# Drilling identifies new nickel prospect at Lignum Dam

- **Broad zone of anomalous nickel – copper – PGE's intersected by aircore drilling within weathered ultramafic rocks with the following significant intercepts:**
    - **36m @ 0.30% nickel, 294ppm copper, and 61ppb PGE's from surface,**
    - **40m @ 0.28% nickel, 348ppm copper, and 65ppb PGE's from 4 metres, and**
    - **16m @ 0.33% copper, 449ppm copper, and 68ppb PGE's from 8 metres.**
- **Presence of elevated copper and PGE's along with nickel potentially indicative of nickel sulphide mineralisation at depth within fresh rock**
- **Ground EM geophysical survey to commence within the next two weeks**
- **In addition to the new nickel prospect, several other holes ended in zones of gold anomalism that require follow-up**

---

Mithril Resources Ltd (**ASX: MTH**) is pleased to advise that a recently completed 2,524 metre *first-pass* aircore drill program has identified a new nickel sulphide prospect (called "**Mexi**") at the 100% owned Lignum Dam Project (located 50 kilometres north-northeast of Kalgoorlie Western Australia - *Figure 1*).

At Mexi, 3 of 4 holes (KNAC030 to 033) drilled to test a surface nickel - copper geochemical anomaly have intersected a broad zone of anomalous nickel - copper - platinum + palladium (PGE's) within weathered ultramafic rocks adjacent to a steeply - dipping mafic contact (*see Figures 2 - 4*), with the following significant intercepts returned;

- 36m @ 0.30% nickel, 294ppm copper, and 62ppb PGE's from surface in KNAC033,
- 40m @ 0.28% nickel, 348ppm copper, and 65ppb PGE's from 4 metres in KNAC032, and
- 16m @ 0.33% copper, 449ppm copper, and 68ppb PGE's from 8 metres in KNAC031.

Within the intercepts, maximum values (for any individual 4 metre composite sample) are 0.57% nickel, 603ppm copper, and 119ppb PGE's (*Table 2*).

The presence of elevated copper and PGE's along with nickel at Mexi is highly significant as they are potentially indicative of nickel sulphide mineralisation at depth within fresh rock.

Mexi remains open both along strike and down-dip, and lies within a broader structural corridor that is interpreted from aeromagnetic and gravity data to extend from known high-grade nickel sulphide mineralisation at the Silver Swan nickel deposit located 9km to the south.

Mithril will follow-up the Mexi results with a ground EM geophysical (Moving Loop TEM) survey which is scheduled to commence within the next two weeks.

**Other Targets**

In addition to Mexi, there are also a number of other holes that ended in zones of gold anomalism and require further sampling and inspection to understand their potential significance, i.e.; 2m @ 0.167g/t gold from 40 metres in KNAC008, 4m @ 0.189g/t gold from 32 metres in KNAC017, and 3m @ 0.113g/t gold from 12 metres in KNAC038.

Mithril looks forward to informing the market of the results of the follow-up work at Lignum Dam which are expected towards the end of the March 2016 Quarter.

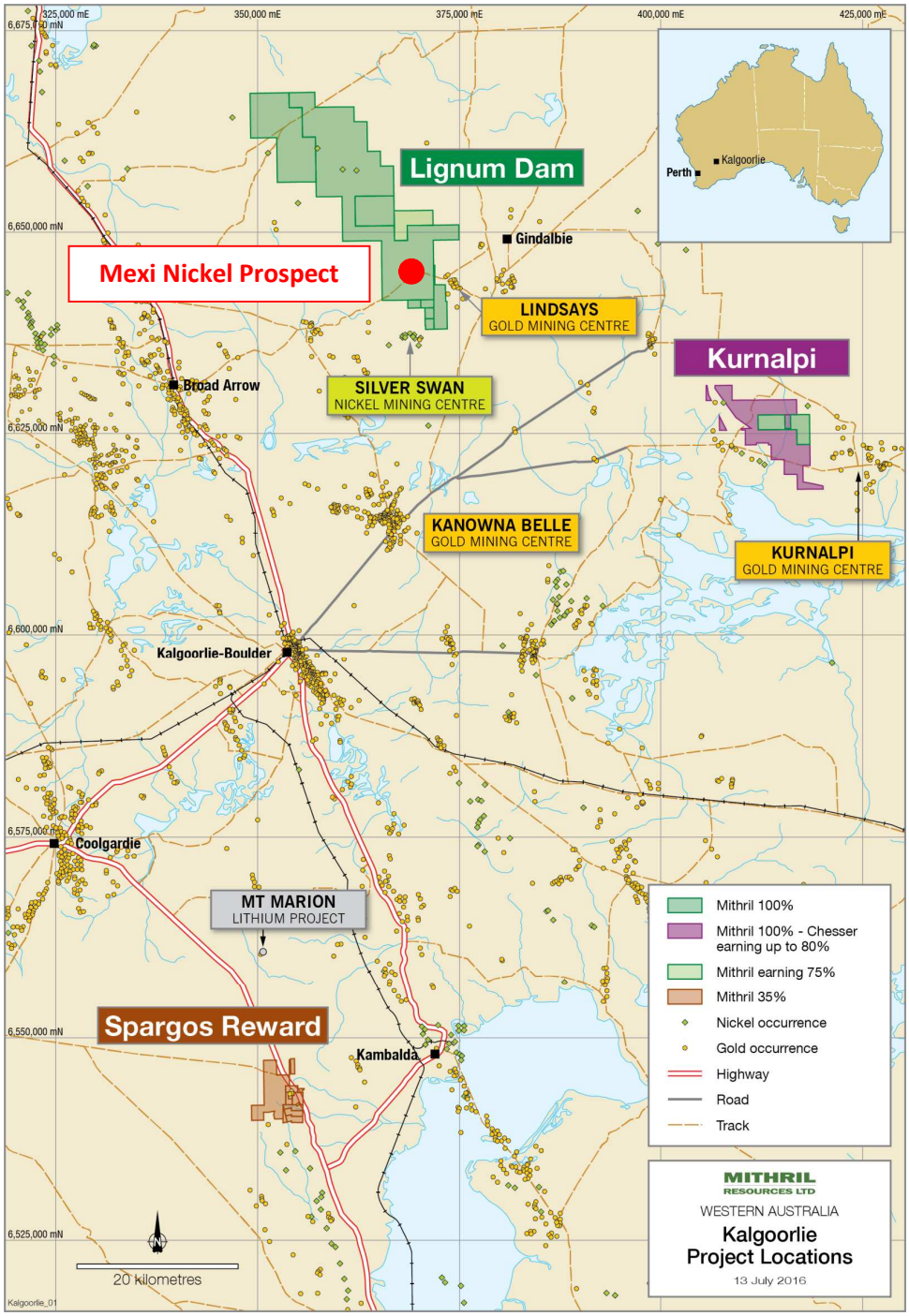


**Figure 1: Lignum Dam Project location plan**

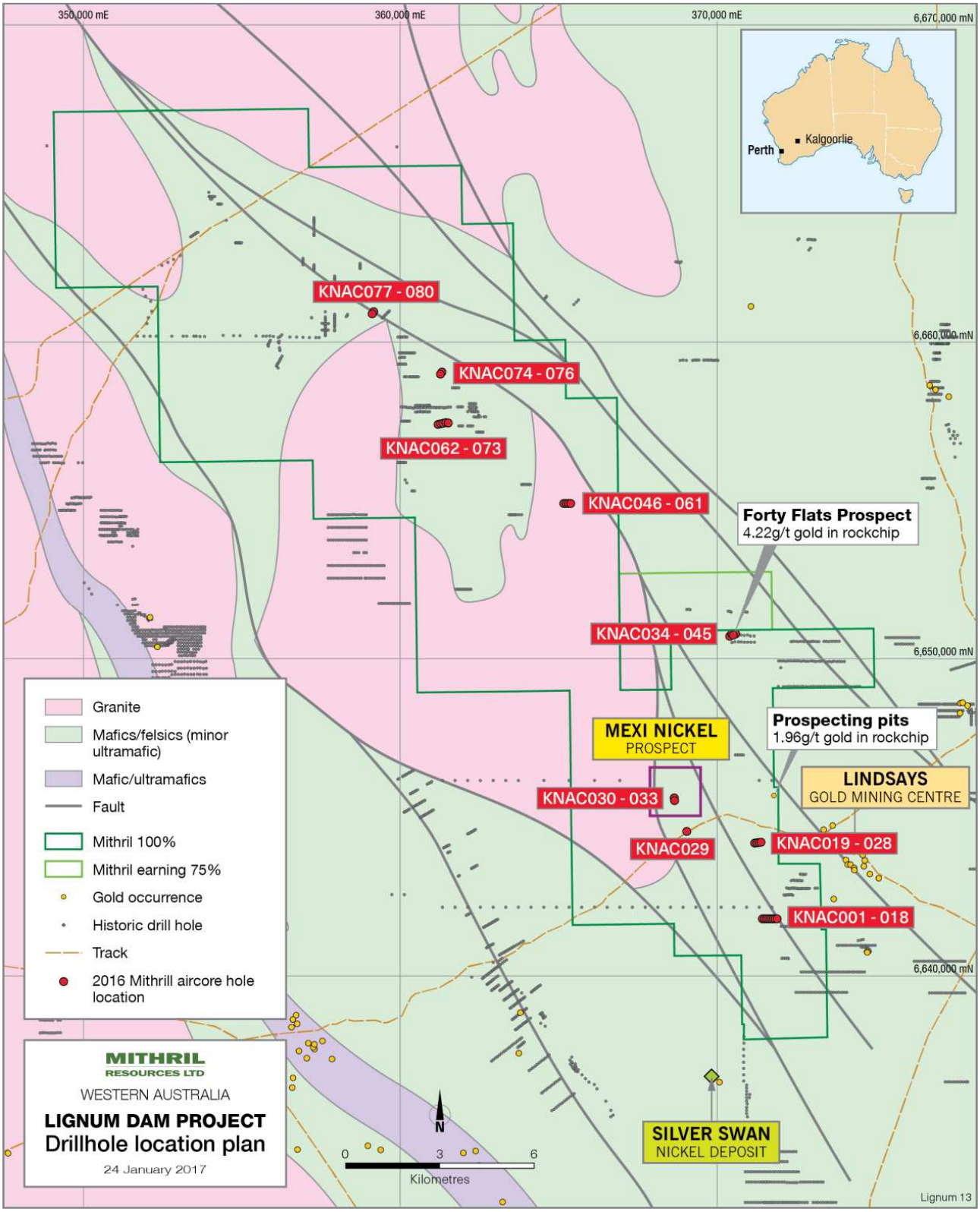


**Figure 2: Lignum Dam Project showing location of the Mexi Nickel Prospect and recent aircore drilling**

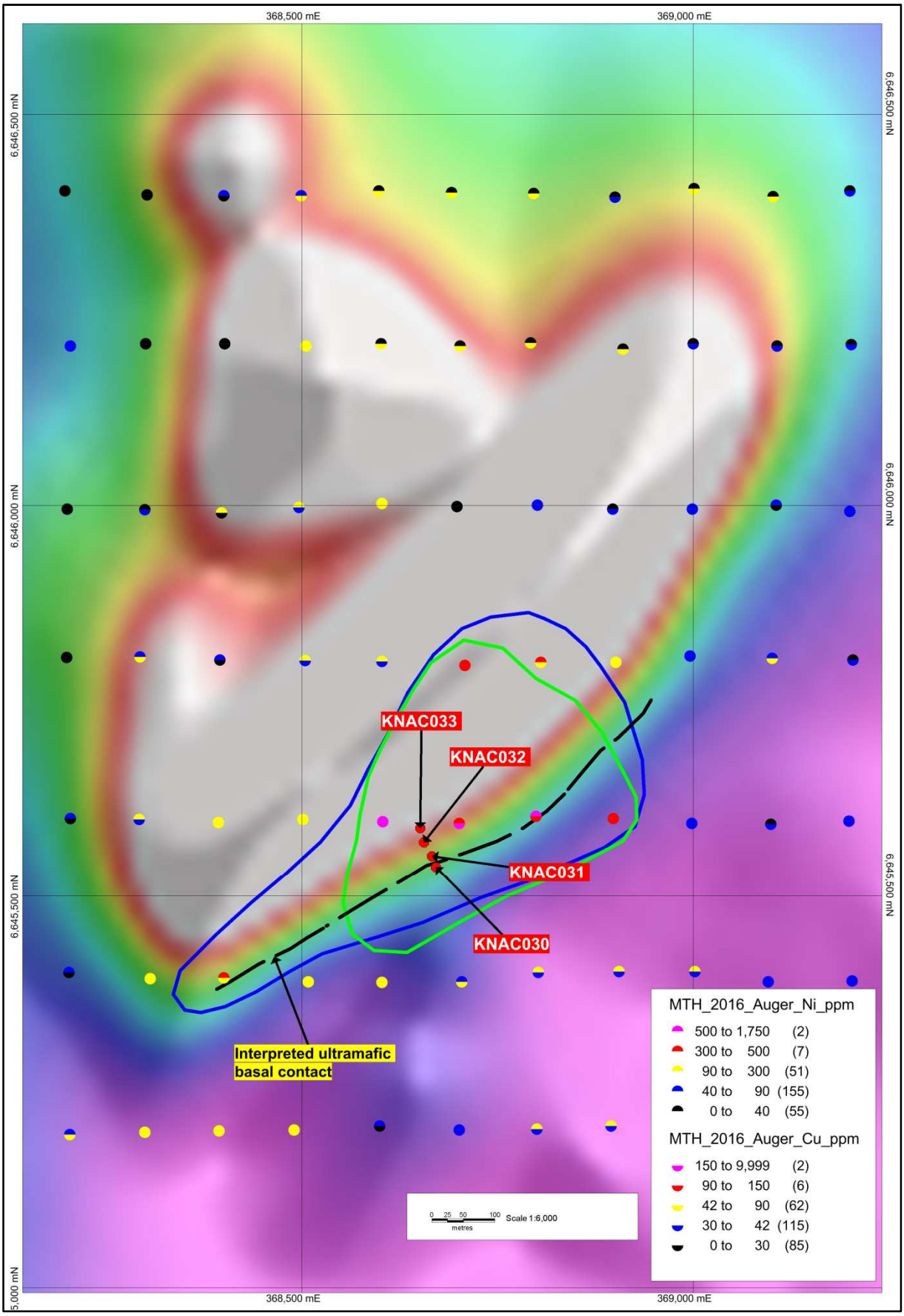


**Figure 3: Mexi Nickel Prospect – magnetics showing drillhole and auger sample locations. 500m grid squares. Nickel (+300ppm) surface anomaly - blue polygon. Copper (+90ppm) surface anomaly– green polygon.**

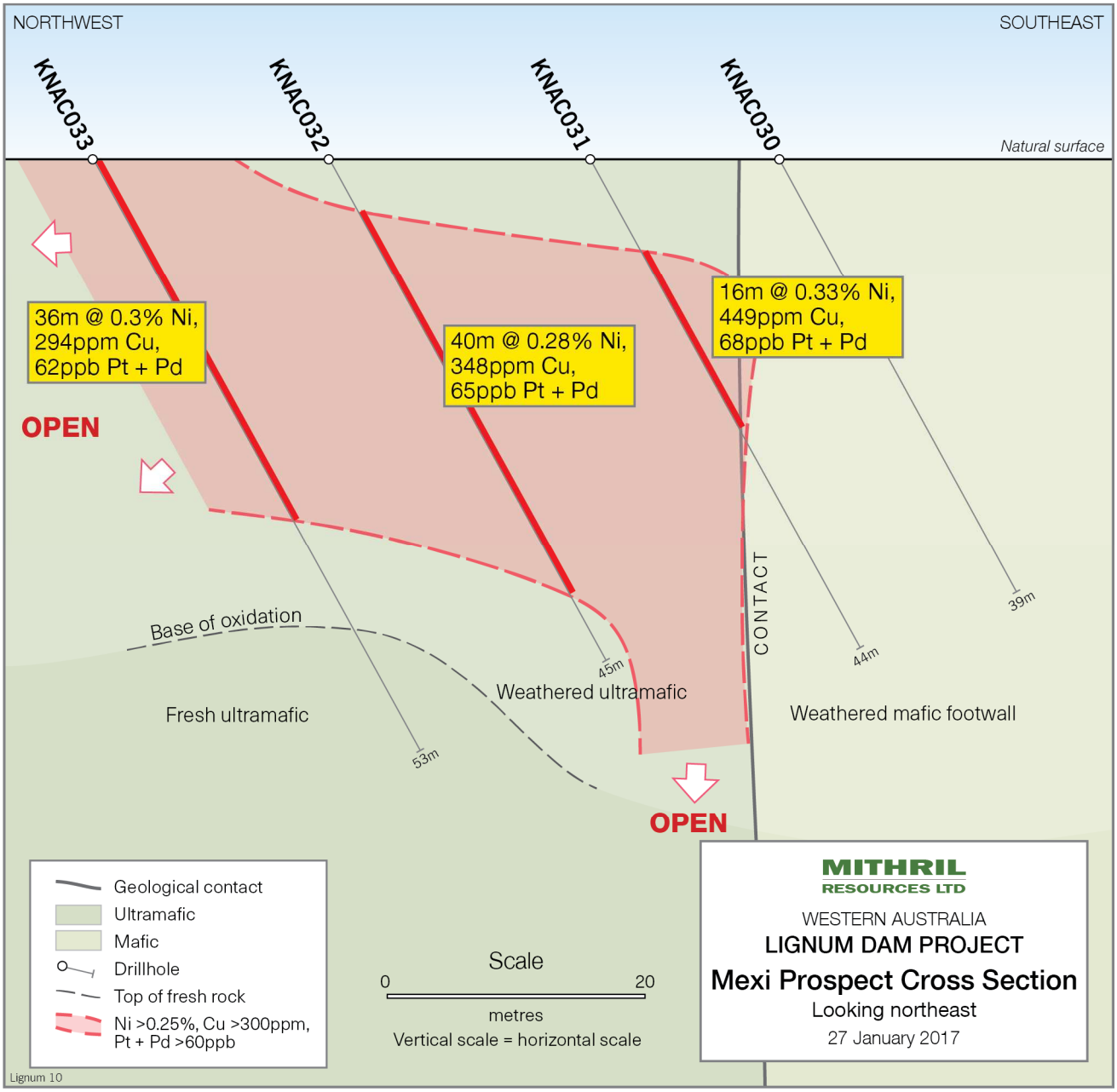


**Figure 4: Mexi Nickel Prospect – aircore drill cross section. Refer to Figure 3 for drillhole locations.**

**Table 1: Lignum Dam Project – significant intercepts and drillhole specifications.**

| HoleID | Easting | Northing | Dip° | Azimuth° | Depth | From | Width | Au_ppb | Ni_% | Cu_ppm | Pt + Pd_ppb |
|---|---|---|---|---|---|---|---|---|---|---|---|
| KNAC008 | 371,704 | 6,641,800 | -60 | 270 | 42 | 40 | 2 | 0.167 | - | - | - |
| KNAC017 | 371,424 | 6,641,795 | -60 | 270 | 36 | 32 | 4 | 0.189 | - | - | - |
| KNAC030 | 368,671 | 6,645,537 | -60 | 140 | 39 | *No Significant Intercept* | | | | | |
| KNAC031 | 368,666 | 6,645,551 | -60 | 140 | 44 | 8 | 16 | - | 0.33 | 449 | 68 |
| KNAC032 | 368,656 | 6,645,569 | -60 | 140 | 45 | 4 | 40 | - | 0.28 | 348 | 65 |
| KNAC033 | 368,651 | 6,645,587 | -60 | 140 | 53 | 0 | 36 | - | 0.30 | 294 | 62 |
| KNAC038 | 370509 | 6650724 | -60 | 90 | 15 | 12 | 3 | 0.113 | - | - | - |

**Table 2: Mexi Nickel Prospect Significant Intercepts - raw assay data for individual samples.**
**Significant intercept interval highlighted in red**

| HoleID | From | To | Sample ID | Ni_% | Cu_ppm | Pt_ppb | Pd_ppb | Pt+Pd (PGE's)_ppb |
|---|---|---|---|---|---|---|---|---|
| KNAC031 | 0 | 4 | LDAC0296 | 0.09 | 165 | 16 | 10 | 26 |
| KNAC031 | 4 | 8 | LDAC0297 | 0.08 | 203 | 32 | 19 | 51 |
| KNAC031 | 8 | 12 | LDAC0298 | 0.16 | 543 | 37 | 36 | 73 |
| KNAC031 | 12 | 16 | LDAC0299 | 0.51 | 513 | 40 | 39 | 79 |
| KNAC031 | 16 | 20 | LDAC0300 | 0.39 | 375 | 25 | 39 | 64 |
| KNAC031 | 20 | 24 | LDAC0301 | 0.24 | 365 | 20 | 35 | 55 |
| KNAC031 | 24 | 28 | LDAC0302 | 0.25 | 109 | 8 | 19 | 27 |
| KNAC031 | 28 | 32 | LDAC0303 | 0.17 | 10 | 5 | 8 | 13 |
| KNAC031 | 32 | 36 | LDAC0304 | 0.13 | 18 | <5 | 7 | 7 |
| | | | | | | | | |
| KNAC032 | 0 | 4 | LDAC0307 | 0.12 | 268 | 41 | 29 | 70 |
| KNAC032 | 4 | 8 | LDAC0308 | 0.21 | 603 | 67 | 52 | 119 |
| KNAC032 | 8 | 12 | LDAC0309 | 0.54 | 510 | 50 | 35 | 85 |
| KNAC032 | 12 | 16 | LDAC0310 | 0.57 | 293 | 28 | 27 | 55 |
| KNAC032 | 16 | 20 | LDAC0311 | 0.37 | 271 | 25 | 26 | 51 |
| KNAC032 | 20 | 24 | LDAC0312 | 0.30 | 233 | 26 | 35 | 61 |
| KNAC032 | 24 | 28 | LDAC0313 | 0.24 | 272 | 23 | 38 | 61 |
| KNAC032 | 28 | 32 | LDAC0314 | 0.18 | 403 | 33 | 44 | 77 |
| KNAC032 | 32 | 36 | LDAC0315 | 0.16 | 327 | 17 | 26 | 43 |
| KNAC032 | 36 | 40 | LDAC0316 | 0.15 | 328 | 28 | 33 | 61 |
| KNAC032 | 40 | 44 | LDAC0317 | 0.12 | 243 | 14 | 26 | 40 |
| KNAC032 | 42 | 43 | LDAC0337 | 0.11 | 166 | 12 | 20 | 32 |
| KNAC032 | 44 | 45 | LDAC0318 | 0.08 | 55 | <5 | 19 | 19 |
| | | | | | | | | |
| KNAC033 | 0 | 4 | LDAC0319 | 0.42 | 397 | 53 | 56 | 109 |
| KNAC033 | 4 | 8 | LDAC0320 | 0.51 | 155 | 19 | 33 | 52 |
| KNAC033 | 8 | 12 | LDAC0321 | 0.25 | 211 | 17 | 26 | 43 |
| KNAC033 | 12 | 16 | LDAC0322 | 0.22 | 252 | 25 | 35 | 60 |
| KNAC033 | 16 | 20 | LDAC0323 | 0.22 | 321 | 20 | 31 | 51 |
| KNAC033 | 20 | 24 | LDAC0324 | 0.24 | 299 | 29 | 32 | 61 |
| KNAC033 | 24 | 28 | LDAC0325 | 0.38 | 388 | 29 | 32 | 61 |
| KNAC033 | 28 | 32 | LDAC0326 | 0.28 | 403 | 31 | 31 | 62 |
| KNAC033 | 32 | 36 | LDAC0327 | 0.23 | 222 | 20 | 35 | 55 |
| KNAC033 | 36 | 40 | LDAC0328 | 0.13 | 161 | 17 | 29 | 46 |
| KNAC033 | 40 | 42 | LDAC0329 | 0.13 | 205 | 10 | 21 | 31 |
| KNAC033 | 42 | 44 | LDAC0330 | 0.12 | 257 | 14 | 23 | 37 |
| KNAC033 | 44 | 46 | LDAC0331 | 0.12 | 223 | 14 | 23 | 37 |
| KNAC033 | 46 | 48 | LDAC0332 | 0.11 | 186 | 13 | 23 | 36 |
| KNAC033 | 48 | 50 | LDAC0333 | 0.12 | 219 | 13 | 22 | 35 |
| KNAC033 | 50 | 51 | LDAC0334 | 0.11 | 201 | 13 | 20 | 33 |
| KNAC033 | 51 | 52 | LDAC0335 | 0.12 | 218 | 14 | 21 | 35 |
| KNAC033 | 52 | 53 | LDAC0336 | 0.12 | 269 | 38 | 51 | 89 |

**JORC Code, 2012 Edition - TABLE 1 (Section 1: Sampling Techniques and Data)**

| 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.* | Aircore drilling was completed at the 100% - owned Lignum Dam Project. Samples were typically collected as composites (up to 4 metres) from the drill spoils laid out on the ground. Sample sizes were approximately 2-3kg in weight. |
| | *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* | Each drill hole location (easting and northing) was collected by a handheld GPS. Drillhole specifications and details of lithologies and sampling were completed for every metre, or as necessary, for each drill hole. All logging and sampling protocols remained constant throughout the program. |
| | *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.* | 2 – 3kg composite aircore samples (up to 4 metres) were collected for geochemical analysis by ALS Laboratories in Perth, WA.<br>In the laboratory, samples were crushed (~10mm) and pulverised to produce a representative 25g sub-sample for analysis using fire assay with ICP-MS finish for Au, Pt, and Pd (PGM-ICP23 – Lab Code) and four acid digest with ICP-AES finish for Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, La, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sn, Sr, Te, Ti, Tl, V, W, and Zn (ME-ICP61 – Lab Code). |
| *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.).* | An aircore drilling rig utilising a (750 cfm / 350 psi) compressor and operated by Raglan Drilling Pty Ltd was used to carry out the work.<br>The drilling method produces chip samples (i.e. non-core). |
| *Drill sample recovery* | *Method of recording and assessing core and chip sample recoveries and results assessed.* | No recordings of recoveries were undertaken. |
| | *Measures taken to maximise sample recovery and ensure representative nature of the samples.* | No measures taken to maximise sample recovery. |
| | *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.* | No relationship has been identified. |
| *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.* | While drill chip samples have been geologically logged, they have not been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. |
| | *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography* | Logging of drill samples is of a qualitative nature.<br>RC chip samples are always logged for lithology, colour, texture, weathering, minerals, alteration, and sulphide percentage and type, with comments included as necessary. |

| Criteria | *JORC Code explanation* | Commentary |
|---|---|---|
| | *The total length and percentage of the relevant intersections logged.* | Every hole was geologically for its entire length. |
| *Sub-sampling techniques and sample preparation* | *If core, whether cut or sawn and whether quarter, half or all core taken.* | Not Applicable as the drilling method produces chip samples (i.e. non-core). |
| | *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* | Samples were collected as a composite sample (up to 4 metres) from the drill spoils (scoop used) laid out on the ground. All samples were dry, with only a few wet samples. Wet samples were not listed as wet. |
| | *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* | The sample preparation of the drill samples follows industry best practice, involving oven drying (110°C) where necessary, crushing and pulverising (~90% less than 75µm). |
| | *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* | Along with samples taken at the rig, blanks (comprising coarse washed sand) were inserted (around every 20 samples) and were included in the laboratory analysis process. The laboratory completed repeat analysis on samples returning >10,000 ppm Cu, Ni, and Zn. |
| | *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.* | Sampling was supervised by the field geologist following geological logging to ensure that sampling was representative of the in situ material collected.<br>Selected repeat sampling will be undertaken at a later date. |
| | *Whether sample sizes are appropriate to the grain size of the material being sampled* | Sample sizes are considered appropriate for the exploration method and produce results to indicate degree and extent of mineralisation. |
| *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.* | Fire Assay and a four acid digest are considered near total digest and are appropriate for the type of exploration undertaken. |
| | *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.* | Not Applicable as no geophysical tools were used. |
| | *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.* | The laboratory completed repeat analysis on samples returning >10,000 ppm Cu, Ni, and Zn. From results achieved it is determined an acceptable level of accuracy and precision has been established. |
| *Verification of sampling and assaying* | *The verification of significant intersections by either independent or alternative company personnel.* | The significant intersections were verified by the Managing Director. |
| | *The use of twinned holes.* | No twin holes were drilled. |
| | *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* | Collar locations were predetermined in the office and modified in the field as necessary (dependent on access etc.). All data collection (lithology logging, sampling, etc.) was completed at each drill hole location as hole was being drilled. Data initially written on paper log sheets.<br>A complete data set (excel spreadsheet) was created by Mithril on completion of the program, based on all information collected. |

| Criteria | *JORC Code explanation* | Commentary |
|---|---|---|
| | *Discuss any adjustment to assay data* | None undertaken. |
| *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.* | Each drill hole location (easting and northing) was collected by a handheld GPS. |
| | *Specification of the grid system used.* | Data points have been quoted in this Report using the MGA Zone 51 (GDA94) coordinate system. |
| | *Quality and adequacy of topographic control.* | Level of topographic control offered by the handheld GPS was considered sufficient for the work undertaken. |
| *Data spacing and distribution* | *Data spacing for reporting of Exploration Results.* | Holes were typically drilled on 20 – 30 metre centres (to achieve nominal 100% - coverage) along cleared traverses as a first pass test of previously generated surface geochemical anomalies. |
| | *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.* | The data spacing and distribution is not sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s). |
| | *Whether sample compositing has been applied.* | Sample compositing was employed throughout the drillholes – typically up to 4 metre intervals depending on the geology and depth of hole. |
| *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.* | Aircore samples are unable to be orientated and do not provide structural information. |
| | *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 orientation based sampling bias has been identified. |
| *Sample security* | *The measures taken to ensure sample security.* | All drill samples were collected by company personnel and stored in a secure location until completion of the program. Samples were taken to the ALS Laboratory in Perth. |
| *Audits or reviews* | *The results of any audits or reviews of sampling techniques and data.* | All results were reviewed by Company personnel including the Geology Manager and Managing Director. No negative issues were identified from these reviews. |

**JORC Code, 2012 Edition - TABLE 1 (Section 2: Reporting of Exploration Results)**

| 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.* | The work described in this Report was undertaken on EL27/538 which is owned by Minex (Aust) Pty Ltd – a wholly owned subsidiary of Mithril Resources Ltd. |
| | *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.* | There are no known existing impediments to the tenements. |
| *Exploration done by other parties* | *Acknowledgment and appraisal of exploration by other parties.* | Previous exploration has been carried out through the tenement area by a number of companies including KalNorth Gold Mines, Rox Resources, Pioneer Exploration, Hemisphere, Western Mining, North Limited and Normandy Exploration.<br>Previous explorers have focussed on gold and nickel exploration.<br>At the Mexi Nickel Prospect, field evidence suggests that one historic (shallow vertical) hole was drilled into the ultramafic unit away from the prospective basal contact, and a broad spaced ground EM survey undertaken throughout the wider area in the early 1990's is deemed to have been ineffective due to its orientation leading to coupling issues. |
| *Geology* | *Deposit type, geological setting and style of mineralisation.* | Lignum Dam is prospective for nickel sulphide mineralisation within ultramafic sequences, and for lode gold mineralisation within mafic / ultramafic and felsic sequences. |
| *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:*<br>*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.* | A summary of all material information referred to in this Announcement is presented in Figures 2 to 4, and Tables 1 and 2 of this Report. |
| | *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 information has been excluded. |
| *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.* | In reporting the drill results for Mexi, a 0.2% nickel lower cut-off has been used. |
| | *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such* | No aggregation has been applied. |

| Criteria | *JORC Code explanation* | Commentary |
|---|---|---|
| | *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.* | No metal equivalents have been used. |
| *Relationship between mineralisation widths and intercept lengths* | *These relationships are particularly important in the reporting of Exploration Results.* | The relationship between mineralisation widths and intercept lengths is unknown. |
| | *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* | Not known. |
| | *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').* | Only down hole widths have been reported. True widths are unknown. |
| *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.* | See Figures 1 - 4 of this Report. |
| *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.* | All new exploration results have been reported. |
| *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.* | All relevant data has been included within this Report. |
| *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).* | Planned further work comprises a ground EM geophysical survey at Mexi, and field inspection of the anomalous gold intercepts also referred to in this Report. |
| | *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.* | Figures 2 - 4 display areas of interest within the area. |

**ENDS**


**For Further Information Contact:**

**Mithril Resources Ltd**
**David Hutton, Managing Director**
admin@mithrilresources.com.au

22B Beulah Road
Norwood, South Australia 5067
ABN: 30 099 883 922
T: (61 8) 8132 8800
F: (61 8) 8132 8899
www.mithrilresources.com.au


**Competent Persons Statement:**

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr David Hutton, who is a Competent Person, and a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Hutton is Managing Director and a full-time employee of Mithril Resources Ltd.

Mr Hutton has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

Mr Hutton consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

**About Mithril Resources Ltd:**

Mithril Resources is an Australian resources company whose objective is the creation of shareholder wealth through the discovery and development of mineral deposits.

The Company is actively exploring throughout two highly prospective areas of the Western Australian Goldfields, namely the Kalgoorlie District for gold, lithium and nickel deposits and the Meekatharra District for copper-nickel deposits.

The Company is also exploring South Australia's far western Coompana Province for magmatic nickel – copper deposits with OZ Minerals Limited.