2016 Northwest Territories Mineral Exploration Overview: Updated February, 2017

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NORTHWEST TERRITORIES
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Cover photo: Geologists examining core from the A21 kimberlite, the next pipe at the Diavik Mine to go into production. Cover Photo Hendrik Falck Northwest Territories Geoscience Office

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Executive Summary

2016 marked the 25th anniversary of the discovery of diamonds in the Northwest Territories (NWT) at Lac De Gras. This discovery ignited a $28 billion industry and established Canada as the world's third largest diamond producer by value and fifth by volume.

The total estimated value of minerals and diamonds produced in the NWT in 2015 was $1.79 billion. Of this total, diamonds accounted for 97% of the value.

In 2016, NWT mineral producers and explorers continued to advance their projects despite challenging global markets.

DeBeers Group of Companies (DeBeers) and Mountain Province Mining officially opened the Gahcho Kué Diamond Mine on September 20, 2016. The mine is projected to reach full production by early 2017 and is expected to produce 54 million carats of diamonds over a 12-year lifespan.

Meanwhile, the territory's first two mines, Ekati Diamond Mine (Ekati) and Diavik Diamond Mine (Diavik) continue to move forward on expansion projects.

The development on Diavik's A-21 pipe is progressing as planned and has a mineral reserve of ten million carats with an additional one million carats as an indicated resource and 2.3 million carats as an inferred resource. Production from A-21 is scheduled to begin in 2018 and the Diavik mine plan supports production to 2023.

At Ekati, permitting has been completed, and development construction has started for the Jay Kimberlite Pipe. Jay is expected to produce 78.6 million carats of diamonds and will add approximately ten years to the Ekati mine plan, extending the life of the mine to 2033.

NWT gold exploration continues with promising results. Nighthawk Gold Corp. has drilled several deposits, including the former Colomac Mine, and has defined a gold resource of over two million ounces. TerraX Minerals is drilling north and south of the former Con and Giant Mines in Yellowknife, which together produced 12 million ounces of gold over almost 70 years.

The Government of Northwest Territories (GNWT) Mining Incentive Program (MIP) was fully subscribed in 2016 and provides support for eligible mining companies and prospectors in the NWT. The prospecting results to date are highly encouraging and show a renewed interest in on the land activities.

The locations of NWT mines are shown in Figure 1.

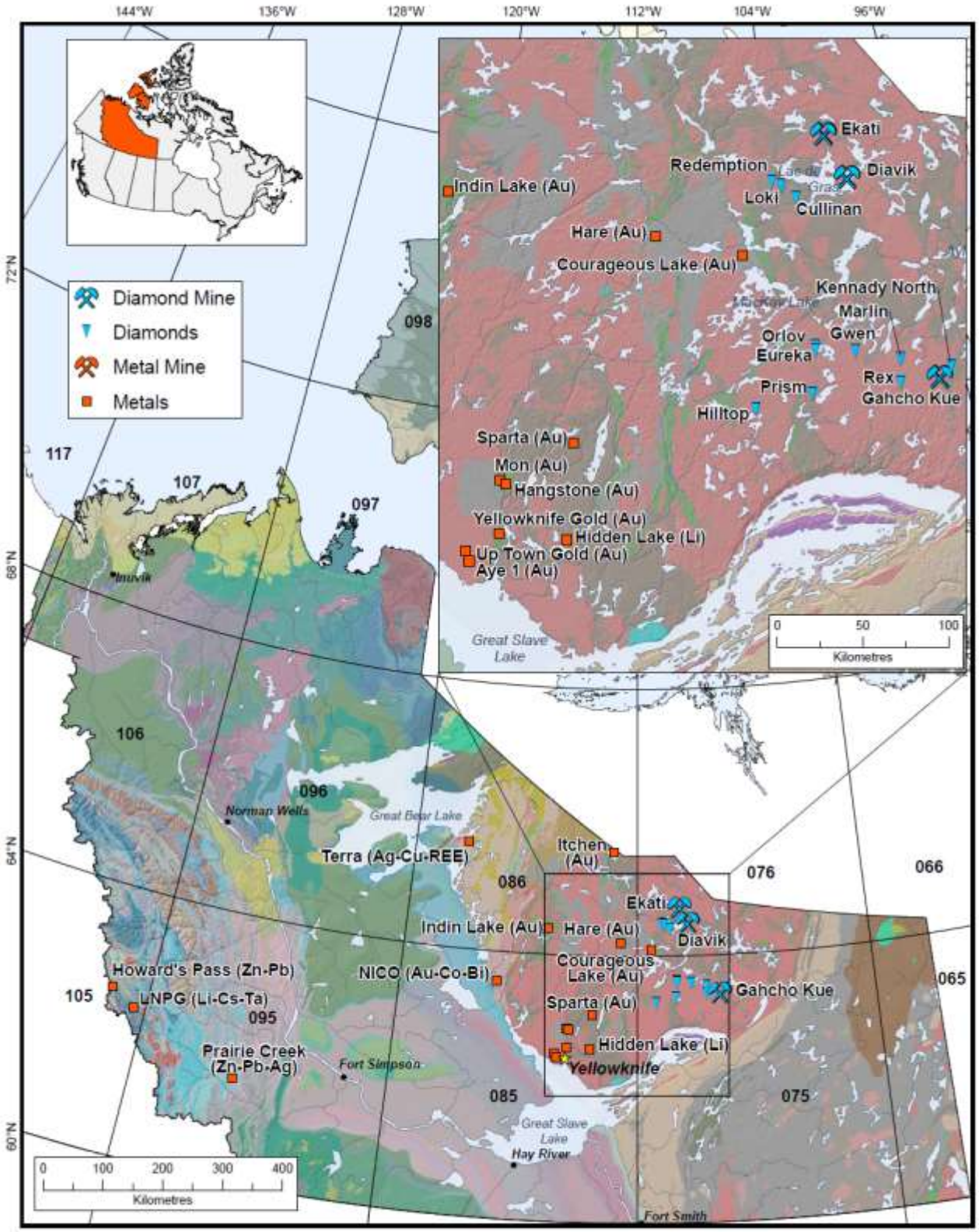

Figure 1: Locations of mines and mineral exploration projects active during 2016, Northwest Territories.

Northwest Territories Mining Highlights for 2016

In December 2015, the **DeBeers Group of Companies** (DeBeers) placed its **Snap Lake Diamond Mine** on care and maintenance. With a remaining diamond resource of 25 million carats, DeBeers has engaged the Bank of Montreal to market the property in search of a new buyer. In December 2016, the company announced that it was unsuccessful in finding a buyer, and placed the mine on extended care and maintenance. Flooding of the underground workings of Snape Lake Mine commenced in early 2017.

DeBeers officially opened Gahcho Kué Diamond Mine (DeBeers 51%, Mountain Province Diamonds 49%) on September 20, 2016, with full production expected in early 2017. Ramp-up production at Gahcho Kué commenced on August 1, 2016. From August 1 to September 30, 2016, the plant processed approximately 130,000 tonnes of ore and produced 198,000 carats, with a 50 carat stone recovered in September 2016. By year-end, the Gahcho Kué mine had processed 515,000 tonnes of kimberlite recovering 862,000 carats of diamond for an average grade of 1.67 carats per tonne. Gahcho Kué produced a total of 22.5 million tonnes of ore and waste in 2016, and had accumulated a stockpile of approximately 70,000 tonnes of ore. At the first diamond sale, a total of approximately 49,420 carats were sold for proceeds of approximately US$6.27 million, representing an average price of approximately US$127 per carat.

According to the mine plan, the $1 billion capital construction project will extract kimberlite ore from three open pits. Production will commence with ore produced from the 5034 kimberlite. Stripping on the Hearne kimberlite is scheduled to commence in 2019, and the body will be exhausted by 2024. Finally, stripping of and production from the Tuzo pipe is scheduled to start in 2020 and will support the mine until its closure in 2028. A fourth pipe, Tesla, is not currently included in the mine plan.

The mine is slated to produce 54 million carats of diamonds from 35 million tonnes of ore over a 12 year lifetime. In the 2014 valuation, Gahcho Kué diamonds averaged $174 US/carat with the value of individual test parcels ranging from $88 US/carat from the Hearne Pipe to $298 US/carat for diamonds recovered from the Tuzo pipe. Gahcho Kué will inject about $6.7 billion into the Canadian economy, with a significant portion in the NWT. At full capacity, the project will provide 530 direct full-time jobs. Including supply and service chain employment, the project is expected to support more than 2,700 jobs.

The **Diavik Diamond Mine (Diavik)** achieved a milestone this year with the production of its hundred-millionth carat of diamond in May 2016. The mine is a joint venture between Rio Tinto subsidiary **Diavik Diamond Mines Inc.** (60%) and **Dominion Diamond Corporation** (40%).

Current mining activities at Diavik are exclusively underground at A154 South, A154 North, and A-418 kimberlite pipes. For 2016, 2.21 million tonnes of ore were processed to recover 6.66 million carats. This compares with 1.98 million tonnes, producing 6.41 million carats in 2015. Year-end production figures reported by Dominion are provided in Table 1.

Table 1: Diavik Diamond Mine production, 2016 production, recalculated to a 100% basis[1].

	For the 12 months ended December 31, 2016			For the 12 months ended December 31, 2015		
Pipe	Ore Processed (000s tonnes)	Carats (000s)	Grade (carats/tonne)	Ore Processed (000s tonnes)	Carats (000s)	Grade (carats/tonne)
A-154 South	517	1457	2.81	525	1900	3.61
A-154 North	702	2937	2.27	632	1352	2.14
A-418	990	3515	3.56	820	2965	3.62
COR[2]	5	85	-	8	187	-
Total	2212	6657	2.97[3]	1985	6405	3.14[3]

** [1] Dominion Diamond Corp. reports their production figures for tonnage of ore produced and carats recovered based on their 40% ownership of the mine, effectively reporting 40% of the run of mine ore, and carat production. The "Ore Processed" and "Carats" figures in this table have been revised to reflect the total calculated mine production (i.e. multiplied by 100%/40%= 2.5). Numbers may not add due to rounding.

[2] COR – Coarse Ore Rejects

[3] Grade has been adjusted to exclude Coarse Ore Rejects

Development of the A-21 pipe, located below the water of Lac de Gras, was approved in 2014 and is progressing as planned. The water retention dyke surrounding the pipe was closed before freeze up. The dyke will be completed and the pipe de-watered during 2017. The A-21 pipe has a mineral reserve of ten million carats with an additional one million carats of indicated resource, and 2.3 million carats inferred resources. Production from A-21 is scheduled to begin in 2018. The Diavik mine plan supports production to 2023**.** A revised mine plan is anticipated in 2017 with planned production of 2.0 to 2.2 million tonnes expected to yield 7.1 to 7.6 million carats.

The **Ekati Diamond Mine**, located 310 km northeast of Yellowknife, is divided into the Core Zone, containing the current operating mine and other permitted kimberlite pipes, and the Buffer Zone, which is an adjacent area hosting kimberlites including the Jay and Lynx pipes. The mine is owned by **Dominion Diamond Corporation** (Dominion) (88.9% Core/65.3% Buffer), and **Stewart Blusson** (11.1% Core/34.7% Buffer). During 2016, Ekati recovered 3.7 million carats by processing 3.6 million tonnes of ore. A fine dense media separation (DMS) unit is being added to the process plant in Q4 fiscal 2017 to improve the recovery of smaller sized diamonds. Ekati reports production as of their year-end on January 31.

In September 2016, Dominion announced the sale of a 186 carat gem quality diamond for US$2.8 million. Dominion recovered the stone in early June during the processing of feed from the Pigeon kimberlite. The stone was the largest gem-quality diamond ever recovered at Ekati.

A fire at the Ekati processing plant in June caused a significant disruption to mining and milling operations resulting in the temporary layoff of over 300 employees. To offset the

effects of the incident, production from the lower value Pigeon and Lynx pits was suspended. Mining operations continued in the higher value Koala Underground and Misery Main pit. The repairs to the process plant were completed September 21, 2017, and Dominion intends to continue processing the higher tenor ore for the remainder of the fiscal year. Dominion plans to produce 4.7 million carats from 2.8 million tonnes of ore by the end of fiscal 2017. Ekati production for the first three quarters is provided in Table 2.

Table 2: Ekati Mine Production from Dominion Diamonds Q3 reporting.

	For the nine months ended October 31, 2016			For the nine months ended October 31, 2015		
Pipe	Ore Processed (000s tonnes)	Carats (000s)	Grade (ct/tonne)	Ore Processed (000s tonnes)	Carats (000s)	Grade (ct/tonne)
Misery Main	409	1,563	3.82	-	-	-
Pigeon	407	174	0.43	-	-	-
Fox	-	-	-	86	24	0.28
Koala	725	436	0.6	741	618	0.83
Koala North	-	-	-	97	53	0.55
Misery Satellite	440	784	1.78	770	1,236	1.61
Coarse Ore Rejects	-	-	-	1,008	638	0.63
Total	1,981	2,957	1.49	2,702	2,568	0.95

Dominion has completed and received approval for a Water License, to add the Jay kimberlite pipe (Jay) to its mine plan and allow the development to proceed. Jay is expected to produce 78.6 million carats of diamonds from 44.7 million tonnes of ore (1.8 carats/tonne) with an estimated value of $53 US/carat. The project has a Post-Tax Net Present Value (NPV) of $398 million US at a 7% discount for a post-tax Internal Rate of Return (IRR) of 15.6%

Construction for mining Jay will commence with road construction to the pipe. Construction of the water retention dyke is scheduled to begin in 2018, followed by de-watering and pre-stripping. Ore production from Jay is scheduled to commence late 2022 and will add approximately ten years to Ekati's mine plan, extending the life of the mine to 2033.

Dominion released a pre-feasibility study on the Sable kimberlite. The Sable kimberlite will be mined as an incremental development opportunity facilitated by the Jay project development. Sable is expected to produce 10.1 million carats of diamond from 12 million tonnes of kimberlite (0.8 carats/tonne) with an estimated value of $140 US/carat. By coordinating development with the Jay pipe, the project has an NPV of $137 million with a 16.2% post-tax IRR at a 7% discount. An exploration drilling program at Fox Deep was completed in the first quarter; sample results have yet to be reported.

Northwest Territories Mineral Exploration Highlights for 2016

Diamond Exploration

The locations of NWT diamond exploration properties are shown in Figure 1; Table 5 summarizes 2016 diamond exploration activity.

Canterra Minerals Corporation (Canterra) received kimberlite indicator mineral (KIM) picking results from 96 samples from their **Prism** (13,780 hectares, 25 km south of Snap Lake Diamond Mine), **Gwen** (11,500 hectares, 30 km east of Snap Lake Diamond Mine), and **Marlin** (25,830 hectares, 20 km northwest of Gahcho Kué Diamond Mine) properties.

At Prism, the results helped to define two KIM train cutoffs. On the Marlin property, the results suggest a KIM anomaly which appears to be sourced on the property. Picking remains to be completed on 108 till samples from their **Rex** property (25,030 hectares, 45 km southeast of Snap Lake Diamond Mine).

Canterra completed 60 line-km of magnetic and resistivity ground surveys on its **Hilltop** property (10,060 hectares, 45 km southwest of Snap Lake Diamond Mine) in February 2016.

Kennady Diamonds Inc. (KDI) continued to explore the 61,000 hectare **Kennady North** project located 5 km north of the Gahcho Kué Diamond Mine. This property includes the diamondiferous MZ, Doyle, Kelvin, and Faraday kimberlites.

This year, KDI completed a 74 hole, 10,712 m winter and a 33 hole, 9,561 m summer exploration drilling program. Early in the year, KDI reported intersecting a new, third kimberlite in the Faraday cluster. A diamond drilling rig cored 17 holes on the new Faraday 3 kimberlite during the winter 2016 program; a further five holes helped delineate the kimberlite during the summer drilling program. The new kimberlite lies approximately 80 m southwest of the Faraday 1.

Core recovered from the Faraday 3 pipe was submitted to the Saskatchewan Research Council (SRC) for caustic fusion recovery of diamonds. Results are summarized in Table 3.

Table 3: 2016 Faraday 3 Diamond Recovery Results.

Sample Weight (dry tonnes)	Number and weight of diamonds according to sieve size fraction (mm)												Total diamonds	Total Carats (+0.85mm)
	0.106 -0.150	0.150 -0.212	0.212 -0.300	0.300 -0.425	0.425 -0.600	0.600 -0.850	0.850 -1.180	1.180 -1.700	1.700 -2.360	2.360 -3.350	3.350 -4.750	4.750		
3.0289	2,406	1,631	925	559	294	154	80	43	20	8	2	0	6,122	6.61

*Sample grade of diamonds greater than 0.85 mm: 2.18 carats per tonne.

Diamond drilling also helped delineate the Faraday 1 and 2 kimberlites and the Kelvin kimberlite as well as completing exploration drilling on the Hobbes kimberlite. Drilling highlights include:

- Faraday 2 – the three best holes had kimberlite intercepts of 76.9 m; 50.3 m and 38.0 m
- Faraday 3 – the three best holes had kimberlite intercepts of 18.3 m; 16.5 m and 13.3 m
- Kelvin – a final delineation hole with a kimberlite intercept of 114.2 m

Conducting further exploration on the Kelvin North Lobe, KDI completed 29 Large Diameter Reverse Circulation (LDRC) holes to recover a 612-tonne bulk sample. Dense Media Separation (DMS) at the SRC recovered 1,278 carats of diamonds >+0.85 mm screen, for a grade of 2.09 carats/tonne. Forty-four diamonds greater than one carat were recovered, including a 3.43 carat white/colourless transparent octahedral twin with no inclusions.

Three LDRC holes were drilled in the Kelvin Southeast lobe to improve geological modelling in this area.

The Faraday 2 kimberlite was also sampled with the LDRC rig, collecting a 21.1-tonne mini-bulk sample from two holes. The sample returned 2.69 carats/tonne via DMS at the SRC. The DMS sinks were processed using caustic fusion rather than x-ray sorting and grease tables due to a high number of background x-ray luminescent minerals in the Faraday kimberlite.

A valuation was performed by WWW International Diamond Consultants using 2262.43 carats of diamonds recovered from 2015 and 2016 bulk samples of the Kelvin Kimberlite. Values by geological zone are given in Table 4.

Table 4: Summary of the Kelvin Diamond Valuation

Zone	Parcel Size[2] (carats)	Parcel Value[3] (US$)	Average Price[3] (US$/carat)
Kelvin A	966.12	$37,275	$39
Kelvin B	1,109.99	$66,051	$60
Kelvin C	159.47	$13,805	$87

Mixed[1]	27.12	$1,197	$44
Total[4]	2,262.43	$118,329	$52

** [1] Mixed zone includes kimberlite mixed with country rock and country rock breccia.
[2] Only diamonds greater than +1 DTC sieve size are reported.
[3] Based on WWW price book on October 7, 2016.
[4] Some rounding error may occur in the values reported.

Based on the sample values per size class and a quality breakdown analysis, WWW found that the quality and value of the diamonds are similar across the three geological zones supporting a single model of values per size class. For the Kelvin 'A' zone, WWW recommends using a modelled average price of $42 US per carat with a 'low' value of $37 US per carat and a 'high' value of $58 US per carat. For the combined Kelvin 'B' and 'C' zones, WWW recommends using a modelled average price of $57 US per carat with a 'low' value of $47 US per carat and a 'high' value of $68 US per carat. WWW emphasizes the high degree of uncertainty associated with these numbers based on a statistically small sample size.

Using the diamond drilling and bulk sampling results from past years, and the valuation above, KDI has calculated a first indicated mineral resource estimate of 8.50 million tonnes grading 1.60 carats/tonne for 13.62 million carats at a value of $63 US per carat for the Kelvin Kimberlite. The maiden indicated mineral resource estimate on the Kelvin Kimberlite, and an exploration update have been filed as a 43-101 compliant report.

In addition to the drilling and bulk sampling programs, KDI also completed a large geophysical program including 547 line-km of Ohm Mapper survey and 751 line-km of ground magnetic survey.

North Arrow Minerals Inc. (North Arrow) conducted a spring drilling program on its **Redemption** Diamond Project (11,500 hectares, 30 km southwest of Ekati Diamond Mine). North Arrow has earned a 55% interest in the property from **Arctic Star Exploration Corporation**. Ten diamond drill holes totalling 951 m and 18 reverse-circulation (RC) holes totalling 626 m failed to locate a source for the South Coppermine KIM train. Complex geophysical signatures arising from magnetic granitoid, pegmatite, and metasedimentary rocks explained the magnetic anomalies targeted during the drilling program. Based on these results, North Arrow has relinquished its earn-in interest on the Redemption Project except for one claim.

South and east of the Redemption property, North Arrow holds a 100% interest in the **Loki** project (7,059 hectares of non-contiguous claims). Results are still pending from 56 till samples collected from the property in August. North Arrow also carried out a ground geophysical program on claims along the Monument kimberlite cluster. Ground geophysics on these claims identified several drill targets.

In March, **Proxima Diamonds Corporation (Proxima)** explored its **Cullinan** property (14,500 hectares, 30 km west of Diavik Mine). To follow up on previously identified airborne geophysical anomalies, Proxima completed five ground magnetic, gravity and three-dimensional (3D) capacitively coupled resistivity surveys. A review of the preliminary data over the CN-04 target area has identified coincident gravity and conductivity anomalies beneath a small lake, at the head of a strong KIM train that includes G10 pyrope garnets.

Till sampling at Proxima's **Eureka** project (1,259 hectares, 15 km south of Snap Lake Mine) helped to define the head of a KIM train west of the CL-25 kimberlite. On the company's **Orlov** property (18,775 hectares, immediately east of the Snap Lake Mine), abundant KIMs were recovered in an area where the previous sampling had not identified KIMs.

Table 5: Summary of NWT Diamond Exploration for 2016

Company	Property	Drilling	Geophysics	Sampling and Other
Canterra Minerals Corp.	Prism, Gwen, Marlin, Rex, Hilltop		60 line-km ground magnetic-resistivity surveys on Hilltop	Received KIM picking results from Prism, Gwen and Marlin (96 samples)
Kennady Diamonds Inc.	Kennady North	74 DDH for 10,712 m winter program, 33 DDH for 9,651 m summer program. LDRC 34 holes for 633+ T. Kelvin North (29 holes 612 T), Faraday 2 (2 holes 21.1 T) and Kelvin SE (3 holes)	547 line-km Ohm Mapper 751 line km magnetic survey	612 T bulk sample Kelvin North recovered 1278 ct diamond >0.85mm. 21.1 T sample of Faraday 2 returned 2.69 ct/T Geotechnical study on Kelvin 3 T caustic fusion recovery of Faraday 3 kimberlite Valuation of Kelvin diamond parcels Mineral Resource estimate on Kelvin kimberlite
North Arrow Minerals Inc.	Redemption, Loki	10 DDH for 951m 18 RC 626 m on Redemption	Ground geophysics reported on Loki	56 till samples collected on Loki.
Proxima Diamond Corp.	Cullinan, Eureka, Orlov		Five ground mag, gravity, 3D ccr grids	Till sampling reported on Eureka and Orlov

3Dccr – Three-dimensional capacitively coupled resistivity, ct – carat, DDH – diamond drill hole, km – kilometre, KIM – kimberlite indicator mineral, LDRC – large diameter reverse circulation, m – metre, RC – reverse circulation, T – tonne,

Metal Exploration

The locations of NWT metal exploration properties are shown in Figure 1; Table 6 summarises 2016 metal exploration activity.

Canadian Zinc Corporation (CZC), with consultants AMC Mining and Tetra Tech Incorporated, completed a preliminary feasibility study on CZC's 100% owned **Prairie Creek** lead, silver, and zinc property. The new study incorporates results from the 2015 underground exploration program as well as process optimization work completed over the past three years. The Prairie Creek Mine hosts proven and probable Mineral Reserves of 7.60 million tonnes averaging 8.93% zinc, 8.33% lead, and 127.58 grams/tonne silver within Measured and Indicated Mineral Resources of 8.70 million tonnes grading 9.5% zinc, 8.9% lead and 136 grams/tonne silver. In addition, the Technical Report confirms a large Inferred Mineral Resource of 7.05 million tonnes grading 11.3% zinc, 7.7% lead and 166 grams/tonne silver and additional exploration potential. The new study increased Measured and Indicated resource tonnages 32%, and Proven and Probable Reserves by 46% from previous estimates. The project shows a pre-tax NPV of $284 million using 8% discount with an IRR of 23%. On a post-tax basis, the project has an NPV of $155 million, with an IRR of 18%. Pre-production capital costs, estimated at $244 million, have a four-year payback.

CZC entered into production memorandums of understanding (MOUs) with smelters Boliden and Korea Zinc. Once in production, these MOUs will allow the sale of all of the operation's zinc concentrate and about half of the operation's lead concentrate.

The new study highlights the benefits of constructing an all-weather road and considers some alternative energy sources including liquid natural gas for power generation. The study anticipates 220 direct full-time jobs over a 17-year mine life, as well as a host of indirect employment related to mine supply, transportation, and monitoring. The all-weather road project is currently in environmental assessment.

DEMCO, a subsidiary of **Denendeh Development Corporation** continued a program to service and preserve historical drill core stored at the **Terra** mine site. Re-logging and preserving the core has shown the potential for polymetallic mineralization in this historic mining district.

Fortune Minerals Limited (Fortune) continued efforts to bring the NICO deposit to production. NICO is an iron oxide-copper-gold (IOCG) deposit located in the southern Bear Province approximately 160 km northwest of Yellowknife. Ore is hosted in three stratabound lenses of brecciated ironstone up to 1.3 km long and 550 m wide, with individual lenses up to 70 m thick that dip 40˚ to 50˚.

Fortune continued permitting, and financing initiatives for NICO and the Wek'èezhìi Land and Water Board approved a Type A Land Use Permit for care and maintenance of the NICO project. The Government of the Northwest Territories, the Tłı̨chǫ government and the Federal government jointly announced federal funding in support of the Tłı̨chǫ All-Season Road to the community of Whatì. The road will greatly improve the economics of the project. The Whatì Road project is undergoing Environmental Assessment.

Assisted by GNWT- ITI Mining Incentive Program (MIP) funding **Wayne Kendrick** prospected on his wholly owned **Hangstone** claims and retrieved six samples grab samples with grades over 1 gram/tonne gold, and a best result of 57.7 grams/tonne. The best result of the sampling assayed over 14 grams/tonne gold. Mr. Kendrick plans to follow up on these results with a drill program in the spring of 2017. A table outlining 2016-17 MIP recipients and projects can be found in Table 7.

New Discovery Mines Ltd. commenced a diamond drill program to test gold targets at the past producing **Mon** Gold Mine. The Mon Mine, located 50 km north of Yellowknife, last produced from 1989 to 1997 when approximately 79 kilograms of gold were produced from 4,106 tonnes of ore. Gold is hosted in quartz veins near the contact of a mixed sedimentary/volcanic sequence intruded by a thick gabbroic sill. The vein system has been traced approximately 210 m along strike and to depths less than 50 m.

This year, five drill holes totalling 400 m were completed to intersect the A-Zone, which lies to the south and down dip of the mined stopes. Gold assay results from the drilling have not been reported, but three of the five intersections did encounter visible gold. Seven additional holes are planned for the 2017 winter drilling season.

In July, **Nighthawk Gold Corporation** conducted a large prospecting/mapping program and commenced a 10,000-metre drill program on its **Indin Lake** Gold property located 210 km north of Yellowknife. The large land package (92,993 hectares) covers several gold deposits including the **Colomac Mine**, which produced 527,908 ounces (16,419 kilograms) of gold during the 1990s. The **Colomac** portion of the larger Indin Lake property hosts five known gold deposits – Colomac Main, Grizzly Bear, Goldcrest, Dyke Lake, and 24/27 – of which only the Colomac Main deposit was mined.

The Colomac Sill occurs near the east side of an intrusive complex in contact with, or near to, andesitic volcanic rocks. Compositionally, the intrusion is a medium-grained quartz diorite to gabbro. Where drill-tested along a strike length of about six km, the Colomac Sill ranges from 40 m to 200 m in width, averaging 100 m. Brittle deformation of the sill has produced fractured stockwork veining with highly altered and carbonatized, auriferous, quartz-veined zones. The Goldcrest Sill is a 2.5 km long mafic sill similar to the Colomac Sill, located 400 m to the west.

Mapping and prospecting to follow up on targets identified by 2012 geophysical surveys identified a new sill, similar in character to the Colomac and Goldcrest sills. One and a half km east, and parallel to the Colomac Sill, the newly discovered Nice Lake Sill is at least 4 km long. The sill is composed of a quartz diorite and is mineralized, with grab samples assaying up to 2.61 grams/tonne.

Approximately 20 km south of Colomac prospecting identified Au-Ag-Bi mineralization in a granitic pluton near Andy Lake. A grab sample from the north end of Andy Lake returned a best assay of 2.92 grams/tonne Au, 98.0 grams/tonne Ag and 233 ppm Bi. Similar mineralization was found in grab samples at the south end of Andy Lake, over a kilometre away.

The summer 2016 drill program planned to test high priority targets at the Colomac and Goldcrest deposits. By late September 2016, 34 drill holes (8,400 m) were completed.

On the Colomac 1.0 Zone hole C16-06B intersected 55.95 m (40.00 m true width) of 1.09 grams/tonne Au; C16-06 intersected 27.22 m (20.00 m true width) of 1.06 grams/tonne Au, including 8.45 m of 1.67 grams/tonne Au;

Results on the Colomac 1.5 zone returned encouraging results, including:

- Hole C16-03 intersected 52.07 m (40 m true width) of 7.72 grams/tonne Au, including 25.47 m of 14.25 grams/tonne Au, including 12.35 m of 9.58 grams/tonne Au;
- Hole C16-01 intersected 31.45 m (25 m true width) of 4.14 grams/tonne Au, including 13.75 m of 6.52 grams/tonne Au;
- Hole C16-01B intersected 39.60 m (32 m true width) of 2.38 grams/tonne Au, including 6.65 m of 4.76 grams/tonne gold, including 2.75 m of 10.09 grams/tonne Au;
- Hole C16-03B intersected 72.65 m (50 m true width) of 5.58 grams/tonne Au, including 17.80 m of 17.72 grams/tonne Au, including 11.05 m of 27.83 grams/tonne Au;
- Hole C16-04B intersected 9.00 m (six m true width) of 2.24 grams/tonne Au.

In the Colomac 2.5 Zone hole C16-07B intersected 57.00 m (37.00 m true width) of 1.47 grams/tonne Au, while hole C16-07, intersected 44.00 m (33.00 m true width) of 1.29 grams/tonne Au, including 16.80 m of 1.92 grams/tonne Au.

Two holes expanded the Colomac 3.0 Zone north and to depth. Hole C16-10 intersected 20.18 m (12.70 m true width) of 1.80 grams/tonne Au. Hole C16-10B, intersected 14.20 m (6.80 m true width) of 1.42 grams/tonne.

Two of four holes targeting the Colomac 3.5 Zone returned gold mineralization, with a best intercept of 13.05 m of 1.44 grams/ tonne Au.

Eight holes were drilled on the Goldcrest North target which appears to be a detached portion of the main Goldcrest sill, located 600 m to the northeast of the main Goldcrest resource highlights include:

- Hole G16-01 intersected 6.40 m of 1.85 grams/tonne Au, including 4.80 m of 2.36 grams/tonne Au.
- Hole G16-02 intersected 10.25 m (8.0 m true width) of 1.75 grams/tonne Au, including 6.50 m of 2.40 grams/tonne Au.
- Hole G16-03 intersected 6.34 m (4.50 m true width) of 2.22 grams/tonne Au, and the undercut hole, G16-03B, intersected 4.26 m of 2.10 grams/tonne Au, including 3.00 m of 2.84 grams/tonne Au;
- Hole G16-05 (located approximately 36 m north of G16-03) intersected 12.25 m (9.0 metre true width) of 1.48 grams/tonne Au, and 25.25 m (16.0 m true width) of 0.67 grams/tonne Au.
- Hole G16-10 returned 26.05 m (14.7 m true width) of 2.16 grams/tonne Au.

Nighthawk announced a $10.1 million strategic investment by Kinross Gold Corporation. After the non-brokered private placement, Kinross will own 9.5% of Nighthawk.

Assisted by GNWT – ITI Mining Incentive Program funding, prospector **Dave Nickerson** drilled three holes on his wholly owned **AYE 1** claim near the Ingraham Trail turnoff (NWT Highway 3 / 4 junction) in Yellowknife. The claim hosts a quartz vein containing high-grade gold mineralization. Assays from this year's drilling returned values of 21.9 grams/tonne Au over 0.61 m, 32 grams/tonne Au over 0.84 m and 1.9 grams/tonne Au over 0.79 m. Mr. Nickerson plans to follow up on his 2016 drill program with test mining in the summer of 2017.

Ninety Two Resource Corporation explored its wholly owned **Hidden Lake** property approximately 40 km northeast of Yellowknife. The company mapped the property, sampled, and channel sampled spodumene-bearing pegmatites on its claims. The mapping of the Hidden Lake property identified two new spodumene-bearing pegmatites. Two hundred and twenty-three channel samples were collected from the HL1, HL3 and HL4 pegmatites. One hundred and one of these returned greater than 1.0% Li_2O, including 1.58% Li_2O over 8.78 m from the HL3 pegmatite. Grab samples returned assays over 3% Li_2O. Significant tantalum was discovered and associated with the lithium mineralization, with the best assay returning 402 ppm Ta_2O_5. The Company filed a 43-101 compliant report on the Hidden Lake property December 2016.

Seabridge Gold Inc. maintained their **Courageous Lake** gold property located approximately 240 km northeast of Yellowknife. The Courageous Lake property consists of 27,263 hectares covering 53 km of the Courageous Lake greenstone belt. Activities in 2016 were limited to the review of existing data to identify new drill targets.

Selwyn Chihong Mining continued environmental and engineering activities to advance the large **Howard's Pass** zinc-lead property towards production. The project includes 15 zinc-lead deposits over a strike length of 37.5 km with the bulk located in eastern Yukon extending southeastward into the NWT. In 2012, a global Indicated Resource was estimated to be 185.57 million tonnes grading 5.2% Zn and 1.79% Pb for a metal content of 9.64 billion kilograms of zinc and 3.31 billion kilograms of lead. The Inferred Resource was estimated to be 237.86 million tonnes grading 4.47% Zn and 1.38% Pb for a metal content of 10.63 billion kilograms of zinc and 3.27 billion kilograms of lead. Selwyn Chihong is continuing efforts to define a larger scale open-pit mine with expanded mine life with a 35,000 tonne-per-day mill option. Six of the eight mineralized zones are being considered for open pit development.

Work continued on upgrading the Howard's Pass road, a 90-kilometre long access road that links the Selwyn project to the Yukon road system. Work included grading and improving the ramps leading to a bridge at Steel Creek and bridges at other creek crossings.

Silver Range Resources Limited (Silver Range) purchased the six-claim, 3,267 hectare **Up Town Gold** property from Panarc Resources Limited. The property is located approximately 5 km southwest of Yellowknife. Exploration on the property in summer 2016 included systematic sampling, alteration mapping and airborne magnetic and radiometric surveys. Prospecting during this time resulted in the discovery of three new mineralized veins, with best grab sample returning 145.5 grams/tonne Au. In the fall, **Silver Range** entered into an option agreement with **Rover Metals Corporation** on the project.

Silver Range staked, mapped and sampled the Itchen Property July in 2016. The best grab sample from the program returned 6.64 grams/tonne Au. Strategic will combine this year's results with historical data from the area. **Silver Range** also staked the Hare property at the North End of the Healy Lake greenstone belt, 460 km northeast of Yellowknife, as well as the Sparta property, a sediment-hosted quartz-vein target 81 km northeast of Yellowknife.

Strategic Metals Ltd. completed a two-week program consisting of mapping, prospecting and channel sampling the **LNPG Property** which hosts the Little Nahanni Pegmatite Group, a suite of lithium-cesium-tantalum pegmatite dykes that have been traced for over 13 km. The property is located near the Yukon border 37 km northwest of the Cantung Mine. Grab samples from spodumene-bearing pegmatites assayed up to 3.77% Li_2O. Channel samples from pegmatite boulders and outcrop on the **Li Property** have returned up to 1.59% Li_2O across 10 m. **Equitorial Exploration Corp.** subsequently purchased a 100% interest in the LNPG property.

TerraX Minerals Inc. continued a vigorous exploration program on its wholly-owned **Yellowknife Gold Project**. The Yellowknife Gold Project is a 129 square kilometre property covering 23 km of the strike of the Yellowknife Volcanic Belt. TerraX completed a winter and summer exploration program of diamond core drilling, sampling, and other investigations.

Early in 2016, TerraX provided final reporting of their 2015 summer sampling program. Several new high-grade gold veins returned bonanza value assays. Samples of the Ryan Lake pluton, and shear zones within this pluton, returned polymetallic assays with significant values of gold, silver, lead, zinc, and molybdenum. The 2016 fieldwork focused on using field mapping and sampling to identify extensions to the Mispickel zone, the Hebert-Brent zone and complete the coverage of the Southbelt property.

The Mispickel mineralized structure originally identified in historical exploration reports and confirmed by surface prospecting, was extended using geophysical surveys to an approximate strike length of 5 km. Mispickel is comprised of high-grade gold in quartz veins surrounded by lower-tenor gold mineralization in altered metasedimentary rocks. The summer field work investigated historical trenching and mapped along the trace of the structure to the north of TerraX's winter drilling. A detailed ground magnetic survey was also extended over a portion of the Mispickel structure not covered in the 2015 survey. Geophysical surveys were also conducted on the area over the Sam-Otto zone, a mineralized zone sub-parallel and to the west of the Mispickel structure. Sam-Otto has been identified over at least 1.5 km of strike length based on historical surface trenches and drilling.

At Hebert-Brent, three areas of mineralization, particularly sulphide replacement style zones, were traced and mapped over a significantly larger areal extent than had been recognized upon their discovery in the fall of 2015. Spectral analysis of mineralized areas was also used to determine the alteration mineralogical signatures of the various gold zones. Additionally, on the Northbelt property, a combined "POCO" time domain Electromagnetic and Magnetic survey were conducted over the sulphide replacement target areas and the Homer Lake gold and base metal area. Soil and till geochemical test programs were also initiated to identify buried mineralized trends.

A LiDAR survey followed by bedrock mapping and sampling of the Southbelt property was also conducted to identify drill targets for early in 2017.

Nine holes totalling 1,364 m were completed on the Mispickel zone during winter 2015/2016 drilling. Hole TWL16-016 from the winter program returned a best assay of 60.60 grams/tonne Au over 8.0 m (intersection width). Initial results from summer drilling on the Mispickel zone returned a best intersection of 5.53 m at 29.85 grams/tonne gold. An additional three drill holes (921.9 m) completed in the fall, intersected wide, low-grade zones, including 25.00 m containing 0.45 grams/tonne Au and 33.00 m at 0.30 grams/tonne Au in hole TWL16-034. Three holes (1196.7 m) spaced 200 m apart confirmed the projected extension of the Mispickel Hanging Wall structure over a total of 600 m of strike length. Results show a wide zone of gold mineralization, including 72.50 m of 0.37 grams/tonne Au in hole TWL16-032.

The Sam-Otto zone had 1,501 m of drilling over nine holes during the winter drill program. Pervasive alteration and mineralization were intersected in all nine holes drilled in the Sam-

Otto structure. Mineralization is characterized by low-grade wide intersections within altered volcanic rocks. The best intersections from the program were reported as 1.0 gram/tonne of gold over 49.70 m and 30.70 m of 1.33 grams/tonne Au. The core assays suggest a low grade high tonnage shear-zone-hosted target exists in the Sam-Otto zone with gold mineralization of greater than 1 grams/tonne Au present for at least 350 m of strike and 250 m of depth, in a 30 m to 50 m wide zone.

Three Sam-Otto sub-zones are recognized, the Main, Hanging Wall, and Dave's Pond zones. A second drill was added to the summer drill program in mid-August 2016 with 14 holes (2,838 m) completed at Sam-Otto prior to the completion of drilling in October 2016. Drilling at Sam-Otto Main Zone (2 holes totalling 728.6 m) intersected 129.35 m of 0.52 grams/tonne Au, including 32.13 m with 1.24 grams/tonne Au in hole TSO16-010. In the Hanging Wall Zone (4 holes totalling 572.3 m) lead to the discovery of additional 85 m to125 m wide zones of +/-0.50 grams/tonne Au within broad zones of lower grade gold mineralization including 85.00 m containing 0.53 grams/tonne Au in hole TSO16-006. The drilling on the Dave's Pond Zone (4 holes totalling 584 m) encountered a quartz vein shear system with a high-grade core. The initial hole was approximately 150 m west and 400 m north of the Sam-Otto Main Zone drilling. Additional holes have identified the zone 600 m to the south, extending its strike. Highlights include: 11.50 m of 2.42 grams/tonne Au including 2.40 m of 9.89 grams/tonne Au in hole TSO16-005

Six holes drilled on the Homer Lake target totalled 1,147 m. Two holes intersected a previously untested north-striking quartz vein and sulphide gold zone cutting the Homer base metal structure; this structure returned 15.91 m at 1.78 grams/tonne gold and 14.9 grams/tonne silver. Four other holes targeting the Homer Lake structure proper all intersected base metal mineralization with a best assay of 0.53 grams/tonne Au, 57.1 grams/tonne silver, 3.82% lead and 4.63% zinc over 4.00 m in hole THL16-010.

At Hebert-Brent, TerraX drilled 19 holes totalling 784 m. The best assay interval returned 3.21 grams/tonne gold over 8.00 m.

At the Barney Lake prospect, three holes were drilled totalling 1,593 m. All holes intersected mineralization. The best intersection returned 18.10 m of 1.10 grams/tonne Au. One hole on the Barney target also intersected a spinifex textured ultramafic flow, a rarity for the Yellowknife Greenstone Belt.

Ten holes, totalling 913 m, were drilled on the AES, Pinto and VSB targets. Some of these holes intersected low-grade gold mineralization.

An expanded drill program consisting of four drills to complete 17,000 m has been announced for the winter of 2017.

Table 6: Summary of NWT Mineral exploration during 2016

Operator / Partners	Property	Commodity	Drilling	Geophysics	Sampling and Other Work	Studies and Permitting
Canadian Zinc Corp.	Prairie Creek	Zn-Pb-Ag			PFS – economics and optimization	Production MOUs for concentrate
DEMCO limited partnership	Terra	Au- Ag- Cu-Pb-Zn			Preserving and resampling core	
Fortune Minerals Ltd.	NICO	Au-Co-Bi				Land Use Permitting
Kendrick	Hangstone	Au			Prospecting and grab sampling	
New Discovery Mines Ltd.	Mon	Au	5 DDH holes, 400 m			
Nighthawk Gold Corp.	Indin lake	Au	8,400 m in 34 DDH holes		Prospecting guided by geophysics, sampling	
Nickerson	Aye 1	Au	3 DDH holes			
Ninety Two Resource Corp.	Hidden Lake	Li			Grab sampling and 223 channel samples	43-101 filed
Seabridge Gold Inc.	Courageous Lake				Data review	
Selwyn Chihong Mining	Howards Pass	Pb-Zn				Environmental and engineering studies. Road work on haul road.
Silver Range Resources – Rover Metals Corp.	Up Town Gold	Au		Airborne magnetic and radiometric survey reported	Prospecting and grab sampling	
Silver Range Resources –	Itchen	Au			Prospecting and grab sampling	Staking and data compilation
Silver Range Resources –	Hare	Au			Prospecting and grab sampling	Staking and data compilation

Silver Range Resources –	Sparta	Au			Prospecting and grab sampling	Staking and data compilation
Strategic Metals Ltd.	LNPG	Li-Ce-Ta			Grab and channel sampling	
TerraX Minerals Inc.	Yellowknife Gold	Au	56 DDH holes 7300 m Winter 36 DDH holes 10078 m Summer	Mag , IP and TDEM surveys on selected showings LIDAR - Southbelt	Prospecting, sampling, channel sampling, soil sampling	

IP – Induced Polarization, DDH – diamond drill hole, m – metre, LIDAR – light detection and ranging, Mag – magnetic, MOU – Memorandum of Understanding, PFS – pre-feasibility study, REE – Rare Earth Element, TDEM – Time Domain Electro-Magnetic

Table 7: Government of the Northwest Territories - Mineral Incentive Program grant recipients and projects.

MIP Applicant	Region | Commodity
Corporate - Property	
TerraX - South Belt	North Slave | Gold
TerraX - YK City Gold	North Slave | Gold
Panarc	North Slave | Gold
Proxima	North Slave | Diamonds
North Arrow	North Slave | Diamonds
Canterra - Marlin	North Slave | Diamonds
Canterra - Prism	North Slave | Diamonds
Prospector	
Dave Nickerson - AYE	North Slave | Gold
Wayne Kendrick - Hangstone	North Slave | Gold
Danny Yakeleya - Redstone	Sahtu | Gold
Dave Smith - Drybones Bay	North Slave | Diamonds
Tomasz Kalkowski - Monkey	North Slave | Gold

Further Information

Further information on mining and mineral exploration in the NWT can be obtained from:

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