2011 Technical Drilling Report on the Whitemud Iron Project

NAD 83 LATITUDE 50.87 ^{0} N, LONGITUDE -92.67^{0} W
UTM ZONE 15 5635202m N 523261m E

Bluffy, Whitemud and Slate Lake Townships
Red Lake Mining Division
NW Ontario

-Owned by-

Northern Iron Corp.

-Prepared by-

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Dates of Field Work: 03/11/2011 - 10/11/2011
Date of Report: 25/01/2012

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4.0 Introduction

This report summarizes, analyzes and makes recommendations based upon previous geophysical and geological work obtained from the Ministry of Northern Development Mines and Forestry, the Resident Geologist office in Red Lake, ON, and work performed during the fall of 2011 on the Whitemud iron ore project by Northern Iron Corp. The target of interest on the Whitemud Property is an extensive magnetite (taconite) facies Banded Iron Formation of the Algoma type, that has been folded and displaced in some areas by shear zones and runs subvertically in others. It is located within the western English River sub-province and south-eastern Confederation Lake belt, an area of historic iron ore exploration and mining in north-western Ontario. The Whitemud property lies approximately 55km east-northeast of the town of Ear Falls, in the Red Lake mining division (see Figure No. 1). Northern Iron Corp. acquired the claims which comprise the Whitemud property between July and October 2010 through staking and purchasing from Perry Vern English. Northern Iron Corp. currently holds 100% interest in these claims. There are no private holders of the surface rights of the land covered by the claims, and the land currently belongs to the Crown. Northern Iron Corp. conducted a moderate exploration program on the property consisting of a single exploratory drill hole in the fall of 2011.

5.0. Disclaimer

The Authors have assumed that all technical documents reviewed and listed in "References" are accurate and complete in all material aspects. While the authors carefully reviewed this information, they have not conducted an independent investigation to verify their accuracy or completeness. The authors reserve the right, but will not be obligated to, revise this report and conclusions if additional information becomes known subsequent to the date of this report.

6.0 Property Description and Location

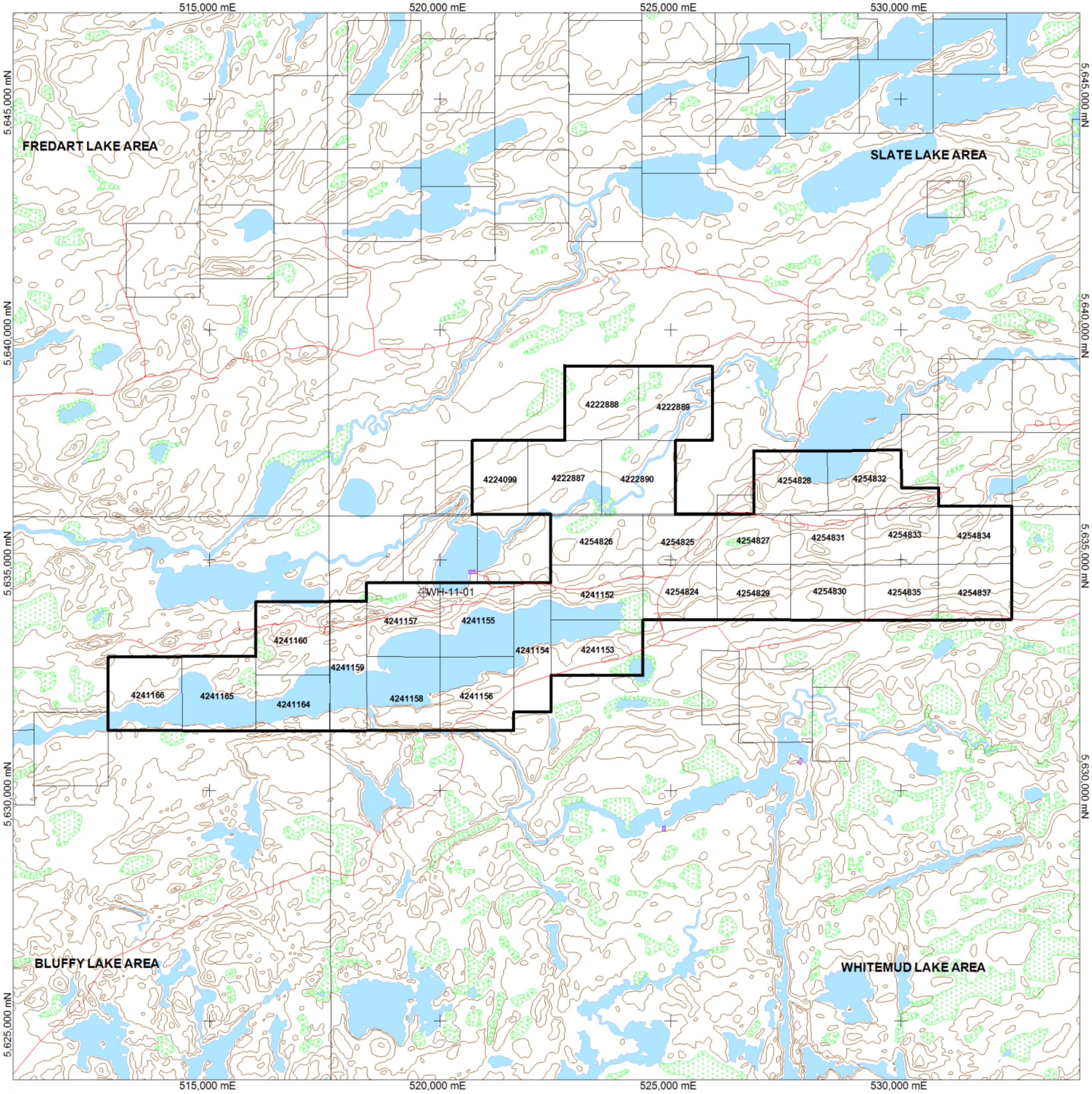
The Whitemud property is located in the Red Lake mining division of the Kenora District of northwest Ontario. It is comprised of a contiguous block of claims which mainly occupy the northwest portion of the Whitemud Lake Area, with portions overlapping into the Slate and Bluffy Lake Areas. The property is irregular in shape and centered on the Whitemud Lake with a large block branching up to the northeast and covering the Papaonga River (see Figure No. 2). The property consists of 30 unpatented mineral claims, covering an area of approximately 6576 hectares (see Table.1).

Table 1. List of Claims Comprising the Whitemud Property

Property Name	Claim Number	No. of 16 Ha Units	Expiry Date	Work Required ($)	Total Area (Ha)
Whitemud	4241166	16	2012-FEB-10	6400	256
Whitemud	4241165	16	2012-FEB-10	6400	256
Whitemud	4241160	16	2012-FEB-10	6400	256
Whitemud	4241164	15	2012-FEB-10	6000	240
Whitemud	4241159	14	2012-FEB-10	5600	224
Whitemud	4241157	16	2012-FEB-10	6400	256
Whitemud	4241158	16	2012-FEB-10	6400	256
Whitemud	4241155	16	2012-FEB-10	6400	256
Whitemud	4241156	16	2012-FEB-10	6400	256
Whitemud	4241154	14	2012-FEB-10	5600	224
Whitemud	4241153	15	2012-FEB-10	6000	240
Whitemud	4241152	15	2012-FEB-10	6000	240
Whitemud	4254826	14	2012-JUN-30	5600	224
Whitemud	4263671	12	2013-MAY-17	4800	192
Whitemud	4263672	16	2013-MAY-17	6400	256
Whitemud	4263673	16	2013-MAY-17	6400	256
Whitemud	4263669	16	2013-MAY-17	6400	256
Whitemud	4263670	16	2013-MAY-17	6400	256
Whitemud	4254825	12	2012-JUN-30	4800	192
Whitemud	4254824	12	2012-JUN-30	4800	192
Whitemud	4254827	12	2012-JUN-30	4800	192
Whitemud	4254829	12	2012-JUN-30	4800	192
Whitemud	4254837	2	2012-NOV-05	800	32
Whitemud	4254828	12	2012-JUN-30	4800	192
Whitemud	4254830	12	2012-JUN-30	4800	192
Whitemud	4254831	12	2012-JUN-30	4800	192
Whitemud	4254832	14	2012-JUN-30	5600	224
Whitemud	4254833	12	2012-JUN-30	4800	192
Whitemud	4254835	12	2012-JUN-30	4800	192
Whitemud	4254834	12	2012-JUN-30	4800	192

Figure No 1. Whitemud Property Location Map, NW Ontario, Canada.

Whitemud Iron Project



- Drillhole Collar Location
- Rivers
- Roads
- Power Lines
- Topography Contours
- Northern Iron Corp. Claims
- Swamps
- Lakes
- Dispositions
- Alienations
- Parks

0 1.25 2.5 5
kilometres

True North

Northern Iron Corp.		
Whitemud Property Claim Map, Red Lake Mining District, NW Ontario, Canada.		
Date: 06/12/2011	Projection: UTM Zone 15 (NAD 83)	Figure No. 2

Notes:
1. Geography derived from digital OGS files.
2. Disposition, alienation and park locations derived from MNDM ClaiMaps.
3. Claim boundaries NOT SURVEYED, locations derived from MNDM ClaiMaps.

7.0. Accessibility, Climate, and Physiography

The Whitemud property is easily accessed by a well maintained network of logging roads branching from the Goldpines road connecting Ear Falls to Goldpines. To reach the property from Ear Falls, the Goldpines road is taken northeast from highway 105 for approximately 2km. The Wenesaga logging road is then taken going northeast for approximately 52km. Then the Ogani logging road is taken going west through the property for 12km. The Ogani road, along with a smaller network of dirt roads and tracks, provides good access throughout the core of the property. During the fall 2011 exploration program, Northern Iron Corp. field crews stayed at the Trillium Motel, located on highway 105 in the town of Ear Falls, ON, and travelled to the property via truck.

Topography on the property is gentle, with elevations ranging from 370 masl to 420 masl. The main topographic feature is an east west striking ridge approximately 20-30m high which runs through the property for 5km along the north side of the Ogani logging road. The area is covered by a mixed forest of mostly black spruce, poplar, balsam and birch, with swampy biomes in low lying areas and drier forests of jack pine on ridges. The large Papaonga river cuts the property in the north and the southern claims are centred around the 12km long Whitemud Lake. Temperatures range from highs of 27°C in the summer to lows of -30°C in the winter, with snow cover from November to May. The best season for exploration is from June to October, with optimal months being June and September. Some activities, such as diamond drilling and geophysical exploration carried out over swampy areas or lakes may best be undertaken in the winter months, when freeze-up makes these areas more accessible.

8.0 Property History and Previous Work

The following summary outlines the exploration history to the extent known of the area now covered by the Whitemud Property. It is based primarily on information obtained from assessment files housed in the office of the Resident Geologist, Red Lake, Ontario, and stored in the Ministry of Northern Development, Mines and Forestry's online database.

1956 - Newkirk Mining Corporation Limited contracted Aeromagnetic Surveys Ltd., who conducted an airborne magnetic survey over a considerable section of terrain to the southeast of Red Lake, including a large portion of the Whitemud property in the Bluffy and Slate Lake areas. The aeromagnetic survey picked up abundant well defined linear anomalies in the area. However there is no report of this work available, record of it is found only in the MNDM as a brief report of work, and the associated aeromagnetic map (Newkirk, 1956).

1957 - Massberyl Lithium Co. Ltd. contracted Geotechnical Development Company Ltd. who conducted magnetic and electrical resistivity surveys and geological mapping over a small portion of the property in the Slate and Whitemud Lake areas. One outstanding magnetic anomaly was outlined in the southeast corner of the property and was interpreted to be a response to two parallel bands of narrow, overturned iron formations striking roughly northeast. Several resistivity anomalies were defined, however many were accredited to wet surface conditions and dismissed. Other resistivity anomalies were interpreted as responses to geologic structures which were subsequently mapped as shear zones. Geological mapping identified at least one outcrop of magnetite and several areas of magnetite float (McCartney G.C., 1956).

1957 - Quebec Labrador Development Co. Ltd. contracted Geotechnical Development Company Ltd. who conducted a magnetometer survey over a large portion of the Whitemud property in the Slate Lake area. The main magnetic anomaly was outlined as a narrow band striking roughly southwest, and was interpreted as a narrow, tilted, continuous iron formation. Other anomalies were also defined but their cause was not clear (Geochemical Development Company Ltd., 1957).

1957 - Quebec Labrador Development Co. Ltd. drilled 13 holes totalling 6795 feet on the Whitemud property in the Slate Lake area. They intersected several zones of magnetite ranging from 50 to 300 feet with Fe grades ranging from 10-40% iron, with the best intersection being 200feet of magnetite with an average grade of 35%. These zones were interpreted as tilted banded iron formations, which matched up well with observed magnetic anomalies (Chow F., 1957).

2010 - During the summer of 2010 Northern Iron Corp. conducted two separate ground based magnetic surveys over selected portions of the Whitemud property in search of banded iron formations. The surveys used Overhauser walking magnetometers, and identified several magnetic anomalies confirmed to be Algoma-type (magnetite-taconite) banded iron formations throughout the property. The anomaly 'A' just south of Ogani Lake was selected for drilling, and in the fall of 2010 one exploratory hole was drilled there. The drill hole WH-10-01 was 428.48m deep. It returned assays ranging from 10.57% Fe to 31.92% Fe, including 3m of mineralization grading 31.92% Fe from 129.75m to 132.75m depth. Iron content averaged 31.01% Fe from 93.78m to 102.79m depth, and 22.82% Fe from 114.42m to 138m depth. (Sanabria, R. et al, 2010)

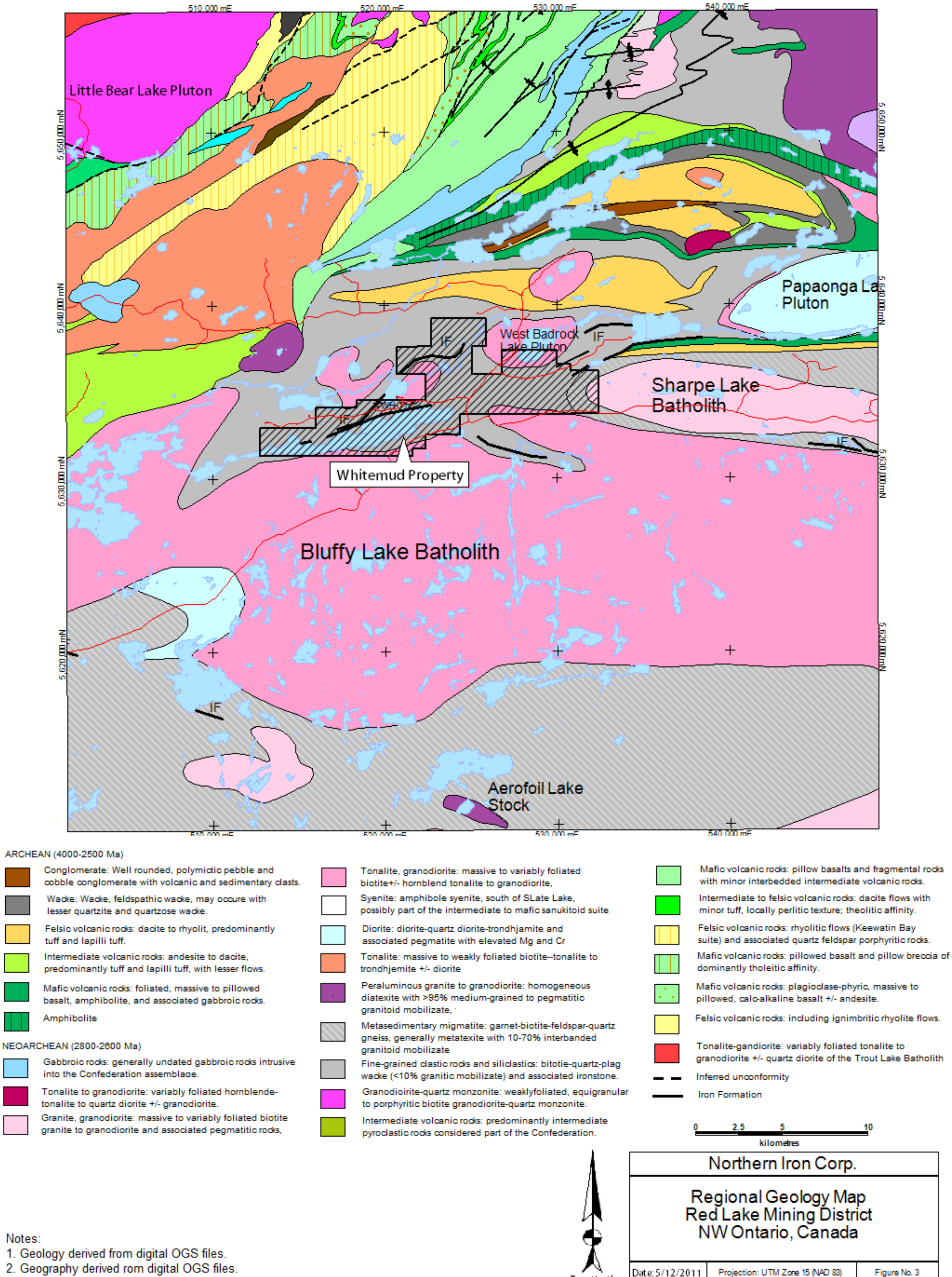
9.0 Geological Setting

9.1 Regional Geology

The Whitemud property straddles the boundary between the Uchi and English River geological sub-provinces. The northernmost claims lie in the southern part of the Confederation assemblage, while the majority of the claims in the south lie in the north-western part of the English River sub-province of north-western Ontario (See Figure No. 3).

The Confederation assemblage is the youngest of three distinct volcano-sedimentary megacycles comprising the Uchi-Confederation greenstone belt, which records a stratigraphic history of approximately 250 Ma (2989-2735 Ma). The Uchi-Confederation belt records several episodes of periodic rifting and associated submarine and aerial magmatic and depositional phases. Unconformity bounded sequences of mafic to felsic volcanic strata, and primarily clastic sedimentary strata accumulated between ca. 2992 Ma and 2700 Ma upon a complex extensional architecture, which largely formed the template upon which later structures were superimposed.

The Confederation assemblage records about 10 Ma (2745-2735 Ma) and consists mainly of supracrustal interbedded pillow basalts, mafic to intermediate volcanics, and associated sediments, with minor interbeds of banded iron formation. The Confederation belt is thought to have formed as a rifted arc (Rogers, N. et al, 2000) with the aforementioned stratigraphy representing sequences of magmatic and associated.



Notes:
1. Geology derived from digital OGS files.
2. Geography derived rom digital OGS files.
3. Claim boundaries NOT SURVEYED, locations derived from MNDM ClaiMaps.

depositional phases. The confederation assemblage can be divided into three distinct north to north-east trending tectonic-stratigraphic belts, the eastern, central and western belts. They can be distinguished by petrography, chemistry and the distinct felsic (flows and tuffs) units in each one (Rogers, N. et al, 2000). Pluton emplacement and explosive volcanism heralded the onset of the Kenoran Orogeny between ca. 2731 and 2700 Ma and induced regional greenschist facies metamorphism, and localized compression-related polyphase deformation (Falls, R. 2002).

Three phases of major regional deformation, amphibolite facies metamorphism, and emplacement of extensive granite, granodiorite and tonalite intusives occurred during the magmatic and tectonic accretion of the Kenoran Orogeny culminating around ca. 2710 Ma. The majority of post tectonic intrusives are comprised of gabbro sills and dykes.

The English River sub-province consists mainly of turbiditic metasedimentary rocks, deposited during the final stages of magmatic and tectonic accretion within the Uchi Subprovince to the north at around ca. 2720 to 2710 Ma. The sedimentary rocks were intruded by a suite of calc ‑ alkalic plutons at 2698 Ma. Major regional deformation, amphibolite to granulite facies metamorphism, anatexis, and emplacement of an extensive peraluminous granitic suite culminated at 2691 Ma. Late episodes of metamorphism, metasomatism, and emplacement of pegmatites occurred locally at ca. 2680 and 2669 Ma (Corfu, F.1995).

The claims comprising the Whitemud property lie within an area that is comprised mainly of metasedimentary rocks of various ages intruded by granitic plutons. Though the stratigraphy of the unit looks unbroken it appears to be included in both the Confederation assemblage and English River sub-province classifications. The large Bluffy Lake batholith abuts the whole of the property to the south.

9.2 Property Geology

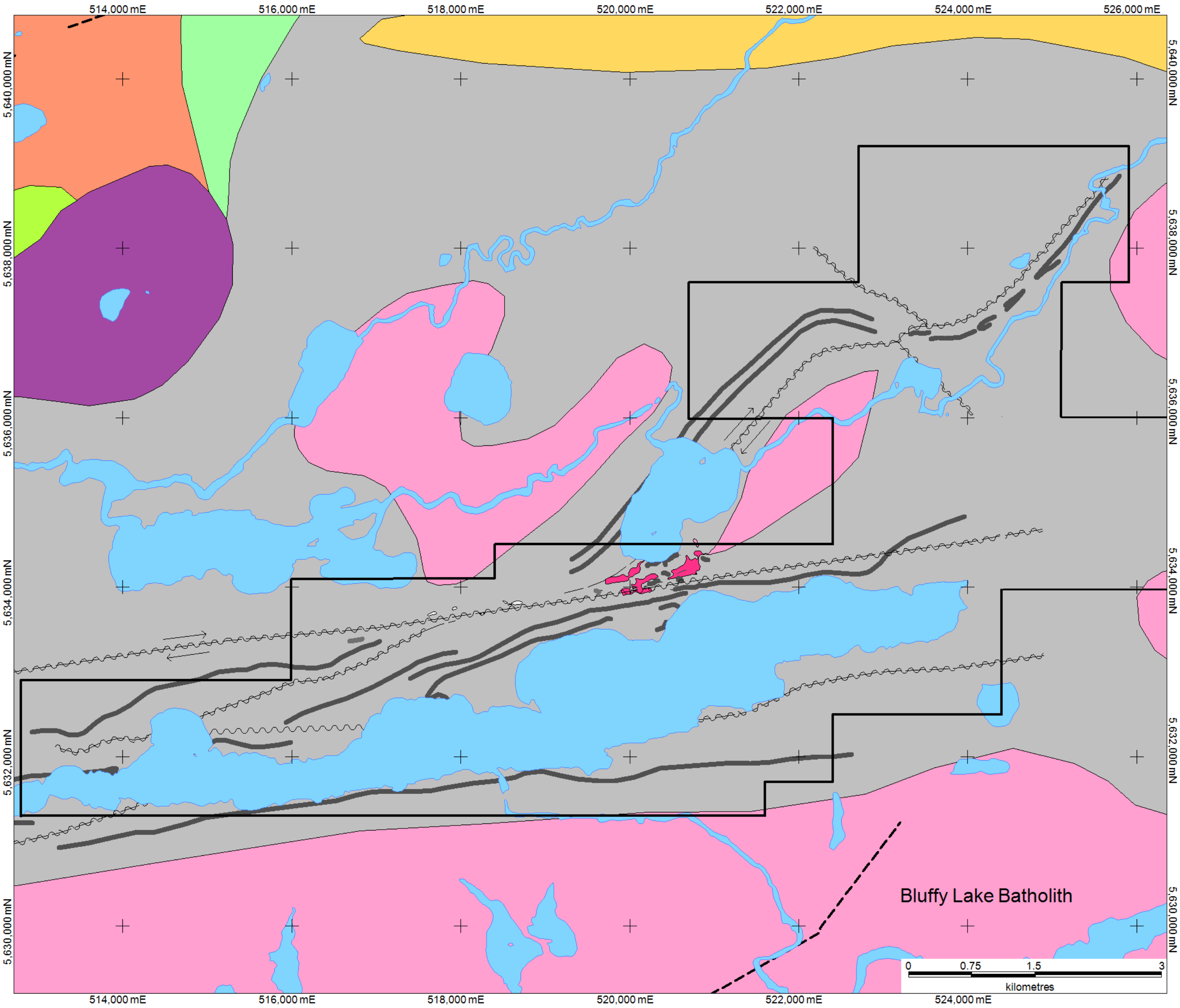
Geological mapping was carried out on the Whitemud Property during the summer of 2010 by Lindsay Hills and Raul Sanabria (See appendix IV for statement of qualifications). Outcrop was scarce and access to many portions of the property was limited. As such, geological mapping was limited in extent and was subsequently combined with topography analysis and interpretation of geophysics to produce a geologic interpretation of the area.

The property is underlain mainly by sequences of submarine sediments which have been regionally metamorphosed to the lower amphibolite/upper greenschist facies. Several granitic intrusive bodies ranging in size from less than half a km to the massive Bluffy Lake batholith over 60km in length are emplaced in the metasediments semi-plastically. These granite sills, dykes and plutons have pushed bedding out of originality and recrystallized host rocks locally due to contact metamorphism. Where these granites to granodiorites crosscut strain corridors associated migmatization of the host sediments and deformed pegmatite dykes derived from these intrusions are observed extending along the strain corridor.

Dominant foliation and bedding in the metasediments is observed trending west-southwest to east-northeast in the southern part of the claim block, and southwest-northeast in the northern part of the claim block, parallel to local strain corridors (Falls, R., 2002). Rocks dip sub vertically 75° to 90° towards the north, in the southern part of the claims. Sedimentary rocks are comprised mainly of thinly bedded cherty mudstones, greywackes, and fine sandstones. These sedimentary units host archean banded iron formations (BIF) of the Algoma type, which form beds 1m to 5m thick. They are composed mainly of oxide facies magnetite (taconite), and minor cherty beds. They are also the main economic target on the property. These banded iron formations lie parallel to bedding which is parallel to foliation, and are mainly fine grained, becoming slightly coarser grained proximal to granitic intrusions due to contact metamorphism.

One large east-west ductile to brittle dextral shear zone was observed in bedrock in several places as boudinaged pegmatite and pink granite dykes. These rocks and associated migmatites, as well as local gneisses, show well developed planar fabrics. Based on geophysical data and topography analysis, several more east-west shear zones are interpreted to transect the property, crosscutting a large northeast-southwest feature repeatedly, which was itself inferred from geophysics from the 2010 exploration program and previous reports (Geotechnical Development Company Ltd., 1957) on the area. Several of these structures appear to have associated folding, and perhaps some brittle faulting (the stress regime is interpreted as ductile to brittle), which have deformed and dismembered sections of the iron formations, resulting in complex geometries. They are commonly isoclinally folded with steeply dipping, near vertical fold axes, which are parallel to the maximum stress regime. Regional foliation appears to be ~075/80 , however it readily changes proximal to high strain corridors and shear zones, to strike parallel or sub-parallel to the stress regime (See Figure No. 4).

Whitemud Iron Project



- Northern Iron Corp. Claims.
- Lakes
- F.Grained clastic rocks and silliclastics.
- Iron formation.
- Mafic volcanic rocks.
- Dacite to rhyolite.
- Intermediate volcanic rocks.
- Toanlite to granodiorite.
- Syeno-granite locally foliated.
- Granitic mobilizate and migmatites.
- Tonalite to trohdhjemite.
- Peraluminous granite to granodiorite.
- Inferred shear zones.

Notes:
1. Geology partially derived from digital OGS files.
2. Geography derived from digital OGS files.
3. Claim boundaries NOT SURVEYED, locations derived from MNDM ClaiMaps.

True North

Northern Iron Corp.

Whitemud Property Geology Map.
Red Lake Mining District,
NW Ontario, Canada.

Date:28/10/2010	Projection: UTM Zone 15 (NAD 83)	Figure No. 4

10.0 Drilling and Assay Results

10.1 2011 Drill Program

Drilling commenced on November 3rd 2011, and was completed on November 9th 2011. Core Tech Diamond Drilling Ltd. of Penticton, B.C. carried out the program. Drilling was conducted using one Core Tech 2000 drill, which was moved and supported with a D-5 bulldozer and a low bed haul truck. Conventional 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. Core size was NQ2.

Pre-existing access skid road and pad areas were marginally cleaned up to provide access to the drill site. No wooden drill pads were constructed, and the drill was placed directly on levelled ground, further levelled with the use of a skidder and logs. Differential APS GPS surveying of the drillhole collar location at the end of the program was performed by Northern Iron Corp's personnel and provided the elevation, easting and northing of the collar. The 'zero' elevation mark for all downhole measurements was surface.

The drilling site was selected to test two parallel banded iron formations inferred from geophysics performed in 2010 by Northern Iron Corp (Sanabria, R. et al, 2010). The site for the hole (WH-11-01) was on the south-eastern edge of the Ogani lake in the northern part of the claims (see Figure No. 2 and Figure No. 6). The hole was designed to intersect the interpreted linear iron formations sub-normal to their planes.

The drill was positioned on the ground and aligned with a flagged foresight set up using a differential APS GPS, and was checked and recorded once the hole was collared by the project geologist using the same tool. Drillhole collar inclination was set using a carpenter's inclinometer. The drillhole collar data is summarized in table 2. Downhole surveys were conducted using a REFLEX Maxibore II downhole survey tool. Measurements were taken approximately every 3.048m downhole and all surveys were performed by trained Northern Iron Corp. personnel. The downhole survey data is summarized in table 3. Collar azimuth was taken using a differential APS GPS.

After each 12 hour drilling shift the core was mobilized to Ear Falls, Ontario by CoreTech Diamond Drilling personnel secured in trucks. The core was geotechnically logged, geologically logged, weighed for density calculations, and photographed by Northern Iron Corp's personnel, and is currently stored and secured in a core shack facility in Ear Falls, rented by Northern Iron Corp. from Ackewance Exploration & Svc Ltd. from Red Lake. After the hole was completed a thick stake wrapped in flagging tap and marked with the hole identification name were left marking the hole at the entry point.

Table 2. Whitemud Collar Location

Hole ID	Easting	Northing	Elevation(masl)	azimuth(°)	Dip(°)	Depth (m)
WH-11-01	519639	5634295	395.9	321	54.8	428.48

Table 3. Downhole Data Summary of WH-11-01

Depth (m)	Dip (°)	Azimuth (°)	Gravity (G)	Roll Angle (°)	DLS (°/.30m)	Tool Temperature (°C)
0	-54.8	320.9	1.000537	74.3	0	6
3.048	-37.7	321	1.008942	290	171.5	6
6.096	-54.1	321.2	1.004029	252.6	164.3	6
9.144	-54.4	321	0.999823	270.2	2.8	6
12.192	-54.6	320.8	0.996618	312.9	2.8	6.5
18.288	-54.6	319.8	0.997167	337.2	6.5	6.5
21.336	-53.9	319.3	0.999001	338	7.2	6.5
24.384	-54.5	318.8	1.004533	7.3	6.8	6.5
27.432	-54.3	318.6	0.997538	9.1	3.2	6.5
30.48	-54.2	318.7	0.996917	37.2	0.5	6.5
33.528	-54.2	318.8	0.997794	70.2	1.3	6.5
36.576	-54.1	319	0.998305	93.4	1.1	6.5
39.624	-54.1	319.1	0.999331	124.1	1.1	6.5
42.672	-54	319.3	0.999257	149.8	1.4	6.5
45.72	-53.9	319.5	1.000066	165.9	1.1	6.5
48.768	-53.9	319.6	1.000403	192.1	1.1	6.5
54.864	-53.8	319.9	0.99958	237.4	35.3	6.5
57.912	-53.8	320	0.999896	236.4	1	6.5
60.96	-53.8	320.1	0.998579	253.5	0.9	6.5
64.008	-53.6	320.2	0.999309	268.8	1.6	6.5
67.056	-53.6	320.3	0.998825	292.9	0.7	7
73.152	-53.4	320.5	0.998624	309.2	88.8	7
76.2	-53.3	320.6	0.997487	328	1.8	7
82.296	-52.9	320.9	0.997567	344.1	69.5	7
85.344	-52.8	321	0.997021	356.1	1.3	7
88.392	-52.6	321.1	0.996889	8	2.3	7
94.488	-52.2	321.3	0.997487	37	3.6	7
97.536	-51.8	321.4	1.000643	50	4.4	7
100.584	-52	321.5	0.997779	67	2.1	7
103.632	-51.9	321.7	0.998078	77.3	1	7

106.68	-51.9	321.9	0.997479	93.3	1.1	7
109.728	-51.8	322.1	0.99811	105.7	1.4	7
112.776	-51.7	322.2	0.999107	113.5	2	7
115.824	-51.6	322.4	0.998532	126	1.2	7
118.872	-51.5	322.5	0.999052	136	1.8	7
121.92	-51.3	322.6	0.999645	146.1	1.8	7
124.968	-51.1	322.6	1.000302	150.4	1.8	7
128.016	-51	322.7	0.999699	162.5	0.7	7
131.064	-50.8	322.7	0.999465	173.1	2.4	7
134.112	-50.4	322.7	1.000219	178.2	3.5	7
137.16	-50.1	322.7	1.000445	182.2	3.2	7
140.208	-49.9	322.8	1.000247	188.1	2.3	7
143.256	-49.7	322.8	1.000387	193.4	1.7	7
146.304	-49.5	322.9	1.000495	201.4	2.5	7
149.352	-49.3	323	1.000213	206.8	2.3	7
152.4	-49.1	323.1	0.999969	214.1	1.9	7
155.448	-48.9	323.2	1.000302	218.4	2.3	7
158.496	-48.6	323.3	1.000528	225.8	2.3	7
161.544	-48.5	323.4	0.999939	230	2	7.5
164.592	-47.6	323.5	1.009708	244.5	8.3	7.5
167.64	-48.1	323.6	0.999634	241.2	4.8	7.5
170.688	-48	323.7	0.998716	245	1.6	7.5
173.736	-47.7	323.8	0.999948	254.7	2.9	7.5
176.784	-47.5	323.9	0.999663	261.1	2	7.5
179.832	-47.3	324	0.999465	264.6	2.2	7.5
182.88	-47.1	324.1	0.999667	268.2	2.3	7.5
185.928	-46.9	324.2	0.998838	274	1.9	7.5
188.976	-46.6	324.3	0.999188	278.4	2.6	7.5
192.024	-46.4	324.4	0.998748	281.1	2.3	7.5
195.072	-46.2	324.5	0.998909	285	2.4	8
198.12	-46	324.7	0.99914	278.4	2.4	8
201.168	-45.8	324.8	0.998669	281.9	1.9	8
204.216	-45.6	324.9	0.999089	286.9	1.9	8
207.264	-45.5	325	0.998659	288.9	1.5	8
210.312	-45.3	325.2	0.99871	293.9	1.8	8
213.36	-45.2	325.3	0.998433	296.5	1.6	8
216.408	-45.1	325.4	0.998388	299.8	1.1	8
219.456	-45	325.5	0.998278	295.6	1.5	8
222.504	-44.9	325.6	0.998635	298.5	0.8	8
225.552	-44.9	325.7	0.998442	301	0.7	8
228.6	-44.9	325.7	0.998029	303	0.6	8
231.648	-44.8	325.8	0.998216	306.4	0.8	8
234.696	-44.6	325.8	0.99793	312.7	1.8	8.5
237.744	-44.5	325.9	0.997914	315	1.6	8.5
240.792	-44.3	325.9	0.997799	318.2	1.6	8.5
243.84	-44.1	326	1.000514	321.7	2.2	8.5
246.888	-44.3	326.1	0.997324	329.8	1.7	8.5
252.984	-44.3	326.3	0.997005	357.8	19.1	8.5
256.032	-44.1	326.4	0.997066	356.9	1.6	8.5

259.08	-44.1	326.5	0.996689	4.6	1.1	8.5
262.128	-43.8	326.7	0.999363	21.3	2.8	8.5
265.176	-43.8	326.8	0.996508	20.4	1.1	8.5
268.224	-43.6	326.9	0.996976	31.3	1.8	8.5
271.272	-43.4	327	0.997514	42.8	2.1	8.5
274.32	-43.3	327.1	0.997491	56.2	1.5	8.5
277.368	-43.1	327.2	0.998047	70.6	1.7	8.5
280.416	-43	327.3	0.997434	78.2	1.4	8.5
283.464	-42.9	327.4	0.998289	85.4	1.3	8.5
286.512	-42.4	327.5	1.01086	101.3	5.5	8.5
289.56	-42.6	327.6	0.998859	102.3	2	8.5
295.656	-42	327.7	0.999017	116.9	9.3	8.5
298.704	-41.8	327.7	0.999263	121.5	1.9	8.5
301.752	-41.7	327.8	0.999255	126.2	1.8	8.5
304.8	-41.6	327.9	0.999826	134.8	1.1	8.5
307.848	-41.4	328	0.999671	139.2	1.5	8.5
310.896	-41.3	328.1	0.999925	145.2	1.8	8.5
313.944	-41.1	328.1	0.999753	151.6	1.4	8.5
316.992	-41	328.2	1.000568	155.6	1.1	8.5
320.04	-40.9	328.3	1.000105	161.4	1.6	8.5
323.088	-40.9	328.4	1.000835	168.6	0.9	8.5
326.136	-40.7	328.5	1.00055	183	1.7	8.5
329.184	-40.5	328.6	1.000658	182.5	2.1	8.5
332.232	-40.3	328.7	1.000887	187.7	2.7	8.5
335.28	-40.1	328.8	1.00084	192.5	2.2	8.5
338.328	-39.9	328.8	1.001031	197.2	1.8	8.5
341.376	-39.7	328.9	1.000783	201.9	1.7	8.5
344.424	-39.5	328.9	1.000731	212.7	2.3	8.5
347.472	-39.3	329.1	1.000541	212.2	2.3	8.5
350.52	-39.1	329.2	1.000398	217.3	1.7	8.5
353.568	-38.9	329.2	1.001142	220.7	2.2	8.5
356.616	-38.7	329.3	1.000781	223.6	2.3	8.5
362.712	-38.3	329.4	1.00077	230.9	12.3	8.5
368.808	-38.1	329.7	0.982787	238.1	45	8
371.856	-37.9	329.8	1.000539	240.9	10	8
374.904	-37.7	329.9	1.000259	240.8	1.9	8
377.952	-37.5	329.9	1.000296	250.1	2.1	8
381	-37.3	330	1.000152	249.2	1.6	8
384.048	-37.2	330	0.999951	259.2	1.6	8
387.096	-37.1	330.1	1.00027	260.7	1.2	8
390.144	-36.9	330.2	0.999933	258.7	1.5	8
393.192	-36.8	330.3	0.999992	262.8	1.5	8
396.24	-36.7	330.3	0.999887	264.9	1.5	8
399.288	-36.5	330.4	0.999968	261.2	1.7	7.5
402.336	-36.3	330.4	0.999955	261.6	1.6	7.5
405.384	-36.2	330.5	0.999711	265.5	1.8	7.5
408.432	-35.9	330.5	1.00026	269.6	2.4	7.5
411.48	-35.7	330.5	1.000601	274.7	2.8	7.5
414.528	-35.5	330.5	1.000061	280.7	1.6	7.5

417.576	-35.3	330.6	0.999543	281.7	2.3	7.5
420.624	-35	330.7	No Data	No Data	1.3	No Data

10.2 Drill Core Handling and Logging

Drill core was mobilized and handled with care in secure wooden core boxes which were stacked with secured lids during movement. Geotechnical and Geological logging was done at the core shack in Ear Falls by Northern Iron Corp's personnel, and overall recovery was close to 100%. The core was fit together, oriented continually to itself in the core box, cleaned, photographed, geoteched, logged and sampled, packed and stored in the fully equipped core shack in Ear Falls by Northern Iron Corp's personnel. Drill core was cut at the core shack in Ear Falls by Ackewance personnel.

Core was examined for general lithology, structure, alteration and mineralization. Recovery, RQD, fracture frequency, fracture type, fracture infilling, fracture roughness and rock hardness were recorded in the geotechnical log. Mineral occurrence and percentage, alteration types and intensity, structure orientation and type and rock type were recorded in the geological log. Estimates of magnetite content in iron formation were visually made, and the different components of the iron formation and surrounding lithologies were noted and coded (see appendix III).

10.3 Sampling Method and Preparation

Sampling was constrained to mineralized intervals of banded iron formation containing any amount of magnetite detectable by a pen magnet. Sample intervals were laid out nominally in 3m intervals, but were also delimited at lithic and structural contacts. Non-mineralized commercial limestone was inserted into the sample stream as blanks at a ratio of approximately 20 true samples to 1 blank sample. Pulverized and homogenized 60% Fe iron pellets from Griffith mine was inserted into the sample stream as standards at a ratio of approximately 40 true samples to 1 standard sample. Samples 31493 and 31496 were selected for duplication. The Duplicate of sample 31493 (004) was removed from the sample stream to be sampled by another laboratory at a future date. The duplicate of sample 31496 (314525) was sent to the SGS lab directly following the original in the sample stream (see table 4.).

Sample intervals were marked on the side of the core remaining in the core box post-cutting using red lumber crayons. Metal embossing tags containing sample number and interval information were stapled into the core trays at the beginning of each sample. The blank, standard and duplicate tags were included and positioned just behind the tag of the preceding sample, or just behind the tag of the sample to be duplicated as was the case.

All of the core samples were cut 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 and standard samples were prepared and given sequential sample numbers and inserted into the sample stream where indicated. Duplicate samples were prepared by cutting one half of the core in half again. One fourth of the total core was used as a regular sample, and given a routine sequential sample number. The other quarter was used as a duplicate sample, separately bagged, and given the next sequential sample number and inserted into the sample stream. As usual the remaining half of the core was returned to the core box.

At the end of sampling, lids were screwed onto all core boxes, and the boxes were piled on wooden pallets in the yard outside the core shack rented by Northern Iron Corp. from Ackewance in Ear Falls. The stacked core was secured with nylon banding and metal buckles. The core is currently stored this way in the yard outside of the core shack in Ear Falls.

All in-lab sample preparation mandated by Northern Iron Corp. was performed by SGS-Red Lake and splits were sent to SGS Lakefield for Iron Ore XRF assays. Each of the drill core samples including the blank, standard and duplicate samples, were cone-crushed dry to 75% passing 2mm, split to 250g and pulverised to 85% passing 75 μm. SGS also performed their own in lab blank and duplicate sampling quality control.

10.4 Sample Assaying

Drill core samples were analyzed for SiO_2, $Al2O_3$, Fe_2O_3, MgO, CaO, Na_2O, K_2O, TiO_2, P_2O_5, MnO, Cr_2O_3, V_2O_5, Ni and Z using whole rock analysis by XRF, and S using whole rock analysis by CSA. Each sample was weighed in air and weighed when submerged in water (see Table 4. for assays and analyses, and appendix II for analytical certificates).

10.5 Drill Core Assay Results

Table 4. Selected Assay Results from SGS Laboratories

Sample No.	From (m)	To (m)	Interval (m)	Sample Type	SiO_2 %	Fe_2O_3 %	Cr_2O_3 %
31478	84	85	1		57.4	17.9	< 0.01
31479	85	88	3		52.9	30.7	0.02
31480	88	90	2		48.3	41.7	< 0.01
31481			0	STANDARD	7.02	91.5	< 0.01
31482	97.54	98.68	1.14		61.3	18.5	0.02
31483	114	117	3		57.7	17.2	0.01
31484	120.5	123	2.53		59.6	15.8	< 0.01
31485	123	126	3		58.8	12.7	0.04
31486	126	129	3		59.6	13.5	0.02
31487	129	132	3		61.1	11.5	0.02
31488	132	135	3		58.7	14.2	0.02
31489	135	138	3		59.7	13.6	0.02
31490	199.2	201.14	1.9		57	28.5	< 0.01
31491	202.3	204.85	2.52		58.3	19.5	0.01
31492	206.3	207.11	0.8		57.2	19.7	< 0.01
31493	210	213	3		48	**43.3**	< 0.01
31494	213	216	3		45.4	**48**	< 0.01
31495	216	218.32	2.32		52.4	26.6	0.02
31496	222	224.13	2.13		52.9	29	< 0.01
31525	213	216	3	DUPLICATE 1	45.1	**47.5**	< 0.01
31521			0	BLANK	10.1	0.17	< 0.01

Blanks are samples composed of commercial marble inserted into the sample stream by Northern Iron Corp. prior to sampling. Standards are samples composed of pulverised, homogenized iron pellets from Griffith Mine inserted into the sample stream. Duplicates are duplicate samples inserted into the sample stream.

The blank sample showed only minor contamination, with a contamination of 0.17% Fe_2O_3. This is deemed acceptable contamination, and the results are therefore considered reasonably accurate. The standard sample showed only minor contamination as well, with a contamination of 0.3% SiO_2. This is deemed acceptable contamination and the results are therefore considered reasonably accurate (see appendix II for the full detailed analysis). The duplicate sample had an average discrepancy error of 1.04%, mainly due to differences in trace amounts of Cr_2O_3, and S percent values between the duplicate and the original sample. Excess Cr_2O_3 in the blank samples (and in all samples) may be due to the presence of chromium in the steel of the grinding plates used to crush and pulverise the samples. (see appendix II for the full detailed analysis). This is deemed acceptably accurate discrepancy and these assays are therefore deemed reasonably accurate.

11.0. Mineralization

The Algoma-type banded iron formation (BIF) composed of oxide facies magnetite (taconite) is the only known unit of potential economic value on the property. Drill results confirm the presence of at least two distinct units of banded iron formation composed predominantly of magnetite oxide facies (taconite) and support the assumed model of two parallel, sub-vertical units, dipping to the west as interpreted from geophysics. Magnetite in various grades was encountered interbedded with amphibolite to greenschist facies schist, rare migmatites, and intruded by pink and white granite dykes from 84m to 138m depth and 199.2m to 216m depth (see Figure No. 5, Figure No. 6 and Table 4. for details). The highest grades of Iron intersected were 3m of mineralization grading 48% Fe_2O_3 from 243m to 216m depth. Iron content averaged 14.62% Fe_2O_3 from 84m to 138m depth, and 30.65% Fe_2O_3 from 199.2m to 216m depth. The iron formations themselves were less impressive in terms of thickness and abundance then expected, with minor iron-bearing silicates and large iron lean sections of migmatites and schists. The taconite beds encountered, both in drill core and exposed on surface, were typically 0.5m to 2m thick with lower contacts being more gradational with abundant cherty bands in metasediments for a few meters above and below the banded iron formation. Surface exposure of magnetite banded iron formation occurred intermittently as outcropping throughout the property in five known locations for about 5-10m along strike. The banded iron formations were tightly and complexly folded in at least two outcrops, however the magnetite comprising these beds prevented structural readings from being taken. It appears that polyphase deformation is responsible for the complex folding observed in outcrop elsewhere in the property.

12.0. Conclusions and Recommendations

It is recommended that either surface sampling of outcropping southern beds be undertaken in order to compare them to results from the banded iron formation in the northeast grid drilled in 2010 and to the southeast of Ogani lake drilled in the fall of 2011. This would either support or call into question the assumption that the three linear anomalies D, E and F, observed in geophysics in 2010 (Sanabria, R. et al, 2010) were generated by banded iron formations similar in grade to the one interpreted to be generating the southern linear anomaly observed in the Northwest grid.

A more extensive detailed ground magnetometer survey is also recommended to link the two grids completed in 2010 and further delineate and confirm inferred banded iron formations, and identify other potential targets for drilling. Particular areas of interest are between the west of the northeast grid, to the north of the southwest grid and, though access is difficult, over the lake to the south of the southwest grid and to the south of the southeast corner of the northeast grid. The majority of these areas represent possible folding in the banded iron formation, and are thus more interesting.

Finally, a more extensive drill program targeting anomaly A defined in 2010 (Sanabria, R. et al, 2010) and other areas of possible or probable folded banded iron formation would better define the geometry and mineralization of the beds in the area. Also, it may identify targets of more value in other areas of the property.

Appendix I: References

References

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Appendix II: Analytical Certificates

-see folder on disk labeled 'Appendix II Analytical Certificates' for file:

Type of Document: PDF
Document Title: Certificate of Analysis
Document Description: Analytical Certificate from SGS laboratories
Digital File Name: Certificate of Analysis Samples 31456-31525, 31381.pdf

Appendix III: Drill Log of WH-10-01

-see folder on disk labeled 'Appendix III Drill Logs' for file:

Type of Document: PDF
Document Title: HOLE NUMBER: WH-11-01
Document Description: Drill log of downhole geology, minerals, structure and alteration.
Digital File Name: WH-11-01 Geological Log.pdf

Appendix IV: Statement of Qualifications

STATEMENT OF QUALIFICATIONS

I, **Raul Sanabria**, *European Geologist* with license *#766* and *Professional Geoscientist* with license #154013 and business address in #3001-438 Seymour Street, Vancouver, British Columbia, V6B 6H4, do hereby certify the following:

I am a geologist retained by Golden Hammer Exploration Ltd., and *Qualified Person* as defined by National Instrument 43-101.

I hold a *Licenciado* in Geology Degree, specialist in Mineral Resources (M. Sc.) by the *Universidad Complutense de Madrid* (Spain) in 2001, and thesis on Fe-(Cu-REE) Skarns in SW Spain.

I am a member in good standing with the *European Federation of Geologists* and the *Association of Professional Engineers and Geoscientists of British Columbia.* I am a full member of the *ICOG* (*Official Spanish Association of Geologists*).

I have been practicing my profession continuously since graduation in 2001 as a mine and exploration geologist, with projects in Spain and Western Africa (Senegal). Since January 2007, I have been engaged in mineral exploration projects in Canada (Yukon Territory and British Columbia) as Senior Project Geologist, Senior Project Manager, Exploration Manager and Vice-President, Exploration, and since 2010 in a varierty of projects within Canada (Yukon, British Columbia and Ontario) and Latin America (Mexico, Guatemala, Colombia, Argentina and Chile).

I am co-author and personally prepared this Assessment Report on the Whitemud Property and it is based upon a personal examination of all available company and government reports pertinent to the subject property, as well as I personally conducted and supervised the 2011 exploration programs.

I was personally on site from September to November 2011.

As of the date of the certificate, to the best of my knowledge, information and belief, I am not aware of any material fact or material change with respect to the subject matter of this assessment report that is not reflected in this report, or the omission to disclose, which would make this report misleading.

Raul Sanabria Orellana, *M.Sc., EurGeol., P.Geo.*

PROFESSIONAL
PROVINCE OF BRITISH COLUMBIA
SANABRIA ORELLANA
#154013
GEOSCIENTIST

Dated in Vancouver, BC this 1st day of DECEMBER, 2011

Appendix V: Figures

-See folder on disk labelled "Appendix V Figures" for files:

Title: Cross Section of DDH WH-10-01
Map Scale: scale bar
Map Year: 2012
Digital File Name: Figure No 5. Cross Section of DDH WH-10-01.jpg

Title: Plan View of DDH WH-10-01
Map Scale: scale bar
Map Year: 2012
Digital File Name: Figure No 6. Plan View of DDH WH-10-01.jpg