

# Zenith Minerals Commences New RC Drilling Campaign at Red Mountain Gold Project, Queensland

## Highlights

- Program Scope:** Zenith has initiated a Reverse Circulation (RC) drilling program at Red Mountain, contracting Strike Drilling, a trusted and competent partner previously engaged by Zenith. This program targets high-priority zones identified through updated 3D geological modelling and reinterpreted geophysical data.
- Drilling Details:** The campaign will encompass ~2,400 metres of RC drilling across 10-12 holes, with an average depth of 173 metres and a maximum depth of 240 metres, with three RC holes already completed.
- Strategic Objective:** The program builds on significant results from the previous campaign, including an impressive intercept of 118m @ 0.54 g/t Au from 225m. This phase aims to drill-test shallow Induced Polarisation (IP) anomalies, refine our understanding of the mineralisation and expand on prior findings.

The Red Mountain Gold Project (“the Project”) is located within **Queensland’s Auburn Arc**, a region known for its **rich mineral endowment**. The Project presents significant gold and silver mineralisation hosted within a large breccia pipe system. **Discovered by Zenith in 2017**, the Project has yielded compelling results through successive exploration phases, confirming its potential as a core asset within Zenith’s gold portfolio. With **100% ownership**, the Project benefits from **existing infrastructure** and proximity to other **notable gold projects** in the region (Figure 1), providing logistical advantages and cost efficiencies for future operations.

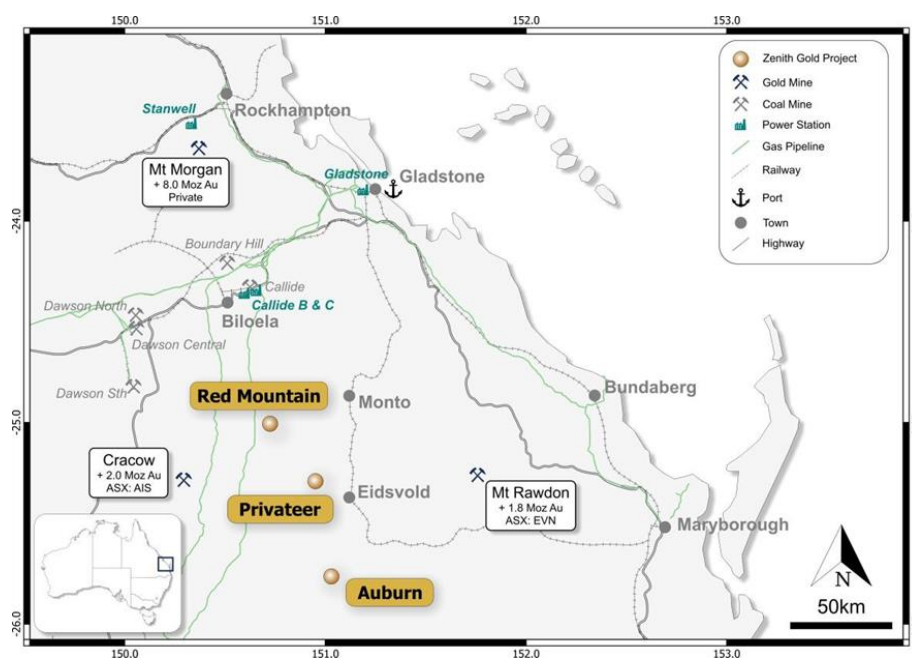


Figure 1: Strategic Red Mountain Location Map

**Andrew Smith, Managing Director of Zenith Minerals, commented:** *"The launch of this next drilling campaign at Red Mountain marks a pivotal step in advancing this high-potential asset. The updated geological insights and newly defined high-priority targets make this a particularly exciting phase. Our objective is to drill test several shallow geophysical anomalies with RC as a prelude to deeper diamond drilling in 2025, allowing us to maximise value through well-defined, aggressive exploration."*



Figure 2: The Strike RC rig set up on the first hole at Red Mountain (ZRMRC053)

A recent update to the 3D geological model, combined with reinterpreted geophysical data, has identified high-priority targets, especially in underexplored zones. This refined interpretation enhances Zenith's focus on areas with the greatest resource potential, allowing for more targeted exploration that aligns with the Company's strategic objectives.

The geological setting at Red Mountain shares notable similarities with other major Australian gold deposits such as Mt Wright, Mt Leyshon, and Mt Rawdon. These systems, characterised by breccia complexes and intrusion-related mineralisation, have produced substantial gold resources, highlighting Red Mountain's potential to host large-scale mineralisation within a similar framework.

Metallurgical test work has shown that much of the gold at Red Mountain is free-milling and non-refractory, with average recoveries of 83.3% via conventional cyanide leaching. Notably, samples with lower arsenic content achieved recoveries as high as 95.8%, supported by strong gravity gold recovery rates.<sup>1</sup> These positive results indicate a straightforward processing path, which could contribute to the project's economic viability and align with Zenith's goal of cost-effective gold production.

### Previous Exploration

Since the discovery of the **Red Mountain Gold Project** in 2017, **Zenith Minerals** has completed a total of **51 drill holes**, comprising **38 Reverse Circulation (RC) holes** and **13 Diamond drill holes**, for a cumulative total of **9,163.7 meters** of drilling (See Figure 2 & 3 and Appendix 1). These efforts have provided critical data, helping to refine the geological model and identify further exploration targets.

---

<sup>1</sup> ZNC ASX release: 7th December 2021; "High Gold Recoveries in Metallurgical Test work – Red Mountain".



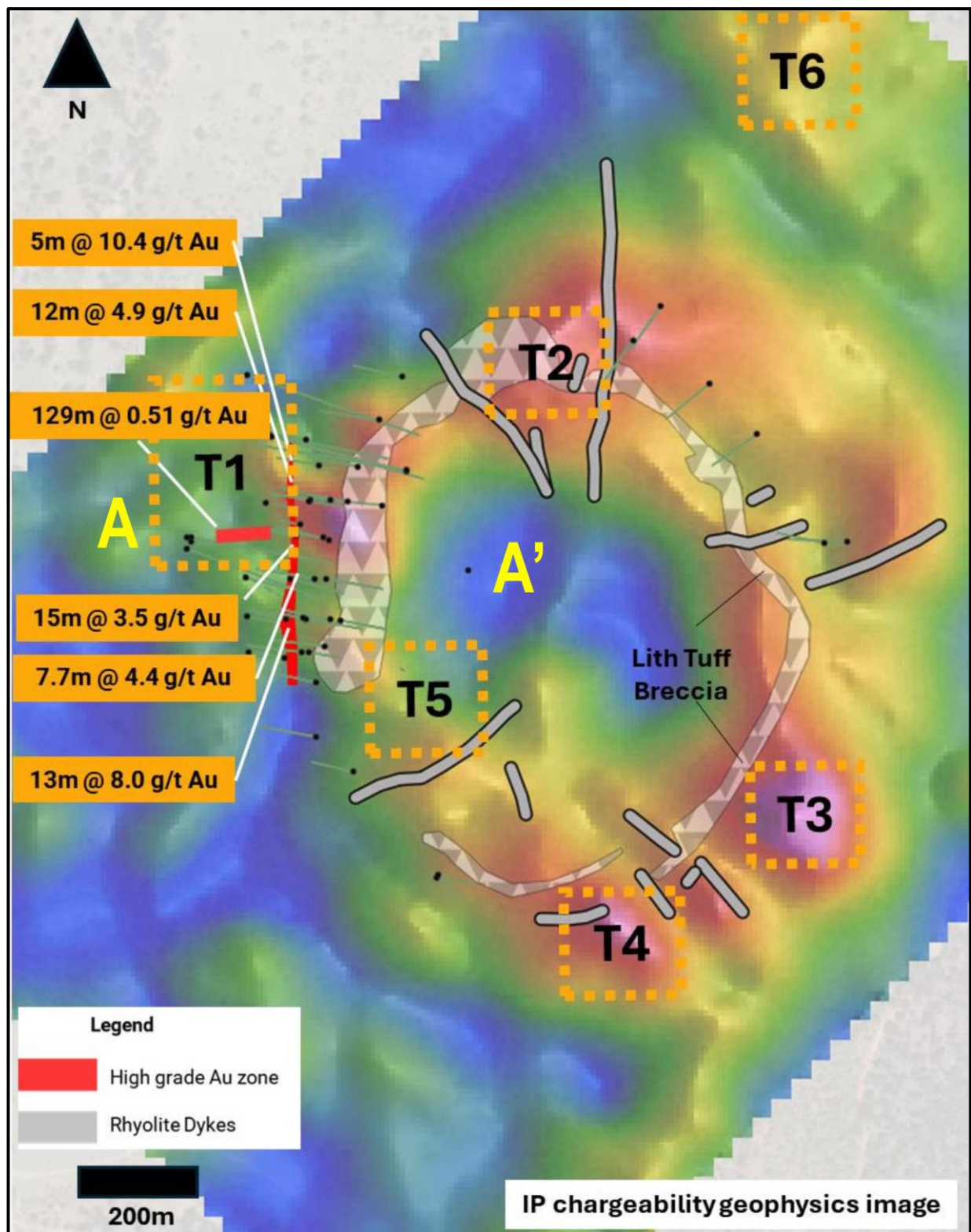


Figure 3. Red Mountain Map showing Significant Gold Intersections and Main Targets

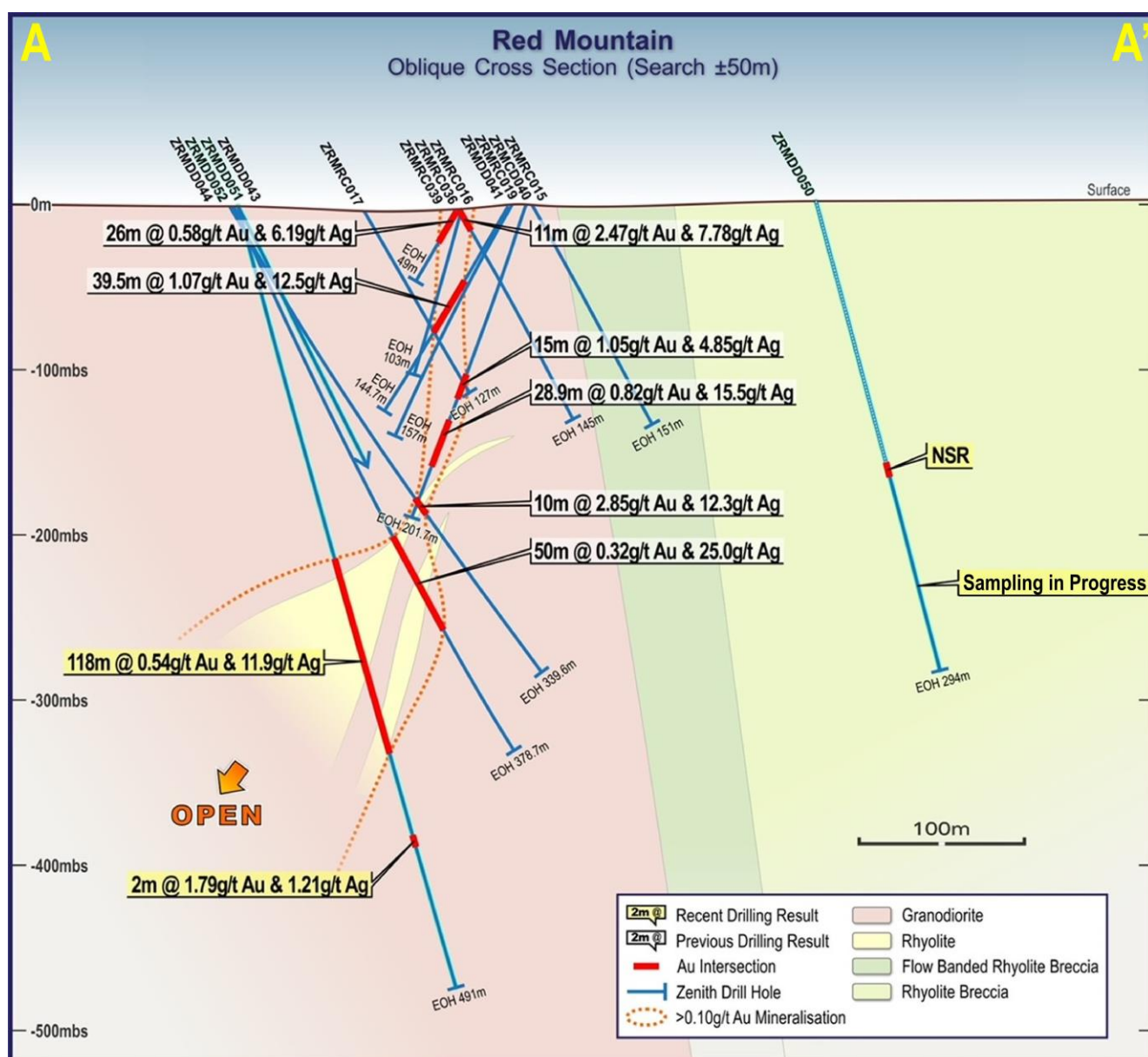


Figure 4. Red Mountain Cross Section; See Figure 3 for Section Trace

For more details on the drilling programs, please refer to **Appendix 1**, which includes a table of completed drill holes.

These drilling campaigns have returned several high-grade gold intercepts, including:

- 13m @ 8.0 g/t Au from surface
- 15m @ 3.5 g/t Au from 57m
- 12m @ 4.9 g/t Au from 102m
- 5m @ 10.4 g/t Au from 67m<sup>2</sup>

More recently, deeper drilling has confirmed the continuity of mineralisation, including:

- 118m @ 0.54 g/t Au + 11.9 g/t Ag from 225m, including 12m @ 1.36 g/t Au, and 9m @ 1.24 g/t Au<sup>2</sup>

<sup>2</sup> See Zenith's ASX Releases dated: 03-Aug-20, 13-Oct-20, 09-Nov-20, 21-Jan-21 and 19-May-21 and 29 Aug 2023 for details on the previous drilling.

These results demonstrate both the near-surface and deeper potential for gold and silver mineralisation at Red Mountain, making it a prime candidate for deeper exploration.

Multi-element geochemistry analysis was completed at the same time as Au assay, utilizing the four acid ICP-MS method (ALS: ME-MS61). The Zenith team has conducted a thorough review of this geochemical data set (>3,000 samples to date) using the ioGAS software package, with significant abundances of key Intrusion-Related Gold System (IRGS) related pathfinders identified (see **Appendix 2**).

### Geological Overview

The Red Mountain Gold Project is situated within Queensland's fertile Auburn Arc, a region renowned for its complex geological setting and significant mineral endowment. The Project's primary host is a breccia pipe system, intruded by a mineralised flow-banded rhyolite unit and hosted within the Rawbelle Granodiorite (locally known as the Colodan Granodiorite). Gold and silver mineralisation at Red Mountain is predominantly located along the western flank of the breccia pipe, where hydrothermal fluids infiltrated structurally prepared zones, depositing gold, silver, and minor base metals such as copper, lead, and zinc. The combination of brecciated host rocks and intense alteration has created an environment conducive to large-scale mineralisation, with the potential for both high-grade veins and bulk tonnage targets.

The Red Mountain system exhibits geological features similar to several well-known Australian gold deposits, such as Mt Wright, Mt Leyshon, and Mt Rawdon, which are characterised by intrusion-related breccia complexes. These analogues are highly productive gold systems that have yielded millions of ounces of gold, underscoring Red Mountain's potential as a large-scale gold system. Like these deposits, Red Mountain's breccia pipe is believed to extend to significant depths, offering ample exploration potential both laterally and at depth. The recent update to the 3D geological model, combined with reinterpreted geophysical data, has further refined Zenith's understanding of the mineralisation patterns, allowing the identification of high-priority drill targets in previously underexplored zones and enhancing the potential for new discoveries within the system.

### Next Steps:

The drilling is in progress with lithological logging indicating a broad agreement between the geology predicted from the model and observed drill chips (-see Figure 5). The campaign will continue over the coming weeks (including RC pre-collars for diamond drilling planned for early 2025), with assay results expected to be received progressively throughout the program. Zenith will keep the market informed as significant milestones are reached, providing updates on the progress of the drill program.

The commencement of this program marks the next phase in the advancement of the Red Mountain Project, and Zenith remains focused on delivering long-term value through aggressive exploration and rapid development.





Figure 5: Image of RC chips from the first drill hole of the new campaign at Red Mountain (ZRMDD053); logged rhyolite from 68-88 (true width ~10m) -assays pending at time of writing

### Dulcie Far North (Western Australia)

On the 30<sup>th</sup> of October 2024, Zenith successfully completed the planned 17 drill holes at DFN, with interim results announced on the 28<sup>th</sup> of October. The company plans to provide further updates once all of the analytical assays are completed.

### For further information, please contact:

#### Zenith Minerals Limited

#### Andrew Smith

Managing Director

P: +61 8 9226 1110

E: [info@zenithminerals.com.au](mailto:info@zenithminerals.com.au)

#### Media & Investor Enquiries

#### Jane Morgan Management

Jane Morgan

E: [jm@janemorganmanagement.com.au](mailto:jm@janemorganmanagement.com.au)

To learn more, please visit [www.zenithminerals.com.au](http://www.zenithminerals.com.au)

### Competent Persons Statement

The information in this report that relates to Exploration Results, Mineral Resources and exploration activities is based on information compiled by Mr. Christopher Shanley, who is a Member of the Australian Institute of Geoscientists and an employee of Zenith Minerals Limited. Mr. Shanley 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'. Mr. Shanley consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

### Material ASX Releases Previously Released

The Company has released all material information that relates to Exploration Results, Mineral Resources and Reserves, Economic Studies and Production for the Company's Projects on a continuous basis to the ASX and in compliance with JORC 2012. The Company confirms that it is not aware of any new information that materially affects the content of this ASX release and that the material assumptions and technical parameters remain unchanged.

## Appendix 1 -Table of All Completed Drill Holes (prior to current drill campaign)

| Hole ID  | Hole Type | EOH Depth | Easting GDA94 Z56 | Northing GDA94 Z56 | RL (m) | Survey Method | Avg Dip | Avg Azimuth |
|----------|-----------|-----------|-------------------|--------------------|--------|---------------|---------|-------------|
| ZRMCD038 | RCD       | 272.2     | 269323            | 7232743            | 376    | DGPS          | -58.4   | 275.3       |
| ZRMCD040 | RCD       | 201.7     | 269256            | 7232698            | 369    | DGPS          | -70.1   | 283.2       |
| ZRMDD041 | DD        | 144.7     | 269237            | 7232649            | 367    | DGPS          | -58.7   | 279.2       |
| ZRMDD042 | DD        | 351.9     | 269355            | 7232787            | 374    | DGPS          | -56.0   | 279.6       |
| ZRMDD043 | DD        | 339.6     | 269075            | 7232702            | 366    | DGPS          | -56.2   | 100.2       |
| ZRMDD044 | DD        | 378.7     | 269075            | 7232687            | 366    | DGPS          | -61.7   | 110.8       |
| ZRMDD045 | DD        | 351.9     | 269355            | 7232785            | 375    | DGPS          | -67.6   | 284.8       |
| ZRMDD047 | DD        | 294.6     | 269183            | 7232830            | 357    | DGPS          | -47.2   | 105.6       |
| ZRMDD048 | DD        | 303.9     | 269180            | 7232832            | 356    | DGPS          | -59.7   | 101.3       |
| ZRMDD049 | DD        | 384.5     | 269151            | 7232909            | 352    | DGPS          | -52.7   | 109.4       |
| ZRMDD050 | DD        | 294       | 269433            | 7232659            | 369    | GPS           | -75.1   | 81.3        |
| ZRMDD051 | DD        | 665       | 269079            | 7232695            | 366    | GPS           | -60.2   | 121.0       |
| ZRMDD052 | DD        | 491       | 269080            | 7232701            | 366    | GPS           | -74.5   | 85.9        |
| ZRMRC001 | RC        | 79        | 269200            | 7232597            | 361    | DGPS          | -60.0   | 279.8       |
| ZRMRC002 | RC        | 75        | 269198            | 7232548            | 355    | DGPS          | -60.0   | 279.8       |
| ZRMRC003 | RC        | 75        | 269153            | 7232555            | 359    | DGPS          | -59.0   | 99.8        |
| ZRMRC004 | RC        | 75        | 269151            | 7232600            | 362    | DGPS          | -60.0   | 99.8        |
| ZRMRC005 | RC        | 73        | 269175            | 7232745            | 359    | DGPS          | -60.0   | 99.8        |
| ZRMRC006 | RC        | 97        | 269229            | 7232748            | 364    | DGPS          | -60.5   | 99.8        |
| ZRMRC007 | RC        | 73        | 269227            | 7232827            | 360    | DGPS          | -59.3   | 279.8       |
| ZRMRC008 | RC        | 79        | 269229            | 7232555            | 357    | DGPS          | -59.5   | 99.8        |
| ZRMRC009 | RC        | 64        | 269395            | 7232270            | 363    | DGPS          | -58.5   | 139.8       |
| ZRMRC010 | RC        | 90        | 269394            | 7232267            | 363    | DGPS          | -59.0   | 99.8        |
| ZRMRC011 | RC        | 151       | 269221            | 7232555            | 357    | DGPS          | -62.3   | 277.1       |
| ZRMRC012 | RC        | 145       | 269223            | 7232600            | 363    | DGPS          | -62.6   | 277.0       |
| ZRMRC013 | RC        | 151       | 269226            | 7232597            | 362    | DGPS          | -61.0   | 99.8        |
| ZRMRC014 | RC        | 127       | 269270            | 7232596            | 364    | DGPS          | -61.7   | 101.1       |
| ZRMRC015 | RC        | 151       | 269252            | 7232648            | 368    | DGPS          | -61.0   | 99.8        |
| ZRMRC016 | RC        | 145       | 269207            | 7232649            | 365    | DGPS          | -61.0   | 105.4       |
| ZRMRC017 | RC        | 127       | 269149            | 7232649            | 363    | DGPS          | -59.8   | 102.7       |
| ZRMRC018 | RC        | 139       | 269249            | 7232562            | 359    | DGPS          | -62.2   | 276.8       |
| ZRMRC019 | RC        | 157       | 269248            | 7232701            | 368    | DGPS          | -63.0   | 279.3       |
| ZRMRC020 | RC        | 151       | 269258            | 7232749            | 369    | DGPS          | -64.0   | 283.3       |
| ZRMRC021 | RC        | 151       | 269279            | 7232747            | 369    | DGPS          | -65.3   | 281.8       |
| ZRMRC022 | RC        | 103       | 269232            | 7232748            | 364    | DGPS          | -61.7   | 280.8       |
| ZRMRC023 | RC        | 151       | 269293            | 7232792            | 369    | DGPS          | -65.0   | 281.0       |
| ZRMRC024 | RC        | 157       | 269319            | 7232851            | 361    | DGPS          | -61.5   | 279.0       |
| ZRMRC025 | RC        | 151       | 269349            | 7232906            | 354    | DGPS          | -64.8   | 283.0       |
| ZRMRC026 | RC        | 157       | 269239            | 7232516            | 355    | DGPS          | -62.8   | 282.8       |
| ZRMRC027 | RC        | 157       | 269238            | 7232447            | 352    | DGPS          | -62.5   | 280.8       |
| ZRMRC028 | RC        | 151       | 269258            | 7232597            | 364    | DGPS          | -62.8   | 280.8       |
| ZRMRC029 | RC        | 109       | 269286            | 7232402            | 357    | DGPS          | -60.3   | 283.4       |
| ZRMRC030 | RC        | 151       | 269644            | 7232953            | 361    | DGPS          | -65.5   | 215.3       |



|          |    |     |        |         |     |      |       |       |
|----------|----|-----|--------|---------|-----|------|-------|-------|
| ZRMRC031 | RC | 157 | 269679 | 7232996 | 355 | DGPS | -66.0 | 214.8 |
| ZRMRC032 | RC | 157 | 269741 | 7232897 | 364 | DGPS | -63.5 | 230.8 |
| ZRMRC033 | RC | 151 | 269802 | 7232833 | 360 | DGPS | -62.8 | 235.0 |
| ZRMRC034 | RC | 151 | 269888 | 7232694 | 374 | DGPS | -66.1 | 282.3 |
| ZRMRC035 | RC | 151 | 269918 | 7232696 | 367 | DGPS | -59.6 | 271.9 |
| ZRMRC036 | RC | 103 | 269219 | 7232717 | 64  | DGPS | -74.0 | 282.8 |
| ZRMRC037 | RC | 109 | 269242 | 7232794 | 363 | DGPS | -60.3 | 280.1 |
| ZRMRC039 | RC | 49  | 269214 | 7232703 | 365 | DGPS | -59.8 | 279.8 |

## Appendix 2: Details of Au and Pathfinder Values

| Hole ID  | From (m) | To (m) | Mo (ppm) | W (ppm) | Bi (ppm) | Te (ppm) | Au (ppm) | Ag (ppm) | As (ppm) | Sb (ppm) | Cu (ppm) | Pb (ppm) | Zn (ppm) | S (ppm) | Mn (ppm) | In (ppm) |
|----------|----------|--------|----------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------|----------|----------|
| ZRMDD043 | 209.7    | 210    | 72.2     | 11.2    | 13.5     | 0.76     | 1.47     | 14.6     | 1150     | 24.3     | 220      | 266      | 2350     | 12300   | 1820     | 0.78     |
| ZRMRC026 | 66       | 67     | 0.75     | 96.1    | 2.8      | 1.1      | 0.92     | 3.4      | 122      | 2.32     | 101      | 221      | 260      | 9800    | 2620     | 0.13     |
| ZRMDD044 | 84.7     | 85     | 3.35     | 4.8     | 1880     | 4.87     | 3.49     | 270      | 383      | 48.1     | 1250     | 397      | 159      | 14300   | 791      | 0.86     |
| ZRMRC035 | 132      | 136    | 2.62     | 6.2     | 62.4     | 32.2     | 0.04     | 7.57     | 37       | 1.87     | 88.2     | 171      | 1610     | 4200    | 1940     | 0.66     |
| ZRMRC001 | 1        | 2      | 1        | 10      | 71       | BDL      | 58.3     | 14.2     | 2380     | 39       | 229      | 746      | 216      | 100     | 314      | BDL      |
| ZRMDD042 | 239      | 240    | 2.75     | 8.1     | 829      | 10.9     | 1.49     | 300      | 146      | 7.59     | 83.9     | 857      | 143      | 57300   | 3010     | 1.3      |
| ZRMDD052 | 139.35   | 139.65 | 1.13     | 1.8     | 0.57     | 0.06     | 2.14     | 3.24     | 5170     | 28.5     | 50.7     | 274      | 133      | 3800    | 1250     | 0.29     |
| ZRMDD039 | 259      | 260    | 0.68     | 6.5     | 205      | 2.29     | 0.73     | 152      | 388      | 995      | 1795     | 2060     | 561      | 17700   | 1280     | 0.98     |
| ZRMDD044 | 244.5    | 245    | 12.75    | 29.5    | 681      | 8.46     | 0.23     | 242      | 590      | 288      | 4370     | 2260     | 170      | 12300   | 4380     | 1.08     |
| ZRMDD052 | 398      | 399    | 0.69     | 8       | 1.81     | 0.27     | 0.08     | 5.31     | 81.3     | 5.12     | 130      | 4600     | 2480     | 4800    | 998      | 0.14     |
| ZRMCD040 | 123.22   | 123.74 | 1.54     | 22.4    | 4.34     | 0.35     | 6.67     | 13.3     | 3960     | 22.2     | 425      | 470      | 35700    | 32500   | 1220     | 5.35     |
| ZRMDD042 | 239      | 240    | 2.75     | 8.1     | 829      | 10.9     | 1.49     | 300      | 146      | 7.59     | 83.9     | 857      | 143      | 57300   | 3010     | 1.3      |
| ZRMRC010 | 0        | 1      | 3        | BDL     | BDL      | BDL      | 0.26     | 5.7      | 22       | BDL      | 177      | 515      | 494      | 200     | 18650    | BDL      |
| ZRMDD042 | 184      | 184.75 | 1.22     | 11.2    | 41.3     | 0.42     | 0.3      | 38       | 187      | 21       | 806      | 973      | 5210     | 11800   | 4050     | 5.66     |