

2013 Northwest Territories Mineral Exploration Overview

November 2013

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NORTHWEST TERRITORIES

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Cover Illustration:

A look across the A418 open pit at Diavik Mine. The pit floor is now being drawn down through the sub level retreat bulk underground method. The black area lacking snow-cover on the lower portion of the photo is a hole extending through the kimberlite at the bottom of the open pit to the underground drawpoint. Photo courtesy of Hendrik Falck.

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2013 Northwest Territories Mineral Exploration Overview

Introduction

Exploration in 2013 started slowly, with many junior companies having trouble raising the necessary funds to sustain exploration spending, forcing them to scale back on fieldwork and defer new activities. Many of the major companies active in the Northwest Territories re-evaluated their assets and priorities and often suspended new activities until the completion of their review.

The result of this “scaling back” is immediately apparent upon examining claim-staking statistics. By the beginning of October, only 45 claims totaling 31,000 ha. had been staked in the Northwest Territories. (See Figure 1.) However, by the end of October the statistics had been bolstered to 147 claims covering 101,000 ha through new staking associated with advanced diamond properties. This improved statistic is still substantially less than the 710 claims covering ca. 550,000 ha. staked in 2011. Also telling is the number of lapsed mineral claims in 2013, where the 903 released claims covering 805,500 ha far exceeded the number and area of new claims staked. This is the second year in a row where claims lapsing have far exceeded claims staked. The number of exploration permits issued, also a gauge of grass roots exploration, shows the same story with 19 new permits in 2013, up from 11 in 2012 but down from 46 in 2011. Since 2005, the amount of land covered by mineral tenure has fallen from 19.8% to the current level of 3.1%.

Despite the economic climate, optimism was generated by a number of announcements including the Gahcho Kué’s advancement to production status and the resolution and finalization of the Ekati Diamond Mine sale. These announcements seemed to spur a revitalization of diamond exploration in the Lac De Gras and Gahcho Kué areas.

Most of the advanced metals projects, such as Prairie Creek lead-zinc, Courageous Lake gold, NICO gold-cobalt-bismuth and Nechalacho rare earth projects remained resilient. Whereas, Tamerlane’s Pine Point and Tyhee’s Yellowknife Gold projects had financing difficulties. Canadian Zinc’s Prairie Creek lead-zinc project and Avalon’s Nechalacho continued to test their deposits with drill programs. Companies moving properties through the feasibility stage of exploration continued to expend large efforts to upgrade reserve estimates in order to meet securities exchange compliance standards. Seabridge Gold’s Courageous Lake gold project and Kennady Diamonds Inc.’s Kennady North diamond project undertook large drill programs of over 8000 metres each to increase their mineral resources.

A number of key permits and approvals were issued this year, further boosting the outlook of explorationists. Fortune Minerals received approval for the NICO mine and mill from the Tlicho government and the Federal government. Canadian Zinc was granted a type A water license and land use permits required for mining and milling at the Prairie Creek

Mine as well as the land use permits and water licenses required for the construction of the access road, including sections through the Nahanni National Park Reserve. De Beers Canada and Mountain Province Diamonds received approval for the development of the Gahcho Kué diamond mine, allowing for the application of the Land Use Permit and Water License required to construct and operate the mine. Likewise, Avalon Rare Metals received approval of the Environmental Assessment of its Nechalacho project allowing that project to proceed to the licensing phase. In contrast, Tyhee Gold requested a stay of the Environmental Assessment proceedings for the Yellowknife Gold project in order to incorporate a major revision of their footprint and impacts.

The reduction in the environmental permitting queue was short lived however, as Dominion Diamond Corporation filed applications for new land use permits and water licenses to mine the Lynx, Jay and Cardinal kimberlites.

No new mines were opened in 2013, but existing diamond and tungsten mines have reported stable to modestly-increased productions levels compared to the last year. These increases in many cases can be attributed to recent development and infrastructure expenditures, which were complimented in several cases by increases in on-property exploration efforts. Natural Resources Canada preliminary estimations (March 2013) of \$81 million in intended expenditures on exploration and deposit appraisals for the NWT are down approximately 30% from 2012 preliminary estimates and 13% from 2011 actual expenditures. A more accurate accounting will not be known until 2014.

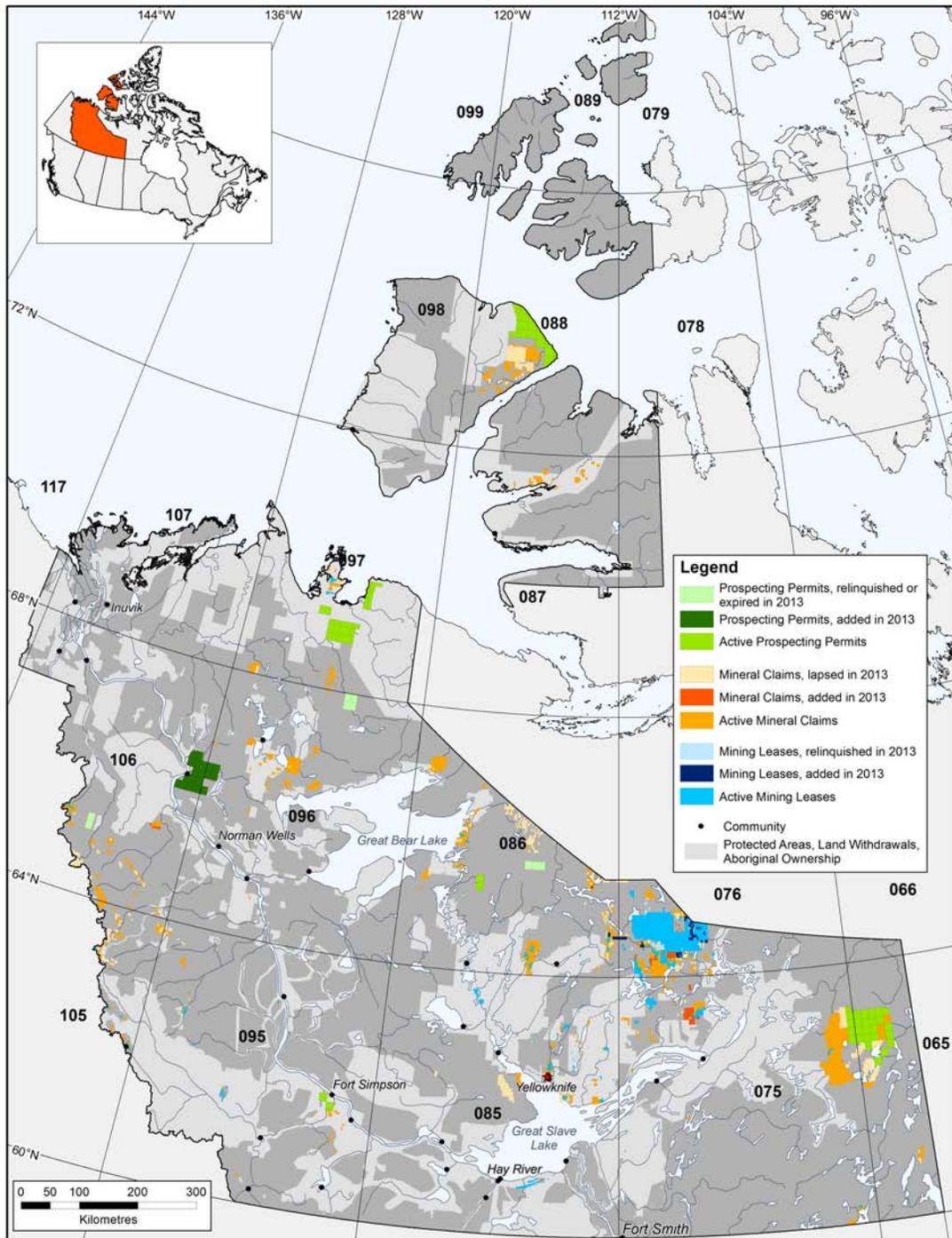


Figure 1: Location and areal coverage of claims, leases and permits for 2013 in the Northwest Territories. New coverage for 2013 includes: 147 claims (101,599 ha) submitted for recording, 53 leases issued (51,716 ha), and 19 prospecting permits issued (293,233 ha) (data compiled by the Mining Recorder, AANDC, November, 2013).

NORTHWEST TERRITORIES MINING HIGHLIGHTS FOR 2013

The locations of the mines are shown in Figure 2.

The Snap Lake diamond mine, owned by **De Beers Canada's (Anglo American plc.)**, 220 kilometres northeast of Yellowknife, recovered 870,000 carats from 918,000 tonnes in 2012, a relatively steady production rate compared with the 2011 recovery of 881,000 carats from 814,000 tonnes. While full 2013 production figures have not been reported, preliminary results suggest close to 700,000 tonnes of ore were processed by mid-August, suggesting that the mine is on track for a record production.

Production in 2102 was hindered by surface and underground water issues, and although De Beers was successful in handling the spring melt, underground flows at Snap Lake Mine hampered mining operations. Carat recovery in 2012 decreased marginally from the previous year due to higher than expected ore dilution and lower than expected ore grade. New capital investments and the implementation of an extensive mine-plan optimization process allowed for higher productivity levels with reduced variability of feed contributing to improved production in 2013 to-date. De Beers is continuing to improve water management while working within the discharge parameters of the water license that was renewed in 2012.

The Snap Lake ore deposit is in a 2.5 metre thick dyke that dips northeastward at 12-15°. The deposit has resources (2012) of 2.5 million tonnes Measured + Indicated with a recoverable grade of 1.89 carats per tonne. This represents an 18-month rolling reserve, as high costs associated with development have meant that ongoing drilling is required from the underground infrastructure. The Inferred resources are reported to be 17.9 million tonnes grading 1.76 carats per tonne with current mine plan forecasting steady production through to about 2030.

The **Diavik diamond mine**, ca. 300 kilometres northeast of Yellowknife, owned by **Rio Tinto plc** (60%) and **Dominion Diamond Corporation** (40%) (formerly **Harry Winston Diamond Corporation**), has been in production since 2003 and had produced about 76 million carats of diamonds from approximately 20 million tonnes of kimberlite as of December 31, 2012. This includes the 2012 production of 7.2 million carats recovered from 2.1 million tonnes of ore.

The 2013 production forecast is for approximately 7.3 million carats from the mining of approximately 1.9 million tonnes of ore and 0.4 million tonnes of stockpiled ore. Mining at Diavik is now exclusively underground with projections of approximately 0.7 million tonnes to be sourced from A-154 North, 0.5 million tonnes from A-154 South and 0.7 million tonnes from A-418 kimberlite pipes.

By the end of the third quarter 5.2 million carats have been produced from 1.6 million tonnes of ore processed compared to 2012 production of 5.3 million carats from 1.6 million tonnes in the comparable period. The 3% decrease in carats recovered in the current year was primarily due to an increase in production from the higher value, lower grade A-154 North kimberlite pipe. The average grade of ore processed during the nine months ended September 30, 2013 including reprocessed plant rejects was 3.28 carats per tonne compared with 3.35 carats per tonne in the comparable period in 2012.

Dominion Diamond Corp. released a revised Mineral Reserve calculation as of December 31, 2012. The total Proven Mineral Reserve for the A-154 South, A-154 North and A-418 pipes is 10.3 million tonnes at 3.2 carats per tonne and the Probable Reserves are 7.7 million tonnes at a grade of 2.6 carats per tonne. Measured and Indicated Resources for A-21 are 3.6 million tonnes at 2.8 carats per tonne and 0.4 million tonnes at 2.6 carats per tonne, respectively. The revised calculation incorporated new data from the processing of samples from the 2011 deep drilling program on the A-154 North and A-418 kimberlite pipes. The updated A-154 North model has added an additional reserve of 0.5 million tonnes, while 1.3 million tonnes of Probable Reserve was promoted to Proven status and 0.4 million tonnes of new resources was defined at depth. The updated A-418 model has promoted 5.0 million tonnes from Probable to Proven Reserve status.

The development of A-21, which was examined in a pre-feasibility plan in 2012, has been deferred following the identification of extensions to the existing pipes. In the preliminary assessment a budget of \$5.8 million had been proposed for the final feasibility and completion of engineering study, with the total A-21 budget was estimated to be about \$500 million. The mine life of Diavik with the addition of A-21 was forecast to extend through 2023.

Diavik Diamond mine inaugurated a wind farm providing a capacity of 9.2 megawatts. This will reduce the annual demand for diesel by an estimated 4 million liters, roughly 10% of total consumption.

Rio Tinto Exploration Canada Inc. reviewed its position in the diamond market concluding that it was of insufficient size in the context of its broader corporate portfolio. Consequently, it has suspended exploration work in the Banks Island area and promoted the sale of its diamond assets including the Diavik mine. Having failed to achieve the value that it was hoping for, Rio Tinto abandoned the planned sale and continued to maintain the status as operator at Diavik mine.

The **Ekati diamond mine**, owned by **Dominion Diamond Corporation** (80%), **Stewart Blusson** (10%) and **Chuck Fipke** (10%), produced, 1.3 million carats from 2.7 million tonnes of ore at an average grade of 0.47 carats per tonne to the end of the third quarter 2013. The current mine plan forecast for Ekati production from April 10, 2013 to the year-

end is in excess of 1.0 million carats from approximately 4.2 million tonnes. This is in addition to the 1.0 million tonnes of ore processed to recover 0.4 million carats reported by BHP Billiton for the first quarter of 2013. Planned mining activities were forecast to extract approximately 0.3 million tonnes from Koala Phase 5, approximately 0.3 million tonnes from Koala Phase 6, approximately 0.3 million tonnes from Koala North and approximately 2.7 million tonnes from Fox pipe. Ekati's total production from 1999 to 2012 is reported as 53 million carats from 60 million tonnes of kimberlite.

BHP Billiton announced a review of its diamond business in November 2011, including the 80 percent interest in Ekati. Harry Winston Diamond was eventually identified as the only interested party and on November 13, 2012, announced the agreement to purchase an 80% interest in the Core Zone Joint Venture and a 58.8% interest in the Buffer Zone Joint Venture from BHP Billiton. The purchase was briefly delayed as C. Fipke Holdings Ltd. initiated an action against BHP Billiton, but the discontinuation of the action and the waiver of the rights of first refusal allowed the sale to proceed. Concurrent with the negotiations to purchase Ekati, Harry Winston Diamond Corporation sold its luxury brand diamond jewelry and timepiece division, Harry Winston Inc., to the Swatch Group Ltd. for US\$750 million plus their assumption of up to US\$250 million of pro forma net debt. As part of the transaction, the company changed its name to Dominion Diamond Corporation.

The sale of BHP Billiton's interests in Ekati and the Diamonds Marketing operations to Dominion Diamond Corporation was completed on 10 April, 2013 for US\$553 million. At the time of the sale, a new NI 43-101 compliant resource calculation for Ekati was published using data up to December 2012. The Mineral Reserve of 20.6 million tonnes of ore was estimated to contain 19.6 million carats from five kimberlite pipes plus stockpile from the Core Zone. The Indicated Mineral Resource was estimated at 105.7 million tonnes containing 127.5 million carats including the reserve and three additional kimberlite pipes, one from the Core Zone and two from the Buffer Zone. The Core Zone makes up 68.2 million tonnes of the Indicated Resource grading 0.7 carats per tonne and containing 48.4 million carats and the Buffer Zone adds 37.5 million tonnes, grading 2.1 carats per tonne and containing 79.1 million carats. The indicated mineral resource includes Koala, Koala North, Fox, Misery, Pigeon, Sable, Jay and Lynx. The current mine plan extends production to 2020.

Dominion Diamond Corporation undertook a re-examination of known pipes on the Ekati property including thirteen high priority targets that warrant exploration from the 150 previously kimberlite discovered pipes. In September, the company filed an application with the Wek'ézhii Land and Water Board to permit the mining of the Lynx pipe, which lies approximately 3 km to the southwest of the active Misery pit. The pipe is located in the Buffer Zone Joint Venture, owned by **Dominion Diamond Corp** (58.8%), **Archon Minerals** (31.2%) and **Chuck Fipke** (10%). The Lynx resource is reported to include 1.3 million tonnes of indicated resource at 0.8 carats per tonne and 0.1 million tonnes of

inferred resource at 0.8 carats per tonne. This resource is based on an estimated value of US\$257 per carat using a 1.2 mm slot screen cut-off and 86% diamond recovery.

Subsequently, Dominion Diamond Corp. filed an application to permit the mining of the Jay and Cardinal kimberlite pipes, located in the Buffer Zone Joint Venture property by Lac du Sauvage, approximately 7 km to the northeast of the Misery pit. The current NI 43-101 compliant Resource estimate for the Jay kimberlite pipe includes 36.2 million tonnes of Indicated Resource containing 78 million carats at 2.2 carats per tonne and 9.5 million tonnes of Inferred Resource containing 13 million carats at 1.4 carats per tonne. For the resource an estimated rough diamond price of approximately US\$74 per carat was used, assuming the current process plant recovery parameters with a 1.2 mm slot screen cutoff resulting in 85% of the diamonds being recovered.

Follow-up delineation drilling programs planned for the winter are designed to establish an open pit reserve at both Jay and Cardinal pipes and a pre-feasibility report is anticipated in 2014. The addition of the Lynx and the Jay-Cardinal Project could extend the operating life of the Ekati mine by one to two decades beyond the currently scheduled closure in 2020.

At North American Tungsten Ltd.'s Cantung mine, Canada's only producing tungsten mine, production for the first six months of 2013 consisted of 1,386,110 kilograms of WO_3 having an average grade of 1.00% WO_3 , compared to 1,252,450 kilograms at 1.06% WO_3 during the first six months of 2012. The average mill recovery was 77.4%, from the 182,255 tonnes milled, which was higher than 75.3% from 2012, demonstrating the impact of ongoing mill improvements. In addition to tungsten, Cantung also improved its copper production by 10% to 330,984 kilograms of copper in the first six months.

Work on mine improvements continued into 2013, increasing the mill throughput to 1,350 tons per day and upgrading the gravity and flotation circuits to benefit the total metallurgical recovery. To support the increased throughput stock piling of open-pit ore was conducted during the summer for milling in the future. At the same time as the open pit mining, a raised dam level on tailings pond 5 was constructed to help accommodate the higher throughput volumes. Efforts are also underway to revise the tailings management program, with upgrades to the current tailings ponds, enhancements to its wastewater treatment plant and development of a long-term storage facility for tailings.

A surface program conducted in the spring of 2013 was successful with the discovery of the "Dakota Zone" 700 metres from the main E Zone. Nine holes averaging over 300 metres each were drilled with spacing at depth varying from 30-40 metres. Significant results include 5.3 metres averaging 0.76% WO_3 and 0.31% copper (hole S12-31), 3.5 metres averaging 0.30% WO_3 and 5.00% zinc (hole S12-32) and 4 metres averaging 1.77% WO_3 (hole S12-39).

As of the beginning of November, 133 drill holes (13,262 m) had been completed underground to improve the resource definition and develop a two to three year mine plan. In addition, a surface drill program consisting of 13 drill holes (3,488m) in the PUG area identified intersected several targets. Downhole geophysics surveys were completed on six holes using down-hole logging that included I.P. and Protem.

The exploration results are anticipated in the next fiscal quarter along with an update to mine life and reserves. The current estimates published in February 2011 foresaw a mine life of five years for Cantung with Probable Minerals Reserves of 1,535,000 tonnes grading 1.17% WO_3 ; in addition, Indicated Mineral Resources were estimated at 2.22 million tonnes grading 1.11% WO_3 and Inferred Mineral Resources were estimated at 0.39 million tonnes grading 0.84% WO_3 using a minimum mining width of 5 metres and a cutoff grade of 0.80% WO_3 .

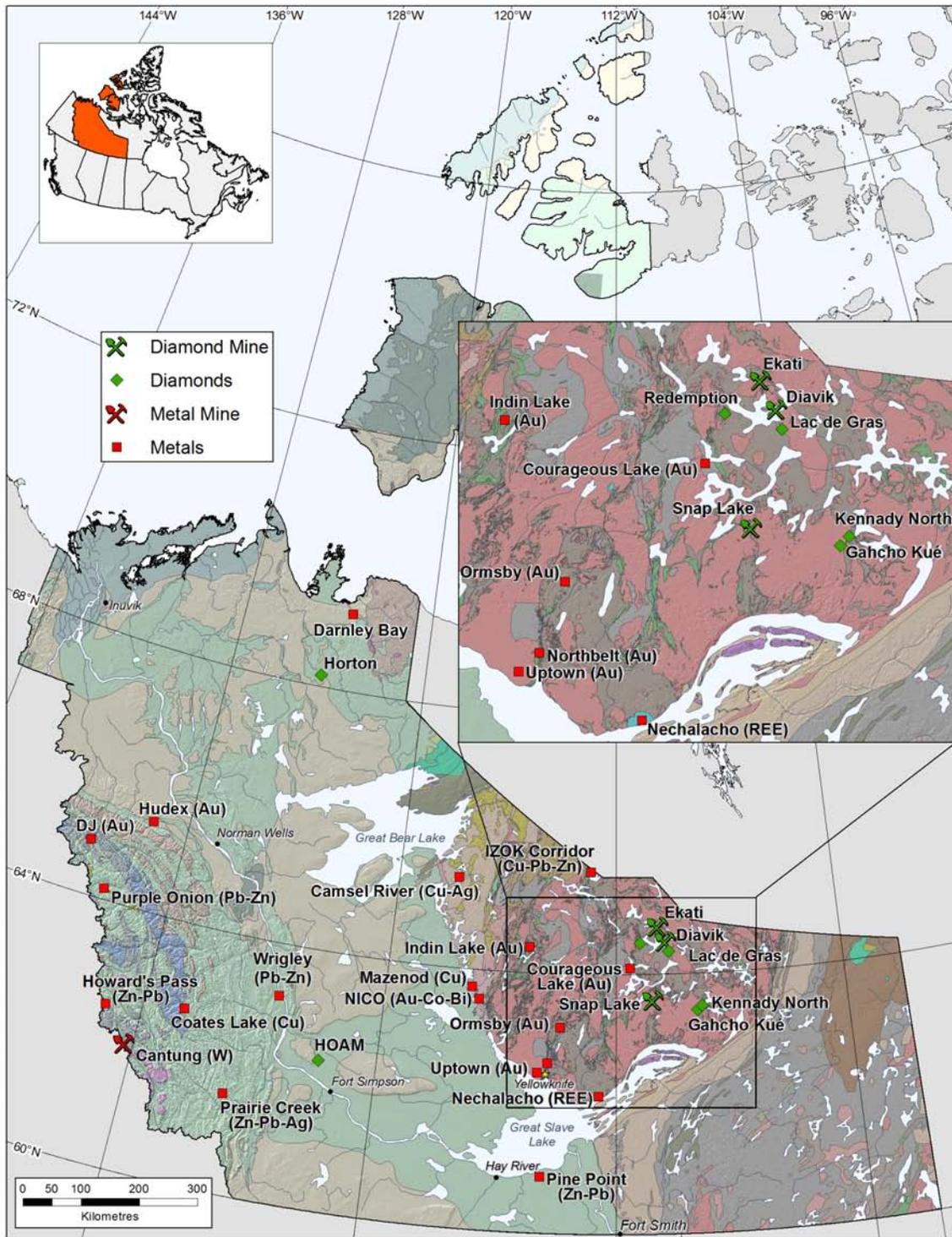


Figure 2: Locations of mines and exploration projects active in the Northwest Territories during 2013.

NORTHWEST TERRITORIES MINERAL EXPLORATION HIGHLIGHTS FOR 2013

Diamond Exploration

The locations of diamond exploration programs are shown in Figure 2.

Arctic Star Exploration Corp. staked twelve claims in 2012 to form the Redemption property and acquired four mineral leases in February 2013 from **GGL Resources Corp.** for a total of 11,500 contiguous hectares south of Lac de Gras, 32 km southwest of the Ekati mine. The property has previously undergone geophysical surveys, indicator mineral train and mineral abrasion studies, as well as surficial mapping programs. Arctic Star's primary drill target is at the head of the well-defined "South Coppermine" indicator mineral train where a magnetic and EM anomaly target was recognized. A light drill rig was mobilized in April 2013 for eight days and two EM targets were tested with negative results. In an effort to preserve funds the remainder of the program was deferred.

Subsequently, an option to earn a 55% interest in the Redemption property was agreed to by **North Arrow Minerals Inc.** Under this agreement, exploration work including an airborne gravity gradiometry survey, 12 bathymetric surveys and a till sampling program consisting of 350 samples were completed. Based on early interpretations of the gravity survey, 32 targets were identified and a number of which were located favorably with respect to the up-ice extent of the South Coppermine kimberlite indicator mineral train.

De Beers Canada Inc. (51%) and **Mountain Province Diamonds Inc.** (49 %) are joint venture partners in the Gahcho Kué diamond project located in the southeastern Slave Province, ca.150 kilometres south-southeast of the Ekati and Diavik mines. The Gahcho Kué project consists of four diamondiferous kimberlites, three of which (5034, Hearne, and Tuzo) have a Probable Mineral Reserve of 31.3 million tonnes grading 1.57 carats per tonne, for a total diamond content of 49 million carats. The permitting plan is for an open-pit mine to produce 4.5 million carats per year for 11 years.

An independent Mineral Resource estimate was released on August 13, 2013 for Gahcho Kué based on results derived from the Tuzo Deep drill program. The updated Resource of the three pipes plus the Tuzo Deep includes 33.8 million tonnes with 56.5 million carats of Indicated Resource and 11.3 million tonnes containing 18.5 million carats of Inferred Resource. All five Tuzo deep drill holes confirmed the presence of substantial kimberlite below 350 metres and allowed the indicated resource to be upgraded from inferred for depths between 300 - 360 metres. The deep drilling also allowed the inclusion of kimberlite from a depth of 360 - 564 metres as an inferred resource.

In late October, the Minister of Aboriginal Affairs and Northern Development Canada, the Hon. Bernard Valcourt, approved the development plan for the Gahcho Kué mine as recommended by the Mackenzie Valley Environmental Impact Review Board. Federal

government approval allows the project to apply to the Mackenzie Valley Land and Water Board for the Land Use Permits and Water Licenses required to construct and operate the Gahcho Kué mine.

A Socio Economic Agreement was completed with the Government of the NWT formalizing commitments regarding employment training, business opportunities and other benefits for NWT residents. In addition, an Impact Benefit Agreement with the North Slave Métis Alliance was signed. Negotiations on other agreements with First Nations groups are continuing.

Drilling was completed on ten additional exploration targets but kimberlite was encountered in only one intersection.

Dominion Diamond Corporation (55%) and **North Arrow Minerals** (45%) continued exploring the Lac de Gras project, which totals over 124,238 hectares. The property directly adjoins the mineral leases that host the Diavik mine, located only 10 kilometres to the north.

An overburden drilling program managed by Aurora Geosciences Ltd. was undertaken to test the basal tills of the property. An initial phase consisted of 562 drill holes on a nominal 3 km by 1 km grid. A total of 1,309 till samples were collected were shipped for processing by Overburden Drilling Management Ltd. This was followed by a second phase which consisted of an additional 195 overburden drill holes (395 samples) drilled at 250 m intervals along variably spaced lines intended to further evaluate several target areas identified from historic data and phase one drill results.

Initial heavy mineral picking results for 1,208 phase one samples have been returned but not reported. A first pass compilation of results from the 2013 program is expected by the end of October. The compilation will also incorporate historic heavy mineral and geophysical data sets to form the basis for planning a 2014 exploration program.

Kennady Diamonds Inc. (Mountain Province 100%) continued to explore the Kennady North project, consists of 13 leases and claims (12,291 ha) to the north of Gahcho Kué. This property includes the diamondiferous Kelvin, and Faraday kimberlites. In early February 2013, ground geophysical surveys were conducted by Aurora Geoscience Ltd., to assist in target selection for a winter drill program. Ground gravity and horizontal loop electromagnetic (HLEM) were conducted over the Kelvin-Faraday corridor. Drilling commenced at the end of March with the aim of completing definition drilling on the Kelvin and Faraday kimberlites for inclusion in a resource calculation as well as to drill test geophysical targets between the two known kimberlites. The 5000-metre program was completed by the end of May with 24 of the 26 holes intersecting kimberlite. Preliminary

interpretations suggest that the Kelvin and Faraday kimberlites are discrete intrusions to be modeled separately. Both of these kimberlites appear to be steeply dipping dykes or sheets with strike-lengths of over one kilometre, striking northeast. Larger intersections up to 99 metres may indicate “blows” in the dyke. The new drilling has resulted in the re-interpretation of the newly announced Hobbes kimberlite as part of the larger Kelvin intrusion.

Two additional holes were drilled to test new away from the Kelvin and Faraday zones, but the first failed to intersect kimberlite and the second had to be abandoned due to ice conditions.

Kimberlite recovered during the drill program was sent to the Saskatchewan Research Council (SRC) Geoanalytical Diamond Services laboratory for caustic fusion. Initial results are promising, with 8,708 diamonds (10.02 carats total weight) extracted from a total of 1103 kilograms of core. The samples of the Kelvin kimberlite totaled 987 kg with 393 macro-diamonds (>500 microns) weighing 8.02 carats with 110 diamonds +0.85 mm including one 2.48 carat octahedra. The Faraday kimberlite sample totaled 116 kg with 67 macro-diamonds weighing 1.29 carats. A total of 26 stones identified were larger than +0.85 mm with the largest weighing 0.22 carats.

A land-based drill program was undertaken in mid-July to test the north-west lobe of the Kelvin kimberlite and ten geophysical targets. A total of 3848 meters was drilled recovering 3454 kg of kimberlite samples. The kimberlite samples have been shipped to the SRC facility for caustic fusion. Results are pending. Additional drilling is being planned for the winter 2014 to extract a mini-bulk sample of 25 tonnes from the Kelvin kimberlite.

Olivut Resources Ltd.’s HOAM diamond property covers over 52,000 hectares of the Interior Platform south of Fort Simpson. Olivut’s exploration of the HOAM project area has resulted in the discovery of 29 kimberlites to date including one intersected during the 2012 drill program. However, caustic fusion analysis of 254 kilograms of kimberlite core by Saskatchewan Research Council revealed no diamonds.

In 2013, Olivut undertook a detailed helicopter-borne magnetic survey to examine anomalies identified in its previously flown regional geophysical survey. A total of 23 surveys were conducted at a line spacing of 50 metres. An additional larger survey was completed over an area containing known kimberlite intersections to assess regional structures. Additional work is planned depending on the availability of funding.

In 2013, **Talmora Diamond Inc.** held 211 claims (27,835 hectares) in the Horton River area, south of Paulatuk in the Northwest Territories. Talmora has kimberlite indicator mineral analyses from the Horton River Project suggesting that the kimberlite

indicator minerals from Diamondex's Lena West project were initially transported and deposited during the Cretaceous from sources east of the Lena West area. Talmora postulates that the additional transportation step means that highly promising indicator minerals have originated from the Horton River project area.

Kimberlite indicator mineral analyses from their 2012 pack-sack drill sampling were reported in September 2013. The majority of grains recovered were spinels with a significant number of micro-ilmenites and garnets. Nine pyrope garnets including one G-10 composition and an eclogitic garnet with favourable chemistry were identified. In addition, five Mn-ilmenites were identified which are hypothesized to be indicators of kimberlites weathered in a lateritic environment. These five grains spurred a review of previously analyzed samples and an additional 17 grains were recognized supporting the conclusion that ilmenite could be used as an indicator mineral that survives weathering in tropical environments. Additional work is pending the acquisition of funding.

Table 1: Summary of Northwest Territories diamond exploration in 2013.

Operator / Partners	Property	Drilling	Airborne and Ground Geophysics	Sampling and Other Work	Studies and Permitting Updates
Arctic Star Expl. Corp. / North Arrow Minerals (55%)	Redemption	2 ddh	heliborne grav Fugro 2 grd grids	350 till samples, 12 lake bathymetry surveys	Land use permit
De Beers Canada Inc. (51%) / Mountain Province Diamonds Inc. (49%)	Gahcho Kué	10 ddh exploration targets			Socio-econ agreement signed, resource calculation, IBA with Metis Alliance, Minister and MVEIRB approve development
Dominion Diamond Corp. (55%) North Arrow Minerals Inc. (45%)	Lac De Gras	757 auger holes		1705 till samples	
Kennady Diamonds Inc.	Kennady North	~28 ddh 4719 m (winter), 3848 m (summer)	grd. grav. and horizontal loop EM	1103 kg (winter) and 3454 kg (summer) of kimberlite for caustic fusion	Exploration agreement with Lutsel K'e
Olivut Resources Ltd.	HOAM		heliborne mag on 23 blocks at 50 m line-spacing		
Talmora Diamonds	Horton River				2012 sample results reported.

grav – gravity, ddh – diamond drill hole, Mag – magnetic, EM – electromagnetic, grd - ground

Metal Exploration

The locations of metal exploration programs are shown in Figure 2.

In 2013, **Avalon Rare Metals Inc.** exploration continued at the Nechalacho Rare Earth Elements Project located at Thor Lake on the north shore of Great Slave Lake, ca. 100 kilometres southeast of Yellowknife. Avalon Rare Metals Inc. released a revised estimate of Measured Mineral Resources (Aug. 15, 2013) with a base case of 12.56 million tonnes averaging 1.71% Total Rare Earth Oxides (TREO), 0.38% Heavy Rare Earth Oxides (HREO) and 22.5% Heavy Rare Earth Oxides/Total Rare Earth Oxides (HREO/TREO). The revision used an increased cut-off grade expressed as a net metallurgical return of US\$345 per tonne.

The updated resource incorporated the 2013 winter drill program that extended from February to early March with one rig completing 12 HQ drill holes totaling 1,977 metres in addition to the final 41 holes from the 2012 summer drill program. Four additional holes were completed in August 2013, for which assays are still pending. The objective of this program was to better define high-grade mineralization along the planned underground access decline. Its close proximity to the decline would make the high-grade ore accessible early in mine development.

Throughout the entire exploration and definition drilling program extending from July 2007 to March 2013, Avalon completed 108,565 metres of drilling in 502 holes, not including the four holes drilled in August. Much of the drilling was used to define the high-grade, heavy REE-rich Basal Zone ore, a sub-horizontal, gently undulating layer situated at an average depth of approximately 200 metres that varies from 5 to over 30 metres in thickness. The current Basal zone resource calculation (Nov. 26, 2012) has a combined Measured and Indicated Resource of 65.83 million tonnes of 1.57% TREO and 21.86% TREO/HREO. The total Measured and Indicated Resources for the Nechalacho deposit, including the Upper and Basal zones, are 182.01 million tonnes of 1.26% TREO and 13.01% HREO/TREO.

In April, Avalon announced the results of a feasibility study prepared by SNC-Lavalin Inc., reported to be the first feasibility level study to be completed on a major heavy rare earth project outside of China. The study is based on a 2,000 tonne per day underground mine with an access ramp and primary crushing underground. The concentrator facility will have a design capacity of 730,000 tonnes a year. The mine will use mainly cut-and-fill stopes with lower-cost long-hole stopes in thicker parts of the ore body.

The Nechalacho concentrator plant product will consist of over 7.37% TREO, 15.53% ZrO₂, 1.71% Nb₂O₅, and 0.19% Ta₂O₅ for storage in a covered bulk facility on site. During the summer shipping season it will be loaded into concentrate shipping containers

and hauled to the dock facility on the north shore of Great Slave Lake for barging to a hydrometallurgical plant. The concentrate would be sent to a hydrometallurgical plant located at Pine Point to produce a mixed rare earth precipitate and enriched zirconium concentrate. Concentrate will be fed into a pre-leach/sulphuric acid bake/water leach plant where the majority of the LREE and approximately 50% of the HREE will be dissolved. The enriched solution is then treated to remove iron and various other impurities by the addition of lime. This mixed rare earth precipitate will then be filtered before being containerized and railed to the refinery.

The hydrometallurgical plant tailings will be disposed of in an engineered facility located within an open pit that remains from the historic Pine Point mining operation. Approximately 5.6 MW of power will be required for the hydrometallurgical plant, which will be supplied from the Taltson Dam. The products will be transported by truck 85 kilometres along an all season highway to a railhead facility located in Hay River and then by rail to the refinery planned for construction in Geismar, Louisiana.

While a twenty year mine life was used as the basis for the feasibility study, the current total Measured and Indicated Mineral Resources would conceivably be sufficient to support continued mining operations at Nechalacho for over 90 years. Forecast operating costs of \$264.5 million per year and revenues averaging \$645.8 million per year (\$456.5 million from separated rare earth oxides and \$189.3 million from the sale of an enriched zirconium concentrate). The study reports that the discounted cash flow analysis has a 22.5% internal rate of return on a pre-tax basis and a 19.6% IRR on an after-tax basis, assuming 100% equity financing. The project's net present value at a 10% discount rate is \$1.351 billion pre-tax and \$900 million after-tax.

The Nechalacho infrastructure will include a tailings management facility located in a local catchment area to the northeast of Thor Lake, a 120 person camp, 1,000 metre airstrip, diesel power generation for a peak demand of 13.6 megawatts, administration, maintenance and warehouse facilities. The hydrometallurgical plant infrastructure will include administration, maintenance, warehouse and product loading facilities. The construction capital costs are reported to be \$1.575 billion of which approximately \$1.152 billion is expected to be incurred in the Northwest Territories and \$423 million is expected to be incurred in Louisiana.

The Environmental Assessment for the project was approved of by Mackenzie Valley Environmental Impact Review Board (MVEIRB). On November 4, 2013 the Minister of Aboriginal Affairs and Northern Development Canada, the Honorable Bernard Valcourt, formalized the approval of the development, allowing Avalon to proceed with applications for the required land use permits and water licenses.

BFR Copper & Gold Inc. continued to explore its Mazenod Property in the Tlicho region, ca. 170 kilometres northwest of Yellowknife. Geophysics surveys have identified several areas prospective for large-scale gold and copper and possibly uranium mineralization. Diamond drilling conducted by Moss Resources in 1997 identified significant copper mineralization on the property. Phelps Dodge subsequently completed 5 holes (1,150 metres) in 2002. The drill program intersections include 3 metres at 2.2% copper, 12 metres at 1.5% copper and 17.6 metre at 1% copper in a one kilometre long zone of copper bearing volcanic and sedimentary rocks.

Discovery Mining Services built a camp at Mazenod Lake in early July 2103. A crew of seven geologists conducted a 1:2000 scale mapping program along 25 metre-spaced traverse lines. Nearly 1000 lithological samples were collected for analysis. No results have been released.

Canadian Zinc Corp.'s exploration of the Prairie Creek zinc-lead-silver project has achieved several key milestones. In 2013, Canadian Zinc was granted all the necessary permits and licences to allow for the construction, development and operation of the Prairie Creek Mine and the entire 184 kilometre access road which connects the Prairie Creek Property to the Liard Highway. With the completion of a five year environmental assessment and regulatory process following the Mackenzie Valley Resource Management Act, the Minister of Aboriginal Affairs and Northern Development Canada, approved and signed the type A Water Licence in September 2013. The type A Water Licence permits Canadian Zinc to conduct mining, milling and processing activities at the Prairie Creek mine site, use local water, dewater the underground mine and dispose of waste from mining and milling for a period of seven years. In September, Canadian Zinc also received permits from Parks Canada that authorize road access through the Nahanni National Park Reserve to connect sections of road outside the Park previously permitted by the MVLWB.

In order to complete on site work in 2013, the Prairie Creek Mine site was re-opened in June for care and maintenance programs, water treatment, servicing, repair and site re-organization, removal and relocation of equipment and supplies and training programs. From September to early October, a drill was used to test a multi-channel EM anomaly defined in 2012, one kilometre from the mine site. Two drill holes totaling 1,068 metres were completed. Assays are pending, but some zones within the sedimentary rocks contained moderate amounts of graphite.

A resource estimate completed by AMC Mining Consultants (Canada) Ltd., was published in June 2012 suggesting that the deposit contained 5.4 million tonnes of Measured and Indicated resources with an average grade 10.8% Zn, 10.2% Pb, 0.31% Cu and 160 g/t Ag as well as 6.2 million tonnes of Inferred Resources with an average grade of 14.5% Zn, 11.5% Pb, 0.57% Cu and 229 g/t Ag.

The Mineral Reserves at Prairie Creek mine, based on a pre-feasibility study completed by SNC Lavalin in June 2012, were estimated at 5.22 million tonnes averaging 9.4% Zn, 9.5% Pb, and 151 g/t Ag. The Proven and Probable Mineral Reserve is capable of supporting a mine life of 11 years at the planned rate of 1,000 tonnes per day. The pre-feasibility study suggested that the Prairie Creek project has a net present value of \$253 million using an 8% discount, with an internal rate of return of 40.4% and payback period of 3 years based on long-term metal price projections of \$1.00/lb zinc, \$1.00/lb lead and \$26.00/oz silver.

The proposed mill facilities will have a 1,500 tonne/day crushing capacity, an installed jaw crusher, short head cone crusher, double-decked screen and a 2,000 tonne ore bin. A new dense media separation (DMS) circuit, designed by DRA Americas, with an 85 tonne/hour capacity, will be installed into the crushing circuit to process -1/2" sized material. Indications from metallurgical testing are that the DMS plant will reject an average of 27% of the waste at minimal metal losses, hence mining input at maximum production rates will be 1,350 tonne/day and, after passing through the DMS plant, will produce approximately 1,000 tonne/day of material to be processed in the grinding/flotation circuit of the mill.

When in full production, the Prairie Creek mine will generate average annual production of 60,000 tonnes of zinc concentrate containing 35 million kilograms of zinc, and 60,000 tonnes of lead concentrate containing 41 million kilograms of lead. The two concentrates will contain 62 million troy ounces of silver, with the majority of the silver reporting to the lead concentrate. Canadian Zinc estimates the mine will provide full-time jobs for about 235 people, once it is in full operation. With funding, construction of mine could begin in 2014.

Copper North Mining Corp. maintained its Redstone property, which consisted of five mineral leases and 22 claims, located ca. 290 kilometres southwest of Norman Wells in the Mackenzie Mountains. Only a site visit was conducted in 2013.

In February 2013, the Copper North Mining announced the results of its 2012 exploration program on the Redstone Property. The program conducted by Aurora Geoscience Ltd., on the Johnson Vein, Hayhook Basin and Hidden Valley claims and leases, targeted stratiform sedimentary rock-hosted copper-silver mineralization and included geological mapping, 21.3 line kilometres of induced polarization (IP) surveys, 41.25 line kilometres of ground-based extremely low frequency electromagnetic (ELF-EM) surveys, 324 stream sediment samples and 690 biogeochemical samples.

Highlights of the 2012 field work included; extending previously identified IP anomalies, 3000 metres northward along strike from known stratiform Cu-Ag mineralization at Coates Lake property; extending a complex zone where historic drill holes intersected Cu-Ag mineralization, 1000 metres along strike to the south of the Coates Lake property using 3D

modeling and chargeable IP delineation. Additional structural and stratigraphic data in the < 2 kilometres subsurface aided by the ELF-EM survey to assist in planning drill holes. Several new regional targets were found from anomalous stream sediment geochemistry, including a sample containing of 490 ppm Cu. The potential use of biogeochemistry to locate concealed Cu-Ag mineralization beneath glacial sediment cover was investigated. Cu-Ag mineralization in talus was traced, through prospecting and geological mapping, over a 500-metre strike length at the Johnson Vein occurrence, 40 kilometres NNW of Coates Lake.

Darnley Bay Resources Ltd. continued work on their 456,000 hectare Darnley Bay project ca. 400 kilometres east of Inuvik, near Paulatuk. EMPulse Geophysics Ltd, from Dalmeny, Saskatchewan conducted a magneto-telluric (MT) survey and 3D-inversion model of the Darnley Bay project. Stations were sited every 500 metres over two areas of the property, coincident with previously discovered gravity and magnetic anomalies. A northern survey line was 30 kilometres long and located 15 kilometres south of Paulatuk, and the southern survey was sited 40 kilometres southeast of Paulatuk, and there two perpendicular lines totalling 30 kilometres were measured.

Magneto-tellurics measures natural variations of electrical fields at the Earth's surface mainly generated by thunderstorms in the equatorial region. The 3D-inversion model of the Northern line data revealed a conductive zone approximately 3.5 kilometres long by 1 kilometre wide and 250 to 750 metres thick at a depth of 1,500 metres. The anomaly is considered a good to moderate conductor with apparent resistivity between 10 and 30 Ohm-meters. It is favorably located within prospective Proterozoic rocks and is bounded to the west by a fault, as interpreted from previous seismic and magnetic surveys.

Darnley Bay reported plans for more detailed MT surveying on each sides of the actual MT anomaly in order to better define its attitude and orientation for a drilling program.

Denendeh Exploration and Mining Company (DEMCo), a subsidiary of **Denendeh Investments Inc.** acquired four properties (ca. 24,000 ha), in the Camsell River area from Fortune Minerals Inc., North Continental Energy Ltd., United Coal and Michael Magrum. Denendeh Investments Inc. launched DEMCo in June, with a goal of exploring and developing potential resource targets on and off settled land claim areas.

The Camsell River area is a former silver mining district, located south of Great Bear Lake and is also the host to IOCG type deposits. Silver mining was conducted in this region until 1985 and included the past producing Silver Bear, Norex and Northrim mines. Demco's most recent acquisition is a lease positioned, between the Norex and Northrim mines, that is along the strike projections of high-grade silver veins from the adjacent mines.

Devonian Metals Inc. (49%) reported on its zinc-lead-silver Wrigley project (2265.4 ha), located about 15 kilometres southwest of Wrigley. During 2012, **Alapa Resources Inc.**, a subsidiary of **Glencore International**, completed their earn-in and acquired 51% of the Wrigley project. In fulfillment of the JV agreement a new company called **Mackenzie Mountain Metals Inc.** was formed to hold the assets of the project.

The Wrigley deposits (June 2012) are reported to have an Indicated Resource of 728,000 tonnes grading 8.26% Zn, 2.11% Pb and 12.86/t Ag, plus an Inferred Resource of 3.98 million tonnes grading 7.34% Zn, 2.02% Pb, and 12.71g/t Ag at a 4% combined Zn + Pb cutoff. The hosts are the middle Devonian Nahanni, Headless and Landry carbonate formations, and the ore bodies are strongly fault-controlled.

Devonian Metals released a summary report of the 2012 exploration program in March 2013, including a summary of geological mapping, soil sampling, drill hole re-logging, fluid inclusion studies, geophysical surveys and metallurgical tests. No fieldwork was reported for 2013.

Lane Dewar prospected his claim on the Squalus Lake Alkaline Complex at Squalus Lake, 130 kilometres north of Yellowknife in 2013. A total of 26 samples were collected from a carbonitite with elevated REE. Elevated analyses were returned including Nd 7404 ppm, Ta 466.8 ppm, Sr 17393 ppm, Y 336.9 ppm, Pr 373.9 ppm.

A crew of six geologists from **First Quantum Minerals Ltd.** spent three weeks in the Mackenzie Mountains during August 2013 conducting reconnaissance sampling and geological mapping. Several known Cu and Zn showings were visited. Key stratigraphic traverses were also completed for litho-geochemical analyses to assess copper potential in the area.

The NICO project owned by **Fortune Minerals Ltd.** passed several milestones in 2013. In July, the Minister of Aboriginal Affairs and Northern Development Canada, the Hon. Bernard Valcourt, and the Tlicho Government approved the development plan for the NICO mine and mill as recommended by the Mackenzie Valley Environmental Impact Review Board in January 2013. The Tlicho Government also granted the gold-cobalt-bismuth-copper project a Tlicho Land Access Agreement, one of the first permits issued under the Tlicho Government's Land Use Plan Law that came into effect on June 1, 2013. The Tlicho and Federal governments' approval allows for the application to the Wek'èezhìi Land and Water Board for the Land Use Permits and Water Licenses required for mine construction and operation.

NICO is an iron-oxide-copper-gold deposit, located in the southern Bear Province, ca.160 kilometres northwest of Yellowknife. Ore is hosted in three stratabound lenses of brecciated ironstone up to 1.3 kilometres in length and 550 metres in width, with individual lenses up to 70 metres thick that dip 40-50 degrees. P & E Mining Consultants Inc. (2012) completed a resource calculation of Proven and Probable Mineral Reserves identifying 33.0 million tonnes averaging 1.02g/t Au, 0.12% Co, 0.16% Bi, and 0.04% Cu. This Mineral Reserve contains approximately 1.1 million troy ounces of gold and with an open pit stripping ratio of 3.0:1 and a mine life to 19.8 years.

In addition to performing some site work in preparation for the construction phase, Fortune Minerals came to an agreement on June 27, 2013 with **Procon Resources Inc.** (Procon), a full-service mining contracting company for an investment of \$11.7 million to advance the NICO project and for general working capital purposes. In November, Fortune Minerals announced that Hatch has been contracted for the overall coordination of engineering for the open pit mine, underground mine, ore handling and storage, processing plant and facilities, camp and associated infrastructure designs needed to commence construction.

Wayne Kendrick prospected his Sito Lake claims 40 kilometres north of Yellowknife. He identified a “new” zone of prospective gold mineralization consisting of an E/W trending siliceous felsic unit that is sulfide-rich and magnetic. A total of approximately 120 samples were from the entire property and assay results are pending.

Minerals and Metals Group (MMG) continued work at the Izok Lake copper, zinc, lead and silver deposit. The current resource at Izok Lake straddles the NT/NU border but is mostly in Nunavut, and is reported to contain a JORC-compliant 14.8 million tonnes at 12.8% Zn, 2.5% Cu, 1.3% Pb and 71 g/t Ag. The Izok Corridor project is considered to be an important component of MMG’s strategy to replace the 500,000-tonne/year Century mine in Australia, as it closes over the next five years. An extensive work program was conducted in 2013, including exploration mapping and drilling, ongoing community consultation and the collection of environmental and social data. A proposal for the Izok Corridor project was submitted to the Nunavut Impact Review Board and key authorizing agencies in early September 2012, starting the environmental assessment and regulatory review process as per the Nunavut Land Claims Agreement. Subsequently, MMG asked to submit an updated project description with design and execution options that it anticipated to improve the economic viability of the Izok Corridor project. Better definition of the design and execution options were the focus of much of this summer’s work, which is anticipated to continue into 2014.

The 2012 pre-feasibility study recommended establishing mineral processing facilities at the proposed Izok mine, including a 2 million tonnes/year concentrator, which would also

process the ore from the High Lake mine, Nunavut. Expected initial annual production is 180,000 tonnes of zinc, 50,000 tonnes of copper, 12,000 tonnes of lead, 2.8 million ounces of silver and 17,000 ounces of gold. The proposed transportation route is a 350-kilometre all-weather road to be built connecting the Izok mine to a new port at Gray's Bay. The deep-water port would ship 650,000 tonnes/year of concentrate. The concentrate haul to Gray's Bay would permit the back-haul of High Lake ore to the Izok mill.

Dave Nickerson reported having conducted channel sampling on his AYE 1 claim adjacent to the Giant gold mine in Yellowknife. A narrow quartz vein was cut by eight channel samples. The best gold assay was 36.2 g/t Au over 0.31 metres. A seven-metre section of the vein ran 10.2 g/t Au over an average width of 0.52 metres.

Additionally, Mr. Nickerson conducted a soil-slurry pH and conductivity survey and a spruce-bark biogeochemical survey across his Hay-Duck property to test for Ni-PGE mineralization. These claims were recently returned from an option agreement with North Arrow Minerals and the new survey results corroborated previously completed Geophysical surveys. The full results from both programs have not been reported.

Nighthawk Gold Corp. acquired the historic Colomac gold mine from Aboriginal Affairs and Northern Development Canada in 2012 to add to their Indin Lake property. The assembled property now covers 89,922 hectares and encompasses most of the Indin Lake volcanic belt, approximately 210 kilometres north-northwest of Yellowknife. Several gold deposits and showings lie within this belt, the most significant being the past producing Colomac open pit gold mine. The showings also include: the North Inca, Diversified, and Lexindin deposits; Damoti Lake, Treasure Island, Laurie Lake, Fishhook, Andy Lake, West Cass, Knob Lake, JPK, Pop Gold, Swamp Gold, McMeekan Gold, Echo-Indin Gold, Lucky Lake, and Goose Lake showings.

In June 2013, Nighthawk announced its ACA Howe International Limited authored Resource Estimate for Colomac, which reported 39.8 million tonnes with an average grade of 1.67 g/t Au for 2.1 million ounces (59,000 kg) of Au using a cut-off grade of 0.6 g/t Au. This marks an increased average grade by 59%, and increased total contained ounces by 45% compared to the 2012 estimate of 42.6 million tonnes with an average grade of 1.05 g/t Au for 1.45 million ounces (41,000 kg) of Au using a cut-off grade of 0.6 g/t Au. In both estimates the resources were included from: Colomac Dyke North, Colomac Dyke Central, Colomac Dyke South, Dyke Lake (Goldcrest North) Goldcrest, Grizzly Bear, and 24/27. The Colomac Dyke deposit was mined by open pit methods intermittently between 1990 and 1997, producing 527,908 ounces (18,100 kg) of gold. The site has since been remediated and all mining equipment, processing equipment and infrastructure was removed.

The Colomac Sill, host to the Colomac deposits, occurs near the east side of the intrusive complex in contact with, or nearby, andesitic volcanics. The intrusion consists mainly of a medium-grained quartz diorite/quartz gabbro (dioritic to trondhjemitic). Where drill-tested along a strike length of about 6 kilometres, the Colomac Sill ranges from 40 to 200 metres in width (averaging 100 metres). The quartz diorite (historic QFP) portion of the Colomac Sill ranges from 9-60 metres in width (averaging 30 m). The Sill is oriented 010/80 in the north, and 023/80 in the south, showing evidence of brittle deformation to produce fracture stockworks and auriferous quartz-vein zones that are highly altered and carbonatized. It does not have a strong tectonic fabric.

Nighthawk has proposed to continue exploration work in 2013-14 with a 10,000 metre drill program starting with winter on-ice drilling and continuing with land-based drilling in the summer after ice breakup.

North American Tungsten Corporation Ltd. continued its efforts to complete the environmental assessment of its MacTung Project. Based on comments received from the Executive Committee of the Yukon Environmental and Socio-Economic Assessment Board (2012), North American Tungsten removed a proposed Yukon access road from the proposal and initiated consultation regarding the land use permit in the Northwest Territories. The consultation meetings are with the Sahtu First Nations, in anticipation of utilizing the existing 11-kilometre spur road from the North Canol Road to the project at Mount Allan.

The MacTung property is in eastern Yukon, approximately eight kilometres northwest of Macmillan Pass on the Canol Trail, straddling the Yukon-Northwest Territories border. The MacTung deposit consists of a scheelite skarn with an Indicated Mineral Resource of 33 million tonnes at a grade of 0.88% WO₃. North American Tungsten has proposed the development of an underground tungsten mine with an 11-year mine life utilizing bulk stoping and cut-and-fill mining. It would concentrate the tungsten mineral at a milling rate of 2,000 tonnes-per-day using a scheelite gravity and flotation process and transport the tungsten concentrate by road to Edmonton, AB, and Vancouver, BC.

North Sur Resources Inc. (formerly **Petro-Occidente Capital Corp.**) completed geological mapping, channel sampling and Winkie drilling as part of the earn-in on the option to acquire the 3,388 hectare Uptown gold property. The claims held by **Manson Creek Resources Ltd.**, are located three kilometres north of Yellowknife adjacent to property of past producers Con and Giant gold mines. The property has had exploration and small scale mining dating back to the 1960's with recent work confirming historic gold and silver mineralization. Five gold-bearing zones in Archean granodiorite are known to occur on the property adjacent to the Yellowknife greenstone belt. These zones consist of

hydrothermally-altered granodiorite. The anastomosing fractures and quartz veins vary from millimetre widths to well over 3.0 metres, surrounded by a broader alteration halo, along shear zones. The alteration consists of silicification and sericitization with minor amounts of hematite alteration. The shear, vein and breccia zones occur along a three kilometer strike-length including the Fox South area, close to Giant Mine and the Rod Zone. The latter zone has returned gold grades greater than 20 g/t and silver greater than 100 g/t. Results from the 2013 exploration efforts have not been released.

Platinum Group Metals Ltd. maintained the Providence (Credit Lake) copper-nickel-cobalt property located 44 kilometres southwest of Ekati. The property includes 13 mineral claims totaling 13,366 hectares that cover the 21 kilometres long mafic to ultra-mafic volcanic belt. Ongoing 2013 work includes research and compilation, camp maintenance, and review of diamond drilling and assays.

In 2012, the company initiated a diamond drill program consisting of 3150 metres in 14 drill holes confirmed that mineralization continues at depth with intercepts 90 metres vertically below the historic intercepts. Drilling by Platinum Group Metals and historic drilling by Arctic Star has shown that the Cu-Ni-Co-PGM mineralization is hosted within, and at the base of the ultramafic flow/intrusive sill sequence. The dimensions of the massive sulphide mineralization defined to date ranges in thickness from 0.3 to 5.0 metres and have been intercepted in drilling over a 75 metre strike length and down-dip for 300 metres. The mineralized horizon has been drill tested over a 450-metre strike length to the east where disseminated sulphides with anomalous PGM values occur. Highlights include: (hole PR12-04) 4.25 metres with 1.62% Ni, 1.04% Cu, 0.15% Co, 0.13 g/t Pt, 1.90 g/t Pd and (hole PR12-08) 3.65 metres with 1.79% Ni, 1.41% Cu, 0.15% Co, 0.12 g/t Pt, 2.16 g/t Pd.

Scavo Resource Corp. (formerly **Pure Living Media Inc.**) completed the purchase of the Purple Onion property in May 2013. **Coltstar Ventures Inc.** discovered the Purple Onion lead-zinc-silver property within the Misty Creek Embayment of the Selwyn Basin, which is located ca. 110 kilometres north of the Canol trail in the Mackenzie Mountains. The property covers approximately 81,353 ha near the Yukon/NWT border covering a 24 kilometre-long geochemical anomaly identified in a NWT Geoscience Office/GSC silt geochemical survey. The Purple Onion claims were staked to cover a sedimentary-exhalative (SEDEX) prospect. Preliminary prospecting identified areas with abundant boulders coated in secondary zinc minerals and large expanses of bright green zinc moss. In 2012, Aurora Geosciences Ltd. conducted a mapping and prospecting program with some stream sediment sampling and is completing a NI 43-101 compliant report on the property.

Seabridge Gold Inc. drilled 29 holes (8,278 metres) in winter 2013 at the Walsh Lake discovery on the Courageous Lake property, approximately 240 kilometres northeast of Yellowknife. The Courageous Lake property consists of 27,263 hectares covering 53 kilometres length of the Courageous Lake greenstone belt. The greenstone belt hosts several past-producing gold deposits in a rhyolitic to dacitic dome complex including the Seabridge Gold's FAT deposit which has been reported (July 2012) to have a proven and probable gold reserve of 91.1 million tonnes at a diluted grade of 2.2 g/t Au.

The 2013 program was designed to follow-up on the Walsh Lake discovery of 2012, where a promising high-grade gold occurrence was located approximately 10 kilometers south of the FAT deposit. The Walsh Lake deposit appears to be the southern extension of the historical Tundra Gold Mine, a high-grade gold mine closed in 1999. The targeted exploration area stretches 1.5 kilometers south from the former mine. The drill program confirmed a strike length of 850 meters and remains open to the north and at depth. The gold is hosted in fine arsenopyrite, and multiple intervals of the arsenopyrite-bearing silica-altered rocks in zones with drill intersection widths up to 12 metres.

Metallurgical tests on the Walsh Lake deposit reveal a head grade range on three separate drill composite samples of 2.9 to 12.2 grams per tonne gold. The gold from the samples is not refractory. Cyanidation leach tests recovered 93.88-95% recoveries over 48 hours and flotation recoveries ranged from 95% with high grade to 88% with the lower grade material. Seabridge Gold continues to work on reporting an initial resource estimate for this deposit, which is expected in the fourth quarter of 2013.

Selwyn Chihong Mining Ltd. is exploring the Howards Pass area of the Mackenzie Mountains. Since April 2012, the company had been working to find a sale of either the company or its interest in the Selwyn project. In June 2013, **Chihong Canada Mining Ltd.**, a subsidiary of **Yunnan Chihong Zinc and Germanium Co. Ltd.** acquired all the joint venture shares and became the sole owner of Selwyn project.

The Selwyn project involves 14 zinc-lead deposits and covers zones over a strike length of 37.5 kilometres. The bulk of the Selwyn project is located in eastern Yukon, but it extends southeast across the border into the Northwest Territories. A Mineral Resource estimate completed by Kirkham Geosystems Ltd. of Burnaby in September 2012, concluded that the Don deposit had an Indicated Mineral Resource of 41.79 million tonnes grading 5.35% Zn and 1.87% Pb at a 2.0% Zn cut-off grade and an Inferred Resource of 10.1 million tonnes grading 5.07% Zn and 1.57% Pb at a base case 2.0% Zn cut-off grade. The global Indicated Resource for 2012 is 185.57 million tonnes grading 5.2% Zn and 1.79% Pb for a metal content of 21.26 billion pounds (9.64 billion kg) of zinc and 7.30 billion pounds (3.31 billion kg) of lead. The Inferred Resource is 237.86 million tonnes grading 4.47% Zn and 1.38% Pb for a metal content of 23.45 billion pounds (10.63 billion kg) of zinc and 7.22 billion pounds (3.27 billion kg) of lead.

Selwyn Chihong Mining was evaluating a 3,500-tonne-per-day development concept focused on underground mining of the higher-grade sections in the XY Central and Don deposits.

Songful Resources Ltd. staked two properties in the Mackenzie Mountains during the spring of 2012. The DJ property consisting of six claims (5016 ha) is sited 218 kilometres south west of Norman Wells and the Hudex property comprising 16 claims (13377 ha) is 116 kilometres northwest of Norman Well. Both properties were located based on anomalous stream sediment results published by the Northwest Territories Geoscience Office. Of particular interest were the high arsenic, antimony, mercury and thallium values, which fits with a conceptual Carlin-type gold model in this area. The DJ property covers part of the Misty Creek Embayment along the eastern margin of the Selwyn Basin, a late Precambrian to Devonian depositional basin characterized by off-shelf deep water shale in a basin bounded by platform carbonates to the northeast. The Hudex property is underlain by Cretaceous sediments that have truncated the Paleozoic sequence. During the summer to late fall of 2012, a first phase prospecting, stream sampling and mapping program was completed for the DJ and Hudex properties by Aurora Geosciences Ltd. The stream sediment data returned positive results.

Based on the success at the Hudex Property, a reconnaissance program was undertaken in 2013 summer and 13 drainage basins were assessed using stream sediment and soil sampling programs. Final results have not been released but a number of anomalous drainages and a 300-metre soil anomaly containing elevated gold were reported. Songful Resources suggests that poorly-exposed shale beds are the original hosts for the arsenic, antimony, mercury and thallium values returned from the stream sediment sampling. Nine claims (7524 ha) were subsequently staked to cover all extension of the anomalous areas identified. Planning is underway to conduct additional work in 2014.

Tamerlane Ventures Inc. continued their exploration of the Pine Point area, on the southern side of Great Slave Lake. In September 2013, Tamerlane released an NI 43-101 technical report on nine lead zinc deposits referred to as the Cluster Pits (J-68, HZ, W-85, X-65, M-67, K-68, M-62/63 and O-53). The report completed an audit of historical work completed by Pine Point Mines Ltd (Cominco) on the nine Cluster Pit deposits. It then upgraded the historical resources to an NI 43-101 Mineral Resource through modeling using cost estimates that were developed by MineTech for the R-190 and N-204 deposits (March 2012). In March 2012, Tamerlane reported Mineral Reserves at R-190 are 647,308 Proven tonnes grading 12.47% Zn and 6.10% Pb and 357,311 Probable tonnes of 8.27% Zn and 3.79% Pb and Mineral Reserves at N-204 to be 12,830,000 tonnes Proven and Probable grading 2.6% Zn and 0.8% Pb diluted. The Cluster Pit report was withdrawn in November and Tamerlane has announced that it will correct technical deficiencies and will re-issue the report when completed.

TerraX Minerals Inc. completed their purchase of the Northbelt property, including the Crestaurum deposit, in February 2013. The property consists of 121 leases (3562ha), 15 kilometres north of Yellowknife that were formerly part of the Giant Mine property. A review of the historical archives was completed, indicating at least 463 drill holes have been drilled on the Northbelt property, including approximately 190 on the Crestaurum trend, 95 focused on other well defined structures in the southern part of the Northbelt property and 80 on the base metal targets in the northern claims.

Field activities were initiated in May with a detailed airborne magnetic, electromagnetic (EM) and radiometric survey. The 520 line-kilometre helicopter-borne survey was conducted by Aeroquest Ltd. of Aurora, Ontario and completed by early June. The magnetic survey revealed a major magnetic high in the northern part of the property, as well as strong north-northeast anomaly orientations potentially due to both stratigraphic and structural elements. The preliminary radiometric data for potassium showed highs corresponding to granites, quartz feldspar porphyries and several moderate strength north-northeast trending linear highs may represent hydrothermal alteration. The EM survey revealed a prominent 1.2 kilometre long, north-trending conductor in the northern part of the property.

Fieldwork in June concentrated on locating historical drill collars and conducting preliminary surface sampling. The drill collar locations were located for 123 of the Crestaurum holes, 29 of the 95 holes focused on structures in the southern part, 39 of the 80 holes targeted on base metals, and 39 of the other holes on the property. All drill hole locations were recorded with a hand-held GPS and 155 of the most important holes in the southern part of the property were subsequently surveyed with a differential GPS to <1 metre accuracy by Ollerhead & Associates Ltd. of Yellowknife. This work was complimented by the location of drill core from 176 previously drilled holes drilled by prior operators, stored at a core facility on the Giant mine site. Approximately 30 holes from the northern part of the property, drilled in 1973 and 1974, were recovered along with 86 holes drilled in the 1990's from the southern part of the property. Partial intervals (typically the ore intersections) from at least 60 Crestaurum holes drilled in 1985 were also preserved.

TerraX is currently analyzing core from more than 200 drill holes. Core samples were cut with a diamond saw blade. Sampling over intervals where previous assay samples had been collected, was done by quarter core sampling of half sawn core leaving a quarter core sample or further examination. Results from several zones have been reported including the Crestaurum Zone (5 meters averaging 62.9 g/t gold in drill hole 85-150) and the Barney Shear (20.86 meters averaging 3.79 g/t gold in drill hole NB95-16) the 20 Shear, where NB94-01A intersected 21.12 meters (from a depth of 285.88 meters) averaging 2.97 grams per metric ton gold, including 3.88 meters averaging 8.81 g/t gold.

A surface sampling program collected a total of 293 samples, including 165 chip samples from 80 separate locations and 128 grab samples. The majority of the sampling was from

structures identified at the Homer Lake area in the northern part of the property, with sampling also conducted on the Pinto structure in the eastern part of the property, the Jed structure in the central part of the property, on the southwestern extension of the Crestaurum deposit, and in several other locations. Noteworthy results included assay values of 49.30 g/t Au and 55.2 g/t Ag in one grab sample at Pinto and 529 g/t Ag, >20% Pb and 9.44% Zn in one grab sample from Homer Lake.

In May 2013, **TerraX Minerals Inc.** purchased the Goodwin gold property from **Sonde Resources Corp.** and expanded the overall size of the Northbelt property. The Goodwin property occurs eight kilometres north-northeast of Yellowknife adjoining the Giant Mine property and consists of 12 mineral claims (250.8 ha) that lie to the south of, and are contiguous to the Northbelt property. Government records indicate that a chip sample was assayed containing 6.86 g/t Au at the Goodwin showing in the northern portion of the property. According to historic maps, at least 37 drill holes have been drilled on the property, but TerraX only has logs for 14 of these holes, and assays from only 3 holes.

TerraX Minerals Inc. entered into an option agreement to acquire the Walsh Lake property, from **Walt Humphries**. The Walsh Lake property consists of seven leases and five claims (2,695 hectares) which are immediately east the Northbelt property. The property has been investigated since the 1930s, including campaigns by Barrick Gold, Rubicon Minerals, Inmet Mining, and Nebex Resources Ltd. This previous exploration activity has included prospecting, mapping, soil geochemistry, airborne geophysics, induced polarization ground geophysics, excavation of numerous trenches, and the drilling of at least 101 drill holes. Numerous anomalous trench and drill-hole intersections have been reported including grab samples as high as 150 g/t Au and drill intersections as high as 15.85 meters averaging 2.59 g/t Au. 2013 Results from two days sampling of trenches and exposed showings resulted in a chip sample of one meter averaging 30.8 g/t Au. TerraX anticipates completing a detailed compilation of the property prior to formulating an exploration plan.

Eighty kilometres north of Yellowknife, **Tyhee Gold Corp.** advanced the Yellowknife Gold project at Ormsby and Nicholas Lake by the release of a feasibility study completed by SRK Consulting, Knight Piésold and Lyntek Inc in August 2012. In January 2013, Tyhee contracted Merit Consultants International Inc. to perform a peer review of the feasibility study and to provide a more detailed breakdown of estimates and cost-effective ways to supplement the study. In addition, Tyhee announced the award of a contract for final engineering and procurement to Lyntek Inc. who will provide a detailed plan for the engineering and logistics of the project.

Environmental baseline studies have been carried out on an on-going basis by Tyhee and its consultants, since 2004. A project description report was submitted to the Land and Water Board, who referred it to the Mackenzie Valley Impact Review Board for an

environmental assessment in August 2008. The developers' assessment report was submitted to the Review Board in May 2011 upon which the project advanced to the information request stage of the assessment process. However, the revised project development plan identified in the Feasibility Study dramatically reduced both the project's physical and environmental impacts compared to the project described in the developers assessment report. Due to the revision the company indicated that additional technical work needed to be completed before a revised project description could be submitted and responses to the Information Requests could be prepared. In June 2013, Tyhee notified the Review Board that Tyhee would need more time and on July 23, 2013 Tyhee requested that the Review Board grant the Company an adjournment to the Environmental Assessment proceedings. MVEIRB responded that it would hold in abeyance the application until Tyhee requests that the proceeding should be reinitiated.

Tyhee has identified six separate gold deposits, including Ormsby, Bruce Lake, Clan Lake, Nicholas Lake and Goodwin Lake. These areas have a combined Measured and Indicated resource of 1,715,000 ounces of gold contained within 27,115,000 tonnes of ore. Proven and Probable reserves (August 2012) for the project are estimated at 20.43 million tonnes at an average grade of 2.03 g/t Au, containing 1.33 million ounces of gold.

Table 2: Summary of Northwest Territories active exploration projects for precious, base and energy metals in 2013.

Operator / Partners	Property	Commodity	Drilling	Airborne and Ground Geophysics	Sampling and Other Work	Studies and Permitting Updates
Avalon Rare Metals Inc.	Nechalacho	REE	4 ddh + 1,977 m (12 HQ holes)			Feasibility Study, Environmental Assessment approved by AANDC
BFR Copper and Gold Inc.	Mazenod Lake				Property Mapping 1000 lithological samples	
Canadian Zinc Corp.	Prairie Creek	Pb-Zn-Ag	5,629 m (2 ddh)			Type "A" Water License, and all Land Use permits received
Copper North Mining Corp.	Redstone	Cu-Ag			Site Visit	
Darnley Bay Res.	Darnley Bay	Ni		Magneto-telluric 60 line km		
Devonian Metals (49%) / Alapa Minerals (51%)	Wrigley	Zn-Pb-Ag				Summary Report
Fortune Minerals Ltd.	NICO	Au-Co-Bi			Pre-construction preparation	Environmental assessment approved, Tliche Land Access Agreement
MMG (Minerals and Metal Group)	Izok Corridor (Mostly in NU)	Cu-Pb-Zn			Environmental baseline studies.	Environmental assessment suspended
Nighthawk Gold Corp.	Indin Lake, including Colomac	Au				Colomac mine resource updated
North Sur Resources	Uptown	Au	JKS Winkie 4 ddh		reconnaissance and detailed prospecting; grab, channel samples	
Seabridge Gold Inc.	Courageous Lake	Au	8,278 m (29 ddh)			Metallurgical testing
Songful Resources	DJ/Hudex	Au			135 silt samples, 741 soil samples	9 new Claims
Tamerlane Ventures	Pine Point	Zn-Pb				Updated technical report released and withdrawn
TerraX Minerals Inc.	Northbelt/ Goodwin/ Walsh Lake	Au	Relogging and assaying 200 historic drill holes	Magnetic-Radiometric+ EM helicopter survey 520 line km	Prospecting ca. 300 samples, locating historic drill collars	
Tyhee Gold Corp.	Clan Lake/ Ormsby/ Nicholas Lake	Au			Environmental baseline studies	Environmental assessment suspended pending project review.

Mag – magnetic, EM - electromagnetic, IP – induced polarization, VLF-EM – Very Low Frequency electromagnetic survey, HLEM – Horizontal loop electromagnetic survey, TEM - time-domain electromagnetic survey, PGE - platinum group elements, ddh-Diamond Drill Hole, Grav – Gravity, VTEM – Vertical TEM, REE – Rare Earth Element

FURTHER INFORMATION

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