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**Ontario Geological Survey  
Open File Report 6180**

**Report of Activities, 2005  
Resident Geologist Program**

**Red Lake Regional Resident  
Geologist Report:  
Red Lake and Kenora Districts**

**2006**







ONTARIO GEOLOGICAL SURVEY

Open File Report 6180

Report of Activities, 2005  
Resident Geologist Program

Red Lake Regional Resident Geologist Report:  
Red Lake and Kenora Districts

by

A.F. Lichtblau, C. Ravnaas, C.C. Storey, A. Raoul, R. Gula and D. Saunders

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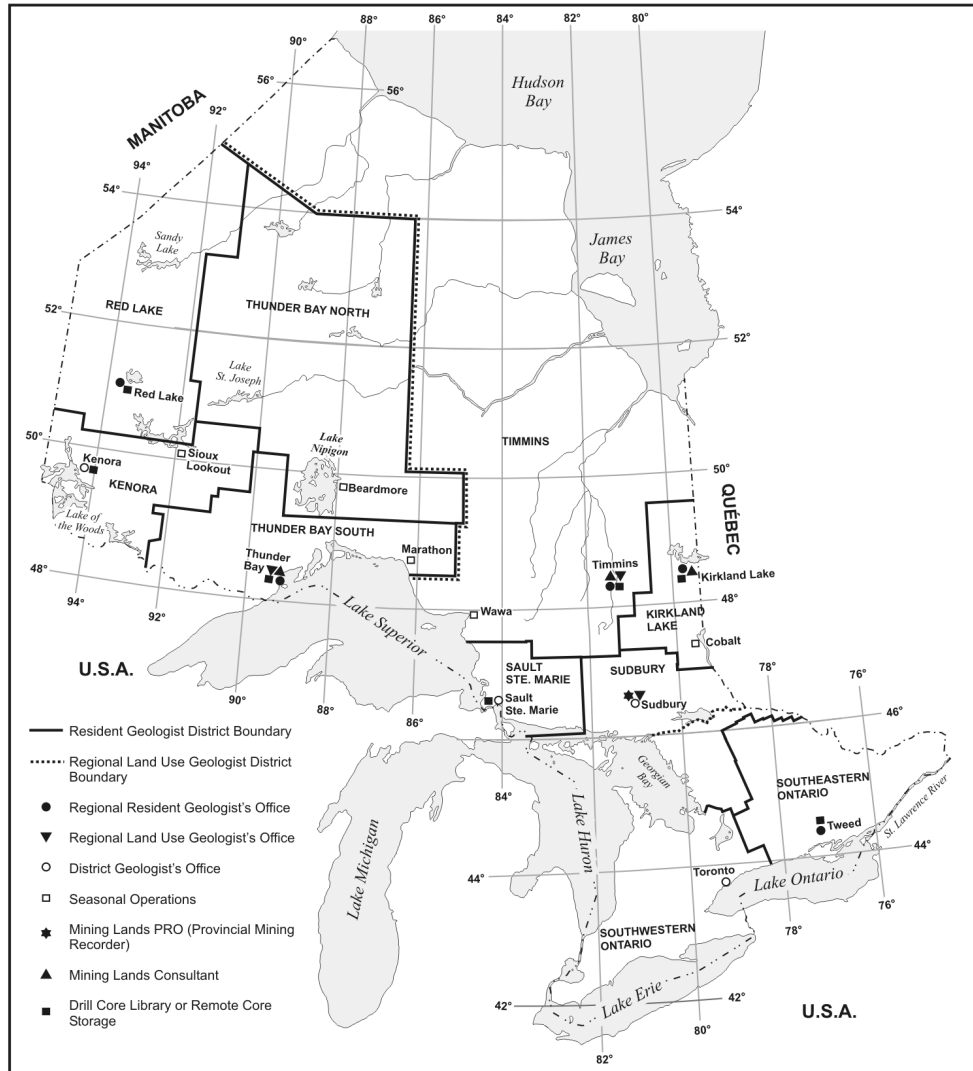
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Thunder Bay – North	Suite B002, 435 James St. S., Thunder Bay P7E 6S7	● ■ ▼ ▲	(807) 475-1331 (807) 475-1311	(807) 475-1112 (807) 475-1124
Thunder Bay – South	Suite B002, 435 James St. S., Thunder Bay P7E 6S7	● ■ ▼ ▲	(807) 475-1331 (807) 475-1311	(807) 475-1112 (807) 475-1124
Sault Ste. Marie	Suite 200, 70 Foster Dr., Sault Ste. Marie P6A 6V8	○ ■	(705) 945-6931	(705) 945-6935
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**ONTARIO GEOLOGICAL SURVEY**  
**RESIDENT GEOLOGIST PROGRAM**  
**REPORT OF ACTIVITIES - 2005**

**RED LAKE REGIONAL RESIDENT GEOLOGIST REPORT**

**CONTENTS**

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1. Red Lake District
2. Kenora District







**Ontario Geological Survey  
Regional Resident Geologist Program**

**Red Lake Regional Resident Geologist (Red Lake District)—2005**

**by**

**A.F. Lichtblau, C.C. Storey, R. Gula and D. Saunders**

**2006**

# CONTENTS

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## Red Lake Regional Resident Geologist District—2005

INTRODUCTION .....	1
MINING ACTIVITY .....	2
Goldcorp Inc.–Red Lake Mine .....	4
Placer Dome Inc.–Campbell Mine .....	4
EXPLORATION ACTIVITY .....	5
Red Lake Greenstone Belt.....	16
Canstar Resources Inc.....	20
Cypress Development Corp. ....	21
Goldcorp Inc. ....	21
Goldcorp Inc./Planet Exploration Inc.–Sidace Lake Joint Venture .....	22
King’s Bay Gold Corporation.....	22
MetalCORP Ltd. ....	23
Placer Dome (CLA) Ltd.....	23
Placer Dome (CLA) Ltd. (50%)/Wolfden Resources (50%)–East Bay Joint Venture .....	23
Redaurum .....	24
Madsen Option .....	24
Redstar Gold Corp. – Newman–Todd Property .....	24
Rubicon Minerals Corporation .....	24
McFinley Gold Project–Phoenix Zone .....	25
Sabina Silver Corporation.....	25
Follansbee.....	25
Southern Star Resources Inc./Exall Resources Limited.....	26
Wolfden Resources inc. ....	27
Bonanza (Follansbee) Property .....	27
Birch–Uchi Greenstone Belt .....	28
Continuum Resources Ltd./Tribute Minerals Inc.....	28
Gold Canyon Resources.....	28
Jilbey Gold Exploration Ltd.....	29
King’s Bay Gold Corporation.....	30
Sabina Silver Corporation.....	30
Golden Sidewalk .....	30
Northern Greenstone Belts .....	30
LAND USE PLANNING ACTIVITY .....	30
RESIDENT GEOLOGIST STAFF AND ACTIVITIES .....	31
DRILL CORE STORAGE SITE .....	31
PROPERTY EXAMINATIONS .....	33
Hudson–Patricia Mine (C.C. Storey) .....	34
GEOLOGICAL HAZARD INSPECTIONS.....	40
RECOMMENDATIONS FOR EXPLORATION .....	40
Gold.....	40
Molybdenum and Uranium .....	40
Base Metals .....	41
OGS ACTIVITIES AND RESEARCH BY OTHERS .....	41
MINERAL DEPOSITS NOT BEING MINED .....	44
REFERENCES .....	48

## Tables

1. Mine production and reserves in the Red Lake District in 2005 .....	1
2. Summary of claims recorded in the Red Lake District, 2001–2005 .....	2
3. Gold production in the Red Lake District to December 31, 2005 .....	3
4. Assessment files and other technical reports received in the Red Lake District in 2005 .....	6
5. Exploration activity in the Red Lake Resident Geologist District in 2005 .....	11
6. Drill core stored at the Red Lake Resident Geologist's District Remote Drill Core Compound.....	32
7. Property visits conducted by the Red Lake Regional Resident Geologist and Staff in 2005.....	33
8. Gold assays from sampling while the mine was operating .....	38
9. St. Joseph Explorations Ltd. significant sampling results from 1976 diamond-drilling program.....	38
10. St. Joseph Explorations Ltd. results from 1976 surface sampling.....	39
11. Results of sampling during property examination in 2005 .....	39
12. Descriptions of samples collected during property examination in 2005.....	39
13. Publications received by the Red Lake Office in 2005 .....	42
14. Mineral deposits not being mined in the Red Lake District in 2005 .....	44

## Figures

1. Annual gold production in the Red Lake belt, 1986–2005 .....	1
2. Average monthly price of gold .....	2
3. Red Lake District (north part): exploration activity and property examination .....	15
4. Red Lake District (south part): exploration activity and property examinations .....	16
5. Red Lake greenstone belt: exploration activity and mining activity .....	17
6. Red Lake greenstone belt: property examinations and mining activity .....	18
7. Northern extension of the Red Lake greenstone belt: exploration activity and property examinations .....	19
8. Birch–Uchi greenstone belt: exploration activity and property examinations .....	20
9. Location and geological setting of the Hudson–Patricia Mine .....	36
10. Hudson–Patricia Mine: property geology, diamond drilling and sample locations .....	37



# Red Lake Regional Resident Geologist—2005

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## INTRODUCTION

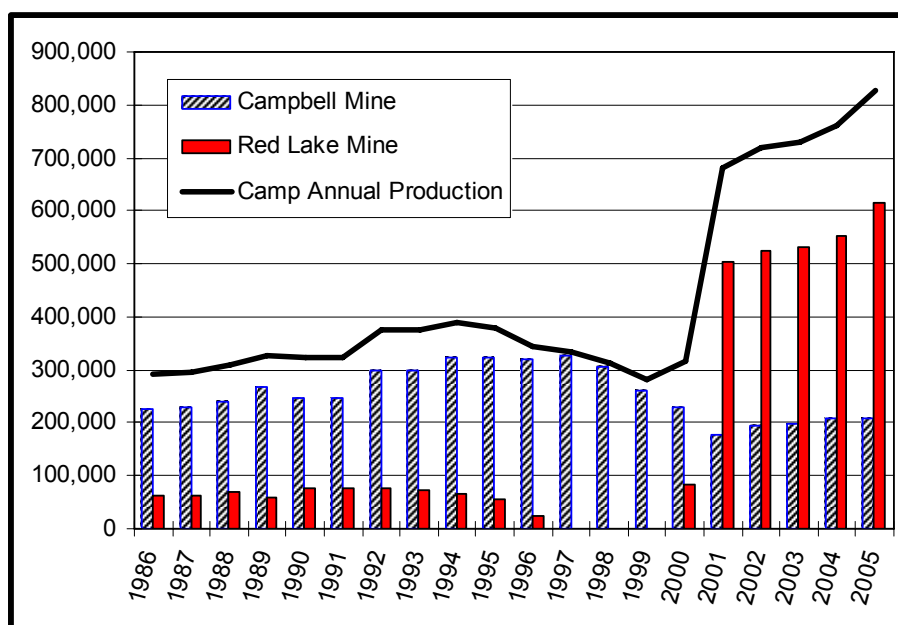
Gold was the only commodity mined in the Red Lake District in 2005. Based on year-end figures, production increased significantly over last year's total, to 825 586 ounces gold (Table 1; Figure 1).

**Table 1.** Mine production and reserves in the Red Lake District in 2005.

Mine	Production in 2004		Production in 2005		Reserves Plus Resources (all categories) at end of 2005	
	Tonnage @ Grade	Total Commodity	Tonnage @ Grade	Total Commodity	Tonnage	Grade
Goldcorp Inc. Red Lake Mine <sup>(1)</sup>	223 913 tonnes @ 77.15 g/t Au (246 882 tons @ 2.25 opt Au)	551 886 ounces Au	235 400 tonnes @ 82.0 g/t (259 500 tons @ 2.39 opt)	616 400 ounces Au	6 450 000 tonnes (7 110 000 tons)	35.7 g/t Au (1.04 opt Au)
Placer Dome (CLA) Ltd. Campbell Mine <sup>(2)</sup>	446 000 tonnes @ 15.3 g/t Au (491 631 tons @ 0.45 opt Au)	209 045 ounces Au	440 000 tonnes @ 15.0 g/t Au (485 000 tons @ 0.44 opt Au)	209 186 ounces Au	17 427 000 tonnes (19 210 000 tons) underground	11.0 g/t Au (0.32 opt Au)

(1) Goldcorp Inc., news release, March 5, 2006.

(2) Placer Dome Inc., news release, February 20, 2006.



**Figure 1.** Annual gold production in the Red Lake belt, 1986–2005.

(No production at the Red Lake Mine between 1997 and 1999 due to strike by unionized employees.)

The price of gold continued to rise (Figure 2), closing the year with a December average price of US\$510, an increase of 15% relative to the price (US\$442) at year-end 2004.

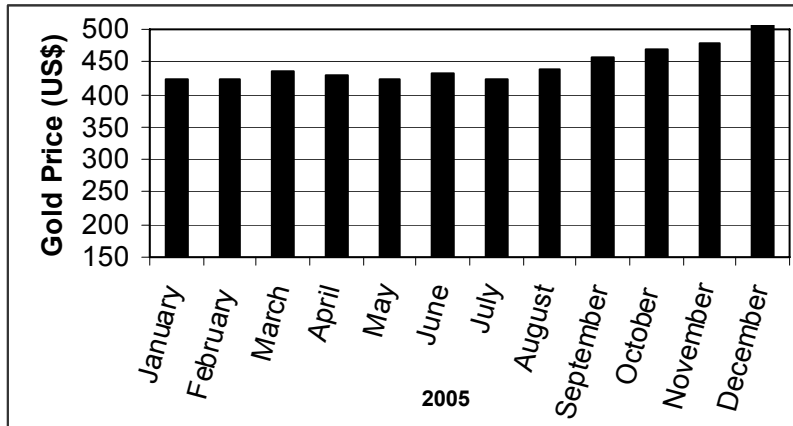


Figure 2. Average monthly price of gold.

Claim staking activity increased by 48% over last year’s levels (Table 2). Ground in the Springpole Lake, Favourable Lake and Setting Net Lake areas was staked due to the increased prices for base and precious metals, and uranium.

Table 2. Summary of claims recorded in the Red Lake District, 2001–2005.

Year	Cancelled (Claim Units)	Recorded (Claim Units)	Active (Claim Units)
2005	5165	3117	16 911
2004	3690	2099	18 647
2003	1842	6781	21 127
2002	1795	7689	15 732
2001	290	291	2 269

During 2005, 74 assessment work and other technical reports were received in the Red Lake office. The total value of assessment work received in the Red Lake office in 2005 was \$8 826 527. This figure includes \$1 536 668 for work completed in 2005.

Staff of the Resident Geologist’s office made 28 visits to active and inactive mineral properties, and gave 4 field trips in the Red Lake area. Field and office activities focussed on delivering high-quality services to the exploration and mining sector, the general public, other Ministries and the Municipality of Red Lake.

## MINING ACTIVITY

Gold was the only commodity produced in the Red Lake District in 2005. The takeover of Placer Dome Inc. by Barrick Gold, and the subsequent takeover of Placer Dome’s North American assets by Goldcorp Inc., delayed the release of year-end production data and reserve figures. Historical statistics to the end of 2005 for all gold producers in the district are given in Table 3.

**Table 3.** Gold production in the Red Lake District to December 31, 2005.

Mine	Years of Production	Ore Milled (Short Tons)	Gold Produced	
			Troy Ounces	Ounces per Ton
Campbell	1949–Present <sup>(1)</sup>	19 750 121	11 143 743	0.564
Goldcorp (Dickenson)	1948–Present <sup>(1,2)</sup>	9 606 894	5 962 948	0.621 <sup>(3)</sup>
Madsen	1938–1976, 1997 <sup>(4)</sup> –1999	8 678 143	2 452 388	0.283 <sup>(5)</sup>
Cochenour–Willans	1939–1971	2 311 165	1 244 279	0.538 <sup>(6)</sup>
McKenzie Red Lake	1935–1966	2 353 833	651 156	0.277
Howey	1930–1941, 1957 <sup>(7)</sup>	4 630 779	421 592	0.091 <sup>(8)</sup>
Hasaga	1938–1952	1 515 282	218 213	0.144
Starratt Olsen	1948–1956	907 813	163 990	0.181
Berens River	1939–1948	560 607	157 341	0.281
Uchi	1939–1943	757 074	114 467	0.151
Jason (Argosy)	1934–1952	276 573	101 875	0.368
H.G. Young	1960–1963	288 179	55 244	0.192
Sachigo River	1938–1941	46 457	52 560	1.131
McMarmac	1940–1948	152 978	45 246	0.296
Gold Eagle	1937–1941	180 095	40 204	0.223
Jackson Manion	1934–1940	105 357	27 142	0.258
Red Lake Gold Shore	1936–1938	86 333	21 100	0.244
Hudson Patricia	1936–1937	11 228	1857	0.165
Buffalo	1981–1982	31 986	1656	0.052
Abino	1985–1986	2733	1397	0.511
Lake Rowan	1986–1988	13 023	1298	0.100
Mount Jamie	1976	972	377	0.388
Kostynuk Brothers	1963–1966	577	1126	1.951
Bobjo	1929	N/A	362 <sup>(9)</sup>	N/A
Bathurst	1927–1937	562	307	0.546
Red Summit	1935–1936	591	277	0.469
Sol d’Or	1933–1936	458	258	0.563
McFinley	1987	N/A	N/A	N/A
<b>TOTAL</b>		<b>52 269 813</b>	<b>22 882 403</b>	<b>0.438</b>

**Notes:** (1) Includes final production figures for 2005.

(2) For 1997, 1998 and 1999, no production due to strike by unionized employees.

(3) From 1970, includes production from Robin Red Lake.

(4) Includes clean up of ore and materials from the mine site.

(5) Historic grade, actual grade for 1999 was 0.14 ounce per ton gold.

(6) Includes production from Annco and Wilmar properties.

(7) Continuous production 1930 to 1941; includes 268 ounces recovered from clean up in 1957.

(8) The ore mined at Howey, before sorting totalled 5 158 376 tons.

The average production from run-of-mine ore was therefore 0.0817 ounce per ton gold.

(9) Not included in total production figure

N/A Data not available

## Goldcorp Inc.—Red Lake Mine

Gold production for 2005 was 616 400 ounces, an 11.7% increase with a slightly increased cash cost of US \$93 per ounce compared to US\$92 per ounce in 2004. Gold sales increased to 814 200 ounces at an average price of \$442 per ounce reflecting a large second quarter sale (199 300 ounces) of gold formerly held in inventory. The policy of retaining a third of the gold mined in inventory was discontinued effective April 1, 2005. The average mill head grade was 82 grams per tonne (2.62 ounces Au per tonne), a significant increase over last year (77 g/t). Recovery increased to 97%. Goldcorp issued regular monthly dividends of \$0.015 per share all through 2005. Cash costs were virtually unchanged due to the stronger Canadian dollar. The US \$100 million expansion project (shaft sinking, underground development and mill expansion) continued throughout the year. Shaft sinking reached 1408 m at the end of 2005 with development work to connect the shaft to existing workings ahead of schedule. Mill throughput will be expanded to 1130 tonnes per day. Completion of the shaft and related workings is targeted for late 2007, with the expanded mill ready in mid 2007. Total cost for the shaft and surface facilities is estimated at CDN \$196 million with CDN \$96 million outstanding (news release and 2005 Goldcorp Inc. Annual Report, March 5, 2006).

Late in 2004, Goldcorp Inc. and Wheaton River Minerals Ltd. jointly announced a proposed transaction that provided for Goldcorp to make a friendly take-over bid for Wheaton. This transaction was completed April 15, 2005, on the basis of 0.25 Goldcorp Inc. share for each Wheaton River Share (Goldcorp Inc., news release, April 18, 2005). Wheaton River Minerals Ltd. was delisted from the Toronto Stock Exchange (TSX) and the American Stock Exchange (AMEX). Late in 2005, Barrick Gold Corporation and Placer-Dome Inc. came to a friendly takeover agreement that would see some of Placer's assets transferred to Goldcorp Inc. Goldcorp will acquire Placer Dome's interest in the Campbell Mine, the Porcupine Joint Venture and the Musselwhite Joint Venture in Ontario, as well as a 50% interest in the La Coipa gold and silver mine in Chile and a 40% interest in the Pueblo Viego development project in the Dominican Republic. The purchase price of these assets will be US \$1.485 billion in cash subject to any required consents and government approvals (news release, December 22, 2005).

Total ore reserves and resources (measured, indicated and inferred) for the Red Lake Mine are tabulated below (news release, March 6, 2005, [www.goldcorp.com](http://www.goldcorp.com) [accessed March 13, 2006]):

Category	Tonnes	Grade (g/t)	Contained Ounces (million)
Proven Reserves	800 000	63.5	1.62
Probable Reserves	2 030 000	50.42	3.30
<b>Subtotal</b>	<b>2 830 000</b>	<b>53.98</b>	<b>4.92</b>
Measured resources	300 000	11.77	0.12
Indicated Resources	1 730 000	14.60	0.81
<b>Subtotal</b>	<b>2 030 000</b>	<b>14.17</b>	<b>0.93</b>
Inferred Resources	1 590 000	30.55	1.57

The mine employed approximately 542 operations employees, including 150 Goldcorp staff, 356 Dynatec Corp. underground operations personnel and 36 Major Drilling Group underground drillers. The expansion project includes 100 Cementation Canada personnel engaged at No.3 shaft, 4 Merit Consulting and 17 contractors. Claude Lemasson was Mine Manager.

## Placer Dome Inc.—Campbell Mine

The Campbell Mine continued operation throughout the year. Year-end results indicated production comparable to previous year, at 209 186 ounces gold, at a grade of 15.0 g/t Au and recovery of 96.3% (Placer Dome Inc., news release, February 20, 2006). Cash cost of US \$312 was up 13% from 2004 due to the appreciation of the Canadian dollar, elevated cost of consumables and the lower grade of stockpiled mill feed.

Underground exploration drilling intersected the extension of Goldcorp Inc.'s "High-grade zone" at depth on the Campbell Mine property (news release, December 19, 2005). The intersection is 75 m onto the Campbell property,



150 m from the deepest High Grade zone drill results published by Goldcorp, and is at a vertical depth of 2590 m. The intersection averaged 23 g/t Au over 3.4 m, including 122 g/t Au over 0.6 m. Wedge-off holes continue to test the zone at year-end.

During the year, Placer Dome continued to expand the DC zone (“Deep Campbell zone”) with definition drilling between 1800 m and 1950 m depth encountering mineralization up to 77 g/t Au over 4.7 m, including 374 g/t Au over 0.6 m.

Year-end underground reserves and resources contained approximately 6 188 000 ounces gold, a 4% increase over previous year. With the addition of reserves and resources contained in tailings, this figure increases to 6 369 000 ounces gold.

Category	Tonnes	Grade (grams gold per tonne)	Contained ounces gold
<b>Underground</b>			
Reserves (proven+probable)	2 573 000	15.6	1 287 000
Resources (measured+indicated)	6 313 000	8.9	1 815 000
Resources (inferred)	8 541 000	11.2	3 086 000
Subtotal	17 427 000	11.0	6 188 000
<b>Tailings</b>			
Reserves (proven+probable)	2 931 000	1.7	163 000
Resources (indicated)	326 000	1.7	18 000
Subtotal	3 257 000	1.7	181 000
<b>Grand Total</b>	<b>20 684 000</b>		<b>6 369 000</b>

At year-end, Placer Dome Inc. and Barrick Gold Corporation reached agreement on a friendly transaction under which Barrick agreed to offer US \$10.4 billion for acquisition of Placer Dome (news release, December 22, 2005). Under a separate agreement, in the event that Barrick is successful in its bid, Goldcorp Inc. will acquire certain mining assets and other interests of Placer Dome, including the Campbell Mine, Placer Dome’s interest in the Musselwhite and Porcupine Joint Ventures, as well as the La Coipa gold and silver mine in Chile; and a 40% interest in the Pueblo Viejo development project in the Dominican Republic.

## EXPLORATION ACTIVITY

Assessment work received is listed in Table 4, and a summary of exploration activity is given in Table 5. The 15% increase (from the December average of US \$442 in 2004, to US \$510 in 2005) in the price of gold, coupled with exploration successes by several companies, sustained high exploration interest in the Red Lake District again this year.

Table 5 lists the companies and individuals who reported some activity on their property during 2005; several are described in more detail in the following pages. Programs with significant exploration expenditures and/or significant known results, and properties for which the location is of particular strategic or geologic interest are described below. Programs numbered in Table 5 are keyed to Figures 3, 4, 5, 6, 7 and 8.

Information included in this section is taken from assessment files in the Red Lake Resident Geologist’s office, unless otherwise indicated. Company press releases, technical reports and management discussion and analysis reports are available on SEDAR® (System for Electronic Document Analysis and Retrieval; see [SEDAR Home Page](#)), a publicly accessible database of corporate documents required by Canadian securities regulators for publicly traded companies.

**Table 4.** Assessment files and other technical reports received in the Red Lake District in 2005.

<b>Abbreviations</b>							
AEM	.....	Airborne electromagnetic survey	IP	.....	Induced polarization survey		
AM	.....	Airborne magnetic survey	Lc	.....	Linecutting		
ARA	.....	Airborne radiometric survey	MMI	.....	Mobile Metal Ion soil sampling survey		
Beep	.....	Beep Mat survey	OD	.....	Overburden drilling		
Bulk	.....	Bulk sampling	ODH	.....	Overburden drill hole(s)		
DD	.....	Diamond drilling	PEM	.....	Pulse electromagnetic survey		
DDH	.....	Diamond drill hole(s)	PGM	.....	Platinum group metals		
DGP	.....	Down-hole geophysics	Pr	.....	Prospecting		
GC	.....	Geochemical survey	RES	.....	Resistivity survey		
GEM	.....	Ground electromagnetic survey	Samp	.....	Sampling (other than bulk)		
GL	.....	Geological Survey	Seismic	.....	Seismic survey		
GM	.....	Ground magnetic survey	SP	.....	Self-potential survey		
GRA	.....	Ground radiometric survey	Str	.....	Stripping		
Grav	.....	Gravity survey	Tr	.....	Trenching		
HLEM	.....	Horizontal loop electromagnetic survey	UG	.....	Underground exploration/development		
HM	.....	Heavy mineral sampling	VLEM	.....	Vertical loop electromagnetic survey		
IM	.....	Industrial mineral testing and marketing	VLFEM	.....	Very low frequency electromagnetic survey		

No.	Township or Area	Company Name	Year	Type of Work	AFRO Number	Work Credits Approved	Resident Geologist Office File Designation
1	Ball Tp.	Goldcorp Inc. (Middle Bay Property)	2003–2004	Pr, Samp, Assays	2.29219	\$37 970	Ball Tp. – 120 (202-2005)
2	Ball Tp.	Redstar Gold Corp. (Biron Bay and Pipestone North Projects)	2005	BB: DDH(3)=380 m, PN: DDH(1)=275 m, Samp, Assays	2.29264	\$159 339	Ball Tp. – 123
3	Ball Tp.	Rubicon Minerals Corporation (Claim 1234205)	2004	Pr, Samp, Assays	2.29802	\$994	Ball Tp. – 124
4	Balmer and Bateman townships	Rubicon Minerals Corporation (Adams Lake Property)	2005	DDH(2)=612.1 m, Samp, Assays	2.29755	\$91 428	Balmer Tp. – 166
5	Bateman Tp.	Goldcorp Inc. (Bateman Project)	2004	GC, MMI	2.29893	\$1420	Bateman Tp. –149
6	Bateman Tp.	Rubicon Minerals Corporation (East Bay Property)	2004	DDH(3)=1093.42 m, Samp, Assays	2.29897	\$142 513	Bateman Tp. –150
7	Bateman Tp.	Rubicon Minerals Corporation (McFinley Property)	2004	Tr, GL, Samp, Assays, Work Recommendations	Non Assessment Technical Report	—	Bateman Tp. –147
8	Belanger Tp.	Tribute Minerals Corporation (Garnet Lake Property)	2003–2004	DDH(4)=2262 m, Assays, DGP	2.30335	\$293 740	Belanger Tp. – 58
9	Black Bear Lake Area	Rubicon Minerals Corporation/ Goldcorp Inc. (Red Lake North Property)	2005	DDH(3)=738.5 m, Samp, Assays	2.30320	\$144 317	52N/04NE – 35
10	Byshe Tp. and Heyson Tp.	Solitaire Minerals Corp. (Chukuni Property)	2004	Grav	2.29695	\$28 783	52N/04SE – 64 (676-2005)
11	Byshe Tp. and Heyson Tp.	Williamson, J.W./ Rubicon Minerals Corporation (Claim KRL1248397)	2005	Pr, Samp, Assay	2.30348	\$1070	Byshe Tp. – 66
12	Casummit Lake Area	Denison Mines Ltd. (Koezur Property KRL 526773)	1982	Samp, Assays	Non-Assessment	—	52N/08W – 226

No.	Township or Area	Company Name	Year	Type of Work	AFRO Number	Work Credits Approved	Resident Geologist Office File Designation
13	Casummit Lake Area	Denison Mines Ltd. (B. Crawford Property)	1982	Samp, Assays	Non-Assessment	—	52N/08NW – 227
14	Casummit Lake Area	Denison Mines Ltd. (Richardson Lake Anomaly)	1982	Data Compilation	Non-Assessment	—	52N/08NW – 228
15	Casummit Lake Area	Gold Canyon Resources Inc. (Springpole Lake Property)	2004	DDH(27)=2168 m, Samp, Assays	2.30452	\$344 369	52N/08NW – 232
16	Casummit Lake and Satterly Lake areas	Gold Canyon Resources Inc. (English Option Property)	2005	MMI	2.30567	\$39 514	52N/08NW – 231
17	Casummit Lake and Satterly Lake areas	Red Lake Resources Inc. (Springpole–Wagner Property)	2004	Pr, GL, Lc, GM, VLFEM	2.28608	\$26 798	52N/08NW – 229
18	Coli Lake Area	Grandcru Resources Corporation (Coli Lake Property–Coli West Grid)	2005	IP	2.30460	\$15 274	52N/05SE – 26
19	Coli Lake Area	Grandcru Resources Corporation (Coli West Property)	2004	GM	2.30709	\$23 897	52N/05SE – 27
20	Coli Lake Area	Planet Resources Inc./ Goldcorp Inc. (Sidace Property)	2003–2004	DDH(16)=9459.5 m	2.29804	\$1 157 351	52N/05SE – 25
21	Coli Lake Area	Red Lake Resources Inc./ Grandcru Resources Corporation (Coli Lake West Property)	2004	GM survey	2.28868	\$34 916	52N/05SE – 22
22	Coli Lake Area	Rubicon Minerals Corporation (Sidace Property)	2004	DDH(4)=2966.1 m	2.29275	\$486 382	52N/05SE – 21 (256-2005)
23	Coli Lake, Sobeski Lake, and Blackbear Lake areas	Goldcorp Inc./ Planet Exploration Inc. (Sidace Lake Property)	2003	MMI, Assays	2.29255	\$64 384	52N/05SE – 24
24	Coli Lake, Sobeski Lake, Nungesser Lake, and Black Bear Lake areas	Goldcorp Inc./ Planet Exploration Inc. (Sidace Lake Property)	2004	DDH(4)=1904.7 m, Samp, Assays	2.29805	\$230 344	52N/05SE – 23
25	Curie Lake and Avis Lake areas	Getty Resources Ltd./ Buffalo Resources Ltd. (Papaonga Lake Property)	1988	DDH(6)=545 m, Samp, Assays, Pr	Non-Assessment Technical Report	—	52K/16NE – 25
26	Dent Tp.	Denison Mines Ltd. (Woman Lake Centre Syndicate)	1982	Samp, Assays	Non-Assessment	—	Dent Tp. – 114
27	Dent Tp., and Mitchell Tp.	Denison Mines Ltd. (Medicine Rock Property)	1982	Samp, Assays	Non-Assessment	—	Dent Tp. – 115
28	Dixie Lake Area	Alberta Star Development Corp. (Dixie Lake Project)	2003–2004	DDH(22)=6594 m, Resource Estimate, Work Recommendations	Non Assessment Technical Report	—	52K/13SE – 67

RED LAKE DISTRICT—2005

No.	Township or Area	Company Name	Year	Type of Work	AFRO Number	Work Credits Approved	Resident Geologist Office File Designation
29	Dixie Lake Area	Canadian Patricia Exploration Ltd. (Highwall Lake Property)	1990	GEM, GM	Non-Assessment Technical Report	—	52K/13SE – 69
30	Dixie Lake Area	Grandcru Resources Corporation (Dixie Lake North Property)	2005	DDH(6)=648.9 m	2.30398	\$120 494	RL5001
31	Dixie Lake Area	Grandcru Resources Corporation (Dixie Lake North Property)	2004	GM	2.30404	\$300 252	RL5003
32	<u>Dixie Lake Area</u> , and Bruce Lake Area	Grandcru Resources Corporation (Dixie Lake East /South Properties)	2005	AM	2.29475	\$31 719	52K/13SE – 68 (447-2005)
33	<u>Dixie Lake Area</u> , South of Byshe and Willans townships Area	Grandcru Resources Corporation (Dixie North Property)	2005	HLEM	2.30457	\$9588	52K/13SE – 70
34	Dome Tp.	Goldcorp Inc. (Cochenour Willans Property)	2004	DDH(2)=449.8 m, Samp, Assays	2.30286	\$89 060	Dome Tp. – 236
35	Dome Tp.	Placer Dome (CLA) Ltd. (McKenzie Project)	2004	GL, Samp, GC (Soil), Petrography	2.28228	\$5698	Dome Tp. – 234 (1241-2004)
36	Dome Tp.	Rubicon Minerals Corporation (McCuaig Property)	2002–2004	DDH(36)=6990.76 m, Assays	2.29091	\$642 652	Dome Tp. – 233 (92-2005)
37	Dome Tp.	Southern Star Resources Inc./Exall Resources Limited (Gold Eagle Joint Venture)	2004	Property Summary, Work Recommendations	Non-Assessment Technical Report	—	Dome Tp. – 232
38	<u>Dome Tp.</u> , Fairlie Tp., and Heyson Tp.	Cypress Development Corp. (McKenzie Project)	2005	DDH(14)=3059.9 m, Samp, Assays	2.30124	\$367 080	Dome Tp. – 235
39	<u>Dome Tp.</u> , and Heyson Tp	Skyharbour Resources Ltd. (St. Paul's Bay Area–McKenzie Project)	2005	DDH(14)=3059.9 m, Samp, Assays	Non-Assessment Technical Report	—	Dome Tp. – 237
40	Faulkenham Lake Area	Grandcru Resources Corporation (Clear Lake Property)	2004	Lc, HLEM, GM	2.30258	\$20 093	52K/13NW – 27
41	<u>Fredart Lake</u> and Gerry Lake areas	Tribute Minerals Corporation (Fredart Lake, Fredart West & Gerry Lake Properties)	2003	DDH(5)=1482 m, GL	2.29955	\$165 666	52K/15NW – 41
42	Goodall Tp.	Denison Mines Ltd. (Woman Lake Goldfields Development)	1982	Samp, Assays	Non-Assessment	—	Goodall Tp. – 52
43	<u>Goodall Tp.</u> , Dent Tp., Little Shabumeni Lake and Satterly Lake areas	Jilbey Enterprises Ltd. (Birch Lake – Uchi Lake Project)	2004	DDH(4)=1211.5 m, Samp, Assays	2.29523	\$199 134	Goodall Tp. – 53 (502-2005)

No.	Township or Area	Company Name	Year	Type of Work	AFRO Number	Work Credits Approved	Resident Geologist Office File Designation
44	Hanton Lake, Nungesser Lake, Sobeski Lake areas	Rampart Ventures Ltd./ Inlet Resources Ltd. (North Red lake Project)	2004	Overburden Tr, HM	2.30170	\$12 441	52N/06NW – 11
45	Heyson Tp., Baird Tp.	Solitaire Minerals Corp. (Heyson and South Baird Projects)	2004	AM, AEM	2.30717	\$15 784	Heyson Tp. – 156
46	Heyson Tp.	Herbert, Larry Kenneth (Claim KRL869702)	2004	Tr, GL, Samp, Assys	2.28873	\$4340	Heyson Tp. – 157 (1878-2005) (166-2005)
47	Heyson Tp., Byshe Tp.	Skyharbour Resources Ltd. (Heyson Project)	2004	DDH(13)=2666 m, Samp, Assays	2.30114	\$280 410	Heyson Tp. – 152
48	Honeywell Tp.	Teck Cominco Ltd. (Honeywell Property)	2003	AM, Aerial Photo, GL, Samp (Rock: ICP-AES, Au), Till Samp	2.28965	\$52 273	Honeywell Tp.–41 (1972-2005)
49	Keigat Lake Area	Denison Mines Ltd. (D Thompson Property)	1982	Samp, Assays	Non-Assessment	—	52N/08NE – 53
50	Keigat Lake Area	Denison Mines Ltd. (Grimshaw Property)	1982	Samp, Assays	Non-Assessment	—	52N/08NE – 52
51	Keigat Lake Area	Trade Winds Ventures Inc. (Birch Lake Property)	2004–2005	2005: DDH(5)=1874.8 m 2004: DDH(8)=2144.6 m	2.30191	\$778 788	RL5005
52	Keigat Lake Area	Trade Winds Ventures Inc. (Birch Lake Property)	2004	AM, AEM, DDH(7)=2145 m	Non-Assessment Technical Report	—	RL5006
53	Keigat Lake Area, Casummuit Lake Area	Trade Winds Ventures Inc. (Birch Lake Highgrade Island Project)	2005	AM, AEM, RES	2.30199	\$60 345	52N/08NE – 55
54	McDonough Tp.	Skyharbour Resources Ltd. (Tomato Lake Project)	2004	Samp (Tills), OD(65), Pr	2.29564	\$35 966	McDonough Tp. – 83 (545-2005)
55	Ranger Tp.	Ansil Resources Ltd. (Ranger Project)	2004	DDH(1)=365 m, Samp, Assays	2.29042	\$65 034	Ranger Tp. – 31 (46-2005)
56	Rapson Bay, Thorne Lake, Gilleran Lake, Stull Lake, and Lacey Creek areas	Lake Shore Gold Corp. (AEM Property)	2004	Pr, Samp, Assays	2.30138	\$39 431	53K/08NW – 18
57	Satterly Lake Area	Denison Mines Ltd. (Koezur Property K526772)	1982	Samp, Assays	Non-Assessment	—	52N/08SW – 91
58	Satterly Lake Area	Denison Mines Ltd. (Hudson Bay Anomaly)	1982	Samp, Assays	Non-Assessment	—	52N/08SW – 92
59	Satterly Lake Area	Westchester Resources Inc. (Satterly Lake Property)	2004	Samp, Assays, GC (soils)	2.28726	\$31 337	52N/08SW – 94
60	Shabumeni Lake Area, Honeywell Tp.	Fronteer Development Inc./Red Lake Resources Inc. (Swain – Sol d'Or Property)	2004	DDH(12)=1236 m; Assays	2.28265	\$494 153	52N/07SE – 84 (1273-2004)
61	Skinner Tp.	Sabina Resources Ltd. (Skinner Property)	2004	Pr, Tr, GL, Samp, Assays	2.28769	\$71 603	Skinner Tp. – 70
62	Skinner Tp.	Sabina Resources Ltd. (Skinner Property)	2004	Lc (115 km), GM (115 km), and IP (73 km)	2.30882	\$170 627	RL5004

RED LAKE DISTRICT—2005

No.	Township or Area	Company Name	Year	Type of Work	AFRO Number	Work Credits Approved	Resident Geologist Office File Designation
63	<u>Sobeski Lake</u> , Nungesser Lake, Usick Lake, Hanton Lake, Pringle Lake areas	Rampart Ventures Ltd. (North Red Lake Project)	2004	AM	2.30035	\$64 677	52N/06SW – 12
64	<u>Sobeski Lake</u> , Nungesser Lake, Usick Lake, Hanton Lake, Pringle Lake areas	Rampart Ventures Ltd./ Inlet Resources Ltd. (North Red Lake Project)	2004	AM, GL, Pr, GC (Soil), Lc, GM, VLFEM, HLEM, Assays	2.30171	\$171 002	52N/06SW – 13
65	South of Otter Lake Area	Roscan Minerals Corporation (Confederation Lake Property)	2004–2005	AEM, AM, Lc (32 km), GM	2.30229	\$76 003	52K/14NW – 70
66	South of Otter Lake Area	Schellenberg, G. (Mag survey on KRL1248309 and KRL1248362)	2005	GM	2.30053	\$9626	52K/14NW – 71
67	South of Otter Lake Area	Tribute Minerals Corporation (Dixie Property)	2003	DDH(4)=3994 m, DGP, Samp, Assays	2.29702	\$741 226	52K/14NW – 69
68	<u>South of Otter Lake Area</u> , Gerry Lake Area	Tri Origin Exploration Ltd. (Confederation Project)	2004	GC (Soil)	2.30570	\$2825	RL5002
69	<u>Todd Tp.</u> , (Hammel Lake Area)	Goldcorp Inc. (Hall Bay Project)	2004	Litho geochemical Samp	2.29827	\$2023	Todd Tp. – 179
70	Willans Tp.	Crossroads Explorations Inc. (Gullrock Property)	2004–2005	Pr, GEM	2.30982	\$23 867	RL5007
71	Willans Tp.	Rupert Resources Ltd. (Gullrock Property)	2005	DDH(2)=342.59 m	2.30213	\$111 684	Willans Tp. – 38
72	Willans Tp.	Tri Origin Exploration Ltd. (Red Lake Extension Property)	2004	GC (Soils), MMI	2.30421	\$7473	Willans Tp. – 36
73	<u>Willans Tp.</u> , Ranger Tp.	Crossroads Explorations Inc. (Gullrock Property)	2004	Property Review, Work Recommendations	Non-Assessment Technical Report	—	Willans Tp. – 37
74	<u>Willans Tp.</u> , South of Otter Lake and Otter Lake areas, Ranger Tp.	Tri Origin Exploration Ltd. (Red Lake Extension Property)	2004	Geophysical/remote sensing data compilation, GL, Pr, Lc, GM, GS (soil), IP, OD(53)=210 m, DDH(4)=651 m	2.28754	\$227 350	Willans Tp. – 35 (1761-2005)

**Table 5.** Exploration activity in the Red Lake Resident Geologist District in 2005.

<b>Abbreviations</b>			
AEM	Airborne electromagnetic survey	IP	Induced polarization survey
AM	Airborne magnetic survey	Lc	Linecutting
ARA	Airborne radiometric survey	MMI	Mobile Metal Ion soil sampling survey
Beep	Beep Mat survey	OD	Overburden drilling
Bulk	Bulk sampling	ODH	Overburden drill hole(s)
DD	Diamond drilling	PEM	Pulse electromagnetic survey
DDH	Diamond drill hole(s)	PGM	Platinum group metals
DGP	Down-hole geophysics	Pr	Prospecting
GC	Geochemical survey	RES	Resistivity survey
GEM	Ground electromagnetic survey	Samp	Sampling (other than bulk)
GL	Geological Survey	Seismic	Seismic survey
GM	Ground magnetic survey	SP	Self-potential survey
GRA	Ground radiometric survey	Str	Stripping
Grav	Gravity survey	Tr	Trenching
HLEM	Horizontal loop electromagnetic survey	UG	Underground exploration/development
HM	Heavy mineral sampling	VLEM	Vertical loop electromagnetic survey
IM	Industrial mineral testing and marketing	VLFEM	Very low frequency electromagnetic survey

<b>No.</b>	<b>Company/Individual (Occurrence Name) or Property</b>	<b>Township/Area (Commodity)</b>	<b>Exploration Activity</b>
1	Amador Gold Corporation (Maskootch Lake Property)	Avis Lake Area (Au, Cu)	Option to earn 100% of property in July 2004 Lc, GM, GEM, Data compilation
2	Amador Gold Corporation (Todd Township Property)	Todd Township (Au)	Former Fahrenheit and Golden Arm Mines properties. Option to earn 100% of property in July 2004. Lc, GM, GEM, Data compilation
3	Anaconda Gold Corp./ Mercer International Mining (Borthwick Lake Property)	Setting Net Lake Area (Au)	Pr, Samp, GL
4	Ansil Resources Ltd. (Ranger Project)	Ranger Township (Au)	Lc, IP, GM (2.31147)
5	Canstar Resources Ltd. (75%)/ Luxor Exploration Inc (25%) (Slate Bay Property)	McDonough Township (Cu, Au, Ag)	IP, DDH(4)= 616.7 m ; Canstar has vested 75% interest and negotiating JV with Luxor (Canstar, news release, Dec. 12, 2005)
6	Canstar Resources Ltd. (100%) (Shrimp Lake Property)	Armstrong Lake Area (BM, Au)	AEM, AM
7	Canstar Resources Ltd. (100%) (Tahoe Lake Property)	Mattson Lake Area (BM, Au)	AEM, AM
8	Conquest Resources Limited (Alexander Project)	Balmer Township (Au)	IP over western part of property – extends Sulphide zone (news release, Aug. 25, 2005)
9	Continuum Resources Ltd./ Tribute Minerals Inc. (Richardson Lake–McIntyre Project)	Casummit Lake Area (Au)	DDH(18)=2346 m, Assays
10	Crossroads Explorations Inc. (Gullrock Property)	Willans Township (Au)	Report preparation, (Pr, GEM in 2004) (2.30982)
11	Cypress Development Corp. (80%)/ Skyharbour Resources (20%) (McKenzie Island Property)	Dome Township (Au)	DDH(14)=3059.9 m, Samp, Assays (2.30124) Pr, IP, GC Cypress purchased western extension of Exall/Southern Star find, planning new drill program within 1 month (4 hole E-W fence (Stockwatch, December 9, 2005)
12	Dan McDougall Enterprises (Nungesser Lake Property)	Nungesser Lake and Pringle Lake areas (Au)	Lc, GM (2.30493)
13	Gold Canyon Resources Inc. (Dole Lake and Sandy Point properties)	Casummit Lake and Keigat Lake areas (Au)	DDH(1)=590.6 feet
14	Gold Canyon Resources Inc. (Springpole Property)	Casummit Lake Area (Au)	DDH(41)=33 584.3 feet; Samp, Assays; MMI (2.30567); GL, GC, Str, Samp, Assays
15	Gold Canyon Resources Inc./ Shoreham Resources Ltd. (Favourable Lake Property)	Borland Lake and Favourable Lake North areas (Ag, Au, BM, Mo)	Pr, Samp, Assays

RED LAKE DISTRICT—2005

No.	Company/Individual (Occurrence Name) or Property	Township/Area (Commodity)	Exploration Activity
16	Goldcorp Inc. (McKenzie Island Property)	Dome Township (Au)	DDH(4)=1494 m
17	Goldcorp Inc. (BK Property)	Dome and Balmer townships (Au)	DDH(11)=3279 m
18	Goldcorp Inc. (Dunlop Property)	Dome Township (Au)	DDH(6)=1995 m
19	Goldcorp Inc. (Cochenour–Willans Property)	Dome Township (Au)	DDH(1 mother hole, 3 wedge holes)= 1226 m, Mine Rehab on Cochenour–Willans Mine site
20	Goldcorp Inc. (South Serpentinite Project)	Dome Township (Au)	MMI
21	Goldcorp Inc. (50%)/ Planet Exploration Inc. (50%) (Sidace Lake Property)	Coli Lake Area (Au)	DDH(43)=12 890 m, Assays Goldcorp Inc. exercises option (news release, March 22, 2005)
22	Goldeye Explorations Limited (Sandy Lake Property)	Granite Bay and Rathouse Bay areas of Sandy Lake Area, Kakapitam Lake Area (Au)	Continued negotiations with the Sandy Lake First Nation regarding exploration work on the property (B. Webster, personal communication, January 2006)
23	Grandcru Resources Corporation (Coli Lake East property)	Coli Lake Area (Au)	Lc, IP (2.30460) GM (2.30709) Completed geological review and terminated option on Coli Lake East property (company management discussion & analysis report, July 31, 2005)
24	Grandcru Resources Corporation (Coli Lake West property)	Coli Lake Area (Au)	Lc, IP (2.30460) GM (2.30709) Completed geological review and terminated option on Coli Lake West property (news release, Apr. 22, 2005)
25	Grandcru Resources Corporation (Dixie Lake East property)	Dixie Lake and Bruce Lake areas (Au)	AEM (2.29475) Completed geological review and terminated option on Dixie Lake East property (management discussion & analysis report, July 31, 2005)
26	Grandcru Resources Corporation (Dixie Lake South Property)	Dixie Lake and Bruce Lake areas (Au)	GM, IP (2.30391) AEM (2.29475)
27	Grandcru Resources Corporation (Dixie Lake North Property)	South of Byshe and Willans Area, Dixie Lake Area (Au)	Lc, GEM (2.30457) DDH(6)=648.9m (2.30398), Samp, Assays Drilling intersected intensely silicified iron formation as well as quartz veining hosted in mafic metavolcanic and metasedimentary rocks. Anomalous Au and trace elements are reported from the quartz veins.
28	Grandcru Resources Corporation (Clear Lake Property)	Faulkenham Lake Area (Au)	Data review, terminated option on property (news release, March 2, 2005)
29	Grandview Gold Inc./ Goldcorp Inc. (Red Lake Property)	Dome Township. (Au)	Letter of intent to enter option and JV with Goldcorp Inc. (news release, July 20, 2005) Satellite image interpretation
30	Grandview Gold Inc./ Fronteer Development Group Inc. (Dixie Lake Property)	Dixie Lake Area (Au)	Optioned the Dixie Lake property from Fronteer Development Group Inc.; Grandview can earn 51% by exploration expenditures of \$300 000, assuming \$75 000 payment to property vendor and issuing 160 000 shares of Grandview to a third party (management discussion & analysis report, Oct. 26, 2005) DDH(16)=2765 m
31	Herbert, Larry Kenneth (Heyson Township)	Heyson Township. (Au)	Str
32	Herbert, Larry Kenneth (Wolf Bay)	Todd Township. (Au)	Pr



No.	Company/Individual (Occurrence Name) or Property	Township/Area (Commodity)	Exploration Activity
33	High River Acquisition Corp./ (Jammin Rock Resources) (Birch-Uchi Project Block 1)	Shabumeni Lake Area (Au, diamonds)	AEM, AM (2.31156)
34	High River Acquisition Corp./ (Jammin Rock Resources) (Birch-Uchi Project Block 2)	Shabu Lake Area and Skinner Township (Au, diamonds)	AEM, AM (2.31156)
35	Houston Lake Mining Corp (Pakeagama Lake Property)	Pakeagama Lake Area (Rare metal pegmatite)	Samp, Petrography, Geological interpretation
36	International Montoro Resources Inc./ Belmont Resources Ltd. (Shaver and Walsh Lake Property)	Bateman and Shaver townships (Au)	The companies signed an amended option agreement with the vendor in August 2005 (International Montoro, management discussion & analysis report, Jan. 25, 2006)
37	Kehoe, P.T.	Bluffy Lake Area (rare metal pegmatite)	Pr, Samp (2.30902)
38	King's Bay Gold Corp. (45%)/ Richview Resources Inc.(45%)/ Palomino Mining & Exploration (10%) (Headway Property)	Balmer and Dome townships (Au)	Lc, Str, Samp, VLFEM, GM, DDH(12)=4000 m
39	King's Bay Gold Corp. (50%)/ Goldcorp Inc. (50%) (Rowan Lake Gold Project)	Todd Township (Au)	Option agreement
40	King's Bay Gold Corp. (51%)/ Rubicon Minerals Corp. (49%) (Slate Bay Project)	McDonough Township (Au)	DDH (5)=1500 m, Assays
41	Lake Shore Gold Corp. (Lacey Lake Project)	Aljo Lake, Thorne Lake, Ellard Lake, Gummar Lakes and Lacey Creek areas (Au)	Staking, Pr, Samp, Assays, AM (2.30774)
42	MetalCORP Ltd./ Goldcorp Inc. (Black Bear property)	Blackbear Lake Area and Shaver Township (Au)	MMI, DDH(9)=2717 m
43	Placer Dome (CLA) Ltd./ Sabina Silver Corporation (formerly Sabina Resources Ltd.) (Redaurum Property)	Baird Township (Au)	Drill programs in 1 <sup>st</sup> & 4 <sup>th</sup> quarter by Placer Dome
44	Placer Dome (CLA) Ltd. (51%)/ Skyharbour Resources Ltd. (24.5%)/ Bayfield Ventures Corp. (24.5%) (Baird Project)	Baird Township (Au)	Placer Dome earns 51% interest (Skyharbour 4 <sup>th</sup> quarter report) ; DDH(6)=1833 m; B05-01: 13.82 g/t Au over 0.7 m B05-06: 7.74 g/t Au over 0.5 m (news release, May 3, 2005)
45	Rampart Ventures Ltd. (Bearhead Lake Property)	Favourable Lake South Area (U)	Staking
46	Rampart Ventures Ltd. / Inlet Resources Ltd. (North Red Lake Project)	Sobeski Lake , Nungesser Lake , and Hanton Lake areas (Au)	Rampart relinquishes option (Inlet, news release, Apr. 27, 2005)
47	Redstar Gold Corp. (Newman-Todd Property)	Todd Township (Au)	Redstar options 100% Newman-Todd from AngloGold Ashanti (news release, Feb. 10, 2005) DDH(4)=733 m, Assays; intersected 69.02 g/t Au over 1.0 m (news release, Oct. 26, 2005)
48	Redstar Gold Corp. (West Red Lake Property)	Ball Township (Au)	Redstar renegotiates option agreement on West Red Lake Property with Rubicon Minerals (news release, Feb. 9, 2005).
49	Red Lake Resources Inc. (Various)	Byshe and Killala townships, Satterly and Coli Lake areas	Red Lake relinquishes options on Keg Lake, Laird Lake, Horseshoe Island, Wagner Bay, Coli Lake, Leonard Lake and Killala properties (news release, May 10, 2005)
50	Roscan Minerals Corporation (Confederation Lake Property)	South of Otter Lake Area (Cu, Zn, Ag)	Lc, GM (2.30229)
51	Rubicon Minerals Corporation (DMC Property)	Dome Township (Au)	Optioned to Agnico-Eagle Mines (news release, Oct. 11, 2005)

RED LAKE DISTRICT—2005

No.	Company/Individual (Occurrence Name) or Property	Township/Area (Commodity)	Exploration Activity
52	Rubicon Minerals Corporation (McFinley Gold Project)	Bateman Township (Au)	DDH(41)=7491 m, Assays, Phoenix Zone DDH(20)=6562 m, McFinley property
53	Rubicon Minerals Corporation/ Goldcorp Inc. (Adams Lake Property)	Balmer and Bateman townships (Au)	DDH(2)=612.1m, Samp, Assays (2.29755) DDH(5)=1346.8 m (3 <sup>rd</sup> quarter 2005 Report)
54	Rubicon Minerals Corporation/ Goldcorp Inc. (Red Lake North Property)	Black Bear Lake Area (Au)	DDH(3)=738.5m, Samp, Assays (2.30320)
55	Rupert Resources Ltd. (Gold Centre Property)	Balmer Township (Au)	DDH(1 hole+2 wedge-offs)=3986 m; plans further mother/daughter holes; budget of \$3.8 million (news release, Dec. 21, 2005)
56	Rupert Resources Ltd. (Gullrock Property)	Willans Township (Au)	DDH(2)=342.59 m (2.30213)
57	Placer Dome (CLA) Ltd. (50%)/ Wolfden Resources Inc. (50%) (East Bay JV Project)	Bateman Township (Au)	DDH(28)=12 500m, Assays Mineral resource estimate for the GAZ target area of 1.4 million tons of 8.0 g/t Au in five lenses (news release, Feb. 23, 2005)
58	Sabina Silver Corporation (formerly Sabina Resources Ltd.) (60%)/ Wolfden Resources Inc. (40%) (Follansbee Property)	Dome Township (Au)	DDH(20)=8255 m, Str, Sabina sells its 60% interest to Wolfden Resources (Sabina, news release, Sept. 26, 2005)
59	Sabina Silver Corporation (formerly Sabina Resources Ltd.) (Golden Sidewalk)	Skinner Township (Au)	Acquires 100% interest in property (news release, Jan. 24, 2005) DDH(22)=4140 m Staking, IP
60	Schellenberg, G. D.	South of Otter Lake (Au, BM)	Lc, GM (2.30053)
61	Skyharbour Resources Ltd.	Dent and McDonough townships, Uchi and Blackbear Lake areas (Au)	Skyharbour relinquishes options on Dent, Tomato, Uchi Lake and Black Bear II claims (4 <sup>th</sup> quarter 2004-2005 report) and Slate Bay property (2 <sup>nd</sup> quarter 2005-2006 report)
62	Southern Star Resources Inc. (50%)/ Exall Resources Limited (50%) (Gold Eagle Mine Property)	Dome Township (Au)	DDH (27 including wedge-offs)= ~8000 m, Assays
63	Superior Diamonds Inc.	Aljo, Bonnell, Ellard, Dadson, Thorne and Loney lakes areas; Ellard River Area; North of Hendron Lake Area; BMA 546912	Staking
64	Trade Winds Ventures Inc./ Pelangio Mines Inc. (Birch Lake Highgrade Island Project)	Keigat Lake and Casummit Lake areas (Au)	DDH(5)=1874.78 m (2.30191) intersected up to 2.97 g/t Au over 2.0 m
65	Trade Winds Ventures Inc./ Fronteer Development Group Inc. (Sandy Point Property)	Keigat Lake and Casummit Lake areas (Au)	AEM, AM, RES (2.30199)
66	Trade Winds Ventures Inc./ Cangold Limited (Birch Lake Property)	Keigat Lake and Casummit Lake areas (Au)	AEM, AM, RES (2.30199)
67	Tri Origin Exploration Ltd. (Red Lake Extension Property)	South of Otter Lake Area (Au, Ag, Cu, Zn)	DDH(3)=503 m Staking, Samp
68	Tribute Minerals Inc. (Garnet (Arrow zone) Lake Property)	Belanger Township (Zn, Cu, Au, Ag)	DDH(8)=3544 m; DGP; GL-2005-10 intersected 4.00% Zn, 0.44% Cu, 0.13 g/t Au and 12.9 g/t Au over 1.4 m (news release, March 8, 2005). Re-analysis of GL-2004-03 returned 67.1 g/t indium and 43.4 g/t gallium over 7.5 m (news release, Nov. 7, 2005)
69	Tribute Minerals Inc. (Fredart Lake, Fredart West & Gerry Lake Properties)	Fredart Lake and Gerry Lake areas (Zn, Cu, Au, Ag)	Staking
70	Williamson, J.W.	Byshe and Heyson townships (Au)	Pr, Samp (2.30348)

No.	Company/Individual (Occurrence Name) or Property	Township/Area (Commodity)	Exploration Activity
71	Wolfden Resources Inc./ Placer Dome (CLA) Ltd. (Marathon–McNeely Project)	Dome Township (Au)	DDH-UG(1)=400 m on Wolfden property; from 39Level Campbell Mine
72	Wolfden Resources Inc. (Bonanza Property)	Dome Township (Au)	DDH(96)=38 576 m, Assays Goldcorp acquires 9.8% of Wolfden (Wolfden, news release, Dec. 21, 2005)
73	Wolfden Resources Inc. (50%)/ Sabina Silver Corporation (formerly Sabina Resources Ltd.) (50%) (Newman–Madsen Property (Nova Co., Newman–Heyson and My–Ritt))	Heyson and Baird townships (Au)	DDH(15)=4430 m

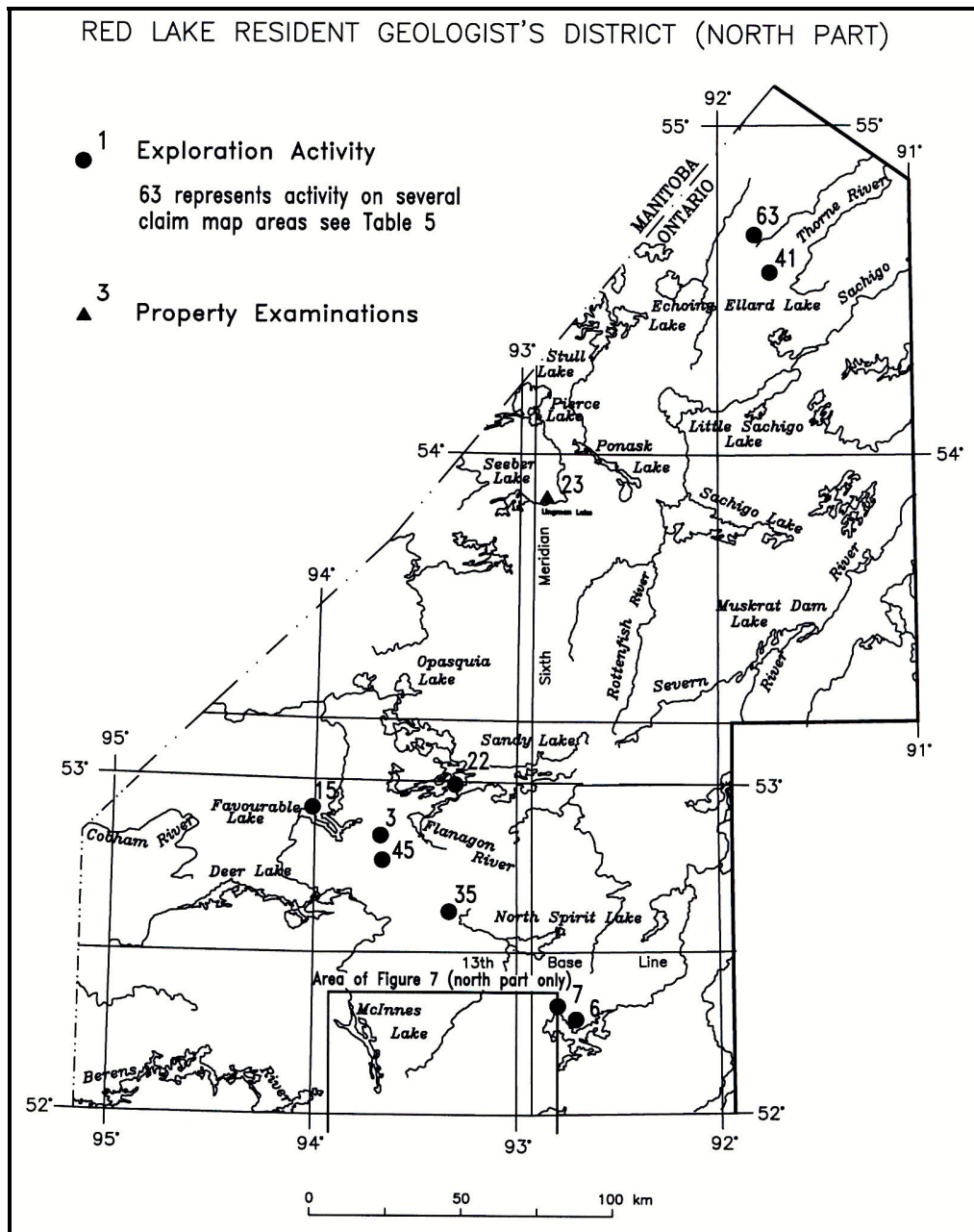


Figure 3. Red Lake District (north part): exploration activity and property examination (see Table 5).

## Red Lake Greenstone Belt

Exploration in the Red Lake greenstone belt has continued at a steady pace since 2001. Table 5 lists the companies and individuals who reported exploration activity on their property during 2005; several are described in more detail in the following pages. The research activities by the Geological Survey of Canada, the Ontario Geological Survey and other recent work on gold mineralization, cited by Lichtblau et al. (2003, 2004, 2005), form part of the support for continued high level of exploration activity. New discoveries on old properties such as the Wolfden Resources Inc. Bonanza property and the Exall Resources Inc./Southern Star Resources Inc. Gold Eagle Mine property in the heart of the Red Lake camp have proven that a new look at an old property can give good results.

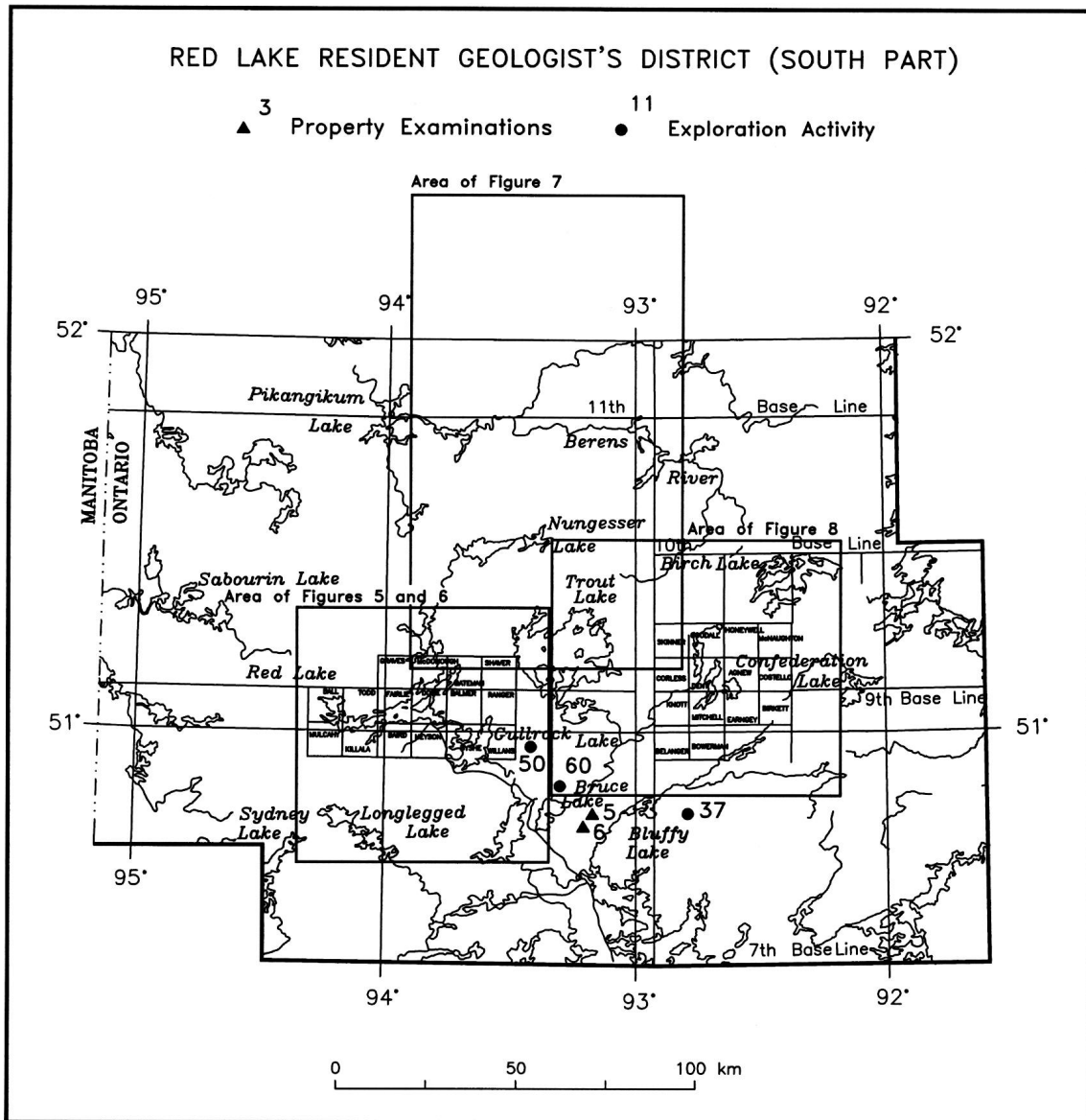


Figure 4. Red Lake District (south part): exploration activity and property examinations (see Table 5).

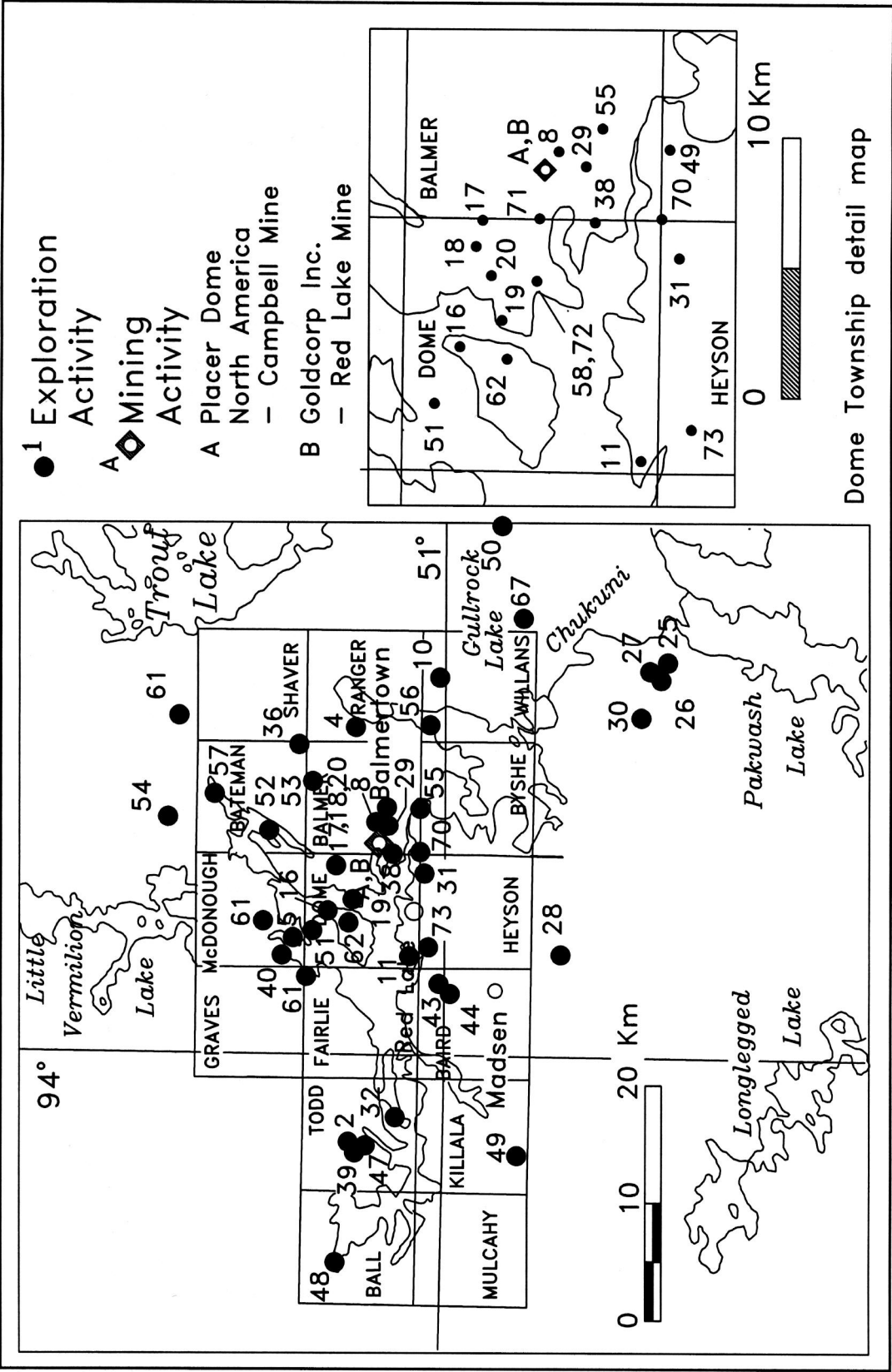


Figure 5. Red Lake greenstone belt: exploration activity (see Table 5) and mining activity.

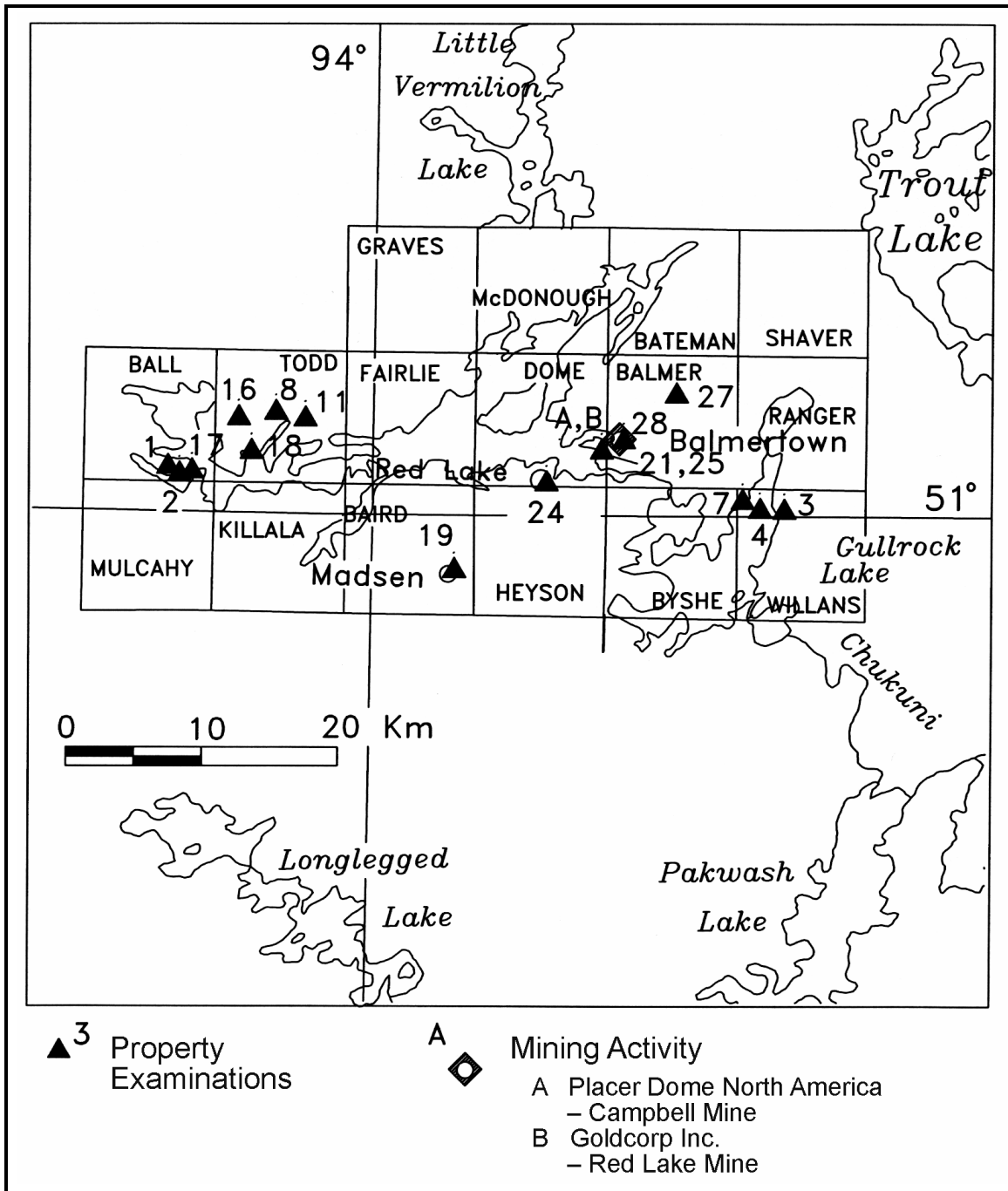


Figure 6. Red Lake greenstone belt: property examinations (see Table 7) and mining activity.

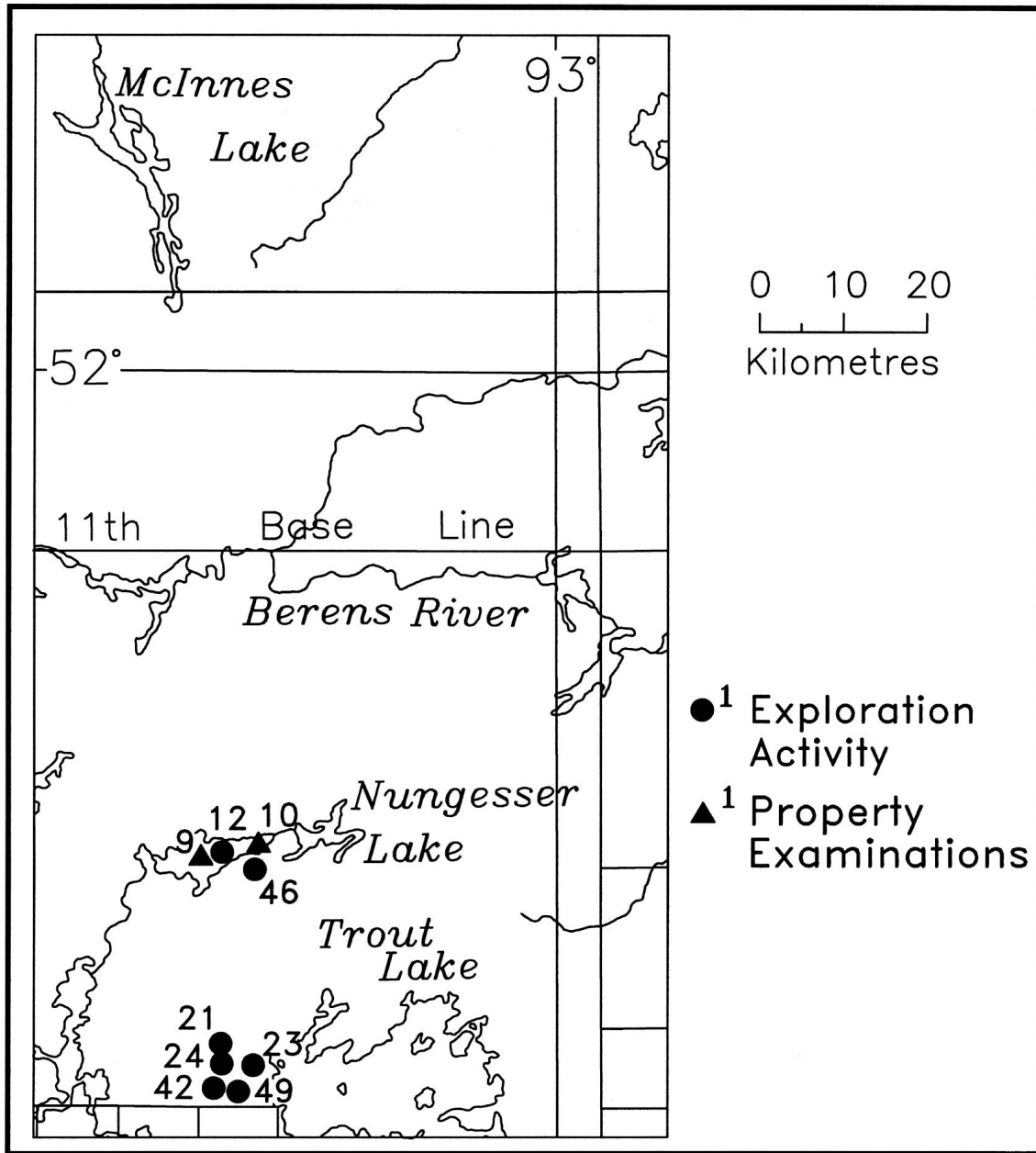


Figure 7. Northern extension of the Red Lake greenstone belt: exploration activity and property examinations (see Table 5).

**CANSTAR RESOURCES INC.**

Canstar Resources Inc. was formed by the merger of Candor Ventures Corp. and Nustar Resources Inc. (Canstar Resources Inc., news release, April 7, 2005). The **Slate Bay property** was optioned from Luxor Enterprises Inc. by Candor Ventures in 2002 and has been explored by Candor and now Canstar. Canstar has met the expenditure targets of the option agreement and now holds a 75% interest in the property with Luxor holding 25%. Canstar now has vested 75% interest and is negotiating a joint venture with Luxor (news release, December 12, 2005). The target is interpreted to be a copper-gold-silver mineralized skarn system (news release, November 8, 2005). The discovery zone is a roughly tabular package of steeply dipping skarn and mineralized breccia with true widths of 50 to 100 m. Exploration in 2005 comprised a four-hole diamond-drill program of 617.7 m. Significant drill intercepts are

Hole	From (m)	To (m)	Length (m)	Cu (%)	Au g/t	Ag g/t
SB-05-5			29.33	0.32	0.15	11.42
SB-05-6	49.36	85.61	36.25	0.29	0.28	10.47
<i>includes</i>	49.36	61.10	11.74	0.66	0.67	18.97
<i>includes</i>	56.96	57.30	0.34	5.81	7.2	183
SB-05-7	28.04	50.48	22.44	0.19	0.14	9.14

Further diamond drilling is planned for 2006.

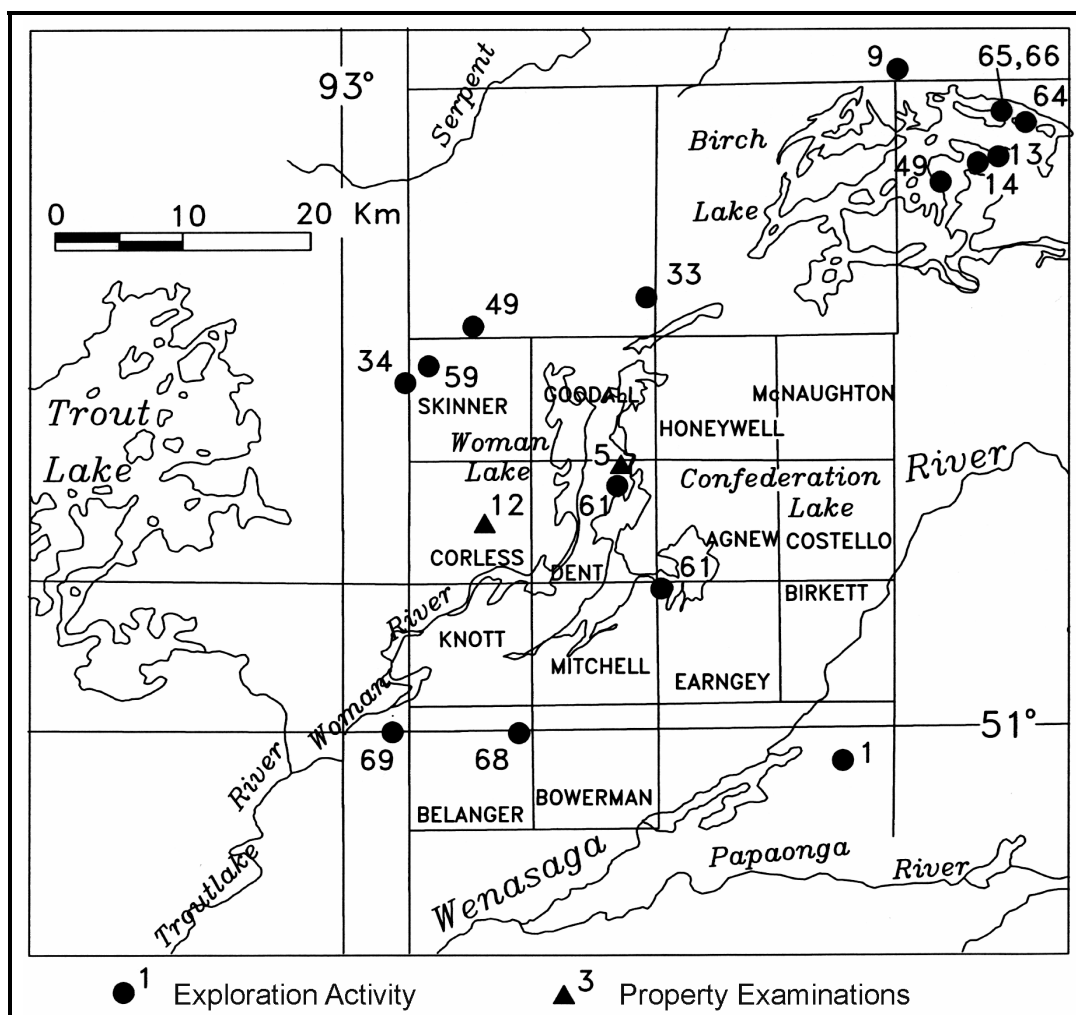


Figure 8. Birch-Uchi greenstone belt: exploration activity and property examinations (see Table 5).



## CYPRESS DEVELOPMENT CORP.

Cypress Development Corporation carried out an extensive exploration program on its McKenzie Island property (Cypress Development Corp. (80%)–Skyharbour Resources (20%)). The property covers much of the western half of McKenzie Island and extends as far south as the north side of St. Paul Bay. The central part is underlain by water covered granitoid rocks of the Dome stock, whereas the north part on McKenzie Island is underlain by intermediate metavolcanic rocks and metasediments of the McNeely assemblage. Balmer assemblage mafic metavolcanic rocks and ultramafic intrusive rocks underlie the southern extremity on St. Paul Bay. Exploration work in 2005 included diamond drilling, line cutting, IP and ground magnetometer surveys, geochemical survey and MMI. The diamond drilling was concentrated in the southern part of the property along the north side of St. Paul Bay of Red Lake. A total of 14 holes were drilled in two phases for 3059.9 m; significant drill intercepts are (Busch 2005)

Hole	From (m)	To (m)	Length (m)	Assay (g/t Au)
M05-3	53.1	53.4	0.3	1.52
M05-3	54	54.25	0.25	1.32
M05-3	54.25	54.7	0.45	4.04
M05-3	69.1	69.3	0.2	23.87 vg
M05-3	69.8	70.5	0.7	1.93
M05-9	110.3	111.1	0.8	3.2
M05-9	111.1	112.2	1.1	0.78
M05-9	154.8	155.8	1.0	1.32
M05-14	21.2	21.5	0.3	13.08 vg
M05-14	21.5	22	0.5	17.02 vg
M05-14	93.6	94.1	0.5	1.71
M05-14	94.1	94.6	0.5	0.91

This portion of the McKenzie property lies along the southern contact between the Dome stock and Balmer assemblage rocks. All the holes except M05-1 intersected granitoid rocks of the Dome stock that show varying degrees of sericite and silica alteration. Silicification occurs as narrow veinlets and pervasive silica. Higher gold values are associated with more intense silicification. Pyrite and base metal sulphides are often associated with elevated gold values, but this relationship is not always present. The 2005 diamond drilling indicated that there is the potential for parts of the Dome stock to host economic gold. Other exploration work comprised an IP survey on the McKenzie Island portion of the property and litho-geochemical sampling over the whole property (D. Busch, Cypress Development Corp., personal communication, January 2006).

## GOLDCORP INC.

Goldcorp Inc. has a large land position in the Red Lake area comprising wholly owned properties of patented, leased and unpatented claims and joint ventures with other companies. In 2005, they carried out exploration activities on 6 properties in the Red Lake greenstone belt, 5 in Dome and Balmer townships near the past-producing Cochenour–Willans Mine and the Sidace property in the north extension of the Red Lake greenstone belt. Work on the **BK property** consisted of 11 diamond drill holes for 3279 m, following stratigraphy north of Balmer Lake in Dome and Balmer townships. The **Dunlop Property** in Dome Township was investigated by 6 diamond drill holes for 1995 m. The **South Serpentinite project** targets the East Bay Serpentinite in the area north and east of the Cochenour–Willans Mine between the Marcus and Abino properties. Exploration in 2005 consisted of an MMI survey to cover areas not sampled in previous surveys. Exploration and mine rehabilitation work is ongoing on the **Cochenour-Willans Mine property**, where a mother hole and 3 wedge holes investigating deep structures were drilled for 1226 m. Exploration on the adjacent **McKenzie Mine property** consisted of 4 diamond-drill holes for a total of 1494 m.

The **Sidace Lake property** in the Coli Lake area is optioned from Planet Exploration, and Goldcorp Inc. is now the operator (*see* “Goldcorp Inc./Planet Exploration Inc. – Sidace Lake Joint Venture”).

## GOLDCORP INC./PLANET EXPLORATION INC.—SIDACE LAKE JOINT VENTURE

Drilling continued throughout much of the year on this 12 900 ha property situated in the Coli Lake area, approximately 28 km north-northeast of the Campbell–Red Lake gold deposit. Goldcorp Inc. elected to exercise its option to acquire a 50% interest in the Sidace Lake project. Exploration expenditures by Goldcorp in excess of \$1 500 000 were required to complete the option and a cash payment of \$450 000 was made with the notice of exercise (Goldcorp Inc., news release, March 22, 2005).

A total of 43 holes, including one wedge-off, was drilled, totalling 12 890 m (B. Patterson, Goldcorp Inc., personal communication, 2006). Targets included 1) the Main Discovery zone, where several holes cut the zone perpendicular to the central lobe of the fold, confirming that the thick gold-rich mineralized zone continues at the same grades and thicknesses as previously determined (*see* table below); 2) holes drilled in the South or Skarn zone, situated more than 1500 m southwest of the Main Discovery zone, which confirm that this mineralization follows a south-easterly trending synformal structure; 3) 2 holes drilled to “scissor” the Upper Duck zone and a further 2 holes drilled to investigate strike demonstrated that this is a distinct unit 300 m north of the Skarn zone and over 1100 m southwest of the Main Discovery zone; 4) the Far West zone, which is similar in lithology and stratigraphic position to the Main Discovery zone, but is situated about 2500 m to the west; and 5) the Anderson zone, interpreted to be the extension of the East Bay serpentinite, which hosts the GAZ resource of 1.4 million tons @ 8.0 g/t Au on the Wolfden Resources/Placer Dome East Bay Joint Venture property, 15 km to the southwest (*see* Wolfden Resources Inc./Placer Dome (CLA) Ltd.).

Hole #	From (m)	To (m)	Interval (m)	Grade Au (g/t)	Zone
RL-04-62B	703.00	704.50	1.50	15.43	Main Discovery
RL-05-63	301.20	326.00	24.80	2.69	Main Discovery
<i>including</i>	306.00	322.00	16.00	3.60	Main Discovery
RL-05-69	126.00	185.00	59.00	1.55	Main Discovery
<i>including</i>	163.00	177.75	14.75	3.53	Main Discovery
<i>and</i>	184.00	185.00	1.00	24.78	Main Discovery
RL-05-69	136.00	139.00	3.00	3.07	Skarn
RL-05-66	102.00	110.90	8.90	4.03	Upper Duck
	121.00	128.80	7.80	9.71	Upper Duck
RL-05-67	100.50	104.50	4.00	15.18	Upper Duck
RL-05-68	30.00	45.00	15.00	4.08	Upper Duck
<i>including</i>	36.00	37.00	1.00	59.15	Upper Duck
RL-05-86	325.00	326.00	1.00	13.03	Skarn
RL-05-89	132.00	135.00	3.00	4.92	Skarn
	215.00	226.00	11.00	1.28	Anderson
<i>including</i>	222.00	223.00	1.00	7.38	Anderson

A winter-2006 program with 2 drill rigs will focus on 1) the definition of the shape, dimensions and grade at depth of the Main Discovery zone; 2) the eastern extension of the Upper Duck zone; 3) follow-up work to link the Skarn zone with the North Anderson zone; and 4) continuing work on extending mineralization in the Serpentinite (news release, January 19, 2006).

## KING'S BAY GOLD CORPORATION

King's Bay Gold Corporation currently has 3 properties in the Red Lake greenstone belt and one in the Birch–Uchi greenstone belt. The **Headway Property** in Balmer and Dome townships comprises 6 patented claims located approximately 600 m southwest of Goldcorp Inc.'s new No.3 shaft. Palomino Mining and Exploration holds a 10% interest, while Richview Resources Inc. has an option to acquire a 45% interest in the property. Exploration in 2005 included line cutting, stripping, sampling and 12 diamond-drill holes for 4296 m. The **Slate Bay project** in McDonough Township is 51% held by King's Bay and 49% by Rubicon Minerals Corporation. Exploration in 2005 consisted of 5 diamond-drill holes for a total of 1500 m. King's Bay signed an option agreement with Goldcorp Inc. to obtain 50% interest in the **Rowan Lake gold project**, including the Lake Rowan shaft, for \$3.5 million

expenditures before December 31, 2008 (\$1.25 million by 2006, \$1.25 million by 2007, \$1 million by 2008) (King's Bay, news release, December 12, 2005). Work has not yet started on this property (J. Archibald, King's Bay Gold Corp., personal communication, 2006).

## METALCORP LTD.

The company's **Blackbear Lake Property** comprises 18 claims, totalling 152 units, in Shaver Township and the Blackbear Lake Area. The property is adjacent to the south boundary of Goldcorp Inc./Planet Exploration Inc.'s Sidace Lake property. Goldcorp Inc. is earning an initial 50% interest in the property by spending \$1.8 million and making cash payments totalling \$120 000 over a four-year period.

A nine-hole, 2717 m program was carried out late in 2005 to follow up on geochemical anomalies detected by the 2004 MMI program; assay results are pending. Two of the MMI anomalies are associated with gold mineralization discovered in the 2004 diamond-drill program. The remaining MMI anomalies are associated with a magnetic anomaly believed to be associated with a felsic intrusive body. An additional a 36-line, 1533-sample MMI survey was completed during June and July 2006 (MetalCORP Ltd., news release, October 27, 2005; A. MacTavish, MetalCORP Ltd., personal communication, 2006).

## PLACER DOME (CLA) LTD.

The immediate goal of surface exploration in the Red Lake greenstone belt continued to be to define near-term feed for the Campbell mill. Up to 500 tonnes of additional gold ore per day can be accommodated. Several projects were active in the central Red Lake greenstone belt for which \$2.7 million had been budgeted (P. Busse, Placer Dome (CLA) Ltd., personal communication, 2005). Work on the **Baird Project**, optioned from Skyharbour Resources and Bayfield Ventures, and the **Marathon–McNeely** option from Wolfden Resources, are listed in Table 5.

## Placer Dome (CLA) Ltd. (50%)/Wolfden Resources (50%)–East Bay Joint Venture

The 65-claim unit joint venture property is located in the East Bay area of Red Lake, in Bateman Township, approximately 15 km north of Placer Dome's Campbell Mine. Previous drilling focussed on the Green Altered zone ("GAZ") and immediately adjacent structures. A mineral resource for the GAZ target area, based on the 2004 drill program, was estimated at 1.4 million tons of 8.0 g/t Au in 5 lenses (Placer Dome, news release, February 23, 2005). The estimate was made using 3 g/t Au as the cutoff grade with 2.0 m as the minimum width. Metallurgical tests on East Bay drill core indicate that, after cyanide leaching, a gold recovery of 97% or greater can be expected. The resource breaks down as follows.

Lens	Tonnes	Au (g/t)	Ounces Contained Au
G0	267 620	8.12	63 381
G1	609 510	6.67	118 575
G1a	35 810	9.83	10 267
G2	179 320	7.74	40 481
G2a	306 845	10.47	93 703
<b>Total</b>	<b>1 399 105</b>	<b>8.00</b>	<b>326 407</b>

Some significant assays from the various lenses include

Hole #	From (m)	To (m)	Interval (m)	Au (g/t)
EB-05-140	87.70	90.00	2.30	17.67
EB-05-144	130.50	136.00	5.50	5.43
EB-05-146	90.00	103.00	13.00	7.61
<i>including</i>	90.00	92.00	2.00	32.93
	119.20	137.00	17.80	5.15
<i>including</i>	129.00	134.50	5.50	11.46

Hole #	From (m)	To (m)	Interval (m)	Au (g/t)
EB-05-147	117.00	120.50	3.50	15.03
EB-05-148	84.90	87.00	2.10	12.20
EB-05-152	136.40	137.50	1.10	13.65
EB-05-163	334.00	335.00	1.00	8.46
EB-05-164	61.00	63.00	2.00	6.12
EB-05-165	162.00	163.00	1.00	6.89

A 28-hole, 12 500 m drill program was completed in the 2<sup>nd</sup> quarter of 2005. Drilled from the ice of East Bay, holes were spaced on 25-metre centres along strike and, at most, 50 m down-dip, and were designed to provide infill information to upgrade the resource estimate based on the previous years' drilling. The recent drilling intersected parallel horizons that have returned high assays in what is referred to as the new "Footwall zone". These include hole EB-05-152, which assayed 28.8 g/t Au over 2.00 m.

## Redaurum

Sabina Silver has an 80% interest in the property; 20% is retained by Claude Resources Inc. Placer Dome (CLA) Ltd., the operator, is earning an initial 50% interest. By the 2<sup>nd</sup> quarter, it had fulfilled its second-year obligation; by the end of 2007, Placer Dome needs to spend a total of \$2 million. Diamond-drill programs were undertaken in the 1<sup>st</sup> and 4<sup>th</sup> quarters of the year; drilling continued into 2006.

## Madsen Option

Placer Dome completed its spending commitment of \$8.2 million under the option agreement on Claude Resources' Red Lake project (Claude Resources, news release, March 30, 2005). Placer Dome (CLA) Ltd. has the right to earn a 55% interest in the 10 500 acre property. The past-producing Madsen Mine (2 452 388 ounces gold produced in 2 periods, 1938–1976 and 1997–1999) has an indicated mineral resource of 790 000 tonnes grading 12.3 g/t Au and an inferred mineral resource of 740 000 tonnes grading 8.6 g/t Au.

## REDSTAR GOLD CORP. – NEWMAN–TODD PROPERTY

Under an agreement with AngloGold Ashanti North America Inc., Redstar Gold acquired the right to earn a 100% interest in 26 patented and 13 staked mineral claims in the west Red Lake area, including the Newman–Todd property (Redstar Gold, news release, February 10, 2005). Gold is believed to occur in 3 different environments on the property associated with 1) quartz veins in a breccia zone; 2) iron formation; and 3) a mafic contact.

Historical drilling, recent lithogeochemistry, airborne geophysics and Titan magnetotelluric resistivity surveys indicate the auriferous breccia zone extends for over 1.5 km along strike. All 4 holes of a 3<sup>rd</sup> quarter 2005 drill program (totalling 733 m) succeeded in intersecting multiple zones of silicified breccia containing up to 20% sulphides, widespread iron-carbonate alteration and anomalous gold mineralization. Hole NT-031 intersected 24.89 g/t Au over 3.0 m, including 69.02 g/t Au over 1.0 m (news release, October 26, 2005). A follow-up Phase II drill program is planned for early 2006.

## RUBICON MINERALS CORPORATION

Rubicon Minerals controls the largest land position (approximately 260 km<sup>2</sup>) in the Red Lake greenstone belt. In 2005, three of its properties saw major exploration efforts: drill programs totalling 10 holes and 2697 m were completed on the **Red Lake North** and **Adams Lake properties**, both optioned to Goldcorp Inc. (*see* Tables 4 and 5); and the company's 100% owned **McFinley Gold project** was the object of 61 diamond-drill holes, totalling 14 053 m.

## McFinley Gold Project–Phoenix Zone

The Phoenix zone was discovered in 2004 near the northern end of McFinley Island, approximately 4 km south of Placer Dome–Wolfden Resources’ GAZ mineralization (*see* “Placer Dome (CLA) Ltd. (50%)/Wolfden Resources (50%)–East Bay Joint Venture”). During the 2004 drill program, Rubicon outlined the Phoenix zone with 10 085 m of drilling in 72 holes. The 2005 drill campaign of 41 holes of diamond drilling, totalling 7491 m, succeeded in extending the dimensions to 500 m along strike and to a vertical depth of 200 m (Prefontaine 2005). The main Phoenix zone mineralization occurs in the immediate hanging wall of the East Bay serpentinite, a belt-scale lithologic unit that has been traced from the Sidace Lake property of Goldcorp Inc./Planet Exploration Inc. (*see* “Goldcorp Inc./Planet Exploration–Sidace Lake Joint Venture”) to the Cochenour Mine area, a distance of approximately 30 km. Mineralization occurs within biotite-altered basalt and consists of arsenopyrite and pyrrhotite in silicified replacement zones in late quartz-carbonate-ankerite-chlorite-amphibole breccia veins. Selected intersections include

Hole	From (m)	To (m)	Length (m)	Au (g/t)
PZ 58	73.50	73.80	0.30	136.50
PZ 59	44.10	52.60	8.50	6.02
<i>includes</i>	47.60	49.75	2.15	17.24
PZ 77	28.95	31.35	2.40	8.89
PZ 80	54.20	55.35	1.15	12.55

A newly discovered carbonate-ankerite replacement zone (“CARZ”) is located 75 m structurally above the main Phoenix zone. It is a 20 to 30 m thick zone of carbonate-ankerite replacement, with colloform-banded “snowbank” veins up to 5 m thick. Mineralization consists of arsenopyrite-bearing silicification of vein material. Snowbank veins are a not uncommon feature within ore zones of the 2 producing mines. Significant intersections from the CARZ include

Hole	From (m)	To (m)	Length (m)	Au (g/t)
PZ 82	8.65	17.60	8.95	5.16
<i>includes</i>	8.65	9.10	0.45	29.50
PZ 83	7.90	19.00	11.10	4.51
<i>includes</i>	10.20	17.90	7.70	6.00
<i>and</i>	15.80	17.90	2.10	8.72
PZ 84	10.85	17.35	6.50	5.22
PZ 92	21.65	35.65	14.00	1.93

## SABINA SILVER CORPORATION

During the year, Sabina Resources changed its name to Sabina Silver Corporation and also its focus (Sabina Silver, news release, September 26, 2005). It sold its 60% interest in the Follansbee property to 40%-partner Wolfden Resources, for \$2 000 000 cash and 4 000 000 common shares of Wolfden. Sabina retained its interests in other properties in the Red Lake greenstone belt (80% in the Redaurum property and 50% in the Newman–Madsen property with Wolfden Resources) and the Birch–Uchi greenstone belt (100% interest in the Golden Sidewalk and Skinner properties).

### Follansbee

Sabina earned a 60% interest in the Follansbee property from Wolfden Resources, having spent an aggregate of \$1.3 million. The 6 patented claims comprising this Dome Township property are contiguous with Wolfden Resources’ Bonanza property (*see* “Wolfden Resources”); the mineralized zones are known to cross the boundary between them.

Sabina completed drilling of 21 holes, totalling approximately 8500 m, with an intense, two-rig, drill program that started early in the year. A major stripping program was completed over the up-dip projection of one of the known zones. Surface channel samples assayed up to 3.01 g/t Au over 12.95 m, including 4.45 g/t Au over 6.6 m. This mineralization is approximately 50 m east and up-dip of a drill intersection in Hole SWF-05-20, which returned 5.05 g/t Au over 34.95 m.

On September 26, 2005, Sabina Resources announced its intention to change its focus and name to Sabina Silver Corporation, and confirmed the sale of its 60% interest in the property to partner Wolfden Resources for \$2 000 000 cash and 4 000 000 shares of Wolfden.

## SOUTHERN STAR RESOURCES INC./EXALL RESOURCES LIMITED

The 50:50 joint venture partners continued an aggressive \$3.8 million, approximately 8000 m drill campaign on 2 gold targets on their Gold Eagle Mine project, comprising 35 patented claims in Dome Township. Additional drilling of the granodiorite-hosted Western Discovery zone continued to expand the estimated resource of 309 000 t grading 16.67 g/t Au, which had been previously announced (Southern Star Resources, news release, December 7, 2004). A major exploration campaign, including wedging, was undertaken to follow-up on high-grade mineralization in the volcanic-hosted Bruce Channel zone.

Drilling on the Western Discovery has expanded the mineralized zone to the east of the Gold Eagle shaft area, indicating a minimum easterly strike extent of approximately 1100 m (news release, May 11, 2005).

Hole	From (m)	To (m)	Length (m)	Au (g/t)
GS#1	171.25	172.15	0.90	32.61
GS#3	312.05	313.25	1.20	6.71
GS#8	188.66	188.90	0.24	71.00
GS#11	345.53	346.65	1.12	4.96
GS#21	303.70	306.35	2.65	7.63
GS#25	282.17	282.48	0.31	295.00

Mineralization under the water of Bruce Channel of Red Lake was tested by both ice- and land-based diamond-drill holes. Hole BC11, and a series of wedge-off holes (BC11-1 and BC11-2), tested the westward and down-plunge continuation of high-grade intersections initially reported in BC10. Significant results include

Hole #	From (m)	To (m)	Interval (m)	Au (g/t)
BC-10	1205.40	1207.93	2.53	18.36
	1240.80	1242.26	1.46	12.64
BC11-1 <i>including</i>	1276.00	1283.00	7.00	25.50
	1516.93	1520.60	0.33	502.46
	1538.32	1542.58	3.67	10.00
BC-11-2 <i>including</i>	1538.32	1542.58	4.26	9.87
	1281.0	1293.76	12.76	7.26
			7.84	9.86
	1308.95	1310.70	1.75	24.48
	1437.75	1439.64	1.89	25.52

The current drill program has expanded the mineralized area to 250 m in an east-west direction, 300 m in a north-south direction and 500 m vertically. Drilling with up to 2 machines will continue through the winter of 2005–2006.

## WOLF DEN RESOURCES INC.

The company controls a number of properties in the Red Lake District including Newman Madsen, with 50% partner Sabina Silver Corporation; Marathon–McNeely, under option to Placer Dome (CLA) Ltd.; and 49% of the Argosy Gold property, with Cangold Ltd. Exploration work performed on these properties is highlighted in Table 5. Extensive work was performed on the company’s other projects in the district and is detailed below.

### Bonanza (Follansbee) Property

An intense drill program continued throughout the year. A total of 38 576 m in 96 holes was drilled on Wolfden’s wholly owned Bonanza property (comprising 12 patented claims) in Dome Township, 3.5 km west of the Campbell–Red Lake gold deposit. On September 26, 2005, Wolfden acquired Sabina Resources’ 60% interest in the contiguous Follansbee property, giving Wolfden 100% ownership of this property comprising 6 patented claims. Three known gold-mineralized zones, the Rahill, Bonanza and Follansbee zones, cross the boundary between the properties; Sabina had previously completed 21 holes, totalling approximately 8500 m, on the Follansbee property.

All 3 zones display vertical (380 m) and horizontal (500 m along strike) continuity, and contain significant widths of near-surface “bulk tonnage” mineralization and narrower, higher grade gold mineralization potentially amenable to underground mining. Selected high-grade and bulk-tonnage intersections include

Hole #	From (m)	To (m)	Interval (m)	Au (g/t)	Zone
SWF-05-20	n/a	n/a	45.50	4.21	Rahill
(drilled by Sabina)					
<i>including</i>	n/a	n/a	34.95	5.05	Rahill
SWF-05-24	324.43	340.00	15.57	12.00	Rahill
(drilled by Sabina)					
<i>including</i>	n/a	n/a	2.26	71.72	Rahill
05-WB-37	138.35	153.10	14.75	2.95	Bonanza
	281.20	356.00	74.80	3.34	Follansbee
<i>including</i>	322.65	334.00	11.35	7.68	Follansbee
05WB-47	153.00	178.00	25.00	6.21	Follansbee
<i>including</i>	159.00	168.00	9.00	11.28	Follansbee
05WB-50	118.00	122.00	4.00	9.86	Bonanza
	244.50	264.20	19.70	3.75	Rahill
<i>including</i>	249.00	259.40	10.40	5.15	Rahill
05WB-51	194.60	233.20	38.60	2.43	Bonanza
05WB-55	237.00	271.00	34.00	2.26	Bonanza
05WB-56	456.00	493.00	37.00	2.65	Follansbee
	507.00	511.00	4.00	15.39	Follansbee
05WB-57	373.60	380.40	6.80	16.39	Follansbee
05WB-58	296.00	328.00	32.00	3.92	Bonanza

Drilling is expected to continue, with 3 to 4 drills, into early 2006 in order to define and expand the mineralized zones with holes on 25 m centres. Wolfden is working towards completing sufficient drilling to allow an initial resource estimate on the zones by spring or summer 2006.

## Birch–Uchi Greenstone Belt

The Birch–Uchi greenstone belt is geologically similar to the Red Lake greenstone belt with the exception that a much larger proportion of the rocks are Confederation assemblage. Both gold and base metals have been historically produced, but there are no currently producing mines. While large areas of ground are held, exploration activity is not as intense as in the Red Lake greenstone belt. Claim staking activity during the year centred on Gold Canyon Resources' Springpole Lake gold project.

### CONTINUUM RESOURCES LTD./TRIBUTE MINERALS INC.

The 2 companies have optioned the adjacent McIntyre property from Sunridge Gold Corp. and are jointly exploring it with their existing land package. The project is referred to as the **Richardson Lake-McIntyre Project**. Within the property, there are several historic gold occurrences, including the Cooper shaft. Work in 2005 consisted of 2346 m of diamond drilling in 18 holes along an 8 km long east-trending structural zone of gold showings. The zone shows widespread quartz-carbonate alteration and quartz veining some with visible gold. Gold intercepts from the vicinity of the Cooper shaft are listed below (Continuum Resources, news release, June 22, 2005).

Hole	From (m)	To (m)	Length (m)	Au (g/t)
MC-3	57.08	59.24	2.16	0.70
MC-5	51.48	53.00	1.52	14.90
MB04-2 (2004)	154.60	158.03	3.43	9.60
<i>includes</i>	154.60	156.59	1.99	14.65
<i>includes</i>	155.18	156.59	1.41	18.82
MC-6	70.42	71.50	1.08	4.70
MC-7	81.26	81.87	0.61	8.70
MC-8	45.94	46.42	0.48	3.20
MC-9	53.9	55.2	1.30	3.10
MC-9	57.13	57.70	0.57	2.40
MC-10	58.22	59.06	0.84	0.90
MC-11	44.78	45.14	0.36	0.70

### GOLD CANYON RESOURCES

Gold Canyon Resources carried out diamond drilling on its wholly owned **Springpole Project**. This extensive drilling program comprising 42 holes was carried out in 3 areas: 1) 33 holes in the Core Area, totalling 21 873 feet (6666.89 m), most of which were in the East Extension zone, but included other zones; 2) 8 holes in the Southwest Target Area, totalling 11 711.3 feet (3569.6 m); and 3) 1 hole on the **Sandy Point Property**, which totalled 590.6 feet (180.01m) (Gold Canyon, news release, December 7, 2005). Significant results are tabulated below.

Hole #	Depth (feet)	From (feet)	To (feet)	Interval (feet)	Assay (oz/ton)	Area
BL05-322	1267	554.5	907.0	352.5	205 ppb	Southwest Target Area
BL05-323	1357	704.9	828.4	123.5	259 ppb	Southwest Target Area
BL05-324	1057	604.0	704.5	100.5	175 ppb	Southwest Target Area
BL05-325	1710.3	910.6	1250.0	339.4	191 ppb	Southwest Target Area
BL05-326	390.4	63.0	83.3	20.3	0.137	East Extension zone
<i>including</i>		63.0	65.0	2.0	0.423	
BL05-327	580.7	63.5	132.1	68.6	0.136	East Extension zone
<i>including</i>		91.0	93.5	2.5	0.181	
<i>including</i>		127.3	132.1	4.8	1.619	
BL05-328	689	29.5	177.2	147.7	0.095	East Extension zone
<i>including</i>		143.5	152.1	8.6	0.647	
<i>including</i>		143.5	146.4	2.9	1.422	



Hole #	Depth (feet)	From (feet)	To (feet)	Interval (feet)	Assay (oz/ton)	Area	
BL05-329	2307	187.0	197.0	10.0	0.199	Southwest Target Area	
<i>including</i>		187.0	192.0	5.0	0.271		
BL05-330	433.1	111.0	113.0	2.0	0.484	East Extension zone	
BL05-331	239.5	32.4	35.6	3.2	0.142	East Extension zone	
BL05-332	590.6	269.8	270.0	0.2	0.420	Sandy Point	
BL05-332		392.3	399.9	7.6	0.032		
BL05-335	1677	1491.7	1570.8	79.1	200 ppb	Southwest Target Area	
BL05-336	649.6	550.2	575.0	24.8	0.059	295 zone	
<i>including</i>		569.8	572.7	2.9	0.409		
BL05-337	649.6	341.5	347.3	5.8	0.135	295 zone	
BL05-338	659.5	44.0	116.9	72.9	0.022	338 zone	
<i>including</i>		291.5	294.0	2.5	0.246		
BL05-339	1274	26.5	83.0	56.5	>200 ppb	Southwest Target Area	
BL05-340	502	83.5	87.9	4.4	0.209	East Extension zone	
<i>including</i>		95.7	98.3	2.6	0.466		
BL05-340		115.9	131.1	15.2	1.261	<i>Re-assay of same interval</i>	
<i>including</i>		115.9	121.4	5.5	1.668		
<i>including</i>		115.9	121.4	5.5	3.405		
<i>including</i>		117.1	120.1	3.0	5.533		
BL05-343	383.9	84.3	141.3	57.0	0.204	East Extension zone	
<i>including</i>		84.3	95.6	11.3	0.913		
BL05-344	98.4	60.7	64.9	4.2	1.017	East Extension zone	
BL05-345	413.4	229.9	311.9	82.0	0.057	East Extension zone	
<i>including</i>		239.2	241.5	2.3	0.319		
<i>including</i>		258.0	261.7	3.7	0.517		
BL05-346	600.4	49.2	51.5	2.3	0.435	East Extension zone	
BL05-347	196.8	80.0	116.0	36.0	0.053	East Extension zone	
BL05-348	101.4	44.0	55.0	11.0	0.178	East Extension zone	
<i>including</i>		44.0	47.0	3.0	0.393		
BL05-348A	295.2	148.1	160.0	11.9	0.060	East Extension zone	
BL05-349	502	No significant intercepts, bottomed in +9% Fluorite					North Porphyry zone
BL05-350	206.7	79.9	107.5	27.6	0.042	East Extension zone	
<i>including</i>		79.9	82.0	2.1	0.369		
BL05-351	446.2	17.5	37.1	19.6	0.083	East Extension zone	
<i>including</i>		30.0	34.0	4.0	0.266		
BL05-352	206.7	30.6	49.8	19.2	0.284	East Extension zone	
<i>including</i>		42.2	47.0	4.8	1.012		
BL05-352		136.3	139.6	3.3	0.315		
BL05-30W1	1524	1191.0	1192.6	1.6	1.072	Main & Vein zones	
BL05-30W1		1406.0	1407.0	1.0	0.204		

Gold Canyon conducted geological mapping, stripping, channel sampling and geochemical sampling of some previously unprospected areas within the Springpole property. A three-dimensional model of the deposit is being created using GEMCOM software to assist future exploration and to build a resource inventory (Gold Canyon Resources Summary Report 2005, November 2005). Jilbey Gold Exploration Ltd. has assigned its interest in several unpatented claims in the area surrounding the Springpole Gold Project (news release, August 12, 2005) that are now part of the Springpole project.

## JILBEY GOLD EXPLORATION LTD.

Jilbey had an extensive land package in the Birch–Uchi greenstone belt. Effective September 1, 2005, Jilbey Gold merged with High River Gold Mines Ltd. and ceased to exist as a corporate entity. Jilbey’s properties were acquired by High River Acquisition Corp., a wholly owned subsidiary of High River Gold Mines Ltd. Subsequently, part of

Jilbey's land package was acquired by Gold Canyon Resources Ltd. (*see above*) and Merrex Resources Inc. (Merrex Resources, news release, December 1, 2005). Airborne magnetic and electromagnetic surveys were carried out by Jammin Rock Resources over two of the former Jilbey properties held by High River Acquisition Corp. (*see Table 4*).

## **KING'S BAY GOLD CORPORATION**

King's Bay Gold Corporation currently holds the **Richardson Lake property** in the Casummit Lake area in the Birch–Uchi greenstone belt. No work was carried out here in 2005 (J. Archibald, King's Bay Gold Corp., personal communication, 2006).

## **SABINA SILVER CORPORATION**

During the year, Sabina Resources changed its name to Sabina Silver Corporation and also its focus (Sabina Silver, news release, September 26, 2005). It sold its 60% interest in the Follansbee property to 40%-partner Wolfden Resources, for \$2 000 000 cash and 4 000 000 common shares of Wolfden. Sabina retained its interests in other properties in the Red Lake greenstone belt (80% in the Redaurum property and 50% in the Newman–Madsen property with Wolfden Resources) and Birch–Uchi greenstone belt (100% interest in the Golden Sidewalk and Skinner properties).

### **Golden Sidewalk**

The property comprises 12 claims in the western portion of the Birch–Uchi greenstone belt, in Skinner Township. During the year, Sabina acquired the remaining 28% interest from private company St. Mary Resources. Geophysical surveys in 2005 indicated elevated IP chargeability and resistivity over 600 m of the Joe Vein. A 22-hole, 4140 m diamond-drill program was completed in early 2005 and 20, 16-hectare claim units were staked adjacent to the western boundary of the property.

## **Northern Greenstone Belts**

Exploration activities in the northern greenstone belts include work carried out in the Berens River and Sachigo subprovinces. Both of these subprovinces consist of relatively small, isolated greenstone belts surrounded by extensive granitic and gneissic terrane. Although numerous mineral occurrences are reported from both the Berens River and Sachigo subprovinces, historical mineral production has been restricted to 2 mines. Base and precious metals were produced at the Berens River Mine (157 341 ounces gold, 5 676 486 ounces silver, 5 105 873 pounds of lead and 1 797 091 pounds of zinc) and gold from the Sachigo River Mine (52 560 ounces gold) prior to 1950 (Mineral Deposit Inventory 2, MDI53C13SE00011 Berens River).

Canstar Resources Inc. flew an airborne geophysical survey over its Tahoe Lake and Shrimp Lake base metals properties. Houston Lake Mining Inc. continued the evaluation of its Pakeagama Lake rare metals property (*see Table 5*).

Staking activity (Gold Canyon Resources Inc., Rampart Ventures Ltd., *see Table 5*) centred on occurrences of base metals (copper, zinc, molybdenum) and uranium along the Bearhead Lake fault, from Borland Lake, through Favourable Lake to the Setting Net Lake area. Staking for diamonds (Superior Diamonds, *see Table 5*) also occurred in areas of the extreme northern portion of the district (Ellard Lake and Thorne Lake areas).

## **LAND USE PLANNING ACTIVITY**

Resident Geologist Office staff assisted the Pikangikum First Nation and the Ministry of Natural Resources (MNR) in land use planning for the Whitefeather Forest and Adjacent Areas throughout the year. Involvement included resolution of the last remaining minor issues of the Whitefeather PSMP, assistance in the Whitefeather Forest Open Houses in Pikangikum and Red Lake in November, participation in the Whitefeather Forest Land Use Planning and mining stakeholder consultation session in Thunder Bay, and participation in 8 Whitefeather Forest Planning Team meetings in Red Lake and Pikangikum. Proposed protected areas within the planning area were subsequently withdrawn from staking.

A.F. Lichtblau participated in MNDM's (Resident Geologist Program, Mines Group, and Northern Development) information session in Sandy Lake First Nation. Staff also participated at the Minister's Northern Roads First Nations Transportation Authority funding announcement.

## RESIDENT GEOLOGIST STAFF AND ACTIVITIES

At year end, staff of the Red Lake Resident Geologist's office comprised Andreas Lichtblau, Regional Resident Geologist, Carmen Storey, District Geologist, and Denise Saunders, acting District Support Geologist.

A.F. Lichtblau continued as acting Northwest Regional Land Use Geologist until February 25. Robyn Gula was employed as acting District Support Geologist from January 24 through July 22. Jodie Church was employed as an office assistant in the Summer Experience Program; under the same program, Leah Roy was hired as MNDM Education Co-ordinator at the Red Lake Regional Heritage Centre.

C.C. Storey and A.F. Lichtblau led several field trips through portions of the Red Lake belt, including a trip in April for Wolfden Resources and Sabina Resources personnel and another on June 7 for 27 participants of the Canadian Institute of Mining, Metallurgy and Petroleum (CIMM) Exploration Roundup. A.F. Lichtblau and A. Raoul, District Support Geologist, Kenora District, presented the geoscience portion of the Dryden High School Conservation Course to 60 Grade 10 students at the Thunder Lake rehabilitated mine site, near Dryden. A.F. Lichtblau gave a two-hour talk to the Grades 4 & 5 classes at the Golden Learning Centre on June 10.

A.F. Lichtblau attended the Prospectors and Developers Association of Canada Annual Convention in Toronto between March 4 and 9, the Woodland Caribou Signature Site Open house in Red Lake on May 11, the Integrating Aboriginal People in Natural Resource Management Conference (IAPNRM) in Winnipeg from June 22 to 24, and the Ontario Prospectors Association meeting in Toronto on December 13 and 14, where he spoke on Northwestern Ontario Production and Exploration Highlights.

All Red Lake Resident Geologist Program staff attended the 2005 Ontario Mines and Minerals Symposium in Thunder Bay on April 6 and 7, where they presented a poster display on Red Lake District Production and Exploration Highlights. A talk on the same topic was also given by A.F. Lichtblau. C.C. Storey and A.F. Lichtblau organized the CIMM Exploration Roundup held on June 6 in Red Lake, and staffed the MNDM Booth at the annual Norseman Floatplane Festival, July 24, as well as the Ontario booth at the Manitoba Mining & Minerals Symposium in Winnipeg, Manitoba. C.C. Storey also attended the Institute of Lake Superior Geology meeting in Nipigon, Ontario, in May.

A.F. Lichtblau participated in the OGS Far North Mapping GAP Analysis meeting in October. Staff organized and participated in Red Lake and Sioux Lookout consultation sessions regarding the Ontario Mineral Development Strategy and Far North Mapping Initiative, and throughout the year, attended a number of evening sessions of the Campbell Mine liaison committee.

## DRILL CORE STORAGE SITE

The remote diamond-drill core storage compound is located 6 km south of Red Lake, on Highway 105. The compound is operated as a self-serve facility by the Red Lake Resident Geologist's Office. The Kenora Drill Core Library houses an additional 14 529.9 m of diamond drill core from the Red Lake District.

In 2005, the remote drill core facility had 22 users, a significant increase from 2004. Industry visits usually extend over several days, involving examining, relogging and sampling core that would be otherwise unavailable.

Diamond-drill core from 4 properties was donated to the remote core facility this year. Cypress Development Corp./Skyharbour Resources Ltd. McKenzie Island project (14 holes, totalling 3059.9 m), Skyharbour Resources Ltd. Heyson Property 2003 drilling and 2004 drilling (13 holes, totalling 2018.2 m, and 13 holes, totalling 2666 m) and Skyharbour Resources Ltd./Consolidated Abaddon Resources Inc. Black Bear property (3 holes, totalling 694.9 m) and Sidace Lake property (10 holes, totalling 2215.7 m).

**Table 6.** Drill core stored at the Red Lake Resident Geologist's District Remote Drill Core Compound.

<b>Company</b>	<b>Property</b>	<b>Township/Area</b>	<b>Length (m)</b>
Ansil Resources Ltd.	Baird Tp	Baird Township	177.9 m
Ansil Resources Ltd.	Willans Tp	Willans Township	351 m
Asarco Exploration Co. of Canada Ltd.	Skinner, Goodall	Skinner and Goodall townships	444.0 m
Barrick Gold Corporation	Hasaga Mine	Heyson Township	2 889.8 m
Barrick Gold Corporation	Red Lake Gold Shore Mine	Dome Township	106.7 m
Barrick Gold Corporation	Red Lake Gold Shore Mine	Dome Township	257.6 m
Canadian Industrial Minerals Corp.	Bouzon Lake	Heyson Township	2 029.2 m
CAMET Howey and Hasaga Mine Hazards Drilling	Howey-Hasaga	Heyson Township	1 027.2 m
Central Geophysics Ltd.	Conifer Lake Complex	Sumach Lake Area	170.8 m
Cross Lake Minerals Ltd.	Gerry Lake	Gerry Lake Area	981.0 m
* Cypress Development Corp./ Skyharbour Resources Ltd.	McKenzie Island	Dome Township	3 059.9 m
Cypress Development Corp./ Skyharbour Resources Ltd.	McKenzie Island	Dome Township	2 081.8 m
East-West Resource Corporation	Bouzan Lake	Heyson Township	1 489.5 m
Freewest Resources Ltd.	McQuaig Property	Dome Township	993.1 m
Hemlo Gold Mines Ltd.	Miles Red Lake	Todd Township	369.3 m
ITL Capital Corp./Rupert Resources Ltd.	Durham-McEwen	Balmer Township	1 682.5 m
Lac Properties Ltd.	Hasaga Mine: Time-Domain Reflectometry (TDR) cables installed in the Crown Pillar	Heyson Township	33.7 m
Loydex Resources Inc.	Bug River	Heyson Township	190 m
Mutual Resources Ltd.	Dixie Lake	Dixie Lake Area	499.3 m
Noramco Explorations Inc.	Various	Ball Township	31 268.6 m
"		Balmer Township	
"		Byshe Township	
"		Dome Township	
"		Fairlie Township	
"		Goodall Township	
"		Honeywell Township	
"		McDonough Township	
"		Ranger Township	
"		Shabumeni Lake Area	
"		Skinner Township	
"		Todd Township	
Noranda Exploration Company Ltd.	Selco Dixie Joint Venture	South of Otter Lake and Karas Lake areas	1 638.2 m
Pure Gold Resources Inc.	McKenzie Island	Dome Township	1 762.4 m
Rio Algom Exploration Co. Ltd.	Fly Lake	Mitchell Township	731.0 m
* Skyharbour Resources Ltd.	Heyson	Heyson and Byshe township	2 018.2 m
* Skyharbour Resources Ltd.	Heyson	Heyson and Byshe townships	731.0 m
* Skyharbour Resources Ltd./ Consolidated Abaddon Resources Inc.	Sidace Lake Property	Sobeski Lake Area	2 215.7 m
* Skyharbour Resources Ltd./ Consolidated Abaddon Resources Inc.	Black Bear Property	Black Bear Lake Area	694.9 m
Teck Exploration Ltd.	Howey Mine	Heyson Township	7 255.5 m
United Reef Petroleum Limited	Aiken-Russett	Baird Township	8 154.0 m
Western Pacific Energy Corp.	Swain Lake	Goodall Township	1 936.2 m
<b>TOTAL</b>			<b>79 175.0 m</b>

\* 2005 submission and length is total length of hole including overburden

## PROPERTY EXAMINATIONS

Major authorship of the following property examinations is indicated in parentheses following the titles. Table 7 lists the property visits conducted by staff in 2005 in the Red Lake District. Several additional property visits carried out in the Kenora District are included. A location map, keyed to the property numbers, is shown in Figures 3, 4, 7 and 8.

**Table 7.** Property visits conducted by the Red Lake Regional Resident Geologist and staff in 2005.

<b>Number (keyed to Figures 3, 4, 7 and 8)</b>	<b>Property or Occurrence</b>
1	Bridget Lake occurrence (Big Lode Mines), Ball Township
2	Red Lake stromatolites, Ball Township
3	Fox Farm occurrence, Willans Township
4	Fox Farm west occurrence, Willans Township
5	Ray Frank Karas Lake claims, Karas Lake Area
6	Ray Frank pegmatite, Karas Lake Area
7	Eros Red Lake Mines occurrence, Willans Township
8	Lake Rowan Mine, Todd Township
9	Nungessor Lake deformation zone, Nungessor Lake Area
10	Nungessor Lake greenstone reconnaissance, Nungessor Lake and Hanton Lake areas
11	Red Crest Mine, Todd Township
12	Spud Road reconnaissance, Corless Township
13	Cedar Lake dome (Kenora)
14	Powerline uranium occurrence – Vermilion Bay
15	Hudson–Patricia Mine, Dent Township
16	Mount Jamie Mine, Todd Township
17	Galena Island, Ball Township
18	Lime kiln, Todd Township
19	Madsen Mine, Heyson Township
20	Tustin–Bridges sediments (Kenora)
21	Wolfden core shack (Bonanza property)
22	Mystery Lake dome (Kenora)
23	Lingman Lake
24	Howey Mine TDR cables
25	Sabina drill site (Follansbee property)
26	Thunder Lake site (Kenora)
27	Adams Lake argillites
28	Goldcorp Mine site

## Hudson–Patricia Mine (C.C. Storey)

The Hudson–Patricia Mine is located in north-central Dent Township on the boundary with Goodall Township. Most of the property and all the underground workings are in Dent Township. The shaft and remains of the surface plant are approximately 335 m south of the township boundary (Figure 9). A 2200 m trail from North Bay of Confederation Lake provides access to the site. This trail appears on recent air photographs of the area and differs from the trail(s) shown on earlier maps of the area. The mine property currently comprises 12 leased claims held by Breakwater Resources Ltd., although, in the past, the claim block was much larger. Dent and Goodall townships were mapped by Pryslak (1970, 1972) and are included in a regional geological synthesis by Thurston (1985), Rogers (2002) and another by Sanborn-Barrie et al. (2004). The mine workings and regional geology are described by Bruce (1929), Furse (1934), Harding (1936) and Goodwin (1967). Holbrooke (1935), Paterson (1936) and Sutton (no date) described the geology and surface workings of the property when it was actively being mined. Rayner (1976a, 1976b) produced the most recent reported geological and geophysical maps of the property.

The Hudson–Patricia Mine produced 1857 ounces of gold and 305 ounces of silver from 11 228 tons of ore in 1936 and 1937 giving a grade of 0.165 ounce Au per ton. There has been no recorded production since. The first report of the property is in 1927 when it was being explored by Metals Development Ltd. (Bruce 1929). Underground development had begun by 1929 with an inclined shaft to 100 feet with 61 feet of drifting (Sinclair et al. 1930). Sporadic work under Metals Development Ltd. continued until 1934. Hudson Patricia Gold Mines took over the property in April 1934. At this time, the underground workings consisted of Number 1 inclined shaft with an inclined depth of 100 feet, Number 2 vertical shaft sunk to 237 feet with a level at 211 feet and a winze was started from the 211 foot level (Sinclair et al. 1936). A 50-ton per day amalgamation mill was installed in 1936 with ore provided from a shrinkage stope on the 211 foot level. All mining and production ceased in January 1937 (Sinclair et al. 1939). At the end of production, the underground workings included Number 1 shaft to 100 feet, Number 2 shaft to 237 feet, with levels at 80 feet and 211 feet and the 74° inclined winze from the 211-foot level to 325 foot level with drifts and crosscuts on each of the 3 levels (Sinclair et al. 1937, 1938, 1939). Hudson Patricia Gold Mines was bankrupt in 1940 (*Canadian Mines Register*, 1960, v.1). The mill head grade was \$10.85 per ton (Au at \$35.00 per ounce) or 0.31 ounce Au per ton with a recovery of \$9.76 or 0.279 ounce Au per ton the equivalent of 89.9% recovery in June 1936 (Paterson 1936).

The property remained dormant as patented claims until 1974 when the claims came open. The first 4 claims were staked by St. Joseph Explorations Ltd. on June 1, 1974, and an additional 12 claims were added in July 1974 (Rayner 1975). St. Joseph Explorations Ltd. became Sulpetro Minerals Ltd. in 1981 (*Canadian Mines Handbook* 1981), and was subsequently sold to Novamin Inc. in 1985 (*Canadian Mines Handbook* 1986). Novamin Inc. amalgamated with Breakwater Resources Ltd. in 1988 (*Canadian Mines Handbook* 1989). St. Joseph Explorations Ltd. carried out ground geophysical surveys, geological mapping and 8 diamond drill holes for 1401.7 feet (430 m) in 1975 and 1976. There has been no recorded exploration work since.

Pryslak (1970, 1972) mapped the area of the mine as massive mafic metavolcanic rocks intruded by a north-striking granodiorite body approximately 365 m east of the shaft and another north-northwest-striking granodiorite body exposed 60 m northeast of the shaft. Pryslak shows numerous north-striking mafic intrusive bodies west and north of the mine property, particularly in Goodall Township. Intermediate metavolcanic rocks intercalated with the mafic metavolcanic rocks make up a small proportion of the bedrock package. The rock units underlying the property strike north to south with minor local variations (Rayner 1976b; Rogers 2002). Foliations are also predominantly north trending, again with local variations, and are vertical to steeply east dipping. Thurston (1985) first subdivided the rocks into assemblages of different ages and indicates these rocks to be part of Cycle III, now referred to as the Confederation assemblage. Sanborn-Barrie et al. (2004) considers these rocks to be part of the 2745 to 2742 Ma Knott sequence of the Confederation assemblage and indicates the rocks are of calc-alkaline affinity. The felsic intrusive rocks are grouped with the Confederation assemblage (Confederation Plutonic Suite) as a whole and have ages of 2740 to 2744 Ma where dated (Sanborn-Barrie et al. 2004). Rogers (2002) shows a north-trending regional fault system west of the property and Fyon and Lane (1985) show a north to south deformation zone that would cross the eastern part of the property if extrapolated farther north.

Property-scale mapping by Rayner (1976b) shows a similar lithology pattern with the additional detail of narrow intermediate to felsic metavolcanic rock units intercalated with the mafic metavolcanic rocks. Rayner subdivided the felsic intrusive rocks into the large granodiorite body as shown by Pryslak and 2 quartz-feldspar porphyry bodies

as shown on Figure 10. Rayner also mapped several small gabbro bodies on the property. In the vicinity of the surface projection of the underground workings, Rayner shows an east-northeast-striking fault, offset by 2 north-striking faults. The shaft was sunk beside the east-northeast-striking fault zone and workings are parallel to it. All descriptions of the mineralized zones place them in the same orientation as this fault. Surface trenches expose mineralization near the eastern offset of this fault (*see* Figure 10). Fault offsets of the veins underground made exploration difficult and limited the size of the ore shoots as described by Holbrooke (1935). In addition to the mafic to intermediate metavolcanic rocks, the underground workings encountered quartz porphyry, feldspar porphyry, diorite and several small dikes of rock types referred to as aplite, basic dikes and acid dikes (the basic dikes are often referred to as lamprophyric by Sutton) (Holbrooke 1935; Sutton, no date). Both authors mention carbonate alteration and the presence of cherty material and pyrite stringers at the top of a basalt flow and, in some cases, layers of massive pyrite 4 inches (10 cm) thick (Holbrooke 1935). Goodwin (1967) describes similar cherty pyritic layers exposed at the shaft (area now obscured by vegetation). The main vein system strikes  $065^{\circ}$  and dips  $65^{\circ}$  north and varies from a few centimetres to approximately a metre in width. Pyrite, galena, sphalerite and chalcocopyrite are reported to occur in the quartz veins along with gold. The metavolcanic rock hosts pyrite along the vein contacts (Furse 1934; Holbrooke 1935). Underground exploration indicated that the veins contained numerous inclusions of chloritic host rock and other highly altered rock. Alteration was not noted as extending deeply into the host rock (Sutton).

Contemporary descriptions indicate 4 ore shoots: A, B, East zone and West zone. Grade estimates for these are in Table 8. There is no overall reserve estimate for the mine, but Sutton produced an estimate of 5193 tons of 0.365 ounce Au per ton above the first level (100 foot level in the inclined shaft) circa 1935. There is no indication if this material was mined as all production was reported to be from the second (211 foot) level. In addition to the main quartz vein, Sutton describes calcite stringers and quartz calcite stringers, the latter containing pyrite and a small amount of gold. Narrow quartz and quartz carbonate veins accompanied by sulphides are reported in the St. Joseph Explorations Ltd. diamond-drill core. The drill logs describe quartz vein and sulphide mineralization over lengths less than 1 m. Visible gold was reported in the core from hole HP-8-76. Assay results from this drilling and other sources are in Tables 9 and 10.

The major rock types described by Holbrooke (1935) and Sutton can be seen in the waste dump. Extensive iron carbonate is present in material reported to be from the mineralized zones. Assay results from several samples from the dump and the trench at the sulphide showing are illustrated in Table 11. Sampling of the waste dump by Rayner (1976b) indicates elevated background gold in most of the rock removed from the underground workings. Quartz vein material sampled from the dump returned 0.54 ounce Au per ton comparing favourably with underground sampling carried out while the mine was in operation (*see* Table 8). Grab samples by Rayner (1976b) from old surface trenches show erratic high gold values much higher than any reported in the underground workings or the diamond drilling (*see* Table 10).

Surface exploration by St. Joseph Explorations Ltd. exposed base metal sulphide mineralization hosted in dacite to rhyodacite lapilli tuff at the north end of Bogford Lake on the old road that extends west from the mine towards Woman Lake (*see* Figure 9). Mineralization consists of layers of pyrite, sphalerite and chalcocopyrite along with cherty material across approximately 30 cm. The zone strikes  $125/90^{\circ}$  and is part of a much wider rusty weathering zone, measuring up to 5 m wide. Diamond drilling, by St. Joseph Explorations, beneath this zone, intersected a core length of 22.4 feet (6.8 m) of sulphide-bearing rock and a second sulphide intersection of 2.5 feet (76 cm) at 68.5 feet (20.8 m) core length corresponding to approximately 20 m vertical depth. This second zone is southwest of the surface exposure. The mine area rocks are part of the Confederation assemblage, which contains numerous examples of base metal mineralization, including the past-producing South Bay Mine, which is 9 km to the south. The felsic metavolcanic rocks, with the sulphide zones exposed at Bogford Lake, appear to be part of a north-striking felsic unit, which was identified by Rogers (2002) as the Honeywell volcanics (dacite flows and minor tuff). This unit extends south from the south end of Bogford Lake to the shore of Confederation Lake and on past Rowe Lake.

The Hudson–Patricia Mine is an example of an under-explored narrow vein gold deposit. Gold grades reported during its operation varied, as were the reported widths of the ore zones. More detailed mapping and extensive diamond drilling are required to determine the true gold potential of the property. Volcanogenic massive sulphide mineralization was not recognized when the mine was in operation. The sulphide zones identified by St. Joseph Explorations Ltd. and the reports of sulphide mineralization while the mine was in operation indicate that the area has good potential as a base metal exploration target. The entire felsic unit as shown by Rogers (2002) deserves exploration for its base metal potential.

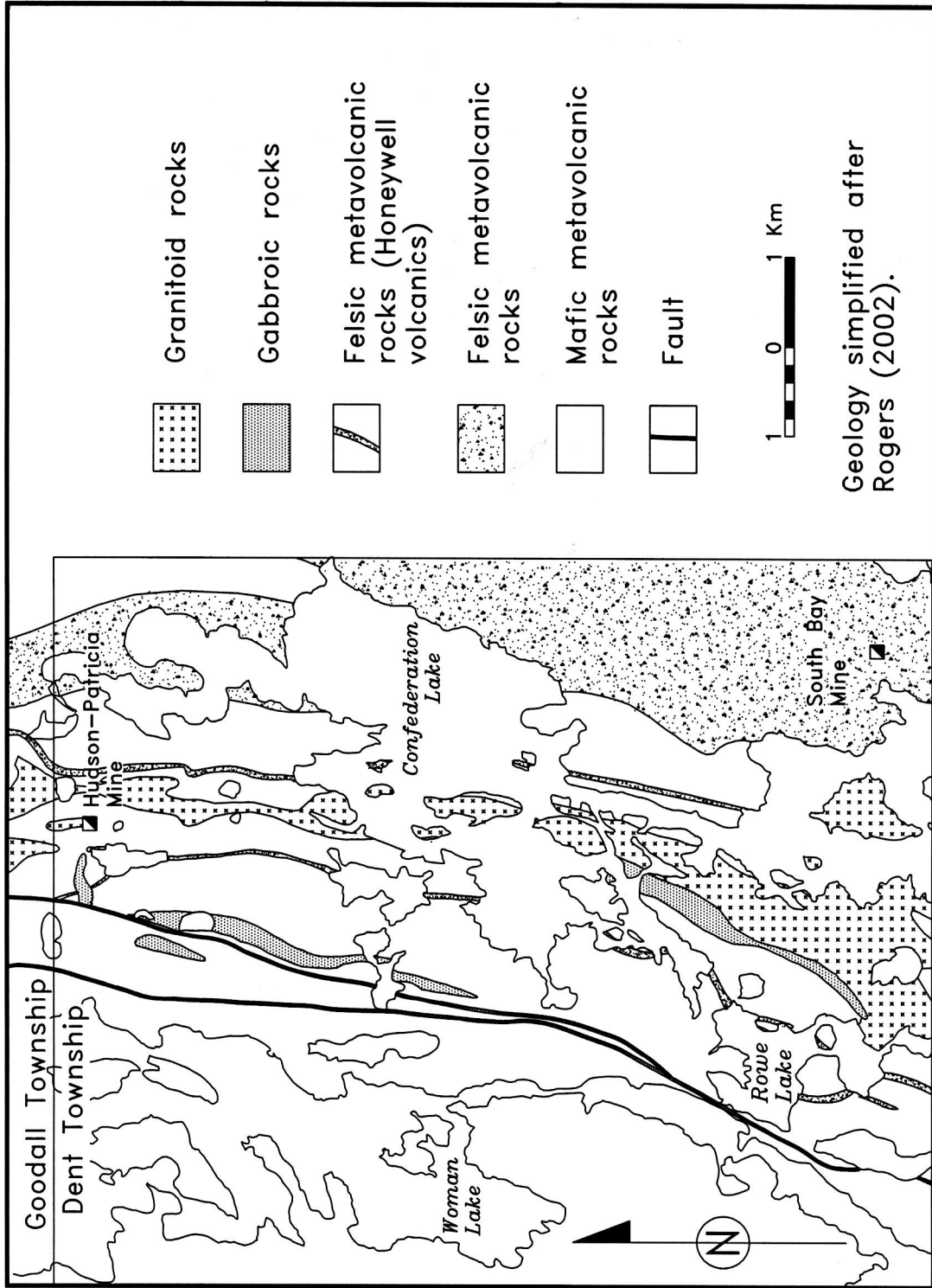


Figure 9. Location and geological setting of the Hudson-Patricia Mine.



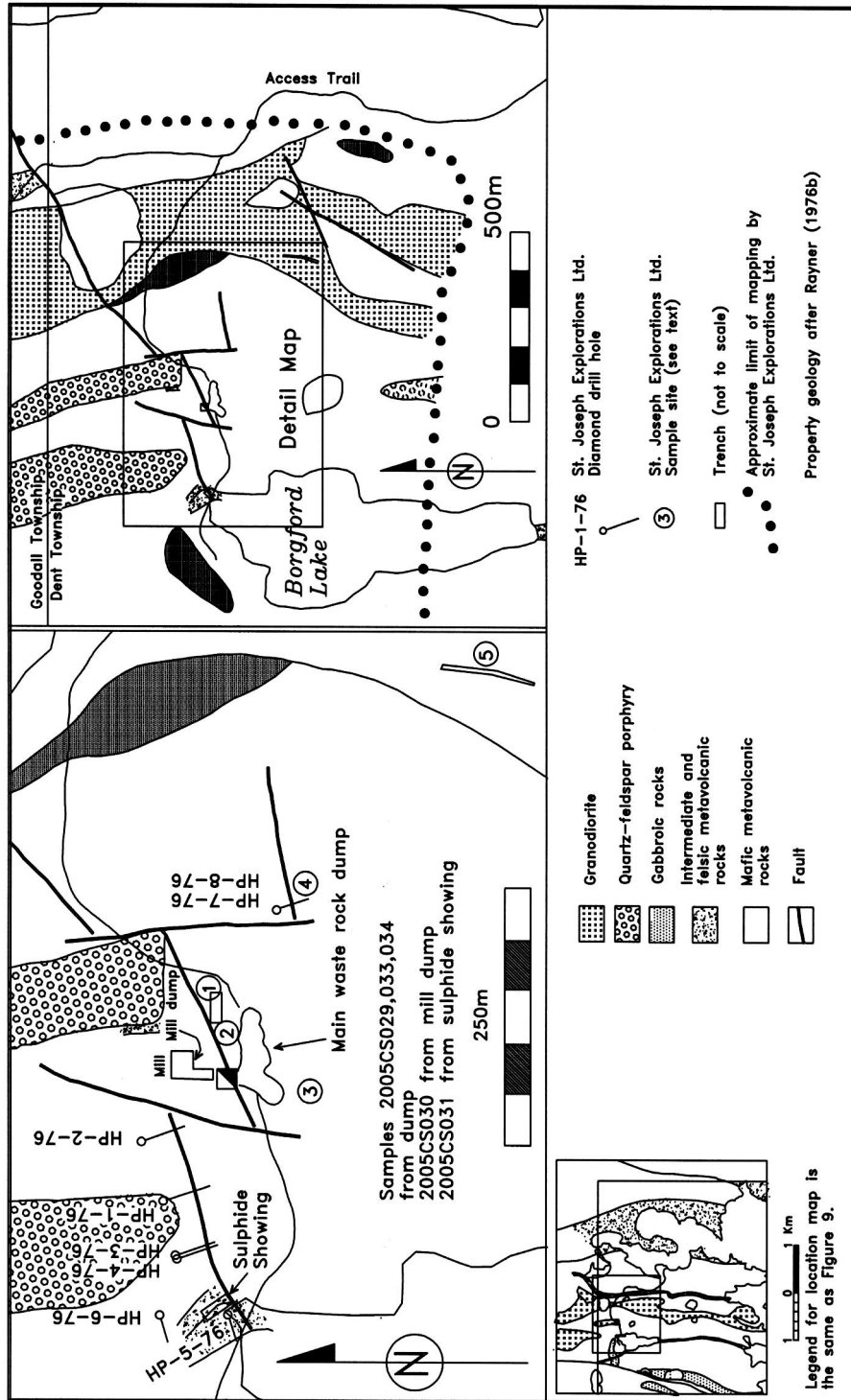


Figure 10. Hudson-Patricia Mine: property geology, diamond drilling and sample locations.

**Table 8.** Gold assays from sampling while the mine was operating (*from* Holbrooke 1935).

Sample	Sample Type	Sample Length (feet)	Gold (ounce per ton)
Ore Shoot A	Back & face sample	5.54	0.352
Ore shoot B (i)		3.0	0.05
Ore shoot B (ii)		4.11	0.352
Ore shoot B (iii)		3.45	0.105
Ore shoot B (iv)		3.3	0.280
Ore shoot B (v)		3.5	0.106
East zone		4 to 5	0.25
West zone	Face sample	5	0.5

**Table 9.** St. Joseph Explorations Ltd. significant sampling results from 1976 diamond-drilling program.

Hole	Sample #	From (feet)	To (feet)	Length (feet)	Cu (%)	Zn (%)	Ag (opt)	Au (opt)
HP-1-76	3701	130.5	132.5	2	tr	0.02	tr	tr
	3702	200.8	203.3	2.5	tr	0.02	tr	0.01
	3703	205.3	207.8	2.5	tr	0.02	tr	tr
HP-2-76	3704	31.5	33.5	2.0	0.01	0.01	tr	tr
	3705	47.9	49.9	2.0	0.01	tr	tr	tr
	3706	53.0	56.0	3.0	0.01	tr	tr	tr
	3703	56.0	59.0	3.0	0.01	tr	tr	tr
	3708	170.0	172.0	2.0	0.01	tr	tr	tr
HP-3-76	3709	188.2	190.2	2.0	tr	0.01	tr	tr
	3710	92.5	94.5	2.0	0.01	0.02	tr	tr
	3711	100.5	102.0	1.5	0.02	0.01	tr	tr
	3712	102.0	103.0	1.0	0.01	0.01	tr	tr
HP-4-76	3713	179.0	180.0	1.0	0.01	0.01	tr	tr
	3714	200.0	201.0	1.0	0.01	0.01	tr	tr
	3715	223.7	225.7	2.0	0.01	0.02	tr	tr
	3716	225.7	226.7	1.0	tr	0.02	tr	0.02
	3717	226.7	228.7	2.0	0.01	0.02	tr	tr
HP-5-76	3718	2.6	5.0	2.4	tr	0.01	tr	tr
	3719	5.0	10.0	5.0	tr	0.01	tr	tr
	3720	10.0	15.0	5.0	tr	0.01	tr	tr
	3721	15.0	20.0	5.0	tr	0.02	tr	tr
	3722	20.0	23.3	3.3	tr	0.03	tr	tr
	3723	23.3	26.0	2.7	tr	0.02	tr	tr
	3724	68.5	71.0	2.5	0.21	0.31	tr	tr
HP-7-76	3725	22.5	24.5	2.0	0.04	0.01	tr	tr
	3726	61.0	62.0	1.0	0.01	tr	tr	0.26
	3727	109.5	111.0	1.5	tr	tr	tr	tr
HP-8-76	3728	51.0	53.5	2.5	tr	0.01	tr	tr
	3729	72.8	74.3	1.5	tr	0.01	tr	tr
	3730	74.3	75.2	0.9	tr	tr	tr	0.08
	3731	75.2	76.1	0.9	nil	tr	0.08	1.12
	3732	76.1	77.6	1.5	tr	tr	tr	0.66
	3733	172.5	174.0	1.5	tr	tr	tr	tr
	3734	176.4	177.9	1.5	tr	0.03	tr	tr

**Table 10.** St. Joseph Explorations Ltd. results from 1976 surface sampling (*see* Figure 10 for locations).

Location	Sample #	Type	Au (opt)	Ag (opt)	Zn (%)	Cu (%)	Pb (%)
Sulphide showing		Grab	0.01	2.79	12.9	1.80	0.51
	1	Grab	19.4				
	1	Chip (5 feet)	0.676				
	2	Tailings channel	0.072				
	2	Tailings channel	0.084				
	3	1910	Dump channel	0.043			
	3	1911	Dump channel	0.103			
	3	1912	Dump channel	0.005			
	3	1913	Dump channel	0.007			
	3	1914	Dump channel	0.104			
	4	Grab	6.46				
	5	Grab	5.83				
	5	Grab	2.45				
	5	1974	Chip (4 feet)	0.93			
	5	1972	Chip (4 feet)	tr			
	5	1971	Chip (4 feet)	0.75			

**Table 11.** Results of sampling during property examination in 2005 (*see* Table 12 for sample descriptions).

Sample #	Au (ppb)	Au (opt)	Ag (ppm)	Ag (opt)	Cu (ppm)	Zn (ppm)	Pb (ppm)
2005CS029	>10000	0.54	N.D.	—	26.8	145	156
2005CS030	59.02		2.00	0.058	14.4	72.1	9.80
2005CS031	760.8		23.0	0.671	4192.20	17516.20	1435.4
2005CS033	N.D.		3.00	0.087	95.9	199.54	8.40
2005CS034	11.24		2.00	0.058	5.88	58.1	5.80

Analyses by Geoscience Laboratories, Ministry of Northern Development and Mines, Sudbury, Ontario.  
N.D., not detected; — not analyzed

**Table 12.** Descriptions of samples collected during property examination in 2005 (*see* Figure 10 for locations).

Sample #	Description
2005CS029	Iron carbonate altered rock with quartz vein from dump, 1% (estimate) disseminated pyrite.
2005CS030	Iron carbonate altered rock and iron carbonate vein material with fine disseminated pyrite from 'ore' pile beside mill.
2005CS031	Sulphide rich exhalite layer. Fine layers (2–4 mm) of pyrite with lesser amounts of chalcopyrite and sphalerite from sulphide showing trench.
2005CS033	Dark green fine grained feldspar-phyric basalt from dump. Rounded, irregular shaped feldspar phenocrysts 1–8 mm, fine calcite veinlets and a trace of fine pyrite in both rock and veinlets.
2005CS034	Dark grey quartz porphyry from dump. Minor pyrite, cut by fine calcite veinlets.

## GEOLOGICAL HAZARD INSPECTIONS

Rehabilitation of the Berens River Mine site was completed during the first quarter of the year. The mine was in operation between 1939 and 1948. All remaining infrastructure was demolished and environmentally sensitive material was transported to facilities in Winnipeg via the winter road system through Red Lake. The open stope was partially filled with waste material and fenced.

Teck Cominco Limited submitted a closure plan for the Howey Mine, situated within the Municipality of Red Lake. Concerns about ground conditions near the open stope and the state of historical tailings were addressed and explained at an Open House for the general public. The company also initiated groundwater studies and the sampling of several tailings areas. Resident's Office staff supplied maps of tailings sites and information on ore processing practices.

Staff also assisted Mine Rehabilitation Section personnel on visits to the inactive Buffalo, Mount Jamie, Red Crest and Lake Rowan mine sites.

## RECOMMENDATIONS FOR EXPLORATION

### Gold

Recent gold discoveries in the heart of the Red Lake camp by Rubicon Minerals Corporation (Phoenix zone), Sabina Silver Corporation and Wolfden Resources Inc. (Follansbee and Bonanza properties) and Southern Star/Exall Resources (Bruce Channel zone), have emphasized the fact that inactive, and what may have been thought of as sufficiently explored properties, can be successfully brought to life by the application of new ideas and state of the art technologies (deep, directional drilling; three-dimensional (3D) modelling; gravity and seismic surveys). Ongoing research emphasizes the importance of proximity to the Neoproterozoic–Mesoproterozoic unconformity: all major deposits of the camp (Campbell–Red Lake, Cochenour and Madsen) occur within Mesoproterozoic rocks a few hundred metres below the regional unconformity. It can be traced in bedrock exposures and is interpreted to have an unfolded length of approximately 105 km in the central Red Lake greenstone belt. Mineralization in the Bruce Channel, Bonanza and Follansbee zones are interpreted to occur immediately adjacent to the unconformity. Within ferroan-dolomite altered mafic footwall rocks, the potential for significant gold mineralization may increase with proximity to the unconformity.

Mineralization in the Phoenix zone and at Wolfden Resources/Placer Dome GAZ is associated with east-southeast (parallel to D<sub>2</sub>) fractures in the structural hanging wall of the East Bay serpentinite, a belt-scale lithologic unit that can be interpreted to extend from the Sidace Lake property of Goldcorp Inc./Planet Exploration (*see* “Goldcorp Inc./Planet Exploration Inc.–Sidace Lake Joint Venture”) southwest to the Cochenour Mine area, a distance of approximately 30 km. A number of other gold occurrences (e.g., Abino, Beatrice) occur along this “East Bay Trend”: the proximity of the serpentinite may be a controlling factor.

Proximity to major batholiths should not be considered a negative factor; Madsen, the second largest gold deposit of the belt, interpreted to be a high-temperature disseminated-replacement-style gold skarn deposit within or immediately below the unconformity, lies within the metamorphic aureole and, within 2 km of surface exposures, of the Killala–Baird batholith. In recent years, only grassroots-style exploration work has been done in areas west of Madsen: several kilometres of prospective strike extent remain to be followed-up by more intensive geophysical and geochemical surveys and diamond drilling.

### Molybdenum and Uranium

There are numerous reported molybdenum and uranium occurrences along the **Bearhead fault** between the Sachigo and Berens River subprovinces (Ayres 1970; Ayres et al. 1973; Stone 1998b). Documented resources include the Setting Net Lake deposit (100 000 000 tons of 0.09% MoS<sub>2</sub>) and uranium at the Bearhead Lake prospect (978 810 tons of 0.06% U<sub>3</sub>O<sub>8</sub> to a depth of 500 feet). There has been no exploration activity for these commodities for many years. The Setting Net Lake area is highly prospective for molybdenum and uranium. Molybdenum is also reported from the northern portion of the Lingman Lake greenstone belt, the eastern portion of the Birch–Uchi greenstone belt at the southeast corner of McNaughten Township, at Senior Lake and Fawthrop Lake.

## Base Metals

Copper-nickel has not been produced from the Red Lake or Birch–Uchi greenstone belts, but copper-nickel (and associated PGE) mineral occurrences have been reported from several mafic intrusive bodies. In particular, the Trout Bay assemblage, a mafic volcanic sequence of ocean floor affinity in the western part of the Red Lake greenstone belt, comprises tholeiitic volcanic rocks, and associated mafic to ultramafic intrusions, which host at least 7 Ni-Cu-PGE occurrences (e.g., Trout Bay Nickel, Goldcorp Inc.).

Sanukitoid-type intrusive bodies have been identified in the Red Lake greenstone belt (Faulkenham Lake stock: Sanborn-Barrie, Skulski and Parker 2004) and in some parts of the Berens River and Sachigo subprovinces to the north (Frame Lake, Stormer Lake and Nungesser: Stone 1998a, 2005). No record of prospecting in these areas exists, although an OGS mapping crew reported an unassayed Cu-Ni occurrence in the margins of the Frame Lake intrusion (Stone 1998a).

Volcanogenic massive sulphide (VMS) deposits and prospects, and associated proximal chloritic and aluminosilicate alteration, have been documented in the Red Lake and Birch–Uchi greenstone belts, hosted in Confederation assemblage rocks. Confederation assemblage rocks are exposed on the eastern and southern flank of the Birch–Uchi greenstone belt, the area between the Red Lake and Birch–Uchi greenstone belts and both the southern edge and northern edge of the Red Lake greenstone belt.

FII-type and FIII-type rhyolites occur throughout a 100 km band extending east from Red Lake to the past-producing South Bay Mine (1.6 million tons grading 11.06% Zn, 1.8% Cu and 2.12 ounces Ag per ton). World-class deposits, such as the Mattabi and Geco deposits, are associated with FII-type rhyolite; the Kidd Creek deposit is associated with FIII-type rhyolite. A heightened awareness now exists in the Red Lake District of the potential of discovery of a major base metal sulphide deposit. A number of near-surface lenses were found during exploration in the 1970s. Tribute Minerals continues to build upon its success in tracking mineralized horizons with deep-penetrating Titan-24 magnetotelluric–induced polarization geophysical surveys.

Increasing commodity prices are rejuvenating interest in the area for VMS deposits. In particular, the portion of the belt between Red Lake and South Bay Mine, is of prime exploration potential, but the other areas of Confederation assemblage rocks deserve attention to locate FII- and FIII-type rhyolites and possible VMS-type mineralization.

## OGS ACTIVITIES AND RESEARCH BY OTHERS

Publications received in the Red Lake Resident Geologist Office during 2005 are listed in Table 13. The following research activities took place in 2005:

- R.D. Dyer and S.M. Hamilton, Sedimentary Geoscience Section, OGS, carried out field work for a high-density lake sediment and water geochemical survey of the Red Lake greenstone belt.
- G.P. Beakhouse (OGS), K. Cassidy (Geoscience Australia) and Placer Dome are working on a project to study the influence of certain types of felsic intrusive rocks on gold mineralization.
- K. Williamson continued his PhD work at the Goldcorp Inc. Red Lake Mine.
- M. Tucker (University of Ottawa) carried out work for a BSc (Hons) thesis “Mineralogical and geochemical comparison of two different ore zones at the Red Lake Mine”.
- Dr. P.C. Thurston (Laurentian University) carried out field work examining Bruce Channel and Huston Assemblage metasediments on the Goldcorp Red Lake Mine property.
- Dr. Guoxiang Chi (University of Regina) carried out field work on fluid inclusions in the Red Lake greenstone belt.
- G. Chi, B. Dubé, K. Williamson and A.E. Williams-Jones completed a fluid inclusion study on the formation of the Campbell-Red Lake gold deposit (*see* Table 13).
- Solomon (University of Regina) is completing a BSc thesis “Stable isotope and fluid inclusion study of the Buffalo gold deposit, Red Lake, Ontario”.

**Table 13.** Publications received by the Red Lake Office in 2005.

<b>Title</b>	<b>Author(s)</b>	<b>Type and Year of Publication</b>
Eabametoong First Nation Glossary of Geological and Mining-Related Terms	Eabametoong First Nation and Ontario Geological Survey	Ontario Geological Survey, Miscellaneous Paper 170, 2004
Geology of the Northern Superior Area	D. Stone	Ontario Geological Survey, Open File Report 6140, 2005
Precambrian Geology Northern Superior Area	D. Stone	Ontario Geological Survey, Map P.3545, 1:250 000, 2005
Mining and Environmental Terminology Glossary	Ojibway & Cree Cultural Centre	Ojibway & Cree Cultural Centre and DeBeers Canada, 2003
Report of Activities 2005	Manitoba Geological Survey	Ministry of Industry, Economic Development and Mines, Manitoba Geological Survey, 2005
Geology and Scenery, Killarney Provincial Park Area, Ontario	R.L. Debicki	Ontario Geological Survey, Guidebook No. 6, 1982
Magnetic Survey of Robb and Jamieson Townships District of Cochrane	R.S. Middleton	Ontario Division of Mines, Geophysical Report 1, 1973
Magnetic Survey of Loveland and Macdiarmid Townships District of Cochrane	R.S. Middleton	Ontario Division of Mines, Geophysical Report 2, 1974
Aggregate Resources Inventory of Mono Township, Dufferin County, Southern Ontario	Ontario Geological Survey	Ontario Geological Survey, Aggregate Resources Inventory Paper 1, 1979
Northern Ontario Field Trip Guidebook, VIIIth International Kimberlite Conference	B.A. Kjarsgaard, ed.	VIIIth International Kimberlite Conference, 2003
Report of Activities, 2004, Resident Geologist Program, Red Lake Regional Resident Geologist Report: Red Lake and Kenora District	A. Lichtblau, P. Hinz, C. Ravnaas, C.C. Storey, L. Kosloski, A. Raoul and R. Gula	Ontario Geological Survey, Open File Report 6146, 2005
Report of Activities, 2004, Resident Geologist Program, Kirkland Lake Regional Resident Geologist Report: Kirkland Lake District	G. Meyer, G.P.B. Grabowski, D.L. Guindon and E.C. Chaloux	Ontario Geological Survey, Open File Report 6150, 2005
Report of Activities, 2004, Resident Geologist Program, Thunder Bay North Regional Resident Geologist Report: Thunder Bay North District	M.C. Smyk, G.D. White, M.A. Magee and C. Komar	Ontario Geological Survey, Open File Report 6147, 2005
Report of Activities, 2004, Resident Geologist Program, Thunder Bay South Regional Resident Geologist Report: Thunder Bay South District	B.R. Schnieders, J.F. Scott, M.A. Magee, T.L. Muir and C. Komar	Ontario Geological Survey, Open File Report 6148, 2005
Report of Activities, 2004, Resident Geologist Program, Regional Land Use Geologist Report: Northwestern, Northeastern and Southern Ontario Regions	R.L. Debicki, A.P. Drost, A.F. Lichtblau, R.J. Fraser and D.J. Rowell	Ontario Geological Survey, Open File Report 6153, 2005
Report of Activities, 2004, Resident Geologist Program, Southern Ontario Regional Resident Geologist Report: Southeastern and Southwestern Ontario Districts, Mines and Minerals Information Centre, and Petroleum Resources Centre	P.J. Sangster, V.C. Papertzian, K.G. Steele, C.R. Lee, M. Barua, D.A. Laidlaw and T.R. Carter	Ontario Geological Survey, Open File Report 6152, 2005
Report of Activities, 2004, Resident Geologist Program, Timmins Regional Resident Geologist Report: Timmins and Sault Ste. Marie Districts	B.T. Atkinson, M. Hailstone, G.Wm. Seim, A.C. Wilson, D.M. Draper, V.J. Bulman and A. Pace	Ontario Geological Survey, Open File Report 6149, 2005
Report of Activities, 2004, Resident Geologist Program, Kirkland Lake Regional Geologist Report: Sudbury District	M. Cosec, D. Farrow and J.M. Gaudreau	Ontario Geological Survey, Open File Report 6151, 2005
Industrial Mineral Assessment and Sampling of Mica in Central and Eastern Ontario	Watts, Griffis and McQuat and Ontario Geological Survey	Ontario Geological Survey, Open File Report 6086, 2002
Geological Setting of Volcanogenic Massive Sulphide Mineralization in the Kamiskotia Area: Discover Abitibi Initiative	B. Hathway, G. Hudak and M.A. Hamilton	Ontario Geological Survey, Open File Report 6155, 2005
Digital Northern Ontario Engineering Geology Terrain Study	Ontario Geological Survey	Ontario Geological Survey, Miscellaneous Release—Data 160, 2005

Title	Author(s)	Type and Year of Publication
Lithochemical Data for Plutonic Rocks Sampled Between 2000 and 2003	Ontario Geological Survey	Ontario Geological Survey, Miscellaneous Release—Data 159, 2005
Three Dimensional Surficial Geochemistry	Ontario Geological Survey	Ontario Geological Survey, Miscellaneous Release—Data 164, 2005
Use of a Soil Gas Hydrocarbon Technique to Differentiate Barren Graphitic and Sulphidic Conductors from Ore-Bearing Conductors	Ontario Geological Survey	Ontario Geological Survey, Miscellaneous Release—Data 165, 2005
Gedex Airborne Gravity Gradiometer (AGG) System	Ontario Geological Survey	Ontario Geological Survey, Miscellaneous Release—Data 166, 2005
Three Dimensional Geochemistry in the Abitibi: Development of Geochemical Exploration Methods	Ontario Geological Survey	Ontario Geological Survey, Miscellaneous Release—Data 168, 2005
Development of a High Bandwidth Frequency Domain EM System	Ontario Geological Survey	Ontario Geological Survey, Miscellaneous Release—Data 169, 2005
Geochemical Detection of Disseminated Palladium Mineralization in Ontario	Ontario Geological Survey	Ontario Geological Survey, Miscellaneous Release—Data 170, 2005
Application of a Geodata Analysis System (GeoDAS) to Mineral Exploration in Ontario	Ontario Geological Survey	Ontario Geological Survey, Miscellaneous Release—Data 171, 2005
Development of Methods and Technology for the Discovery of New Resources Around Existing Mine Infrastructure	Ontario Geological Survey	Ontario Geological Survey, Miscellaneous Release—Data 172, 2005
Geochemistry of Exhalites and Graphitic Argillites Near VMS and Gold Deposits	Ontario Geological Survey	Ontario Geological Survey, Miscellaneous Release—Data 173, 2005
Downhole Seismic Imaging Method: A New Tool for Deep Mineral Exploration	Ontario Geological Survey	Ontario Geological Survey, Miscellaneous Release—Data 175, 2005
Development and Demonstration of Novel Field-Portable Sample Preparation Methods for On-Site Geochemical Analysis	Ontario Geological Survey	Ontario Geological Survey, Miscellaneous Release—Data 176, 2005
Development of a Relational Physical Rock Property Database	Ontario Geological Survey	Ontario Geological Survey, Miscellaneous Release—Data 179, 2005
Paleomagnetism, geochronology and geochemistry of several Proterozoic mafic dike swarms in Northwestern Ontario	H.C. Halls, G.M. Scott and D.W. Davis	Ontario Geological Survey, Open File Report 6171, 2005
Exploration for Platinum-Group Element Deposits	J. E. Mungall, ed.	Mineralogical Association of Canada, Short Course Series, Volume 35
Summary of Field Work and Other Activities, 2005	C.L. Baker, E.J. Debicki, J.A. Ayer, R.M. Easton and Z.B. Madon, eds.	Ontario Geological Survey, Open File Report 6172, 2005
Modelling, Interpretation Methods and Field Trials of an Existing Prototypes Audio Frequency Magnetics (AFMAG) System	Ontario Geological Survey	Ontario Geological Survey, Miscellaneous Release—Data 167, 2005
Detectability of Mineral Deposits with Potential Field Methods	Ontario Geological Survey	Ontario Geological Survey, Miscellaneous Release—Data 177, 2005
Development and Evaluation of a 3D Vector Orientation Software Illustrated with Triaxial Gradient Magnetic Data	Ontario Geological Survey	Ontario Geological Survey, Miscellaneous Release—Data 178, 2005
Detectability of Mineral Deposits with Electrical Resistivity and Induced Polarization Methods	Ontario Geological Survey	Ontario Geological Survey, Miscellaneous Release—Data 181, 2005
Mineral Exploration by Systematic Analysis of Groundwater Upwelling in Lakes and Rivers	Ontario Geological Survey	Ontario Geological Survey, Miscellaneous Release—Data 182, 2005
Assessment of Using 3D Large-Scale Visualization and Data Integration for the Lake Nipigon Region Geoscience Initiative	Ontario Geological Survey	Ontario Geological Survey, Miscellaneous Release—Data 184, 2005
A New Aircraft Compensation System for Magnetic Terrains	Ontario Geological Survey	Ontario Geological Survey, Miscellaneous Release—Data 185, 2005
Integrated GIS Compilation of Geospatial Data from Abitibi Greenstone Belt, Northeastern Ontario: Discover Abitibi Initiative	Ontario Geological Survey	Ontario Geological Survey, Miscellaneous Release—Data 186, 2005

Title	Author(s)	Type and Year of Publication
Rare Element Geochemistry and Mineral Deposits	R. Linnen and I. Samson, eds.	Geological Association of Canada, Short Course Notes, Volume 17
Economic Geology 100 <sup>th</sup> Anniversary Volume 1905–2005	J.W. Hedenquist, J.F.H. Thompson, R.J. Goldfarb and J.P. Richards, eds.	Society of Economic Geologists Inc.
GIS Compilation of Geology and Tectonostratigraphic Assemblages, Wabigoon–Winnipeg River–Marmion Transect, Western Superior Province, Ontario	D.R. Lemkow, M. Sanborn-Barrie, G.M. Stott, J.A. Percival, D. Stone, K.Y. Tomlinson, T. Skulski, V. McNicoll, D.W. Davis, J.B. Whalen and P. Hollings	Ontario Geological Survey, Miscellaneous Release—Data 187, 2005
Ontario Drill Hole Database—December 2005 Release	Ontario Geological Survey	Ontario Geological Survey, Data Set 13—Revision 1

## MINERAL DEPOSITS NOT BEING MINED

**Table 14.** Mineral deposits not being mined in the Red Lake District in 2005.

Abbreviations				
AF .....	Assessment Files	MLS .....	Mining Lands, Sudbury	
CMH .....	<i>Canadian Mines Handbook</i>	MR .....	Mining Recorder	
GR .....	Geological Report	NM .....	<i>The Northern Miner</i>	
MDC .....	Mineral Deposit Circular	OFR .....	Open File Report	
MDIR .....	Mineral Deposit Inventory record	PC .....	Personal Communication	

Deposit Name and NTS	Commodity	Tonnage-Grade Estimates and/or Dimensions	Reserve References	Status
Abino Bateman, Balmer and Dome Townships (52N/04SW)	Au	<u>Total Granodiorite Zone:</u> drill indicated tonnage 405 162 tons 0.203 opt Au from three sub-zones	AF (McClellan 1976)	Patent
Aiken–Russet Baird Township (52K/13NW)	Au	Total reserves of 102 555 tons of 0.22 opt Au	AF (Kuryliw 1967)	Patent
Alcourt (Copper Man, Hanson–Campbell) Fairlie Township (52N/04SW)	Au	<u>Reserves:</u> 20 000 tons of 0.45 opt Au from 1959-60 diamond drilling <u>No. 1 vein:</u> 17 000 tonnes of 0.2429 oz per tonne Au from 1959-60 diamond drilling and 1981 sampling program	AF (Tilsley 1981)	Patent
Anco Mine Dome Township (52N/04SW)	Au	<u>Reserves:</u> 50 000 tons of “Excellent Grade” (0.35 opt Au?)	Energy Mines and Resources Canada (1989)	Patent
Bathurst Mine Skinner Township (52N/07SW)	Au	<u>Reserves:</u> 80 000 tons of 0.587 opt Au	Energy Mines and Resources Canada (1989)	Leased
Bearhead Lake Prospect 53C/12NW	U <sub>3</sub> O <sub>8</sub>	<u>Reserves:</u> 978 810 tons of 0.06% U <sub>3</sub> O <sub>8</sub> to a depth of 500 feet	MDC 25 (Robertson and Gould 1983)	Staked Claim
Berens River Mine (Golsil, Zahavy) (53C/13SE)	Au, Ag, Pb, Zn	<u>Reserves:</u> <u>No. 1 Zone:</u> 75 000 tons of 0.1-0.12 opt Au, 4.0-5.0 opt Ag <u>No. 3 Zone:</u> 982 213 tons of 0.26 opt Au, 4.8 opt Ag, 0.77% Pb, 1.12% Zn (713 249 tons indicated, 268 964 tons inferred) at 0.15 opt Au cut-off to 750 metre level	AF (Bevan 1983)	Staked Claim
Bluffy Lake (52K/14SE)	Fe	<u>Reserves:</u> 21 000 000 tons at 22.86% Fe	Prelim. Map P.1199 (Breaks et al. 1976)	Licence of Occupation
Borland Lake (53D/16NE)	Ag, Au	<u>Probable Reserves:</u> 502 412 tons of 8.09 opt Ag and 0.02 opt Au	Massive Resources Ltd. Preliminary Prospectus - August 6, 1987	Open



Deposit Name and NTS	Commodity	Tonnage-Grade Estimates and/or Dimensions	Reserve References	Status
Buffalo Red Lake Heyson Township (52N/04SW)	Au	<u>Reserves:</u> 421 728 tonnes of 0.139 opt Au drill indicated in 1980	AF (Kita 1988)	Patent
Cochenour–Willans Mine Dome Township (52N/04SW)	Au	<u>Reserves:</u> Proven and probable 173 000 tons of 0.51 opt Au, possible reserves 274 000 tons of 0.59 opt Au	NM - Dec. 12, 1994 p.7	Patent, Licence of Occupation
Cole Gold Mine Ball Township (52M/01SE)	Au	<u>Reserves:</u> 119 780 tons of 0.41 opt Au probable and indicated	AF (Wilton 1973)	Patent, Licence of Occupation
Consolidated Marcus Dome Township (52N/04SW)	Au	<u>Reserves:</u> 60 000 tons of 0.18 opt Au	Energy Mines and Resources Canada (1989)	Patent
Copper Lode A–Rexdale Group Prospect (52K/15NW)	Cu, Ag	<u>Reserves:</u> 236 424 tons of 1.94% Cu, 1.22 opt Ag or 425 612 tons of 1.56% Cu, 0.98 opt Ag or 854 007 tons of 1.01% Cu, 0.57 opt Ag	AF(Archibald 1970) MP 152 (Atkinson, Parker and Storey 1990b)	Staked Claim
Copper–Lode D Belanger Township (52K/15NW)	Cu, Zn	<u>Reserves:</u> 36 000 tons of 0.26% Cu, 7.58% Zn	AF (MacDougall 1996)	Leased
Copper–Lode E Belanger Township (52K/15NW)	Cu, Ag	<u>Reserves:</u> 160 000 tons of 8.28% Zn, 1.02% Cu, 0.39 opt Ag	AF (Archibald 1970)	Leased
Dixie Creek (52K/13SE)	Au	<u>Reserves:</u> 500 000 tons of 0.12 opt Au	MDIR	Staked Claim
Dixie 3 Prospect (52K/14NW)	Cu, Zn	<u>Reserves:</u> 91 000 tons of 10.0% Zn, 1.0% Cu	AF (MacDougall 1995)	Leased - Mining Rights Only, Staked Claim
Dixie 18 Prospect (52K/14NW)	Zn	<u>Reserves:</u> 110 000 tons of 0.5% Cu, 12.5% Zn, 0.57 opt Ag	AF (King and Petrie 1998)	Staked Claim
GAZ Bateman Township (52N/04NE)	Au	<u>Resource (NI43-101):</u> 1 400 000 tonnes of 8.0 g/t Au, in 5 lenses	Wolfden Resources, news release, Feb.23, 2005	Staked claims
Gold Eagle Mine (Western Discovery Zone) Dome Township (52N/04SW)	Au	<u>Resource (NI43-101):</u> 309 000 tonnes at 16.67 g/t Au (uncut)	Micon International (Pressacco 2004)	Patent
Grassett Prospect Earngey Township (52N/02SE)	Au	<u>Reserves:</u> 78 295 tons of 0.22 opt Au (Part of the Hill–Sloan–Tivy Vein)	Energy Mines and Resources Canada (1989)	Patent
Griffith Mine (52K/14SW)	Fe	<u>Reserves:</u> 120 000 000 tons of 29% Fe	GR 82 (Shklanka 1970)	Withdrawn from staking
Hasaga Mine Heyson Township (52N/04SW)	Au	<u>Reserves:</u> <u>C Block</u> (below 1800 feet) - 200 203 tons of 0.192 opt Au <u>Stopes</u> - 41 430 tons of 0.104 opt Au <u>Pillars</u> - 6 365 tons of 0.134 opt Au	GR 56 (Ferguson 1968)	Patent
Hill–Sloan–Tivy Earngey Township (52N/02SE)	Au	<u>Reserves:</u> 296 000 tons of 0.219 opt Au (Grassett Prospect Reserves may be included in total)	AF (Germundson 1995)	Patent
Horseshoe Island (52N/08NW)	Au	<u>Reserves:</u> 893 508 tons of 0.14 opt Au	Northwest Prospector, March/April 1990, p.27	Staked Claim
Howey Mine Heyson Township (52N/04SW)	Au	<u>Reserves:</u> 780 000 tons of 0.08 opt Au	Energy Mines and Resources Canada (1989)	Patent, Licence of Occupation
Jackson–Manion Mine Dent Township (52N/02SE)	Au	<u>Reserves:</u> 40 000 tons of 0.5 opt Au	NM - March 14, 1985, p.21	Patent

RED LAKE DISTRICT—2005

Deposit Name and NTS	Commodity	Tonnage-Grade Estimates and/or Dimensions	Reserve References	Status
Joy–New Zone (Diamond Willow Zone, Creek Zone) (52K/14NW)	Cu, Zn	<u>Reserves:</u> 300 000 tons of 4% combined Cu-Zn	AF (Lewis 1994)	Staked Claim
Kesaka Lake (52K/16NW)	Fe	<u>Reserves:</u> 312 500 000 tons of 31.1% Fe to a depth of 100 feet	MRC11 (Shklanka 1968)	Open, Staked Claim
Laverty (Thrall) Heyson Township (52N/04SW)	Au	<u>Reserves:</u> Speculative reserves from the <u>Diabase dike zone:</u> 329 000 tons of 0.08 opt Au or 75 000 tons of 0.15 opt Au	AF (Gillies 1982)	Patent
Lingman Lake (53F/15SW)	Au	<u>Reserves:</u> 1 172 753 tons of 0.20 opt Au in all zones at 5.0 foot minimum width and a cut-off grade of 0.08 opt Au	AF (McPhee 1989)	Patent
Madsen Mine Baird Township (52K/13NW)	Au	<u>Measured &amp; Indicated Mineral Reserves:</u> 282 000 ounces Au <u>Inferred Mineral Resources:</u> 204 000 ounces Au	(Claude Resources Inc. <a href="http://www.clauderresources.com">www.clauderresources.com</a> ; accessed March 10, 2006)	Patent
May–Spiers Ball Township (52M/01SE)	Au	<u>Reserves:</u> 30 000 tons of 0.09 opt Au	AF (Bayne 1981)	Staked Claim
McCombe (Root Lake) (52J/13NE)	Lithia	<u>Reserves:</u> 2.3 million tons of 1.3% lithia to the 500 foot level	MP 90 (Breaks 1979)	Patent, Licence of Occupation
McFinley Mine Bateman Township (52N/04SE)	Au	<u>Inferred Mineral Resource:</u> 334 007 tons <i>in situ</i> at an average grade of 0.20 opt Au to a depth of 400 feet; Broken down as follows: <u>FWC-3 Zone:</u> 3 875 tons of 0.50 opt Au <u>C Zone:</u> 10 520 tons of 0.87 opt Au <u>FWC-1 + 2:</u> 30 600 tons of 0.24 opt Au <u>C-2 Zone:</u> 128 700 tons of 0.11 opt Au <u>C-3 Zone:</u> 36 562 tons of 0.19 opt Au <u>WL Zone:</u> 10 500 tons of 0.49 opt Au <u>403 Zone:</u> 5 000 tons of 0.80 opt Au <u>BX Zone:</u> 2 000 tons of 0.84 opt Au <u>D Zone:</u> 106 250 tons of 0.15 opt Au <u>Resource Estimate:</u> 890 000 tons at an in-place grade of 0.19 opt Au to a depth of about 1700 ft	AF (Hogg 2002)	Patent, Licence of Occupation
Mount Jamie Todd Township (52M/01SE)	Au	<u>Reserves:</u> <u>Main Zone:</u> 47 048 tons of 0.425 opt Au <u>No. 2 Shaft area:</u> 25 360 tons of 0.37 opt Au	AF (Gordon 1988)	Patent
My–Ritt (Coin Lake) Heyson Township (52N/04SW)	Au	Unknown	OFR 5558 (Durocher, Burchell and Andrews 1987)	Patent
New Faulkenham Mines Ltd. (Faulkenham Lake) Baird Township (52K/13NW)	Au	<u>Reserves:</u> 15 000 tons of 0.428 opt Au (\$15.00 at \$35.00 per ounce Au)	AF (Holbrooke 1958)	Patent
North Spirit Lake (Crown Trust) (53C/07NW)	Fe	<u>Reserves:</u> 1.3 million tons per vertical foot of 33.94% Fe	MRC 11 (Shklanka 1968) GR150 (Wood 1977)	Patent, Leased
Northgate Prospect Earngey Township (52N/02SE)	Au	<u>Reserves:</u> 64 600 tons of 0.28 opt Au	AF (Zinn 1984)	Staked Claim
Ogani Lake (52K/15NE)	Fe	<u>Reserves:</u> 100 000 000 tons of 21.6% Fe	MDC (Shklanka 1968)	Open
Papaonga Lake (52K/16NE)	Fe	<u>Reserves:</u> 13 500 000 tons of 31.06% Fe	MDIR	Open
Red Crest (Red Summit) Todd Township (52M/01SE)	Au	<u>Reserves:</u> 47 439 tons of 0.269 opt Au (uncut grade) (Horwood 1945) 38 000 of 0.3 opt Au	NM - March 14, 1985, p.21 ODM Annual Report (Horwood 1945)	Patent

Deposit Name and NTS	Commodity	Tonnage-Grade Estimates and/or Dimensions	Reserve References	Status
Redaurum Baird Township (52N/04SW)	Au	<u>Possible Reserves:</u> <u>14A Zone:</u> 243 750 tons of 0.22 opt Au 26 250 tons of 0.20 opt Au <u>No. 2 Zone:</u> 137 500 tons of 0.18 opt Au <u>No. 3 Zone:</u> 102 500 tons of 0.18 opt Au <u>Camp Zone:</u> 24 750 tons of 0.13 pt Au	AF (Barclay 1986)	Patent
Richardson (Kostynuk Bros. Mine) (52N/09SW)	Au	<u>Reserves:</u> 700 000 tons of 0.2 opt Au inferred reserves	OFR 5835 (Parker and Atkinson 1992)	Patent
Rowan Todd Township (52M/01SE)	Au	<u>Reserves:</u> 10 900 tons of 0.657 opt Au (\$23.00 a ton at \$35.00 per ounce)	AF (Bishop 1939)	Patent
Sanshaw (Whitehorse Island) Dome Township (52N/04SW)	Au	<u>Reserves:</u> 175 000 tons of 0.20 opt Au	NM - June 11, 1953	Patent, Licence of Occupation
Setting Net Lake (53C/13SE)	MoS <sub>2</sub>	<u>Reserves:</u> 100 000 000 tons of 0.09% MoS <sub>2</sub>	MDIR NM - March 23, 1973	Open
Sol d'Or Honeywell Township (52N/07SE)	Au	<u>Reserves:</u> 8 565 tons of 0.57 opt Au	Energy Mines and Resources Canada (1989)	Staked Claim
Springpole Lake Prospect (52N/08NW)	Au	<u>Reserves:</u> <u>Portage Zone:</u> 7.9 million tons of 0.07 opt Au 27 million tons of 0.035 opt Au including 4 million tons of 0.091 opt Au and 405 000 tons of 0.14 opt Au	OFR 5835 (Parker and Atkinson 1992)	Patent, Staked Claims
Starratt-Olsen Mine Baird Township (52K/13NW)	Au	<u>Reserves:</u> 15 000 tons of 0.45 opt Au	NM - July 26, 1973	Patent
Trout Bay Zinc Pit Zone Mulcahy Township (52M/01SE)	Zn, Cu, Pb, Ag, Au	<u>Reserves:</u> <u>West Zone:</u> 13 776 tons of 4.75% Zn, 0.68% Cu, 0.94 opt Ag <u>East Zone:</u> 124 760 tons 7.86% Zn, 1.5% Cu, 0.24% Pb, 1.7 opt Ag, 0.007 opt Au	MP 147 (Atkinson, Parker and Storey 1990a) Preliminary Map P.567 (Riley 1969) MDIR	Patent (Mining Rights Only), Leased (Mining Rights Only, Licence of Occupation)
Uchi Mine Earngey Township (52N/02SE)	Au	<u>Reserves:</u> 214 000 tons of 0.147 opt Au	Energy Mines and Resources Canada (1989)	Patent
Wilmar Mine Dome Township (52N/04SW)	Au	<u>Reserves:</u> Quoted from OFR 5558 unless indicated otherwise: <u>Diorite Dike Zone:</u> 140 000 tons of 0.21 opt Au <u>East Breccia Zone:</u> 31 500 tons of 0.32 opt Au (Proven) 50 500 tons of 0.25 opt Au (Probable) 1 777 000 tons of 0.24 opt Au (Possible) <u>Carbonate Zone:</u> 25 000 tons of 0.17 opt Au (Probable) 7 500 tons of 0.15 opt Au (Possible) <u>West Granodiorite Zone:</u> 3.15 to 4.5 million tons of 0.076 to 0.131 opt Au (Energy Mines and Resources Canada 1989) <u>Granodiorite Zone:</u> 5 700 000 tons of 0.10 to 0.15 opt Au	OFR 5558 (Durocher, Burchell and Andrews 1987) Energy Mines and Resources Canada (1989)	Patent
Woco Vein Earngey Township (52N/02SE)	Au	<u>Reserves:</u> 21 263 tons of 0.80 opt Au	AF (Germundson 1995)	Staked Claims
Young, H.G. Mines Ltd. Balmer Township (52N/04SW)	Au	<u>Reserves:</u> 270 000 tons of 0.31 opt Au	OFR 5558 (Durocher, Burchell and Andrews 1987)	Patent

Note: This table contains tonnage and grade estimates referred to as reserves (indicated, possible, probable), which were determined at various times by methods largely unreported. None of these estimates are known to conform to the standards required for National Instrument (NI) 43-101. All should be considered inferred mineral resources not reserves.

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**Ontario Geological Survey  
Regional Resident Geologist Program**

**Red Lake Regional Resident Geologist (Kenora District)—2005**

**by**

**C. Ravnaas and A. Raoul**

**2006**

# CONTENTS

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## Kenora District—2005

INTRODUCTION.....	1
MINING ACTIVITY .....	1
Nelson Granite Ltd. (A Division of Granite Monuments Ltd.).....	1
Cold Spring Granite Canada Ltd.....	2
EXPLORATION ACTIVITY .....	5
Gold .....	5
Base Metals.....	11
Stone .....	11
KENORA DISTRICT STAFF AND ACTIVITIES.....	12
PROPERTY VISITS .....	15
The Leuiller Island Occurrence (C. Ravnaas).....	15
Obee1 Molybdenum Showing (C. Ravnaas).....	17
Redvers Township Intrusion, Redvers Township (A. Raoul).....	19
Redvers Township Intrusion .....	19
Geology and Geochemistry .....	19
Mineral Occurrences.....	22
Conclusions and Recommendations.....	23
RECOMMENDATIONS FOR EXPLORATION.....	25
Inactive Mineral Prospects in the Kenora District.....	25
OGS ACTIVITIES AND RESEARCH BY OTHERS.....	27
REFERENCES.....	33

## Tables

1. Assessment files received in the Kenora District in 2005.....	2
2. Exploration activity in the Kenora District in 2005.....	7
3. Property visits conducted by the Kenora District Geologists in 2005.....	13
4. Gold values and description of samples collected from Leuiller Island.....	16
5. Major element geochemistry of selected samples from the Redvers Township intrusion.....	21
6. Average major element geochemistry for rocks similar to those examined in this study.....	21
7. Selected metal analyses from the Redvers Township intrusion.....	22
8. Major element geochemistry from the Markle–MacEwan occurrence.....	23
9. Metal analyses from the Markle-MacEwan occurrence.....	24
10. Mineral deposits in the Kenora District in 2005.....	28

## Figures

1. Extent of staking in the Kenora District as of December 31, 2005.....	9
2. Exploration and quarry activity in the Kenora District in 2005.....	10
3. Property visits conducted in the Kenora District in 2005.....	14
4. Generalized geology of Leuiller Island and Upper Manitou Lake.....	15
5. Sample locations and alteration areas on Leuiller Island.....	16
6. Location of Obee1 molybdenum showing.....	18
7. Sketch illustrating fracture patterns in the area of the Obee1 molybdenum showing.....	18
8. Sketch map indicating sample sites with anomalous metal values in the Redvers Township intrusion.....	20
9. Location of inactive mineral prospects in the Kenora District.....	25
10. Location of Ontario Geological Survey and other research activities in the Kenora District in 2005.....	27



# Red Lake Regional Resident Geologist (Kenora District)—2005

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## INTRODUCTION

Dimension stone continued to be produced in the Kenora District in 2005. No metallic mineral production was recorded in the District. Major exploration projects targeting base metals at Kenbridge Mine (Blackstone Ventures Ltd.), North Rock Cu-Ni Property (MetalCORP Ltd.) and gold at the Atikwa Au-Cu Property (Opawica Explorations Inc.), Duport Gold Property (Halo Resources Ltd.), Mine Centre Property (Q-Gold Resources Ltd.), Plomp Farm Property (Champion Bear Resources Ltd.) and Rainy River Property (Rainy River Resources Ltd.) were completed in 2005.

With a continued rise in commodity prices, and positive results from exploration efforts in 2004, activity in the Kenora District continued at a level comparable to previous years. A total of 51 exploration projects were conducted by mineral exploration companies and individual prospectors during the year. Work completed within the Kenora District and filed for assessment credits, or otherwise provided, is shown in Table 1.

## MINING ACTIVITY

There was no production of either base or precious metals in the Kenora District in 2005. Production continued from 6 granite quarries in 2005. The quarries are keyed, with letters, to Figure 2.

### Nelson Granite Ltd. (A Division of Granite Monuments Ltd.)

**Nelson Granite Ltd.** continued year-round production from 4 stone quarries in the Kenora District during 2005. Production continued at the **Docker Township quarry** (A), 10 km southwest of the town of Vermilion Bay. Homogenous, medium-grained, pink granite is produced from a granite plug, which is part of the Dryberry batholith. Fracturing is negligible, allowing for removal of blocks of virtually any size. The majority of the stone produced is used in the monument industry and is sold as “Vermilion Pink”. In 2005, approximately 6550 m<sup>3</sup> (231 105 ft<sup>3</sup>) were produced (C. Spence, Nelson Granite Ltd., personal communication, 2006).

**Nelson Granite Ltd.** continued production at their **Red Deer Lake quarry** (B) in 2005. The quarry is located near Red Deer Lake, approximately 40 km northeast of Kenora and 15 km northwest of the railway stop at Jones. A total of 2402 m<sup>3</sup> (84 759 ft<sup>3</sup>) were produced for use as monument and building stone (C. Spence, Nelson Granite Ltd., personal communication, 2006). The stone is marketed as “Red Deer Brown” or “Canadian Mahogany” and is sold primarily to clients in North American markets.

**Nelson Granite Ltd.** continued to produce stone from their **Forgotten Lake quarry** (C) in 2005. The quarry is located on the east side of Forgotten Lake, approximately 35 km north of Kenora and 10 km north of the hamlet of Redditt. The quarry produced 2 colours: a green megacrystic granite marketed as “Pine Green” and a yellow megacrystic granite sold as “Crystal Gold”.

**Nelson Granite Ltd.** continued production at their **Second Mountain quarry** (D) in 2005. The quarry is located approximately 3 km east of their Forgotten Lake quarry. The Forgotten and Second Mountain quarries produced 3076 m<sup>3</sup> (108 537 ft<sup>3</sup>) of yellow granite (C. Spence, Nelson Granite Ltd., personal communication, 2006).

## Cold Spring Granite Canada Ltd.

**Cold Spring Granite Canada Ltd.** (E) continued seasonal production from their **Kenora Sage quarry**, during 2005. The quarry is located approximately 38 km north-northeast of Kenora. The quarry produced 2 colours: a green megacrystic granite marketed as “Green Sage”, and a yellow megacrystic granite sold as “Crystal Gold”. The quarry produced 719.4 m<sup>3</sup> (25 379.9 ft<sup>3</sup>) of Green Sage and Crystal Gold (B. Odden, Cold Spring Granite Canada Ltd., personal communication, 2006).

**Cold Spring Granite Canada Ltd.** continued seasonal production at their **Havik Lake quarry** (F ) in 2005. The quarry is located approximately 34 km north-northeast of Kenora on the Jones Road. Production from the quarry was 279.3 m<sup>3</sup> (9852.7 ft<sup>3</sup>) of reddish brown, porphyritic granite, which is sold under the name of “Royal Auburn” (B. Odden, Cold Spring Granite Canada Ltd., personal communication, 2006).

**Table 1.** Assessment files received in the Kenora District in 2005.

<b>Abbreviations</b>						
AEM .....	Airborne electromagnetic survey	Gr .....	Geological report			
AM .....	Airborne magnetic survey	IP .....	Induced polarization survey			
ARA .....	Airborne radiometric survey	Lc .....	Linecutting			
DD .....	Diamond drilling	Pet .....	Petrology			
DDH .....	Diamond drill hole(s)	Pr .....	Prospecting			
DDR .....	Diamond drill hole re-logging	RES .....	Resistivity survey			
GC .....	Geochemical survey	Samp .....	Sampling (other than bulk)			
GEM .....	Ground electromagnetic survey	Str .....	Stripping			
GL .....	Geological Survey	VLFEM .....	Very low frequency electromagnetic survey			
GM .....	Ground magnetic survey	VLFEM .....	Very low frequency electromagnetic survey			

<b>Township or Area</b>	<b>Company Name</b>	<b>Year</b>	<b>Type of Work (Work Value)</b>	<b>AFRO Number</b>	<b>Resident Geologist Office File Designation</b>	
Bad Vermilion Lake Area	Hexagon Gold Ltd.	2005	10 DDH, Samp (\$154,303)	2.30701	52C10NE	HHH-5
Bad Vermilion Lake Area	Pitkanen, R.	2004	Pr, Samp (\$816)	2.29123	52C10NE	M-9
Bad Vermilion Lake Area	Reiter, M.	2004-05	Pr, Samp, GL, GR (\$21,816)	2.29807	52C10NE	JJJ-1
Boyer Lake Area	Glatz, A. & Riives, J.	2003	Pr, Str, Samp, GL (\$1,419)	2.29507	52F07NE	NNN-1
Boyer Lake Area	Glatz, A. & Riives, J.	2005	Pr, Str, GR (\$1,257)	2.29746	52F07NE	NNN-2
Boyer Lake Area	Glatz, A. & Riives, J.	2005	Str, Samp, GR (\$8,926)	2.31024	52F07NE	NNN-3
Boyer Lake Area	Temex Exploration Ltd.	2004	GL, Str, Samp, GC, GR (\$32,900)	2.29368	52F07NE	MMM-1
Contact Bay Area	Glatz, A. & Riives, J.	2004	Pr, Samp, GR (\$649)	2.29386	52F10NW	F-5
Dash Lake Area	Barton, B.	2004	Pr, Samp, GR (\$411)	2.28952	52F04SE	R-5
Dash Lake Area	Chute, M.	2005	Pr, GL, Samp (\$12,397)	2.30758	52F04SE	S-5
Dash Lake Area	Kings Bay Gold Corporation	2005	VLFEM, GM, Lc (\$23,168)	2.29759	52F04SE	T-1

Township or Area	Company Name	Year	Type of Work (Work Value)	AFRO Number	Resident Geologist Office File Designation
Dogpaw Lake Area	Anyox Metal Ltd.	1983	GL, GR (donated)		52F05SW NNNN-4
Dogpaw Lake Area	Endurance Gold Corporation	2005	Pr, Samp, GC, GL (\$104,787)	2.30695	52F05SW MMMM-5
Dogpaw Lake Area	Metalore Resources Ltd.	2004	14 DDH, Samp (\$226,528)	2.30409	52F05SW LLLL-5
Drayton Township	1179785 Ontario Ltd.	2004	Pr, Lc, GL, Samp, GR (\$35,831)	2.28421	52J04SW 38
Eagle Rock Lake Area	Champion Bear Resources Ltd.	2005	AM, ARA (\$27,365)	2.30418	52F02NE D-8
Eagle Rock Lake Area	Champion Bear Resources Ltd.	2005	DDR, Samp (\$29,810)	2.30767	52F02NE D-9
Echo Township	Atikwa Minerals Ltd.	2004	Pr, Samp, Str, GL, GR (\$8,915)	2.28732	52F16NW 103
Ewart Township	Cabo Mining Enterprises Corp.	2005	1 DD, GR (\$21,261)	2.29610	52E11NE BBB-1
Fourbay Lake Area	Conquest Resources Ltd.	2005	7 DDH (\$279,966)	2.30215	52J02SW 107
Fourbay Lake Area	Savant Lake Minerals	2004	GEM, GM, GR (\$16,135)	2.28861	52J02SW 106
Garnet Bay Area	Emerald Field Resources Corp.	2005	GL, GR (\$1,597)	2.30723	52F11NW Z-5
Glass Township	Amador Gold Corp.	2004	1 DD (\$8,500)	2.29189	52E10SW EEE-1
Glass Township	Amador Gold Corp.	2005	IP, RES, GR, Lc (\$26,550)	2.30745	52E10SW EEE-2
Halkirk Township	Cousineau, L.	2002-03	Pr, Samp, GL, Pet (\$11,349)	2.28349	52C11NE G-13
Halkirk Township	Cousineau, L.	2003-04	Pr, Samp (\$4,821)	2.28993	52C11NE G-14
Halkirk Township	Cousineau, L.	2004	Pr, Str, Samp (\$5,348)	2.28894	52C11NE G-15
Halkirk Township	Cousineau, L.	2004	Pr, Str, Samp (\$4,639)	2.28919	52C11NE G-16
Halkirk Township	Cousineau, L.	2004	Pr, Samp, Str (\$10,551)	2.29978	52C11NE G-17
Halkirk Township	Cousineau, L.	2005	Pr, Samp, Str (\$19,206)	2.29763	52C11NE G-18
Halkirk Township	Cousineau, L.	2004	Pr, Str, Samp (\$10,052)	2.28881	52C10NW U-22
Halkirk Township	Cousineau, L.	2004	Pr, Str (\$2,240)	2.28891	52C10NW U-23
Halkirk Township	MetalCORP Limited	2005	AEM, AM (\$46,865)	2.30445	52C11NE BBB-1
Lobstick Bay Area	Biczok, J.	2004	AEM, AM, GL, Samp, GR (\$2,461)	2.28658	52F05NW CC-1

KENORA DISTRICT—2005

Township or Area	Company Name	Year	Type of Work (Work Value)	AFRO Number	Resident Geologist Office File Designation
Lobstick Bay Area	Cabo Mining Enterprises Corp.	2004	Pr, Samp, GL, GM, Str (\$34,669)	2.29581	52F05NW BB-2
Lobstick Bay Area	Cabo Mining Enterprises Corp.	2005	1 DD (\$11,950)	2.30322	52F05NW BB-3
Lower Manitou Lake Area	Bjorkman, K.	2004	Pr, Samp, GR (\$9,312)	2.29062	52F07SW KK-1
Mang Lake Area	Temex Exploration Ltd.	2004	GL, Samp, Str, GC, GR (\$30,345)	2.29370	52F02NW H-1
Manross Township	Norontex Exploration Ltd.	1983	GL, GR (donated)		52E09SW W-1
Menary Township	McNerney, B.	2005	Pr, Str, Samp (\$11,647)	2.30589	52C13NW P-1
Napanee Lake Area	Temex Exploration Ltd.	2004	GL, Samp, Str, GC, GR (\$23,500)	2.29366	52F03NE BB-1
Parnes Lake Area	Glatz, A. & Riives, J.	2004	Pr, Str, Samp, GR (\$14,509)	2.28901	52G13NW 41
Patterson Lake Area	Angus and Ross Canada Ltd.	2004	3 DDH, Samp, GR (\$41,627)	2.29033	52L07SE T-2
Penassi Lake Area	Unitronix Corporation	2004	Pr, Samp, GL (\$104,102)	2.29269	52G14NE 64
Rowan Lake Area	Johnson, S. & Prouty, K.	2005	Pr, Samp, GR, Str (\$2,203)	2.30887	52F05SE YYY-1
Sakwite Lake Area	Angove, R.	2005	Pr, Lc, GR (\$2,500)	2.30560	52F02SW D-1
Snowshoe Bay Area	Halo Resources Ltd.	2005	AEM, AM (\$92,112)	2.30788	52E11SE W-1
Tabor Lake Area	Norontex Exploration Ltd.	1987	GL, GR (donated)		52F09SW FF-1
Vista Lake Area	Angove, R.	2005	Pr, GR (\$3,049)	2.30616	52F03SE E-2
Vista Lake Area	Angove, R.	2005	Pr, Samp, GR (\$2,132)	2.30655	52F03SE E-3
Vista Lake Area	Angove, R.	2005	Pr, Samp, GR (\$2,172)	2.30667	52F03SE E-4
Webb Township	Stuarton Resources Ltd.	2003-04	Pr, Samp, GC, Pet (\$19,170)	2.29972	52F16NW 104
Webb Township	Stuarton Resources Ltd.	2005	GEM (\$17,600)	2.29968	52F16NW 105
Zealand Township	True North Gems	2003-04	Pr, Str, Samp, GL (\$48,921)	2.29541	52F15SE HH-1



## EXPLORATION ACTIVITY

A complete summary of exploration activity, including prospecting, is given in Table 2. The extent of staking is shown in Figure 1. Gold, base metals and stone were the predominant targets in 2005. At least 3 new exploration projects in the District are the result of the acquisition of dormant mineral prospects. Increased market values for molybdenum and uranium have resulted in staking of prospective ground for these commodities in the District. Described below are programs with significant exploration expenditures and/or known results. Programs are keyed with numbers to Table 2 and Figure 2. Exploration information included in this section is taken from assessment files in the Kenora District office, unless otherwise indicated.

### Gold

**Cabo Mining Enterprises Corp.** continued work on the Electrum Lake property located in the High Lake area, approximately 45 km west of Kenora. Eight diamond-drill holes, totalling 957.85 m tested gold mineralization at the Arsenic Zone and 3 other sulphide zones on the property (Cabo Mining Enterprises Corp., press release, November 25, 2005).

**Cabo Mining Enterprises Corp.** initiated an exploration program on the Hope Lake property located in the Lobstick Bay area, approximately 65 km southeast of Kenora. Mechanical stripping, reconnaissance geological mapping and a ground magnetometer survey were completed on the Mushkawa and Porphyry Zones. Nine diamond-drill holes, totalling 1050 m, were completed on the gold-bearing zones (Cabo Mining Enterprises Corp., press release, November 25, 2005).

**Champion Bear Resources Ltd.** continued exploration on the Plomp Farm property located approximately 17 km west of Dryden. In 2005, a total of 13 756 m of core from 23 previous drilled holes were re-logged and sampled. Champion Bear has defined a westward plunge to mineral zonation and alteration patterns on the property. Results from a nine-hole diamond-drill program extended the geochemical alteration envelope and anomalous gold mineralization along a 1200 m strike length (Champion Bear Resources Ltd., press release, June 1, 2005). Ground magnetic and induced polarization surveys were completed on the property. Interpretation of the response from the ground magnetic survey confirmed the extension of the mineralized horizon over a distance of 4 km, across the entire length of the Plomp Farm Property (Champion Bear Resources Ltd., press release, September 14, 2005).

**Conquest Resources Limited** initiated an exploration program to locate the source of high-grade gold-bearing blue-black quartz float, found on the south shore of King Bay. The property is located approximately 25 km south of the hamlet of Savant Lake, on the northern part of Sturgeon Lake. In 2005, a diamond-drill program was attempted to evaluate 6 magnetic anomalies believed to represent breccia pipes within quartz feldspar porphyry bodies. The breccia pipes could be the source of the gold-bearing float. The 6 magnetic anomalies are the result of a ground magnetic survey completed in 2004 on the ice over the water of King Bay. Due to deteriorated ice conditions only 2 of the 6 anomalies were tested by 7 diamond-drill holes (Conquest Resources Limited, press release, March 24, 2005).

**Endurance Gold Corporation** continued work on their Dogpaw Lake property located approximately 25 km southeast of Sioux Narrows. Geological mapping, humus sampling and prospecting targeted mineralized zones related to the Stephen Lake Stock. Gold mineralization is reported to be associated with fractures and lineaments at the Starlyght and Jest showings (Endurance Gold Corp., press release, November 10, 2005).

**Halo Resources Ltd.** conducted an aggressive exploration program on the Duport Gold Property located in the Shoal Lake area, approximately 45 km southwest of Kenora. A surface exploration program consisting of grid establishment, ground geophysical surveys and diamond drilling was initiated on the ice near the Duport Deposit. Twenty-three drill holes, totalling 7090 m, were completed in 2005, but deteriorating ice conditions prevented the completion of the full diamond-drill program. Twenty significant gold intersections from the drill program returned an average intercept of 13 g/t Au over 1.4 m. Drill core samples from the South Main Lens returned 20.2 g/t Au over 3.4 m and 7.37 g/t Au over 2.25 m (Halo Resources Ltd., press release, May 12, 2005).

An indicated mineral resource of 424 000 tonnes at 13.4 g/t Au and an inferred resource of 387 000 tonnes at 10.7 g/t Au have been determined by a scoping study completed by Roscoe Postle Associates Inc. on the Duport Deposit (Halo Resources Ltd., press release, August 9, 2005). In September 2005, Halo completed a helicopter-supported airborne magnetometer and electromagnetic survey over the property. Additional drilling is planned in 2006 to test airborne anomalies and conductors identified from this 50 m line-spacing, 2750 line-kilometres survey (Halo Resources Ltd., press release, September 26, 2005).

On March 2005, **Mengold Resources Inc.** optioned the Needle Lake property located approximately 30 km northeast of Dryden. A grid was established followed by a ground geophysical survey and a five-hole diamond-drill program to evaluate the massive sulphide mineralization potential on the property (Mengold Resources Inc., press release, June 27, 2005).

**Houston Lake Mining Inc.** announced a preliminary inferred mineral resource of 106 400 tonnes at 2.97 g/t Au for the Angel Hill Gold Zone. This zone is part of the Cedartree Gold Project, located approximately 20 km southeast of the hamlet of Sioux Narrows. A vertically oriented percussion drill hole sampling program was initiated in 3 areas on the Angel Hill Gold Zone. Results from 235 percussion drill samples returned a significant including one intercept of 479 g/t Au over 1.22 m. The analytical results of these samples will provide preliminary grade control for a planned 1000 tonne bulk sample (Houston Lake Mining Inc., press release, December 6, 2005).

**Q-Gold Resources Ltd.** completed a reverse take-over transaction and initiated an exploration program on the Mine Centre property. The property, which includes the Foley and Golden Star gold prospects, is located in the Bad Vermillion Lake area, approximately 55 km east of Fort Frances. Six quartz veins comprising the Foley Mine Vein Complex were mechanically stripped, channel cut and sampled. Ten holes, totalling 1576 m, were drilled on the Complex in 2005. A 1.5 m section of core, with visible gold, returned 53.47 g/t Au (Q-Gold Resources Ltd., press release, November 22, 2005).

**Rainy River Resources Ltd.** completed the acquisition of the Rainy River property from Nuinsco Resources Limited in 2005. The property is located in Richardson Township, approximately 55 km northwest of Fort Frances. The #17 Gold Zone on the property has indicated resources of 1.736 Mt of 1.558 g/t Au and an inferred resource of 11.025 Mt grading 1.329 g/t Au (Rainy River Resources Ltd., press release, December 5, 2005). An extensive digital compilation of previous exploration data was completed in 2005. Selected drill holes from past exploration programs are been re-logged and sampled.

Re-interpretation of mineralizing events related to the #17 Gold Zone, based on structural mapping and drill core intersections, has established that high-grade zones could plunge to the southwest. Twelve diamond-drill holes were completed in 2005 focussing on the #17 Gold Zone. Significant intersections, related to the down-plunge extension of the zone, from drill hole NR05-05 are 2.21g/t Au over 69.95 m and 13.5 m grading 5.34 g/t Au. Six diamond-drill holes targeted similar mineralizing events at the 433 Gold Zone. Samples of core that contain coarse visible gold in fractures returned up to 1000 g/t Au and 294 g/t Ag. Additional diamond drilling is planned to test the down-plunge extension of the high-grade areas of the #17 and 433 zones (Rainy River Resources Ltd., press release, January 5, 2006).

In 2005, 104 reverse circulation holes were completed. Five diamond-drill holes tested highly anomalous gold dispersal trains discovered by the reverse circulation program. The Beaver Pond and West zones, interpreted as a northwest extension of the #17 Gold Zone were discovered by this drill program. This 3.0 km northwest-trending anomalous area, which includes the #17 Zone, is known as the #17 Gold Trend (Rainy River Resources Ltd., press release, December 7, 2005).

During the fourth quarter of 2005, Rainy River Resources Ltd. increased their land holdings near the Off Lake area. This area, part of the Rainy River Project, is located approximately 16 km northeast of Richardson Township. Grab samples from a reconnaissance sampling program returned values up to 2.04 g/t Au and 4.0% Zn. A helicopter-supported airborne magnetometer and electromagnetic survey is planned for 2006 (Rainy River Resources Ltd., press release, December 12, 2005).

**Table 2.** Exploration activity in the Kenora District in 2005. Locations shown on Figure 2.

<b>Abbreviations</b>			
AEM .....	Airborne electromagnetic survey	GM .....	Ground magnetic survey
AM .....	Airborne magnetic survey	IP.....	Induced polarization survey
ARA .....	Airborne radiometric survey	Lc.....	Linecutting
ARR .....	Airborne response research	MRE .....	Mineral Resource Estimate
Comp.....	Compilation	ODH .....	Overburden drill hole(s)
DDG.....	Downhole geophysical surveys	PDH .....	Percussion drill hole(s)
DDH.....	Diamond drill hole(s)	Pr .....	Prospecting
DDR.....	Diamond drill hole(s) re-logging	Samp .....	Sampling (other than bulk)
GC .....	Geochemical survey	Str .....	Stripping
GEM .....	Ground electromagnetic survey	Tr .....	Trenching
GL .....	Geological Survey	VLFEM .....	Very low frequency electromagnetic survey

<b>No</b>	<b>Company/Individual (Occurrence Name) or Property</b>	<b>Township/Area (Commodity)</b>	<b>Exploration Activity</b>
1	Amador Gold Corp. (KPM Property)	Glass Township (Au, Cu)	Lc, GEM, IP
2	Amador Gold Corp. (Mennin Lake Property)	Kawashagamuk Lake Area (Mo)	Pr, Samp
3	Angove, R. (Smoothrock Lake Occurrence)	Sakwite Lake Area (Au)	Pr, Samp
4	Angove, R., Kulp, J & Sutyor, F. (Claim 1218691 Property)	Vista Lake Area (Au)	Pr, Samp
5	Avalon Ventures Ltd. (U6 Savant Property)	Conant Township (Au, Cu, Zn)	GL, Samp, Comp
6	Avalon Ventures Ltd. (Big Whopper Deposit)	Patterson Lake Area (Li, Cs, Rb, Ta)	MRE, Samp
7	Blackstone Ventures Ltd. (Kenbridge Mine)	Atikwa Lake Area (Ni, Cu, Co, PGEs)	AEM, DDH 21-4300m, GEM, Samp, Lc
8	Cabo Mining Enterprises Corp. (Electrum Lake Property)	Ewart Township (Au)	DDH 8-957m, Samp
9	Cabo Mining Enterprises Corp. (Hope Lake Property)	Lobstick Bay Area (Au)	DDH 9-1050m, GL, GEM, Str, Lc
10	Champion Bear Resources Ltd. (Plomp Farm Property)	Aubrey Township (Au)	DDH 9-2790m, Lc, GM, IP, Samp, DDR 35DDH-13,756m, Comp, GL
11	Champion Bear Resources Ltd. (Eagle Rock Property)	Eagle Rock Lake Area (PGE, Au)	ARA, AM, GL, GM, Samp
12	Chute, M. (Dash Lake Property)	Dash Lake Area (Au, Ag, Cu, Zn)	Comp, GL, Pr, Samp
13	Conquest Resources Ltd. (King's Bay Gold Property)	Fourbay Lake Area (Au)	DDH 7-869m, Lc, Samp
14	Cousineau, L., Cousineau, R. & Desjardin, K. (Belacoma Property)	Halkirk Township (Cu, Au, PGE)	Pr, Samp
15	Cousineau, L., Cousineau, R. & Desjardin, K. (Halkirk Soapstone Property)	Halkirk Township (Stone)	Pr, Str, Samp
16	Cyrari Capital Corporation (Menary Property)	Dash Lake Area (Au)	GL, Str, Pr, Samp
17	Emerald Field Resources Corp. (Scarp Lake property)	Line Lake Area (Cu, Ag, Au)	DD 4-250m, Samp, Pr

KENORA DISTRICT—2005

No	Company/Individual (Occurrence Name) or Property	Township/Area (Commodity)	Exploration Activity
18	Emerald Field Resources Corp. (St. Anthony Property)	Squaw Lake Area (Au)	DD 4-250m, GL, Str, Lc, Samp, Pr
19	Endurance Gold Corporation (Dogpaw Lake Property)	Dogpaw Lake Area (Au, Mo)	GL, GC, Lc, Samp
20	Equator Mining Corp. (Sturgeon Lake Property)	Squaw Lake Area (Au)	Comp, ARR, Samp
21	Glatz, A. (McLeod Property)	Redvers Township (Mo)	Pr, Samp
22	Glatz, A. & Riives, J. (Thundercloud Lake Property)	Boyer Lake Area (Au)	Pr, Str, Samp
23	Glatz, A., Riives, J. & Woitowicz, M. (Carleton Lake Property)	Lower Manitou Lake Area (Au)	Pr, Samp
24	Halo Resources Ltd. (Dupont Gold Property)	Snowshoe Bay Area (Au)	DDH 23-7054m, AEM, AM, Samp, Lc, GM, Comp, MRE
25	Hinterland Metals Inc. (Cu-Ni-Precious Metal Property)	Revell Township (Cu, Ni, Au, PGE)	GL, Samp
26	Houston Lake Mining Inc. (West Cedartree Gold Property)	Dogpaw Lake Area (Au)	Comp, Bulk-1000 tonnes, PDH 3-13.5m, Samp
27	King's Bay Gold Corporation (Dash Lake Property)	Dash Lake Area (Au)	GM, VLFEM, Lc
28	King's Bay Gold Corporation (Helena Lake Property)	Dash Lake Area (Au)	GM, VLFEM, Lc
29	King's Bay Gold Corporation (Sturgeon-Skaw Lake Project)	Squaw Lake Area (Au)	Comp, Samp
30	Mengold Resources Inc. (Needle Lake Property)	McIlraith Township (Au, Cu, Zn)	DDH 5-750m, GEM, Samp
31	MetalCORP Ltd. (North Rock Copper-Nickel Property)	Halkirk Township (Cu, Ni, PGE)	DDH 14-3906m, AEM, AM, GL, Comp, Samp
32	Metalore Resources Ltd. (East Cedartree Lake Property)	Dogpaw Lake Area (Au)	GEM
33	Nelson Granite Ltd. (Redditt "Bimini" Property)	Redditt Township (Stone)	Samp
34	Nelson Granite Ltd. (Sand Lake Property)	Swan Lake Area (Stone)	Samp
35	NuMax Resources Inc. (Westco Property)	Bliss Lake Area (Cu, PGE)	GL, Str, Samp
36	Opawica Explorations Inc. (Atikwa Lake Cu-Au Property)	Atikwa Lake Area (Au, Cu)	DDH 16-2364m, DDG, Comp, Samp
37	Porter, C. & Gillis, S. (Greenridge Property)	Brownridge Township (Beryl, Mo)	Pr, Samp
38	Q-Gold Resources Ltd. (Mine Centre Gold Property)	Bad Vermilion Lake Area (Au)	DDH 10-1532m, Str, Tr, Samp, Comp
39	Radisson Mining Resources Inc. (Highway Property)	Vista Lake Area (Mo)	Pr, Samp
40	Rainy River Resources Ltd. (Rainy River Property)	Richardson Township (Au, Cu, Zn, PGE)	ODH 104, Comp, DDR, DDH 17-3820m, Samp
41	Rainy River Resources Ltd. (Off Lake Property)	Senn Township (Au)	Pr, Samp

No	Company/Individual (Occurrence Name) or Property	Township/Area (Commodity)	Exploration Activity
42	Riives, J. & Glatz, A. (Mosher Bay Property)	Boyer Lake Area (Au)	Pr, Str, Samp
43	Rio Fortuna Exploration Corp. (Drayton Gold Property)	Drayton Township (Au, Cu)	GL, Pr, Samp
44	RJK Explorations Ltd. (Savant Lake Property)	Boucher Township (Cu, Zn)	DD 4-472.9 m, Samp
45	Rubicon Minerals Corporation (Gold Rock Property)	Harper Lake Area (Au)	Pr, Samp
46	Ryznar, T. (Straw Lake Beach Property)	Bluffpoint Lake Area (Au)	Pr, Samp
47	Solitaire Minerals Corp. (Lateral Lake Mo Property)	Webb & Echo townships (Mo)	Pr, Samp
48	Sutyor, F. (Claim 1218355 Property)	Vista Lake Area (Au)	Pr, Samp
49	Western Warrior Resources Inc. (Eagle Lake Property)	Buchan Bay Area (Au, Cu, Zn)	GL, Pr, Lc, Samp
50	Western Warrior Resources Inc. (Warclub Lake Property)	Fisher Lake Area (Au, Cu, Zn)	Pr, Samp

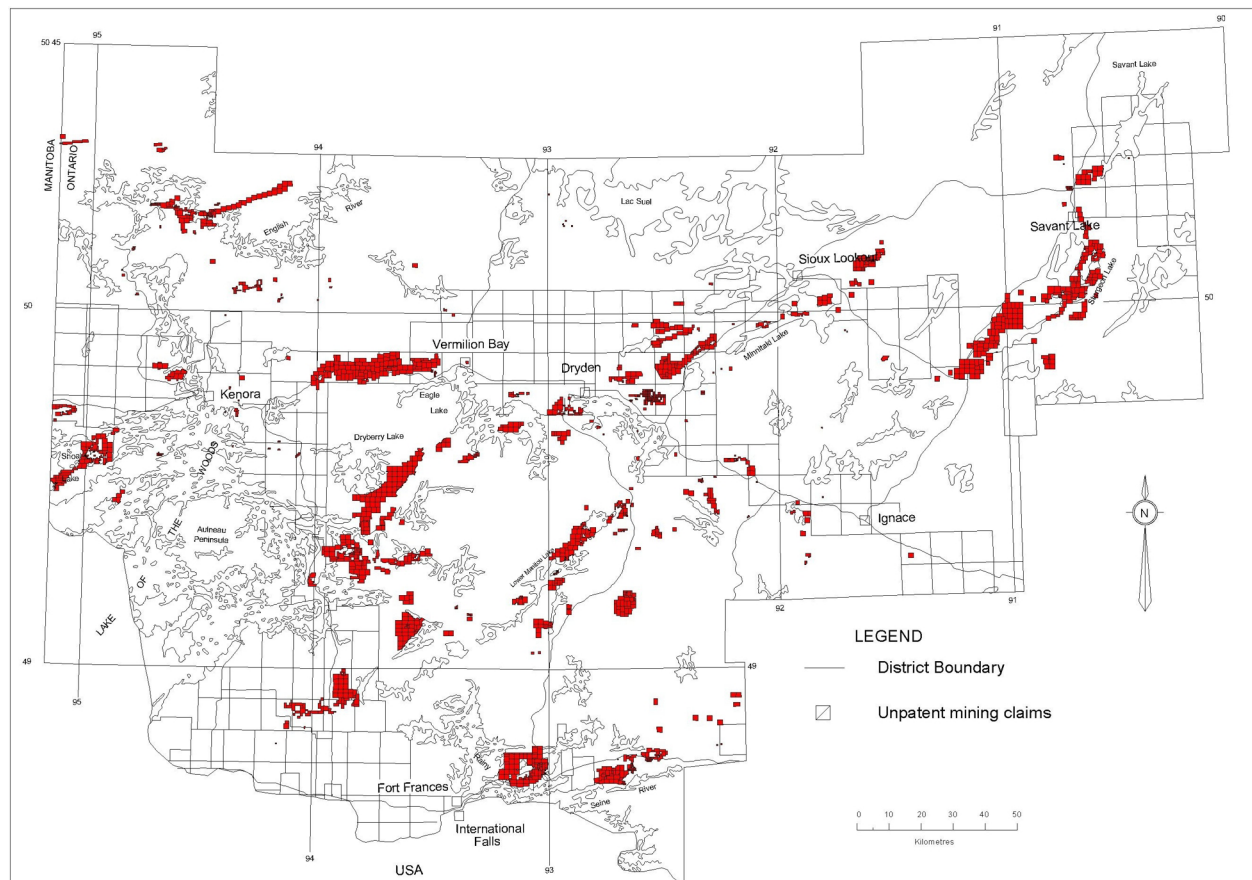


Figure 1. Extent of staking in the Kenora District as of December 31, 2005.

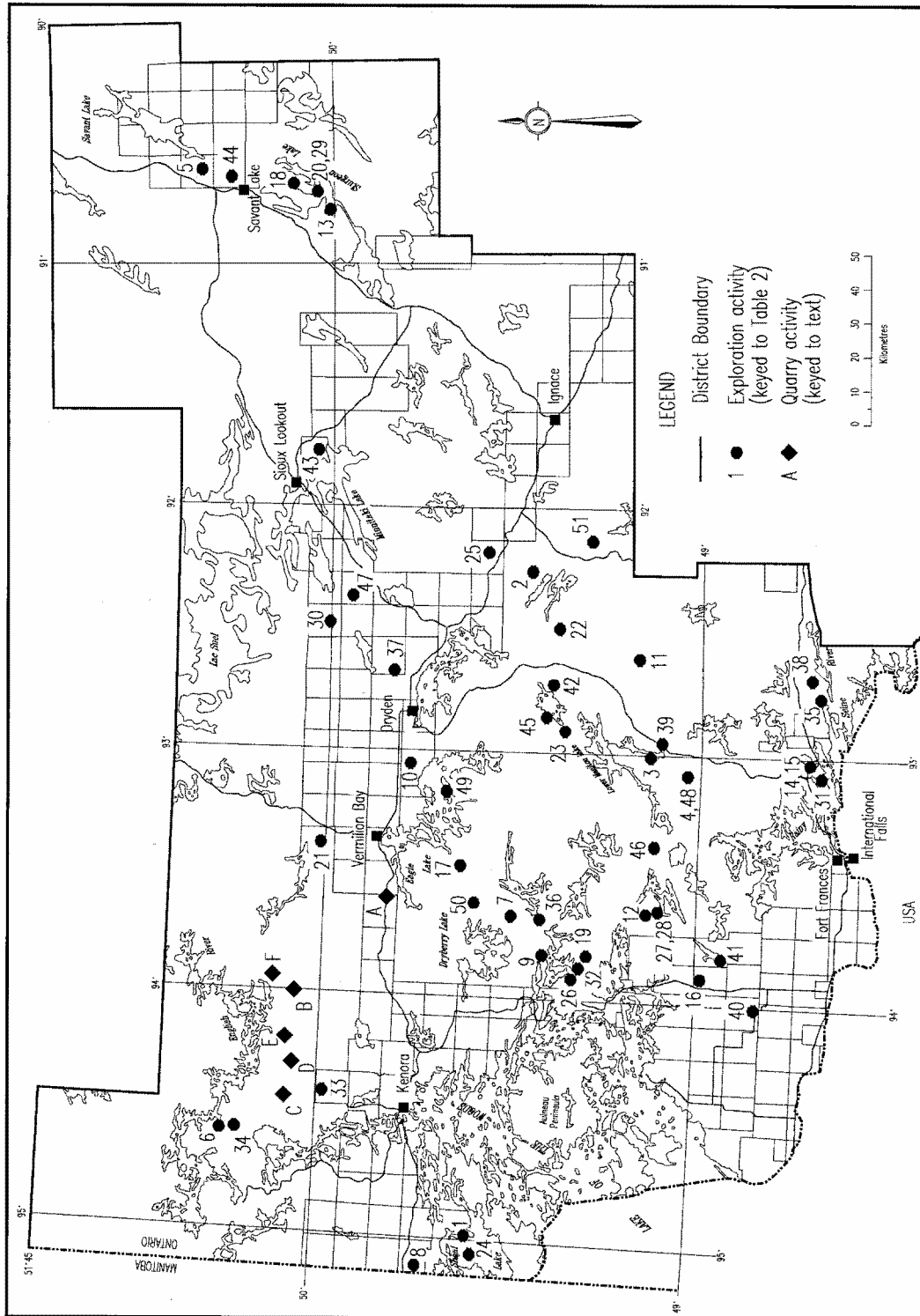


Figure 2. Exploration and quarry activity in the Kenora District in 2005. Locations listed in Table 2.

## Base Metals

In March 2005, **Blackstone Ventures Ltd.** entered into an agreement with Falconbridge Limited to purchase the Kenbridge property. The property is located 70 km east-southeast of Kenora. A historical mineral resource on the Kenbridge Deposit is 2 705 000 tonnes grading 1.05% Ni and 0.54% Cu to a depth of 610 m (Blackstone Ventures Ltd., press release, November 28, 2005). Mineralization is hosted in brecciated mafic intrusive rocks. A compilation of past exploration results, a ground electromagnetic survey and 2 phases of diamond drilling have been conducted on the property in 2005. The diamond-drill programs were designed to verify historical mineralization grades, extend 50 m spaced piercing-points of mineralized zone, determine grades of cobalt and platinum group metals, and collect samples for metallurgical testing (Blackstone Ventures Ltd., press release, November 28, 2005).

**MetalCORP Limited** commenced exploration work on the North Rock Copper Nickel property, located in Halkirk Township, approximately 25 km east of Fort Frances. Historical mineral reserves of the Beaver Pond Zone are 1 025 500 tons grading 1.2% Cu. In January 2005, MetalCORP completed an airborne magnetometer and electromagnetic survey over the property. Approximately 30 new mineral showings, related to the interpretative airborne anomalies and conductors, were discovered as a result of a summer mapping and prospecting program. A second phase of exploration work is planned to evaluate the numerous mineral showings on the property (MetalCORP Limited, press release, October 13, 2005).

A fourteen-hole diamond-drill program, totalling 3906 m, confirmed the depth extension of the copper zone at the Beaver Pond and Main South zones. Drilling intersected a new PGM zone adjacent to the copper zone. The PGM zone has been traced by drilling for approximately 500 m along strike and to a depth of 200 m. Significant assay results from this zone include 0.2% Cu, 3.7 g/t Pt and 7.1 g/t Pd over 0.8 m (MetalCORP Limited, press release, August 25, 2005).

In the fourth quarter of 2005, MetalCORP announced it had entered into an option agreement to acquire the Cousineau property. This property, located northeast and adjacent to the North Rock Property, covers the possible extension of the mineralized zones (MetalCORP Limited, press release, October 13, 2005).

In September 2005, **Opawica Explorations Inc.** entered into an option agreement with Maybrun Mines Limited to acquire up to 100% interest in the Atikwa Lake Gold-Copper property. The property is located in the Atikwa Lake area, approximately 70 km southeast of Kenora. The initial eleven-hole diamond-drill program targeted high gold values associated with historical drill-hole intersections. Significant intersections from drill hole OPW-6 of the 2005 program are 5.0 g/t Au and 2.64% Cu over 9.85 m and 10 m grading 2.8 g/t Au and 5.4% Cu. Based upon significant mineralized intersections, a second phase drill program commenced in the fourth quarter of 2005 (Opawica Explorations Inc., press release, December 9, 2005).

## Stone

**Nelson Granite Ltd.** conducted exploration programs on 2 areas north of Kenora. Physical testing on 450 tonnes of white-grey monzodiorite stone called Bimini was completed on the Redditt test site. This site is located near the hamlet of Redditt, approximately 25 km north of Kenora. The second area examined, Sand Lake, is located 55 km north of Kenora. The quality of stone from the Sand Lake site was tested by sample drilling, diamond saw cutting and removal of large blocks from 2 areas (G. Zebruck, Nelson Granite Ltd., personal communication, January 2005).

## **KENORA DISTRICT STAFF AND ACTIVITIES**

The Kenora office was staffed by C. Ravnaas, District Geologist; A. Raoul, District Support Geologist; and J. McDonald, summer assistant (Summer Experience Program). P. Hinz accepted the Thunder Bay-based Regional Land Use Geologist position during the first quarter of 2005.

Kenora staff attended the following conferences and symposia:

- the Prospectors and Developers of Canada Convention in Toronto in March, where a Northwestern Ontario regional display was staffed;
- a poster and oral presentation highlighting activities and prospects available for option in the district were presented at the Northwestern Ontario Mines and Minerals Symposium held in Thunder Bay in April;
- the Manitoba Mining and Minerals Convention held in Winnipeg, Manitoba in November; and
- the Ontario Exploration and Geoscience Symposium, sponsored by the Ontario Prospector's Association, in Toronto in December, where a poster highlighting activities in northwest Ontario and a provincial Recommendations for Exploration poster were staffed.

In addition to these events, staff organized or participated in

- Two Kenora elementary school geology tours
- Kejick Elementary First Nation geology information session;
- NRVIS-MDI training in Thunder Bay
- Red Lake mineralization related surface alteration tour; and
- the Dryden High School Conservation Course

In 2005, a total of 38 property visits were conducted by Kenora District Office staff (Table 3 and Figure 3).



**Table 3.** Property visits conducted by the Kenora District Geologists in 2005. Locations are keyed to Figure 3.

<b>Number</b>	<b>Client – Occurrence</b>
1	Apex occurrence
2	Atikwa area mafic volcanic rocks
3	Big Master prospect
4	Big Whopper Deposit
5	Blackstone Ventures Ltd. – Kenbridge Mine
6	Cabo Mining Enterprise Corp. – Mushkawa Lake occurrence
7	Cabo Mining Enterprises Corp. – Porphyry Lake occurrence
8	Canamerica E,F prospect
9	Champion Bear Resources – Plomp Farm occurrence
10	Cousineau Brothers – Belacoma occurrence
11	Dubenski prospect
12	Glatz, A. and Riives, J. – Armstrong occurrence
13	Goldlund Mine
14	Houston Lake Mining Inc. – Angel Hill gold occurrence
15	Houston Lake Mining Inc. – MacLennan gold occurrence
16	Johnston, S. – Obee1 molybdenum occurrence
17	Leuiller Island gold occurrence
18	Markle - MacEwan molybdenum occurrence
19	Maybrun Mine
20	Metalore Resources Ltd. – East Cedartree occurrence
21	Mulcahy occurrence
22	Nelson Granite Ltd. – Chesapeake stone test site
23	Nelson Granite Ltd. – Forgotten Lake quarry
24	Nelson Granite Ltd. – Redditt stone test site
25	Nelson Granite Ltd. – Sand Lake stone test site
26	Nelson Granite Ltd. – Second Mountain quarry
27	Nickel Lake Station molybdenum occurrence
28	Nipigon Gold Resources Limited – McKenzie Grey prospect
29	NuMax Resources Inc. – Seine Bay showing
30	Opawica Exploration Ltd. – Atikwa Lake copper-gold drill-core storage site
31	Porter, C. and Gillis, S. – Greenridge beryl-molybdenum occurrence
32	Rainy River Resources Ltd. – #17 gold prospect
33	Redvers Township Intrusion
34	Ryznar, T. – Straw Lake Beach Mine
35	Tak felsic intrusion
36	Wetelainin, H. – Bending Lake prospect
37	Windfall occurrence
38	Zig Zag Island occurrence



## PROPERTY VISITS

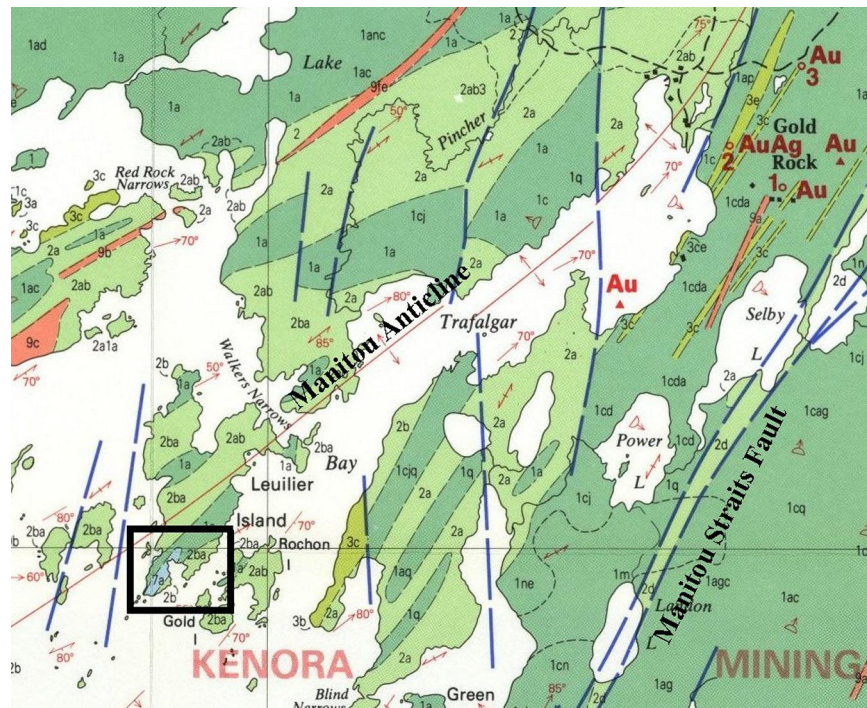
Major authorship for the following property visits is indicated in parentheses following the title. All Universal Transverse Mercator (UTM) co-ordinates are in North American Datum 1983 (NAD83), Zone 15. Analytical values presented in tables and text, unless indicated otherwise, was processed through the Geoscience Laboratories (Geo Labs), Ontario Geological Survey, in Sudbury.

### The Leuiller Island Occurrence (C. Ravnaas)

The Leuiller Island occurrence is located approximately 50 km south of the City of Dryden. Leuiller Island is situated in the northern part of Upper Manitou Lake. Access to Upper Manitou Lake is gained by an all-terrain vehicle (ATV) trail that departs from Highway 502. Travel on Upper Manitou Lake is via watercraft.

Leuiller Island is underlain by rocks that comprise the Upper Manitou Lake assemblage, which is part of the Eagle–Wabigoon–Manitou lakes greenstone belt (Blackburn 1982). A majority of gold occurrences in the Upper Manitou Lake area are controlled by northeast-trending shear and fracture zones. Parker (1989, p.109) describes mineralizing events as “gold-bearing quartz veins hosted by sheared and fractured felsic sills and dikes, metavolcanics rocks, and along dike/sill–metavolcanic contacts.” The northeast-trending Manitou Anticlinal Axis is a prominent structural feature in the Upper Manitou Lake area (Blackburn 1982). The axial plane of this anticline traverses the central part of Leuiller Island. Figure 4 illustrates the location of the anticline and the area examined during this visit.

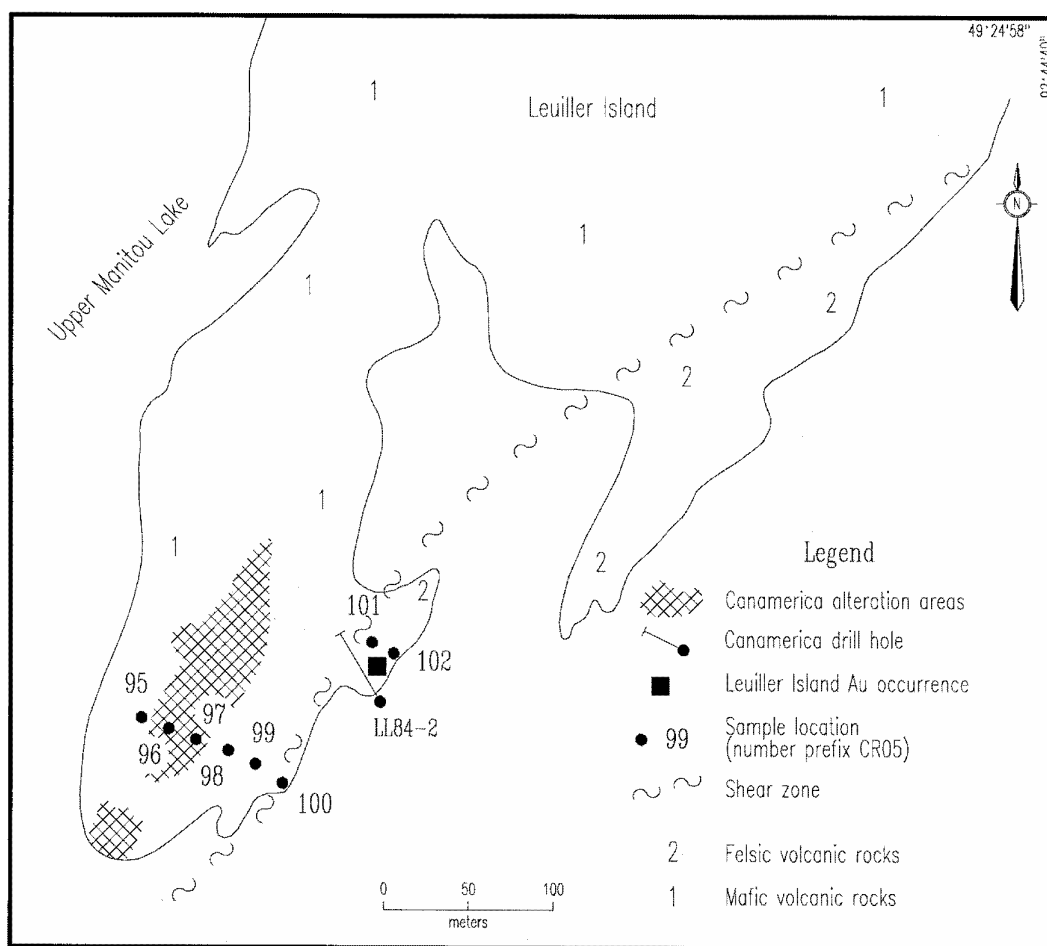
Canamerica Precious Metals Inc. conducted an extensive exploration program in the Upper Manitou Lake area in the mid-1980s. A majority of the exploration efforts by this company concentrated on the peninsula that separates Manitou Straits from Upper Manitou Lake. The only documented exploration work performed on Leuiller Island was by Canamerica during this program. Several strained and altered zones were discovered during their bedrock mapping on Leuiller Island. These zone are more abundant and are larger in size near the southern part of the island. Grab samples of altered mafic rocks related to these zones, during this program, returned up to 18.24 g/t Au (Kenora District Office, assessment files, 52F/07SW X-4).



**Figure 4.** Generalized geology of Leuiller Island and Upper Manitou Lake (*modified from Blackburn 1982*). Box indicates area examined during this visit.

**Table 4.** Gold values and description of samples collected from Leuiller Island.

Sample Number	Sample Description	Au (ounces per ton)
CR05-095	Felsite dike with 5% disseminated pyrite cut by 3 cm wide white quartz vein. Minor strain to felsite unit (assay value related to felsite unit only)	1028
CR05-096	Carbonate altered basalt, 20% calcite, 2% medium-grained cubic pyrite, minor silicification	1029
CR05-097	Siliceous basalt, 1% disseminated fine-grained pyrite, devoid of calcite	1371
CR05-098	Siliceous and carbonate altered basalt, 5% calcite, trace pyrite	1371
CR05-099	Siliceous basalt, 1% disseminated medium-grained cubic pyrite, 3% disseminated fine-grained pyrite, void of calcite	686
CR05-100	Siliceous basalt, 1% disseminated fine-grained cubic pyrite, void of calcite	1029
CR05-101	Felsite dike, strained, 1–5% disseminated fine-grained pyrite, quartz veinlets located along fractures	3772
CR05-102	Quartz vein up to 5 cm wide that cut CR05-101 unit. Vein is massive, white, trace fine-grained, disseminated pyrite	1029



**Figure 5.** Sample locations and alteration areas on Leuiller Island (modified from Fox 1985).

Outcrops were examined and sampled by District staff as part of a traverse across the south part of the island. All rocks examined were highly strained and show various amounts of silicification, carbonatization and chloritization. Fractures related to strain trend in a northeast direction parallel to regional deformation and the Manitou Lake Anticline. Samples presented in Table 4 were collected to provide a representation of various alteration and rock types examined during this visit.

A northeast-trending shear zone, orientated parallel to the contact of the felsic and mafic volcanic rocks, illustrated in Figure 5, was discovered during the bedrock mapping program by Canamerica (Kenora District Office, assessment files, 52F/07SW X-4). The Leuiller Island gold occurrence, located on the southeast shore, is associated with these strained rocks. The strained felsic intrusive rocks related to the occurrence are approximately 3 m wide. Massive, white quartz veins intrude the felsic intrusive rocks. These quartz veins intrude along fractures, but also display a stockwork pattern. Mineralization in this area was tested with 3 diamond-drill holes. A significant drill intersection included a section which assayed 24.69 ppb Au in hole number LL84-2 (Kenora District Office, assessment files, 52F/07SW X-6).

All samples collected from this visit returned anomalous gold values. Gold content is not associated with a specific rock or alteration type. There were a minor number of quartz veins observed in the exposures examined. The only quartz veins discovered were located in felsic intrusive rocks. Gold values associated directly with the felsic intrusive rocks were higher than samples collected from quartz veins than cut these units.

This area of Upper Manitou Lake should be examined based on the elevated values from samples collected during this visit.

## **Obee1 Molybdenum Showing (C. Ravnaas)**

The Obee1 molybdenum showing is located approximately 60 km northeast of the Town of Fort Frances. Construction of Highway 502 exposed mineralization associated with the Obee1 molybdenum showing. The showing, located east of Vickers Lake (UTM location: 506689E, 5446007N) is held by Dryden prospector S. Johnston.

The area is underlain by felsic intrusive rocks associated with the Irene–Eltrut lakes batholithic complex (Figure 6). This part of the complex has not been examined by industry or government geologists. Porphyritic granite, granodiorite and diorite are the main rock types. Foliation of the granodiorite and diorite is approximately 314/90°. All rocks have been fractured and intruded by felsic dikes and quartz veins.

Three distinct fracture patterns were observed in exposures. The oldest set ( $F_1$ ) trends 300/84°N. Narrow white to grey quartz veins occur within these fractures. A later, more prominent, set ( $F_2$ ), trending 050/80°E, overprints the first set of fractures. The width of quartz veins in  $F_2$  fractures range from 1 to 10 cm. The  $F_2$  fractures are cut and right-laterally offset by the youngest fractures ( $F_3$ ). These  $F_3$  fractures trend 320/70°S and are subparallel to the  $F_1$  fractures. The felsic intrusive rocks adjacent to  $F_3$  fractures show evidence of 1 to 6 cm wide, moderate strain zones. These strained rocks do not contain quartz, but show evidence of iron-staining. The  $F_3$  fractures are the least prominent of the 3 fracture patterns in the area as illustrated in Figure 7.

Molybdenite associated with a 1.5 m wide zone of quartz veins and silicified felsic intrusive rocks is located adjacent to Highway 502. Fine-grained disseminated sulphides are present in the granodiorite and diorite associated with this mineralized zone. Iron-staining is present on the weathered surfaces of the intrusive rocks. The actual width of the mineralized zone is unknown because portions of the exposure were removed during highway construction.

A zone containing several parallel-trending quartz veins was examined. The quartz veins parallel the trend of  $F_2$  fractures. The highest concentration of molybdenite is located along the fracture surfaces of a 6 cm wide, 050/60°E trending quartz vein. The mineralization can be traced along trend for approximately 2 m. Molybdenite flakes associated with the quartz veins and fracture surface of veins are fine to coarse grained. Molybdenite flakes can range up to 3 cm in size.

Approximately 1%, fine-grained disseminated molybdenite is located in siliceous intrusive rocks adjacent to the quartz veins. The exact width of disseminated mineralization is unknown as a result of highway construction.

The molybdenite mineralization appears to be structurally controlled and may originate from a porphyry-style mineralizing event. Two mineral deposit type environments are recommended for examination: 1) sulphide-mineralized, iron-stained and quartz-filled fractures that trend parallel to the F<sub>2</sub> fractures, and 2) hydrothermally altered rocks adjacent to quartz veins.

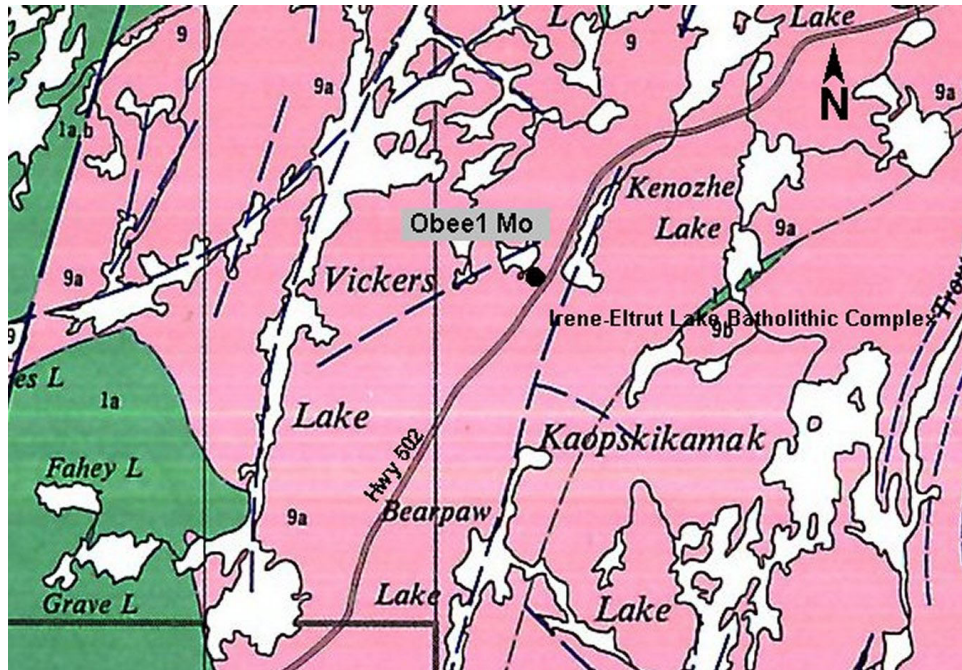


Figure 6. Location of Obbee1 molybdenum showing (modified from Blackburn 1978).

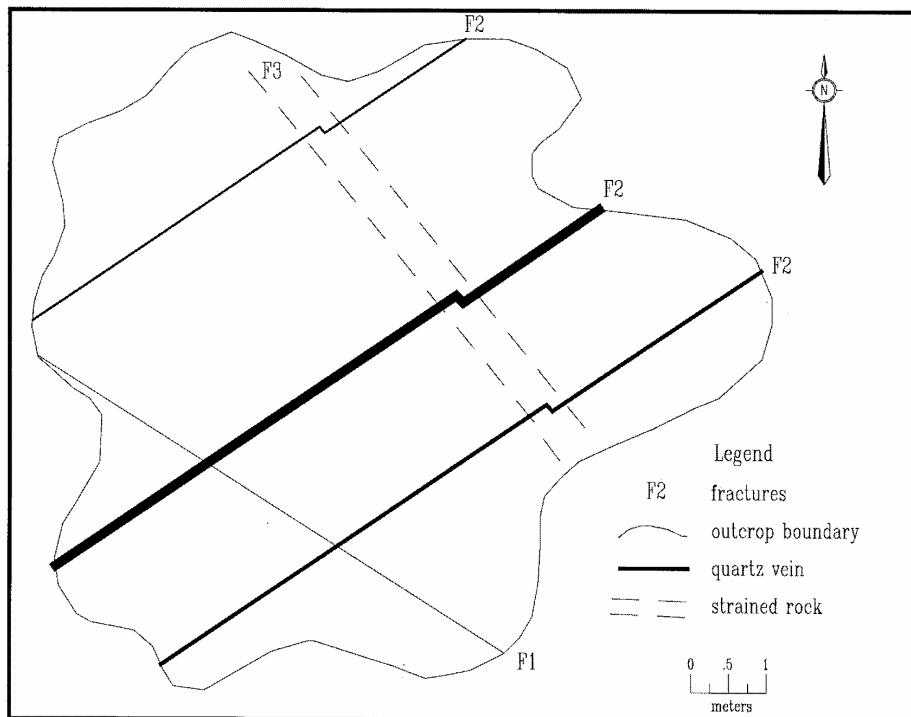


Figure 7. Sketch illustrating fracture patterns in the area of the Obbee1 molybdenum showing.



## Redvers Township Intrusion, Redvers Township (A. Raoul)

A reconnaissance evaluation of the Redvers Township intrusion was conducted 1) to determine whether 3 known molybdenum occurrences are structurally controlled or related to porphyry copper-molybdenum type mineralization, and 2) if structurally controlled, to assess, through reconnaissance mapping, the potential of this intrusion (>70 km<sup>2</sup>) to host additional mineralized structures.

The study area is located 20 km north of the Town of Vermilion Bay, Ontario (52K/03SW). Access is by 2 secondary highways and several tertiary roads. Outcrop exposure is good to the northeast (>30%), but poor to the southwest due to the presence of sand plains (<10%). The Redvers Township intrusion has not been mapped in detail nor adequately explored for molybdenum-copper or gold-silver mineralization.

### REDVERS TOWNSHIP INTRUSION

#### Geology and Geochemistry

Beakhouse (1992) classified the Redvers Township intrusion as part of the foliated tonalite suite, one of a number of similar intrusions in the Winnipeg River Subprovince:

These rocks are composed of tonalite, granodiorite and less commonly, quartz diorite. These rocks characteristically have a foliation and/or lineation defined by the orientation of minerals, mineral aggregates and rare enclaves. A weak gneissic fabric defined by narrow lenses of leucotonalite and discontinuous mafic schlieren is present locally, especially near the margins of the pluton. (Beakhouse 1992, p.292)

During this study, 44 samples were collected for analysis. Figure 8 illustrates the locations from which significant mineralization was sampled for this study. Selected whole rock analyses are shown in Table 5; Table 6 provides average geochemistry for similar rock types, and Table 7 shows selected metal analyses for some of the samples collected.

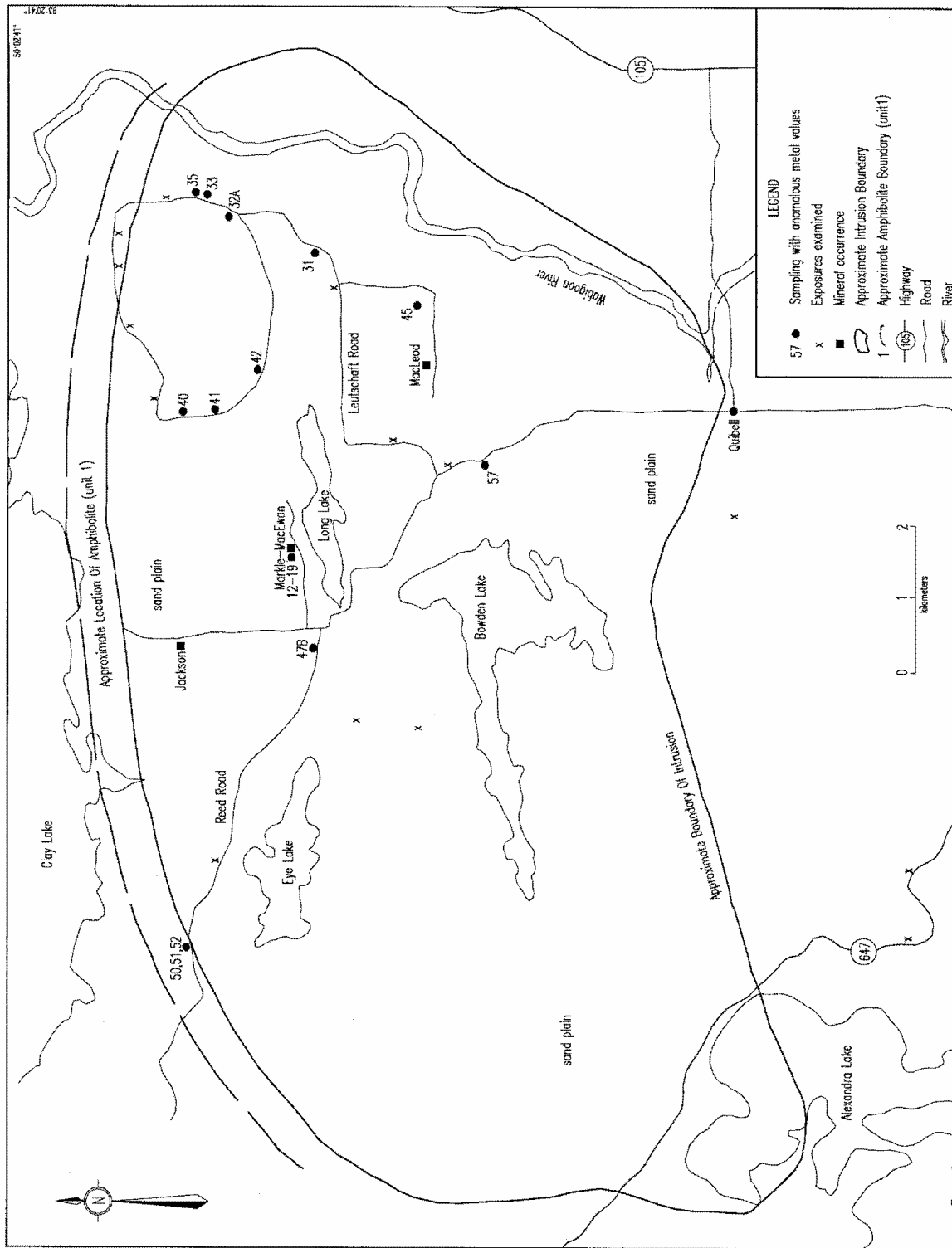
The reconnaissance mapping program identified the following units:

- Unit 3: late stage, medium to coarse-grained, pegmatite dikes
- Unit 2b: fine- to medium-grained, weakly to moderately foliated to gneissic, monzogranite to granodiorite
- Unit 2a: fine- to medium-grained, massive to weakly foliated, equigranular, syenogranite
- Unit 1: fine-grained, moderately to strongly foliated, black to dark green amphibolitized mafic volcanic rocks; possibly basaltic flows.

Larger exposures in this intrusion may contain units 2b, 2a and 3 or any combination of these units.

Values indicated as elevated and depleted in Table 5 are based on the averages in Table 6. Alteration of some samples is evident in the enrichment or depletion of certain elements, such as

1. Samples 35 and 41 show elevated Al<sub>2</sub>O<sub>3</sub> and K<sub>2</sub>O, indicating the presence of sericite;
2. Samples 45, 47A and 47B show elevated SiO<sub>2</sub>, indicating the introduction of vein quartz or silicification;
3. Sample 50 shows elevated SiO<sub>2</sub> in this originally basaltic rock, indicating the presence of quartz veins or silicification. This sample also has elevated Fe<sub>2</sub>O<sub>3</sub>, MgO and CaO, indicating the presence of mafic minerals, such as biotite or chlorite.



**Figure 8.** Sketch map indicating sample sites with anomalous metal values in the Redvers Township intrusion. Approximate outline of intrusion from Ontario Geological Survey (1991).



Samples with elevated to highly anomalous gold and silver values (*see* Table 7) are characterized by

1. late-stage silica introduction, as silicification or quartz veins. The highest precious metal values are associated with this type of alteration. High silica was identified in samples 45, 47A, 47B and 50 by whole rock geochemistry and visual identification in hand samples 33, 51 and 52. All four of the geological units host the highly elevated Au-Ag values with associated elevated silica;
2. moderately elevated Au-Ag values are related to sericite  $\pm$  hematite alteration. The presence of sericite or hematite was identified in samples 35 and 41 by whole rock geochemistry and visual identification in hand samples 31, 32A, 42, 47A, 51 and 52. This alteration was present in all the units except the basalt;
3. Samples 40, 42 and 57 show weakly elevated Au-Ag values with no detectable geochemical signature or visible alteration.

**Table 5.** Major element geochemistry of selected samples from the Redvers Township intrusion.

Sample	Unit	SiO <sub>2</sub> (ppm)	Al <sub>2</sub> O <sub>3</sub> (ppm)	Fe <sub>2</sub> O <sub>3</sub> (ppm)	CaO (ppm)	MgO (ppm)	K <sub>2</sub> O (ppm)	Na <sub>2</sub> O (ppm)	MnO (ppm)	P <sub>2</sub> O <sub>5</sub> (ppm)	TiO <sub>2</sub> (ppm)	LOI
31	2b	65.97	16.67	2.66	3.06	1.39	<b>3.30</b>	4.40	0.05	0.19	0.20	0.65
32A	2b	67.50	16.64	3.11	2.74	1.46	2.76	4.49	0.03	0.17	0.47	0.58
33	2a	71.15	15.95	<b>1.05</b>	<b>1.48</b>	<b>0.47</b>	<b>6.22</b>	3.24	0.01	0.19	0.11	0.56
35	2a	66.50	<b>17.59</b>	2.85	3.04	1.38	3.13	4.69	0.04	0.20	0.30	0.79
40	2b	66.11	16.99	2.77	3.23	1.46	2.72	4.77	0.03	0.17	0.35	0.54
41	2b	64.96	<b>18.79</b>	2.47	2.42	1.34	<b>4.59</b>	4.35	0.03	0.21	0.30	0.74
42	2a	71.02	14.84	1.56	1.17	<b>0.34</b>	5.86	3.09	0.01	0.10	0.11	1.34
45	2a	<b>75.84</b>	<b>13.88</b>	1.34	<b>1.45</b>	<b>0.34</b>	<b>4.45</b>	3.18	0.02	0.05	0.14	0.49
47A	2b	<b>74.98</b>	<b>14.08</b>	1.41	<b>1.52</b>	<b>0.30</b>	<b>4.47</b>	3.67	0.02	0.04	0.13	0.34
47B	2b	<b>73.60</b>	14.80	1.92	<b>1.86</b>	<b>0.46</b>	<b>3.67</b>	3.63	0.03	0.07	0.19	0.56
50	1	<b>57.29</b>	14.77	<b>9.83</b>	<b>7.20</b>	<b>5.57</b>	1.11	3.30	0.18	0.08	0.50	0.77
51	3	71.57	16.39	1.13	2.90	0.42	2.99	4.02	0.01	0.11	0.04	0.79
52	3	72.07	15.28	1.27	2.87	0.59	3.06	3.94	0.02	0.39	0.07	0.75
57	3	72.74	14.52	2.17	2.05	0.55	3.51	3.66	0.03	0.08	0.23	0.91

**Bold** values are representative of enrichment or depletion.

**Table 6.** Average major element geochemistry for rocks similar to those examined in this study (data from NEWPET 1987–1992).

Rock Type	Unit	SiO <sub>2</sub> (ppm)	Al <sub>2</sub> O <sub>3</sub> (ppm)	Fe <sub>2</sub> O <sub>3</sub> (ppm)	CaO (ppm)	MgO (ppm)	K <sub>2</sub> O (ppm)	Na <sub>2</sub> O (ppm)	MnO (ppm)	P <sub>2</sub> O <sub>5</sub> (ppm)	TiO <sub>2</sub> (ppm)	LOI
Pegmatite	3	72.82	13.27	2.59	1.14	0.39	4.30	3.55	0.06	0.07	0.28	1.49
Gneissic Granodiorite	2b	65.01	15.91	4.73	4.32	1.78	2.17	3.79	0.09	0.15	0.58	1.25
Syenogranite	2a	57.94	17.02	2.59	6.79	3.33	2.45	3.48	0.14	0.21	0.87	0.34
Basalt (Amphibolite)	1	49.20	15.74	10.72	2.91	9.47	1.84	1.10	0.35	0.20	1.38	2.54

Granite values were used for the pegmatite major element geochemistry.

**Table 7.** Selected metal analyses from the Redvers Township intrusion.

Sample	Unit	Location (NAD83, Zone 16)		Description	Au (opt)	Ag (opt)	Cu (ppm)	Mo (ppm)	Pb (ppm)
		Easting	Northing						
31	2b	471864	5539686	gneissic granodiorite with weak hematite ± sericite alteration (<5%)	N.D.	11.40	7	N.D.	14
32A	2b	472404	5540850	gneissic monzogranite with hematized ± sericite altered pegmatite	0.06	0.90	N.D.	N.D.	22
33	2a	472634	5541237	potassium feldspar-rich granite with hematite quartz-rich (>50%) pegmatite	1.10	33.00	10	N.D.	10
35	2a	472694	5541421	syenogranite with 2% limonite (pyrite) in oxidized matrix	0.01	N.D.	25	N.D.	14
40	2b	469802	5540907	grey monzogranite with no alteration	N.D.	0.60	6	N.D.	13
41	2a	469802	5540907	pink syenogranite with no alteration	N.D.	0.20	N.D.	N.D.	19
42	2a	469802	5540907	syenogranite with weak to moderate hematite-sericite alteration (<15%)	0.01	N.D.	N.D.	N.D.	9
45	2a	470889	5538286	syenogranite with weak sericite-silica alteration and <1% pyrite	0.02	0.10	N.D.	N.D.	13
47A	2b	467701	5538691	pink, banded gneiss with weak silica-sericite (<10%) overprinting	0.20	0.90	N.D.	N.D.	7
47B	2b	466307	5539853	0.5–2 cm veins of >50% quartz-tourmaline in fracture of gneissic granodiorite	0.02	0.20	N.D.	N.D.	13
50	1	462275	5541819	amphibolitic basalt of >80% biotite-hornblende with >3% pyrite ± chalcopyrite	13.55	N.D.	43	N.D.	11
51	3	462275	5541819	grey pegmatite with weak-moderate silica-sericite alteration (<20%) and <3% biotite	0.02	N.D.	25	N.D.	13
52	3	462275	5541819	hematized pegmatite with weak to moderate silica-sericite alteration (<20%) and <3% biotite	0.07	N.D.	27	N.D.	11
57	2b	468761	5537904	gneissic granodiorite with no alteration	0.01	N.D.	9	N.D.	13

N.D. – not detected; opt – ounces per ton

## Mineral Occurrences

Historical records of the molybdenum occurrences in this area (Markle–MacEwan, Jackson and MacLeod) indicate that all 3 mineralized zones are associated with silica flooding and have a similar orientation, 310/90°. It can be interpreted that these zones represent mineralized extensions of each other, over a strike-length in excess of 5 km.

During the field investigation, only the Markle–MacEwan molybdenum occurrence was located. This search did not find either the Jackson molybdenum, or the MacLeod molybdenum occurrences.

Prospector Alex Glatz located the MacLeod molybdenum occurrence on mining claim 4205704 (UTM location: 470140E, 5538183N). Two shallow blasted pits in foliated and silicified granite exposed molybdenite-pyrite bearing quartz veins in red-brown granitic country rock. Sampling by Mr. Glatz yielded 1) a 20 m north-south composite grab sample that assayed 0.145% Mo and 0.07% Cu; and 2) a selected grab sample that assayed 0.780% Mo and 0.05% W (A. Glatz, Prospector, personal communication, January 21, 2006).

The Markle–MacEwan occurrence (UTM location: 467759E, 5540145N) is reached by travelling 24 km north of Vermilion Bay on Hwy 105 and then east for 1.1 km along an old bush road. The site consists of 6 test pits, trenches and a shaft along a strike length of 55 m at 305°. The excavations were part of the work completed by the Markle Molybdenite Syndicate in 1936 and 1937. The best results obtained by the syndicate were 1) 1.14% MoS<sub>2</sub> from an 82 kg bulk sample, and 2) sampling across a 1.5 m width established grades of <0.20% MoS<sub>2</sub> over a 57 m strike length.

**Table 8.** Major element geochemistry from the Markle–MacEwan occurrence.

Sample	Unit	SiO <sub>2</sub> (ppm)	Al <sub>2</sub> O <sub>3</sub> (ppm)	Fe <sub>2</sub> O <sub>3</sub> (ppm)	CaO (ppm)	MgO (ppm)	K <sub>2</sub> O (ppm)	Na <sub>2</sub> O (ppm)	MnO (ppm)	P <sub>2</sub> O <sub>5</sub> (ppm)	TiO <sub>2</sub> (ppm)	LOI
12	3	65.50	<b>17.81</b>	2.64	2.50	<b>0.68</b>	<b>5.29</b>	3.73	0.04	0.24	0.19	1.25
13	3	62.56	<b>18.32</b>	3.52	3.65	<b>0.76</b>	<b>5.01</b>	4.14	0.08	0.22	0.06	1.56
14	2b	<b>77.87</b>	11.70	<b>2.12</b>	<b>1.65</b>	<b>0.43</b>	2.40	2.56	0.03	0.06	0.16	0.97
15	3	71.32	15.58	<b>2.16</b>	<b>2.02</b>	<b>0.56</b>	3.83	3.22	0.04	0.08	0.24	0.89
16	2b	<b>86.37</b>	<b>6.89</b>	<b>1.57</b>	<b>1.22</b>	<b>0.16</b>	1.20	<b>1.60</b>	0.03	0.06	0.09	0.79
17	2b	<b>77.95</b>	<b>12.36</b>	<b>1.70</b>	<b>1.44</b>	<b>0.28</b>	2.88	2.27	0.02	0.06	0.17	0.82
18	2b	<b>84.02</b>	<b>8.26</b>	<b>1.30</b>	<b>0.98</b>	<b>0.29</b>	2.35	<b>1.58</b>	0.02	0.05	0.16	0.59
19	2b	<b>94.54</b>	<b>3.17</b>	<b>0.45</b>	<b>0.13</b>	<b>0.01</b>	<b>0.87</b>	<b>0.34</b>	0.01	0.02	0.02	0.45

**Bold** values are representative of enrichment or depletion.

Mapping from southwest to northeast, the following units were encountered

1. the footwall comprises coarse-grained, pink pegmatite to pink pegmatite in foliated granodiorite (unit 3 in unit 2b; samples 12 and 15);
2. the main zone consists of a 2 m wide zone of potassium feldspar-plagioclase-quartz ± garnet-tourmaline with 1 to 5% disseminated molybdenum flakes and trace pyrite (units 2b and 3). There has been 10 to 50% silica introduction and feldspar grain-size reduction. A weak to moderate tectonic overprint occurs as a fracturing event (samples 13, 16, 18 and 19);
3. the hanging wall is a medium-grained unit of gneissic bands of >85% potassium feldspar-plagioclase-quartz and <15% bands of biotite ± hornblende with trace to 1% pyrite ± trace molybdenum (unit 2b; samples 14 and 17).

Values indicated as elevated and depleted in Table 8 are based on average values presented in Table 6. Alteration of some samples is evident in the enrichment or depletion of certain elements, such as

1. Samples 12 and 13 show elevated Al<sub>2</sub>O<sub>3</sub> and K<sub>2</sub>O, indicating the presence of sericite;
2. Samples 14, 16, 17, 18, and 19 show elevated SiO<sub>2</sub> in these granitic rocks, indicating the introduction of silica or quartz;
3. most of the samples show low Fe<sub>2</sub>O<sub>3</sub> or MgO or CaO, indicating the destruction and replacement of mafic minerals, such as hornblende, biotite or chlorite.

The samples described in Table 9 demonstrate elevated to highly anomalous values for molybdenum, tungsten, copper and gold. In particular

1. for samples 16, 17, 18 and 19, the strongest metal values, Mo±W-Cu-Au, are related to late-stage silica introduction;
2. quartz flooding was also recognized in samples 12 and 13, but not identified by the whole rock geochemistry. These contained weakly anomalous values for Cu-Mo;
3. Samples 14 and 15 show weakly elevated values of W-Cu-Mo with no geochemical signature or visible alteration.

## CONCLUSIONS AND RECOMMENDATIONS

During the reconnaissance mapping of this intrusion, 4 separate geological units (1, 2a, 2b and 3) were identified. Several types of alteration with economic mineralization were found in each of the units:

- a) silica flooding varied from 5 to 20% and was in the form of quartz replacement of the feldspars and mafic constituents; fine quartz veinlets (<1 cm) are present in late-stage fractures at 280 to 320°. Assays of 1.10 ounces Au per ton and 33.00 ounces Ag per ton were obtained from Sample 33;

**Table 9.** Metal analyses from the Markle-MacEwan occurrence.

Sample	Location	Description	Ag (opt)	Au (opt)	Cu (ppm)	Mo (ppm)	Pb (ppm)	W (ppm)
12	Trench 2 – 1 m chip SW country rock	potassium feldspar pegmatite with minor quartz-biotite and no sulphides	N.D.	N.D.	231	58	33	22
13	Trench 2 – 2 m chip main zone	Silicified (<20%) pegmatite with garnet and 1% molybdenum, trace pyrite	N.D.	N.D.	697	358	31	6
14	Trench 2 – 1 m chip NE country rock	Gneissic, banded granodiorite with no sulphides	N.D.	N.D.	165	88	17	219
15	Trench 3 – 1 m chip SW country rock	Pegmatite dike in foliated granodiorite and no sulphides	N.D.	N.D.	161	67	31	124
16	Trench 3 – 2 m chip main zone	Highly silicified (>50%) granodiorite with minor garnet-tourmaline and 3–5% molybdenum	N.D.	0.04	460	7956	30	2071
17	Trench 3 – 1 m chip NE country rock	Gneissic, weakly silicified, banded granodiorite with hornblende-biotite and trace molybdenum	N.D.	N.D.	403	2160	33	864
18	Trench 4 – 1 m chip main zone	Gneissic granodiorite with weak silica (<10%) and trace to 0.5% molybdenum-pyrite	N.D.	N.D.	109	1950	29	346
19	Trench 6 – grab main zone	Highly silicified granodiorite with >70% silica, minor garnet-tourmaline and 1–2% pyrite, 1% chalcopyrite and 1% molybdenum	N.D.	N.D.	442	2630	41	15

N.D. – not detected; opt – ounces per ton

- b) trace to 3% sulphides, dominantly pyrite ± chalcopyrite, occur in the late-stage fractures at 280 to 320°. An assay of 13.55 ounces Au per ton was obtained from Sample 50;
- c) 3 to 10% iron oxide, as either hematite or limonite, in the finer matrix of the foliated to gneissic rocks. Assays of 0.06 ounces Au per ton and 0.90 ounces Ag per ton (sample 32A) were obtained;
- d) <10% sericite or muscovite altering potassium feldspar in units 2a and 2b. Assays of 0.20 ounces Au per ton and 0.90 ounces Ag per ton were obtained from Sample 47A;
- e) weak epidote alteration (<5%) in gneissic tonalite (unit 2b). No significant assays were obtained in samples with epidote alteration.

The Redvers Township intrusion has potential to host economic mineralization. Two types of mineralization are interpreted to be present:

1. elevated to highly anomalous gold and silver values were found in 14 out of the 36 samples taken during the preliminary sampling program. More late-stage fractures containing silica or sericite ± hematite alteration with Au-Ag mineralization may exist within the pluton. Rock types hosting this mineralization and alteration are gneissic granodiorite (unit 2b), syenogranite (unit 2a) and amphibolitic basalt (unit 1);
2. elevated to highly anomalous molybdenum and tungsten values with minor copper and gold were found in the Markle-MacEwan and MacLeod molybdenum occurrences. More late-stage fractures containing silica ± sulphide (pyrite, chalcopyrite) alteration with Mo-W ± Cu-Au mineralization may exist within the pluton. This alteration and mineralization is hosted by gneissic granodiorite (unit 2b) and pegmatites (unit 3).

Approximately 15 intrusions similar to the Redvers Township intrusion (e.g., Lateral Lake intrusion) occur in the Winnipeg River Subprovince. The Redvers and Lateral Lake intrusions are known to host gold-silver and molybdenum mineralization; further prospecting of the other intrusions is warranted and highly recommended.

## RECOMMENDATIONS FOR EXPLORATION

### Inactive Mineral Prospects in the Kenora District

The following prospects (shown on Figure 9) have been subject to exploration activity, but, in the past few years, have been dormant and are presently available for option.

The **Marchington Road property (A)**, held by Commander Resources Ltd., is located in the Savant Lake greenstone belt. The property hosts a historical resource of 96 456 tons at 2.20% Cu, 1.18% Zn, 2.81% Pb and 2.81 ounces Ag per ton ([www.commanderresources.com](http://www.commanderresources.com), see Properties, For Option, Ontario VMS [accessed March 7, 2006]). The rocks in the area are comprised of intermediate to felsic volcanic rocks that display evidence of widespread hydrothermal alteration. Five zones of base and precious metal mineralization have been identified on the property. This part of the greenstone belt has high base-metal potential.

The **Sakoose property (B)** is owned by Dryden Prospector Alex Glatz. It hosts a historical resource of 50 000 tonnes grading 0.41 ounces Au per ton (Beard and Garratt 1976). Gold mineralization occurs in a quartz vein system that has been traced for 400 m, can be up to 6.5 m wide and has been tested to a depth of 200 m. Four shafts are located on the property. Past production occurred from the No.1 and No.2 shafts. The southwest extension of the quartz vein system has not been tested by drilling.

The **Mulcahy Lake intrusion (C)** is located in the Eagle–Wabigoon lakes greenstone belt. The intrusion is a northeast-trending, vertical-dipping layered mafic intrusive body. Studies of the intrusion have identified 4 zones (Sutcliffe and Smith 1985). The Marginal and Lower zones are 2.5 km thick and consist of layered gabbro and gabbro-norite rocks. The Middle Zone is 3 km thick at the widest part and consists of norite, gabbro-norite and magnetite-bearing rocks. The Upper Zone is 1.5 km thick and consists of gabbro-norite to ultramafic rocks. This intrusion has the potential to host a “reef-type” PGE mineralizing environment.

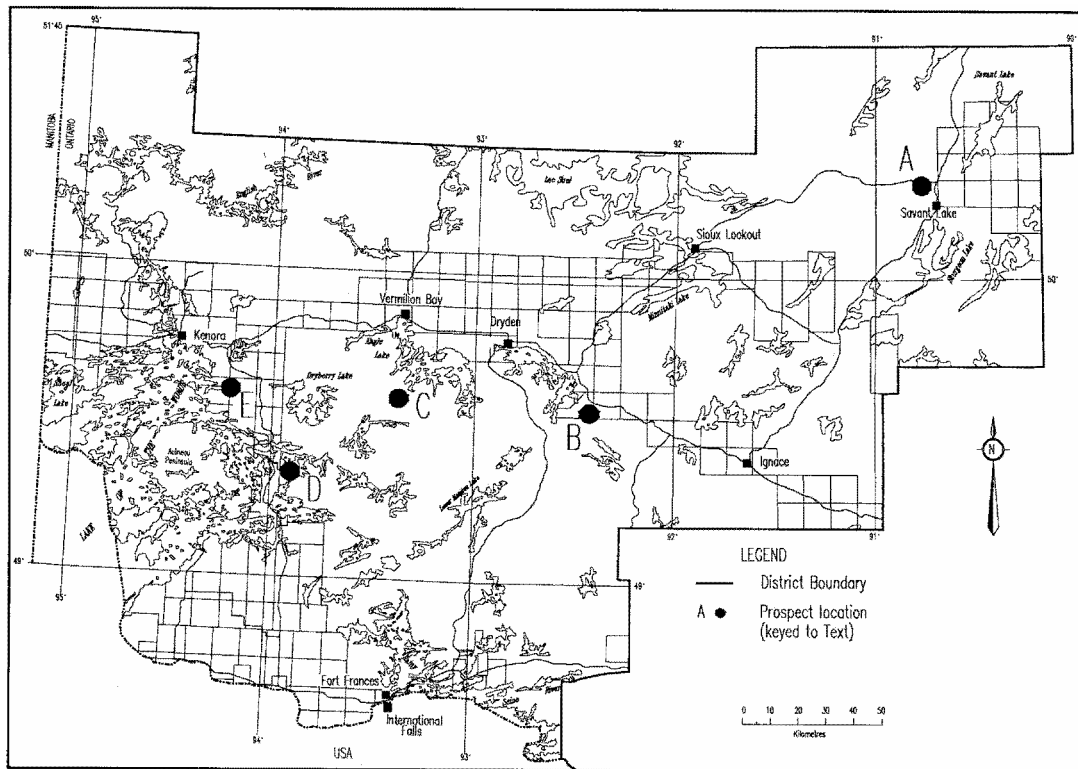


Figure 9. Location of inactive mineral prospects in the Kenora District.

The **Dubenski property** (D), held by Kenora prospector Paul Dubenski, is located in the Kakagi–Rowan lakes greenstone belt. A historical resource of 355 286 tonnes at 0.185 ounces Au per ton exists on the property (Kenora District Office, assessment file, 52F05SW WWW-5). Gold mineralization is present in zones of sericite schist and lenses of quartz that can be interpreted to extend for 500 m along strike. The property is underlain by highly strained felsic volcanic rocks that have been deformed by up to 3 deformation events, the most prominent of which is associated with the Pipestone–Cameron fault. The Cedartree Lake area has been the focus of numerous exploration programs and has high potential for gold mineralization.

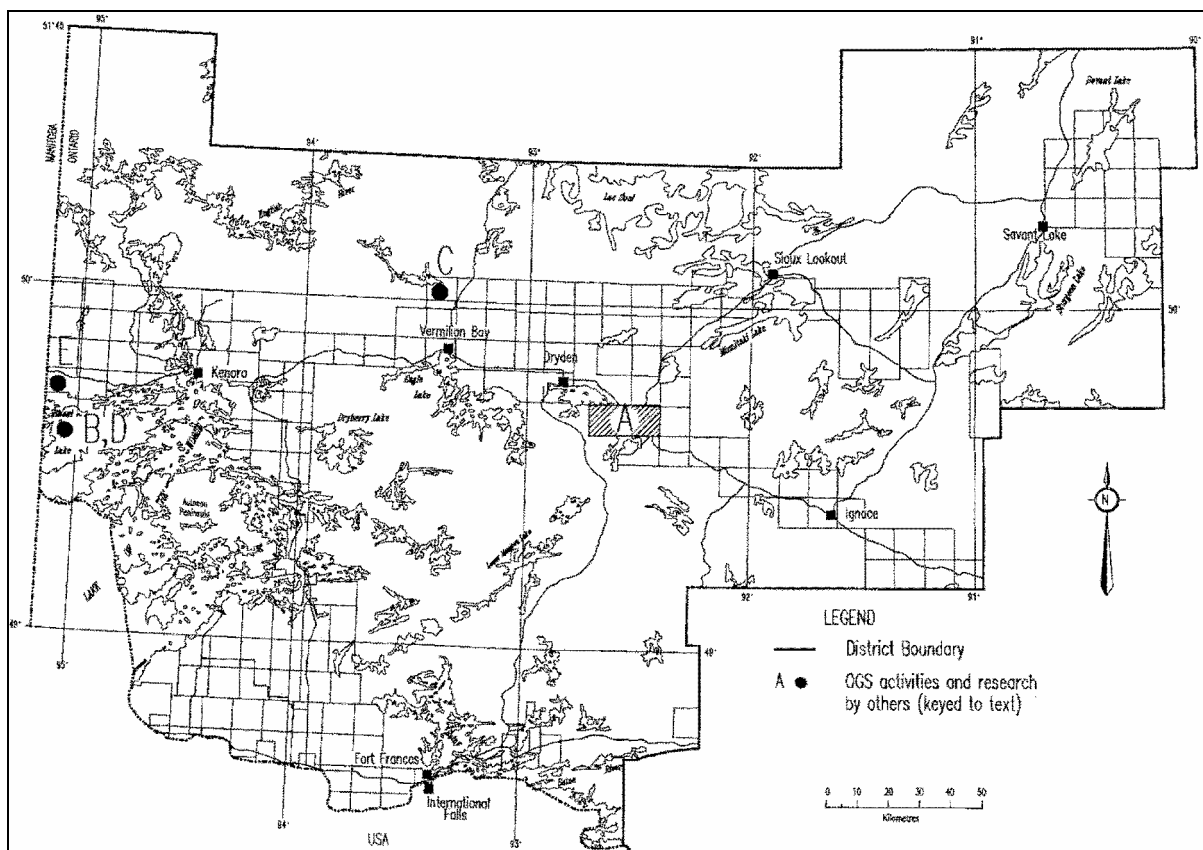
The **Wendigo property** (E), held by Witch Bay Camp owner Steve Hocket, is located in the Gibi Lake assemblage, part of the Lake of the Woods greenstone belt. The rocks in the area are highly strained in proximity to the east-trending Andrew Bay–Witch Bay fault. The Wendigo quartz vein system is developed predominantly within sheared and altered mafic volcanic rocks north of the fault. At least 3 quartz veins occur in the area near the Wendigo Prospect. The most prominent vein is 100 m long, 0.8 m wide and has been drilled to a depth of 230 m. Production from this vein is reported as totalling 206 054 tonnes at 0.327 ounces Au per ton, 0.071 ounces Ag per ton and 0.42% Cu (Davies and Smith 1988). Copper mineralization is associated with altered mafic volcanic wall rocks. Numerous other gold and base-metal occurrences are known in this part of the greenstone belt.

Additional information on these and other prospects are available, as presentations in Microsoft® PowerPoint® format, with attached notes, on the Ministry of Northern Development and Mines Web site (go to Resident Geologist Program, Northwest Regional Office, Kenora District, Prospects for Option)  
[http://www.mndm.gov.on.ca/mndm/mines/resgeol/northwest/kenora/Prospecting/prospect\\_e.asp](http://www.mndm.gov.on.ca/mndm/mines/resgeol/northwest/kenora/Prospecting/prospect_e.asp)

## OGS ACTIVITIES AND RESEARCH BY OTHERS

One Ontario Geological Survey (OGS) field project and 6 university research projects were conducted in the Kenora District in 2005. Figure 10 illustrates the location of these projects.

- A) G.P. Beakhouse, Precambrian Geoscience Section, OGS, completed the fourth year of a multi-year project mapping the Dinorwic–Butler Lake segment of the Wabigoon area.
- B) B. Cook, University of Manitoba, Winnipeg (BSc Honours thesis), is studying the magnetic response related to the Duport gold deposit in the Shoal Lake area.
- C) J. McDonald, University of Manitoba, Winnipeg (BSc Honours thesis), conducted a study on the molybdenum mineralizing events related to the Markle–MacEwan occurrence in Redvers Township.
- D) R. Melquist, University of Manitoba, Winnipeg, conducted studies related to a BSc thesis on the geology of the Duport deformation zone, in the Shoal Lake area.
- E) N. Halden, J. Young, and B. Mandziuk, University of Manitoba, Winnipeg, conducted geochronology and provenance studies of the Electrum Assemblage, Ewart Township.



**Figure 10.** Location of Ontario Geological Survey and other research activities in the Kenora District in 2005.

**Table 10.** Mineral deposits in the Kenora District in 2005.

<b>Abbreviations</b>				
AF .....	Assessment Files	MLS .....	Mining Lands, Sudbury	
CMH .....	<i>Canadian Mines Handbook</i>	MR .....	Mining Recorder	
GR .....	Geological Report	NM .....	<i>The Northern Miner</i>	
MDC .....	Mineral Deposit Circular	OFR .....	Open File Report	
MDIR .....	Mineral Deposit Inventory record	PC .....	Personal Communication	
RoA .....	Report of Activities	SMDR .....	Source Mineral Deposit Record	

<b>Deposit Name (NTS)</b>	<b>Commodity</b>	<b>Tonnage-Grade Estimates and/or Dimensions</b>	<b>Reserve References</b>	<b>Status (as of Jan. 2005)</b>
Apex Occurrence (52F/05NE)	Cu, Ni	Zone: 110m x 4m x 180m Estimated Reserves: 237 600 tonnes at 1.03% Cu and 0.56% Ni	GR 111, p.40	Staked claim K1239515
Bad Vermilion Lake–Seine Bay Prospect (52C/10NW)	Fe, Ti, V	Reserves: 1.2 Mt at 15% TiO <sub>2</sub> and 45% Fe. Potential for 177 800 tonnes of titanium sponge	NM 8/15/85, p.3 (Beaver Energy Resources)	Inactive, 8 claims
Bending Lake Prospect (52F0/8SE)	Fe	Recoverable Ore (proposed): 2000m by 300m wide with a resource of 247 Mt at 23% Fe Proposed concentrate of 70% Fe (96–97% magnetite) using magnetic separation	Environmental Assessment, Steep Rock Iron Mines, Sept. 1977	Active, 70 Patented claims
Big Master (Kenwest Mine) (52F/07NE)	Au, Ag	Production: 2565 oz Au and 184 oz Ag from 14 470 tons Indicated 1967 drilling: 30 000 tonnes at 0.36 opt Au Old workings: 19 000 tonnes at 0.30 opt Au Reserves (proven and probable): 123 000 tonnes at 0.30 opt Au and Indicated: 600 000 tonnes at 0.22 opt Au	MDC 16, p.9 CMH, 1988–89, p.92 (Canamerica Precious Metals Inc.)	Inactive, patented claims HP366, HP373, HP301
Big Whopper Pegmatite (52 L/07SE)	Li, Cs, Rb	Preliminary resource estimated at 11.6 Mt averaging 1.34% Li <sub>2</sub> O and 0.30 Rb <sub>2</sub> O	CMH, 2000–2001, p.45 (Avalon Ventures Ltd.)	Active, 12 staked claims
Bonanza Mine (52F/10NW)	Au	Reserves: 5000 tonnes at 0.25 opt Au across a width of 0.3m	Van Horne Gold Expl. Inc. AF	Inactive, 59 claims K53304 (site)
Cameron Lake Deposit (52F/05SE)	Au	Measured and Indicated Reserves: 572 000 tonnes at 6.54 gpt Au Inferred Reserves: 1 012 000 tonnes at 5.20 gpt Au (using NI43-101 standards)	Press release, Nuinsco Resources, 04/09/2005	Care and maintenance, 61 leased claims
Canadian Arrow Prospect (Dogpaw Lake) (52F/05SW)	Au	Indicated Reserves: 96 650 tonnes at 0.43 opt Au in 2 veins	NM 4/05/61 (Consolidated Golden Arrow Mines Ltd.)	Inactive, 17 claims
Canamerica E Zone (52F/07NE)	Au	Reserves: 529 650 tonnes of 0.103 opt Au indicated and inferred in NE Zone	NM 7/13/87, p.17 (Canamerica Precious Metals Inc.), Cochrane Oil & Gas Ltd., AF	Inactive, 45 claims
Cates Prospect (52F/13SE)	Zn, Ag	Zone: 2700m x 12m x 60m Reserves: 5.83 Mt at 0.5% Zn and 0.5 opt Ag	AF 52F/13SE M-1 to M-6 (Noranda) AF 52F/13SE B-1 to B-6 (Rio Algom)	Active, 9 claims



<b>Deposit Name (NTS)</b>	<b>Commodity</b>	<b>Tonnage-Grade Estimates and/or Dimensions</b>	<b>Reserve References</b>	<b>Status (as of Jan. 2005)</b>
Cedar Island Deposit (Cornucopia) (52E/10SW)	Au	Production: 5620 oz Au Indicated Reserves: 1.096 Mt at 6.63 gt Au, Inferred Reserves: 0.832 Mt at 5.63 gpt Au (both Cedar Island and Mikado)	Press release, Amador Gold Corp., 10/06/2003 <a href="http://www.amadorgoldcorp.com">www.amadorgoldcorp.com</a>	Inactive, patented claims D212, D265
Dobie Deposit (52C/12NW)	Cu-Ni	Reserves: 5.0 Mt at 0.28% Cu and 0.24% Ni	AF 52C/12NW B-3	Inactive, Patented land and reserve
Dubenski Gold Prospect (52F/05SW)	Au	Drill-indicated Reserves: 355 286 tonnes at 6.32 gpt (calculated to a depth of 150m)	CMH, 1999–2000, p.52 (Avalon Ventures)	Inactive, 22 Leased claims
Duport Mine (Consolidated Professor) (52E/11SE)	Au	Production: 4672 oz Au and 1143 oz Ag from 1287 tons Indicated Reserves: 424 000 tonnes at 13.4 g/t Au Inferred Reserves: 387 000 tonnes at 10.7 g/t Au	MDC 16, p.11 Press release, Halo Resources, 08/10/2005	Active, Patented claims S.170, K1332, K1333, K2374
Eagle Rock Property (Campbell Zone) (52F/02NE)	Au, Pt, Pd, Cu	Zone: 1350 m long x 18 m true width to 150 m depth. Test results (metallurgical) have shown that a sulphide concentrate may be produced exceeding 20% Cu, 2.5% Ni and almost one ounce of Pt+Pd+Au (11.5 g/t Pd, 9.0 g/t Pt, and 6 g/t Au) per tonne	Champion Bear Resources Ltd. <a href="http://www.championbear.com">www.championbear.com</a>	Active, 28 mining claims
Electrum Prospect-W Zone (fault zone or west zone) (52E/11 NE)	Au	Zone: 0.23 opt Au from 61m x 2.1m x 19.8m zone Reserves: 100 000 tonnes of 0.33 opt Au in the P and W zones combined	OFR 5695, p.108 Laramide Resources Inc. Annual Report, 1987	Inactive, Patented and Leased claims K20696-K28663
Elora (Jubilee) (52F/07NE)	Au	Production: 1370 oz Au and 296 oz Ag from 13 766 tons Reserves (Au): Probable: 228 500 tonnes at 0.18 opt Speculative: 5000 tonnes at 0.10 opt from dump	MDC 16, p.15 OFR 5332, p.37 Table 8	Inactive, Patented claim HP 301
F-Group (52G/14SE)	Cu, Zn, Pb, Ag	Original Reserves (Dec/78): 630 000 tonnes at 8.10% Zn, 0.98% Cu, 0.49% Pb, 1.80 opt Ag Reserves (Dec/82): 200 000 at 8.20% Zn, 0.80% Cu, 0.60% Pb, 1.80 opt Ag	CMH 1979–80, p.194 (Noranda) CMH 1982–83, p.254 (Noranda)	Inactive, Patented claims PA312564-65, PA312567-68 and PA226490-91
Flambeau Lake Prospect (52F/10NW)	Au	Reserves: diamond drilling partially outlines a zone with potential for 572 000 tonnes (Au grade unstated)	AF 52F/10NW UU-1 and UU-2	Inactive, Patented claim AL88
Foley Mine (52C/10NE)	Au	Production: 855 oz Au and 149 oz Ag from 5680 tons Reserves: 40 000 tonnes at 0.5 opt Au proven/probable and 400 000 tonnes at 0.5 opt Au speculative	MDC 16, p.16 NM 09/25/80 Seaforth Mines Ltd. OFR 5539, p.194	Inactive, Patented claims K475101, K475102, K475103
Gaffney Prospect (52F/07SW)	Au	Reserves: 300 000 tonnes at 0.15 opt Au	CMH, 1990–91, p.393	Inactive, Patents K3594-3595
Golden Star Mine (52C/10NE)	Au	Production: 10 758 oz Au and 34 oz Ag from 19 345 tons Reserves: 20 000 tons at 0.42 opt Au and 35 000 tons at 0.15 opt Au (tailings dump)	MDC 16, p.20	Inactive, Patented Claim AL116, Leased Claim K44632

KENORA DISTRICT—2005

<b>Deposit Name (NTS)</b>	<b>Commodity</b>	<b>Tonnage-Grade Estimates and/or Dimensions</b>	<b>Reserve References</b>	<b>Status (as of Jan. 2005)</b>
Goldlund Mine (52F/16NW)	Au	Production: 111 891 tonnes at 0.15 opt Au (Dec. 84) Reserves: 781 000 tonnes at 0.14 opt Au with 150 000 tonnes at 0.15 opt Au that can be mined by open pit	AF 52F/16NW 081 Locke Riche Minerals Ltd. CMH 1995–96, p.223	Inactive. Patented claim KRL 18802
Gordon Lake Mine (52L/07NW)	Cu, Ni, PGE	Production: 1.6 Mt at 0.78% Ni, 0.41% Cu and 0.026 opt Pd (Dec.71) Reserves: 170 420 tonnes at 0.85% Ni and 0.35% Cu (Dec.71)	OFR 5975, p.121	Inactive, Mining Patents KRL 19096-97, 29065- 66, 30055, 31373- 74, 31823-26, 31829-32, 33206, 33208, 33210, 36272-74
High Lake Porphyry (52E/11NE)	Cu, Mo, Au	Zone: 61m long by 77m wide containing assay values of 0.10% to 1.35% Cu and 0.01 to 0.05 opt Au	GR 41, p.46	Inactive, leased claim K32307
High Lake Prospect (Eco Occurrence) (52E/11NE)	Mo, Au	Reserves: 126 000 tonnes at 0.68% MoS <sub>2</sub> and 0.015 opt Au Indicated: 200 000 tonnes at 0.63% MoS <sub>2</sub> Inferred: 550 000 tonnes estimated to a depth of 145m	OFR 5695, p.114	Inactive, patented claims K8705, K8707 and staked claims
Kenbridge Prospect (52F/05NE)	Ni, Cu	Reserves: 2.705 Mt at 1.05% Ni and 0.54% Cu (to a depth of 600m)	Press release, Blackstone Ventures, 6/04/2004	Inactive, patented claims K6672, K6634, K6635
Kenricia Mine (52E/10NE)	Au, Ag	Production: 2553 oz Au and 521 oz Ag from 24 344 tons Reserves: 53 201 tonnes at 0.362 opt Au (1935)	MDC 16, p.23  AF 52E/10NE E-1	Inactive, Patented Mining Land P211
Laurentian Mine (52F/07NE)	Au	Production: 8140 oz Au from 19 950 tons (grade 0.41 opt Au) Reserves (Au): Possible: 50 650 tonnes at 0.25 opt; Speculative: 20 000 tonnes at 0.10 opt on dump	MDC 16, p.24  OFR 5332, p.37 Table 8	Inactive, Patented Mining Land HP 371
Lockhart Lake (52C/10NW)	Zn, Cu, Au, Ag	Reserves: 6.1 Mt at 1.06% Zn, 0.27% Cu, 3.2 gt Ag and 0.006 gt Au	AF 52C/10NE Y-6 (Minnova 1989)	Inactive, Patented claims K417852-854, K418156-157, K446504-509
Lyon Lake Zone (Creek Zone) (52G/15NW)	Cu, Zn, Pb, Ag	Original Reserves: 3.945 Mt at 6.53% Zn, 1.24% Cu, 0.63 % Pb, 3.42 opt Ag and 0.01 opt Au Reserves: 0.695 Mt of 10.34% Zn, 0.75% Cu, 1.62% Pb and 5.96 opt Ag	CMH 1979–80, p.194 (Noranda)  CMH 1990–91, p.332 (Noranda)	Closed Mine, Patented claim CLM 185
MacKenzie-Grey (52C/10NE)	Au	Reserves: 98 702 tonnes at 0.30 opt Au	AF 52C10NE DDD- 4 (Nipigon Gold)	Active, Patented claim K75
Marchington Road Deposit (52J07SE)	Cu, Zn, Pb, Ag	Reserves: 150 000 tonnes at 0.98% Cu, 3.11% Zn, 1.16% Pb, 1.97% Ag	Umex Inc. AF 52J/7SW 0024	Inactive, Patented claim CLM 337
Mattabi Mine (52G/15SW)	Cu, Zn, Pb, Ag	Original Reserves: 13.66 Mt at 7.50% Zn, 0.80% Cu, 0.77% Pb and 3.10 opt Ag Reserves: 0.387 Mt of 0.13% Cu, 9.28% Zn, 0.58% Pb and 1.77 opt Ag	GR 221, p. 4  CMH 1988–89, p.338 (Noranda)	Closed Mine, Patented claims GTP Block 7

<b>Deposit Name (NTS)</b>	<b>Commodity</b>	<b>Tonnage-Grade Estimates and/or Dimensions</b>	<b>Reserve References</b>	<b>Status (as of Jan. 2005)</b>
Mavis Lake Prospect (52F/15SE)	Li, Ta	Reserves: 500 000 tonnes of 1% LiO <sub>2</sub>	OFR 5718, p.151	Inactive, Leased claims K498288-290, K 498292, K498308, K498140
Maybrun Mine (52F/05NE)	Cu, Au	Production: 125 000 tonnes at unknown grades (Aug.73 to Dec.74) Reserves: 2.8 Mt at 1.18 % Cu and 0.08 opt Au (1966)	MDIR K0203 AF 52F/5NE P-1	Inactive, care and maintenance, Patented claims K15364-15381, K15524-15527
Mikado Mine (52E/10SW)	Au	Production: 31 000 oz Au (see Cedar Island Deposit)	Amador Gold Corp.	Inactive, Patented mining claim D148
Mironsky Prospect (52C/11NE)	Cu	Zone: 122m long by 10m wide zone to a minimum depth of 90m averaging 0.53–1.01% Cu Reserves: 300 000 tonnes at 0.8% Cu (estimated)	MDC 29, p.42	Inactive, Staked claim 1238036
Norpax (Reynar Lake) (52L/06NE)	Ni, Cu	2002 Drilling intersected 3.35m of 1.308 gpt PGE and 2.94% Cu, Ni Reserves: 1 Mt at 1.2% Ni and 0.5% Cu	Press release, Atikwa Minerals, 08/28/2003 Norpax Nickel Mines Ltd., AF	Inactive, Patented claims KRL350101 and KRL34767
North Kaskaweogama Prospect (52J/07NW)	Fe	Reserves: 405 000 tons at 28% Fe in 4 zones and a possible 50 Mt at unstated grade	MRC 11, p.443	Inactive, Open Crown Land
North Pines Mine (52K/01SE)	Pyrite	Production: 500 000 tonnes at 28% Fe (1909–21) Reserves: open	GR 101, p.36	Inactive, Patented claim HW 715
North Rock Mine (South Grassy) (52C/11NE)	Cu	Zone: 400m x 2–30m x 91m Reserves: 1.1 Mt at 1.17 % Cu including 265 230 tonnes at 2.08% Cu	OFR 5512, p.50	Active, 8 Staked claims
Pidgeon Molybdenum Mine (52F/16NW)	Mo	Resource: 416 000 tonnes of 0.57 % Mo	Hall 1965, p.1	Inactive, Patented claim Pa 14051
Port Arthur Copper (51C/15SE)	Cu, Zn	Production: 26 509 lbs Cu Estimated Reserves: 48 895 tonnes at 1.18% Cu and 0.43% Zn	Ravnaas and Raoul (2002, p.55)	Inactive, patented claim FF4261
Purdex Prospect (A-D Zones) (52E/11NE)	Au	Reserves: 1) 76 500 tonnes at 0.308 opt Au (indicated tonnage in 4 zones) 2) 241 000 tonnes at 0.226 opt Au in the P, A, B and C zones	OFR 5695, p.273 CMH, 1995–96 p.233	Inactive, patented claims K25130, K25131
Rainy River Zone 17, 34 (52D/16SE)	Au, PGE, Cu, Ni	Zone 17: Indicated Resource: 1.74 Mt of 1.56 g/t Au, 0.03% Cu, 0.21% Zn and 4.0 g/t Ag Inferred Resource: 11.0 Mt of 1.33 g/t Au, 0.02% Cu, 0.20% Zn and 3.60 g/t Ag Zone 34 Resource: Weighted average grades of 2.19% Ni, 1.55% Cu, 0.11% Co, 2.51 g/t Pt, 5.91 g/t Pd, 3.20 g/t Au and 19.0 g/t Ag	Press release, Nuinsco Resources, 12/17/2004  Press release, Nuinsco Resources, 12/17/2004	Active, Patented Land

KENORA DISTRICT—2005

<b>Deposit Name (NTS)</b>	<b>Commodity</b>	<b>Tonnage-Grade Estimates and/or Dimensions</b>	<b>Reserve References</b>	<b>Status (as of Jan. 2005)</b>
Regina Mine (52E/08NE)	Au, Ag	Production: over 8000 oz Au and 1460 oz Ag from 36 828 tons Reserves (Au): Speculative: 19 650 tonnes at 0.44 opt with 30 000 tonnes at 0.106 opt in tailings	MDC 16, p.34  AF 52E/8NE Q-1 NM 07/25/88, p.7 Sweaney Gold Corp.	Inactive, Patented claims P566-67
Richard Lake Prospect (52F/13SW)	U	Zone: 213m x 3m x 300m Reserves: 650 000 tonnes of 0.10% U <sub>3</sub> O <sub>8</sub>	GR 130, p.46	Inactive, Patented claim K18761
Sakoose Mine (52F/09SW)	Au, Ag	Production: 3669 oz Au and 145 oz Ag from 8828 tons Reserves: 50 000 tonnes at 0.41 opt Au	MDC 16, p.36	Inactive, Staked claim 1244771
Scramble Mine (Homestake) (52E/16SW)	Au	Zone: 366m to 457m x 3.7m wide zone at 0.15 opt Au  Reserves: 150 000 tonnes at 0.24 opt and 70 000 oz (at 0.05 opt cut-off) drill indicated	NM 07/25/88 (Madeline Mines Ltd.) CIMM, Dist.4 Field Trip Guidebook, p.44	Inactive, Jaffray Tp., Con.6, Lots 13 and 14
St Anthony Mine (52J/02SE)	Au	Production: 331 069 tons at 0.19 opt Au Reserves: 37 800 tons at 0.18 opt Au	MRC13, p.295	Inactive, Patented claim BG 154
Straw Lake Beach Mine (52F/03NW)	Au, Ag	Production: 11 568 oz Au and 1049 oz Ag from 33 662 tons Reserves (Au): Probable: 32 000 tonnes at 0.20 opt, Possible: 32 000 tonnes at 0.20 opt and 30 000 tonnes at 0.15 opt Speculative: 48,000 tonnes 0.20 opt	MDC 16, p.38  OFR 5332, table 14, p.47	Inactive, 10 Patented mining claims K4021-4022, K4035-4040, K9037-9040
Sturgeon Lake Mine (52G/15NW)	Cu, Zn, Pb, Ag	Original Reserves (Dec/74): 2.10 Mt at 10.64% Zn, 2.98% Cu, 1.47% Pb, 6.14 opt Ag and 0.021 opt Au Reserves (Dec/78): 599 000 tonnes at 2.34% Cu, 8.98% Zn, 1.30% Pb, 5.17 opt Ag and 0.018 opt Au	GR 221, p.4  CMH 1980–81, p.102 (Falconbridge)	Inactive, Patented claim
Sultana Mine (52E0/9NW)	Au	Production: 15 977 oz Au from 77 481 tons (grade of 0.21 opt) Reserves: none available	MDC 16, p.38	Inactive, Patented mining claim K489932 and claim 1086199
Tabor Lake Mine (52F/09SW)	Au, Ag	Production: 36 oz Au and 4 oz Ag from 87 tons Indicated Reserves: 50 000 tons at 0.5 opt Au	MDC 16, p.39	Inactive, 37 patented claims, mine site on K502044
Thunder Lake Deposit (52 F/15SE)	Au	Bulk Sampling: 428 oz Au and 1161 oz Ag from 2365 tonnes Inferred Resource: 2.974 Mt averaging 6.47 g/t Au	Corona Gold 1999 Annual Report, CMH, 2004–2005, p.127 (Corona Gold Corp.)	Inactive, Patented and Staked claims
Vanlas Prospect (52F/10NW)	Au	Reserves: 100 000 tonnes at 0.20 opt Au	Power Expl. Inc. AF 52F/10NW UU-1	Inactive, patented claim K70627
Victor Island Prospect (52F/05SE)	Au	Reserves: Drill indicated 300 000 tonnes at 0.12 opt Au to a depth of 213m	MP 128, p.16	Inactive, patented claim K4712 Claims 690655, 718785

Deposit Name (NTS)	Commodity	Tonnage-Grade Estimates and/or Dimensions	Reserve References	Status (as of Jan. 2005)
Wendigo Mine (52E/09NE)	Au, Ag, Cu	Production: 67 423 oz Au, 14 762 oz Ag and 1.89 million lbs of Cu from 206 054 tonnes Reserves (Au): Vein 1: 110m x 0.8m x 230m depth at 0.33 opt Au (production vein) Vein 2: 118m x 0.6m Vein 3: 180m x 0.3m Vein 4: unknown Tailings: 61 970 tonnes at 0.027 opt Au	SMDR 001350  OFR 5695, p.352	Inactive, Patented mining claims MH 208-210
Werner Lake Cobalt (52L/07NW)	Co, Cu	Production: recovered 389 363 lbs of Co (1932, 1940–44); grades 2% Co and 0.75% Cu Reserves: 1.01 Mt at 0.31% Co and 0.29% Cu	MDC 1, p.37  Press release, Canmine Resource, 02/09/1999	Inactive, Patented mining claim KRL 9383
West Cedartree–Angel Hill Gold Zone (52F/05SW)	Au	Inferred Resource (NI43-101): 106 000 tonnes at 2.97 gpt Au with 2.0 gpt Au cut-off	Press release, Houston Lake Mining, 10/20/2005	Active, Patented claim K10026
Wind Bay Prospect (52C/10NW)	Zn, Cu	Zone: 1300m x 46m x 10m Estimated Resource: 1.79 Mt at 1.5% Zn and 0.2% Cu	OFR 5512, p.89	Inactive, Patented mining claim 594P

The reference to resources is based on data before National Instrument 43-101 went into effect. These resources calculations may not meet criteria for National Instrument 43-101.

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# Metric Conversion Table

Conversion from SI to Imperial			Conversion from Imperial to SI		
<i>SI Unit</i>	<i>Multiplied by</i>	<i>Gives</i>	<i>Imperial Unit</i>	<i>Multiplied by</i>	<i>Gives</i>
<b>LENGTH</b>					
1 mm	0.039 37	inches	1 inch	<b>25.4</b>	mm
1 cm	0.393 70	inches	1 inch	<b>2.54</b>	cm
1 m	3.280 84	feet	1 foot	<b>0.304 8</b>	m
1 m	0.049 709	chains	1 chain	20.116 8	m
1 km	0.621 371	miles (statute)	1 mile (statute)	<b>1.609 344</b>	km
<b>AREA</b>					
1 cm <sup>2</sup>	0.155 0	square inches	1 square inch	<b>6.451 6</b>	cm <sup>2</sup>
1 m <sup>2</sup>	10.763 9	square feet	1 square foot	<b>0.092 903 04</b>	m <sup>2</sup>
1 km <sup>2</sup>	0.386 10	square miles	1 square mile	2.589 988	km <sup>2</sup>
1 ha	2.471 054	acres	1 acre	0.404 685 6	ha
<b>VOLUME</b>					
1 cm <sup>3</sup>	0.061 023	cubic inches	1 cubic inch	<b>16.387 064</b>	cm <sup>3</sup>
1 m <sup>3</sup>	35.314 7	cubic feet	1 cubic foot	0.028 316 85	m <sup>3</sup>
1 m <sup>3</sup>	1.307 951	cubic yards	1 cubic yard	0.764 554 86	m <sup>3</sup>
<b>CAPACITY</b>					
1 L	1.759 755	pints	1 pint	0.568 261	L
1 L	0.879 877	quarts	1 quart	1.136 522	L
1 L	0.219 969	gallons	1 gallon	<b>4.546 090</b>	L
<b>MASS</b>					
1 g	0.035 273 962	ounces (avdp)	1 ounce (avdp)	28.349 523	g
1 g	0.032 150 747	ounces (troy)	1 ounce (troy)	<b>31.103 476 8</b>	g
1 kg	2.204 622 6	pounds (avdp)	1 pound (avdp)	<b>0.453 592 37</b>	kg
1 kg	0.001 102 3	tons (short)	1 ton (short)	<b>907.184 74</b>	kg
1 t	1.102 311 3	tons (short)	1 ton (short)	<b>0.907 184 74</b>	t
1 kg	0.000 984 21	tons (long)	1 ton (long)	<b>1016.046 908 8</b>	kg
1 t	0.984 206 5	tons (long)	1 ton (long)	<b>1.016 046 90</b>	t
<b>CONCENTRATION</b>					
1 g/t	0.029 166 6	ounce (troy)/ ton (short)	1 ounce (troy)/ ton (short)	34.285 714 2	g/t
1 g/t	0.583 333 33	pennyweights/ ton (short)	1 pennyweight/ ton (short)	1.714 285 7	g/t

## OTHER USEFUL CONVERSION FACTORS

	<i>Multiplied by</i>	
1 ounce (troy) per ton (short)	31.103 477	grams per ton (short)
1 gram per ton (short)	0.032 151	ounces (troy) per ton (short)
1 ounce (troy) per ton (short)	20.0	pennyweights per ton (short)
1 pennyweight per ton (short)	0.05	ounces (troy) per ton (short)

*Note: Conversion factors which are in bold type are exact. The conversion factors have been taken from or have been derived from factors given in the Metric Practice Guide for the Canadian Mining and Metallurgical Industries, published by the Mining Association of Canada in co-operation with the Coal Association of Canada.*







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