

Encouraging portable XRF results from Dazzler drilling

- Further exploration drilling completed at the Dazzler deposit and Iceman prospect.
- Some encouraging preliminary results have been returned from drilling southeast of Dazzler
- Maiden Mineral Resource estimate for the Dazzler deposit has grade that is more than 3x the average for Browns Range.

Australian heavy rare earths producer, Northern Minerals Limited (ASX: NTU) (the **Company**) is pleased to announce that follow up drilling has been successful at the Dazzler and Iceman deposits. A program of reverse circulation (**RC**) drilling has been completed, with 17 holes for 1143m completed at Dazzler and 5 holes for 300m at Iceman.

Drilling at Dazzler was mostly exploration drilling to the southeast of the deposit towards the Iceman prospect, with a further two infill drill holes successfully completed at Dazzler. Anomalous portable XRF (**pXRF**) measurements of yttrium have been recorded from several drill holes (see Table 1 below).

Table 1 – Dazzler Prospect RC drilling – Significant pXRF results (>1m @ >1000ppm pXRF yttrium, above a lower cut-off of 500ppm Y)

| Hole Id | Drill target | Width (m)* | From (m) | To (m) | Average pXRF Yttrium ppm |
|----------|--------------|------------|----------|--------|--------------------------|
| BRDR0021 | Extension | 3 | 9 | 12 | 1,109 |
| BRDR0023 | Infill | 16 | 16 | 32 | 2,622 |
| BRDR0030 | Exploration | 2 | 10 | 12 | 1,902 |
| BRDR0030 | Exploration | 11 | 30 | 41 | 1,330 |
| BRDR0032 | Exploration | 6 | 16 | 22 | 1,324 |
| BRDR0035 | Infill | 38 | 19 | 57 | 23,538 |
| | | Inc. 18 | 22 | 40 | 48,352 |
| BRDR0036 | Exploration | 8 | 3 | 11 | 2,582 |

* Downhole widths only, true width is currently unknown.

All other drill holes from Dazzler not reported in the table above had no significant pXRF measurements of yttrium (i.e. nothing >1m @ >1,000ppm pXRF yttrium).

The measurement of yttrium using a pXRF is a method that has been used extensively at Browns Range. Historical data demonstrates final assayed Yttrium has a strong correlation with pXRF (Yttrium) field analysis of RC drill samples at Browns Range. However, the pXRF results that are the subject of this report are preliminary only and the “pXRF Yttrium” is only an indication of the expected order of magnitude for Yttrium final analysis. The analyses that are the subject of this report will be submitted for laboratory assay, and some variation from the results presented herein should be expected.

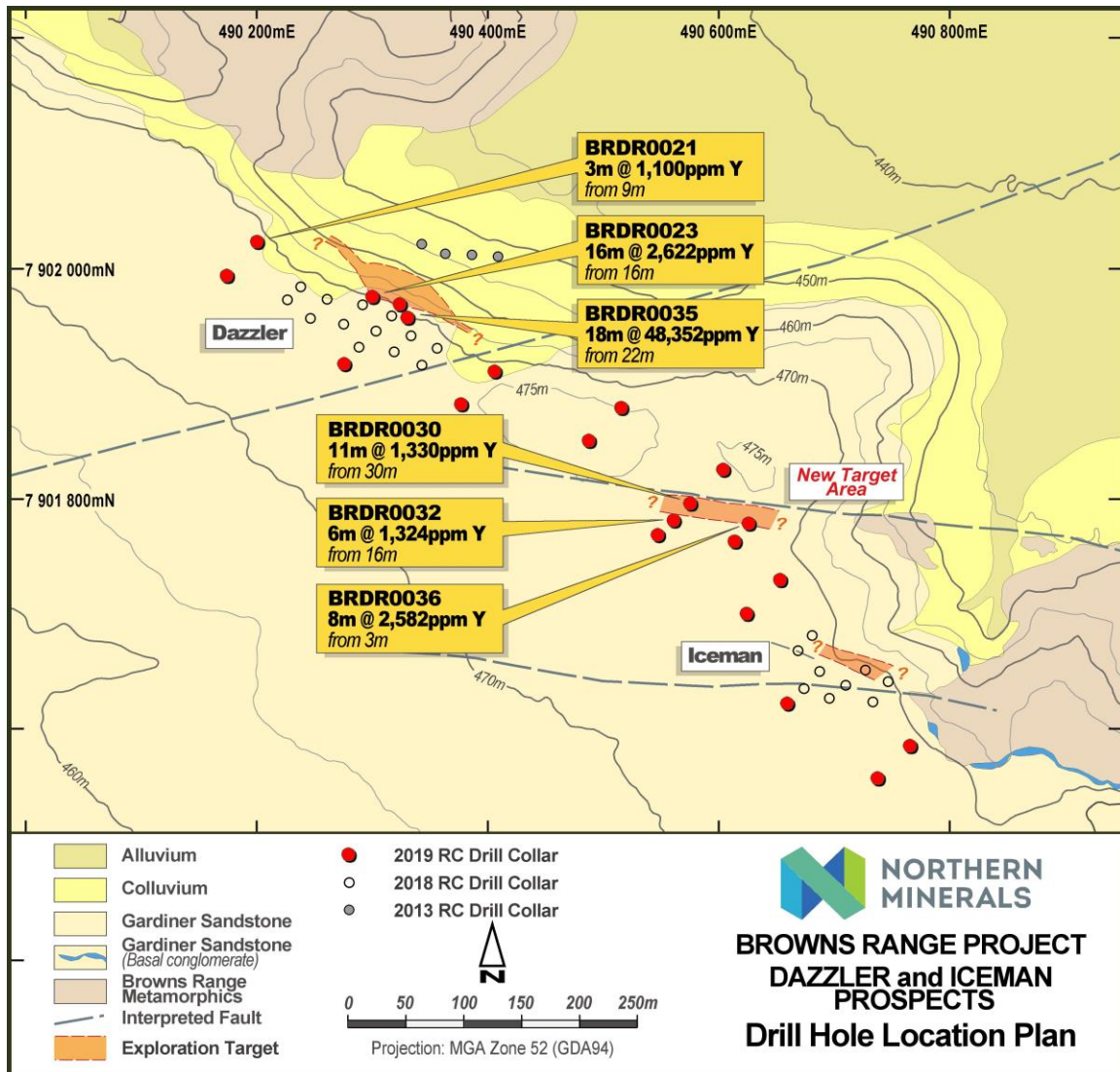
There were no significant pXRF measurements of yttrium from the five RC drill holes completed at the Iceman prospect. Final assay results from the drilling are expected towards the end of the current quarter.

ASX ANNOUNCEMENT

The RC drilling to the southeast of Dazzler and northwest of Iceman has highlighted a new target area, with three drill holes (BRDR0030, 0032 & 0036) intersecting zones with anomalous pXRF measurements of yttrium (see Figure 1). Follow-up drilling is planned for this area.

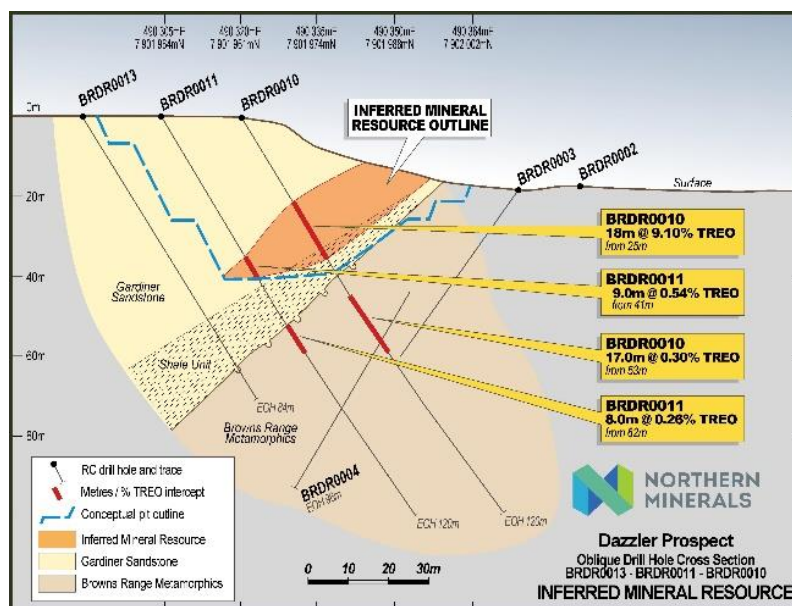
Diamond drilling has now commenced with one diamond drillhole planned at Iceman and three at Dazzler, one of which is for metallurgical testwork.

Figure 1 – Plan view of the Dazzler, Iceman and new target area



The Dazzler deposit is located less than 15km from the Browns Range Pilot Plant on the edge of a small scarp slope. The maiden Inferred Mineral Resource for the Dazzler deposit has been estimated at **144,000 tonnes at 2.23% TREO comprising 3,200,000 kg TREO** using a cut-off grade of 0.15% TREO. Details of this Mineral Resource Estimate are contained in the Company's ASX Announcement dated 6 March 2019 entitled "Dazzler shines with high-grade Maiden Mineral Resource"

Figure 2 – Dazzler Drill hole cross section showing Inferred Mineral Resource outline



Northern Minerals' Managing Director, George Bauk, commented "These pXRF results continue to highlight the wide, high-grade nature of the Dazzler mineralisation.

"The use of pXRF as a preliminary assay tool allows us to modify and update the drilling program in real time as required. We confirmed the technique in earlier studies as a detector of mineralisation and continue to see the benefits.

"As a high-grade deposit, we are highly motivated to increase the size of Mineral Resources in this area as a source of ore for many years to come."

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Competent Persons Declaration:

The information in this report relating to Exploration Results was compiled by Mr Robin Wilson who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Wilson is a full time employee of Northern Minerals Limited and has sufficient experience 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' (the JORC Code). Mr Wilson consents to the inclusion of this information in the form and context in which it appears.

ASX ANNOUNCEMENT

The information in this announcement that relates to the Mineral Resource Estimate at Dazzler is extracted from the report entitled “Dazzler shines with high-grade Maiden Mineral Resource” dated 6 March 2019 and is available to view on the company’s website (www.northernminerals.com.au). The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcement.

The information in this announcement that relates to the Exploration Results from the Dazzler and Iceman deposits is extracted from the report entitled “Assay results confirm Dazzler and Iceman discoveries” dated 11 September 2018 and is available to view on the company’s website (www.northernminerals.com.au). The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcement.

About Northern Minerals:

Northern Minerals Limited (ASX: NTU; Northern Minerals or the Company) has completed practical completion of the Browns Range Heavy Rare Earth Pilot Plant Project in northern Western Australia and commenced production of heavy rare earth carbonate.

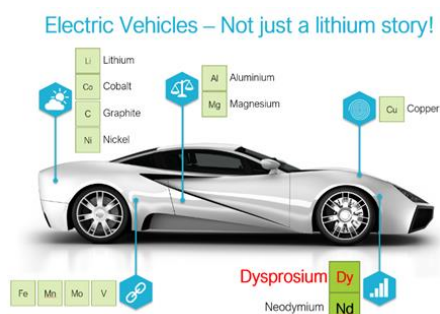
The three-year Pilot Plant Project will continue to assist the company evaluate the economic and technical feasibility of mining at Browns Range, and will provide the opportunity to gain production experience and surety of supply for our offtake partner.

Through the development of its flagship project, the Browns Range Project (the Project), Northern Minerals aims to build the Western Australian operation into the first significant world producer of dysprosium outside of China.

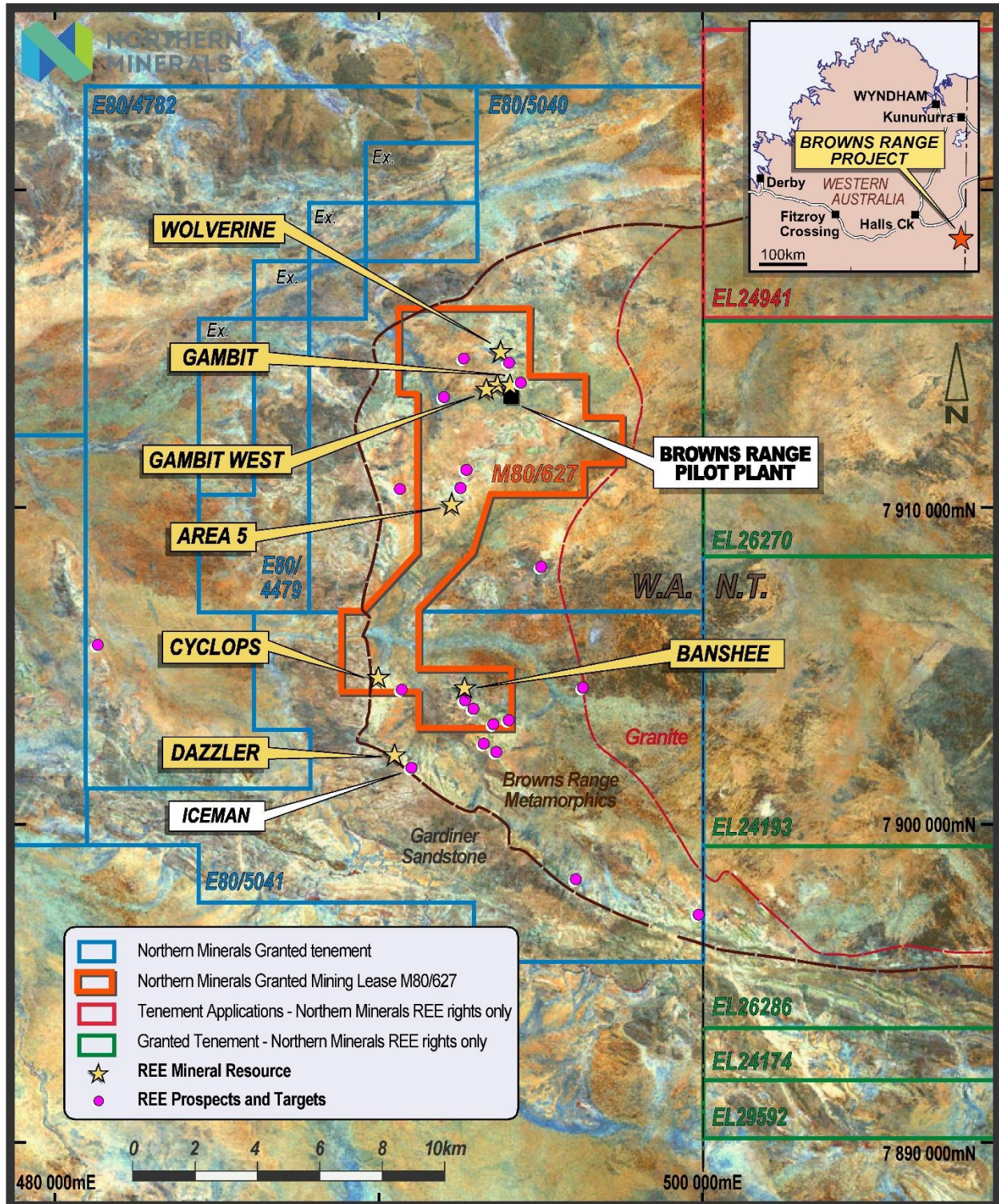
The Project is 100% owned by Northern Minerals and has several deposits and prospects containing high value dysprosium and other HREs, hosted in xenotime mineralisation.

Dysprosium is an essential ingredient in the production of DyNdFeB (dysprosium neodymium iron-boron) magnets used in clean energy and high technology solutions.

For more information: northernminerals.com.au.



| | | | |
|----------------|--------|---------------------------|---------|
| ASX Code: | NTU | Market Capitalisation: | A\$118m |
| Issued Shares: | 1,908m | Cash (as at 31 Mar 2019): | A\$9.1m |



Location of Browns Range Mineral Resources

Appendix 1

Iceman Drill hole collar details (all coordinates in GDA94 Zone 52)

| Hole ID | East | North | RL | Mag Azimuth | Inclination | Depth(m) |
|----------|--------|---------|-----|-------------|-------------|----------|
| BRIR0010 | 490654 | 7901729 | 472 | 045° | -60° | 61 |
| BRIR0011 | 490625 | 7901701 | 472 | 045° | -60° | 79 |
| BRIR0012 | 490760 | 7901580 | 472 | 045° | -60° | 50 |
| BRIR0013 | 490732 | 7901552 | 473 | 045° | -60° | 55 |
| BRIR0014 | 490660 | 7901623 | 472 | 045° | -60° | 55 |

Dazzler drill hole collar details (all coordinates in GDA94 Zone 52)

| Hole ID | East | North | RL | Mag Azimuth | Inclination | Depth(m) |
|-----------|--------|---------|-----|-------------|-------------|----------|
| BRDR0021 | 490200 | 7902021 | 472 | 045° | -60° | 58 |
| BRDR0022 | 490172 | 7901994 | 472 | 045° | -60° | 82 |
| BRDR0023 | 490292 | 7901978 | 470 | 045° | -50° | 54 |
| BRDR0024 | 490275 | 7901916 | 472 | 045° | -50° | 97 |
| BRDR0025 | 490322 | 7901966 | 472 | 045° | -60° | 12 |
| BRDR0026 | 490398 | 7901903 | 472 | 045° | -60° | 80 |
| BRDR0027 | 490373 | 7901878 | 472 | 045° | -60° | 109 |
| BRDR0028 | 490514 | 7901880 | 473 | 045° | -60° | 115 |
| BRDR0029 | 490602 | 7901826 | 472 | 045° | -60° | 103 |
| BRDR0030 | 490576 | 7901797 | 472 | 045° | -60° | 79 |
| BRDR0031 | 490548 | 7901766 | 472 | 045° | -60° | 61 |
| BRDR0032 | 490562 | 7901782 | 472 | 045° | -60° | 49 |
| BRDR0033 | 490614 | 7901763 | 472 | 045° | -60° | 37 |
| BRDR0033A | 490609 | 7901759 | 472 | 045° | -60° | 7 |
| BRDR0034 | 490490 | 7901853 | 473 | 045° | -60° | 97 |
| BRDR0035 | 490329 | 7901958 | 472 | 045° | -50° | 72 |
| BRDR0036 | 490626 | 7901779 | 472 | 045° | -60° | 31 |

JORC TABLE ONE:**Section 1 Sampling Techniques and Data**

| Criteria | JORC Code explanation | Commentary |
|----------------------------|---|---|
| <i>Sampling techniques</i> | <ul style="list-style-type: none"> <i>Nature and quality of sampling (eg 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.</i> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> <i>In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</i> | <ul style="list-style-type: none"> At the Iceman prospect five Reverse Circulation (RC) drill holes were completed. A total of 300m of drilling was completed, with hole depths between 50m and 80m. At the Dazzler prospect 17 RC drill holes have been completed for 1143m with hole depths mostly between 30m and 115m. Two RC drill holes were abandoned (BRDR0025 and 0033A) at 7m and 12m due to difficulties in collaring the drill hole. Reverse Circulation (RC) drill samples were analysed using Niton XRF XLt3-950 GOLDD+ portable XRF analyser (pXRF). The pXRF was placed on the primary split sample taken off the drilling rig's static cone splitter. One measurement was completed for each drill metre sample, through the calico bag' The pXRF instrument is calibrated and serviced annually or more frequently, with daily instrument calibration completed as a minimum. Additionally, at the start of each sampling session, standards are analysed. Sampling was carried out under NTU protocols and employed QAQC procedures in line with industry standard practice and fit for purpose i.e. first-pass exploration drilling. RC drill holes were sampled at one metre intervals exclusively and split at the rig to achieve a target 2-5 kilogram sample weight. This report relates to exploration results of a preliminary nature. Portable XRF (pXRF), especially, is a preliminary technique which will be superseded by laboratory analysis when it becomes available |
| <i>Drilling techniques</i> | <ul style="list-style-type: none"> <i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).</i> | <ul style="list-style-type: none"> RC drilling was with nominal diameters of 145mm. RC drilling was completed using face sampling hammer. |

| Criteria | JORC Code explanation | Commentary |
|---|--|--|
| <i>Drill sample recovery</i> | <ul style="list-style-type: none"> <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> <i>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.</i> | <ul style="list-style-type: none"> RC recovery was assessed via subjective assessment based on volume recovered. RC recovery information is recorded in the geologist logs and entered into the database. Geologists were based at the RC rig, and inspected regularly to ensure procedures being used. RC samples were visually checked for recovery, moisture and contamination. RC recoveries were observed to be generally acceptable with recoveries typically 80% or greater. RC recovery information is recorded in the geologist logs and entered into the database. The cyclone and splitter were routinely cleaned ensuring no material build up. The relationship between sample recovery and grade has not been investigated at this stage. |
| <i>Logging</i> | <ul style="list-style-type: none"> <i>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.</i> <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> <i>The total length and percentage of the relevant intersections logged.</i> | <ul style="list-style-type: none"> RC logging was completed on one metre intervals at the rig by the geologist. . Logging is completed directly onto a laptop in the field using a proprietary geological logging package with in-built validation. Logging information was reviewed by the responsible geologist prior to final load into the database. Chip trays were collected for each of the RC intervals. Logging was generally qualitative in nature. All recovered intervals were geologically logged and entered into the database. |
| <i>Sub-sampling techniques and sample preparation</i> | <ul style="list-style-type: none"> <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field</i> | <ul style="list-style-type: none"> Not applicable - no core drilling. RC samples were collected from the full recovered interval by rig mounted static cone splitter. Nearly all the samples were collected dry with a minor number being moist due to ground conditions or excessive dust suppression. Samples were split without drying. Portable XRF sampling – the sampling technique is fit for purpose as a preliminary exploration technique. Northern Minerals has an extensive database of similar field readings within the Browns Range Project. At this stage of exploration, subsampling is limited to on rig splitting |

| Criteria | JORC Code explanation | Commentary |
|--|---|---|
| | <p><i>duplicate/second-half sampling.</i></p> <ul style="list-style-type: none"> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> | <p>using a static cone splitter. No QA/QC of the splitting method has been carried out.</p> <ul style="list-style-type: none"> No measures taken to ensure sample representative of in-situ material. Reliance on past adequate performance of method in similar deposits at the Browns Range Project. The RC samples are appropriate for the grain size of the material. The pXRF is a spot reading and has diminished precision due to grain size effect when used on raw (unprepared) RC samples. The competent person considers this diminished precision acceptable within the context of reporting exploration results. |
| Quality of assay data and laboratory tests | <ul style="list-style-type: none"> <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> <i>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.</i> <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i> | <ul style="list-style-type: none"> Field Analysis only, via pXRF – assay and laboratory analysis not yet performed In the field a Niton (XL3T-950 GOLDD+) XRF hand held tool was used to provide a preliminary quantitative measure of mineralisation. A reading time of 30 seconds was used, with a single reading taken for every metre of RC drilling. The reading was on unprepared raw RC chips, through the calico sample bag. The samples contained natural moisture. The yttrium value reported here is raw, with no calibration applied. Calibration of the PXRF is at least daily with the silica blank standard and the TILL-4 yttrium standard checked at the beginning of every sample run. |
| Verification of sampling and assaying | <ul style="list-style-type: none"> <i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i> | <ul style="list-style-type: none"> Internal verification of significant results by more than one company geologist. No holes have been twinned Portable XRF - Analytical data was collected directly by the Niton pXRF and downloaded by digital transfer to an excel sheet with inbuilt QAQC. All data was checked by the responsible geologist and digitally transferred to Perth. Datashed is used as the database storage and management software and incorporates numerous data validation and integrity checks using a series of defined data |

| Criteria | JORC Code explanation | Commentary |
|--------------------------------------|---|---|
| | | <p>loading tools. Data is stored on a SQL server and electronic backups completed three times per day</p> <p>RC Drilling - Primary data was collected into a proprietary logging package (OCRIS) with in-built validation. Details were extracted and pre-processed prior to loading. Datashed is used as the database storage and management software and incorporates numerous data validation and integrity checks, using a series of defined data loading tools. Data is stored on a SQL server by Northern Minerals Ltd subject to electronic backup.</p> <ul style="list-style-type: none"> No assay data is reported in this public report. The pXRF data is reported un-adjusted |
| <i>Location of data points</i> | <ul style="list-style-type: none"> <i>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.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i> | <ul style="list-style-type: none"> Drill collar locations were surveyed using high accuracy KGPS. Down hole surveys were electronic single shot surveys conducted at the completion of drilling where practical. Survey accuracy of both collars and down hole is considered acceptable for this preliminary stage. The grid system used is MGA94 Zone 52. All reported coordinates are referenced to this grid. Topographic control is based on drone photogrammetry corrected to known survey and LIDAR control. This is adequate for this stage of exploration. |
| <i>Data spacing and distribution</i> | <ul style="list-style-type: none"> <i>Data spacing for reporting of Exploration Results.</i> <i>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.</i> <i>Whether sample compositing has been applied.</i> | <ul style="list-style-type: none"> Dazzler Prospect – 17 RC holes drilled in the current program, with three holes being infill holes on the current Inferred Mineral Resource. Holes drilled on Inferred Mineral Resource currently on a 25m x 20m spaced grid. One of the infill holes was not completed and only reached 12m depth. The other two successful infill holes were drilled approximately 10m north of the previous drill holes and drilled at an inclination of 50 degrees. The remaining holes in the program between Dazzler and Iceman were drilled on a 100m x 40m grid at an inclination of 60 degrees towards the northeast. One fence of 2 drill holes, 40m apart, was located 50m northwest of Dazzler. |

| Criteria | JORC Code explanation | Commentary |
|---|--|---|
| | | <p>Iceman Prospect – Two fences of drilling comprising 2 drill holes 40m apart were drilled 50m northwest and 50m southeast of the previous drilling. One other drillhole was completed approximately 20m southeast of an existing drill fence. All holes were drilled at 60 degrees towards the northeast.</p> <ul style="list-style-type: none"> • Exploration Results only reported herein. • Sampling is on 1m intervals. Results have not been physically composited. |
| Orientation of data in relation to geological structure | <ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> • <i>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.</i> | <ul style="list-style-type: none"> • All mineralisation at Iceman and Dazzler is currently interpreted to be moderately dipping (30-40 degrees) to the southwest, roughly coincident with the contact between the Gardiner Sandstone and the Browns Range Metamorphics stratigraphic units, and striking northwest-southeast. Infill and exploration drilling have been conducted at -60 or -50 degrees dips drilled to an azimuth of 045 degrees, and as such drill holes intersect the mineralisation at acceptable angles. As such the orientation of drilling is not likely to introduce a sampling bias. • The orientation of drilling at Iceman and Dazzler with respect to mineralisation is not expected to introduce any sampling bias. There is insufficient drilling on the new target area between Iceman and Dazzler to confidently interpret the orientation of a potential mineralised zone. However, current knowledge, based on Iceman and Dazzler drilling, indicates that the orientation of drilling with respect to overall structural and lithological trends is not expected to introduce any sampling bias. |
| Sample security | <ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> | <ul style="list-style-type: none"> • Samples are collected on site under supervision of a responsible geologist and stored in bulka bags on site prior to transport by company truck or utility to Halls Creek commercial transport yard. The samples were stored in a secure area until loaded and delivered to Intertek Genalysis Laboratory in Perth. Laboratory dispatch sheets are completed and forwarded electronically as well as being placed within the samples transported. Dispatch sheets are compared against received samples and discrepancies |

| Criteria | JORC Code explanation | Commentary |
|--------------------------|--|---|
| | | reported and corrected. |
| <i>Audits or reviews</i> | <ul style="list-style-type: none"> <i>The results of any audits or reviews of sampling techniques and data.</i> | <ul style="list-style-type: none"> No audit/reviews have been conducted on the data reported herein. |

Section 2 Reporting of Exploration Results

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

| Criteria | JORC Code explanation | Commentary |
|--|--|--|
| <i>Mineral tenement and land tenure status</i> | <ul style="list-style-type: none"> <i>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.</i> <i>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.</i> | <ul style="list-style-type: none"> The Iceman and Dazzler prospects are located wholly within Exploration Licence E80/5041. The tenement is located in the company's Browns Range Project approximately 150 kilometres south-east of Halls Creek and adjacent to the Northern Territory border in the Tanami Desert. Northern Minerals owns 100% of all mineral rights on the tenement. The Jaru Native Title Claim is registered over the Browns Range Project area and the fully determined Tjurabalan claim is located in the south of the project area. The tenement is in good standing and no known impediments exist. |
| <i>Exploration done by other parties</i> | <ul style="list-style-type: none"> <i>Acknowledgment and appraisal of exploration by other parties.</i> | <ul style="list-style-type: none"> Prior to NTU, no previous systematic exploration for rare earth element mineralisation has been completed at Dazzler or Iceman. Regional exploration for uranium mineralisation was completed in the 1980s by PNC and in the 2000s by Areva but without success. |
| <i>Geology</i> | <ul style="list-style-type: none"> <i>Deposit type, geological setting and style of mineralisation.</i> | <ul style="list-style-type: none"> The Browns Range deposits (including Dazzler) are located on the western side of the Browns Range Dome, a Paleoproterozoic dome formed by a granitic core intruding the Paleoproterozoic Browns Range Metamorphics (meta-arkoses, feldspathic metasandstones and schists) and an Archaean orthogneiss and schist unit to the south. The dome and its aureole of metamorphics are surrounded by the Mesoproterozoic Gardiner Sandstone (Birrindudu Group). Both prospects are located on the edge of a small scarp adjacent to strong geochemical soil anomalies. The Dazzler prospect was first drilled in 2013, with seven RC drill holes completed at the base |

| Criteria | JORC Code explanation | Commentary |
|--------------------------|---|--|
| | | of the scarp slope. This drilling only intersected patchy mineralisation and appears, in the current interpretation, to have been drilled below the base of the main mineralisation. In 2018 an alternate geological hypothesis led Northern Minerals to drill the geochemical anomaly from the top of the escarpment. This intersected extremely encouraging mineralisation within the Gardiner Sandstone and adjacent to the unconformity with the underlying Browns Range Metamorphics.. Mineralisation is related to the presence of hydrothermal xenotime. Petrographic analysis of RC samples confirmed xenotime mineralisation. |
| Drill hole Information | <ul style="list-style-type: none"> 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"> easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. 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. | <ul style="list-style-type: none"> See Table 1 in the body of text above and Appendix 1. |
| Data aggregation methods | <ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated. | <ul style="list-style-type: none"> Significant intervals were tabulated downhole for reporting. Each metre downhole was analysed using pXRF. All individual metres (one result per metre) were averaged over the entire tabulated range All intervals were initially based on 1m sample runs, with no lengths shorter than 1m. The geologist then qualitatively grouped contiguous mineralised runs together and the average analysis of the entire run is reported here. No metal equivalents values are used for reporting of exploration results. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| <i>Relationship between mineralisation widths and intercept lengths</i> | <ul style="list-style-type: none"> • 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. • If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). | <ul style="list-style-type: none"> • All mineralisation at Iceman and Dazzler is currently interpreted to be moderately dipping (30-40 degrees) to the southwest, roughly coincident with the contact between the Gardiner Sandstone and the Browns Range Metamorphics stratigraphic units, and striking northwest-southeast. Infill and exploration drilling have been conducted at -60 or -50 degrees dips drilled to an azimuth of 045 degrees, and as such drill holes intersect the mineralisation at a high angle (close to 90 degrees – see Figure 2 in body of text above). There is insufficient drilling on the new target area between Iceman and Dazzler to confidently interpret the orientation of a potential mineralised zone. However, current knowledge, based on Iceman and Dazzler drilling, indicates that the orientation of drilling with respect to overall structural and lithological trends is at a high angle to the mineralised zone and similar to that seen at Dazzler. |
| <i>Diagrams</i> | <ul style="list-style-type: none"> • 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. | <ul style="list-style-type: none"> • Refer to Figures 1 and 2 in the body of the text above. |
| <i>Balanced reporting</i> | <ul style="list-style-type: none"> • 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. | <ul style="list-style-type: none"> • Previous exploration results are the subject of previous reports. The preliminary results of all current drillholes have been reported, including those with "No Significant Results". Holes with "No Significant results" are acknowledged in Table 1 and in the body of the text above. |
| <i>Other substantive exploration data</i> | <ul style="list-style-type: none"> • 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. | <ul style="list-style-type: none"> • Dazzler and Iceman have previously had RC drilling with seven drill holes completed at Dazzler in 2013, 13 holes in 2018 and nine holes in 2018 at Iceman. Details of these drilling programs were reported in the ASX announcements "Further Discoveries Reinforce Exploration Potential at Browns Range" dated 15 October 2014, "Preliminary drilling results at Dazzler and Iceman highlight extensive new exploration target" dated 2 August 2018, "Assay results confirm Dazzler and Iceman discoveries" dated 11 September 2018. An Exploration Target has been estimated for both Iceman and Dazzler which was reported in the ASX |

| Criteria | JORC Code explanation | Commentary |
|---------------------|---|---|
| | | announcement “Northern Minerals reaps benefits from exploration at Dazzler and Iceman” dated 3 December 2018. Most recently a maiden Inferred Mineral Resource Estimate was completed for Dazzler and reported in the ASX announcement dated 6 March 2019 and entitled “Dazzler shines with high-grade Maiden Minera Resource”. |
| <i>Further work</i> | <ul style="list-style-type: none"> <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> | <ul style="list-style-type: none"> These preliminary pXRF analysis will be confirmed by laboratory assay as soon as practical. Further planning is contingent on successful confirmatory assays and further targeting analysis. Refer to Figure 1 in the body of text above. |

Section 3 Estimation and Reporting of Mineral Resources

Not applicable

Section 4 Estimation and Reporting of Ore Reserves

Not applicable