

# INFILL DRILLING RESULTS SUPPORT CENTRAL TANAMI DEVELOPMENT PLAN

**ASX ANNOUNCEMENT**  
**10 December 2015**

**Australian Securities**  
**Exchange Code: NST**

## **Board of Directors**

Mr Chris Rowe  
*Non-Executive Chairman*

Mr Bill Beament  
*Managing Director*

Mr Peter O'Connor  
*Non-Executive Director*

Mr John Fitzgerald  
*Non-Executive Director*

Ms Liza Carpane  
*Company Secretary*

## **Issued Capital**

Shares 600M

Options 4M

Current Share Price A\$2.58

Market Capitalisation  
A\$1.5 billion

Cash and Cash Equivalents  
30 Sep 2015 - A\$196 million

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## **KEY POINTS**

- ▶ **Solid assays from the first 22 infill holes drilled by Northern Star at the Central Tanami Project in the Northern Territory**
- ▶ **Results support Northern Star's strategy to establish its confidence in the key Groundrush deposit at Central Tanami ahead of developing a +125,000ozpa operation**
- ▶ **The 20,000m diamond drill program is aimed at improving the confidence level of the existing 1Moz Resource by infill drilling down to a vertical depth of 300m below the surface**
- ▶ **Northern Star is sole-funding this drilling program, in addition to refurbishing the processing plant, to earn 60% of the Project**
- ▶ **As at end of November, 10,000m (50%) of the drilling program had been completed with results to date in line with previous owner's drilling**
- ▶ **Significant results from this Groundrush program include (uncut and true widths):**
  - 0.6m @ 30.9gpt gold
  - 0.6m @ 30.3gpt gold
  - 2.7m @ 10.5gpt gold
  - 13.0m @ 8.7gpt gold
  - 5.8m @ 6.8gpt gold
  - 3.0m @ 6.1gpt gold
  - 4.4m @ 5.9gpt gold
  - 3.5m @ 5.5gpt gold
  - 5.6m @ 3.6gpt gold

Northern Star Resources Limited (ASX: NST) is pleased to advise that its strategy to develop a +125,000 ounce-a-year operation at the Central Tanami Project in the Northern Territory is on track with solid results from its first round of drilling.

The assays for the first 22 infill diamond holes drilled by Northern Star at the Project's key Groundrush deposit are in line with drilling results recorded by Central Tanami's previous owners (refer to Figure 1).

The drilling is aimed at establishing Northern Star's confidence in the Central Tanami Project in the lead-up to a decision to commence refurbishing the Project's processing plant and start production in the 2018 financial year.

The 20,000m drilling program and proposed plant refurbishment is being sole-funded by Northern Star as part of its agreement with Tanami Gold NL (ASX: TAM) to earn 60% of the Project.

Northern Star has earmarked Central Tanami as one of the sources of organic growth which will lift the Company's production to 700,000ozpa by FY18.

The current infill drilling program is focusing on establishing the continuity of mineralisation to a vertical depth of 300m below the surface providing Northern Star with the knowledge and confidence needed to design an underground mining operation via declines from the existing Groundrush open pit.

From these preliminary mine designs, Northern Star will then determine the capacity for the processing plant refurbishment to earn its 60% interest in the Central Tanami Project.

The drilling program is continuing and is expected to be completed in late January next year with final assays in by the end of the March Quarter.

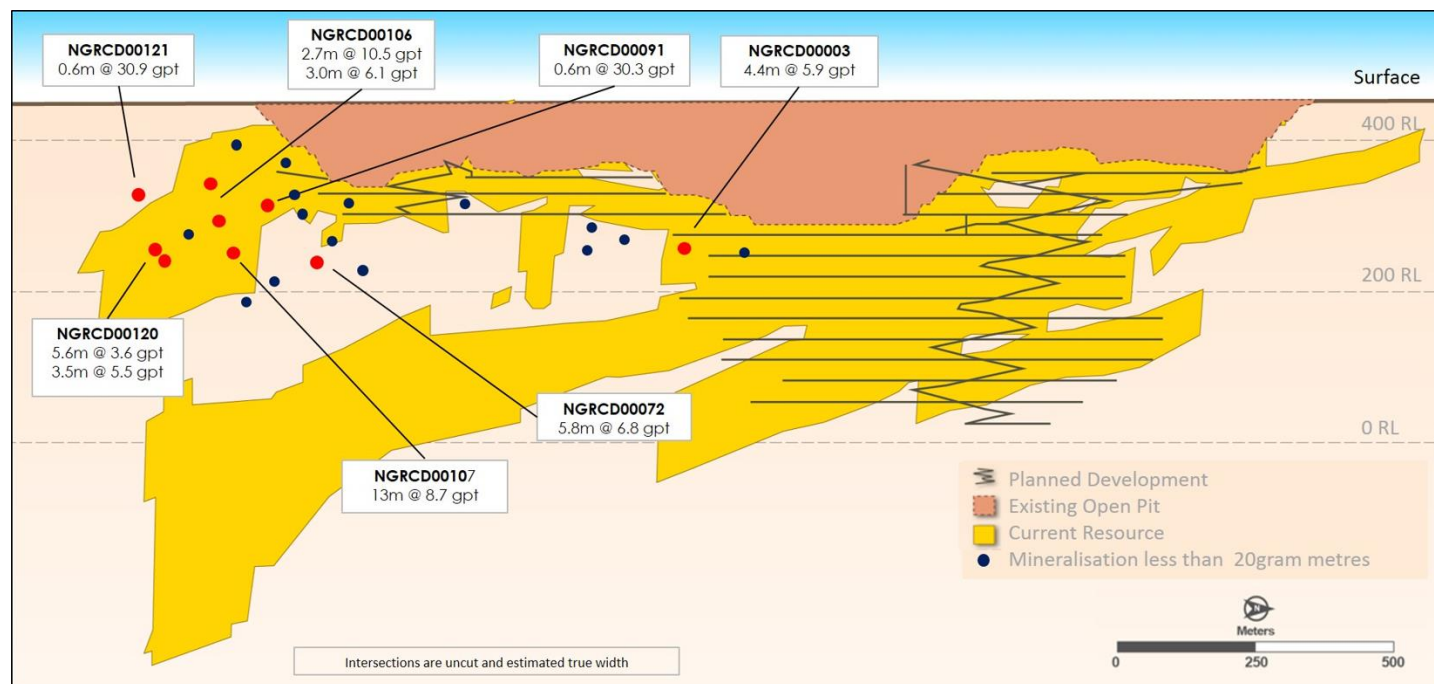


Figure 1: Long section view (looking west) of significant drill results for Groundrush

Yours faithfully



**BILL BEAMENT**  
**Managing Director**  
**Northern Star Resources Limited**

## Investor Enquiries:

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## **Competent Persons Statements**

The information in this announcement that relates to exploration results, data quality, geological interpretations and potential for eventual economic extraction, is based on information compiled by Simon Lawson, (Member Australian Institute of Geoscientists), who is a full-time employee of Northern Star Resources Limited. Mr Lawson has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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 Groundrush prospect. Mr Lawson 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**

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## APPENDIX 1 – RESULTS

| GROUNDROUSH SIGNIFICANT INTERSECTIONS |                     |                      |                                  |               |                              |                       |                   |                 |                           |                |                        |
|---------------------------------------|---------------------|----------------------|----------------------------------|---------------|------------------------------|-----------------------|-------------------|-----------------|---------------------------|----------------|------------------------|
| Drill Hole #                          | Easting (Mine Grid) | Northing (Mine Grid) | Drill hole collar RL (Mine Grid) | Dip (degrees) | Azimuth (degrees, Mine Grid) | End of hole depth (m) | Downhole From (m) | Downhole To (m) | Downhole Intersection (m) | Au (gpt) uncut | Est True Thickness (m) |
| NGRCD00001                            | 603960              | 7819973              | 421                              | -45           | 50                           | 360.0                 | 183.5             | 184.0           | 0.5                       | 2.1            | 0.4                    |
| NGRCD00001                            | 603960              | 7819973              | 421                              | -45           | 50                           | 360.0                 | 217.9             | 219.0           | 1.2                       | 11.6           | 1.1                    |
| NGRCD00001                            | 603960              | 7819973              | 421                              | -45           | 50                           | 360.0                 | 231.8             | 233.2           | 1.4                       | 10.2           | 1.3                    |
| NGRCD00001                            | 603960              | 7819973              | 421                              | -45           | 50                           | 360.0                 | 238.1             | 252.0           | 13.9                      | 1.5            | 13.7                   |
| NGRCD00001                            | 603960              | 7819973              | 421                              | -45           | 50                           | 360.0                 | 278.0             | 279.0           | 1.0                       | 1.2            | 0.9                    |
| NGRCD00001                            | 603960              | 7819973              | 421                              | -45           | 50                           | 360.0                 | 286.0             | 287.0           | 1.0                       | 5.0            | 0.9                    |
| NGRCD00001                            | 603960              | 7819973              | 421                              | -45           | 50                           | 360.0                 | 290.0             | 291.5           | 1.5                       | 3.7            | 1.4                    |
| NGRCD00003                            | 603971              | 7819953              | 421                              | -45           | 50                           | 349.9                 | 222.4             | 227.3           | 4.9                       | 5.5            | 4.4                    |
| NGRCD00003                            | 603971              | 7819953              | 421                              | -45           | 50                           | 349.9                 | 229.0             | 231.3           | 2.3                       | 1.7            | 2.2                    |
| NGRCD00003                            | 603971              | 7819953              | 421                              | -45           | 50                           | 349.9                 | 232.3             | 233.0           | 0.7                       | 4.4            | 0.7                    |
| NGRCD00003                            | 603971              | 7819953              | 421                              | -45           | 50                           | 349.9                 | 235.0             | 238.0           | 3.0                       | 2.0            | 2.7                    |
| NGRCD00003                            | 603971              | 7819953              | 421                              | -45           | 50                           | 349.9                 | 287.4             | 290.0           | 2.6                       | 6.4            | 2.0                    |
| NGRCD00003                            | 603971              | 7819953              | 421                              | -45           | 50                           | 349.9                 | 295.0             | 295.8           | 0.8                       | 4.8            | 0.7                    |
| NGRCD00003                            | 603971              | 7819953              | 421                              | -45           | 50                           | 349.9                 | 322.6             | 323.3           | 0.7                       | 1.0            | 0.5                    |
| NGRCD00014                            | 604062              | 7819889              | 421                              | -58           | 50                           | 288.2                 | 185.0             | 188.0           | 3.0                       | 1.3            | 2.5                    |
| NGRCD00014                            | 604098              | 7819867              | 421                              | -58           | 50                           | 288.2                 | 250.0             | 252.0           | 2.0                       | 1.7            | 2.0                    |
| NGRCD00021                            | 604070              | 7819809              | 421                              | -40           | 50                           | 306.0                 | 181.6             | 182.6           | 1.0                       | 6.1            | 1.0                    |
| NGRCD00021                            | 604070              | 7819809              | 421                              | -40           | 50                           | 306.0                 | 204.5             | 205.7           | 1.2                       | 11.5           | 1.1                    |
| NGRCD00021                            | 604070              | 7819809              | 421                              | -40           | 50                           | 306.0                 | 232.8             | 233.1           | 0.3                       | 43.1           | 0.3                    |
| NGRCD00021                            | 604070              | 7819809              | 421                              | -40           | 50                           | 306.0                 | 251.4             | 252.4           | 1.0                       | 1.1            | 0.8                    |
| NGRCD00022                            | 604070              | 7819809              | 421                              | -52           | 50                           | 311.2                 | 223.1             | 223.4           | 0.3                       | 1.4            | 0.3                    |
| NGRCD00033                            | 604075              | 7819696              | 422                              | -42           | 50                           | 330.7                 | 252.0             | 252.4           | 0.4                       | 1.1            | 0.3                    |
| NGRCD00033                            | 604075              | 7819696              | 422                              | -42           | 50                           | 331.7                 | 268.0             | 268.3           | 0.3                       | 2.5            | 0.3                    |
| NGRCD00033                            | 604075              | 7819696              | 422                              | -42           | 50                           | 332.7                 | 288.2             | 290.0           | 1.8                       | 1.9            | 1.7                    |
| NGRCD00060                            | 604120              | 7819569              | 420                              | -60           | 50                           | 399.7                 | 198.3             | 199.0           | 0.7                       | 1.3            | 0.7                    |
| NGRCD00060                            | 604120              | 7819569              | 420                              | -60           | 50                           | 399.7                 | 219.0             | 220.3           | 1.3                       | 8.0            | 1.1                    |
| NGRCD00060                            | 604120              | 7819569              | 420                              | -60           | 50                           | 399.7                 | 368.8             | 372.4           | 3.6                       | 1.5            | 3.6                    |
| NGRCD00072                            | 604161              | 7819517              | 420                              | -62           | 50                           | 370.0                 | 205.8             | 212.0           | 6.2                       | 6.8            | 5.8                    |
| NGRCD00072                            | 604161              | 7819517              | 420                              | -62           | 50                           | 370.0                 | 217.6             | 218.3           | 0.7                       | 6.6            | 0.6                    |
| NGRCD00072                            | 604161              | 7819517              | 420                              | -62           | 50                           | 370.0                 | 220.0             | 221.0           | 1.0                       | 3.2            | 0.8                    |
| NGRCD00072                            | 604161              | 7819517              | 420                              | -62           | 50                           | 370.0                 | 228.0             | 229.0           | 1.0                       | 1.1            | 0.8                    |
| NGRCD00072                            | 604161              | 7819517              | 420                              | -62           | 50                           | 370.0                 | 235.8             | 236.9           | 1.1                       | 3.1            | 0.8                    |
| NGRCD00072                            | 604161              | 7819517              | 420                              | -62           | 50                           | 370.0                 | 265.0             | 265.6           | 0.6                       | 1.9            | 0.5                    |
| NGRCD00072                            | 604161              | 7819517              | 420                              | -62           | 50                           | 370.0                 | 286.6             | 287.0           | 0.4                       | 12.4           | 0.3                    |
| NGRCD00072                            | 604161              | 7819517              | 420                              | -62           | 50                           | 370.0                 | 326.0             | 327.5           | 1.5                       | 1.5            | 1.4                    |
| NGRCD00072                            | 604161              | 7819517              | 420                              | -62           | 50                           | 370.0                 | 331.7             | 332.0           | 0.3                       | 4.3            | 0.3                    |
| NGRCD00073                            | 604190              | 7819505              | 421                              | -42           | 50                           | 302.9                 | 159.0             | 159.5           | 0.5                       | 1.1            | 0.4                    |
| NGRCD00074                            | 604190              | 7819505              | 420                              | -57           | 50                           | 318.6                 | 208.7             | 209.2           | 0.6                       | 1.5            | 0.4                    |
| NGRCD00079                            | 604189              | 7819470              | 420                              | -60           | 50                           | 327.7                 | 176.0             | 176.5           | 0.5                       | 2.5            | 0.4                    |
| NGRCD00079                            | 604189              | 7819470              | 420                              | -60           | 50                           | 327.7                 | 194.0             | 195.0           | 1.0                       | 10.8           | 0.8                    |
| NGRCD00079                            | 604189              | 7819470              | 420                              | -60           | 50                           | 327.7                 | 225.4             | 227.0           | 1.6                       | 1.1            | 1.4                    |
| NGRCD00079                            | 604189              | 7819470              | 420                              | -60           | 50                           | 327.7                 | 236.9             | 239.0           | 2.1                       | 2.7            | 1.9                    |
| NGRCD00079                            | 604189              | 7819470              | 420                              | -60           | 50                           | 327.7                 | 240.6             | 241.0           | 0.4                       | 1.1            | 0.3                    |
| NGRCD00079                            | 604189              | 7819470              | 420                              | -60           | 50                           | 327.7                 | 245.0             | 245.6           | 0.6                       | 2.5            | 0.5                    |
| NGRCD00079                            | 604189              | 7819470              | 420                              | -60           | 50                           | 327.7                 | 249.0             | 250.0           | 1.0                       | 1.7            | 0.8                    |
| NGRCD00079                            | 604189              | 7819470              | 420                              | -60           | 50                           | 327.7                 | 252.9             | 254.6           | 1.7                       | 2.6            | 1.5                    |
| NGRCD00081                            | 604246              | 7819487              | 419                              | -45           | 50                           | 197.0                 | 94.0              | 95.0            | 1.0                       | 1.7            | 0.8                    |
| NGRCD00081                            | 604246              | 7819487              | 419                              | -45           | 50                           | 197.0                 | 107.0             | 108.0           | 1.0                       | 7.8            | 0.8                    |
| NGRCD00081                            | 604246              | 7819487              | 419                              | -45           | 50                           | 197.0                 | 116.1             | 116.6           | 0.6                       | 5.5            | 0.5                    |
| NGRCD00081                            | 604246              | 7819487              | 419                              | -45           | 50                           | 197.0                 | 131.0             | 132.0           | 1.0                       | 1.6            | 0.8                    |
| NGRCD00081                            | 604246              | 7819487              | 419                              | -45           | 50                           | 197.0                 | 141.5             | 141.9           | 0.5                       | 3.5            | 0.4                    |
| NGRCD00081                            | 604246              | 7819487              | 419                              | -45           | 50                           | 197.0                 | 159.5             | 160.1           | 0.7                       | 1.7            | 0.6                    |
| NGRCD00081                            | 604246              | 7819487              | 419                              | -45           | 50                           | 197.0                 | 161.7             | 162.2           | 0.6                       | 1.9            | 0.5                    |
| NGRCD00085                            | 604257              | 7819467              | 420                              | -50           | 50                           | 230.9                 |                   |                 |                           |                |                        |
| NGRCD00090                            | 604283              | 7819450              | 420                              | -45           | 50                           | 244.7                 | 90.5              | 91.4            | 0.9                       | 5.5            | 0.8                    |
| NGRCD00090                            | 604283              | 7819450              | 420                              | -45           | 50                           | 244.7                 | 184.7             | 185.7           | 1.0                       | 1.5            | 0.8                    |
| NGRCD00091                            | 604255              | 7819417              | 419                              | -51           | 50                           | 243.0                 | 162.3             | 162.9           | 0.6                       | 30.3           | 0.6                    |
| NGRCD00091                            | 604255              | 7819417              | 419                              | -51           | 50                           | 243.0                 | 173.5             | 174.6           | 1.1                       | 1.5            | 1.0                    |
| NGRCD00106                            | 604291              | 7819359              | 418                              | -55           | 50                           | 230.1                 | 160.6             | 161.0           | 0.4                       | 3.8            | 0.3                    |
| NGRCD00106                            | 604291              | 7819359              | 418                              | -55           | 50                           | 230.1                 | 164.3             | 167.4           | 3.0                       | 10.5           | 2.7                    |
| NGRCD00106                            | 604291              | 7819359              | 418                              | -55           | 50                           | 230.1                 | 176.0             | 180.0           | 4.0                       | 3.7            | 3.7                    |
| NGRCD00106                            | 604291              | 7819359              | 418                              | -55           | 50                           | 230.1                 | 182.0             | 196.0           | 14.0                      | 2.5            | 12.8                   |
| NGRCD00106                            | 604291              | 7819359              | 418                              | -55           | 50                           | 230.1                 | 210.5             | 214.0           | 3.5                       | 6.1            | 3.0                    |
| NGRCD00107                            | 604291              | 7819358              | 419                              | -60           | 50                           | 392.4                 | 200.5             | 214.9           | 14.3                      | 8.7            | 13.0                   |
| NGRCD00116                            | 604357              | 7819353              | 419                              | -45           | 50                           | 153.2                 | 118.0             | 118.8           | 0.8                       | 3.5            | 0.7                    |
| NGRCD00117                            | 604358              | 7819353              | 419                              | -57           | 50                           | 500.0                 | 300.3             | 302.0           | 1.7                       | 0.6            | 1.6                    |
| NGRCD00118                            | 604357              | 7819353              | 419                              | -68           | 50                           | 227.7                 | 93.0              | 94.0            | 1.0                       | 2.8            | 1.0                    |
| NGRCD00118                            | 604357              | 7819353              | 419                              | -68           | 50                           | 227.7                 | 156.0             | 157.4           | 1.4                       | 7.7            | 1.4                    |
| NGRCD00120                            | 604316              | 7819309              | 419                              | -66           | 50                           | 261.8                 | 197.0             | 204.0           | 7.0                       | 3.6            | 5.6                    |
| NGRCD00120                            | 604316              | 7819309              | 419                              | -66           | 50                           | 261.8                 | 206.2             | 210.3           | 4.1                       | 5.5            | 3.5                    |
| NGRCD00120                            | 604316              | 7819309              | 419                              | -66           | 50                           | 261.8                 | 217.4             | 217.7           | 0.3                       | 28.2           | 0.3                    |
| NGRCD00121                            | 604316              | 7819308              | 419                              | -72           | 50                           | 351.9                 | 121.4             | 122.0           | 0.6                       | 30.9           | 0.6                    |
| NGRCD00121                            | 604316              | 7819308              | 419                              | -72           | 50                           | 351.9                 | 183.5             | 184.5           | 1.0                       | 11.4           | 0.5                    |
| NGRCD00121                            | 604316              | 7819308              | 419                              | -72           | 50                           | 351.9                 | 192.2             | 193.1           | 0.9                       | 1.8            | 0.9                    |
| NGRCD00121                            | 604316              | 7819308              | 419                              | -72           | 50                           | 351.9                 | 240.8             | 241.7           | 0.9                       | 2.6            | 0.8                    |
| NGRCD00121                            | 604316              | 7819308              | 419                              | -72           | 50                           | 351.9                 | 286.4             | 287.4           | 1.0                       | 1.0            | 0.8                    |

## JORC Code, 2012 Edition – Table 1 Report: Groundrush Drill Results as at 30 November 2015

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

| Criteria                                       | JORC Code explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sampling techniques                            | Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.                                                                                                                                                                                                                                         | Sampling was completed using diamond (DD) core drilling. Some drill-holes were pre-collared using RC drilling methods and completed with DD tails, while some were drilled diamond core from surface.                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                | Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.                                                                                                                                                                                                                                                                                                                                                                                                                           | Diamond drilling used NQ2 sized core. Drill core was oriented, aligned and half-cut using metre intervals and geologically determined intervals (min 0.3 metres), with geologically determined intervals taking precedence.                                                                                                                                                                                                                                                                                                                                                                                    |
|                                                | Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. | Samples were dispatched to ALS Perth for preparation by drying, crushing to <3mm, and pulverizing the entire sample to <75µm. Bulk pulp splits (300g) were then taken for Fire assay purposes. Fire assay was conducted using a 50g charge and an AAS analyses finish.                                                                                                                                                                                                                                                                                                                                         |
| Drilling techniques                            | Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).                                                                                                                                                                                                                                                                               | RC Drilling (pre-collars) was completed using a 5.25" face sampling hammer drill bit. Diamond core was all NQ2 size and oriented where possible.                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Drill sample recovery                          | Method of recording and assessing core and chip sample recoveries and results assessed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Diamond drill core recoveries are recorded as a percentage calculated from measured core versus drilled intervals length.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                                | Measures taken to maximise sample recovery and ensure representative nature of the samples.                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | The diamond drill contractors adjusted their rate of drilling and method if recovery issues arose. All recovery was recorded by the drillers on core blocks. This was checked and compared to the measurements of the core by the geological team. Any issues were communicated back to the drilling contractor at the time and necessary adjustments made.                                                                                                                                                                                                                                                    |
|                                                | Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.                                                                                                                                                                                                                                                                                                                                                                                                        | Overall DD recoveries were good. There has been no work completed to determine if any relationship between recovery and grade exists.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Logging                                        | Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.                                                                                                                                                                                                                                                                                                                                                                       | DD core is logged by company geologists to industry standards. All relevant features such as lithology, structure, texture, grain-size, alteration, oxidation state, vein style and veining percentage per interval; and mineralisation were recorded in the geological logs.                                                                                                                                                                                                                                                                                                                                  |
|                                                | Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | All logging was quantitative where possible and qualitative elsewhere. All diamond drill core was photographed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                | The total length and percentage of the relevant intersections logged.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | The entire length of each diamond core hole was logged.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Sub-sampling techniques and sample preparation | If core, whether cut or sawn and whether quarter, half or all core taken.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Diamond drill core was cut in half using an Almonté diamond core saw. Half core was sampled on intervals between 0.3-1.1m in length honouring lithological boundaries. The right-hand side of the core was bagged as the primary sample for analyses. The remaining half of core was archived and stored for reference.                                                                                                                                                                                                                                                                                        |
|                                                | If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Core samples only being reported.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                                | For all sample types, the nature, quality and appropriateness of the sample preparation technique.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Sample preparation was conducted at ALS Perth, commencing with sorting, checking and drying at less than 110°C to prevent sulphide breakdown. Samples were jaw crushed to a nominal -6mm particle size. If the sample is greater than 3kg a Boyd crusher with rotary splitter is used to reduce the sample size to less than 3kg at a nominal <3mm particle size. The entire crushed sample (if less than 3kg) or sub-sample is then pulverized to 90% passing 75µm, using a Labtechnics LM5 bowl pulveriser. 300g Pulp subsamples are then taken with an aluminium scoop and stored in labelled pulp packets. |

| Criteria                                                | JORC Code explanation                                                                                                                                                                                                             | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                         | Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.                                                                                                                             | Grind checks are performed at both the crushing stage (3mm) and pulverising stage (75µm), requiring 90% of material to pass through the relevant size.                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                         | Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate / second-half sampling.                                                        | The sample preparation is considered appropriate and to industry standard. No Field duplicates were submitted for diamond core sampling.                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                         | Whether sample sizes are appropriate to the grain size of the material being sampled.                                                                                                                                             | Sample sizes are considered appropriate.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Quality of assay data and laboratory tests              | The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.                                                                                  | A 50g Fire assay charge is fired accompanied by an introduced lead flux and fired in a typical gas-fired furnace. The resultant "button" was then totally digested by submergence in Aqua Regia before analyses using Atomic Absorption Spectroscopy (AAS) determination for gold.                                                                                                                                                                                                                                                     |
|                                                         | For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. | No geophysical tools were used to determine any element concentrations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                         | Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.                  | Certified reference materials (CRMs) were inserted into the sample sequence at a rate of 1 per 20 samples to ensure correct calibration. Any values outside of 3 standard deviations were re-assayed with a new CRM.<br>Blanks were routinely inserted into the sample sequence at a rate of 1 per 25 samples and again specifically after potential or existing high grade mineralisation to test for contamination. Failures of blanks above 0.2g/t were followed up, and re-assayed. New pulps were prepared if failures continued. |
| Verification of sampling and assaying                   | The verification of significant intersections by either independent or alternative company personnel.                                                                                                                             | All significant intersections were verified by a Northern Star Senior Geologist on-site during the drill-hole validation process, and later by signed off by a Competent person, as defined by JORC.                                                                                                                                                                                                                                                                                                                                   |
|                                                         | The use of twinned holes.                                                                                                                                                                                                         | No twinned holes were drilled for this data set.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                                         | Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.                                                                                                        | Geological logging was directly entered into a Datashed Log Chief logging package and loaded into an Access database on-site. Assay files are received in .csv format and loaded directly into the Access database by the Senior on-site Geologist. Hardcopy and electronic copies of the data was stored for future reference.                                                                                                                                                                                                        |
|                                                         | Discuss any adjustment to assay data.                                                                                                                                                                                             | No adjustments were made to the assay data.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Location of data points                                 | Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.                                                       | Planned holes were pegged using a Differential GPS by company geologists and field assistants. The final hole collar was picked up after completion by Differential GPS in the MGA 94_52 grid. During drilling, single-shot surveys were taken every 30m to ensure the hole remains close to design. Down-hole surveys were performed using a Reflex Ez-Trac or Ranger camera system, recording the down-hole dip and magnetic azimuth. These results were then uploaded into the Access database.                                     |
|                                                         | Specification of the grid system used.                                                                                                                                                                                            | Collar coordinates were recorded in MGA94 Zone 52.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                                         | Quality and adequacy of topographic control.                                                                                                                                                                                      | Topographic control was established using DGPS drill collar pickups                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Data spacing and distribution                           | Data spacing for reporting of Exploration Results.                                                                                                                                                                                | Drill-hole spacing across the area varies, although minimum 25m spacing was targeted during the design and drilling phases.                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                         | Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.      | Exploration results only being reported.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                         | Whether sample compositing has been applied.                                                                                                                                                                                      | No compositing has been applied to these exploration results, however, intervals are typically reported as composites.                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Orientation of data in relation to geological structure | Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.                                                                        | The orientation of specific targets is typically well understood and the drilling direction is considered near perpendicular to the orientation of mineralisation.                                                                                                                                                                                                                                                                                                                                                                     |
|                                                         | If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.                        | No sampling bias is considered to have been introduced by the drilling orientation.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| Criteria          | JORC Code explanation                                                 | Commentary                                                                                                                                                                                                                                                                                                                                   |
|-------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sample security   | The measures taken to ensure sample security.                         | Prior to laboratory submission, samples are stored by Northern Star Resources in a secure yard. Once submitted to the ALS laboratory, they are stored in a secure fenced compound, and tracked through the assay process by established chain of custody procedures, and via audit trails, conducted by independent and company specialists. |
| Audits or reviews | The results of any audits or reviews of sampling techniques and data. | No such exercise has been undertaken for the samples or drill-holes at this stage.                                                                                                                                                                                                                                                           |

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

| Criteria                                | JORC Code explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mineral tenement and land tenure status | Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.                                                                                                                                                                                                                          | All holes mentioned in this report are from the Groundrush deposit located within the ML22934 tenement which is owned by Tanami Gold NL (75%) and Northern Star Resources Limited (25%). There are royalty and other payment obligations under third party agreements the terms of which are confidential.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                         | The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.                                                                                                                                                                                                                                                                                                                                                              | No known impediments exist and the tenements are in good standing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Exploration done by other parties       | Acknowledgment and appraisal of exploration by other parties.                                                                                                                                                                                                                                                                                                                                                                                                                                         | The Groundrush area has been explored since the mid 1980's. Numerous companies, including Zapopan NL, Otter Gold NL, Normandy Mining Ltd, Newmont (Asia Pacific), and Tanami Gold NL have been active in the area.<br>Drilling reported with this release is contiguous with the Groundrush open-cut mine. Previous drilling at this project adds gold grade and geological context to the subsequent Northern Star Resources interpretation of the area as tested by the drill holes covered by this report.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Geology                                 | Deposit type, geological setting and style of mineralisation.                                                                                                                                                                                                                                                                                                                                                                                                                                         | The Groundrush deposit is hosted by rocks of the Killi Killi Formation exposed in a narrow N- to NNW-trending corridor flanked by lobes of the younger Frankenia Dome granite. Groundrush thus lies within rocks of a similar age to the host rocks of The Granites and Dead Bullock Soak gold deposits 100km to the south, but older than the Mount Charles Formation, which hosts the Tanami gold deposits 50km south west. Less than 1 km to the north of Groundrush, the Killi Killi beds are truncated by a fault bounded outlier of younger sediment of the Mount Charles Formation.<br>At Groundrush, a package of relatively undeformed, steeply west dipping, sedimentary rocks is intruded by two tabular dolerite units which are broadly conformable with bedding. The main dolerite body exposed in the open pit consists of a coarser grained leucocratic quartz dolerite. Gold mineralisation is mainly hosted in quartz-sulphide veins and stockwork zones within steeply dipping shear zones in the quartz dolerite unit as well as flat dipping quartz-sulphide brittle fracture veins. |
| Drill hole Information                  | A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>o easting and northing of the drill hole collar</li> <li>o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>o dip and azimuth of the hole</li> <li>o down hole length and interception depth</li> <li>o hole length.</li> </ul> | See attached Appendix for a table of results.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                         | If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.                                                                                                                                                                                                                                                       | No holes are excluded from this report.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| Criteria                                                         | JORC Code explanation                                                                                                                                                                                                                                                                                                                                                                 | Commentary                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Data aggregation methods                                         | In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.                                                                                                                                                                                | All reported assay results have been length weighted to provide an intersection width. Barren material between mineralised samples has been permitted in the calculation of these widths where the resultant average composite grade of samples beyond (and not including) the core mineralised zone exceeds the 1 g/t cut-off grade used for intercept calculation. |
|                                                                  | Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.                                                                                                                                | No assay results have been top-cut for the purpose of this report. A lower cut-off of 1 g/t has been used to identify significant results.                                                                                                                                                                                                                           |
|                                                                  | The assumptions used for any reporting of metal equivalent values should be clearly stated.                                                                                                                                                                                                                                                                                           | No metal equivalent values have been used for the reporting of these exploration results                                                                                                                                                                                                                                                                             |
| Relationship between mineralization widths and intercept lengths | These relationships are particularly important in the reporting of Exploration Results.                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                      |
|                                                                  | If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.                                                                                                                                                                                                                                                                   | The exact orientation of the Groundrush mineralised system is generally well understood. Geometry of the mineralisation to drill hole intercepts generally at a high angle, often nearing perpendicular. There is enough historic exploration and production data at Groundrush to infer geological continuity in mineralisation reported.                           |
|                                                                  | If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').                                                                                                                                                                                                                     | The downhole widths have been clearly specified when used.                                                                                                                                                                                                                                                                                                           |
| Diagrams                                                         | Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.                                                                                                                     | Appropriate plans and section have been included in this release                                                                                                                                                                                                                                                                                                     |
| Balanced reporting                                               | Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.                                                                                                                                                             | Both high and low grades have been reported accurately, clearly identified with the drill-hole attributes and 'From' and 'To' depths.<br>All intercepts for all holes have been reported regardless of grade.                                                                                                                                                        |
| Other substantive exploration data                               | Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. | No other material exploration data has been collected as part of this drill program.                                                                                                                                                                                                                                                                                 |
| Further work                                                     | The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).                                                                                                                                                                                                                                                | Drilling is continuing in December 2015 to determine the extents of the Groundrush system.                                                                                                                                                                                                                                                                           |
|                                                                  | Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.                                                                                                                                                                                     | Appropriate Diagrams accompany this release.                                                                                                                                                                                                                                                                                                                         |