



Northern Star on track to hit both guidance and growth targets

A\$303m in cash after paying A\$42m in dividends and investing A\$36m in strategy to grow production to 600,000ozpa next year

KEY POINTS

- ▶ **124,871oz of gold produced in the December Quarter; on track to meet FY17 guidance of 485,000-515,000oz**
- ▶ **All-in sustaining costs (AISC) for December Quarter of A\$1,063/oz; in line with budget and putting Northern Star on track to meet FY17 guidance of A\$1,000-A\$1,050/oz**
- ▶ **Cash and equivalents of A\$303m at 31 December after paying A\$42m in dividends, A\$34m in FY16 tax and investing A\$36m in organic production growth and exploration; Northern Star has no bank debt**
- ▶ **Production increase from September Quarter (110,000oz) reflects in part the substantial improvements in Jundee mill throughput**
- ▶ **Total gold inventory (gold in circuit and on stockpiles awaiting processing) of ~105,000oz and continuing to grow; options for accelerating processing of this ore are under consideration**
- ▶ **December Quarter production:**
 - **Jundee Gold Operations:**
 - 59,527oz mined and 51,528oz sold at an AISC A\$965/oz
 - **Kalgoorlie Gold Operations:**
 - 62,169oz mined and 53,531oz sold at an AISC A\$1,045/oz
 - **Paulsens Gold Operations:**
 - 15,335oz mined and 15,031oz sold at an AISC A\$1,462/oz
- ▶ **Further strong progress made on strategy to grow production to 600,000ozpa in 2018 from organic sources, with substantial exploration success at Jundee and Kalgoorlie operations**
- ▶ **Construction of the new 50,000ozpa Millennium underground mine is ahead of schedule and under budget; first development ore expected in September 2017 Quarter**
- ▶ **Capital Development to access the Armada and Revelation discoveries at Jundee has commenced**
- ▶ **Board and Management restructure successfully implemented, paving way for Northern Star's next chapter of growth while maintaining its strong emphasis on maximising financial returns**
- ▶ **Northern Star will host a quarterly conference call today at 9:00am AWST (12:00pm AEDT), Wednesday, 25 January 2017. The call can be accessed at <http://boardroom.media/broadcast/?refid=&eid=588682f61aa7170e402f3ba1>**

Northern Star Resources Limited (ASX: NST) is pleased to advise that it is on track to meet its FY17 production and cost guidance following a solid performance in the December Quarter.

Northern Star also recorded strong exploration success during the quarter, ensuring it is poised to meet its goal of growing production to 600,000ozpa next year.

The Company produced 124,871oz in the December Quarter, putting it on track to meet its FY17 guidance of 485,000-515,000oz.

The result reflected in part the improved performance of the Jundee mill. Ongoing improvements in both grades and throughput are expected to generate further production increases at Jundee in the second half of this financial year.

AISC for the quarter were A\$1,063/oz, which was in line with budget. Northern Star remains on track to meet its FY17 AISC guidance of A\$1,000-A\$1,050/oz.

ASX ANNOUNCEMENT 25 January 2017

**Australian Securities
Exchange Code: NST**

Board of Directors

Mr Bill Beament
Executive Chairman

Mr Chris Rowe
Non-Executive Director

Mr Peter O'Connor
Non-Executive Director

Mr John Fitzgerald
Non-Executive Director

Ms Shirley In'tVeld
Non-Executive Director

Mr David Flanagan
Non-Executive Director

Issued Capital

Shares 600.5 million
Options 2.9 million
Performance Rights 9.5 million

Current Share Price A\$4.07

Market Capitalisation
A\$2.4 billion

Cash, Bullion & Investments
31 Dec 2016 - A\$303 million

Projects

Paulsens Mine
Kanowna Belle Mine
Kundana Mines (51% of EKJV)
Jundee Mine
Central Tanami (25% of JV)

Listed Investments

VXR, DAU, RND, TBR, ALY

QUARTERLY ACTIVITIES REPORT

For the Quarter ended 31 December 2016



Cash and equivalents totalled A\$303 million at 31 December 2016 despite the Company paying A\$42m in dividends, A\$34m for the remaining FY16 tax instalment and investing A\$36m in organic production growth and exploration.

Northern Star continued to enjoy outstanding exploration success during the quarter, particularly at Jundee and Kalgoorlie, as part of its strategy to grow production to 600,000ozpa next year from organic sources.

As well as identifying new mineralisation at and around its existing operations, the Company continues to make strong progress developing new sources of production.

This includes the ongoing construction of its 50,000ozpa Millennium underground mine in Kalgoorlie, which is ahead of schedule and under budget. The first development ore is expected in the September 2017 Quarter.

Northern Star Executive Chairman Bill Beament said the Company was meeting each of its key performance targets.

"We are achieving our goal of generating exceptionally high financial returns for Shareholders by keeping costs down and meeting production targets," Mr Beament said.

"At the same time, we are laying the foundations for growth in both production and financial returns with our highly successful exploration and development program."

Northern Star	Units	Mar-16 Qtr	Jun-16 Qtr	Sep-16 Qtr	Dec-16 Qtr	FYTD
Ore Hoisted	Tonnes	881,029	907,396	742,983	802,342	1,545,325
Mined Grade	gpt Au	5.6	4.9	4.8	5.3	5.1
Gold in Ore Hoisted	Oz	158,671	143,599	114,294	137,031	251,325
Milled Tonnes	Tonnes	891,068	1,094,571	745,425	856,398	1,601,823
Head Grade	gpt Au	5.4	4.1	5.0	5.0	5.0
Ounces Produced	Oz	155,848	143,580	118,759	136,755	255,511
Recovery	%	92	91	93	91	92
Gold Recovered	Oz	142,630	130,020	109,995	124,871	234,866
Ounces Sold	Oz	143,469	134,110	106,519	120,089	226,608
Average Gold Price	A\$/oz	1,640	1,684	1,720	1,645	1,680
Revenue	A\$M	235.2	225.9	183.2	197.5	380.7
Cash Operating Cost	A\$/oz	737	843	796	780	788
All in Sustaining Cost	A\$/oz	985	1,056	1,091	1,063	1,076
Total Stockpiles Contained Gold	Oz	73,977	80,342	81,540	84,121	84,121
Gold in Circuit (GIC)	Oz	19,409	15,136	16,065	20,715	20,715
Gold in Transit (GIT)	Oz	-	585	-	-	-

Table 1: Key Group Performance Figures (Quarterly) from Continuing Operations

Northern Star	Units	Mar-16 Qtr	Jun-16 Qtr	Sep-16 Qtr	Dec-16 Qtr	FYTD
Mining	A\$/oz	470	557	508	487	497
Processing	A\$/oz	176	214	283	194	236
Site Services	A\$/oz	48	58	59	51	55
Ore Stock & GIC Movements	A\$/oz	5	(26)	(87)	11	(35)
Royalties	A\$/oz	41	43	38	40	39
By Product Credits	A\$/oz	(3)	(4)	(5)	(4)	(4)
Rehabilitation-Accretion & Amortisation	A\$/oz	7	1	5	5	5
Corporate Overheads	A\$/oz	43	46	54	37	45
Mine Development/Sustaining CAPEX	A\$/oz	171	152	209	208	208
Mine Exploration	A\$/oz	27	14	27	34	30
All in Sustaining Costs	A\$/oz	985	1,056	1,091	1,063	1,076
Depreciation & Amortisation	A\$/oz	337	303	316	302	284

Table 2: Key Group Cost per Ounce Measures from Continuing Operations

Production KPIs Dec Quarter	Units	Paulsens	Kalgoorlie Operations	Jundee	Total
Total Ore Hoisted	Tonnes	82,754	328,013	391,574	802,342
Mine Grade	gpt Au	5.8	5.9	4.7	5.3
Gold in Ore Hoisted	Oz	15,335	62,169	59,527	137,031
Milled Tonnes	Tonnes	109,661	355,144	391,593	856,398
Head Grade	gpt Au	5.0	5.2	4.7	5.0
Recovery	%	89	93	90	91
Gold Recovered	Oz	15,657	55,660	53,554	124,871
Gold Sold	Oz	15,031	53,531	51,528	120,089
Cash Operating Costs	A\$/oz	992	772	727	780
All in Sustaining Costs	A\$/oz	1,462	1,045	965	1,063
Depreciation & Amortisation	A\$/oz	429	249	319	302

Table 3: Key Quarterly Mine Production Performance from Continuing Operations

FINANCE

The following is a table of the cash, bullion and investments held at the end of each quarter:

		Mar-16 Qtr	Jun-16 Qtr	Sep-16 Qtr	Dec-16 Qtr
Cash at bank	A\$M	\$262.3	\$315.3	\$311.3	\$282.1
Bullion awaiting settlement ⁽¹⁾	A\$M	\$17.2	\$1.9	\$25.7	\$12.5
Investments	A\$M	\$6.0	\$8.8	\$12.6	\$8.4
Total	A\$M	\$285.5	\$326.0	\$349.6	\$303.0

⁽¹⁾ Bullion awaiting settlement is dore which has been received by the refiner in the quarter and is awaiting settlement.

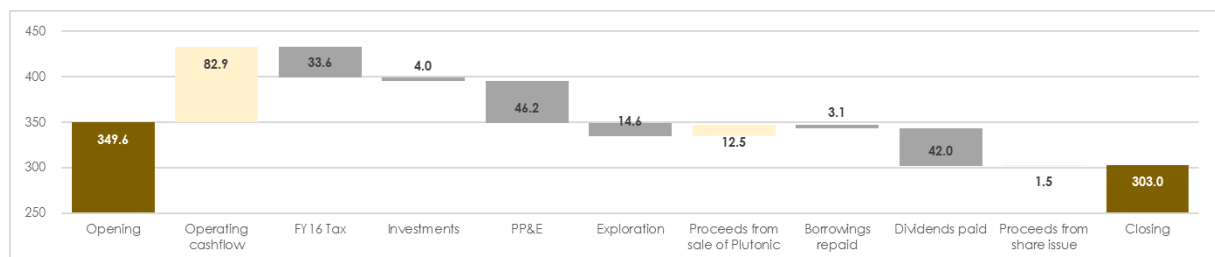
Table 4: Cash, Bullion and ASX equity investments

The below table sets out the total of surface gold inventories:

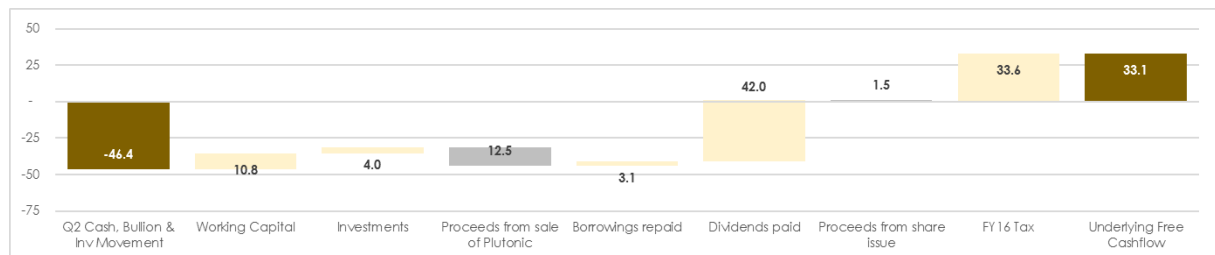
Gold Inventories	Mar-16 Qtr	Jun-16 Qtr	Sep-16 Qtr	Dec-16 Qtr
Stockpiles contained gold (oz)	73,977	80,342	81,540	84,121
Gold in circuit (oz)	19,409	15,136	16,065	20,715
Gold in transit (oz)	-	585	-	-
Total Gold Inventories (oz)	93,386	96,063	97,605	104,836

Table 5: Gold Inventories

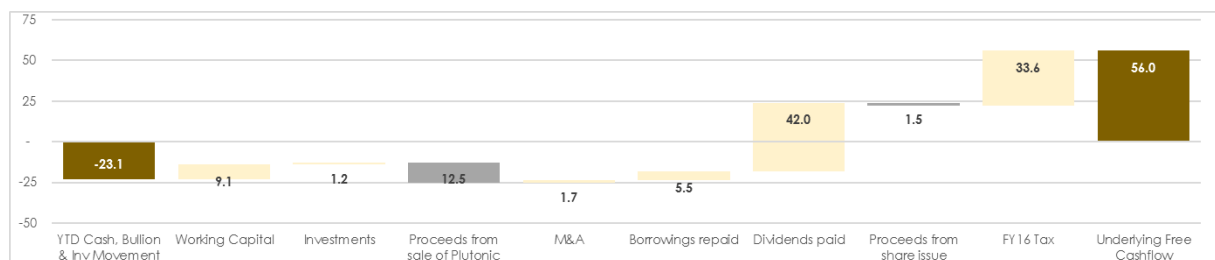
The below waterfall chart highlights the December Quarter's operating cash flow together with movements in cash, bullion and investments (A\$M):



The below waterfall chart highlights the underlying free cash flow for the December Quarter (A\$M):



The below waterfall chart provides an overview of year to date underlying free cash flow (A\$M):



Banking Facilities

Northern Star has in place an undrawn three year A\$100 million revolving debt facility with a self-arranged syndicate of Australian and International banks.

Hedging

The below table outlines the Company's current hedging position:

Term	Jun-17 Half	Dec-17 Half	Jun-18 Half	Dec-18 Half	Jun-19 Half	Dec-19 Half	Total
Ounces	105,000	95,000	77,000	73,500	64,000	50,000	464,500
Gold Price	A\$1,697	A\$1,737	A\$1,773	A\$1,756	A\$1,730	A\$1,739	A\$1,736

Table 6: Hedging commitments

During the quarter, 273,000oz of hedging was added for delivery across all the tenors outlined in the above table at an average of A\$1,705/oz.

QUARTERLY ACTIVITIES REPORT

For the Quarter ended 31 December 2016



OPERATIONS

Paulsens Gold Operations

Production Summary Paulsens		Mar-16 Qtr	Jun-16 Qtr	Sep-16 Qtr	Dec-16 Qtr	FYTD
Ore Mined	Tonnes	94,755	105,453	88,467	82,754	171,222
Mined Grade	gpt Au	8.0	5.7	5.5	5.8	5.6
Ounces Mined	Oz	24,336	19,293	15,722	15,335	31,057
Milled Tonnes	Tonnes	92,502	96,805	96,759	109,661	206,420
Head Grade	gpt Au	8.2	5.6	5.5	5.0	5.2
Recovery	%	90	87	89	89	89
Gold Recovered	Oz	22,060	15,271	15,047	15,657	30,704
Gold Sold	Oz	22,963	15,418	15,111	15,031	30,141
Cost per Ounce						
Mining	A\$/oz	385	595	601	519	560
Processing	A\$/oz	199	307	290	296	293
Site Services	A\$/oz	67	121	83	94	88
Ore Stock Movements	A\$/oz	27	(58)	(24)	45	11
Royalties	A\$/oz	41	43	37	40	39
By Product Credits	A\$/oz	(1)	(2)	(3)	(2)	(3)
Cash Operating Costs	A\$/oz	718	1,006	984	992	988
Rehabilitation - Accretion & Amortisation	A\$/oz	5	7	5	8	7
Corporate Overheads	A\$/oz	44	50	53	37	45
Mine Development / Sustaining CAPEX	A\$/oz	206	242	352	410	381
Paulsens Mine Exploration	A\$/oz	26	9	12	15	13
All in Sustaining Costs	A\$/oz	999	1,314	1,406	1,462	1,434
Depreciation & Amortisation	A\$/oz	393	433	416	429	423

Table 7: Summary Details – Paulsens

Kalgoorlie Gold Operations

Production Summary Kalgoorlie Operations		Mar-16 Qtr	Jun-16 Qtr	Sep-16 Qtr	Dec-16 Qtr	FYTD
Ore Mined	Tonnes	292,550	321,620	334,486	328,013	662,499
Mined Grade	gpt Au	6.0	5.2	4.4	5.9	5.1
Ounces Mined	Oz	56,818	54,133	47,235	62,169	109,404
Milled Tonnes	Tonnes	331,698	321,103	348,181	355,144	703,325
Head Grade	gpt Au	5.6	5.2	4.9	5.2	5.1
Recovery	%	94	95	94	93	94
Gold Recovered	Oz	55,861	50,819	51,725	55,660	107,385
Gold Sold	Oz	52,052	54,592	49,188	53,531	102,719
Cost per Ounce						
Mining	A\$/oz	436	444	449	487	469
Processing	A\$/oz	126	153	324	174	246
Site Services	A\$/oz	21	50	57	44	50
Ore Stock Movements	A\$/oz	14	(9)	(130)	32	(45)
Royalties	A\$/oz	42	42	36	40	38
By Product Credits	A\$/oz	(4)	(5)	(7)	(5)	(6)
Cash Operating Costs	A\$/oz	635	675	729	772	752
Rehabilitation - Accretion & Amortisation	A\$/oz	5	2	5	4	4
Corporate Overheads	A\$/oz	44	43	55	35	45
Mine Development / Sustaining CAPEX	A\$/oz	95	106	108	180	145
Kalgoorlie Operations Mine Exploration	A\$/oz	14	20	31	54	43
All in Sustaining Costs	A\$/oz	794	845	928	1,045	989
Depreciation & Amortisation	A\$/oz	212	212	209	249	229

Table 8: Summary Details – Kalgoorlie Operations

Jundee Gold Operations

Production Summary Jundee		Mar-16 Qtr	Jun-16 Qtr	Sep-16 Qtr	Dec-16 Qtr	FYTD
Ore Mined	Tonnes	329,154	337,773	320,030	391,574	711,605
Mined Grade	gpt Au	5.7	4.9	5.0	4.7	4.9
Ounces Mined	Oz	60,165	53,264	51,337	59,527	110,863
Milled Tonnes	Tonnes	276,634	306,990	300,485	391,593	692,078
Head Grade	gpt Au	6.1	5.1	4.8	4.7	4.8
Recovery	%	93	92	92	90	91
Gold Recovered	Oz	50,584	46,591	43,223	53,554	96,776
Gold Sold	Oz	54,786	46,863	42,220	51,528	93,748
Cost per Ounce						
Mining	A\$/oz	442	539	545	476	507
Processing	A\$/oz	167	196	232	186	206
Site Services	A\$/oz	51	41	54	47	50
Ore Stock Movements	A\$/oz	3	(44)	(60)	(20)	(38)
Royalties	A\$/oz	41	43	41	41	41
By Product Credits	A\$/oz	(3)	(3)	(4)	(3)	(3)
Cash Operating Costs	A\$/oz	701	772	808	727	763
Rehabilitation - Accretion & Amortisation	A\$/oz	6	3	5	4	4
Corporate Overheads	A\$/oz	43	46	53	38	45
Mine Development / Sustaining CAPEX	A\$/oz	152	205	275	178	222
Jundee Mine Exploration	A\$/oz	12	7	28	18	23
All in Sustaining Costs	A\$/oz	914	1,033	1,168	965	1,057
Depreciation & Amortisation	A\$/oz	358	361	405	319	358

Table 9: Summary Details – Jundee

Additional information on the individual Operations can be found in Appendix 1.

EXPLORATION AND DEVELOPMENT - OPERATIONS

Kanowna Belle

During the quarter, two underground diamond drilling rigs were focused on infill and extensional drilling at Velvet (located 600m west of the Lowes orebody) from several platforms achieving positive results with strong intersections from holes located north west, east and south east of the Velvet mining area. Additional drilling platforms are under development (9490 DDR) to target extensions to the Velvet mineralisation in these areas.

Underground drilling into the Lowes Extension target from the 9245 drill platform continued with one underground diamond drill rig during the quarter. Drilling progress remains consistent with the majority of holes being completed to the east of the projected Lowes shoot. Of particular note is the emergence of a new high grade zone located approximately 120m into the hanging wall of the Lowes orebody trend together with the presence of "Lowes style" mineralisation adjacent to the Fitzroy fault. Assays are pending.

Late in the quarter, Phase 2 extension of the 9245 drill platform commenced to provide better locations to test the western portion of the Lowes Extension target. Drilling continued from the 9550 level testing targets east of D Block and in the FM33 area of E Block.

Kundana (NST 51% EKJV)

Underground resource and exploration diamond drilling at the Rubicon-Hornet-Pegasus complex accelerated during the quarter with an increase in the underground diamond drilling fleet to three drill rigs.

Extensional drilling programs at Rubicon North continued to return significant results both laterally and down-dip on the main K2 structure. In addition, drilling outlined significant new mineralisation (Nugget Lode) associated with the K2 and K2B structures in a similar position to the "Pode" at Pegasus.

Definition drilling at Pegasus continued to provide additional intersections on the K2B and Pode structures together with potential K2 hanging wall and foot wall mineralisation extensions beyond the Poseidon fault at Pegasus south.

Extensional drilling at Hornet South intersected a number of high grade hanging wall lodes between the K2 and K2B lodes and the program will continue to target depth extensions to these structures in the Hornet South and Central area.

At Raleigh, multiple exploratory underground development drives continued to return strong results from the Raleigh South Main Vein over a significant vertical extent of the mine. This development has now extended the Raleigh South mineralisation up to 400m south of the existing Raleigh Mine infrastructure with the mineralisation open in all directions beyond the current drilling and development. Late in the quarter, a surface RC drilling program completed pre-collars for a diamond drilling program targeting the potential up-dip extensions of the Raleigh South structure.

Kundana (100% NST)

A very active surface RC and diamond exploration drilling program continued during the quarter with programs completed at Pope John, Barkers, Christmas, Arctic and Moonbeam prospects.

At Arctic, further RC and diamond drilling program extensions of the K2 and Strzelecki structural corridors northwards from the Millennium deposit beneath the Arctic/North Pit complex were completed. The program achieved excellent wide spaced, strong intersections on the K2 and K2A structures. In addition, new link veining between the K2 and K2A structures was noted in several holes, often containing coarse visible gold. Assays are pending.

At the Pope John prospect, infill diamond drilling on the K2 structure was completed returning with higher than expected results on the southern limit of the deposit. Revised resource models are in progress in conjunction with future development design and planning.

Further south on the K2 structure, RC and diamond drilling at the Moonbeam prospect recorded strong intersections below the current resource model. Assay results indicate grades are increasing at depth, highlighting potential for further extensions below 350m vertically.

The infill diamond drilling program at Barkers and the adjacent Helga's vein was successfully completed and defined extensions to the recently defined high grade resource model. Resource models are currently being upgraded with preliminary planning underway to re-enter and establish access to these areas from the existing Barkers decline.

At the Christmas prospect, a deep diamond drilling program targeting the Strzelecki-Raleigh structural corridor south of the dormant Strzelecki Mine commenced during the quarter. The deepest hole completed to date (approximately 650m vertical depth) has intersected a significantly mineralised Strzelecki Main Vein structure and new parallel hanging wall structure, both with significant visible gold content. At the end of the quarter, a series of daughter wedge holes were in progress to scope out the extent of the new surfaces.

Like Raleigh, the Strzelecki Mine was a consistent very high grade gold producer and this discovery located some 200m south of the existing Strzelecki infrastructure considerably expands the future potential along the Strzelecki line.

Paradigm/Carbine

The latest drilling results from the Carbine area near Kalgoorlie (see ASX announcement 14 November 2016) highlight the strong potential for Paradigm and the adjacent Carbine deposit, both of which are 100% owned by Northern Star, to play an important role in the Company's organic growth strategy.

Drilling results during the quarter highlight potential for both open-pit and underground operations with the strike length of the Paradigm high-grade system extended to over a 1km strike length and open in all directions.

At the adjacent Carbine open pit, limited historical drilling beneath the existing 312,000oz Resource has traced the mineralised Carbine structure to a vertical depth of 300m. Broad-spaced diamond drilling beneath the Carbine and adjacent Phantom historic open pits intersected zones of significant mineralisation (including visible gold) highlighting the potential of these structures to host significant zones of high grade mineralisation and further underground Resource growth in the Carbine district.

Resource definition drilling of the high grade Paradigm system is nearing completion in preparation for an initial Resource estimate for the project. Consideration of future development options has commenced with preliminary metallurgical analysis indicating the mineralisation is free-milling.

Jundee

During the quarter, nine underground diamond drilling rigs continued to focus on resource conversion and exploration programs within the underground mine, with a single RC drill rig completing the open pit Resource definition programs at Vause.

In-mine resource development drilling programs were completed at Gateway, Gringotts, Cardassian, NIM3, Wilson, Hughes and Westside areas during the quarter.

Diamond drilling activity from the new 39 Level drill drive platform increased with four rigs progressively working through a program of systematic drill fans targeting depth extensions beneath the main Barton and Gateway mine sequences. Approximately 53% of the planned 103,000m program has been completed to date.

Drilling also continued to target the new Armada trend with infill (Armada Central) and extensional (Armada North, Armada South) drilling programs in progress from the 39DDR and 25 Level at NIM3. Wide spaced drilling in the footwall of the Armada trend continues to intersect additional significant mineralisation in splay and sub-parallel structures.

As part of a future open pit development program in the Vause area, a 34,000m RC drilling program successfully targeted extensions to the historically mined open pits. Resource modelling and preliminary economic analysis will be undertaken next quarter.

A 3D seismic survey was completed during the quarter covering the southern section of the Jundee mine sequence. Processed data is expected to be available for analysis during the coming quarter.

Paulsens

Grade control drilling continued in the Voyager 2 Upper Zone and Southern Gabbro zones at lower levels in the mine. Underground diamond drilling for the quarter consisted of extensional drilling of new mineralised zones within the Galileo and Titan trends and testing of new targets within the Southern Gabbro area from both lower level drill platforms and surface positions within the mine area.

REGIONAL EXPLORATION

Jundee

The regional air core drilling program (22,675m completed) continued during the quarter focused on new targets generated from regional mapping programs completed in the previous year.

At the Gourdis-Vause project area, drilling tested identified targets at the Whistling, Sahalee, Scottsdale, Winged Foot, Sawgrass and Hendrix South prospects. Results received to date outlined significant anomalies at Scottsdale, Winged Foot and Sawgrass prospects in "Vause-style" structures along porphyry contacts.

Further north at Area 7, the presence of deep cover and water slowed progress testing targets within the large Spartacus prospect area. Results to date have outlined a number of low level anomalies associated with mapped structures.

Heritage clearance activities were completed for the remainder of the FY17 air core drilling program.

Kanowna

North west of Kanowna Belle Mine, follow up RC and diamond drilling programs at Red Eye and Scotia prospects within the Greater Six Mile area extended the mineralised trends at both areas. Regional RC drilling at the Shamrock prospect, located east of Kanowna Belle Mine, recorded several significant shallow gold intersections over a 200m zone adjacent to a historical drill hole anomaly

Paradigm/Carbine

Regional exploration activity within the Carbine area increased during the quarter with aircore, RC and diamond drilling programs completed following results from regional geophysical surveys (see ASX announcement 14 November 2106).

Regional RC drilling north-east of the high grade Paradigm North zone identified a new, subparallel mineralised zone (Exemplar Trend) with early assay results including PDR16086 – 8.0m at 5.5gpt and PDR16092 – 2.0m at 3.2gpt. The Exemplar Trend has been traced over approximately 300m with the zone completely open along strike.

At Paradigm, the north-west trending Lincancebur Fault is associated with the high-grade Natasha and Mischa Lodes previously mined in the open pit and from underground workings. While historical drilling intersected the Natasha Lode up to 350m below the existing underground workings (CADD027 – 0.60m at 429.1gpt from 388.4m).

Recent RC drilling on the Natasha trend successfully intersected significant mineralisation approximately 400m north (PDRC16089 - 3.0m at 8.1gpt) and 300m south (assays pending) of the Natasha underground workings, outlining significant extensions to the mineralised trend.

Regional exploration west of Paradigm, between the existing Paradigm and Carbine open pits, has identified further sub-parallel structural trends with associated geochemical anomalism over a 1km-long corridor. Initial results from regional aircore drilling along this new Eremenco Trend has outlined areas of significant mineralisation over a strike of approximately 350m. Assay results are pending.

The Zorro prospect is located 600m to the south east of the Carbine open pit on a parallel structure. An initial six hole RC drilling program was highly successful with significant mineralisation intersected in five drill holes outlining a further new zone of mineralisation on the Carbine shear zone.

Paulsens

RC and diamond drilling at the Southern Gabbro prospect completed during the quarter outlined a potential new, quartz filled structure parallel to the main Paulsens ore trend. Geophysical surveys and further drilling are planned.

Limited RC drilling at the Aries prospect, immediately north of Paulsens Mine, intersected a narrow zone of modest gold mineralisation in a sequence of basic volcanics.

Pilbara Regional

Regional mapping and geochemical sampling programs were completed across Ashburton Basin prospects at Belvedere South, Ingrid's Reef, Soldiers Secret and Charlie Creek prospect areas during the quarter.

Central Tanami Project (25% NST)

During the quarter, compilation of all historical exploration and drill hole information progressed to near completion. Geological re-mapping and sampling programs commenced over the Central Tanami Trend and Groundrush project areas.

Commencement of planned drilling programs on the Groundrush-Ripcord and Hurricane-Repulse trends is pending completion of statutory approvals for the programs. Sacred site and heritage clearances have been received for the planned programs.

Tanami Regional Project (100% NST)

During the quarter, planning for a regional airborne geophysical survey over the Tanami Regional Project commenced.

Commencement of planned geochemical sampling programs over regional targets has been deferred until after the wet season and the receipt of statutory approvals for the programs.

CORPORATE

- The Company's Annual General Meeting was held on 29 November 2016, with all resolutions being passed, resulting in Bill Beament taking up the position of Executive Chairman and Chris Rowe reverting to a Non-Executive Director. Stuart Tonkin assumed the position of Chief Executive Officer.
- The sale of the Plutonic Operations to Billabong Gold Pty Ltd completed on 12 October 2016.
- A fully franked final dividend of four cents per share was paid on 13 October 2016 and a special fully franked dividend of three cents per share was paid on 2 November 2016.
- During the quarter, Northern Star participated in the Macquarie Securities Perth conference, the annual Citi conference in Sydney, the UBS conference in Sydney and the "Whats down the track" community awareness event in Kalgoorlie. The Company maintains a proactive presentation calendar to stockbroking firms, institutional and retail investors to promote the Company and its activities.
- Issued Capital

The following changes occurred to the issued capital of the Company subsequent to the last Quarterly Report:

- 9,509,500 Performance Rights with a measurement date of 16 October 2016 were issued to 49 employees in accordance with the Long Term Incentive Plan approved at the Annual General Meeting held on 29 November 2016;

QUARTERLY ACTIVITIES REPORT

For the Quarter ended 31 December 2016



- 11,969 employee shares were released from voluntary escrow on 6 January 2017 following cessation of employment; and
- 55,550 and 24,361 unlisted employee options issued as part of the FY15 and FY16 employee long term incentives respectively were cancelled on 6 January 2017 following cessation of employment in accordance with the Company's 2012 Employee Share Option Plan No. 3.

The issued capital of the Company at the date of this report is:

Class of Securities	Issued capital
Fully Paid Ordinary Shares	600,542,315
Unlisted Options (various expiry dates)	2,892,579
Unlisted Performance Rights	9,509,500

Table 12: Issued Capital

Yours faithfully

A handwritten signature in blue ink that reads "Bill Beament".

BILL BEAMENT
Executive Chairman
Northern Star Resources Limited

Investor Enquiries:

Luke Gleeson, Investor Relations, Northern Star Resources Limited
T: +61 8 6188 2103 E: lgleeson@nsr ltd.com

Competent Persons Statement

The information in this announcement that relates to exploration results, data quality and geological interpretations, is based on information compiled by Nicholas Jolly, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy and a full-time employee of Northern Star Resources Limited. Mr Jolly has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" for the Company's Carbine Project area. Mr Jolly consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

Forward Looking Statements

Northern Star Resources Limited has prepared this announcement based on information available to it. No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this announcement. To the maximum extent permitted by law, none of Northern Star Resources Limited, its directors, employees or agents, advisers, nor any other person accepts any liability, including, without limitation, any liability arising from fault or negligence on the part of any of them or any other person, for any loss arising from the use of this announcement or its contents or otherwise arising in connection with it.

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APPENDIX 1 – ADDITIONAL INFORMATION - OPERATIONS

Paulsens Gold Operations

► Safety

There was zero (0) Lost Time Injuries (LTI) during the quarter.

► Underground Production

Mine Development:

	Mar-16 Qtr	Jun-16 Qtr	Sep-16 Qtr	Dec-16 Qtr
Decline	161m	265m	285m	293m
Level	538m	485m	337m	371m
Strike driving	758m	797m	762m	571m
Total (metres)	1,457m	1,547m	1,384m	1,235m

Table 1: Underground Production – Mine Development

Capital development focused on advancing the decline towards the 157mRL level. Supplementary development was completed in Galileo Access on the 775mRL.

Operating development saw the continued development of high grade Voyager 2 Upper Zone ore body mainly on the 239mRL, 222mRL and 205mRL levels. Additional operating development was completed in the Titan ore body on the 390mRL

Development yielded 27,710 tonnes at an average reconciled grade of 5.1gpt.

	Mar-16 Qtr	Jun-16 Qtr	Sep-16 Qtr	Dec-16 Qtr
Development ore (t)	34,914	51,282	49,115	27,710
Development grade (gpt)	8.4	4.5	5.9	5.1
Stope ore (t)	56,287	50,630	39,352	55,045
Stope grade (gpt)	8.2	7.3	5.1	6.1
Low grade ore (t)	3,554	3,541	7,126	6,770
Low grade (gpt)	1.1	0.5	2.0	1.7
Total ore (t)	94,755	105,453	95,593	89,525
Total grade (gpt)	8.0	5.7	5.3	5.5
Contained gold (oz)	24,336	19,293	16,183	15,698

t=tonnes, gpt=grams per tonne, oz=ounces

Table 2: Ore Development – Mine Development

Stope production was 55,045 tonnes at 6.1gpt sourced predominately from the Voyager 2 upper zone on the 256, 239, 222 and 205mRL levels. Additional stope tonnes were sourced from the Titan orebody at the 358 & 330 levels, the Voyager 1 ore body at the 424 level and from Soyuz ore body at the 1110mR.

► Gold Production

109,661 tonnes were milled during the quarter at 5.0gpt and 89% recovery for 15,657oz produced. Mill feed primarily consisted of Voyager 2 Upper Zone, additional sources included Titan, Soyuz and Cassini.

Ore stocks at the end of the quarter totalled 6,601oz of gold.

► Gold Sales

15,031oz were sold.

Kanowna Belle Gold Operations

► Safety

There were two (2) Lost Time Injuries (LTI) during the quarter.

► Underground Production

Mine Development:

	Mar-16 Qtr	Jun-16 Qtr	Sep-16 Qtr	Dec-16 Qtr
Decline	576m	774m	614m	0m
Level	Nil	Nil	Nil	275m
Strike driving ⁽¹⁾	490m	354m	340m	605m
Total (metres)	1,065m	1,128m	955m	880m

Note (1) includes development through paste-fill

Table 5: Underground Production – Mine Development

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Phase two Jumbo development of the 9245 drill drive commenced. Development has also been occurring within remnant mining areas enabling stopes to be brought on line in the upper mine.

	Mar-16 Qtr	Jun-16 Qtr	Sep-16 Qtr	Dec-16 Qtr
Development ore (t)	21,356	22,767	13,720	26,446
Development grade (gpt)	3.0	4.4	2.1	2.6
Stope ore (t)	151,569	162,189	191,638	173,053
Stope grade (gpt)	4.5	3.8	3.2	5.8
Low grade ore (t)	Nil	Nil	Nil	Nil
Low grade (gpt)	Nil	Nil	Nil	Nil
Total ore (t)	172,925	184,956	205,358	199,498
Total grade (gpt)	4.3	3.9	3.1	5.4
Contained gold (oz)	24,063	23,203	20,361	34,632

t=tonnes, gpt=grams per tonne, oz=ounces

Table 6: Underground Production – Ore Production

Stope production was 173,053 tonnes at 5.8gpt with Development Ore 26,446 tonnes at 2.6gpt, with the lift in grade contribution from Velvet stoping.

► Gold Production

Kanowna Belle milled 253,596 tonnes in the December Quarter at 4.3gpt and 91.2% recovery for 32,190oz.

Ore stocks at the end of the quarter totalled 9,223oz of gold.

► Gold Sales

30,062oz were sold.

Millennium Gold Operations

► Introduction

The Millennium Gold Operation is a development project located on Northern Star's 100% owned Kundana tenements. The operation is currently in the capital development phase with expected production planned in FY18.

► Safety

There was zero (0) Lost Time Injuries (LTI) during the quarter.

► Underground Production

Mine Development:

	Sep-16 Qtr	Dec-16 Qtr
Decline	571m	575m
Level		280m
Strike driving (incl paste)		
Total (metres)	517m	855m

Table 7: Underground Production – Mine Development

Development is focussed on the main decline. Millennium currently has one jumbo operating and focussed on providing access to the Millennium ore body. Establishment of the first leg of the primary vent shaft commenced in December Quarter.

► Gold Production

Nil gold production. Operation in capital development phase.

► Gold Sales

Nil gold sold.

Kundana Gold Operations

► Introduction

The Kundana Gold Operations includes the Rubicon, Hornet, Raleigh and Pegasus deposits. These mines are part of the East Kundana Joint Venture (EKJV) with companies Rand Mining Ltd and Tribune Resources Ltd.

► Safety

There was zero (0) Lost Time Injuries (LTI) during the quarter.

► Underground Production

All mine production physicals associated with the EKJV are reported as 100% of those physicals to better represent overall mine performance.

Mine Development:

	Mar-16 Qtr	Jun-16 Qtr	Sep-16 Qtr	Dec-16 Qtr
Decline	565m	576m	443m	349m
Level	581	1,028m	1,266m	1,543m
Strike driving (incl paste)	2,500m	2,695m	2,623m	2,503m
Total (metres)	3,645m	4,300m	4,332m	4,395m

Table 8: Underground Production – Mine Development (physicals represent 100% EKJV)

Development has occurred across all capital headings - Pegasus Incline, Pegasus Decline, Rubicon Decline and Hornet Decline. The Pegasus Incline is at the 6249mRL and the Pegasus Decline is at the 5897mRL at the end of the December Quarter. The Hornet Decline has progressed to the 5744mRL and the Rubicon Decline is at the 5879mRL. 2,503m of strike driving was completed in December Quarter continuing the significant growth in performance from existing Resources.

Development yielded 132,326 tonnes at an average reconciled grade of 4.1gpt.

	Mar-16 Qtr	Jun-16 Qtr	Sep-16 Qtr	Dec-16 Qtr
Development ore (t)	127,014	154,531	139,496	132,326
Development grade (gpt)	6.3	5.2	5.1	4.1
Stope ore (t)	108,423	114,247	114,743	120,487
Stope grade (gpt)	11.1	9.5	8.2	9.5
Low grade ore (t)	NA	NA	NA	NA
Low grade (gpt)	NA	NA	NA	NA
Total ore (t)	235,438	268,778	254,239	252,813
Total grade (gpt)	8.5	7.0	6.5	6.7
Contained gold (oz)	64,534	60,833	53,009	54,157

t=tonnes, gpt=grams per tonne, oz=ounces

Table 9: Underground Production – Ore production (physicals represent 100% EKJV)

Stope production for the December Quarter was 120,487 tonnes at 9.5gpt.

► Gold Production

Kundana ore that was milled in December Quarter (NST share) was 101,547 tonnes at 7.5gpt and 96% recovery for 23,470 gold ounces.

Ore stocks at the end of the quarter (NST share) totalled 13,412oz of gold.

► Gold Sales

23,469oz were sold (NST share).

Jundee Gold Operations

► Safety

There was zero (0) Lost Time Injuries (LTI) during the quarter.

► Underground Production

Mine Development:

	Mar-16 Qtr	Jun-16 Qtr	Sep-16 Qtr	Dec-16 Qtr
Decline	1,153	967	923	1,638
Level	614	815	1,455	814
Operating	2,280	2,418	2,323	2,630
Total (metres)	4,047m	4,200m	4,701	5,082

Table 9: Underground Production – Mine Development

Main focus for capital mine development has been continued advance in multiple declines – Lower GGT, Upper GGT, Deakin, and Revelation. Level development showed a sharp increase against the previous period as a result of the development of new diamond drill drives in Cardassian, Invicta, and Nimary that will allow in-mine extension drill programs to test various targets in close proximity to current mine areas. This program with the fifth jumbo on site finished at the end of November.

Operating development remained similar to the previous period except for productivity improvements with ore drives in Gateway, Nim3, Lower WSN and WWN the priority to grow production fronts. Development to access reserves in Wilson extensions (through Deakin) continued. Access two new mine areas, Revelation and Armada commenced during the period and continued end of December.

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Mine Production:

	Mar-16 Qtr	Jun-16 Qtr	Sep-16 Qtr	Dec-16 Qtr
Development ore (t)	130,094	138,914	124,075	167,831
Development grade (gpt)	4.2	3.5	4.1	3.5
Stope ore (t)	199,059	198,859	195,955	223,743
Stope grade (gpt)	6.6	5.8	5.6	5.6
Total ore (t)	329,153	337,773	320,030	391,574
Total grade (gpt)	5.7	4.9	5.0	4.7
Contained gold (oz)	60,165	53,264	51,337	59,527

t=tonnes, gpt=grams per tonne, oz=ounces

Table 10: Underground Production – Ore production

The Wilson bulk stope continued to provide a solid production base during the December Quarter, with 17 and 18GGT levels, and 23 and 24 Nim3 stoping fronts being the other main contributors to the 223,743 tonne stoping.

► Gold Production

Jundee ore milled in the December Quarter was 391,593 tonnes at 4.7gpt and 90.3% recovery for 53,554 gold ounces.

The overall throughput rate was higher than previous period based on repairs to pebble crusher being completed and 30-50% of hard rock blend being secondary crushed. By period end the secondary crushing portion was 40% of total blend and throughput had settled at circa 200tph.

Ore stocks at the end of the quarter totalled 45,600oz of gold.

► Gold Sales

51,528oz were sold.