of Mr. Raul Sanabria, EurGeol., P. Geo., Vice President Exploration of Northern Iron Corp., May 11, 2011. Mr. Hutchings is a qualified person and has an independent relationship with respect to Northern Iron Corp.

4.2: Purpose of Report

This Technical Report has been prepared for Northern Iron Corp. with respect to a *Qualifying Transaction*. The Griffith property has recently been determined *Material* with respect to a prospectus filing by the issuer.

4.3: Sources of Information

Sources of technical information and data specifically related to the Griffith property are Ontario Geological Survey and Ontario Ministry of Northern Development Mines and Forestry assessment files and publications, Canadian Institute of Mining and Metallurgy publications, Geological Survey of Canada publications and a Northern Iron Corp. Technical Report. References cited and used in the preparation of this technical report include:

2010 Technical report on the Griffith, Whitemud and Papaonga properties of Northern Iron Corp, Red Lake Mining Division – Griffith: NTS 52K/16, Whitemud: NTS 52K/15, Papaonga: 52K/14. Owners – Northern Iron Corp.: Griffith, Northern Iron Corp and Perry V. English: Whitemud, Perry V. English: Papaonga; prepared for Northern Iron Corp. by L. S. Hills and R. Sanabria, 2011.

The Griffith Mine Story; Introduction by F. P. Morawski, History of the Griffith Mine by J. D. Jeffries, Dredging and Dyking at the Griffith Mine by D. M. Wilson, Mining at the Griffith Mine by J. E. Schelske, Ore Dressing at the Griffith Mine by J. R. Geddes and Pelletizing at the Griffith Mine by B. R. Eberts, CIM Bulletin, Vol. 63, No. 703, November, 1970.

Iron Deposits of Ontario, Ontario Department of Mines, Mineral Resources Circular No. 11 and Geology of the Bruce Lake Area, District of Kenora, Ontario Department of Mines, Geological Report 82, and by R. Shklanka, respectively 1968 and 1970.

Assorted diamond drill logs and sections including claim map, Bruce Lake area, Report No. 10, Iron Bay Mines Limited, assessment file 52K14SW0011 by E. H. Marvin, author unknown and N. H. Black respectively 1954, 1956 and 1959.

The Griffith Mine, Ontario, N.T.S. Area 52K/14, REF. FE/1 by Mineral Resources Branch, Department of Energy, Mines and Resources, Ottawa (EMR), date unknown.

The Griffith Mine, history and disposition of facilities after closure, booklet by author unknown, 1986.

Assorted drill logs - Iron Bay Mines, property, Griffith property, Griffith Mine property, Pickands Mather & Co. Ltd. by authors unknown, 1963, 1966 and 1971.

The Griffith Mine, plans and cross sections of North and South pits, unreferenced maps of the Resident Geologist's office, Red Lake, Ontario, by Fosco Facca, 1985.

The Griffith Mine, Pickands Mather & Co., Managing Agent, Red Lake, Ontario, project description for The Steel Company of Canada Ltd.; Bechtel Job No. 5900 by Canadian Bechtel Limited, 1968.

Report on trenching of the Griffith mine property, NTS 52K/13, Bruce Lake Township, Red Lake District, northwestern Ontario; assessment report prepared for Larry Kenneth Hebert by M. A. Dehn, 2008.

Other citations are specified in the text of this document and/or Item 23.0: References.

Published scientific papers provided general geological information for Bruce Lake Township including documented mineral deposits in the vicinity. Additional data was sourced from Northern Iron Corp. correspondence with the author.

4.4: Scope of Personal Inspection

Scope of a personal inspection involved a brief property visitation (September 29, 2010) by Christopher Hutchings, prior to commencement of Northern Iron Corp. drilling program, to observe mineralized outcrop locations and the property in general. Onsite discussions at Griffith were held with Northern Iron Corp. Vice President, Exploration - R. Sanabria, M. Sc., EurGeol., P. Geo., field guide for the inspection.

Item 5.0: RELIANCE ON OTHER EXPERTS

Disclaimer

This technical report has been prepared by the author (qualified person) exclusively without reliance on other experts.

Terminology: North Pit and South Pit are used interchangeably with North Deposit and South Deposit. BIF refers to Banded Iron Formation.

Relationship between The Steel Company of Canada, Limited and Pickans Mather & Co. with respect to the Griffith property is intertwined and for simplicity is often cited as Stelco/Pickans Mather.

Reference to 'The Griffith Mine, 52K/14 FE 1', by Mineral Resources Branch, Department of Energy, Mines and Resources, Ottawa may be an Ontario Geological Survey 'Mineral Occurrence File', typical of early MODS (Mineral Occurrence Data System) cataloguing descriptions of Canadian mineral occurrences by Provincial Governments. The author is uncertain. Citation in this document for Mineral Resources Branch, Department of Energy, Mines and Resources, Ottawa, 511384, embossed on the 4-page card is 'EMR' for brevity.

Some excerpts from historical documentation are quoted verbatim to preserve integrity.

Independent verification of legalities and nontechnical issues is beyond the scope of this report.

Use of the report for project financing and filing on SEDAR is permitted by the author.

Item 6.0: PROPERTY DESCRIPTION AND LOCATION

6.1, 6.2, 6.3, 6.4, 6.5: Property Area, Geographic Location, Mineral Tenure, Issuer Title & Interest, Boundary Location

Griffith property, approximately 1,776 hectares in size, consisting of 11 unpatented contiguous ground staked mining claims comprised of 111 claim units (Table 1), is situated on NTS Map Sheet 052K/14SE, Bruce Lake Township, Red Lake Mining Division, District of Kenora, Northwest Ontario (Figure 1, 2). Approximate centre of the property is located at Longitude 92°22'40"W; Latitude 50°48'37"N (473,440mE, 5,628,240mN – NAD 83, Zone 15).

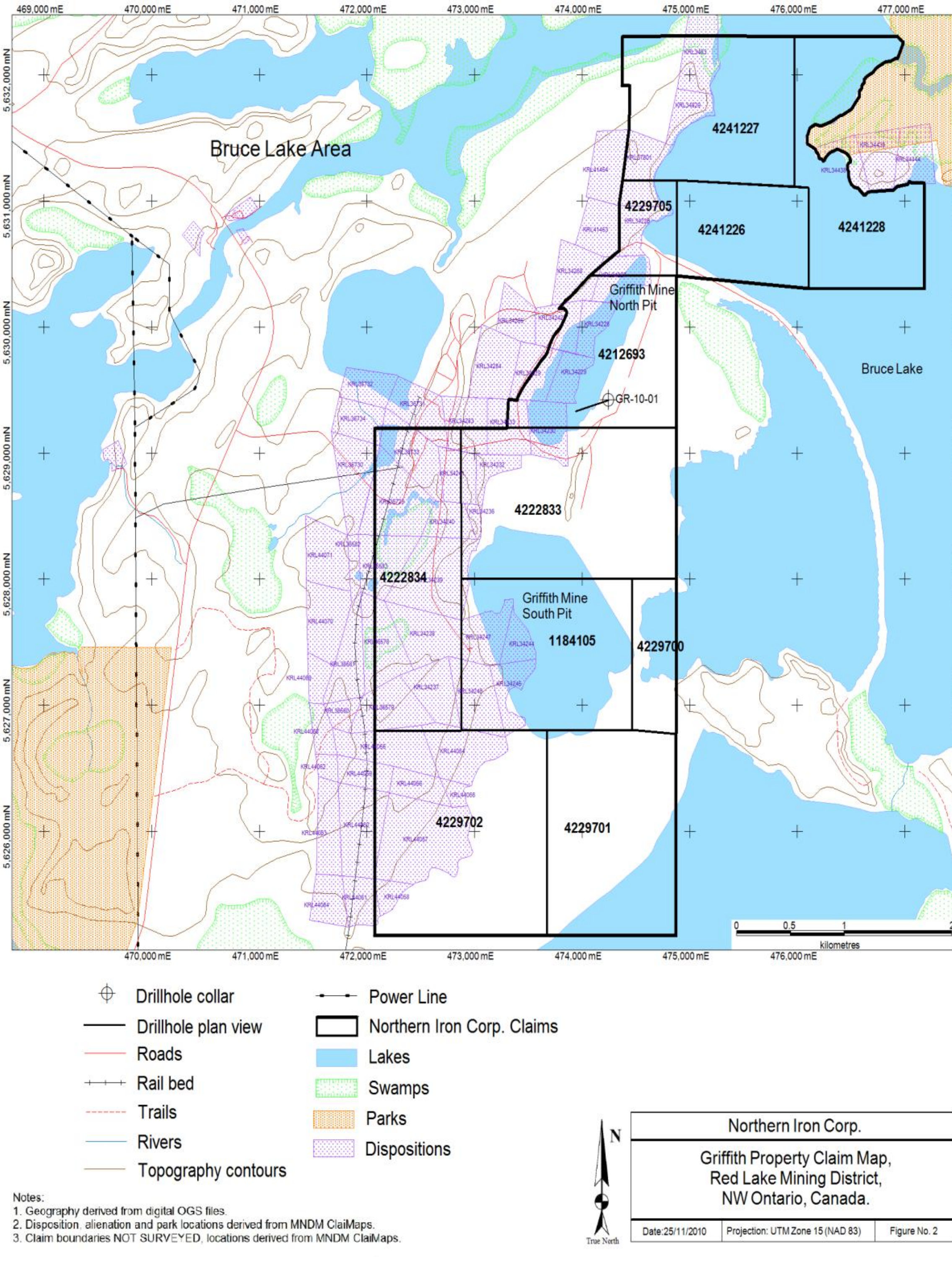
Mining properties staked under the **Ontario Mining Act** give the claim holder exclusive rights to explore for any mineral staked on Crown land with the exception of sand, gravel and peat. Ground staked claims do not include surface rights and are not legally surveyed. Expenditures of $ 400.00 annually per 16 hectare claim unit for approved assessment work, non-applicable to Year I, are required with respect to Year II and subsequent years until the claim holder applies for a mining lease.

Table 1: Griffith Property Mining Claims Statistics

Holder (100.00%)	Claim No	Claim Units	Recorded Date	Report Due Date
Northern Iron Corp.	KRL4241228	11	2008-Apr-30	2012-Apr-30
Northern Iron Corp.	KRL4241227	12	2008-Apr-30	2012-Apr-30
Northern Iron Corp.	KRL4241226	6	2008-Apr-30	2012-Apr-30
Northern Iron Corp.	KRL4229705	3	2009-Feb-12	2012-Feb-12
Northern Iron Corp.	KRL4212693	9	2009-Feb-12	2012-Feb-12
Northern Iron Corp.	KRL4222833	15	2009-Feb-03	2012-Feb-03
Northern Iron Corp.	KRL4229700	3	2008-Apr-07	2012-Apr-07
Northern Iron Corp.	KRL1184105	12	2009-Feb-19	2012-Feb-19
Northern Iron Corp.	KRL4222834	12	2009-Feb-03	2012-Feb-03
Northern Iron Corp.	KRL4229701	12	2008-Apr-07	2012-Apr-07
Northern Iron Corp.	KRL4229702	16	2008-Apr-07	2012-Apr-07
	Total:	**111 - 1,776 Ha (nominal)**		

Ontario Ministry of Northern Development, Mines and Forestry (MNDMF) lists the registered holder (Internet Mining Claim Information May 16, 2011) of the Griffith property claims as Northern Iron Corp. (100.00%). Larry Kenneth Herbert transferred 100% interest in claims numbered 4241228, 4241227, 4241226, 4229705, 4212693, 4222833, 4229700, 1184105, 4222834, 4229701 and 4229702 to Northern Iron Corp. 2010-Aug-04. The claims are in good standing.

Figure 2: Griffith Property Claim Location

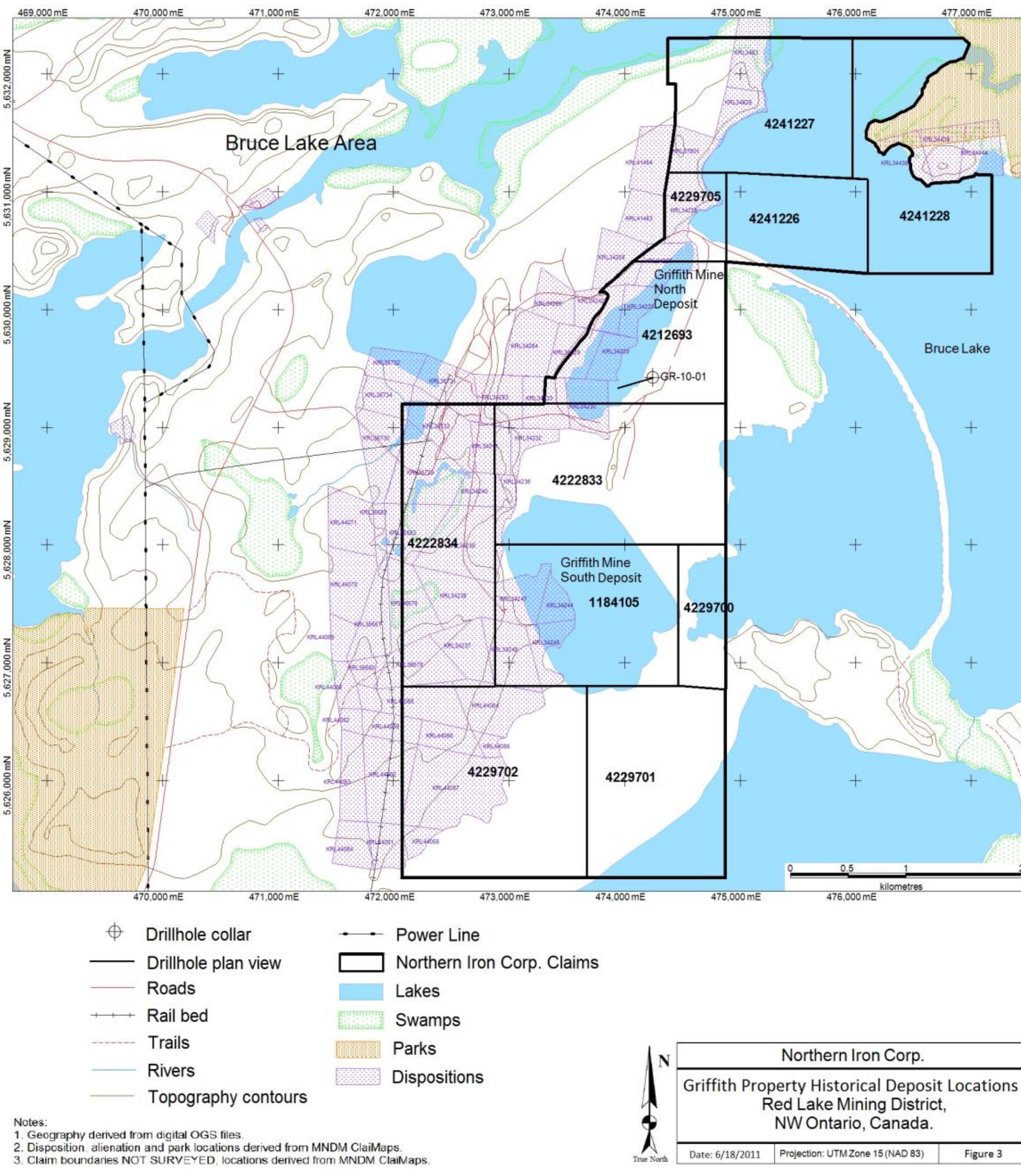


(Source – Northern Iron Corp., OGS files and MNDM ClaiMaps)

6.6: Location of All Known Mineralized Zones Relative to Outside Boundaries

Two banded iron formation (BIF) mineralized zones, historically designated as the North Deposit and South Deposit, are predominant with respect to location circa the property centre. Open pits typify the magnetite occurrences. Both pits are currently flooded. An irregular claim boundary occurs in close proximity and mimics the west perimeter of the North Pit. The South Pit is centralized between the respective, east, south and west claim boundaries (Figure 3).

Figure 3: Griffith Property Mineralized Zones Location



(Source – Northern Iron Corp., OGS files and MNDM ClaiMaps)

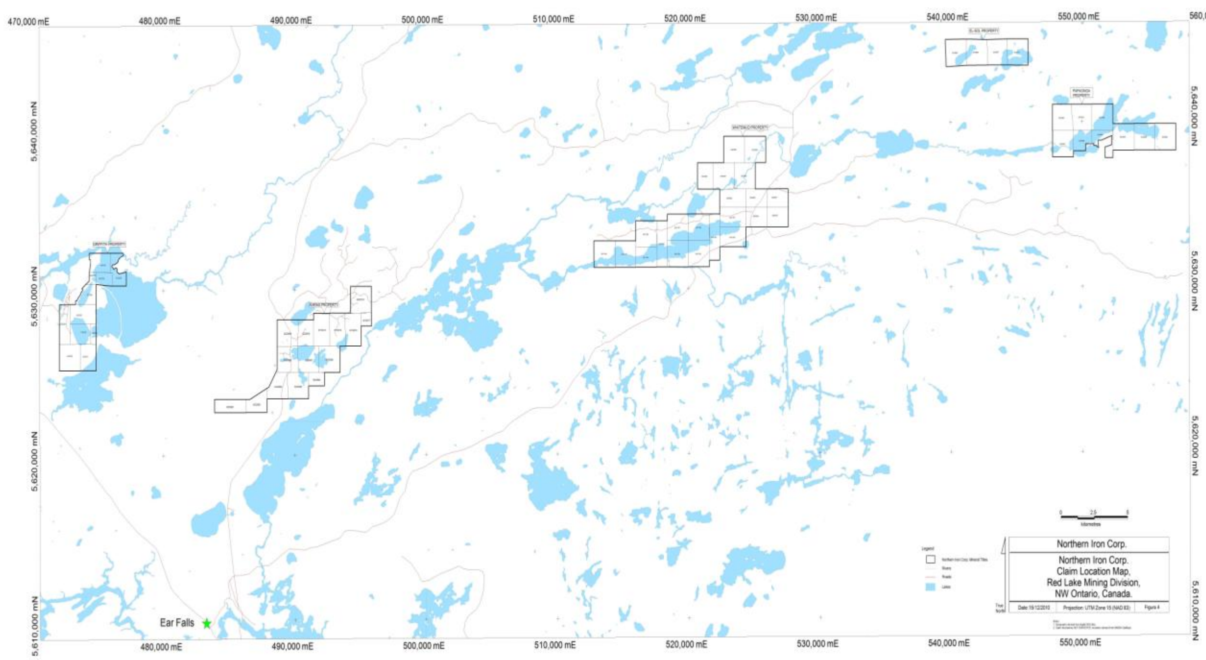
6.7: Issuer's Property Interests and Agreements

<u>To the extent known by the author:</u>

Northern Iron Corp. has acquired outright ownership (100%) of the Griffith property claims transferred August 4, 2010 from Larry Kenneth Herbert, including all technical information in the possession of Hebert with respect to a purchase agreement dated January 5, 2010. Hebert received 2,000,000 common shares in the capital of Northern Iron Corp. and $ 6,000.00 cash paid by NIC within 30 days of raising $ 500,000.00 of equity capital. Hebert retains the right to a 1% royalty on net smelter returns (NSR Royalty) from the claims. The agreement excludes any surface rights which will be retained by Hebert.

Northern Iron Corp. acquired Karas, Whitemud, El Sol and Papaonga properties (Figure 4) in 2010. Interests of the issuer are unknown by the author with the exception of Karas (*'Technical Report on the Karas Property, Ontario, Canada'* dated February 21, 2011) and are non-applicable to this Technical Report.

Figure 4: Northern Iron Corp. Property Locations, Red Lake District, Ontario



(Source – MNDM ClaiMaps, OGS/Google Earth, Northern Iron Corp.)

6.8: Environmental Liabilities to Which the Property is Subject

The author is unaware of any environmental issues affecting the Griffith property, 2010, and understands environmental studies were not required nor conducted by Northern Iron Corp. or Larry Kenneth Herbert.

Following closure of the Griffith Mine, March 31, 1986, lessee of the historical property, Stelco Inc. stated: "Effective controls to protect the natural environment were an integral part of the Griffith operation. An elaborate system of dykes and water level control structures were constructed and maintained for the life of the mine to ensure maintenance of water quality. Commencing during construction in 1966, lake and river water samples were regularly analyzed and the results monitored by on-site management personnel and by the Ministry of the Environment officials. Water quality guidelines were met throughout the life of the property. Air quality was never a serious concern. The main discharge to atmosphere was from the indurating furnaces which were equipped with very efficient wet scrubbers. Early in the life of the operation, mine personnel worked with experts from Lakehead University to develop seed and fertilized mixtures for revegetating mine tailings; various species of trees were also tested. The program was a success and at closure about 1,100 acres of tailings had been revegetated. In addition to tailings, waste dump slopes were also planted successfully. The grasses area provides an ideal habitat for birds; many species of wild animals such as moose, bear and fox, are also found on the mine site."

6.9: Permits to be Acquired and if Obtained

The author understands, with respect to the Griffith property 2010 program, exploration or environmental permits were not required. Northern Iron Corp. followed general Canadian and Ontario exploration guidelines in adherence to the Ontario Mining Act, 'A Practitioner's Guide for Planning and Permitting a Mineral Development Project in Ontario'.

Currently, 2011, the author understands an application for a permit to dewater the North Pit is in the process of being submitted by the issuer to Ministry of Northern Development, Mines and Forestry/Ontario Ministry of the Environment. Requested water quality tests, performed during February 2011 with respect to the North Pit and Bruce Lake returned satisfactory results meeting water quality specifications. However, though water quality meets regulations, the issuer is required to obtain a Category 3 permit due to the quantity of water and duration of pumping. An impact assessment study is required before NIC applies for a permit and the study will need to be included in the application. The author also understands the body of water comprising the North Pit will not be regarded as fish habitat. On April 11, Fisheries and Oceans Canada informed the issuer of its decision not to apply the fish habitat protection provisions of the Fisheries Act to the North Pit of the former Griffith Mine.

6.10: First Nations Issues

The author understands Northern Iron Corp. is not aware of any First Nations issues.

Item 7.0: ACCESSIBILITY, CLIMATE, LOCAL RESOURCES - INFRASTRUCTURE AND PHYSIOGRAPHY

7.1: Accessibility

The Griffith property is situated approximately 26 km north of Ear Falls and connected to Paved Route 105 by the Griffith Mine Road to the east, a distance of approximately 1.5 km. Excellent access throughout the property is provided by an extensive network of mine hauling and gravel roads left from the Griffith Mine operations (Figure 2, 3, 5 a, b).

7.2: Climate

Red Lake District, situated in northwest Ontario experiences a continental climate, warm summers and cold winters, temperatures ranging from 27^{o}C to lows of -30^{o}C, winter lasting until April or May and freeze-up by mid-November. Drilling is often carried out in the winter months due to snow cover facilitating mobility.

7.3-7.4: Local Resources – Infrastructure

The Township of Ear Falls, located on the north shore of Lac Seul, having a population of 1,153 persons is situated 69 km south of the Municipality of Red Lake, the primary industrial centre for the Red Lake Mining District.

The site of world class gold mining operations, a very skilled mining labour force is attracted to Red Lake, having a population of 4,526. Specifically in the Ear Falls area, in addition to mining, forestry, lumber production and hydroelectric power are important primary industries. The area is a very popular tourist hunting, fishing and wilderness experience destination.

Transportation within the Red Lake District is by road, rail or air. Paved Route 105 connects Ear Falls and Red Lake with the Trans Canada Highway (Route 17), 100 km to the south. Ore was moved from the Griffith Mine (closed) via railway - the rail bed stills exist - connecting with the Canadian National Railway line to the south. Small airfields in relatively close proximity to Griffith are situated at Ear Falls and Red Lake.

Surface rights to a portion of land included on the Griffith property are held by the Township of Ear Falls and Ontario Inc.; sufficiency of surface rights for mining operations has to be determined. Potential tailings storage areas, potential waste disposal areas and potential plant processing sites are in place from the historical Griffith Mine. Sufficiency and availability for impending future mining operations would require determination. Water sources are available, locally; sufficiency requires determination. West of the property, a power line sub-parallels Route 105 (Figure 2, 3). A remnant of the Griffith mining operation is a capped natural gas pipeline situated in proximity to the property.

7.5: Physiography

Griffith property, having a general elevation of 350m asl, borders Bruce Lake; Pakwask Lake occurs to the west beyond claim boundaries. The property is predominantly situated on dry ground with gentle topography, interspersed by two open pits and forest screens. Vegetation varies from grasses, coniferous and deciduous trees.

Surficial geology consists of five map units. Mine tailings consisting of fine to very fine sand, 1-15 m thick predominate. Flanking to the north and west are slivers of Holocene organic deposits, peat and muck, 1-4m thick. Late Wisconsinan deep water glaciolacustrine laminated to varved clay, silt and fine sand; 1-50 m thick, is ubiquitous beyond the general property area. A unit of drift and bedrock occur as two patches in close proximity, roughly corresponding with the North Pit area; glacial drift within the vicinity is 1-3m thick in depressions. Four small patches of glacial outwash consisting of sand and gravel, 1-4m thick, occur immediately west of the property. Ice flow direction from glacial striations is predominantly 270^{o}.

Item 8.0: HISTORY

8.1: Prior Ownership and Ownership Changes

Griffith property, located on the western shore of Bruce Lake, was originally staked in 1953 by L. Dempster, J. Dempster and A. C. Mosher, employees of a syndicate managed by **Calmor Mines Limited**.

Iron Bay Mines Limited was formed in February 1954 and acquired the property.

An option agreement between Iron Bay Mines Limited and the **Cleveland-Cliffs Iron Company** in 1959 resulted in the undertaking of a joint venture program, at least until 1960.

The property was optioned in 1963 to **Taconite Lake Iron Co. Limited**, a subsidiary of **Pickands Mather & Co.** This option, on behalf of Pickand Mathers & Co. and **The Steel Company of Canada, Limited** (Stelco) gave Pickand Mathers & Co. exclusive rights for a two year period to explore and evaluate the Bruce lake property.

Taconite Lake Iron Co. Limited exercised its option, April 27, 1965, acquiring a 75-year lease on all mining lands held by Iron Bay Mines Limited in the Bruce Lake area.

Taconite Lake Iron Co. Ltd. assigned all its interest in the property to The Steel Company of Canada, Limited (Stelco) by indenture, August 16, 1965. The property was named the *Griffith Mine* and Pickands Mather & Co. were the managing operators. Stelco, March 1966, publicly announced the decision to bring the mine into production by 1968.

Iron Bay Mines Limited and Calmor Mines Limited changed names, in June 1966, to become **Calmor Iron Bay Mines Limited**.

The Northern Miner, 1973, stated the property was leased from Calmor Iron Bay Mines and the Iron Bay Trust (both listed TSE) and also Chimo Gold Mines held shares in each company. Late in 1978, Calmor Iron Bay and International Mogul Mines (Ontario) Limited amalgamated to form Calmor Iron Bay Mines (1978) Limited.

This company [name changed to **Calmor Iron Bay Mines (1979) Limited**] became a wholly owned subsidiary of International **Mogul Mines Limited** in 1979.

Following the 1986 mine closure, the property was withdrawn from staking.

Larry Kenneth Herbert acquired 100% ownership of claims staked on his behalf by D. M. Robertson in 2008, 2009 and by R. M. Quedent in 2009. Herbert's 100% interest was transferred, August 4, 2010; to **Northern Iron Corp.**, the current claim holder.

8.2: Previous Exploration and Development

19th Century

Discovery of iron formation at Bruce Lake may be attributed to D. B. Dowling, Geological Survey of Canada. In 1894, Dowling initially recorded the presence of BIF on the western shore of Bruce Lake and commented on its possible future economic importance.

20th Century

During the 20th Century, progressively larger exploration programs were undertaken with successive favourable results, eventually leading to development of the Griffith Mine. Details of the initial finding and subsequent involvement of Canadian and American corporations are described below:

Several conflicting accounts of discovery and early exploration of the Bruce Lake iron formation exist: (1) Jeffries (1970) stated the 1912 Ontario Bureau of Mines Report described the earliest reference to BIF located at Bruce Lake: "Several beds of dark, fine-grained, stratified rock, containing a great amount of magnetite and specular iron ore, outcrop on the shore of Little Shallow lake, now known as Bruce Lake". (2) The first published account of the iron formation at Bruce Lake was by E. L. Bruce in 1924 for Ontario Department of Mines. (3) Shklanka (1970) referring to Bruce's report mentions "some drilling at the sites of the North and South Deposits as the search for secondary enriched zones in the iron formation continued". (4) EMR reported the drilling refers to two holes drilled in 1912. The author is uncertain whether or not description (1) refers to Dowling.

Following the staking of 90 claims, preliminary exploration, in 1953, under the management of Calmor Mines Limited, consisted of trenching, sampling and dip needle surveys.

Iron Bay Mines Limited, formed in February 1954, acquired the property, staking an additional 33 claims, and undertook geological and magnetic surveys and drilled 29 holes totalling 13,062 feet (3,981.30 m). The diamond drill core was subjected to concentration tests in 1955.

A joint venture program involving further development and test work commenced following a 1959 option agreement between Iron Bay Mines Limited and the Cleveland-Cliffs Iron Company. The North and South deposits were partially stripped in 1959 and pilot mill tests on were completed in 1960 at Michigan College of Mining and Technology. Results showed 67.2% Fe in the concentrate for a 41.5% weight recovery and 90.2% iron unit recovery. A 60-ton bulk sample tested at the Cleveland-Cliffs laboratory indicated that the crude ore as amenable to autogenous grinding.

Taconite Lake Iron Co. Limited, a subsidiary of Pickands Mather and Co. optioned the property in 1963. From 1963 to 1964, 17 holes, totalling 10,126 feet (3,086.40 m) were drilled and 170 tons of ore shipped to Hibbing, Minnesota for testing showed that high grade pellets with 66.20% Fe and 4.50% silica could be obtained by grinding to -325mesh.

The Steel Company of Canada, Limited acquired all interest in the property from Taconite Lake Iron Co. Limited in 1965 and in March 1966, publicized its plans to bring the property, and renamed the *Griffith Property*, into production by 1968.

Ten holes, totalling 9,517 feet (2,900.78 m) were drilled in 1966.

Under Pickands Mather's supervision, Canadian Bechtel Limited, the engineering and construction contractor, commenced clearing and excavation for the plant buildings in March 1966. The plant was designed for a capacity rate of 13,000 long tons (dry) crude ore per day for an 86.28% magnetic iron unit recovery, i.e., about 4,200 tons of pellets per day. A primary crushing plant was designed to crush run-of-the mill ore to a nominal 8-inch size. Processing and service facilities were housed under one roof to provide a more efficient operation and facilitating communications and logistics. The complex was 416 feet long, 262 feet wide and 120 feet high (126.80m x 79.86m x 36.58m). Eight major elevations were required in the building so that the concentrating and pelletizing equipment could be properly located and serviced. The plant had a service extension housing and laboratories, maintenance shops, garage, warehouse, locker rooms, and safety and first-aid rooms. A section of the building contained The Griffith Mine's offices and training rooms. Located apart from the main complex was a truck storage building including space for 12 45-ton trucks. Other service facilities included a pumping station at the lake to supply process make-up and utility and a highly efficient sewage system.

A single-line track railway spur line for transportation of pellets was completed in October 1967 by Canadian National Railway, connecting the property with Amesdale, Ontario, 67 miles (107.8 km) south. The pellets were shipped to Thunder Bay, Ontario and stored at the stocking and shipping facilities owned and operated by The Valley Camp Coal Company of Canada Limited for Canadian National Railway prior to shipping by water to Selco's Hilton Works at Hamilton, Ontario. Electric power was acquired from an Ontario Hydro transmission line, 3.2 km west of the property. A Trans-Canada pipeline provided natural gas for the induration furnaces and plant heating systems. The 6-inch, welded steel pipeline running 73 miles (117.48 km) to the plant is still present on the property and currently capped off (observed by the author). Operations required a work force of 450 persons, eventually housed in Ear Falls by the Ontario Housing Corporation at a complex consisting of single and multiple dwellings.

The North Deposit open pit was expected to be 5,500 feet long, 2,100 feet wide and 1,100 feet deep (1676.40m x 640.08m x 335.28m). Stripping operations began at the North Pit on June 1, 1966 and due to the location of the deposit which was partially under the lake, it was necessary to dyke off parts of Bruce Lake and also construct a tailings retention dyke between the north and south basins of the lake. By June, 1966, construction of a dredging disposal basin was in progress. The dykes, with an overall length of 2 miles (3.2 km) were completed over a two year period.

The first pellets were produced on February 26, 1968 from ore taken solely from the North Deposit and the first shipment was made March 13.

From 1967 to 1972, some 68 holes, totalling 17,186 feet (5,238.29m), were diamond drilled.

Between 1972 and 1974, the South Deposit was developed and brought into production.

Since 1974, both pits were mined. An SL/RN (Stelco Lurgi / Republic National) kiln, a direct reduction kiln which achieved 89-93 per cent metallization was added to the mine facilities. The first sponge iron was produced from this SL/RN kiln on-site reduction plant, May 1975. Diamond drilling to determine bank stability was carried on regularly. Exploration or developmental drilling was not performed between 1975 and 1980. Installation of plant equipment to recover fine iron from flotation tailings was begun in 1978.

The mine operated at full capacity until the end of June 1982 and then at 2/3 capacity for the rest of the year.

Announcement of closure on April 1, 1985, was made November 15, 1984; however, on December 24, 1984, postponement of closure was deferred to April 1, 1986. Following closure of the Griffith Mine on March 31, 1986, remediation was carried out, building structures were removed and the two open pits subsequently flooded (Photograph 1).

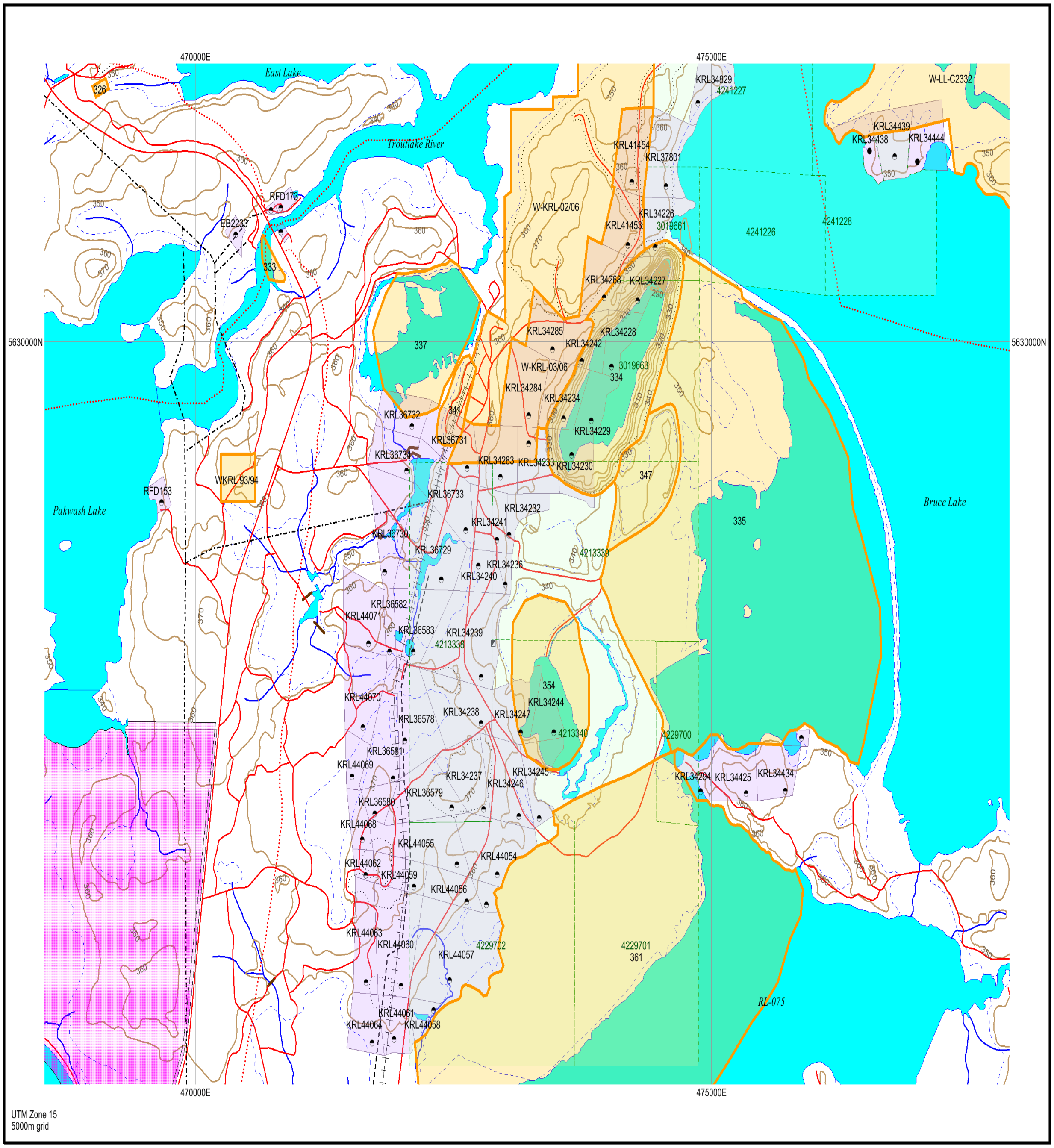
Photograph 1: Griffith Property North Pit Partially Flooded Circa 1986

(Facing SSW; South Pit in left background; mine site buildings at right centre; Source – Northern Iron Corp.)

Components of the Griffith Mine, with respect to development, consisted of the North Pit, South Pit, Plant, Kiln, West waste Rock Storage Area, East Waste Rock Storage Area, South

Waste Rock Storage Area, Mine Dyke, East Mine Dyke, West Mine Dyke, Divider Dyke, West Road Dyke, Perimeter Dyke, Primary Tailings Basin, Secondary Tailings Basin, Spoil Basin and South Basin (Figure 5a, b).

Figure 5a: Griffith Mine Site Components as of 2010



(Source – MNDM ClaiMaps; Northern Iron Corp.)

Figure 5b: Griffith Mine Site Components during 1968-1986 Operations

(Source – Stelco/Pickens Mather & Co., 1986)

8.2.1: Historical Drilling

Historical drilling by Iron Bay Mines Limited, Taconite Lake Iron Co. Limited and Stelco/Pickans Mather & Co. between 1954 and 1972 totalled 15,206.78 meters (49,891 feet) from 124 diamond drill holes. However, drilling for the 1954-1986 period totalled 18,288.00 meters (60,000 feet) according to a 1986 statement by Stelco/Pickans Mather & Co. (Author Unknown). Specific information per drilling program is tabulated in Table 2.

Table 2: Griffith Property Historical Drilling Information

Year	Company	No. of Drill Holes	Drilling [ft](m)
1912?	?	2	?
1954	Iron Bay Mines Limited	29	13,062 (3,981.30)
1963	Taconite Lake Iron Co. Limited	17	10,126 (3,086.40)
1966	Stelco/Pickands Mather	10	9,517 (2,900.78)
1967-1972	Stelco/Pickands Mather	68	17,186 (5,238.29)
1954-1972 (total)		124	49,891 (15,206.78)
1954-1986 (total)			60,000 (18,288.00)

(Source – Assessment File 52K14SW0011; Author Unknown, Stelco/Pickans Mather & Co., 1986; EMR)

Crude ore grading was based on diamond drilling, as the angle drilling was designed to intercept all geological horizons. The drill core was composited according to geological horizons and laboratory work was done on these composites which were correlated to actual mill results (Schelske, 1970). The core was split several times; part of the remaining core was given to the Ministry of Natural Resources at closure (Author Unknown, 1986).

The author understands archived core from the Griffith property does not exist with the exception of the donation to the Ontario Provincial Government; the core was either obviously utilized on site and/or discarded upon cessation of operations. Also, when the operation closed, records were apparently destroyed, which included drill logs, assays, drilling location maps, mining plans and sections.

A search by the author show a total of 31 summary logs - no assays, plans or sections - covering 24 holes drilled in 1954, 6 holes in 1956 and 1 hole in 1959, totalling 3,810.91 meters (12,503 feet) by Iron Bay Mines Limited (assessment file 52K14SW0011) and a total of 6 drill logs covering 3 holes drilled in 1963, 1 hole in 1966 and 1 hole in 1971 totalling 1,036.62 meters (3,401 feet) by Pickans Mather & Co. (*in* NIC files) apparently exist. A grand total of 4,847.53 meters logged in summaries, from 37, inclined, AX(?) core size, diamond drill holes or approximately 26.5% of 18,288.00 meters survived to the extent known by the author. Precise UTM coordinates are, at best, an educated guess. Information related to historical drilling procedures was not located by NIC or the author. Procedures, in the author's opinion, were probably similar to industry counterparts with the exception of file destruction. Information per historical drill hole normally required by NI 43-101 disclosure and ultimate use for future interpretation is considered inconsequential by the author.

Historical analytical values, in the author's opinion, are unreliable, strictly not in accordance with modern **CIM Exploration Best Practices Guidelines** with respect to NI 43-101 reporting. However, since the Griffith Mine was a significant producer, values should be considered template guidelines. The author did not locate documentation with respect to security procedures followed by either corporation for their respective drilling programs. Precise collar elevations are unknown by the author with the exception of the surviving summary logs. Down hole deviations were corrected (observed on logs by the author). Collar locations were based upon a ground grid system, requiring verification on a UTM coordinate system. It is the author's opinion, based upon available information, re-establishment of drill collar locations and elevations should be attempted though information value is not critical due to the paucity of historical drilling data. Exploratory methods and standards (QA/QC programs) in Canada, half a century ago, are acknowledged to be different. Further verification of historical drilling results, in the author's opinion, is not necessitated but should be followed up pending any queries related to modern programs.

21st Century

Exploration carried out by M. A. Dehn in 2008 on behalf of Larry Kenneth Hebert, consisted of a small trenching program totalling 10 trenches/pits. Trenches, typically 50.0m in length and 4.0m deep, encountered overburden, not reaching bedrock and the anticipated schistose greywacke or iron formation. Several vertical holes to test the interpreted strike of the iron formation between the north and south pits were recommended. Dehn specifically mentioned "most of the historic documentation of the Griffith Mine was destroyed with the mine closed".

8.3: Historical Resources

Historical resources estimates are listed as chronologically accurate as possible for pre-mining (exploratory), mining operations and post-production phases of the Griffith Mine. The author understands actual hardcopy calculation documentation for historical estimates, either does not exist or isn't readily available. The author observes Provincial Government references to corporate estimations are repetitious quotes dating from pre-mining to post-production. Classification of historical estimates corresponding to equivalent 2005 CIM Definition Standards categories – Inferred Mineral Resource, Indicated Mineral Resource, Measured Mineral Resource, Probable Mineral Reserve and Proven Mineral Reserve – are unknown to the author and cannot be validated by the author.

Shklanka (1970), in the author's opinion, identified Iron Bay Mines Limited as the original source of historical resources for the Griffith property. "By 1960, Iron Bay Mines Limited in its 6th Annual Report estimated that property contained a minimum of 250,000,000 long tons of crude ore which could produce an estimated minimum of 100,000,000 long tons of concentrate. More recent figures on the property are not available. However in 1968 reserves for the North Deposit are quoted (Northern Miner 1968) as sufficient to produce 1.5 million tons of concentrate per year for 25 to 30 years". "Preliminary test work on bulk samples and drill core indicated little variation in the iron content for the North and South Deposits with samples from the South Deposit grading 31.0 percent and from the North Deposit grading 29.3 percent (Iron Bay Mines Limited, 6th Annual Report)".

Stelco (1966) announced the property contained 250,000,000 tons of crude ore grading 32% Fe from which 100,000,000 tons of concentrate could be produced. The North Deposit alone was estimated to be able to produce 1.5 million tons of concentrate per year for 25-30 years (EMR). Run-of-pit ore grades were about 26% Fe. A concentrate averaging 66.5% Fe and 4% SiO_2 was expected by grinding to -325M (Shklanka, 1968).

A later estimate of the ore contained in the two deposits was 120,000,000 tons averaging 29% total iron having an overall weight recovery of 32% and magnetic iron unit recovery of 86.28%, to produce a concentrate containing 68.8% Fe. This estimate was noted by EMR (source and date were not specified) and currently recorded in MNDMF file MDI52K14SW00002.

Stelco/Pickans Mather & Co. (1986) "at closure an estimated 41,000,000 tons of concentrate remained within the north pit planned ultimate limits and 2,000,000 in the south pit". Grade was not quoted (Author Unknown). This estimate, in the author's opinion, is the original and possibly the only source with respect to un-mined in-situ pit mineralization. Lavigne and Atkinson (1986), Red Lake Resident Geologist Area, stated iron "ore" reserves remain at 41,000,000 tons @ 29% Fe. Open File Report 6261 by Lichtblau et al (2011) states "there is an estimated 120,000,000 tons of iron-bearing rock grading 29% iron remaining (MDI#52K14SW00002)".

Longevity of the Griffith Mine was estimated to be 25-30 years. The mine operated for 18 years, from 1968 to 1986; a thirty year lifespan would have terminated 1998. The Northern Miner (1973) reported the combined tonnages from the north and south pits would produce sufficient ore to feed the plant at the present capacity until 2005. The author does not understand this discrepancy.

Details of historical resources are presented in Table 3.

Table 3: Griffith Property Historical Resources Information

Location	Tonnage & Grade	Longevity	Source
North & South Deposits	Minimum of 250,000,000 tons to produce minimum of 100,000,000 tons concentrate. North deposit run-of-pit grade ~26%	25-30 years	Shklanka, 1968,1970: Referenced to Iron Bay Mines Limited 6th Annual Report, 1960
Griffith Mine	250,000,000 tons crude @ 32% Fe to produce 100,000,000 tons of concentrate	Statement by Stelco, Mar., 1966. Mine into production by 1968. North Pit estimated to produce concentrate for 25-30 years.	Mineral Resources Branch, Dept. of Energy, Mines & Resources, Ottawa – Griffith Mine, Ref. FE/1
North and South Pits	Combined tonnages	Sufficient ore to feed plant at present capacity until year 2005	The Northern Miner, 1973
North Pit (NP)/South Pit (SP)	NP: Estimated 41,000,000 tons of concentrate remaining within planned ultimate limits at closure SP: Estimated 2,000,000 tons of concentrate remaining within planned ultimate limits at closure.	Closure – March 31, 1986 [1986-1968 = 18 years operation] [2005-1986 = 19 years life remaining]	Stelco/Pickans Mather & Co Author Unknown, 1986
Griffith Mine	41,000,000 tons @ 29% Fe	Impending closure as of 1985	Lavigne and Atkinson, 1986
Griffith Mine	Estimated Reserves (1974)?: 120,000,000 tons @ 29% total Fe (exact quote from MDI52K14SW00002)	Status – Inactive Status – Past producing mine with reserves	Ministry of Northern Development, Mines & Forestry, 2010 & MDI52K14SW00002 revised 21-Mar-2000, Ontario Geological Survey Open File Report 6261, Lichtblau et al, 2011

The author, in accordance with Section 2.4 of the Instrument has indentified the source and dates of the historical estimates. Relevance and reliability of the historical estimates, in the opinion of the author, would both have to be taken in same context and be considered a guideline. Actual calculation records of the historical estimates apparently do not exist for reference with the possible exception of the 1960 Iron Bay Mines Limited, 6th Annual Report, which refers to initial pre-mining historical resources and not the post-production remaining in-situ historical resources. The author is unaware of any recent estimates available to issuer. Historical estimates, in the author's opinion, are not compatibly stated with respect to Sections 1.2 – **Mineral Resource** and 1.3 – **Mineral Reserve** of the Instrument.

8.4: Property Production

Griffith property produced iron ore from 1968 until 1986 closure for the Steel Company of Canada, Limited. Production from 1968-1982 (MD152K14SW00002) was approximately 20 million tons (pellets). Through its lifetime, the Griffith Mine removed a total of 183, 200,000 tons of crude ore, rock and surface from two open pits (excluding dredging) and produced 22,850,000 tons of iron ore pellets, grading 66.7% Fe from 78,800,000 tons of crude grading 23.9% Fe (Author Unknown, 1986). Lichtblau et al (Ontario Geological Survey Open File Report

6261, 2011) quoted between1968-1986, the Griffith Mine produced 22,850,000 tons pellets grading 66.7% Fe (pellets). Production figures taken from the Mineral Deposit Inventory (MDI) stated in Open File report 6261 was 82,031,500 tons ore grading 30% (ore) estimated from pellet production.

At full plant production rate of 1,500,000 tons of pellets annually, over 12,000,000 tons of material (crude ore, rock and surface) was moved from the open pits each year. During a three year tax exempt period, 1970, 1971, 1972, about 6,000,000 tons of all material was mined. Between 1973 and 1982, annual all material averaged 12,875,000 tons with a high in 1977 of 14,200,000 tons (Author Unknown, 1986). Production initially came from the North Pit until the South Pit commenced mining in 1973.

The first iron ore pellets were shipped from the mine site on March 13, 1968. Production reached rated capacity of 1.5 million tons annually in 1970 and continued at this rate until 1982 when, due to depressed markets, the mine shut down for 3 months. The mine produced 60 percent of rated annual production that year, 50 percent of rated in 1983, 63 percent in 1984 and 50 percent in 1985; closure was March 31, 1986.

The main reasons cited for closure of the mine were lack of demand for steel and high cost of pellets from the mine. Some of the reasons for the high costs included the large amount of material that had to be mined to produce a ton of product, the relatively small size of the operations which precluded the achievement of economies of scale, the location of the mine which required a high cost rail transportation system to move pellets from the mine to the port at Thunder Bay, and the high alkali content [in 1971 silica target changed from 4.5% to 3.60% to reduce alkali in pellet] and low reducibility of its pellets which increased the hot metal costs at Stelco's basic steelmaking facilities (Author Unknown, 1986).

Production for years 1968 to 1982 are listed in Table 4.

Table 4: Griffith Property Historical Production Information

Year	Production (pellets)
1968	502,075 Long Tons
1969	951,115 Long Tons
1970	1,470,810 Long Tons
1971	1,366,205 Long Tons
1972	1,430,148 Long Tons
1973	1,566,200 Long Tons
1974	1,541,099 Tonnes
1975	1,472,211 Tonnes
1976	1,571,331 Tonnes
1977	1,588,799 Tonnes
1978	1,563,233 Tonnes
1979	1,500,000 Tonnes
1980	1,483,987 Tonnes
1981	1,495,348 Tonnes
1982	844,019 Tonnes

(Source – MRB, Dept. of EMR, Ottawa)

Item 9.0: GEOLOGICAL SETTING

9.1: Regional Geology

Griffith property is situated within the Western Superior Province, North Caribou Superterrane and Uchi Domain (East Uchi Subprovince).

The North Caribou superterrane is the largest domain with Mesoarchean ancestry of the Superior Province. Basement consists of ca. 3.0 Ga juvenile plutonic and minor volcanic belts upon which were deposited early (2.98-2.85 Ga) rift-related and younger (2.85-2.72 Ga) arc sequences. It was severely reworked by continental arc magnetism at 2.75 to 2.70 Ga. The terrane has wide transitional margins in both the north and south. The Uchi domain preserves a ca. 300 m.y. record of tectonstratigraphic evolution along the southern margin of the North Caribou superterrane. This region hosts some of the largest mineral deposits of the western Superior region, including the Red Lake gold camp. Aeromagnetic trends show complex structural configuration of supracrustal rocks in a chain of greenstone belts separated by large lobes of plutonic material. The stratigraphic record preserved (which includes Red Lake and Confederation Lake greenstone belts) reflects a history of protracted rifting beginning ca. 2.99 Ga followed by a protracted period of continental arc magnetism at 2.94 to 2.91, 2.90 to 2.89, 2.85 and 2.75 to 2.72 Ga, punctuated by one or more unconformities (Percival, 2007).

The Berens River [plutonic arc complex] and English River subprovinces bound the Uchi-Confederation greenstone belt to the north and south, respectively, with the Janette Lake and Trout Lake batholiths to the east and west. This greenstone belt was previously interpreted as three distinct mafic to felsic volcanic cycles that formed between ca. 2960 and 2740 Ma. These cycles were later reinterpreted as the Balmer (Ca. 2960 Ma), Woman (ca. 2840 Ma) and Confederation (ca. 2740 Ma) lithotectonic assemblages. The distribution, structure, and geochemistry of units within the Confederation assemblage (ca. 2740 Ma) indicate it formed as a rifted arc. However the tectonic settings of the older volcanic units are ambiguous (Rogers et al, 2000). The steeply dipping, 1 to 3 km wide, brittle-ductile east-trending Sydney Lake-Lake St. Joseph fault, having over 450 km of strike length, separates rocks of the North Caribou margin to the north from metasedimentary schists and migmatitic rocks of the English River terrane to the south (Uchi-English River subprovince boundary fault). Distinguished from adjacent regions by supracrustal rocks of metasedimentary origin, the English River terrane also displays high metamorphic grade, and a prominent east-west structural grain. Based upon the turbiditic nature of its chemically immature greywackes, the setting of the English River terrane has traditionally been considered a fore-arc basin or an accretionary prism. Sedimentary facies vary from submarine fan on the northern margin, with associated banded iron formation, to deep-water wackes further south (Percival, 2007).

The Birch-Uchi belt, similar to Red Lake belt, has been affected by two penetrative regional deformational events, and a possible older non-penetrative event, in addition to local strain events induced by the emplacement of plutons marginal to, and within the belt (Sanborn-Barrie et al, 2004). Supracrustral rocks of the Red Lake and Birch-Uchi belts are characterized by mineral assemblages typical of greenschist- and amphibolite-facies regional metamorphism (Rogers et al, 2000).

9.1.1 Local Geology

Bedrock exposure on a local scale for the Griffith area is estimated to be <0.50-1.0% and the stratigraphic succession is 'pieced together' data from scattered outcrops. Correlation of general stratigraphy (Table 5) may not represent true chronostratigraphical relationships. Accuracy of the following information cannot be confirmed by the author.

Table 5: Local Griffith Area Geology and Tectonstratigraphic Assemblages

NEOARCHEAN (2800-2600 Ma)

Bruce Lake pluton

- Gsk11di Diorite, quartz diorite

Bluffy Lake batholith

- Gbe11tn Tonalite, granodiorite (diorite and quartz diorite phases)

Wenasaga Lake batholith

- Gms65gr Peraluminous granite to granodiorite

English River assemblage >2696 Ma <2704 Ma

- Feg6sm Metasedimentary migmatite/gneiss
- Feg6if Chert-magnetite ironstone (past producer - Griffith Mine)
- Feg6wk Fine grained clastic rocks and siliclastics and chert-magnetite iron formation

Inferred unconformity

Inferred unconformity

Unconformity

Confederation assemblage ca. 2745-2735 Ma

- Tcf12it Intermediate volcanic rocks

(Source – abbreviated adaption from GSC Open File 4256 / OGS Map P.3460)

Description of local geology (Figure 6) refers to units of the English River and Confederation assemblages, Bluffy Lake and Wenasaga Lake batholiths and the Bruce Lake pluton in the immediate vicinity of the Griffith property. Simplistically, all units are of Neoarchean age (2800-2600 Ma) and appear to have an elongated E-W expression in mapped outline. Within the English River assemblage are iron formations, in particular GSC Open File 4256 / OGS Map P.3460 illustrate tectonically thickened chert-magnetite iron formation of the Griffith Mine, a past producer. The property is flanked to the east by diorite and quartz diorite of the Bruce Lake pluton, to the south by intermediate intrusive rocks of the Bluffy Lake batholith in contact with granite and granodiorite of the Wenasaga Lake batholith. A major E-W trending fault occurs on the north side of the Bruce Lake pluton and cuts the Confederation assemblage volcanic unit. South of the Wenasaga Lake batholith, the Sydney Lake Fault Zone trends E-W bending NE. At least one unconformity and two inferred unconformities separate the Confederation assemblage, primarily situated east of the property, with the >2696 Ma <2704 Ma English River assemblage consisting of metasedimentary migmatite and garnet-biotite-feldspar gneiss (Sanborn-Barrie et al, 2004).

9.1.2 Mineral Deposits

Red Lake, a prolific, diversified mining district, is considered to be one the largest gold mining camps in Canada. Exploration for gold, iron and base metals has been ongoing since the early 20^{th} Century. Epigenetic, structurally-controlled greenstone lode gold deposits are hosted by quartz-carbonate veins primarily, quartz-arsenopyrite replacement zones, pyrite and sulphide replacement bodies and quartz veins. Three of the largest gold deposits comprising the bulk of the gold found in the Red Lake District, are adjacent to a regional unconformity. Volcanogenic massive sulphide mineralization associated with proximal chloritic and alumino-silicate alteration occur in the Red Lake and Birch-Uchi greenstone belts, the latter is host to the South

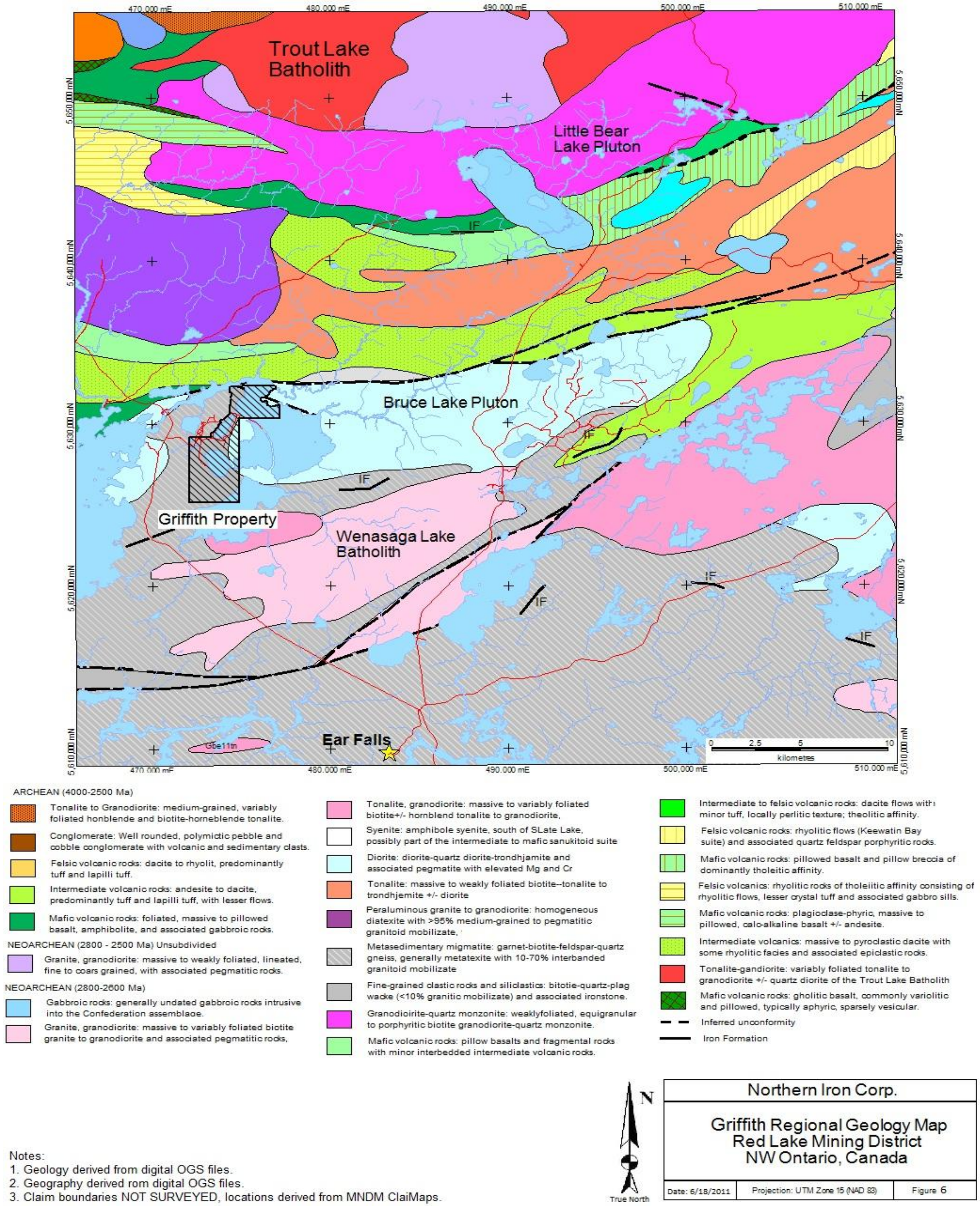
Bay Mine, a past producer. Silver bearing copper and zinc sulphides are associated with exhalative chert and felsic volcanics.

Iron formation deposits directly relevant to this report, in the Red Lake District, specifically along the Uchi-English River subprovince boundary include Bluffy (Whitemud property), Kesaka (El Sol property), Avis (Papaonga property) and the closed Griffith Mine (Griffith property). Deposits/properties (Figure 4) are held by Northern Iron Corp. and listed by the Ontario Geological Survey as currently not being mined. The magnetite-bearing deposits have similar geological characteristics.

Situated in proximity to Bruce Lake, hosted by English River assemblage metasedimentary rocks in contact with the Bruce Lake intrusion, thickened widths acquired by folding, characterize two magnetite-chert bearing iron formation deposits comprising the Griffith Mine. Karas prospect, 15 km ESE of Griffith, is located structurally within a closed fold. Bluffy, Kesaka and Papaonga prospects are respectively 46, 70 and 75 km ENE of the Griffith property. The Bluffy Lake prospect is a magnetite-quartz iron formation hosted by greywacke intruded by numerous narrow syenite dikes. Kesaka Lake prospect is a folded taconite iron formation consisting of bands or intercalations of magnetite, recrystallized chert and argillaceous mudstone. Located on Papaonga Lake, the Avis prospect consists of magnetite-rich banded iron formation occurring within a volcanic-sedimentary unit.

Further east within the Uchi subprovince, Patricia Mining Division, Trist Lake area, on the Lake St. Joseph property held by Rockex Limited, taconite iron formation occurring within a volcanic-sedimentary assemblage and comprising the Eagle, Wolf and Fish Island deposits consists of specular hematite and magnetite, and may, in part, have increased thickness caused by folding.

Figure 6: Regional Geology



(Source – Geological Survey of Canada, Open File 4256, 2004)

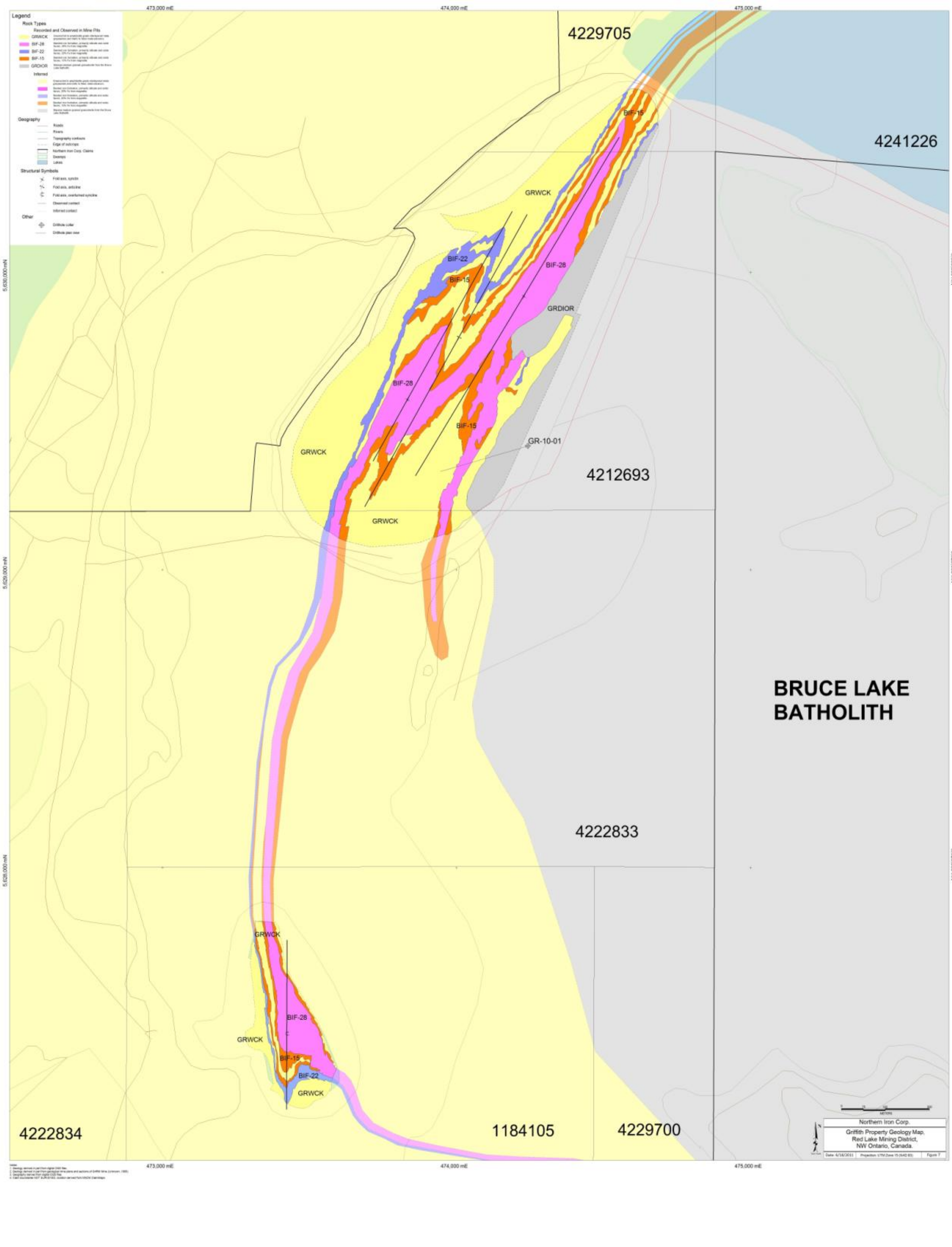
9.2: Property Geology

Property bedrock geology consists of Archean iron-formation and greywacke of the English River assemblage, Birch-Uchi Belt, Superior Province, located on the western shore of Bruce Lake. A major portion of the iron formation originally underlay the lake. The iron formation, interbedded with greywacke and biotite schist, is situated discontinuously on the northwest, west and southwest margin of the Bruce Lake pluton having variable composition.

Aeromagnetic expression of the Griffith property BIF magnetite deposits is a regional feature, approximately 5.4 km in length, exhibiting a strong north trend with a pronounced north-north-east bend in the vicinity of the North Pit. Amplitudes of two anomalous peaks exceeding 90,000 gammas each for the North and South Pits areas contrast with lower values exhibited over intermediate intrusive to the east.

Five map units (Figure 7) are derived from existing 1985 plans and cross sections and pit observations. From east to west are massive medium grained granodiorite of the Bruce Lake pluton, greenschist to amphibolite grade interlayered metagreywacke and mafic to felsic metavolcanics enveloping three units of banded iron formation, primarily silicate and iron oxide facies, consisting respectively of 28 % Fe, 22% Fe and 15% Fe from magnetite. The iron formation is complexly folded and thickened within the vicinity of two zones known as the North Pit and South Pit deposits. A narrow band of iron formation is inferred to be continuous between the two pits.

Figure 7: Griffith Property Geology



(Source – Northern Iron Corp.; Hills and Sanabria, 2011)

Item 10.0: DEPOSIT TYPES

Stratiform iron deposits of the Canadian Shield include Lake Superior and Algoma-type iron formations. Canadian Algoma-type iron-formations are the second most important source of iron ore after the taconite and enriched deposits in Lake Superior-type iron-formations. Iron deposits in Algoma-type iron-formations consist mainly of oxide and carbonate lithofacies that contain 20 to 40% Fe as alternating layers and beds of micro- to macro-banded chert or quartz, magnetite, hematite, pyrite, pyrrhotite, iron carbonates, iron silicates and manganese oxide and carbonate minerals. The deposits are interbedded with volcanic rocks, greywacke, turbidite and pelitic sediments; sequences are commonly metamorphosed. Griffith Mine is a typical northern Ontario Algoma-type iron formation deposit (Gross, 1993, 1996). Characteristics are summarized below:

Algoma-Type Iron Formation Model

Tectonic Settings: Algoma-type iron-formations are deposited in volcanic arcs and at spreading ridges.

Age of Mineralization: They range in age from 3.2 GA to modern protolithic facies on the seafloor and are most widely distributed and achieve the greatest thickness in Archean terranes (2.9 to 2.5 GA).

Depositional Environment / Geological Setting: They form both near and distal from extrusive centres along volcanic belts, deep fault systems and rift zones and may be present at any stage in a volcanic succession.

Host/Associated Rocks: Rocks associated with Algoma-type iron-formations vary greatly in composition, even within local basins, and range from felsic to mafic and ultramafic volcanic rocks, and from greywacke, black shale, argillite, and chert interlayers with pyroclastic and other volcaniclastic beds and/or their metamorphic equivalents.

Deposit Form: Iron ore deposits are sedimentary sequences commonly from 30 to 100 m thick and several kilometres in strike length. In most economic deposits, isoclinals folding or thrust faulting have produced thickened sequences of iron-formation.

Structure/Texture: Micro-banding, bedding and pencontemporaneous deformation features of the hydroplastic sediment, such as slump folds and faults, are common, and can be recognized in many cases in strongly metamorphosed oxide lithofacies. Ore mineral distribution closely reflects primary sedimentary facies. The quality of oxide facies crude ore is greatly enhanced by metamorphism which leads to the development of coarse granular textures and discrete grain enlargement.

Ore Mineralogy: Oxide lithofacies are composed of magnetite and hematite. Some deposits consist of siderite interbedded with pyrite and pyrrhotite.

Gangue Mineralogy (Principal and subordinate): Quartz, siderite or ferruginous ankerite and dolomite, manganoan siderite and silicate minerals. Silicate lithofacies are characterized by iron silicate minerals including grunerite, minnesotaite, hypersthenes, reibeckite and stilpnomelane, associated with chlorite, sericite, amphibole, and garnet.

Weathering: Minor oxidation of metal oxide minerals and leaching of silica, silicate and carbonate gangue. Algoma-type iron-formations are protore for high-grade, direct shipping types of residual-enriched iron deposits.

Genetic Model: Algoma-type iron-formations were formed by the precipitation of iron and silica in colloidal size particles by chemical and biogenic precipitation processes. Their main constituents evidently came from hydrothermal-effusive sources and were deposited in euxinic to oxidizing basin environments, in association with clastic and pelagic sediment, tuff, volcanic rocks and a variety of clay minerals.

Associated Deposits: Transitions from Lake Superior to Algoma-type iron-formations occur in areas where sediments extend from continental shelf to deep-water environments along craton margins. Algoma-type iron-formations host stratiform and non-stratiform gold deposits.

Grade and Tonnage: Orebodies range in size from about 1000 to less than 100 Mt with grades ranging from 15 to 45% Fe, averaging 25% Fe. Precambrian deposits usually contain less than 2% Mn.

Economic Limitations: Usually large-tonnage open pit operations. Granular, medium to coarse-grained textures with well defined; sharp grain boundaries are desirable for the concentration and beneficiation of the crude ore. Strongly metamorphosed iron-formation and magnetite lithofacies are usually preferred. Oxide facies iron-formation normally has a low content of minor elements, especially Na, K, S, and As, which have deleterious effects in the processing of the ore and quality of steel production from it. (Adapted from Gross, 1993, 1996)

Item 11.0: MINERALIZATION

11.1: Overview

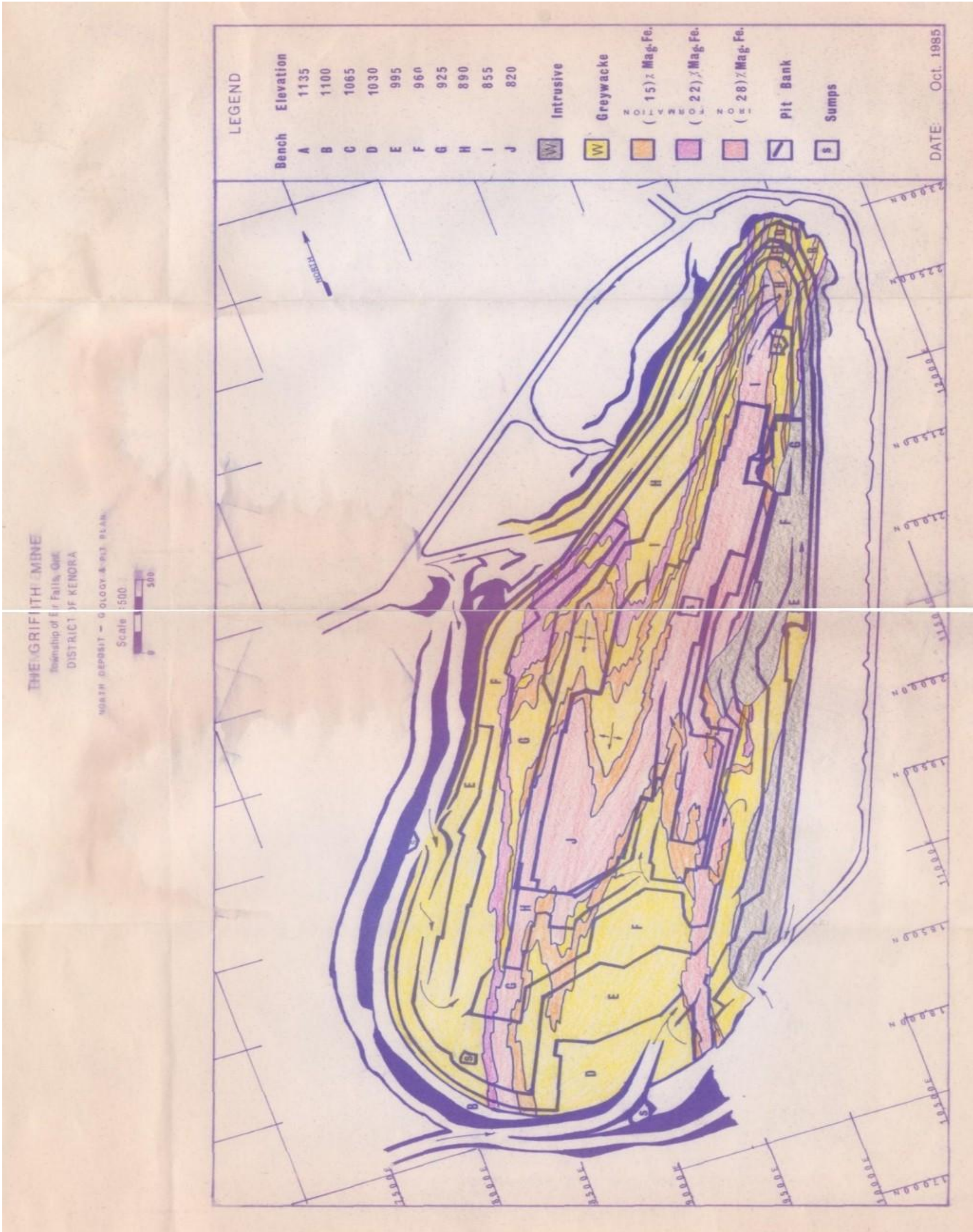
Current Griffith Mine (MDI Number: MDI52K14SW0002; NMI#: 52K/14 FE1) status is inactive. Archean banded iron formation (BIF) is the only known geological unit of potential economic value on the property hosting the North Pit Deposit and the South Pit Deposit. During mining operations, crude ore was supplied from the two open pits, separated along strike by a distance of 1.25 km. Iron formation is of the Algoma-type, and consists predominantly of magnetite oxide facies (taconite) mineralization – magnetite rich chert interlayered with hematite rich chert. Both pits are currently water flooded; individual descriptions of the two BIF occurrences with respect to historic documentation follow:

11.2 Occurrences

11.2.1 North Pit Deposit

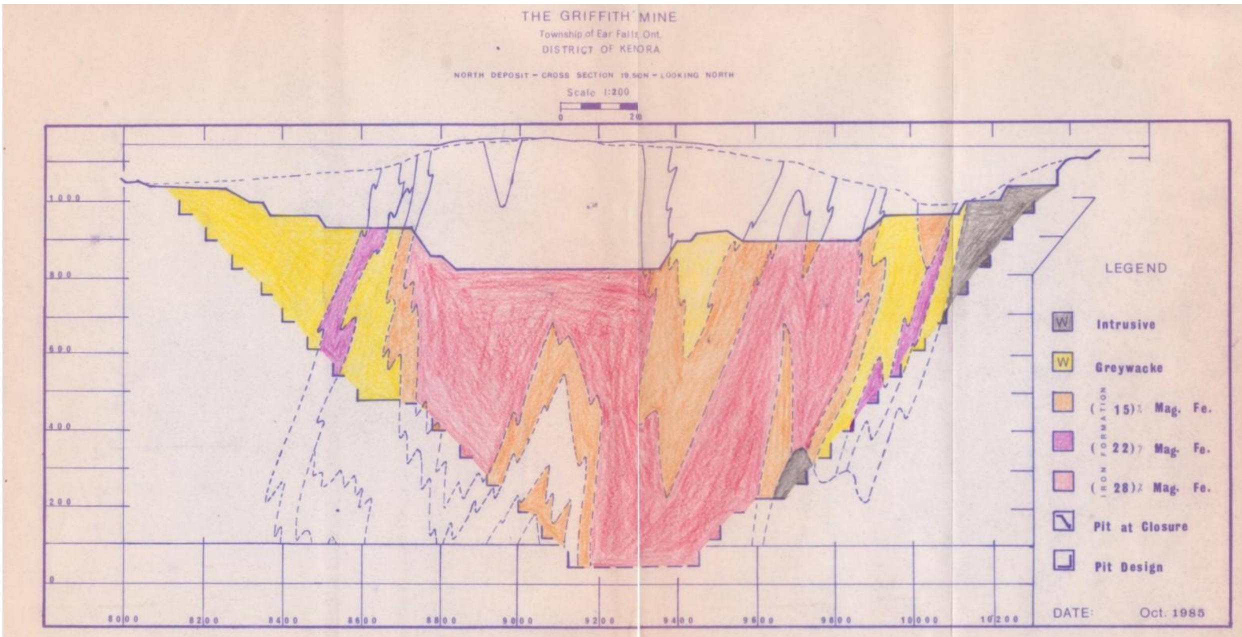
The North Pit Deposit (474,020mE; 5,629,620mN) is north trending and crescent-shaped consisting of magnetite-quartz (chert, jasper) iron formation interlayered with hematite rich chert and some intercalated greywacke. Originally, a protective dyke had to be constructed prior to mining due to the deposit's location beneath the lake. Outlined dimensions of the North deposit, 1970, were 2000' in length, having a variable width of from 200 feet at the northern end to about 600 feet at the southern end due to folding producing repetition of units. Shklanka (1968) indicated width to be 1000 feet. EMR states the North deposit is approximately 1,000 feet wide and continuous over about 7,400 feet and has a soluble iron content of approximately 29.3%. Open File 5447 (Symons, et al, 1983) states specific gravity for economic ore with an average of 31% total Fe has a SG of 3.60 g cm^{-3}. The pit was designed with an overall slope angle of 53½ ^{o} and a grade on haul ramps of 10%. Elevations of benches numbered A to J – are 1135' to 820' (345.94 to 249.93m) asl. Current dimensions of the North Pit stated after 1986 closure (Author Unknown) is approximately 6,000' long x 2,000' wide x 335' deep (1,828.8m, 609.6m x 102.10m); planned ultimate depth was 1,100 feet (335.28m). The 1985 and ultimate pit outline are shown in Figure 8a, b.

Figure 8a: Griffith North Deposit Mine Plan, October 1985



(Source – Facca, 1985; Northern Iron Corp.)

Figure 8b: Griffith North Deposit Mine Cross Section, October 1985



(Section 19,500N; Source – Facca, 1985; Northern Iron Corp.)

The iron formation is interbedded with meta-greywackes, and consists mainly of magnetite rich chert, interlayered with hematite rich chert, locally magnetite rich biotite schist and, near diorite intrusions, recrystallized magnetite rich chert. Hematite rich layers occurring on the eastern edge of the iron formation in the north pit where several granodiorite dykes intrude were termed the outer massive unit in the mine stratigraphy. Contact metamorphism has recrystallized the banded iron formation proximal to the intrusion and increased the metamorphic grade to the amphibolite facies. Historical diamond drilling indicated the possibility of faulting, but evidence was not encountered.

Mine stratigraphy as of 1970 listed 8 stratigraphic subdivisions of the iron formation and interbedded metasediments based on diamond drilling listed from top to bottom, or in order of decreasing age:

1) An upper wallrock of biotite schists and greywackes

2) Schistose magnetic iron-formation about 15 feet thick (4.57m)

3) Banded magnetic-quartz iron formation, about 120 feet thick (36.57m)

4) Schistose magnetic iron-formation, 10 to 15 feet thick (3.05 to 4.57m)

5) Biotite schists and greywackes, about 70 feet thick (21.34m)

6) Schistose magnetic iron-formation, 30 to 40 feet thick (9.14 to 12.19m)

7) Banded magnetic-quartz iron-formation, 10 to 20 feet thick (3.05 to 6.10m)

8) A lower wallrock of biotite schists and graywackes

Surviving plan (Figure 8a) and cross section (Figure 8b), October 1985, delineate the BIF into 3 subdivisions for production purposes – 15% magnetite, 22% magnetite and 28% magnetite, the latter occupying the bulk and centre of the deposit flanked by thinner strips of lesser magnitude.

The iron formation is complexly folded with many minor drag folds occurring along the limbs of the major folds. The North Deposit is folded along a northeast trending axis into two synclines and centre anticline. The structures trend N30^{o}E and plunge about 35 degrees to the south. The limbs of the folds dip steeply at 75^o to 89^o and the southwest limb of the west syncline is overturned due to secondary or minor folds (Author Unknown, 1986).

Magnetite in various grades was encountered interbedded with amphibolite grade schists from 219.80m depth to the end of the hole DDH GR-10-01 at 429.16m depth, which ended still in magnetite rich ore (Figure 9a, b) drilled in the vicinity of the outer massive unit. The highest grades of Fe intersected were 2.0m of mineralization grading 38.78% Fe with an average grade of 25.26% Fe of the whole mineralized banded iron formation intersected (Table 6).

Table 6: North Pit DDH No. GR-10-01 Selected Intersections

From (m)	To (m)	Interval Length (m)	SiO_2%	Fe_2O_3%	Fe%
219.70	220.26	0.56	51.30	30.50	21.35
221.60	223.15	1.55	48.60	42.00	29.40
224.90	225.43	0.53	37.80	53.90	37.73
226.73	227.73	1.00	42.20	49.90	34.93
229.63	230.75	1.12	40.40	52.00	36.40
231.38	232.60	1.22	49.90	38.30	26.81
234.00	236.20	2.20	50.60	30.00	21.00
236.20	237.80	1.60	51.80	26.40	18.48
257.65	260.57	2.92	50.10	29.30	20.51
260.57	263.73	3.16	64.30	12.00	8.40
316.30	318.85	2.55	48.50	36.60	25.62
318.85	320.30	1.45	54.60	20.80	14.56
320.30	324.10	3.80	55.80	25.10	17.57
324.10	326.87	2.77	46.10	47.00	32.90
326.87	329.85	2.98	55.00	10.40	7.28
329.85	332.95	3.10	43.30	47.00	32.90
332.95	335.85	2.90	45.20	46.90	32.83
335.85	337.85	2.00	44.50	45.90	32.13
337.85	340.90	3.05	61.80	19.20	13.44
340.90	342.76	1.86	55.30	30.60	21.42
342.76	345.85	3.09	42.90	46.60	32.62

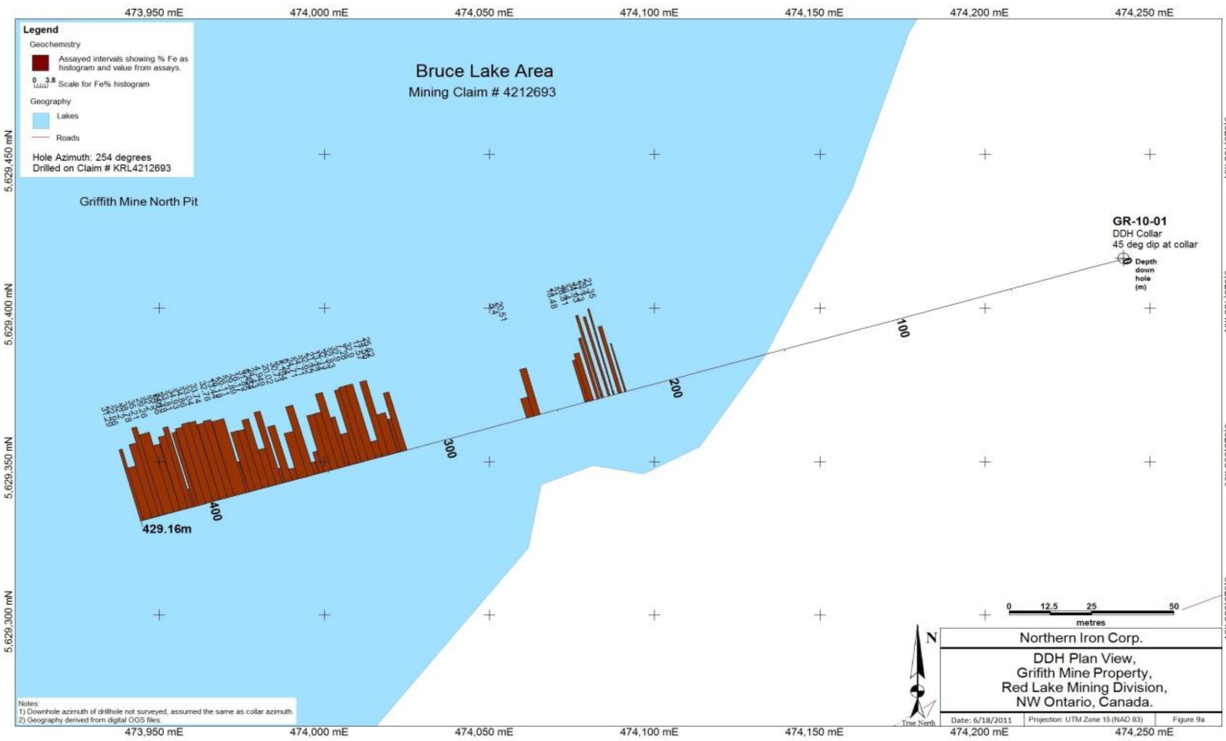
345.85	348.80	2.95	46.70	35.30	24.71
348.80	352.00	3.20	47.70	35.30	24.71
352.00	354.00	2.00	58.20	13.20	9.24
354.00	355.90	1.90	68.10	7.42	5.194
355.90	358.90	3.00	47.20	43.90	30.73
358.90	362.90	4.00	53.00	28.60	20.02
362.90	365.50	2.60	69.30	7.07	4.949
365.50	368.50	3.00	51.40	34.90	24.43
368.50	369.54	1.04	58.50	9.22	6.45
369.54	372.10	2.56	45.40	45.50	31.85
372.10	375.10	3.00	56.40	23.10	16.17
375.10	378.00	2.90	47.60	42.70	29.89
378.00	381.00	3.00	49.00	37.30	26.11
381.00	383.65	2.65	49.90	37.40	26.18
383.65	384.74	1.09	54.80	19.20	13.44
384.74	390.00	5.26	45.80	46.80	32.76
390.00	393.00	3.00	44.30	48.20	33.74
393.00	396.00	3.00	45.90	47.20	33.04
396.00	399.00	3.00	43.00	49.80	34.86
399.00	402.00	3.00	43.30	49.90	34.93
402.00	405.00	3.00	44.50	48.30	33.81
405.00	406.57	1.57	45.60	46.40	32.48
406.57	407.40	0.83	70.20	11.30	7.91
407.40	409.45	2.05	42.40	50.80	35.56
409.45	412.50	3.05	43.50	46.00	32.20
412.50	415.40	2.90	48.00	41.80	29.26
415.40	419.54	4.14	42.30	50.30	35.21
419.54	421.55	2.01	39.30	55.40	38.78
421.55	424.60	3.05	42.60	46.00	32.20

(Source – Northern Iron Corp.; Hills and Sanabria, 2011)

Silica content for DDH GR-10-01 was 49.48% in the mineralized sections. The magnetite-rich beds encountered in drill core, and those exposed on surface at the north end of the North Pit, were typically 0.5 to 20.0m thick. Interbeds had significantly less magnetite, but were usually comparatively thin, (0.2-0.4m thick). Abundant cherty bands were common in metasediments for a couple of meters above and below the banded iron formation. Magnetite rich beds bearing 5%-10% specular hematite and hematite rich seams were encountered sporadically from 399.50m to 424.00m depth, interspersed with magnetite-quartz and amphibolite grade schist interbeds. The hematite bearing beds were often 0.5m to 1m thick and easily identified by their reddish streak. Hematite seams were often only a few cm thick, though could have increased the grades of Fe reported in intervals in which they occur. The magnetite was slightly recrystallized and coarser grained proximal to the granodioritic instrusive body.

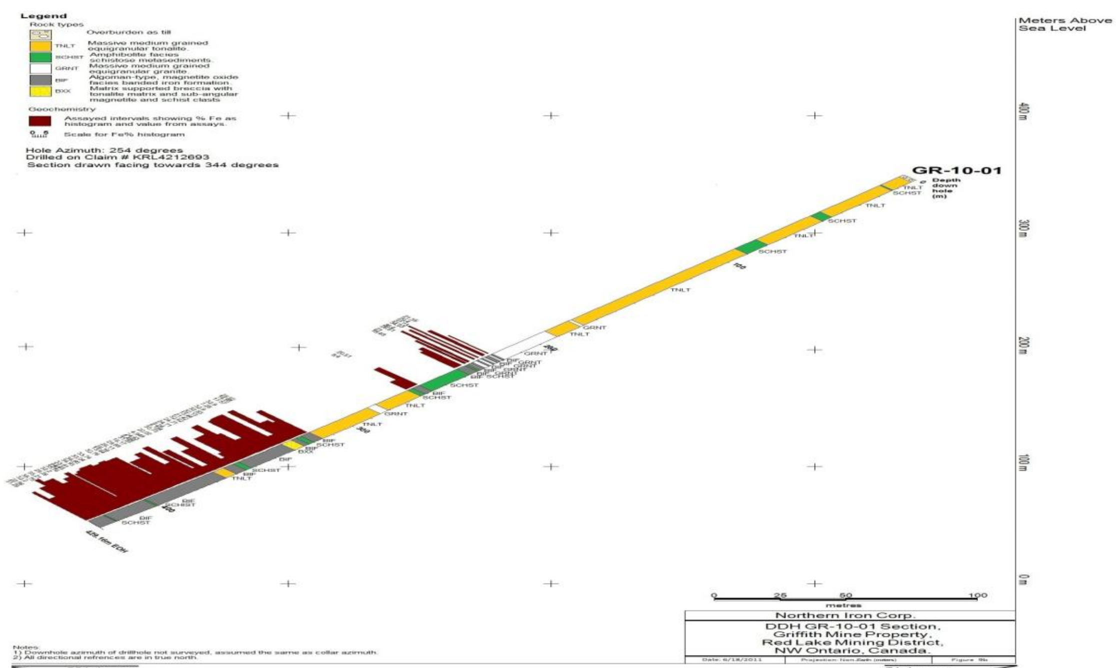
NIC observations indicate drilling supported the rough accuracy of the North Pit deposit model - several folded layered banded iron formations of varying grades similar to those recorded during the operation of Griffith Mine - acquired from previous work and the existing 1985 Griffith Mine documents. The outer massive unit, a deposit marker bed, was recognized and confirmed and the Bruce Lake pluton was observed to extend westward into the deposit at depth.

Figure 9a: Griffith North Deposit DDH No. GR-10-01 Plan



(Source – Northern Iron Corp.; Hills and Sanabria, 2011)

Figure 9b: Griffith North Deposit DDH No. GR-10-01 Section

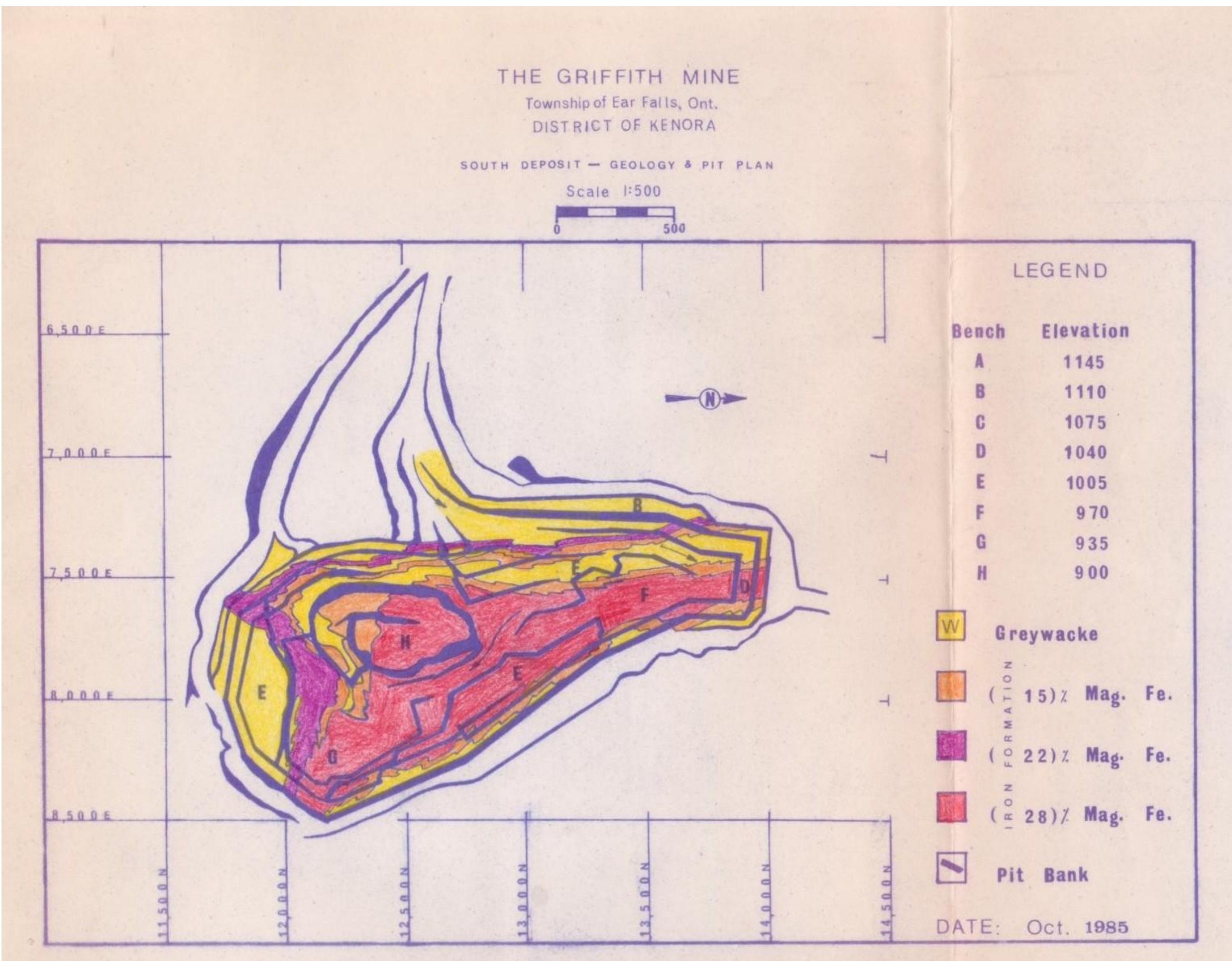


(Source – Northern Iron Corp; Hills and Sanabria, 2011)

11.2.2 South Pit Deposit

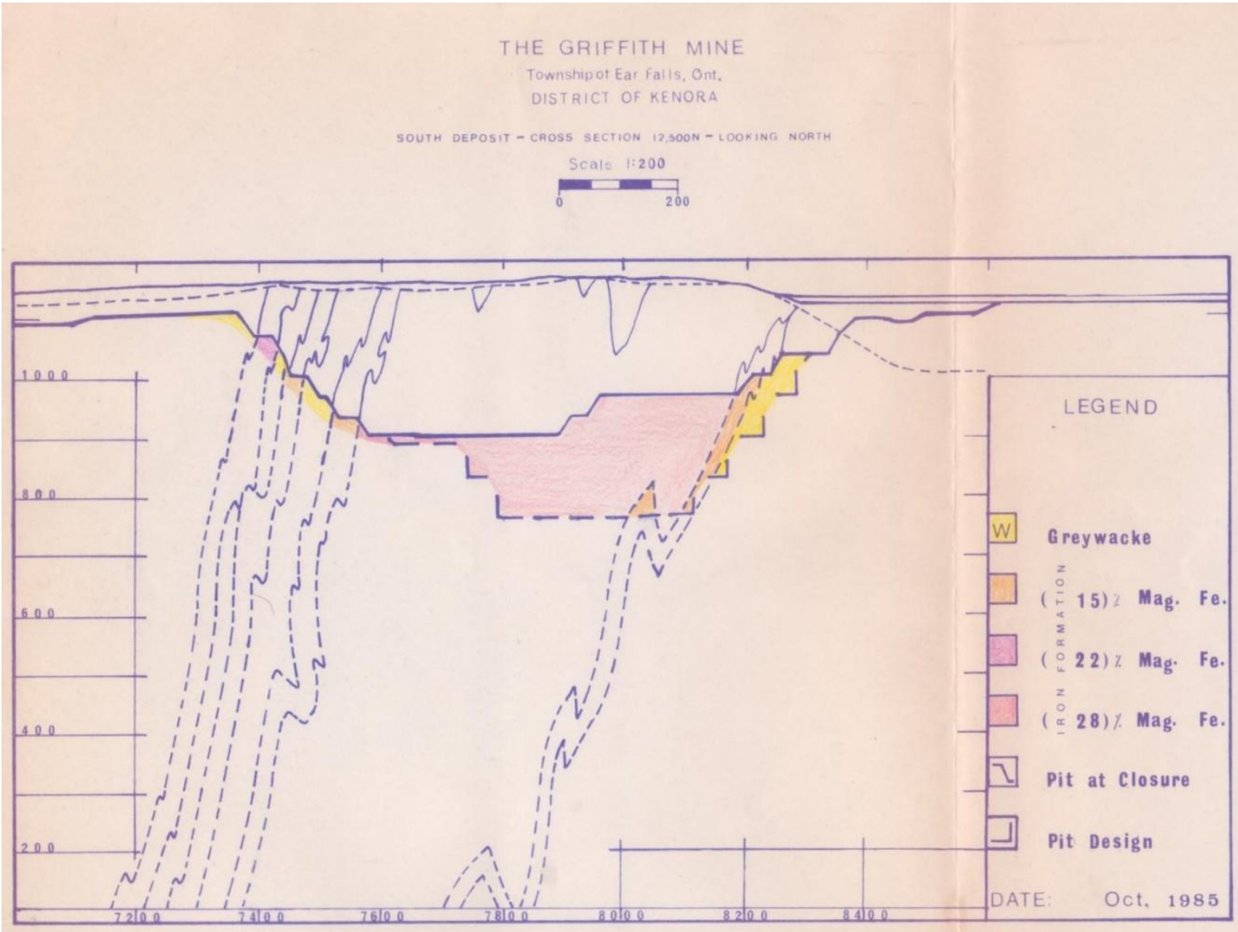
The South Pit Deposit (473,470mE; 5,627,400mN) is north trending and in plan, pear-shaped (Figure 10a), consisting of magnetite-quartz (chert, jasper) iron formation with hematite rich chert and some intercalated greywacke. Dimensions cited were approximately 800 feet wide and about 3,000 feet long and the deposit has a soluble iron content of approximately 31.0% (EMR). The pit was designed with an overall slope angle of 53½ ^{o} and a grade on haul ramps of 10%. Elevations of benches numbered A to H – are 1145’ to 900’ (349.00m to 274.32m) asl. Current dimensions of the South Pit stated after 1986 closure (Author Unknown) is approximately 2,500’ long x 1,500’ wide x 280’ deep (762.00m x 457.20m x 85.34m); planned ultimate depth was 420 feet (128.01m). Subsequent flooding beyond the pit boundaries encompasses an area approximately 1.0 x 2.0 km. The 1985 and ultimate pit outline is shown in Figure 10b.

Figure 10a: Griffith South Deposit Mine Plan, October 1985



(Source - Facca, 1985; Northern iron Corp.)

Figure 10b: Griffith South Deposit Mine Cross Section, October 1985



(Section 12,500N; Source - Facca, 1985; Northern Iron Corp.)

The South Deposit is geologically similar to the North Deposit and is folded into an open overturned syncline in a NNE direction (axial trend is S27^{o}W) with a steep west-dipping north limb (65^{o} to 75^{o}) and an east-southeast limb dipping moderately to the south; the syncline with associated minor folds plunges at 59^{o} southwesterly. Thickening at the crest involves intraformational folding of the iron formation, the dominant structure being an overturned anticline, with a north-northeast-trending axial trace, located on the east limb near the axial region of the main fold.

Item 12.0: EXPLORATION

12.1: General

The 2010 exploration program on the Griffith property by Northern Iron Corp consisted of diamond drilling a single hole on the North Pit Deposit. Program coordination, NIC and contractor personnel were under the direct supervision of Raul Sanabria, EuroGeol., P. Geo., the company's qualified person with respect to the project.

12.2: Drilling

An initial drilling program consisting of one hole was undertaken by NIC, autumn 2010. Site of the hole with respect to the North Pit Deposit was selected from interpretation of collected archived geological and data and, in part, validation of previous work. Particulars are described in Item 13.0: Drilling.

Item 13.0: DRILLING

13.1 Summary and Interpretation

The 2010 diamond drilling program undertaken by Northern Iron Corp., October 13-15, consisted of a single hole GR-10-01 (429.16 meters), drilled at the Griffith North Pit. DDH GR-10-01 (Figure 2, 3, 9a, b) located on the southeast extremity of the pit targeted folded iron formation. Core was not oriented. Summary logs, plan and cross section (Figure 9a, b) were examined by the author. The author did not observe RQD documentation with the summary log provided by the issuer. The NIC drilling program, in the opinion of the author, is satisfactory. Specific details of the hole are listed in Table 7.

Table 7: Griffith Property 2010 Drilling Information

Hole #	Easting	Northing	Az	Dip	Length (m)	Location	Overburden (m)	Core Size
GR-10-01	474,242mE	5,629,416mN	254^{o}	-45^{o}	429.16	North Pit	3.05	NQ2

(Source - Hills and Sanabria, 2011)

NIC interpreted DDH No. GR-10-01 drilling supported the rough accuracy of the north pit deposit model acquired from previous work and the existing Griffith Mine documents. Magnetite in various grades was encountered interbedded with amphibolite grade schists from 219.80m depth to the end of the hole at 429.16m depth, which terminated in magnetite rich ore (Figure 9a, b; Table 6). Thus, the derived North Pit model consisting of several folded layered banded iron formations of varying grades is in-part, initially validated. The author is in agreement. Based upon results of a single drill hole, true thickness and mineralization orientation are unknown.

13.2: Drilling Procedures

Drilling, utilizing contractor services of More Core Diamond Drilling Ltd. of Stewart, B.C., was conducted using one B-15 skid drill was moved and supported with a bulldozer and a low bed haul truck. Pick-up trucks were used to transport the drilling crews and geologists to and from the drill site. The program was based out of the Trillium Motel in Ear Falls, Ontario. The drilling was done on two 12 hour shifts per day.

A 100m access skid road and a pad area were cleared to provide access to the drill site. A wooden drill pad was not constructed, and the drill was placed directly on levelled ground, further levelled with the use of a CAT bulldozer and some logs. WAAS enabled GPS surveying of the drill hole collar locations was done at the end of the program by Northern Iron Corp's on-site geologist. The 'zero' elevation mark for all down hole measurements was surface. Topography contours were used as the elevation surface for the drill hole. Collar elevation is approximately 350m asl.

The drilling site was selected to test the main Griffith ore body located in the North Pit. It was designed to cut the fold limbs perpendicular to strike and the main purpose was to validate the grade and confirm the rough geometry of the ore body outlined from previous work and mine records. The site for the hole (GR-10-01) was on an overgrown haul road leading down into the North Pit on the southeast side of the pit. The hole had an azimuth of 254° and an initial dip of 45°, the hole was designed to cut the interpreted folded iron formation normal to the sub-parallel limbs (Figure No. 9a, b).

After each 12 hour drilling shift the core was mobilized to Ear Falls, Ontario by Northern Iron Corp. or More Core Diamond Drilling secured in trucks and is currently stored and secured in a core shack facility in Ear Falls, rented by Northern Iron Corp. from Ackewance Exploration & Sve from Red Lake. The core was geo-technically and geologically logged by Northern iron Corp's personnel. Core recovery was approximately 100%. Prior to logging, drill core was fitted and cleaned, core examined for general lithology, structure and mineralization. Estimates of magnetite content in the iron formation were visually made and the different components of the iron formation and surrounding lithologies were noted and coded. Following completion of drilling, casing was left in the hole and the casing entry point was marked with a cut branch and flagging tape. Procedures, in the author's opinion, are quite satisfactory.

13.3: Drill Hole Surveys

The drill was positioned on the ground and aligned with a flagged foresight and was later checked by the project geologist using a WAAS enabled GPS. Drill hole collar inclination was set using a carpenter's inclinometer. Down hole surveys were conducted approximately every 50m down hole with a Ranger single shot down hole survey tool purchased from Ranger Survey Systems Canada, Inc. owned by More Core Diamond Drilling Ltd. and operated by the drill crew. However since the instrument was affected by the magnetic field associated with the iron formation, only measurements of inclination were accepted as valid. Down hole azimuths were assumed to be the same as the collar azimuth. The author agrees this methodology is acceptable.

Item 14.0: SAMPLING METHOD AND APPROACH

Core sampling and cutting by NIC were restricted to mineralized intervals of banded iron formation containing appreciable amounts of magnetite. Sample intervals were laid out nominally at 3m intervals, but were also delimited at lithic contacts at shorter intervals. Non-mineralized commercial siliceous gardening stone was inserted into the sample stream as field blanks at a ratio of 20 true samples to 1 field blank.

Sample intervals and numbers were marked on the cut side of the core post-cutting using red lumber crayons. Metal tags containing sample number and interval information were stapled into core trays near the beginning of each sample. The field blank tag was included and positioned just behind the tag of the preceding sample. After samples were marked and tagged, the core boxes were photographed with core wet.

All of the core samples were sawn in half using a diamond saw. One half of the core was returned to the core box and the other half was packaged and labelled as individual samples for transport to Red Lake SGS preparation facility. Blank samples were prepared given sequential sample numbers and inserted where indicated.

Upon termination of logging, lids were screwed into all core boxes, and boxes were stored, cross-piled in the yard outside the Ear Falls core shack. Ackewance Exploration & Svc rented the core shack, located in Ear Falls to Northern Iron Corp. and undertook drill core cutting, sample packaging and core storage under NIC supervision. Chain of custody involved personal delivery of samples in sealed tamper proof plastic sample bags stored in tied rice bags transported to the SGS preparation laboratory, Red Lake by NIC personnel.

The author is not aware of any drilling or sampling factors with respect to the 2010 program that could affect the accuracy and reliability of results, with respect to material impact. Sampling by NIC is understood to be representative and unbiased, in the author's opinion. Parameters to establish drill standardized core sampling intervals would seem to be based upon magnetite distribution and intersection lengths of the BIF host. Sampling method included continuous sampling of mineralized sections and included high, low grade and intermediate non-mineralized intervals.

Item 15.0: SAMPLE PREPARATION, ANALYSES AND SECURITY

15.1: Sample Preparation

All in-lab sample preparation mandated by Northern Iron Corp. was performed by SGS, Red Lake facility, and splits were sent to SGS Lakefield for iron ore XRF analysis. Each sample was weighed in air and weighed when submerged in water. Each of the drill core samples including the field inserted blank were cone-crushed dry to 75% passing 2mm, split to 350g and pulverized to 85% passing 75µm.

The author understands there was no aspect of sample preparation involvement by employees, officers, directors or associates of the issuer.

15.2: Analysis

Analytical records observed by the author show Northern Iron Corp. submitted 52 drill core samples for analysis at the Lakefield, Ontario, Canada laboratory of SGS Canada Inc. having ISO 9001 and ISO/IEC 17025 accreditation. Signed Certificate of Analysis (LR Report: CA02591-Nov10 – Final Report) dated November 23, 2010, analysis included SiO_2, Al_2O_3, Fe_2O_3, MgO, CaO, Na_2O, K_2O, TiO_2, P_2O_5, MnO, Cr_2O_3, V_2O_5, Ni, Zr and S reported as percentage. Whole rock analysis was by XRF with the exception of S using whole rock analysis by CSA (carbon-sulphur analyzer).

15.3: Quality Assurance – Quality Control (QA-QC)

Control quality by SGS consisted of analyzing 2 laboratory duplicates. Northern Iron Corp. QA/QC measures undertaken involved insertion of 3 field blanks with the submitted samples (55 in total).

Field blanks showed only minor contamination, with the highest value being 1.90 % Al_2O_3 and all other values being less than or equal to 1. This is deemed acceptable contamination, and the results are therefore considered reasonably accurate. Laboratory duplicates had an average discrepancy error of 5.44%, mainly due to differences in Zr and S values between duplicate samples. The greatest error in Fe% between duplicates was an increase of 1.05% in the duplicate sample. Discrepancies, in the author's opinion, are insignificant.

15.4: Adequacy

Sample preparation, security and analytical procedures utilized by Northern Iron Corp., in the opinion of the author, are considered to be sufficiently adequate based upon meticulous documentation and current excellent preservation state of archived core.

Item 16.0: DATA VERIFICATION

A verification attempt of NIC drilling results was not undertaken by the author. NIC took one representative 3.0 meter length sawn ¼ core size sample from DDH GR-10-01 following the author's instructions who was not onsite to personally supervise selection, cutting and bagging the sample. The author understands assays of the field duplicate were not undertaken by the issuer and did not receive notification to prepare this document until May 11, 2011.

Item 17.0: ADJACENT PROPERTIES

The author understands the definition of adjacent properties with respect to the Instrument is not applicable to this form 43-101F1 Technical Report in accordance to National Instrument 43-101 Standards of Disclosure for Mineral Projects, 2005, Part 1, Definitions and Interpretation, Subsection 1.1 (a) – "adjacent property" means a property in which the issuer does not have an interest. Adjacent iron formation properties within the immediate Red Lake Mining Division area of direct concern to the issuer are Karas, Whitemud, El Sol and Papaonga; properties in which Northern Iron Corp. holds interest.

Item 18.0: MINERAL PROCESSING AND METALLURGICAL TESTING

The author is unaware of such testing having been undertaken to date on the Griffith property. Item 18.0 is not applicable to this Form 43-101F1 Technical Report.

Item 19.0: MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

The author is unaware of such estimates having being undertaken to date on the Griffith property. Item 19.0 is not applicable to this Form 43-101F1 Technical Report.

Item 20.0: OTHER RELEVANT DATA AND INFORMATION

The author is unaware of other data and/or information relevant to the Technical Report that is not contained in this document.

Item 21.0: INTERPRETATION AND CONCLUSIONS

21.1: Results and Interpretation

Visually, BIF within the confines of the previously mined Griffith Mine open pits, particularly the North deposit, essentially has not been seen for 25 years due to coverage by water. Initial diamond drilling and geological interpretation by Northern Iron Corp. have confirmed the presence of a banded iron formation body of unsubstantiated parameters with respect to the North Deposit.

Specifically remaining in-situ mineralization in the North Pit appears to be an upright structure undefined in three dimensions and internal anatomy. Although a former producer, this reasoning is qualified by paucity of critical documentation - historical drill core, drill summaries, assays and mine geological records, especially plans and sections.

Drilling by the issuer confirmed the presence of several folded units of BIF referenced to surviving pit plan and cross section records, supporting the model of banded iron formation folding, historically outlined and interpreted as two steeply dipping synclines, one having an overturned limb, and a centre anticline, folded along northeast trending axis and plunging to the south.

The author considers Griffith property to be early stage not advanced. Attributes of the North Deposit are currently undefined and historical references require complete re-evaluation. It is the author's opinion an acute lack of data renders remaining in-situ mineralization of the North and South deposits as 'uncertain' in terms of NI 43-101 context and strict CIM Definition Standards with respect to Mineral Resources or Mineral Reserves.

To outline mineralization (tonnage and grade) having significant magnitude for further appraisal, certain aspects with respect to the North Pit Deposit have to be recognized: (1) the pit dimensions are large and the floor is currently underwater, (2) continuity of intersections between holes has to be sufficiently demonstrated, (3) uniformity or non-uniformity in grade with depth and along strike and (4) structural complexity have to be determined.

Based upon current understanding of the deposit from available information, the author considers these issues require address with respect to comprehensive delineation and evaluation. Primarily, tangible essential information on the North Deposit is lacking.

Delineation drilling, as part of a two-phase work program, in the author's opinion, is required on Griffith North Pit Deposit to validate the historical 'reserves' and determine if sufficient parameters are present for eventual NI 43-101 compliant Mineral Resource to Mineral Reserve estimation.

Phase I dewatering is necessitated to initiate Phase II drilling. Upon receipt of permits, the issuer proposes to completely drain the North Pit over an expected 3 to 4 month period to expose the pre-existing 1986 pit floor utilizing high capacity pumps to expel the water, approximately 20 million cubic meters, into adjacent Bruce Lake. The author agrees dewatering is required prior to initiation of a comprehensive evaluation by drilling.

Phase II drilling proposed to test the mineralization to a maximum depth of 333m, concurrent with the historical ultimate pit design, is designed to cut the deposit perpendicularly by drilling 32 inclined holes on 13 lines, a total of 12,000 meters. It is anticipated drilling would adequately increase confidence levels regarding correlation between holes and any irregular distribution of the mineralization to provide a better understanding of the deposit.

21.2: Conclusions

The Griffith property, a closed/inactive historical banded iron formation mine, hosts currently unsubstantiated non-compliant resources/reserves with respect to NI 43-101 context. Positive upgradeable potential and traits for hosting economic BIF mineralization with respect to the North Pit deposit require detailed evaluation. First pass evaluation by Northern Iron Corp. achieved its objective regarding existence of the iron formation target via very preliminary validation by a single drill hole. A definition drilling program is required to delineate mineralization continuity and grade for subsequent undertaking of NI 43-101 compliant resource/reserve estimation.

Item 22.0: RECOMMENDATIONS

22.1: Recommended Work Program

Recommendations for a Phase I and Phase II work program include dewatering of the North Pit and subsequent implementation of diamond drilling to investigate the in-situ iron formation.

Phase I

1. An impact assessment study and initiation of the application process should be undertaken to acquire permits with respect to dewatering.

2. Upon procurement of appropriate permitting, dewatering should be initiated and the North Pit should be completely drained to the 1986 floor level.

Phase II

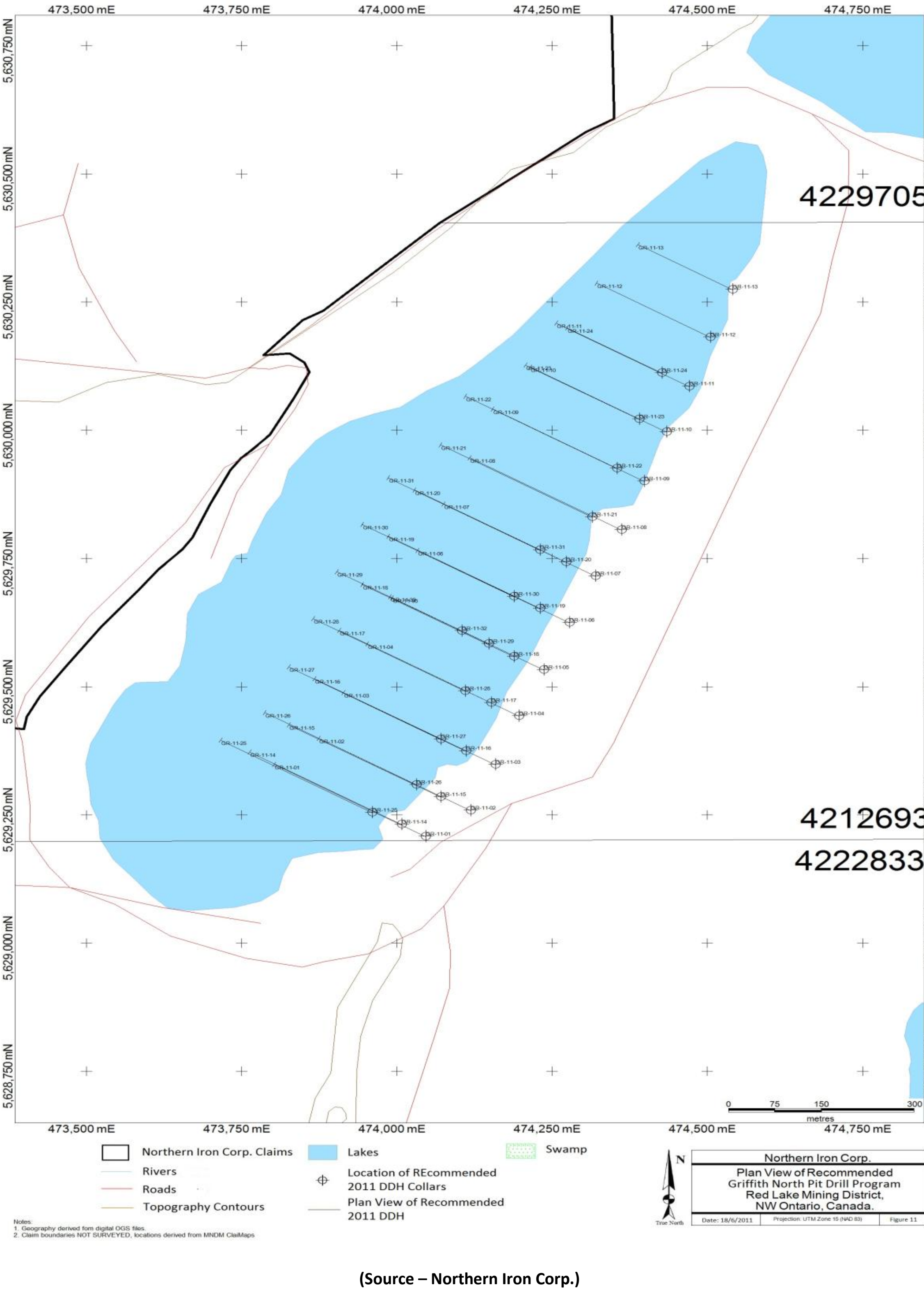
1. A diamond drilling program, totalling 12,000 meters, consisting of 32 inclined holes on 13 lines spaced at 100 meters, should be aimed at delineation of mineralization continuity determination within the historical pit confines to intersect mineralization below the 1986 pit floor level at 101.20m and penetrate to the ultimate pit depth of 335.28m. Drilling along each line is intended to perpendicularly crosscut the deposit. Holes have collar spacing of approximately 50 meters starting on historical Bench A; 300^{o} azimuth and -45^{o} inclination with depths varying between 190 and 400 meters.

The target, the North Pit Deposit iron formation, is currently located under approximately 101.2m of water. Implementation of drilling is contingent upon successful dewatering. Refer to Table 8 for drill plan specifics and Figure 11 for a plan view of the suggested drill plan.

Table 8: 2011 Recommended Drill Plan

DDH	UTM E	UTM N	Elevation (masl)	Azimuth (°)	Dip (°)	Length (m)	Core Size
GR-11-01	474047	5629207	325	300	-45	400	NQ2
GR-11-02	474119	5629258	325	300	-45	400	NQ2
GR-11-03	474159	5629347	325	300	-45	400	NQ2
GR-11-04	474197	5629442	325	300	-45	400	NQ2
GR-11-05	474237	5629532	325	300	-45	400	NQ2
GR-11-06	474278	5629624	325	300	-45	400	NQ2
GR-11-07	474320	5629715	325	300	-45	400	NQ2
GR-11-08	474362	5629805	325	300	-45	400	NQ2
GR-11-09	474399	5629900	325	300	-45	400	NQ2
GR-11-10	474435	5629996	325	300	-45	360	NQ2
GR-11-11	474471	5630085	325	300	-45	350	NQ2
GR-11-12	474505	5630181	325	300	-45	300	NQ2
GR-11-13	474541	5630274	325	300	-45	250	NQ2
GR-11-14	474008	5629231	300	300	-45	400	NQ2
GR-11-15	474071	5629284	300	300	-45	400	NQ2
GR-11-16	474112	5629374	300	300	-45	400	NQ2
GR-11-17	474152	5629468	300	300	-45	400	NQ2
GR-11-18	474189	5629558	300	300	-45	400	NQ2
GR-11-19	474231	5629652	300	300	-45	400	NQ2
GR-11-20	474273	5629742	300	300	-45	400	NQ2
GR-11-21	474315	5629830	300	300	-45	400	NQ2
GR-11-22	474355	5629925	300	300	-45	400	NQ2
GR-11-23	474391	5630021	300	300	-45	300	NQ2
GR-11-24	474427	5630111	300	300	-45	250	NQ2
GR-11-25	473961	5629254	275	300	-45	400	NQ2
GR-11-26	474032	5629308	275	300	-45	400	NQ2
GR-11-27	474071	5629397	275	300	-45	400	NQ2
GR-11-28	474110	5629491	275	300	-45	400	NQ2
GR-11-29	474148	5629583	275	300	-45	400	NQ2
GR-11-30	474189	5629675	275	300	-45	400	NQ2
GR-11-31	474231	5629766	275	300	-45	400	NQ2
GR-11-32	474105	5629608	250	300	-45	190	NQ2
Total						**12,000m**	

Figure 11: Plan View of Recommended Griffith North Pit Drill Program



(Source – Northern Iron Corp.)

2. The re-exposed pit should be geologically mapped and sampled to aid drilling procedure decisions.

3. Concurrent with drilling, outline of the North Pit and drill collars locations should be accurately surveyed.

4. Although non-essential to the success of the project, relocation of any collars indicated in surviving historical drill log summaries with respect to the current pit perimeter should be attempted and any archived drill core located in provincial drill core libraries should be re-logged and assayed.

5. Future core analysis should include specific gravity determinations tied to Quality Assurance / Quality Control (QA-QC) programs.

6. Geological modelling should be initiated to attain a better understanding of the targeted iron formation.

7. Independent interpretation of the re-drilled deposit should be undertaken.

KIEX recommends a proposed budget of $ 4,000,000.00 to undertake the program (Table 9).

Table 9: Griffith Property Proposed Budget – Phase I and Phase II Work Program

ITEM	COST
Phase I	
Impact Assessment Study/Permit Application/Processing	$ 300,000.00
North Pit Dewatering	$ 2,500,000.00
	$ 2,800,000.00
Phase II	
Drilling (12,000m @ $ 100.00/meter)	$ 1,200,000.00
Total (Cdn $)	**$ 4,000,000.00**

Advancement to Phase II is contingent upon receipt of positive results received from Phase I.

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Item 24.0: DATE AND SIGNATURE PAGE

CERTIFICATE OF QUALIFIED PERSON

Date: June 20, 2011

I, Christopher Hutchings, P. Geo. do hereby certify that:

(a) I reside and have an office at 8 White's Road, Carbonear, NL, Canada, A1Y 1A4.

(b) I am author of this report titled *"Technical Report on the Griffith Property, Ontario, Canada"* dated June 20, 2011, prepared for *Northern iron Corp.*, Vancouver, B. C., V6C 1T2.

(c) I hold a B.Sc. (1974) in Geology from Memorial University of Newfoundland and have practised my profession continuously for 37 years. I am a Professional Geoscientist, registered (1990 - Member No. 02193) with Professional Engineers and Geoscientists, Newfoundland and Labrador. Experience spans volcanogenic massive sulphides, carbonate-hosted lead-zinc, sedimentary exhalative zinc-lead-silver, volcanic redbed copper, sediment-hosted stratiform copper, epithermal and mesothermal gold, banded iron formation, iron-formation-hosted gold, iron-oxide-copper-gold-uranium, iron skarn, volcanic-hosted uranium, magmatic nickel-copper and other deposit types. I am President and Senior Geoscientist of KIEX Consulting Limited, incorporated 1979, a single person general consulting practise (PEGNL Permit No. D0007). I am the qualified person for the purposes of this report.

(d) I personally visited Griffith property September 30, 2010; a visit of approximately three hours duration.

(e) I am responsible for the entire report specified in section (b).

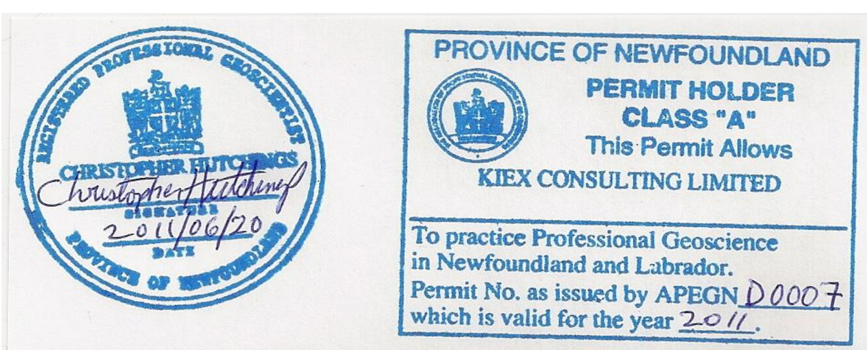
(f) KIEX Consulting Limited and I, both, are independent and are not affiliated with Northern Iron Corp. KIEX Consulting Limited and I do not have direct or indirect interest in either the property described or in Northern Iron Corp. and do not expect to receive any such interest.

(g) I have not had any prior involvement with the property that is the subject of the Technical Report.

(h) I have read this Instrument and the Technical Report has been prepared in compliance with this Instrument; and

(i) As of the date of this certificate, June 20, 2011, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

SEALS



Christopher Hutchings, P. Geo. KIEX Consulting Limited