NI43-101 Technical Report on the Project "81" Area

Timmins District Ontario

Prepared for Ring of Fire Resources Inc. 120 Adelaide St. W, Suite 2500 Toronto, ON M5H 1T1

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1.0 Summary

Ring of Fire Resources Inc. has the exclusive right to purchase from AbiBow Canada Inc., a subsidiary of AbitibiBowater Inc. of Montreal, a 100% interest in 60,701 hectares of land in the Smooth Rock Falls, Iroquois Falls and Timmins area of Northern Ontario. The property consists of 2 blocks (Block "A" & Block "B"- collectively named Project "81") in 15 townships. Block "A" consists of 58,314 hectares, covering 10 contiguous townships, adjacent to the Kidd Creek Mine Complex near Timmins, Ontario. Block "B" comprises 2,387 hectares, and is made up of 35 parcels of land covering 5 townships around Iroquois Falls and Smooth Rock Falls. Ownership status of both blocks is freehold patent. A significant portion of the project area is productive forest land and timber rights are included in the purchase agreement. Access is via major paved highways, secondary gravel roads and numerous logging roads and helicopter. The last major programs were carried out mainly by Inco, Canico (1961-1966) and McIntyre-Porcupine (1967-1973) and Texasgulf/Falconbridge/Inco (1980-2004). The area is covered by thick glacial drift. Exploration consisted of airborne magnetometer and EM surveys, ground follow-up, overburden and core drilling. Inco drilled 183 holes of BQ core totalling 106,930 feet, while investigating 154 airborne anomalies. 12 major drill intersections of nickel mineralization (grades 0.21-0.36 % Ni) in ultramafics (probable komatiites) were encountered in Kingsmill, Aubin, Nesbitt and Dargavel Townships. The best of these, grading 0.36% Ni over 1265 feet was hole #27090 in northeastern Kingsmill Twp. The Lucas Gold Resources/Abitibi Price main zone (Lucas Township, Concession 2, Lot 2,) consists of an unclassified (non-NI43-101 compliant) deposit of 250,000 tons grading 0.10 ounces per ton (also stated to be 150,000 tons grading 0.12 oz/t Au). Intercept widths are taken from original reports and while the author does not know I) the location, azimuth and dip of any drill holes, and the depth of the relevant sample intervals., ii) the relationship between the sample length and the true thickness of the mineralization, he has found no reason to doubt the historical data. Neither the author nor the issuer have done sufficient work to classify the historical estimate as current mineral resources or mineral reserves.

Significant ore deposits have been discovered in stratigraphically equivalent geological terrrain to the south of Project "81" lands and the potential for similar discoveries is very high. Major advances have been made in geological interpretation of Abitibi belt stratigraphy and nickel, gold and VMS deposits. Systematic phased-in exploration programs should consist of a nine month (Phase A) compilation of all previous data and literature research, followed by a deep-penetrating helicopter mag-EM geophysical survey, ground mag, EM-VLF and 1500 m drilling of the Kingsmill nickel targets. Phase B exploration should extend over 3 years and cover the seven best historical targets, which are gold in Lucas, Aubin & Dargavel Twps and nickel in Kingsmill, Aubin, Nesbitt & Dargavel Twps. Helicopter Airborne Geophysical Surveys will be followed by IP and EM and 15,000 m of NQ drilling. The Phase A work program has a recommended budget of \$500,500, with the second phase budgeted at \$8,085,000 for a three year total of \$8,585,500.

2.0 Introduction

This report is designed to comply with Rules and Policies applying to National Instrument 43-101 ("NI43-101" - standards of Disclosure for Mineral Projects), and was prepared using Form 43-101F1, and guidelines in Companion Policy 43-101CP.

The author, Ulrich Kretschmar, PhD, PGeo (ON) and Golden Scarab Corporation were retained by Ring of Fire Resources Inc. of Toronto to 1) assess and review available technical data and 2) review and design work proposals for purposes of financing further exploration for the Project "81" area. We were retained because of our more than 40 years geological experience in Archean nickel, gold and VMS deposits and exploration techniques to find them.

The data used for preparation of the report was obtained from Ontario Government Assessment Files (AFRI), files from companies that worked on the claims and private files. The author, accompanied by Randy Singh, P.Geo (ON), P.Eng (ON) Exploration Manager of Ring of Fire Resources Inc. spent one day (July 19, 2011) on helicopter reconnaissance to scout for outcrop, locate historical drill hole collars and access roads. The anomaly numbers are locations of geophysical anomalies and drill holes sites obtained from assessment files and company reports.



Lucas Twp gold area, photo showing general terrain, drill hole collar for Canico historical drill hole 89-1 at location L-1 and geologist Randy Singh.

Table '	1: Project	"81"	areas	visited	during	helicopter	reconnai	ssance.	Locations
	indexed t	to NA	D 83	datum.	Anoma	lies from I	nco-Cani	co data.	

Anomaly #	Northing	Easting	Description	Waypoint
Lucas Twp				
L1 - 89-1	5406850	483959	DH collar 230-50	821
L2 - 89-2	5406917	483901		
L3 - 27068	5407350	481465		
L4 - 81-34	5406876	483968		
L5 - 27063	5406948	484281		
L6 - 73-14	5406827	484160		
Crawford Twp				
L7 - Camp 40	5408200	470360	foundations, outcrop	825
Nesbitt Twp				
N1 - K89-4	5424289	466271		828
N2 - 25024	5418420	470000		
N3 - 25017	5417980	470020		
N4 - 27083	5416620	467960		826
Bridge	5423131	466131		827
Aubin Twp				
A1 - 27074	5414950	459305		
A2 - 27089	5419250	460970		
A3 - 31901	5415560	458040		
A4 - 31903	5415580	458130		
Dargavel Twp				
D1 - 25013	5429480	461300		
D2 - 25014	5432900	459900		
Kingsmill Twp				
K1 - 25064	5422950	454650		
K2 - 27090	542310	454800		
K3 - 27098	5423660	454840		
K4 - 27082 N	5424040	449700		830

3.0 Reliance on other Experts

The Author has reviewed geological reports and assessment files obtained from the Ontario Geological Survey, assessment files in the Ministry of Northern Development, Mines and Forestry, Resident Geologist Library in Timmins and Sudbury and reports on adjacent and similar properties in the Timmins camp. These contain information on geology, mineralization and historical exploration activities. A list of references to assessment files is shown in Appendix A. Some of the background information on the Texmont Mine is from a report by Hadyn Butler (2007).

The author has relied information provided by Ring of Fire Resources Inc. on the status of the claims but has not examined the underlying agreement between the sellers AbiBow Corp and Ring of Fire Resources Inc. The legal description and listing of properties that are included in the agreement is 77 pages in total.

The Project "81" data being used in this report was created by prospectors, geologists and contract geophysicists and collected and filed in open-file reports at the MNDM (OGS) resident geologist's office in South Porcupine, City of Timmins and the central repository of data in Sudbury. Other data comes from private-file reports and news releases of various current and former public companies, their representatives and technical (geological and geophysical) contractors. The geological, geophysical and drilling reports were written by professional scientists, and I have no reason to doubt their veracity. A review of drill logs and assay certificates issued during previous exploration campaign shows internal consistency to the results - there are no compelling reasons to single out any particular exploration campaign as having unusual results outside the range of previous or subsequent surveys. Accordingly, the author considers that the data is reliable within the testable parameters. 4.0 Property Description and Location.



Figure 1. Location of Blocks A and B, comprising "Project 81"lands, north of Timmins, Ontario.

4.1 Mineral Policy Ontario

Ontario is a pro-mining province with regulations, which reflect this history, and the property is situated in an area with a strong mining history. The recent Lands for Life process in Ontario which has created new parks, conservation areas and other heritage areas (now referred to as the ALiving Legacy") did not affect the property, nor any of the Project "81" or immediately surrounding Twps.

4.2 Property Description and Ownership

The company has the exclusive right to purchase from AbiBow Canada Inc., a subsidiary of AbitibiBowater Inc. of Montreal, a 100% interest in 60,701 hectares of land in the Smooth Rock Falls, Iroquois Falls and Timmins area of Northern Ontario. (Fig. 1). The property consists of 2 blocks (Block "A" & Block "B"- collectively named Project "81") in 15 townships. Block "A" consists of 58,314 hectares, covering 10 contiguous townships, adjacent to the Kidd Creek Mine Complex near Timmins, Ontario. Block "B" comprises 2,387 hectares, and is made up of 35 parcels of land covering 5 townships around Iroquois Falls and Smooth Rock Falls. A significant portion of the project area is productive forest land and timber rights are included in the purchase agreement.

The majority of the parcels acquired are freehold patented lands, with a smaller number of parcels conferring only title to subsurface mineral rights, and in a few cases only the surface rights. With this latter exception, the company is acquiring a 100% interest and title to mineral, surface and timber rights.

Obligations include total payments of: 1) \$6.5 Million cash, 2) three million shares of the company within 365 days and 3) annual real estate taxes. This will retain the property for eternity. An initial payment of \$3.5 million is required and \$250,000 has been made. Two further cash payments of \$1.5 million each are required within 6 and 12 months of closing. The seller (Abibow Canada Inc.), will retain a 5% Net Smelter Return (NSR) on the property. The company has 1) the rights to buy back 2.25% NSR for \$2.5 million per percent at anytime (the payment would be \$5,625,000 to buy back the royalty) and 2) first right of refusal to buy the remaining 2.75% NSR from AbiBow. Abibow in turn has the first right of refusal to harvest or buy the timber on the property.

The lands have patented (outright) ownership rights and there are no expiration dates. There are no work expenditure or other payment/exploration/expenditure obligations. There are no permits required to conduct exploration activities or drilling.

There is an existing gravel extraction agreement currently in place Similarly, a 1 year forest harvesting agreement (based of provincial annual allowable cut (AAC) criteria) is currently in place.

There are no known material encumbrances. There are no known environmental liabilities, no known Native land rights issues and no known factors or risks that may affect access, title, or the right or ability to perform work on the property.

5.0 Accessibility, Climate, Local Resources, Infrastructure and Physiography.

5.1 Access

Access to the eastern part of Block A, Project "81" is gained by paved Hwy 655 leading north from Timmins to Cochrane. Both Blocks A and B are traversed by numerous logging roads and winter drill roads suitable for ATV and snowmobile. There are no lakes large enough for float planes.

During the summer months normal access is practically restricted to Abitibi gravel roads leading south from Smooth Rock Falls. During winter months additional roads are established for pulpwood transportation and these can be travelled by truck. For the most part, however, helicopters and muskeg tractors are required for transportation, particularly in the townships of Crawford, Carnegie, Lucas and Prosser. The terrain is generally very flat with minor, steep depressions along the river and stream routes. The only notable rise in elevation is in Kingsmill Township (Lot 9, Concession V). Overburden, which consists of clay, gravel and boulders, varies from zero to 200 feet with the apparent average being 100-150 feet.

5.2 Climate

The local climate is typical of northeastern Ontario and northwestern Quebec, and consists of a continental climate with cold winters and short hot summers. The temperature peaks in July with an average of 24° C and an extreme value of 38.9° C recorded June 31, 1998, with above 20° C temperatures running June to August. The low of the year is in January with an average of -23.6° C and an extreme low of -47° C achieved on January 17, 1982, with below 0° C weather running from November till April. There are 183 degree days below 0° C in a year and only 97 degree days above 18° C in a year. The area receives 875.7 mm of precipitation in a year, with 587.4 mm arriving as rain and 288.9 mm as snow. September is the wettest month receiving 97.5 mm of rain and 0.4 mm of snow and April being the driest month only receiving 32.2 mm of rain and 16.6 mm of snow. (Kirkland Lake Airport statistical archives).

Paraphrased from Butler (2007): "The property lies within the Subarctic Climate zone, the largest climate zone in Canada, which knows short, cool summers and long, cold winters, with precipitation mostly in the form of snow (~1 m; www.canadiangeographic.ca/atlas/themes.aspx). Snow squalls occur from October to June, and the frost-free period hardly exceeds 90 days. During the warm spells in the summer, the temperatures can reach 30..C and higher, and in the depths of winter the temperatures can drop below -40..C. Occasionally, fieldwork is not permitted due to

forest fire danger and the MNR may prevent access during such times. On the Atlas of Canada, the Properties occur in plant-hardiness zone 2a - indicator shrubs for this zone are Siberian pea-tree (Caragana arborescens), Siberian dogwood (Cornus alba 'Sibirica'), European cotoneaster (Cotoneaster integerrima) and silverberry (Elaeanus commutate); indicator trees are European white birch (Betula pendula), white elm (Ulmus americana) and cranberry viburnum (Viburnum trilobum).

"The property is also part of the Boreal Shield ecozone which has relatively low tree growth rates and timber volumes compared with other forested ecozones in Canada (from http://nlwis-snite1.agr.gc.ca/plant00/index.phtml).

"Tree species in the Boreal Shield ecozone include white and black spruce (Picea glauca and Picea mariana) balsam fir (Abies balsamea), tamarack (Larix Iaricina), trembling aspen (Populus tremuloides), white pine (Pinus strobes), red pine (Pinus resinosa), jack pine (Pinus banksiana), maple

(Acer rubrum), eastern red cedar (Juniperus virginiana), eastern hemlock (Tsuga canadensis), paper birch (Betula papyrifera), speckled alder (Alnus rugosa), pin cherry (Prunus pensylvanica), and mountain ash (Sorbus americana). Other plants include ericaceous shrubs, sphagnum moss, willow, Labrador tea, blueberries, feathermoss, cottongrass, sedges, kalmia heath, shield fern, goldenrod, water lilies, horsetails and cattails.

Mammals include moose, black bear, wolf, chipmunk, beaver, muskrat, snowshoe hare, vole, red squirrel, mice, marten, short-tailed weasel, fisher, ermine, mink, river otter, coyote, and red fox. Garter snakes and frogs are also present. Waterfowl are seen on lakes during the ice-free season, and fish can be abundant in some lakes and the larger perennial streams. Unlike regions farther south, there is no obvious physical evidence that industrial-source acid rain has stressed the forest environment to any visible degree".

5.3 Local Resources and Infrastructure

Supplies, food, fuel, lodgings and the full range of equipment, supplies and services that are required for exploration and mining work are available in Timmins. As well there is a large compliment of highly skilled personnel familiar with the mining industry. Services are also available in Matheson and Cochrane. The property is approximately 25 km from railhead and from Highway 11. During the long winter, access to the Project "81" property requires snow machines, and access roads have to be cleared by a snowplough so that mobile equipment and supplies could travel to the site. Parts of the property were logged about 30 years ago, and there are areas covered by secondary growth forest. Electric trunk line feeding Timmins cross both Blocks A and B of the property.

5.4 Physiography

The Project "81" area lies within the Abitibi upland physiographic region.

The property displays a typical "Laurentian Shield" landscape composed of forest covered ridges and very few outcrops with boulder and gravel tills, as well as swampy tracts, ephemeral Spring-runoff stream beds and swales, beaver ponds and small lakes. It is largely a low relief, bedrock- dominated peneplain with isolated, lithologically controlled topographic highs in Block B. Locally, glacial landforms add to relief. Elevations range from 290 to 520 m above sea level. Huronian embayment fringes form north facing cliffs up to 75 metres high to the south of Project "81". Relief is generally less than 15 m within the Project "81" townships occur within the Mattagami and Abitibi river drainage basins. Thick fine-grained, glaciolacustrine deposits subdue local landscape and form terrain characterized by broad, poorly drained, swampy conditions. Geological mapping indicates that <5% of the property comprises outcrop.

5.5 Topography, Vegetation and Water Availability

The area is well drained with moderate topographic relief. Large sand and outcrop ridges trend north-south across the property. Outcrop exposure is approximately 5% but is generally restricted to the calc-alkaline volcanic sequences. The komatilitic rocks tend to lie in topographic lows, covered by swamps and lakes, and outcrop only along the edges of large dacite ridges. Several lakes are located on the property and represent approximately 10% of the area. There are only a few minor beaver ponds and swampy areas associated with lakes and small streams. The forests are a combination of jack pine, aspen, birch, and alders with the occasional red pine and cedar trees. Many of the forests in this area have been designated for cutting or have already been cut by forestry companies. Water accessibility is excellent throughout the year.

6.0 Exploration History

6.1 General Exploration History of the Area (paraphrased from Butler, 2007)

The Porcupine Mining District of Ontario was created after the discovery of gold in the Abitibi greenstone belt near Timmins in 1908. Gold production has been substantial, for instance, the Hollinger deposit produced ~625 metric tonnes ("mt") of gold, and the McIntyre mine ~330 mt. Prospectors followed rivers and lakeshores hunting for gold and base metals, but the extensive drift-covered ridges and valleys left by the Pleistocene Laurentide Ice sheet meant that they could not explore the area in detail. Because of immature surficial covers of the glacial landscape, there were no alluvial gold trains in creek bottoms extending from hard-rock mineralization. Without outcropping mineralization, ore deposits of all kinds were very easily missed. The advent of airborne geophysics allowed new exploration campaigns in the Abitibi

greenstone belt. Starting in the early 1960's, subsidiaries of INCO Ltd. flew proprietary airborne magnetic and electromagnetic surveys across the Abitibi greenstone belt looking for nickel sulphide deposits using the signature of pyrrhotite-dominated nickel sulphide ores - a signature discovered by geophysical surveys in the Sudbury District. Pyrrhotite is a common magnetic and conductive iron sulphide ($Fe_{1-x}S$). Since many, but not all, komatiitic nickel sulphide ores are dominated by massive pyrrhotite, coincident magnetic-electromagnetic anomalies were thought to provide targets for nickel sulphide exploration campaigns. Such exploration campaigns led to the discovery of the very large Proterozoic "Type IV hydrothermal-metamorphic" nickel sulphide ore body at Thompson in Manitoba. Other companies and the Provincial Government also flew airborne geophysical surveys over the Project "81" lands. Not all coincident magnetic-electromagnetic anomalies are due to pyrrhotite. The most common magnetic mineral in the Earth's crust is magnetite (Fe₃O₄). Komatiitic ultramafics, the host of nickel sulphide ores in the Timmins nickel camp, are commonly serpentinized by dynamic metamorphism – reactions that commonly produce several percent of magnetite in the rock, and this effect can swamp any pyrrhotite magnetic signature. Moreover, some potentially economic komatilitic ores such as those at the former Texmont Mine do not contain significant pyrrhotite and produce quite weak electromagnetic responses that are overlooked among similar signals. The enormous number of conductors and the swamping of probable geophysical ore signals by both magnetic and electromagnetic effects meant that not all targets were tested or found.

6.2 History of Nickel Exploration

In the period 2000 to the present, notable events in the Timmins Nickel Camp include Falconbridge Ltd (now Xstrata plc) bringing the Montcalm Ni-Cu Mine into production west of Timmins. A summary of nickel production and grade and tonnage estimates is presented in Table 2. Fig. 2 shows the location of mineral deposits relative to the Project "81" properties.

Currently active company in nickel exploration in the Shaw and Bartlett domes of the Timmins camp are: 1. Mustang Minerals, Bannockburn project (www.mustangminerals.com) 2. Roque Mining, Langmuir project (www.roguemining.com), 3. Liberty Mines Inc (www.libertymines.com) and 4. Fletcher Nickel Inc, Texmont Mine (www.fletchernickel.com). Liberty Mines Inc. have brought the Redstone komatiitic massive sulphide deposit into production (~20 km north of Texmont), and are now mining the McWatters and Hart deposits (~20 km NE of Texmont) as an open pit. Mustang Minerals Corp. has discovered new "Type I" komatiitic nickel sulphide to the SE in Bannockburn Township (Mustang Minerals Corp. News Release dated April 11, 2005 (see <u>www.mustangminerals.com</u>).

Table 2 :- Timmins Nickel Camp reported production, and reported estimates of tonnage and grade: Data modified after MNDM (OGS) resident geologist's office in South Porcupine data and other sources. (Compiled by Butler, 2007).

Deposit Name	Township	Tons milled or Cu (%) C reported	ン(%) Ni(%)
Alexo	Dundonald	51,529 0.07	3.93
Dundonald	Dundonald	~1,000,000	1.5
Langmuir #1	Langmuir	220,000	1.5
Langmuir #2	Langmuir	320,000	1.3
Sothman	Sothman	231,000	1.3
		440,000	0.9
McWatters	Langmuir	181,500	1.92
		525,700	0.73
Redstone	Eldorado	1,220,000 0.09	2.39
Hart	Eldorado	770,000	0.9
Montcalm	Montcalm	5,113,000 0.71	0.06 1.46
		(NI43-101	
		compliant)	
Texmont	Bartlett & Geikie	3,190,000	0.92
		(not NI43-101	
		compliant)	
		compliant,	

Note: The present author considers data in this table representative of komatilite nickel deposits in the Abitibi Belt, but the information is not necessarily indicative of the mineralization on the Project "81" lands that are the subject of this report.

6.3 History of Exploration on the Property

There has been no significant mineral exploration work done in the project area since 2002. A total of \$1,361,250 was spent by Canico between 1961 and 1967, Porcupine McIntyre Mines spent \$577,000 between 1967 and 1973 and \$2,745,575.81 was spent in the period 1988 to 2002 by TexasGulf/Falconbridge/Inco. No work was done in 1994, 1995, 1997, 2001, 2003 and 2004 to the time of termination of the agreement between Inco/Falconbridge and Abitibi Price Resources. Table 3 presents a summary of work done.

Table 3: Project "81" Area Historical Exploration, Agreements and Expenditures. 1961-1966 Canico drilled 154 anomalies with 183 drill holes totalling approximately 106,930 feet of BQ diamond drilling

Years	Block	Company	Work Done
1961-1966	"A"	Canico (formerly Inco and now Vale)	2,299 line miles Airborne mag and 2 frequency EM system. Follow up ground prospecting, ground geophysical surveys and diamond drilling: 831 anomalies and drilled 154; expenditures \$1,361,250
(1967- 1973)	"A"	McIntyre Porcupine Mines	airborne and ground geophysical surveys, prospecting and diamond drilled parts of the project area in 27 drill holes totaling 17,411 feet and spent approximately \$ 577,000
1981		another corporation	
1980 - 1988		Texasgulf and Abitibi Price	entered into agreement. Texasgulf spent \$1,246,921.66 in the period.
1988 - 2004		Falconbridge	inherited agreement when they acquired Texasgulf in 1988.
1996		Inco	Falconbridge flip agreement to Inco
1998-2004			Inco returned agreement to Falconbridge Falconbridge terminated agreement on May 11, 2004
October 2004			Falconbridge offered Abitibi \$250,000 over 5 years and 3% NSR with the rights to buy back 50% (1,5%NSR) for \$3,000,000. Payment schedule was \$20K on signing, \$20K- 1st anniversary, \$20K - 2nd, 3rd & 4th anniversary, and \$60K on 5th anniversary for parcels of land in Nesbitt, Lennox and Aubin Twps, adjacent to their holdings.

6.4 Results of Historical Drilling

There are a series of compilation maps done by Townships of the project area by D. McCombe of Abitibi-Price, Mineral Resources Division in 1983, from which the following information were taken. In the 1960's, Canico drilled through large sequences of serpentinized peridotites and reported the following nickel results in drill holes:

Table 4: Historical (non NI43-101	compliant)	Nickel Drill	Results	on Project	"81"
	lands.				

Township	Hole No.	% Ni	Intercept (feet)
Kingsmill	27090	0.36	1265
Kingsmill	25064	0.28	624
Kingsmill	27082	0.23	55
Aubin	31903	0.23	299
Aubin	31901	0.24	418
	25027	0.23	379
Nesbitt		0.28	228
	27083	0.28	535
Dargavel	25014	0.27	96.5
		0.32	49.5
		0.21	416.5

Note: Intercept widths are taken from original reports and the author does not know I) the location, azimuth, and dip of any drill holes, and the depth of the relevant sample intervals., ii) the relationship between the sample length and the true thickness of the mineralization. The orientation of the mineralization is only known to the extent illustrated in Fig. 4 and 5.

Canico also drilled through a series of carbonate-altered, silicified volcanics and iron formations and reported the following :

Table 5: Historical (non NI43-101 compliant) Gold Drill Hole intersections of Project "81" Lands.

Township	Hole No.	Gold Grade	Intercept
Lucas	27063	0.14 oz/t (4.7 g/T)	9.2 feet (2.8m)
Lucas	73-14	0.117 oz/t (4.0 g/T)	2.1 feet (0.6m)
		0.090 oz/t (3.1 g/T)	4.3 feet (1.3m)
Dargavel	25013	0.098 oz/t (3.3 g/T)	4.3 feet (1.3 m)
Aubin	27089	0.27oz/t (9.2 g/T)	1 foot (0.3m)
		0.058 oz/t (1.9g/T)	10 feet (3.1m)

Note: Intercept widths are taken from original reports and the author does not know I) the location, azimuth, and dip of any drill holes, and the depth of the relevant sample intervals., ii) the relationship between the sample length and the true thickness of the mineralization. The orientation of the mineralization is only known to the extent illustrated in Fig. 6.

As well, in Carnegie Twp, above background zinc and copper assays were encountered in felsic volcanics.

7.0 Geological Setting and Mineralization

The general geology of the Project "81" area is shown in Fig. 2. Notable is the occurrence of numerous nickel, gold and base metal mines in the area and the similar geology of the Project "81" lands.

8.0 Deposit Types

In the immediate Timmins area, the Abitibi subprovince is subdivided into 9 assemblages with ages ranging from the youngest, the Timiskaming assemblage sedimentary rocks that range in age from 2676 to 2670 Ma to Deloro assemblage rocks dated at 2730 to 2724 Ma. Timiskaming sediments were deposited unconformably on deep water turbidite sediments of the Porcupine assemblage. Coeval with the Porcupine sediments are the "Krist" felsic fragmental rocks dated at 2687 Ma. The Krist is considered to be the extrusive equivalent to the quartz feldspar porphyries in the Timmins area of similar age. Underlying Tisdale assemblage rocks have an age of 2710 -06 Ma and are predominantly mafic to felsic volcanic rocks and are further subdivided into a series of mine sequence formations. The Tisdale assemblage rocks, particularly mafic volcanic rocks with high iron tholeiitic affinity are the most productive for gold

mineralization. Variolitic lavas of the Vipond Formation in the Tisdale assemblage provide useful stratigraphic marker horizons. Deloro assemblage rocks immediately underlie the Tisdale assemblage and consist of mafic to felsic volcanic rocks with minor banded iron formation and clastic sediments near the top of the sequence.



Figure 2. Regional Geology of the Project "81" area and Selected Mineral occurrences in the Kidd-Munro assemblage in the Timmins area. From Hannington et. al. 1999, Fig. 6, p. 12 and OGS Map 2055.

Komatiitic flows Ultramafic volcanic rocks Gabbroic intrusive complex

Ultramafic intrusive complex peridotite, dunite, pyroxenite The Shaw dome is a structural feature south of Timmins that juxtaposes iron formation and Deloro assemblage rocks against Tisdale assemblage komatiitic rocks, yielding deposits of magmatic massive sulphide and nickel mineralization. Coincident with the north boundary of the Shaw dome, the Porcupine Destor Fault is a major structural feature that is spatially related to many of the Timmins gold deposits.

Of significance for volcanogenic-hosted massive sulphides (VMS) is the Kidd Munro assemblage that ranges in age from 2719 to 2711 Ma and is host to the giant Kidd Creek Mine. Lesser amounts of VMS mineralization has been mined from the younger Blake River assemblage around Kamiskotia.

Historically, the Timmins district has been a major producer of both gold and base metals. In the immediate vicinity of Timmins, over 68 million ounces of gold have been mined. Copper and zinc ore is mined at the Kidd Creek Mine and refined at the Kidd Creek Metallurgical Site. The komatiite-hosted Redstone Mine and the gabbro-hosted Montcalm Mine are producing nickel, copper and cobalt. (quoted from www.mndmf.gov.on.ca/mines/ogs/resgeol/geology/tim_e.asp.

9.0 Exploration

9.1 Regional Geological Context

In a highly significant paper on Abitibi belt geology, Thurston et. al. (2008) discuss models of greenstone belt development and state that they are crucial for exploration. Allochthonous models predict belts to be a collage of unrelated fragments, whereas autochthonous models allow for prediction of syngenetic mineral deposits within specific stratigraphic intervals. Superior province greenstone belts consist of mainly volcanic units unconformably overlain by largely sedimentary "Timiskaming-style" assemblages, and field and geochronological data indicate that the Abitibi greenstone belt developed autochthonously. Thurston et. al. (op. cit.) describe major revisions to stratigraphy of the Abitibi greenstone belt and the implications of an autochthonous development of the volcanic stratigraphy for exploration for syngenetic mineralization. The Abitibi greenstone belt is subdivided into seven discrete volcanic stratigraphic episodes on the basis of groupings of numerous U-Pb zircon ages of: pre- 2750, 2750 to 2735, 2734 to 2724, 2723 to 2720, 2719 to 2711, 2710 to 2704, and 2704 to 2695 Ma.

Revised lithotectonic and/or stratigraphic nomenclature using these time intervals, includes (1) isotopic inheritance in younger episodes which indicates that the older episodes (2750–2735 and 2734–2724 Ma) had greater extent than is presently seen, (2) dikes feeding younger volcanic episodes (2706 Ma) cutting older volcanic units (2734–2724 Ma), and (3) 2710 to 2704 Ma mafic to ultramafic sills intruding the 2719 to 2711 Ma episode. Changes to the nomenclature include the identification of pre-2750 Ma volcanic episode (supracrustal fragments) in the northern and southern Abitibi greenstone belt and subdivision of the 2719 to 2711 Ma, 2710 to 2704 Ma, and 2704

to 2695 Ma episodes into lower and upper parts. We present the results of this lithostratigraphic subdivision as the first geochronologically constrained stratigraphic and/or lithotectonic map of the Abitibi greenstone belt. Many of the volcanic episodes are intercalated with and capped by a relatively thin "sedimentary interface zone" dominated by chemical sedimentary rocks. Stratigraphic and geochronological analysis of these zones indicates discontinuous deposition with localized gaps of 2 to 27 Ma between volcanic episodes. The zones consist of up to 200 m of iron formation, chert breccia, heterolithic debris flows of volcanic provenance, sandstone and/or argillite and conglomerate. Modeling of the time required for deposition of the volcanic units based on rates of magma production in modern arc and plume environments is on the order of 10³ to 10⁴ years, whereas the time interval between basalt-rhyolite cycles is 10⁶ years. The sedimentary interface zones are therefore interpreted as condensed sections, zones with very low rates of sedimentation in a basinal setting, or zones with negligible rates of sedimentation marked by silicification of existing rock types. The sedimentary interface zones are therefore considered submarine correlative conformities, disconformities, or unconformities separating the equivalent of group level stratigraphic and lithotectonic units. The unconformity-bounded stratigraphic model provides a new regional to deposit-scale interpretive model for use in exploration for syngenetic mineralization.

9.2 Detailed Property Geology

There are two main sources of information, the Inco-Canico data and project reports and Thurston et. al. (2008). From the former: briefly, volcanics are andesite and dacite flows, pyroclastics and reworked equivalents interlayered with tuffs, ashes, agglomerates, volcanic mud flows and graphitic sediments. Appreciable thicknesses of pillowed or massive basalt-andesite are not well developed. Marker horizons were not noted. Small, local areas of acid, rhyodacitic volcanics are more common in south Carnegie, central Nesbitt, east Crawford and west Lucas Townships. The metamorphic grade is predominantly greenschist facies. Carbonate and chlorite alteration is widespread and locally intense in Carnegie Township, where it occurs with silicification. In Kingsmill, Mabee, Dargavel and Lennox Townships, the rocks occur mainly as schists, and locally gneisses, as the granitoid margin and floor to the "green stones" are approached. In these townships, chlorite, amphibole, talc, quartz and sericite schists of the epidote amphibolite and amphibolite facies occur, along with narrow horizons of banded siliceous iron formation.

Ultramafics are described by Canico as conformable sheet-form bodies (komatiites, present author) and plugs of serpentinized ultrabasic-basic rocks, variably serpentinized, talcose, peridotite-gabbro sequences, although dunite, pyroxenite, serpentinite, and gabbro pegmatite occur locally. Serpentine minerals, magnesite-calcite, talc and magnetite are common accessories of such ultrabasics, which also locally carry minor asbestos, chromite, Fe-Cu sulphides and native copper. The intrusives are most commonly found in Crawford, Nesbitt, Dargavel, Kingsmill and Aubin Townships, where they give rise to prominent magnetic anomalies.

Grey and pink granodiorites and granites have been found in Aubin, Dargavel, Kingsmill and Mabee Townships, along with hornblende gneisses and quartz feldspar pegmatite veins. Aeromagnetic data suggest that similar rocks occur over extensive parts of these townships and in Nesbitt. Minor acid intrusives are uncommon and only one occurrence of a quartz-feldspar porphyry dyke has been found (DH BH-25066, anomaly 4-266, Crawford Township).

Quartz diabase outcrops in Mabee Twp and has been intersected in drilling in other townships, particularly those in the NW of the area, where aeromagnetic data suggests the possibility of many similar NNW trending intrusions

The work of Thurston et. al (op. cit.) and others e.g. Epp and Crockett (1999); Barrie and Pattison (1999) and Jonasson et. al, (1999), are directly relevant the geology of the Project "81" lands. Only a brief review is possible and the reader is referred to the original papers.

Iron formations are key stratigraphic markers and readily show up on geophysical surveys. Several were found during the historical exploration of the Project "81" lands. According to Thurston et. al. (op. cit.), classic banded iron formation occurs at lower stratigraphic levels within the Deloro assemblage (Ayer et al., 2005), and lean cherty iron formation at the top of the Deloro assemblage south of Timmins. Distinctive iron formation breccia units occur at the top of the 2734 to 2724 Ma Deloro assemblage in the southern Abitibi greenstone belt and more extensive correlative units occur in the northern Abitibi greenstone belt. The time interval is characterized by broad regions of tholeiitic basalts, komatiitic basalts, and komatiites, as well as several relatively minor felsic volcanic centres. In the southern Abitibi greenstone belt, rocks of this age range are represented by the Stoughton-Roquemaure assemblage on the northeastern flank of the Round Lake batholith and an east-west-trending unit centered on Lake Abitibi. The upper part of the Tisdale assemblage also forms an east-trending unit north of the Porcupine-Destor fault deformation zone in contact with the 2723 to 2720 Ma Stoughton-Roquemaure assemblage. The ~15 m.y.-age gap represents a basal depositional gap in this region. The presence of the 2704 \pm 5 Ma mafic to ultramafic Mann intrusive complex (C.T. Barrie, 1999, unpub. report: The Kidd-Munro Extension Project: Year 3 Report, Ontario Geological Survey) at the assemblage contact clearly indicates the contact is not tectonic and also suggests an original depositional gap at the lower contact.

9.3 Geophysics

Regional geophysical coverage is available from Geology of Ontario (Map 2587), a portion of which is reproduced as Fig. 3.



Figure 3. Regional magnetic survey over Block A. Source: Ontario Geological Survey Map 2587.

10.0 Drilling

No recent drilling has been carried out on the property. However, numerous gold and nickel intersections are reported from the historical drilling (Section 6.4. Tables. 4, 5).



Figure 4. Detailed geology NE corner Kingsmill Twp. based on 1966 Inco data and drill logs. Iron formation overlying acid volcanics indicate facing directions. From this, the author postulates the crest of a syncline at DH #27090. Holes #27090 (1627 ft) and #25064 (1194 ft total) did not reach the base of the sequence and ended in peridotite.



Figure 5. Kingsmill Twp. Historical results showing geophysical conductors and nickel intersections in drill holes 27082, 27098, 27090 and 25064.



Figure 6. Lucas Twp Gold Area. Lucas Twp, Lot 1 Concession 2. 1960s Geophysical Conductors, Location and Results from Drill Holes 27063, 73-14 and 27069A.

11.0 Sample Preparation, Analyses and Security

See discussion under Item "12.0 Data Verification.""

12.0 Data Verification

No direct data verification has been carried out by the author since original assay certificates could not be located and secondary sources were used. For the assays reported, the author does not know a) the sample preparation methods and quality control measures were applied, b) the method or process of sample splitting and reduction, and the security measures taken to ensure the validity and integrity of samples taken, c) assaying and analytical procedures used, the name and location of the analytical or testing laboratories and whether the laboratories were certified by any standards association. Despite this, the author has no reason to doubt the adequacy of the historical sample preparation, security and analytical procedures.

13.0 Mineral Processing and Metallurgical Testing

This item does not apply.

14.0 Mineral Resource Estimate

There are two reports for the Lucas Gold Resources/Abitibi Price main zone (Lucas Township, Concession 2, Lot 2, Block A and Figure 6). Deposits not Being Mined in the Timmins District, states there is an unclassified deposit of 250,000 tons grading 0.10 ounces per ton. <u>http://www.mndm.gov.on.ca/mines/ogs/resgeol/offices/tim_MD.pdf</u> The description of the same deposit according the Mineral Deposits Index (MDI) number MDI42A14SE00005 is as follows: Ore Zone Name: Abitibi-Price or Lucas Gold Resources Main Zone. Year: 1984. Category: Unclassified. Tonnes: 165,300. Source: T-2496. Comments: Unclassified reserve is 150 000 tons grading 0.12 oz/t Au.

The author notes that these estimates are non NI43-101 compliant and should not be relied upon except to help focus exploration efforts and drilling in Lucas Twp. Neither the author nor the issuer have done sufficient work to classify these historical estimates as current mineral resources or mineral reserves.

Exploration History: 1963-66: Abitibi-Price Inc. and Canadian Nickel Company Limited - airborne geophysics, 4 ddh (1665 ft). 1966-72: Abitibi-Price Inc. and Cormarty Exploration - airborne geophysics, ground geophysics; data compilation, diamond drilling 55 ddh (37 744 ft). 1972-73: McIntyre Porcupine Mines Ltd. airborne geophysics, 3 ddh (1598 ft). 1981-83: Abitibi Price Inc. airborne geophysics, ground geophysics diamond drilling, overburden drilling. 1987-89: Lucas Gold Resources Inc. - 5 ddh (5793 ft).

Geology: Inco drill hole 27063 returned an intersection of 0.14 oz/t Au over 9.2 ft. Gold and silver enrichment is confined to sulphide and/or chert-bearing rocks throughout the volcanic sequence. Tuffs in the sequence carry variable gold values ranging from 0.005 to 0.02 oz/t Au, while distinct enrichments are confined to the pyrite-chert chemical sediments. Sections of core from the Main Zone which comprise chert and pyrite with no quartz veins, mostly assay in the range of about 0.01 to 0.08 oz/t Au. Gold is closely associated with pyrite in both the chert-sulphide portions and in the quartz vein stockworks. Inco drill hole 27069A returned an assay of 0.027 oz/t Au over 10 ft.

Mineralization: The mineralization is hosted within a thick sequence of felsic tuffs and lapilli tuffs with a few thin intercalated leucoxene-bearing mafic flows or sills. Narrow fine-grained syenitic dikes intrude the felsic volcanic package. Mineralization is found within a series of quartz veins and veinlets that cross-cut a zone of chert, pyrite and some graphite that is found within the felsic metavolcanics. This zone has been interpreted as chemical metasediments. The rocks are strongly foliated and closely spaced fractures are observed in the chert and quartz veins.

15.0 Mineral Reserve Estimate

This item does not apply.

16.0 Mining Methods

This item does not apply.

17.0 Recovery Methods

This section does not apply.

18.0 Project Infrastructure

This section does not apply.

19.0 Market Structure and Contracts

This section does not apply.

20.0 Environmental Studies, Permitting and Social or Community Impact

Since the Project "81" lands have been private property since the First World War land grants to veterans, it appears that there have been no environmental, permitting, social or community impact studies. However, the author recommends future consultation with First Nations people who have traditionally hunted in the area.

21.0 Capital and Operating Costs

This section does not apply.

22.0 Economic Analysis

This section does not apply.

23.0 Adjacent Properties



The most important adjacent properties are shown in Figure 7.

Figure 7. Property ownership adjacent to Block "A". Red dots: major nickel in Dargavel and Aubin Twps and gold intersections in Lucas Twps.

24.0 Other Relevant Data and Information

There are numerous reports on occurrences in the Project "81" area. These are listed in Appendixes A and B.

25.0 Interpretation and Conclusions

25.1 General

There has been no significant exploration within the last 35 years of the Project "81" lands. During this time several major discoveries were made in the same section of the Abitibi Greenstone belt. There have also been significant improvements in exploration techniques, in particular 1) geophysics (e.g. Smith, R.S. and O'Connell, M.D., 2007 and other papers in "Proceedings of Exploration 07: Fifth Decennial International Conference on Mineral Exploration" edited by B.Milkereit, 2007), 2) lithogeochemistry (Barrie,C.T, 2005) 3) regional geology and stratigraphy (Ayer et al. 1999a, b; 2002 a, b; 2005) and Thurston et. al, 2008) 4) nickel deposits and komatiites (Naldrett, 2010 and Arndt et. al. 1982, 2008). As well, mining company websites and NI43-101 reports (www.sedar.com) are often an excellent source of information (see also Section 6.2).

25.2 Regional Stratigraphy

According to Thurston et. al. (2008), the lower part of the Kidd-Munro assemblage (2719–2717 Ma) includes dominantly intermediate to felsic calc-alkaline volcanic rocks: (1) the former Duff-Coulson-Rand assemblage of Jackson and Fyon (1991) south of Lake Abitibi; (2) in Dundonald and Clergue townships in the central part of the western Abitibi greenstone belt where it is complexly infolded with upper Kidd-Munro assemblage rocks; and (3) west of Timmins in Thorburn and Loveland Townships, 2719.5 ± 1.7 Ma (Ayer et al., 2002a) calc-alkaline rocks are in tectonic contact with a northeast-facing unit of the upper part of the Kidd-Munro assemblage to the south (Hathway et al., 2008). The upper part of the Kidd-Munro assemblage (2717–2711Ma: Ayer et al., 2005) extends across the Abitibi greenstone belt, north of the Porcupine-Destor fault in Ontario. It consists of tholeiitic and komatiitic units with minor centimetre-to metre-scale graphitic metasedimentary rocks and localized felsic volcanic centres. At the eastern end of the assemblage, its southern limit is the Porcupine-Destor fault. West of the Matagami River fault, the assemblage is northeast facing, based on two new U-Pb zircon ages, and is in tectonic contact with the upper part of the Blake River assemblage in Jamieson Township.

25.3 Volcanogenic Massive Sulfides

Volcanogenic massive sulfide (VHMS) deposits in the Abitibi subprovince are preferentially associated with volcanic successions containing >150 m thicknesses of felsic volcanic rocks (approximately 50% by area of volcanic terranes) and are found within volcanic sequences of at least three distinct affinities. Group I, which is host to greater than half of the volcanogenic massive sulfide deposits by tonnage and which comprises only approximately 10 percent by area of volcanic terranes, is composed of bimodal, tholeiitic basalt-basaltic andesite, and high silica rhyolite. The basaltic andesites and high silica rhyolites are characterized by high high field strength element and heavy rare earth element (REE) contents, low light to heavy REE ratios (most with La N /Yb N = 0.8-3), and strong negative Eu anomalies. The Kamiskotia, Matagami, and Chibougamau (Lower cycle) volcanogenic massive sulfide areas, all of which are also underlain by large, synvolcanic gabbroic complexes, are associated with group I volcanic sequences. The Kidd Creek (age 2716 Ma), Potter, Potterdoal, Normetal, and Horne deposits are also included in this category.

25.4 Conclusions

1. Project "81" lands represent a large, lightly explored segment of the Abitibi greenstone belt, a highly "fertile" segment of Archean crust, with excellent potential for the discovery of major gold, nickel or VMS deposits.

2. Numerous high grade historical intersections and geophysical conductors present immediate exploration and drill targets.

3. Modern airborne and ground geophysical techniques permit more accurate location of anomalies, and are deeper penetrating.

26.0 Recommendations and Budget

A multi-phase evaluation of seven areas identified from previous work on Project "81" lands should consist of the following, with Phase B, contingent on positive results from Phase A:

1. Data compilation and literature research on mineral deposits within the region.

2. Phase A, helicopter airborne mag and EM survey geophysical surveys over the best geophysical anomalies with historical drill intersections. Projected costs include interpretation, modelling, weather delays and contingencies. Historical drill holes will be twinned, as follows:

Historical Depth Approximate Dip Drill Hole Azimuth 25064 015° 300m -45° 025° 27082 -45° 300m 27090 000-360° 600m -45° 27098 180° -45° 300m

Historical drill holes in Kingsmill Twp to twin in Phase A drilling

3. Ground mag and EM-VLF over the seven major target areas identified from historical work: gold in Lucas, Aubin & Dargavel Twps and nickel in Kingsmill, Aubin, Nesbitt & Dargavel Twps.

RECOMMENDED BUDGET, PHASES A AND B

PHASE A 9 month time frame, Kingsmill Nickel targets	\$ C
Helicopter Airborne Geophysical Survey 500 line km	\$60,000
Ground Geophysical Surveys – IP, Pulse EM, 30 line-km, Pulse EM	\$75,000
Drilling, 1,500 m (NWQ size)	\$225,000
Assaying	\$35,000
Data Compilation	\$60,000
Subtotal	\$455,000
Contingency (10%)	\$45,500
Subtotal for Phase A	\$500,500
Phase B - 3 years-7 Gold and Nickel target areas	
Helicopter Airborne Geophysical Survey - 10,500 line Km, Blocks A and B	\$1,260,000
Ground Geophysical Surveys - IP, Pulse EM - 100 line-km	\$250,000
Drilling - 30 holes - 15,000 m - NQ size core	\$5,250,000
Assaying	\$450,000
Metallurgical Study	\$100,000
Data Compilation	\$40,000
Subtotal 2	\$7,350,000
Contingency (10%)	\$735,000
Subtotal for Phase B	\$8,085,000
Total for both phases	\$8,585,500

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Canadian ecozones: http://nlwis-snite1.agr.gc.ca/plant00/index.phtml

1) Mustang Minerals, Bannockburn Nickel project

www.mustangminerals.com

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- 2) Golden Chalice, Langmuir Nickel Project

www.goldenchaliceresources.com

3) Liberty Mines, Redstone, McWatters, Hart projects

www.libertymines.com

4) Fletcher Nickel, Texmont Nickel Mine

www.fletchernickel.com

5) CSIRO, Australia. Komatiite flow formation animation

http://www.em.csiro.au/news/facts/nickel/komatiite_flow.htm

http://www.em.csiro.au/news/facts/nickel/komatiite2.htm

6) Young-Davidson Mines, Matachewan

www.northgateminerals.com

28.0 Certificate of Qualifications (Ulrich H. Kretschmar)

I, Ulrich H. Kretschmar, a mineral exploration geologist, reside at 408 Bay St. Orillia, Ontario L3V 3X4, Canada. The certificate attached, applies specifically to a report dated 22 August 2011 prepared for Ring of Fire Resources Inc and titled: "NI 43-101 Report on the Project "81" Lands, Timmins area, Ontario for Ring of Fire Resources Inc".

1. I am a Professional Geologist, registered as a member with the Association of Professional Geologists of the Province of Ontario, Canada (A.P.G.O. No. 1160). The membership is in good standing. I graduated from the University of Toronto in 1973 with the degree Doctor of Philosophy in Geology. I have been engaged in mineral exploration and mine development for more than fourty years.

2. As a result of my experience and education, I am a "Qualified Person" as defined in National Policy 43-101.

3. This report is based on the examination of available data and a helicopter reconnaissance site visit to the Project "81" on July 19, 2011 for the purpose of this report.

4. The sources of information are noted in the report, which information is correct to the best of my knowledge. I assume responsibility for the entire contents of the report.

5.0 I am independent from Ring of Fire Resources Inc in accordance with Section 1.5 of National Instrument 43-101. I own no shares in the company.

6.0 I have worked in the Canadian Shield intermittently since 1966 and am familiar with its geology. I have worked extensively on lode vein and komatiitic nickel geological environments.

7.0 I have read National Instrument 43-101 and Forms 43-101F1 and this report has been prepared in compliance with these documents.

8.0 As of the date of this certificate, to the best of my knowledge, information and belief, this technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

9.0 I consent to the filing of this report with any stock exchange or other regulatory authority and any publication by them, including electronic publication of this report, in the public company files or on their websites accessible to the public.



Ulrich H. Kretschmar PhD, PGeo. Orillia, Ontario

Date: 22 August 2011

Revisions: 6 September 2011

16 September 2011

Appendix A: AFRI Files and Sources of Information

Table A-1. Project "81" Assessment reports in AFRI files.

Township	No of reports
Aubin	12
Carnegie	134
Coulson	61
Crawford	53
Dargavel	5
Kendry	0
Kingsmill	4
Knox	33
Lennox	11
Lucas	64
Mabee	3
Nesbitt	16
Prosser	108
Rickard	44
Teefy	27

Appendix B. List of Property Index Maps in Blocks "A" and "B", Cochrane District, available from Ministry of Consumer and Business Services

Township	Block Number
Block "A"	
Kingsmill	65300
Mabee	65297
Aubin	65301
Nesbitt	65302
Lennox	65295
Dargavel	65296
Lucas	65320
Carnegie	65328
Crawford	65321
Prosser	65329
Block "B"	
Kendry	65197
Prosser	65329
Teefy	65337
Rickard	65338
Knox	65339
Coulson	65343