QMINES Sustainable Australian Copper

16 APRIL 2025

ANNOUNCEMENT

ACQUISITION OF THE MOUNT MACKENZIE GOLD & SILVER PROJECT

Highlights

- QMines has executed a binding term sheet to acquire 100% of Mount Mackenzie Mines Pty Ltd, a wholy ownded subsidiary of Resource & Energy Group Limited.
- The acquisition of Mount Mackenzie enhances QMines' gold and silver exposure while consolidating assets within haulage distance of Mt Chalmers.
- Mount Mackenzie has a current Mineral Resource Estimate of **129,000oz gold and 862,000oz silver[1].**
- **Mount Mackenzie has significant exploration upside and resource growth potential.**
- The acquisition comprises two granted leases MDL2008 & EPM10006, which lie 140km north west of the Company's Mt Chalmers copper project.
- Total consideration of $2.485 million settled via a cash payment of $1.0 million and the issue 33 million QML shares voluntary escrowed for twelve months.

Introduction

QMines Limited (**QMines** or **Company**) (**ASX:QML**) is delighted to announce that it has entered into a binding term sheet to acquire 100% of the Mount Mackenzie Gold and Silver Project from Resources & Energy Group Limited (**Resources & Energy**) (**ASX:REZ**), subject to shareholder approval.

The Mount Mackenzie Mineral Resource Estimate (**MRE**) was announced by Resource & Energy on 19 May 2020[1] and copies are provided in this announcement. Details of the MRE estimation, summary of the work programs on which the MRE is based, key mining assumptions and processing parameters that Resource & Energy relied upon are detailed in the announcement and are reproduced below.

The MRE was reported in accordance with the JORC 2012 Code and the Company considers the MRE announced by Resource & Energy to be reasonable. It should be noted that the MRE is being released under the Mining FAQs and that the Company has not done sufficient work to release the MRE under Listing Rule 5.8.

[1] *ASX Announcement – Mount Mackenzie Gold & Silver Resource, 19 May 2020.*

It is possible that following evaluation and/or further exploration work the currently reported estimates may materially change however, nothing has come to the attention of QMines that causes it to question the accuracy or reliability of Resources & Energy's estimates. QMines has not independently validated Resource & Energy's estimates and therefore is not to be regarded as reporting, adopting or endorsing those estimates.

The acquisition of the Mount Mackenzie project represents a significant increase in gold and silver endowment and a substantial increase in scale. QMines plans to incorporate the Mount Mackenzie project into the Mt Chalmers mine plan where the deposit could potentially be treated at the proposed Mt Chalmers processing plant located 140 kilometres to the southeast in Rockhampton (Figure 1).

Transaction Rationale

The acquisition of Mount Mackenzie significantly enhances QMines' Queensland portfolio and aligns perfectly with the Company's strategic growth objectives. Shareholders can expect numerous benefits from this transaction including:

1. **Immediate Value Accretion:** Acquiring the Mount Mackenzie project at a highly attractive valuation creates immediate and tangible value for QMines shareholders.

2. **Operational Synergies:** Proximity to QMines' Develin Creek project offers considerable operational efficiencies through shared processing facilities, management teams, logistical operations and infrastructure. These synergies are expected to substantially reduce operational costs and accelerate the pathway to production.

3. **Enhanced Resource Scale:** The addition of Mount Mackenzie significantly boosts QMines' total resource inventory, extending the potential scale and mine life.

4. **Significant Growth Potential:** The underexplored nature of Mount Mackenzie, particularly with mineralisation remaining open along strike and at depth, presents significant upside potential for resource expansion.

5. **Strategic Positioning:** This transaction positions QMines strongly within the Queensland resources landscape, enabling the Company to consolidate its status as a significant regional player with a growing portfolio of attractive, low-cost mining assets.

6. **Leverage to Gold Price:** Adding more gold to the Company's potential mine plan diversifies QMines' commodity exposure beyond copper, providing shareholders with increased leverage to the rapidly rising gold price.

Management Comment

QMines Executive Chairman, Andrew Sparke, comments:

> *"This acquisition represents a transformative step for QMines, significantly enhancing our asset base and aligning with our strategic ambition of becoming a leading multi-asset copper and gold producer in Queensland. Mount Mackenzie not only brings immediate gold and silver resources, but also growth opportunities and operational synergies with our existing projects.*
>
> *The addition of the Mount Mackenzie gold resource, coupled with the Develin Creek and Mt Chalmers gold and base metal endowment, has the potential to significantly enhance project economics by processing Mount Mackenzie ore through the proposed Mt Chalmers processing plant.*
>
> *We would like to thank Resources & Energy Group's management team for their collaborative approach during this transaction. We look forward to updating our shareholders as we progress this exciting project."*

Location & Infrastructure

The Mount Mackenzie project is situated approximately 140km north west of Rockhampton and proximal to QMines Develin Creek project which lies 45km to the south east (Figure 1). The acquisition of Mount Mackenzie is projected to improve the proposed life of mine at the Mt Chalmers copper project, adding significant gold and silver mineralisation into the Mt Chalmers and Develin Creek global resources.

The Mt Chalmers and Develin Creek projects jointly benefit from the addition of the Mount Mackenzie project, with its location providing access to the Bruce highway enabling future ore haulage on sealed roads and shared infrastructure.

The acquisition of the Mount Mackenzie project enhances QMines objectives of developing low-cost, open-pit mining operations with exploration upside. Review of the historic drilling, geological and geophysical data indicates untested potential at depth and along strike highlighting strong potential to increase the MRE at Mount Mackenzie through targeted exploration.

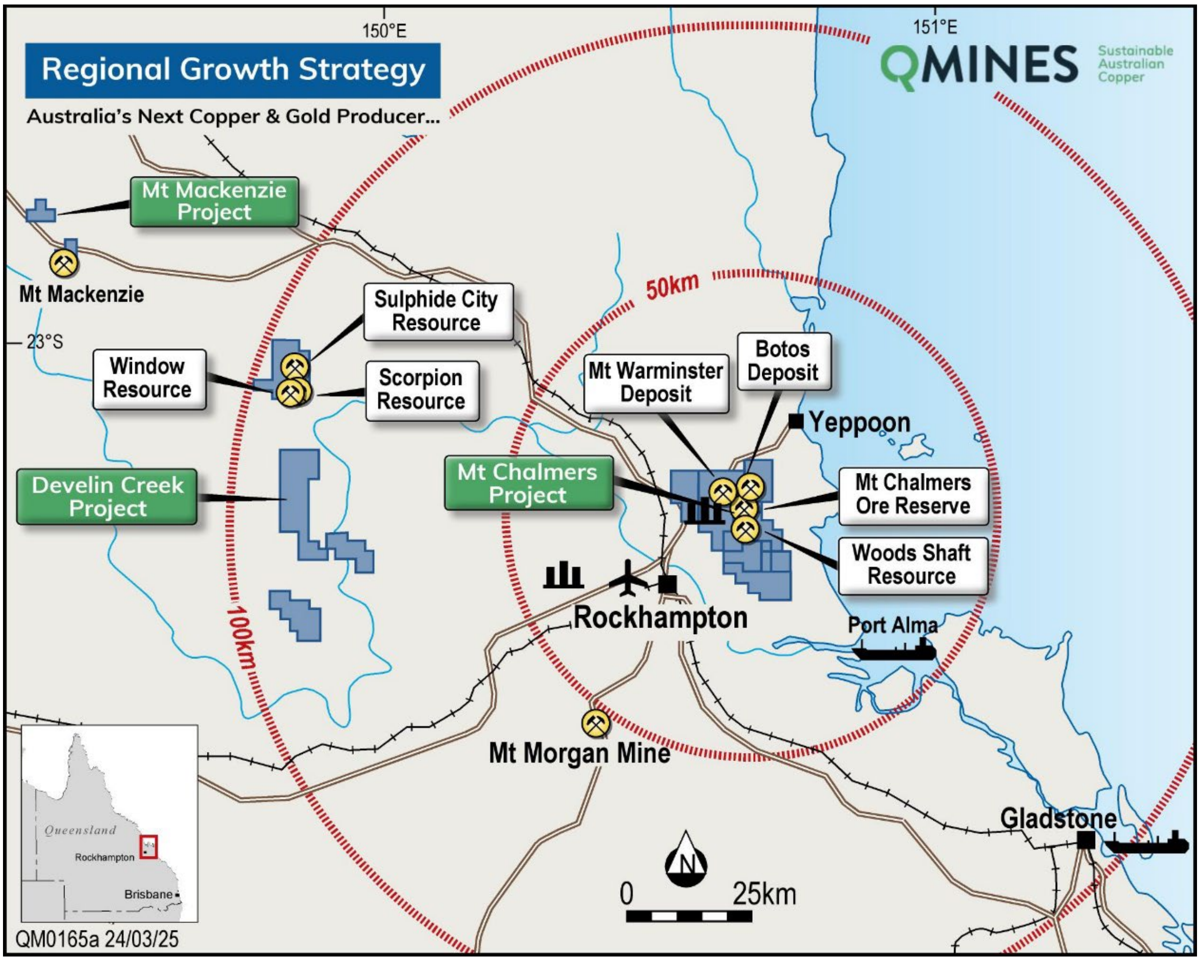


Figure 1: Location and Infrastructure at Mt Chalmers, Develin Creek and the proposed Mt Mackenzie acquisition.

Resource and Energy's Key Assumptions at Mt Mackenzie

Data utilised by Resources & Energy in the interpretation of the mineralised envelopes at Mount Mackenzie consisted of historic drill hole logging, surveyed collar locations, downhole survey and certified assays, past interpretation by previous workers, and data acquired during drilling programs undertaken by Resources & Energy. Drill hole collars were adjusted to the topographic surface using LiDAR prior to the geological interpretation. To constrain the resource estimate the work focused on interpretation of a broader mineralisation envelope utilising available geochemistry, interpreted alteration and lithological logging using a nominal 0.1g/t Au cut-off and a minimum 2m down hole estimate. The resource blocks were estimated using Ordinary Kriging at a parent block size of 5m by 5m by 5m using 2m composites.

The resource is reported for cut-off gold grades of 0.35 g/t for oxide and 0.55 g/t for primary material, calculated using a A$2,760/oz gold price. **Other mining and processing parameters and assumptions are**

detailed in Resources & Energy's announcement dated 19 May 2020, a copy of which is included in this announcement.

Future Growth Potential[2]

The Mount Mackenzie project hosts a high-sulphidation epithermal gold-silver mineral system, characterised by shallow, high-grade mineralisation. Historic exploration by previous workers has identified two main zones called North Knoll and Southwest Slopes (Figure 2). Both areas demonstrate gold, silver and minor sulphide mineralisation which remains open at depth and along strike, presenting opportunities for further resource and exploration drilling.

Historic drilling undertaken by previous explorers, and reported in Resources & Energy's May 2020 MRE, provides the Company with an excellent platform to extend and improve known gold and silver resources. Figure 2 identifies some of the untested gold in soil anomalies at the Mount Mackenzie project and the location of various cross sections of select historical drill holes.

Figure 3 is a plan view showing representative historical drillhole collar locations at Mount Mackenzie with the assayed results from these holes shown in Table 1 and as cross sections in Figures 4 and 5.

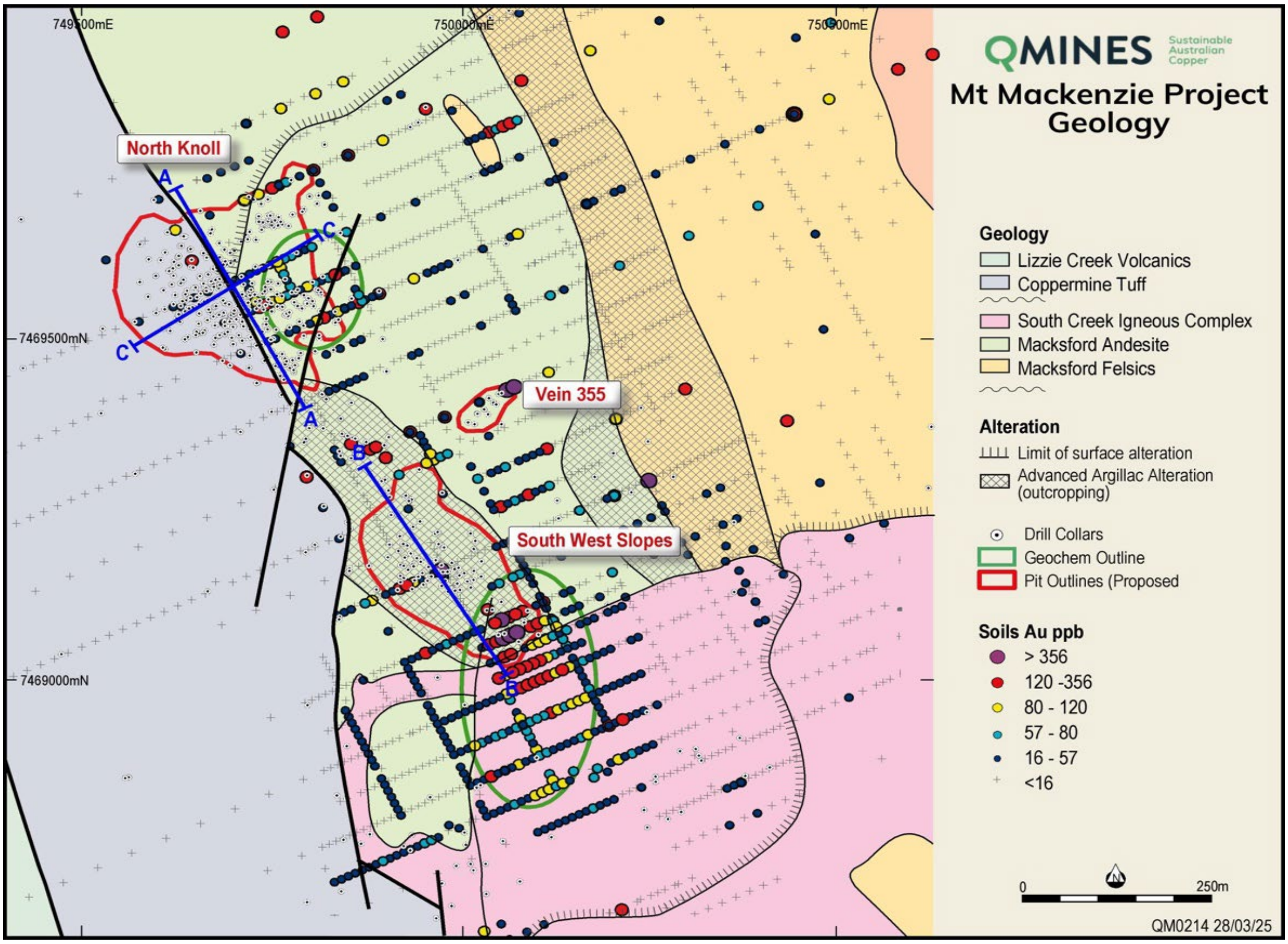


Figure 2: The North Knoll and South-West deposits with historic gold in soil anomalies, proposed open pit outline, geological interpretation and cross sections A, B, C at the Mt Mackenzie project.

[2] *ASX Announcement – Mt Mackenzie Scoping Study, 28 April 2020.*

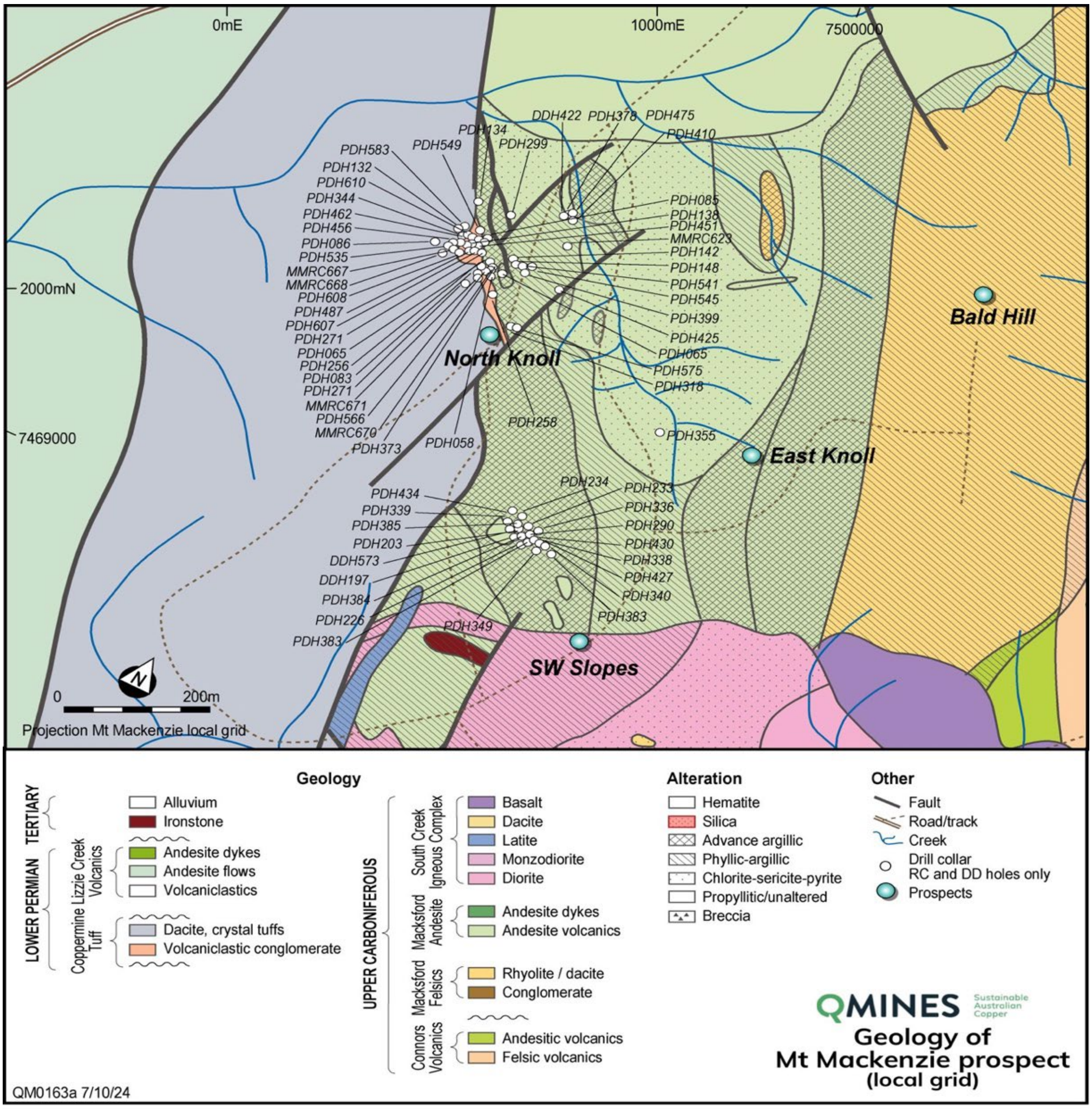


Figure 3: Mount Mackenzie drill collar locations, geology, alteration and structural interpretation.

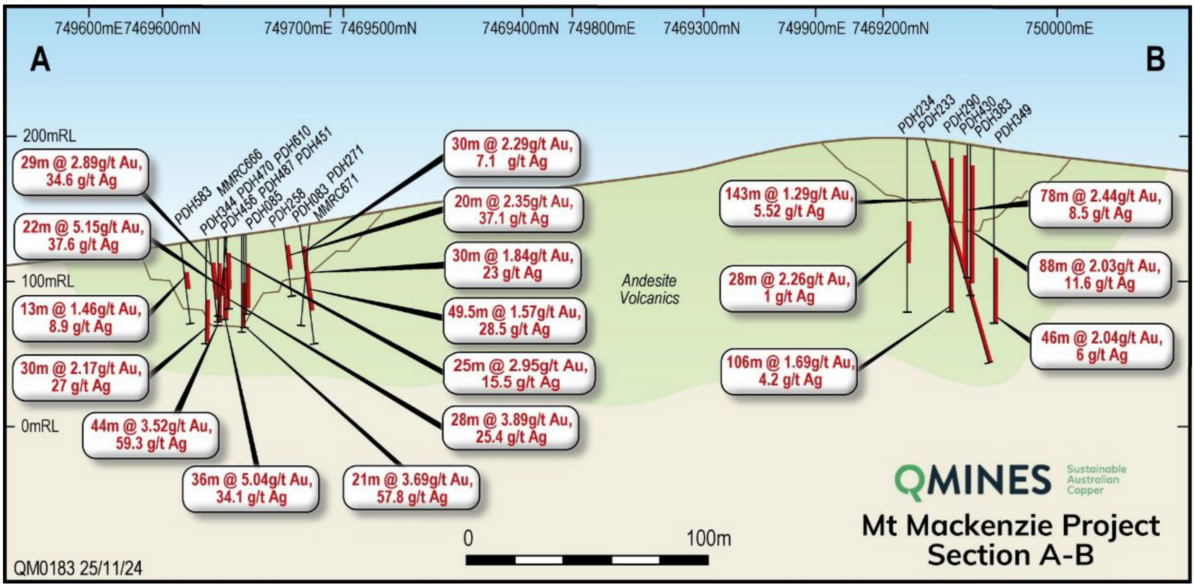


Figure 4: Historic drilling at the Mt Mackenzie project North Knoll being A and the South-West Slope being B.

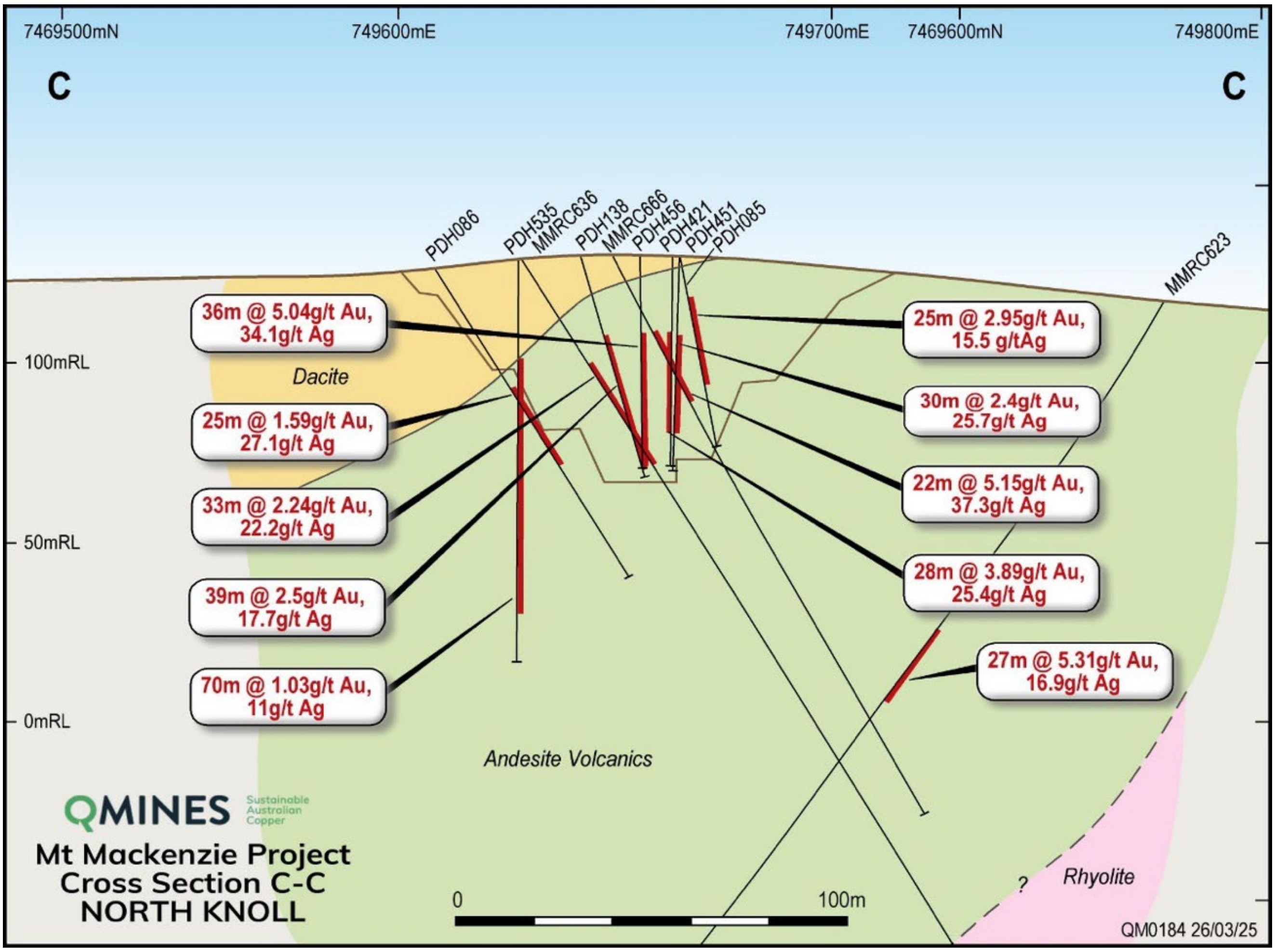


Figure 5: Historic drilling results from North Knoll at the Mt Mackenzie project.

Acquisition Terms

The key terms for the transaction are summarised below:

- **Consideration:** The consideration payable to complete the transaction is $1.0 million (plus GST) in cash and 33 million QMines shares at a deemed issue price of $0.045 (total value $2.485 million). The terms include a non-refundable $100,000 deposit credited against the cash consideration at completion.

- **Conditions Precedent:** The transaction is subject to a 90-day due diligence period, confirmation that the tenements are in good standing, shareholder approval for the issue of consideration shares, forgiveness of all intercompany debt, execution of a 12-month voluntary escrow deed, and all necessary regulatory and third-party approvals.

- **Assets:** The assets to be acquired as part of the transaction include two granted tenements (EPM 10006, MDL 2008) and two parcels of freehold land located over the tenements.

- **Completion:** Completion is to occur 10 business days after all conditions are met.

- **Warranties & Indemnities:** Provided by Resources & Energy and capped at $2.485 million.

Planned Exploration

On completion of the Mount Mackenzie acquisition, QMines plans to undertake the following activities:

- Digitisation of historical geological, geophysical and geochemical data contained within the database.
- Re-model the existing MRE using QMines external resource consultants followed by a new open pit optimisations and pit design.
- Drill two shallow diamond holes to better understand the metallurgical properties of the Mount Mackenzie deposits for inclusion in the Mt Chalmers mine plan and process plant design parameters.
- Update the Mount Mackenzie Scoping Study to deliver a maiden ore reserve for the project.
- Plan the Company's maiden RC drilling program.
- Commence site works, road and track clearing and drill pad preparation for RC operations.
- The planned exploration expenditure estimate outlined above, excluding the RC drilling, is $380,000.
- The proposed RC drilling program is subject to completion of the current drilling operations at the Company's Develin Creek project and will be largely weather dependent with some potential to undertake drilling during the dry season. The estimated expenditure for a 2,000 RC drilling program is $300,000.

Table 1: Cross section of representative Mount Mackenzie historical drillholes and assayed results. Selected results from within the MRE footprint. Results are length-weighted based on a cut-off grade of 0.5g/t Au. No internal dilution was used. Intersections greater than 1 g/t Au are listed in the Table below. All drilling undertaken by REZ or earlier companies.

Hole ID	MGA East*	MGA North*	mRL	Dip	MGA Azi*	Depth	From (m)	To (m)	Int (m)	Au (g/t)	Ag (g/t)
PDH058	7469526.5	749702.5	188.0	-60	65	**126**	**18**	**54**	**36**	**4.4**	**25**
PDH065	7469548.0	749693.1	184.2	-60	65	50	2	34	32	3.06	17
PDH083	7469522.5	749687.2	186.5	-60	65	93.5	16	66.5	50	1.57	29
PDH085	7469568.6	749664.9	180.7	-60	65	58	12	37	25	2.95	16
PDH086	7469541.2	749608.3	176.8	-60	65	100	39	64	25	1.59	27
PDH125	7469538.5	749716.6	193.9	-60	245	**147**	**1**	**65**	**65**	**1.89**	**13**
PDH132	7469579.3	749629.3	176.7	-75	65	88	43	75	32	1.2	13
PDH134	7469634.0	749630.5	172.4	-75	62	83	0	23	23	1.43	22
PDH138	7469557.5	749642.0	179.9	-75	65	64.5	23	62	39	2.5	18
PDH142	7469566.6	749719.3	182.2	-75	65	64	31	61	30	1.49	12
PDH148	7469570.0	749748.2	185.2	-75	65	48	5	34	28	1.59	22
PDH197	7469149.8	749942.6	237.5	-90	360	120	2	22	20	1.79	9.2
PDH203	7469160.1	749928.9	237.1	-90	360	108	34	72	38	2.52	3.4
PDH226	7469143.9	749954.5	237.7	-90	360	**148**	**46**	**148**	**98**	**1.39**	**6.2**
PDH233	7469174.9	749942.3	247.9	-58	365	**161**	**16**	**161**	**143**	**1.29**	**5.5**
PDH234	7469183.6	749932.5	248.2	-69	244	120	58	86	28	2.26	1
PDH256	7469500.4	749721.6	193.3	-61	66	56	18	48	30	1.81	12
PDH258	7469534.9	749684.8	185.2	-60	65	54	12	32	20	2.35	37
PDH271	7469556.8	749670.7	181.5	-90	360	54	20	50	30	2.29	7.1
PDH290	7469164.4	749956.0	248.0	-90	360	**120**	**14**	**120**	**106**	**1.69**	**4.2**
PDH299	7469623.5	749694.5	172.3	-60	65	**22**	**4**	**16**	**12**	**9.29**	**4.5**
PDH303	7469582.0	749669.4	180.1	-90	360	54	24	48	24	1.79	21
PDH318	7469465.3	749768.9	198.9	-60	65	34	6	26	20	2.5	25
PDH336	7469174.2	749965.3	254.7	-60	65	**46**	**34**	**46**	**12**	**13.51**	**119**
PDH338	7469156.5	749980.2	248.1	-90	360	**120**	**20**	**120**	**100**	**2.86**	**13**
PDH339	7469167.1	749919.2	236.3	-90	360	**66**	**4**	**52**	**48**	**3.75**	**7.2**
PDH340	7469151.7	749996.7	243.6	-90	360	**120**	**32**	**120**	**88**	**2.7**	**16**
PDH344	7469572.6	749647.0	179.3	-90	360	72	42	72	30	2.17	27
PDH349	7469143.9	749978.1	239.7	-90	360	120	74	120	46	2.04	6
PDH355	7469404.9	750041.8	183.2	-60	65	**18**	**6**	**14**	**8**	**69.41**	**17**
PDH373	7469539.3	749699.8	187.5	-90	360	48	4	34	30	2.49	33
PDH378	7469670.9	749753.6	163.4	-90	360	**30.5**	**4**	**30.5**	**27**	**6.48**	**27**
PDH383	7469150.6	749959.9	241.6	-90	360	**116**	**12**	**100**	**88**	**2.03**	**12**
PDH384	7469155.4	749947.8	241.5	-90	360	**108**	**10**	**92**	**80**	**1.97**	**8.1**
PDH385	7469167.9	749934.6	242.3	-90	360	**84**	**10**	**82**	**72**	**2.75**	**8.7**
PDH399	7469555.5	749744.8	189.4	-90	360	**61**	**34**	**61**	**27**	**1.92**	**21**
PDH410	7469669.0	749761.2	161.0	-90	360	29	0	28	28	2.7	20
PDH421	7469572.3	749663.0	180.4	-60	65	70	26	56	30	2.42	26
PDH425	7469553.1	749803.0	182.3	-90	360	**14**	**0**	**12**	**12**	**14.93**	**61**

PDH427	7469157.4	749981.0	248.1	-60	65	33	14	33	19	2.87	9.8
PDH430	7469158.7	749967.8	247.9	-90	360	**95**	**12**	**90**	**78**	**2.44**	**8.5**
PDH434	7469187.6	749916.2	243.4	-90	360	**86**	**48**	**68**	**20**	**7.46**	**5.6**
PDH451	7469567.9	749663.2	180.7	-90	360	**54**	**22**	**50**	**28**	**3.89**	**25**
PDH456	7469563.9	749655.7	180.4	-90	360	**58**	**22**	**58**	**36**	**5.04**	**34**
PDH462	7469568.3	749637.7	178.8	-90	360	**96**	**56**	**88**	**32**	**2.09**	**63**
PDH470	7469573.5	749660.6	180.0	-90	360	**60**	**18**	**60**	**44**	**3.52**	**59**
PDH475	7469675.8	749758.3	160.5	-90	360	36	0	36	36	1.82	7.8
PDH487	7469552.2	749660.3	181.1	-90	360	66	42	63	21	3.69	58
PDH530	7469157.0	749975.2	247.9	-90	360	**192**	**10**	**46**	**36**	**3.75**	**14**
and						**192**	**64**	**130**	**64**	**1.03**	**5.3**
PDH535	7469546.1	749629.4	179.8	-90	360	114	30	100	70	1.03	11
PDH541	7469562.1	749725.4	184.4	-90	360	104	58	100	42	1.34	20
PDH545	7469563.9	749737.2	185.1	-90	360	**112**	**48**	**62**	**14**	**3.15**	**21**
PDH549	7469587.9	749654.5	179.1	-90	360	102	58	78	20	2.37	22
PDH566	7469532.9	749696.0	186.5	-90	360	90	14	46	32	2.3	30
DDH573	7469165.3	749936.4	242.3	-90	360	**207**	**10**	**100**	**90**	**1.49**	**5**
PDH575	7469466.7	749776.8	198.5	-90	360	48	2	28	26	2.69	45
PDH583	7469584.6	749632.9	176.9	-60	65	66	25	38	13	1.46	8.9
PDH607	7469554.7	749664.9	181.4	-90	360	**66**	**33**	**57**	**24**	**3.34**	**59**
PDH608	7469542.7	749643.2	180.2	-60	65	65	46	57	11	4.02	82
PDH610	7469573.2	749648.9	179.4	-60	65	66	20	49	29	2.89	35
DDH422	749749.2	7469668.9	163.6	-60	65	**164**	**19**	**47**	**26**	**12.78**	**34**
MMRC623	749775.8	7469625.8	167.1	-60	65	**282**	**103**	**130**	**27**	**5.31**	**17**
MMRC636	749631.6	7469552.8	173.1	-60	65	246	27	60	33	2.24	22
MMRC666	749650.9	7469558.6	180.2	-60	65	**180**	**24**	**46**	**22**	**5.15**	**38**
MMRC667	749637.6	7469543.3	180.1	-60	65	80	28	63	35	2.39	14
MMRC668	749624.3	7469528.3	179.6	-60	65	66	25	49	25	1.16	14
MMRC670	749699.3	7469535.1	187.5	-60	65	80	0	22	22	1.94	8.2
MMRC671	749689.9	7469516.7	187.0	-60	65	80	19	48	30	1.84	23
MMRC672	749679.5	7469501.8	187.3	-60	65	80	47	66	19	1.08	22

RESOURCES & ENERGY
Resources & Energy Group Limited

ASX/Media Release *19 May 2020*

Significant Resource Upgrade at the Mount Mackenzie Gold and Silver Project

- **REZ has completed the preparation of an updated Mineral Resource Estimate for the Mount Mackenzie Gold and Silver Project.**
- **Total tonnes have increased to 3.42Mt @1.18g/t Au and 9g/t Ag for a total of 129k oz Au and 862k oz Ag.**
- **This represents a 44% increase in overall resource tonnage.**

Highlights

Resources & Energy Group Limited (ASX: REZ) is pleased to provide an updated Mineral Resource estimate for the Mount Mackenzie gold and silver project which is located in central Queensland, within MDL2008. This update has been prepared as a result of a material change in the gold price since the 2015 Mineral Resource estimate was completed and ongoing feasibility work.

The mineral resource estimate for the project now stands at;

- **Total Indicated: 1,700Kt @ 1.21g/t Au and 11g/t Ag**
- **Total Inferred: 1,730Kt @ 1.15g/t Au and 4g/t Ag**

This represents a 48% increase in Indicated resources, a 42% increase in Inferred resources, an overall 29% increase in contained gold and a 38% increase in contained silver over the previously released mineral resource estimate.

The Mineral Resource model used in the preparation of this resource estimate is unchanged since 2015. Additional details including the geological context and resource estimation parameters are provided in the attached JORC Table 1 assessment and accompanying tables 2 and 3 which include details of drill holes collars and mineralised intervals which have been used in this resource estimate.

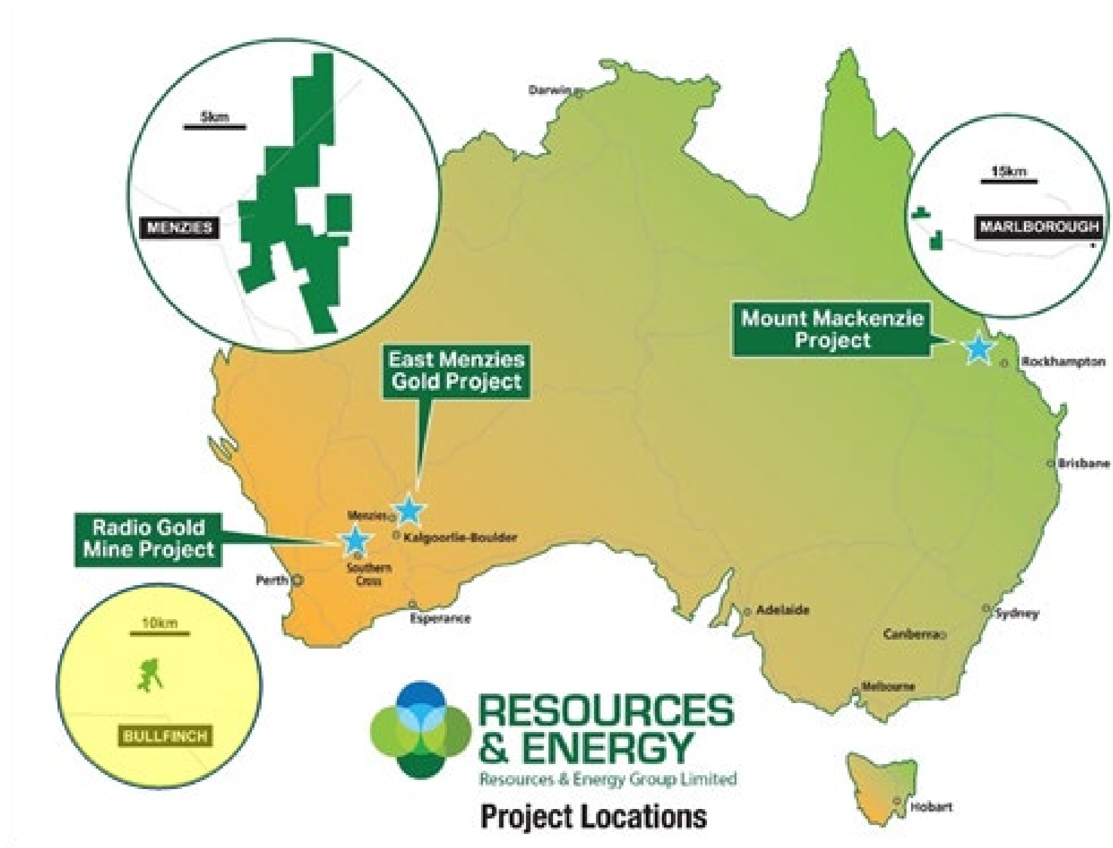
Next Steps

The updated mineral resource estimate will be used for ongoing mine planning which will provide a basis for advancing the project through to detailed feasibility. Additional drilling and metallurgical studies will be carried out as part of this process.

About Resources and Energy

Resources and Energy Group Limited (ASX: REZ) is an independent, ASX-listed mineral resources explorer holding mining and exploration licenses in Western Australia and Queensland. In Western

Australia the company has assembled a 112km^2 package of contiguous mining, exploration and prospecting licenses in the East Menzies Goldfield. The East Menzies Gold Project is located within the Wiluna-Norseman Greenstone Belt-a significant Orogenic lode gold province. In Queensland the company has been granted a 12km^2 Mineral Development Licence over the Mount Mackenzie mineral resource, and retains a further 15km^2 as an Exploration Permit. These Development and Exploration Licences are located in the Connors-Auburn Arc and are particularly prospective for high, intermediate and low sulphidation gold and base metals mineralisation. REZ aims to develop a portfolio of mining tenements through to production.



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Authorized for release by the REZ board

Mount Mackenzie Mineral Resource Summary

The Mount Mackenzie Mineral Resource is located in two main zones of gold mineralisation; the North Knoll and Southwest Slopes ("SW Slopes"). Resources within the North Knoll and SW Slopes are controlled in their lateral and vertical extents by a geological model. The geological model was created from lithological descriptions and geochemical data collected from holes drilled by several explorers since the 1970s. The North Knoll comprises six sub-zones of mineralisation that are generally in close proximity, whilst the SW Slopes consists of a single mineralised domain. The mineralised domains were defined on a nominal 0.1 g/t Au cut-off over a down-hole distance of at least 2 m. Gold and silver values were estimated by Ordinary Kriging for blocks of 5 m by 5 m by 5 m within the mineralised domains. The Mineral Resource was constrained at depth by a pit shell derived from an open pit optimisation study. Different metallurgical recoveries and operating costs are considered likely for oxidised and primary material; consequently, different cut-off grades are used in reporting these material types, as shown below in Table 1.

Table 1 Mount Mackenzie 2020 Mineral Resource Estimate (1)

Material	Cut-off (gt/Au)	Indicated					Inferred					Indicated and Inferred				
		Tonnes (kt)	Au (g/t)	Ag (g/t)	Au (koz)	Ag (koz)	Tonnes (kt)	Au (g/t)	Ag (g/t)	Au (koz)	Ag (koz)	Tonnes (kt)	Au (g/t)	Ag (g/t)	Au (koz)	Ag (koz)
Oxide	0.35	500	1.09	8	18	136	700	0.96	4	21	87	1200	1.02	6	39	223
Primary	0.55	1200	1.25	13	48	482	1030	1.28	5	42	157	2220	1.27	9	90	639
Total		**1700**			**66**	**618**	**1730**			**63**	**244**	**3420**			**129**	**862**

Comparison to Historical Mineral Resource Estimates

Marlborough Gold Mines NL ("MGM") completed a Mineral Resource estimate for Mount Mackenzie in 1994. This work was carried out according to the resource reporting and definition guidelines of the AusIMM applicable at that time. The 1994 Mineral Resource by MGM was estimated by similar methods that were used for the 2015 and 2020 MMM Mineral Resource but was reported at a 0.5 g/t Au cut-off for both oxide and primary material. For comparative purposes only, the 2015 MMM Mineral Resource estimate is shown in Table 2.

Table 2 Mount Mackenzie 2015 Mineral Resource Estimate (1)

Material	Cut-off (gt/Au)	Indicated					Inferred					Indicated and Inferred				
		Tonnes (kt)	Au (g/t)	Ag (g/t)	Au (koz)	Ag (koz)	Tonnes (kt)	Au (g/t)	Ag (g/t)	Au (koz)	Ag (koz)	Tonnes (kt)	Au (g/t)	Ag (g/t)	Au (koz)	Ag (koz)
Oxide	0.43	450	1.18	9	17	130	520	1.18	4	20	67	970	1.18	7	37	197
Primary	0.58	700	1.42	14	32	315	700	1.4	5	31	112	1400	1.39	9	63	427
Total		**1150**			**49**	**445**	**1220**			**51**	**179**	**2370**			**100**	**624**

Globally, the 2020 MMM Mineral Resource estimate represents a material increase when compared to the 2015 MMM Mineral Resource estimate. As the resource model used to report both the 2015 and 2020 estimates is the same, the differences are related to changes in metal price, mining cost, and metallurgical recovery assumptions. Issues that may contribute to the differences between the 2020 and 2015 Mineral Resources include:

- a increase in the gold price used for reporting purposes from A$1,500/oz to A$2,760/oz. The A$2,760/oz assumption is a 15% increase on the A$2,400/oz that is currently being used to assess mine feasibility;
- a change from reporting using marginal cut-off grades that only considered processing costs to a cut-off that also considered mining, grade control, and administration costs;

- a larger pit shell used to constrain the resource at depth; and
- changes to oxide and primary metal recoveries related to metallurgical studies carried out since 2015.

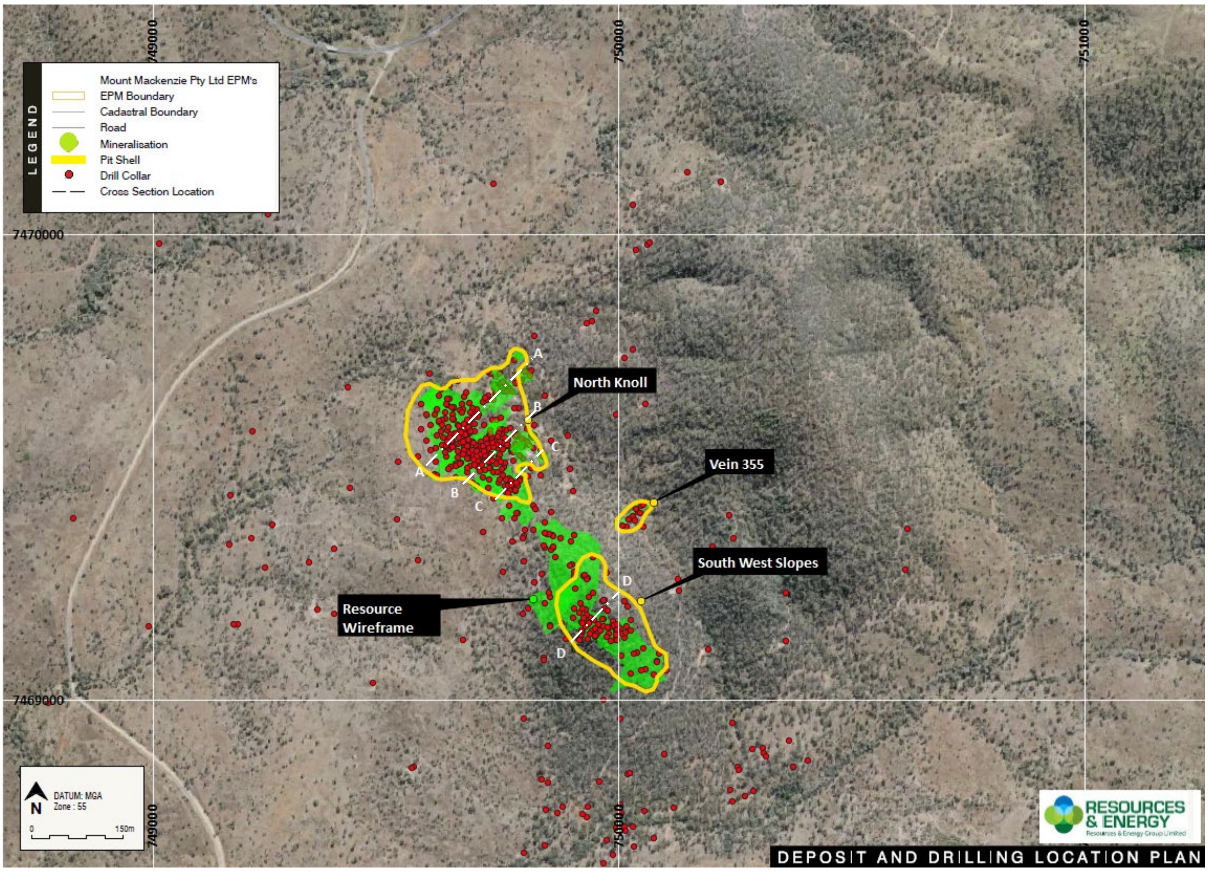
Overall Objective for the Mount Mackenzie Gold and Silver Project

The Mount Mackenzie Project is being investigated for its potential to host a shallow gold and silver resource that would be amenable to staged, small scale open cut mining at low strip ratios. Scoping studies completed by the company have demonstrated that that the project should proceed to feasibility study, to provide guidance on the preferred scale of operations, processing options and potential economic performance of the Mount Mackenzie Mineral Resource.

Geology and Geological Interpretation

The Mount Mackenzie area is recognized as a high sulphidation epithermal system. There has been significant work completed since the 1980's which has led to confidence in the current interpretation. The current work is supported by the previous interpretive work. To constrain the resource estimate the current work focused on interpretation of a broader mineralisation envelope utilising available geochemistry, interpreted alteration and lithological logging. The mineralised envelopes generated are a representation of the location and volumes of broadly mineralised material-Figure 1-Drill Hole Plan and Figures 2a, 2b, 2c and 2d, which are cross-sections.

Figure 1 Mount Mackenzie Drill Hole Plan and Mineralised Envelopes



Data utilised in the interpretation of the mineralised envelopes at Mount Mackenzie consisted of historic drill hole logging and assays, past interpretations, and data acquired during a 2015 drilling program by the Company.

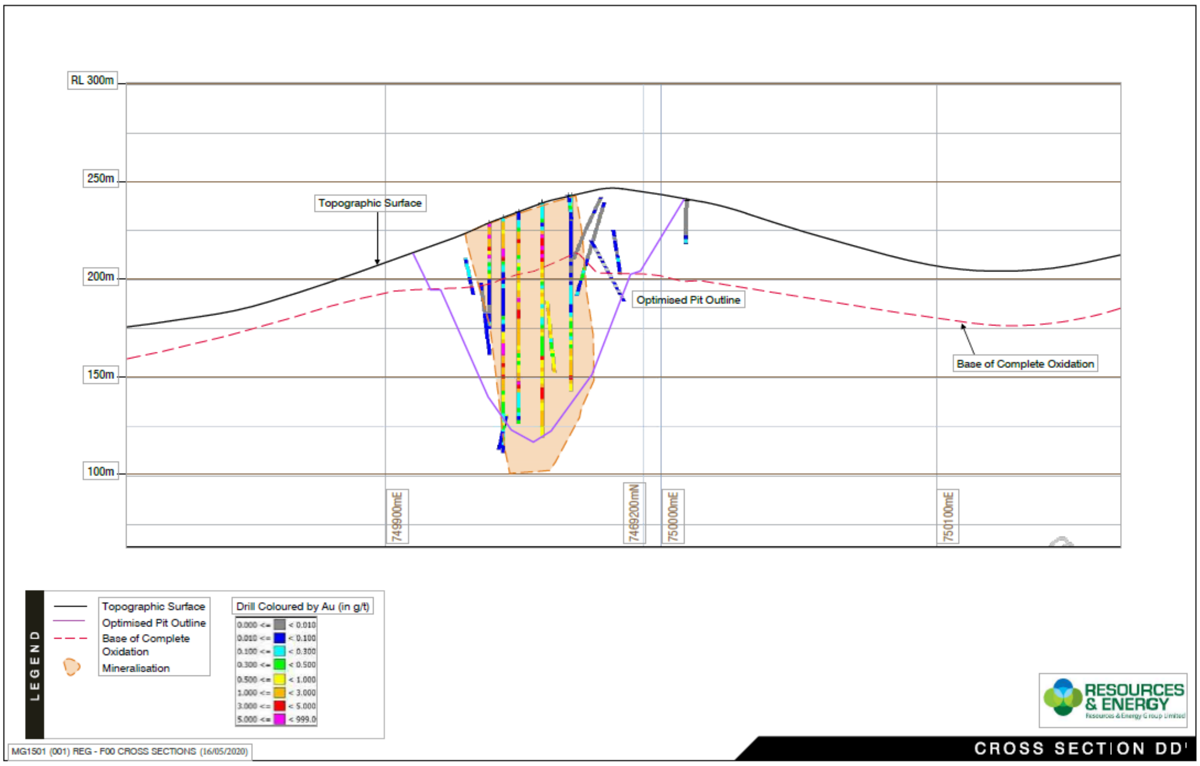
Figure 2a Cross-section AA' through North Knoll

Figure 2b Cross-section BB' through North Knoll

The historic and recent drill data indicates an inverse relationship between gold mineralisation and manganese; in some cases areas of low gold content were included within the mineralised envelopes, where local trends suggested the area was expected to be part of the mineralised system, on the basis of low manganese assays. Drill hole collars were adjusted to the topographic surface prior to geological interpretation.

Figure 2c Cross-section CC' through North Knoll

Figure 2d Cross-section DD' through South West Slopes



The resource estimate used a single interpretation, generated via a multi-stage interpretation process, including sectional interpretation and three-dimensional interpretations, which resulted in the final mineralisation envelopes. Some section plots of past interpretations were available for comparison and review. In general, the interpretations are similar, but they vary locally over time with the addition of new data. Support has not been found for an alternative interpretation that would materially alter the gross resource.

With the deposit being high sulphidation epithermal there is not a simple geological control. The distribution of mineralisation is expected to relate to pre-mineralisation permeability and post mineralisation structural displacement. As would be expected for this style of deposit, there is a general association between alteration and mineralisation but no hard boundaries. The resource estimate was constrained by a number of mineralisation envelope wireframes.

Grade distribution is thought to be dependent on permeability, inherent permeability of the pre-mineralisation lithology and permeability related to structure. Work on the Mount Mackenzie area has involved iterative mapping and geological interpretation exercises. The area has been subject to several stages of deformation. The most recent interpretation suggests late stage generally north-westerly trending dextral faulting may have offset the mineralised geology on a project scale. The unconformity below the Coppermine Tuff Unit daylighting on Mount Mackenzie and dipping shallowly off to the west, is interpreted as post gold mineralisation. The estimation of grade was limited by the wireframe envelopes.

Drilling Techniques

The exploration results are based on drilling programs comprising combination of HQ/NQ, reverse circulation (RC) drilling, and down the hole (DTH) percussion drilling. A 5.25’’ or 5.5’’ inch face sampling hammer bit was used for MMM RC drilling, and a standard 5.25” DTH hammer for Pre-MMM percussion drilling. For early RC drilling it is not clear from the drilling records whether a face sampling hammer or conventional hammer with a cross-over sub was used, most likely conventional. Pre-collars and surface casing for all drilling was in the main 6 inch and set 3m to 8m from surface.

Recent cored holes have been orientated and RC holes have been surveyed downhole using a gyroscope. Directional surveys for some pre-MMM drill holes were completed using either a Humphrey or Eastman Camera. Down hole directional surveys were also carried out on boreholes PDH538-PDH612, however, the method used is not recorded.

Sampling and Sub-sampling Techniques

The majority of samples used for grade estimation were obtained from 5.25” percussion drill holes, with lesser amounts obtained from 5.5” RC drilling, and minor HQ3, and NQ2 coring. For percussion and RC drilling the sample intervals typically were either 1m or 2m over the drilled interval. Cored intervals were generally sampled at 1m or less if a change in lithology or alteration was noted within the sample interval.

MMM RC samples were collected for every meter drilled from a three-tier riffle splitter which was housed under the cyclone. Sample was in the main dry and free flowing. Pre-MMM RC samples were collected every meter from either a self-splitting agitating cyclone or manual 50/50 splitter. Pre-MMM percussion samples were recovered from the surface casing diverter into an on-board cyclone. At the end of each sample run (typically 1 to 2m) the hammer was pulled off bottom, and the hole bailed with air. Dry sample from the cyclone was immediately released into a riffle splitter and manually split to achieve a 3 to 5kg laboratory sample and a 1kg reference sample. Wet sample was directed to drainage bins and allowed to dewater. After dewatering a 3 to 5kg lab sample was scooped out of the bin. It is noted that the wet sampling procedure did result in some loss of fines. No other specialised or industry standard measurement tools have been used for sampling.

Sample Analysis Method

Reverse circulation and core drilling was used to obtain 1m samples from which approximately 3 to 5kg was collected and pulverized to produce a 50g charge for fire assay with a AAS finish. In addition a 30g sample for multi element analysis by ICP, or Acid Digestion was prepared and analysed. DTH Percussion drilling was used to obtain 2m composite samples, which were pulverized to produce a

30g charge for fire assay. Details of sample mass for Percussion DTH samples have not been documented but are believed to have ranged from 3 to 5kg, in line with prevailing industry practice.

The vast majority of sample analysis has been carried out by Australian Laboratory Services (ALS), an ISO accredited laboratory. The principal test methods were PM209 and AA26 for Au, and IC580 or ICP61 for multi-element analysis. The methods employed were the prevailing industry standard.

Estimation Methodology

The mineral resource was constrained to mineralisation envelopes or domains in 3D that were created using a nominal 0.1 g/t Au cut-off and minimum 2 m down hole interval. As a consequence, minor drill intercepts <0.1 g/t can be included within these mineralisation domains, and vice versa. Gold and silver were estimated for ten mineralisation domains, however, only blocks from 7 domains are included in the mineral resource, with the remaining 3 either to low grade or located below a preliminary open pit shell. Where drill density decreased extrapolation was restricted to a distance generally equal to half the typical hole spacing i.e. if holes were spaced at 20 metres the interpretation extended 10 metres beyond the last hole.

The resource blocks were estimated using Ordinary Kriging (OK) at a parent block size of 5 m by 5 m by 5 m using 2 m composites. Each mineralised domain was estimated independently using hard boundaries, i.e. only composites that fell within the mineralised domain. Validation included: (1) visual examination of the estimated block grades against the drill hole assays on plan and in section; (2) comparing declustered statistics against the statistics of the block estimates by domain; (3) swath plots; and (4) a theoretical assessment of smoothing of the block estimates using the Discrete Gaussian change of support method. No material issues were noted.

In situ bulk density was assigned to each block based on the degree of oxidation noted in geological logs, which was modelled as a series of surfaces, as shown in Figure 2. Completely oxidised, partially oxidised, and primary material were assigned bulk densities of 2.4 t/m^3, 2.5 t/m^3, and 2.7 t/m^3 respectively. These values are averages of the samples measured by traditional waxed water immersion methods (including one clay sample) and have been rounded to reflect their degree of uncertainty. Where blocks were cut by the oxidation surfaces bulk density was assigned on a pro rata basis by considering the proportion above/below these surfaces. Due to the various alteration types bulk density is likely to be spatially variable, but there is currently insufficient information to model this variability.

Classification Criteria

The mineral classification has been assigned on a block by block basis, initially via the search parameters. Additional consideration was given to the number of samples used for kriging and the kriging slope of regression. Indicated Resource blocks required a minimum of 4 drill holes within 50m (strike and down dip) by 15m (across the structure) for the North Knoll mineralised domains. The remainder of the estimated blocks at the North Knoll and SW Slopes were classified as Inferred Resources. The resource classifications applied are more pessimistic than would normally be considered for the often close-spaced drilling at Mount Mackenzie, and have been downgraded due to historical drilling that is not to the current industry standard as well as limited bulk density information. Material in the SW Slopes area was restricted to Inferred Resources due a lack of confirmatory drilling by The Company.

Cut-off Grades

The resource is reported for cut-off Au grades of 0.35 g/t for oxide and 0.55 g/t for primary material, calculated using a A$2,760/oz gold price (15% higher than a A$2,400 currently being used for mine feasibility studies by The Company) and other mining parameters and assumptions listed below. The resource is reported solely on the Au cut-off grade, and Ag has not been considered in the calculation of the marginal cut-off grades or in assessing resource blocks.

Mining Parameters and Assumptions

In April 2020 Mining Dynamics was engaged by MMM to conduct a pit optimisation study using Whittle software (Lerchs-Grossman algorithm) at Mount Mackenzie that assumed the following:

- free selection of the 5m by 5m by 5m blocks
- no dilution and/or ore loss
- A$2,760/oz Au and A$26/oz Ag price
- Au recoveries of 94% for oxide and 59% for primary material
- Ag recoveries of 89% for oxide and 53% for primary material
- Mining costs of A$2.40/t for oxide ore, and A$2.56/t for primary ore and waste material.
- Processing cost of A$21.70/t.
- Grade control costs of $2.00/t of ore.
- Office and administration costs of $5.48/t of ore.
- Overall slope angles of 55 to 60 degrees.

Note that, the parameters above are preliminary in nature and are subject to confirmation by feasibility work on the project. All reported mineral resources fall within the optimal pit shell based on the assumptions above.

Metallurgical Parameters and Assumptions

The metallurgical parameters and assumptions applied in this mineral resource estimate are based on testwork completed by ALS on HQ bore core recovered from the North Knoll. Approximately 100m of core, representing a combination of oxide, transitional and primary (fresh) ore types were assessed as part of this investigation. The core was used to prepare 15 variability composites and 5 master composites for extractive testwork. Based on the metallurgical testwork undertaken on these samples, gold recoveries of 94% for oxide and 59% for primary and partially oxidised material for a CIP/CIL operation were assumed with a 48hr residence time. The metallurgical testwork has indicated that there may be spatial variability in the recovery factors that has not been considered in the resource estimate.

Other Material Modifying Factors Considered to Date

At the time of the report there were no known environmental, permitting, legal, title, taxation, socio-economic, or political issues that would adversely affect the reported mineral resources. Any future exploration and/or mining work would be subject to Queensland regulations in place at that time.

Competent Person Statement – Mineral Resource

This Mineral Resource Estimate is based upon and accurately reflects data compiled or supervised by Dr Andrew Richmond, a Principal Geostatistician employed full-time by Martlet Consultants Pty Ltd, who is a Fellow of the Australian Institute of Geoscientists (4840) and a Member of the Australasian Institute of Mining and Metallurgy (11459). Dr Richmond has sufficient experience that is relevant to the style of mineralisation and the type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2012 edition of the 'Australian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Richmond consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to exploration results is based upon information compiled and reviewed by Mr Michael Johnstone; Principal Geologist with Minerva Geological Services Pty Ltd Mr Johnstone is a Member of the Australasian Institute of Mining and Metallurgy. Mr Michael Johnstone has sufficient experience that is relevant to the style of mineralisation and the type of deposit under consideration and to the activity he has undertaken to qualify as a Competent Person as defined in the 2012 edition of the 'Australian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Michael Johnstone consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

APPENDIX 1: JORC Code, 2012 Edition – Table 1 Checklist

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (eg cut channels, random chips, or specific specialized 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.	• The majority of samples used for grade estimation were obtained from 5.25 inch percussion drillholes, with lesser amounts obtained from 5.5 inch Reverse Circulation drilling, and minor HQ3, and NQ2 coring. For percussion and RC drilling the sample intervals typically either 1 or 2m over the drilled interval. Cored intervals were generally sampled at 1m or less if a change in lithology or alteration was noted within the sample interval. The combined resource database for the Mount Mackenzie Prospect totals 619 drillholes for 59707m of drilling comprising: **Pre-MMM drilling: DDH4-MMRC664** 23 DDH Holes for 2364m, 23 Percussion holes with NQ Diamond Tails for 16278m, 440 DTH Percussion holes for 27282m and 120 RC Holes for 17417m **MMM drilling MMRC665-677 and MMRC679, plus MMDD678 and MMDD680** 13 RC Holes for 1146m, and 2 DDH Holes for 120m
	• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	• MMM RC samples (MMRC665-MMRC677 & 679) were collected for every meter drilled from a three-tier riffle splitter which was housed under the cyclone. Sample was in the main dry and free flowing. Pre-MMM RC samples were collected every meter from either a self splitting agitating cyclone (PDH83-PDH160) or manual 50/50 splitter (MMRC613-MMRC664). Pre-MMM percussion samples were recovered from the surface casing diverter into an on-board cyclone. At the end of each sample run (typically 1-2m) the hammer was pulled off bottom, and the hole bailed with air. Dry sample from the cyclone was immediately released into a riffle splitter and manually split to achieve a 3-5kg lab sample and a 1kg reference sample. Wet sample was directed to drainage bins and allowed to dewater. After dewatering a 3-5kg lab sample was scooped out of the bin. It is noted that the wet sampling procedure did result in some loss of fines. No other specialized or industry standard measurement tools have been used for sampling.
	• Aspects of the determination of mineralization that are Material to the Public Report.	• In general, the complete intervals drilled have been sampled and tested.

Criteria	JORC Code explanation	Commentary
	• 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 mineralization types (eg submarine nodules) may warrant disclosure of detailed information.	Some of the early holes were selectively tested based on quantitative logging details (for example material above the post mineralisation Copper Mine Tuff unconformity may not have been assayed). Details of all intersections, sampled intervals and results are included in supporting documentation. • Reverse circulation and core drilling was used to obtain 1m samples from which approximately 3-5 kg was collected and pulverized to produce a 50g charge for fire assay with a AAS finish. In addition, a 30g sample for multi element analysis by ICP, or Acid Digestion was prepared and analyzed. DTH Percussion drilling was used to obtain 2m composite samples, which were pulverized to produce a 30g charge for fire assay. Details of sample mass for Percussion DTH samples have not been documented but are believed to have ranged from 3-5kg, in line with prevailing industry practice. The vast majority of testwork for Pre and MMM drilling has been carried out by Australian Laboratory Services (ALS). The principal test methods being PM209 and AA26 for Au, and IC580 or ICP61 for multi-element analysis.
Drilling techniques	• 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).	• The exploration results are based on drilling programs comprising combination of HQ/NQ, Reverse Circulation (RC) drilling, and Open Hole DTH Percussion drilling. A 5.25'' or 5.5'' inch face sampling hammer bit was used for MMM RC drilling, and a standard 5.25" DTH hammer for Pre-MMM percussion drilling. For early RC drilling it is not clear from the drilling records whether a face sampling hammer or conventional hammer with a cross-over sub was used, most likely conventional. Pre-collars and surface casing for all drilling was in the main 6 inch and set 3m to 8m from surface. Recent cored holes have been orientated and RC holes have been surveyed downhole using a gyroscope. Directional surveys for Pre-MMM drill holes MMRC614-664 were completed using either a Humphrey or Eastman Camera. Down hole directional surveys were also carried out on boreholes PDH538-PDH612 however the method used is not recorded.
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed.	• Core recoveries for all DDH have been recorded and are based on linear and not mass measurement. MMM RC samples recoveries were measured qualitatively, and comparatively based on the supervising geologists experience and assessment of bagged bulk sample volumes. Data recorded on a sample record log in the field as drilling progressed and sample masses

Criteria	JORC Code explanation	Commentary
		checked on scale, and reweighed at the lab. Pre-MMM percussion drilling and RC recoveries such as sample mass are not recorded. There are occasional references to "good chip" or "poor" recovery.
	• Measures taken to maximize sample recovery and ensure representative nature of the samples.	• For RC drilling the drilled interval is continuously sampled every meter using either a three-way splitter slung directly under the cyclone or a two way self splitting cyclone. The splitter was checked every sample to ensure no residue remained from the previously drilled interval, and the cyclone checked regularly. For MMM drilling, in addition to recording variance in recovered sample, field procedures involved highlighting any variance in observed sample recovery to the driller immediately in order to ensure consistent recoveries. HQ triple tube was adopted to maximize DDH core recoveries.
	• 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 at this stage.
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.	• All bores are geologically logged to a level suitable for resource estimation. Lithology, alteration, mineralisation and weathering condition has been noted on all logs. For cored holes anisotropies such as joint, fracture and veins have been logged as well.
	• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	• Logging is qualitative and descriptive. Photography of drill core was only routinely carried out on post 1999 drilling. Chip trays for sieved samples from every percussion and RC hole, together with remnant core have been retained and stored for future reference.
	• The total length and percentage of the relevant intersections logged.	• In the main 100% of drilled intervals have been logged; intervals of no recovery are noted on logs and sample registers.
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken.	• Core samples were half split lengthwise for assay. For specific metallurgical testing the entire core was used over selected intervals.
	• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	• For MMM RC samples, a three-way riffle splitter was used to obtain 1m sub samples with a weight of approximately 3kg. For Pre-MMM RC samples (PDH83-PDH160) an agitating self splitting cyclone was used to recover sub-samples with a weight of approximately 5kg. Percussion samples were

Criteria	JORC Code explanation	Commentary
		manually riffle split to recover a sample with a weight of 3-5kg. In most cases the sample has been classed as wet or dry on the drilling log header, and a review of these indicates majority of samples were dry.
	• For all sample types, the nature, quality and appropriateness of the sample preparation technique.	• The field procedures adopted for RC and DDH sub sampling are in the main Industry standard and appropriate. The methods used to dewater Pre-MMM DTH percussion samples resulted in a partial loss of fines, and could have introduced a sample bias. Wet intervals sampled in this manner comprise a small proportion of the resource database. After initial collection in the field all subsequent sample preparation is carried out in a laboratory, under controlled conditions and specified by the relevant standards. MMM sample preparation and analysis was undertaken at ALS Laboratory Townsville, an ISO accredited laboratory. Pre-MMM work was completed by ALS at either Brisbane for DDH1-PDH612 or Townsville MMRC613-MMRC664. ALS utilises industry best practise for sample preparation for analysis involving drying of samples, crushing to <5mm and then pulverising so that +85% of the sample passes 75 microns prior to subdivision for analysis.
	• Quality control procedures adopted for all sub-sampling stages to maximize representivity of samples.	• For MMM RC drilling, site QA/QC procedures involve the use of blanks and duplicates. The insertion rate of these averaged one QA/QC sample per 20 metres drilled. Duplicates were generated on-site from the original split sample via the cone and quarter method. Blanks consisted of crushed gravel sourced from off site and are characterised by a geochemical signature unique from the mineralisation at Mount Mackenzie. For Pre-MMM RC drilling (MMRC613-664) site QA/QC procedures involved the use of duplicates, and standards. An evaluation of assay registers for these boreholes indicates insertion rates which typically included 1 standard for each borehole, and 1 duplicate for each 30-50m drilled. For Pre-MMM percussion drilling there is no documented process for field duplicate or second half sampling or use of standard samples.
	• Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-	• Field duplicates were collected at 1m intervals directly from the splitter and included in the sample stream. These have been tracked, analysed and

Criteria	JORC Code explanation	Commentary
	half sampling.	checked by the principal consultant for Geko-Co. ALS also include certified reference samples and blanks in each sample batch, as part of that company's internal QA/QC protocols. No material issues were noted.
	• Whether sample sizes are appropriate to the grain size of the material being sampled.	• Microscopy and metallurgical test work has indicated that gold is likely to be fine-grained. No coarse gold has been observed. The 5.25" to 5.5" hole diameter and collection of a 3-5kg (split on site) sample over an interval of between 1 and 2m is industry standard practice and considered to generate appropriately sized samples for the style of mineralization.
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.	• For MMM drilling, a 50g charge for fire assay was analysed using ICP-AES (AA26) which is an Industry standard for Gold ore grade determination. Broad spectrum, 33-element analysis has been determined on 30g sub samples pulverised to pass 75um, using a 4-acid digest, followed by ICP-AES. Analyites which are over limit are retested using a more appropriate method. The Pre-MMM drilling selected a 30g charge for fire assay and AAS finish for gold (PM209), and acid digestion for multi element determination (IC580). This was an industry standard procedure throughout the 1980s and 1990's. The assay methods used for Au are considered to be total.
	• 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.
	• 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.	• Current ALS QA/QC involves the use of internal laboratory standards using certified reference material, blanks, splits and replicates as part of the in-house procedures. The QA protocol requires that for each batch of 40 samples a reagent blank, two replicate determinations, and two standards are included. The system also uses a bar coding and scanning technology that provides complete chain of custody records at every stage of the analytical process. For Pre-MMM testing QA protocols adopted by ALS are not known, although repeat test results, particularly over higher-grade intervals are included in the dataset.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel.	• All sampled intersections are verified by the site Geologist, who has been present on site during the complete drilling process. The sampled intersections are then checked by the principal consultant for Geko-Co, by reference to hole number, drilling depths sample numbers, blanks and

Criteria	JORC Code explanation	Commentary
		standards introduced into the sampling stream. The final results are then reviewed by the exploration manager for MMM. The general tenor of early mineralised drill hole intercepts have been confirmed through additional infill and extensional drilling by several companies that joint ventured onto the project, and by the confirmatory drilling of MMM.
	• The use of twinned holes.	• Not applicable.
	• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	• The primary data was collected at the drill site as drilling progressed by the Site Geologist and Field Technician. The Site Geologist recorded all lithological logging data directly in digital format via a rugged computer. The sample data, including allocation of sample number to interval, sample quality/recovery data, and insertion of QA/QC samples was recorded on a field sheet by the Field Technician and reviewed by the Site Geologist in the field. This data was later digitised in the office and validated against assay files and checked by the Principal Geologist. Field sheets are kept on file and digital data backed up. The project data base is independently maintained in Explorer 3 data management software. This software has capability to identify data entry errors. Pre-MMM drill hole data and geological logs were obtained from the previous owners/operators. Where possible this information has been verified (or augmented) against historical exploration reports lodged with regulatory authorities.
	• Discuss any adjustment to assay data.	• Analytical data is not adjusted.
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.	• All MMM borehole sites were located in the field by registered Surveyors (Terrex Spatial) using RTK GPS methods which involves setting up a GPS base station on a known State control mark and a GPS remote over the drill collar. Following completion, the boreholes have also been relocated by Terrex Spatial. The surveyor's instrument was checked for accuracy by reference to a known, control station. The stated accuracy is +/- 0.05m in both horizontal and elevation. Pre-MMM drillholes were initially located with reference to a local grid by total station survey if clear line of site was

Criteria	JORC Code explanation	Commentary
		available or a transit traverse if not. The surveying standards applied at the time would have been industry standard. In 1999 the local grid co-ordinates were transformed to AMG66, and to GDA94 in 2015. In 2015 a check survey was carried out over 230 historic drillholes, which identified positional (easting and northing) errors ranging from a few centimeters to up to 5m. The discrepancies have been accepted and probably relate to inaccuracies in transforming from local grid to AMG and then GDA. For MMM drilling gyroscopic downhole surveys were completed for each hole by Surtron Pty Ltd. The stated accuracy is 0.25° in azimuth and 0.05° in inclination. The Gyroscope was able to be lowered to effectively end of hole in 8 holes, with the surveyed length of the remaining 5 holes ranging from 58% to 83% of the drilled depth. Downhole surveys using either Eastman or Humphrey Camera were carried out on boreholes MMRC614-665, although accuracy is not recorded. A few earlier holes PDH538-612 were also surveyed; however the method and its accuracy are not recorded.
	• Specification of the grid system used.	• The Grid System is GDA94 Zone 55. Azimuth has been reported by Surtron as Magnetic (declination applied 8.812 degrees).
	• Quality and adequacy of topographic control.	• Collar RLs and surface elevation string lines surveyed by Terrex Spatial have been used to prepare a Digital Terrain Model (DTM). Terrex Spatial also picked up the position of approximately 230 drill collars at the site to allow recent results to be compared with historic drilling data. The check survey identified errors in the early drill-hole elevations. For modelling purposes, the DTM prepared using elevation data acquired during 2015 exploration has been used over a part of the prospect known as the North Knoll. For the remainder of the project site a DTM prepared by UTS Geophysics and based on an aerial survey carried out in 2007 has been applied. The UTS survey has a stated accuracy of +/-2.5m. There are small elevation discrepancies, usually within the stated accuracies, between the 2 topographic surfaces.
Data spacing and distribution	• Data spacing for reporting of Exploration Results.	• Data spacing for reporting these Exploration Results is in the order of 5 to 50m.
	• Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral	• The data spacing and orientation provides significant coverage on section and plan to determine the degree of geological and grade continuity

Criteria	JORC Code explanation	Commentary
	Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied.	commensurate with the resource classifications applied. • Drill hole samples have not been composited prior to assaying. Results for samples <2m were composited to 2m post assaying for resource estimation purposes.
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. • 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.	• An evaluation of drill data on section indicates that the holes have been mainly been drilled at a reasonable orientation to the principal resource areas and no significant bias would be expected. Mineralisation is generally dipping 60-80^0 west-south-west; in some instances steep dipping mineralisation has been tested with vertical holes. However, the density of drilling is quite high and resource and mineralised extents are reasonably well confined. • The orientation of drilling is not considered to have introduced sampling bias.
Sample security	• The measures taken to ensure sample security.	• Chain of custody for MMM samples. Samples were checked against the sample record sheet in the field prior to collection into sequentially numbered plastic bags. The plastic bags were sealed with cable ties before being secured in bulker bags, along with sample submission sheets. The sample batches were loaded by the field team and freight forwarded to ALS Townsville by the transport contractor without any trans-shipment. The receiving laboratory verified sample numbers against the sample submission sheet/manifest, and confirmed receipt. After receipt the samples were bar coded and tracked through the entire analytical process. Pre-MMM samples were collected in pre-numbered calico bags that were tied and then placed into polyweave sacks that were secured by tape prior to dispatch via a transport contractor to either ALS Brisbane or Townsville.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• At this stage no audits or reviews of sampling techniques has been carried out.

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 security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.	• The area under assessment is located wholly within MDL2008. MDL2008 is a mineral development license. A public interest enquiry confirms Mount Mackenzie Mines (MMM) as having 100% interest in the tenement. MMM is a wholly owned subsidiary of Resources and Energy Group (REG) The land, from which the Exploration Results have been derived, is not subject to Native Title Interests, and does not encompass Strategic cropping lands, wilderness or protected landscapes. • At the time of reporting the tenement is in good standing. There are no known impediments which would prohibit operations in accordance with the license conditions, and the environmental authority.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• This tenement package was formerly held under joint venture between Smarttrans (formerly Coolgardie Gold) and Australian Reproductive Health Services (formerly Marlborough Gold Mines). Over many years several companies had joined with Marlborough Gold Mines to form joint ventures over the area of EPM10006, including Australian Consolidated Exploration (1975-76), Utah Development (1981-82), Peabody (1984-85), Freeport McMoran (1987-89), Dragon Mining (1995), Coolgardie Gold / SmartTrans Holdings (1997-2014), Jeteld (2002-06) and Newcrest Mining (2007-08).
Geology	• Deposit type, geological setting and style of mineralization.	• High Sulphidation epithermal gold deposit of Late Carboniferous age associated with the Conners Magmatic Arc in the Queensland part of the New England Fold Belt.
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: ○ 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.	• Co-ordinate location, elevation, hole length, dip and azimuth of all material holes is provided in Table 1-appendix 1, of the accompanying documentation. Down hole length and interception depths have been furnished in Table 2-appendix 1 of the accompanying documentation.

Criteria	JORC Code explanation	Commentary
	• 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.	• Tables 1 and 2 includes comprehensive reporting of all exploration results, no information has been excluded.
Data aggregation methods	• 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.	• Tabulated intervals represent all sections of holes included within the mineralisation wireframes and utilized for resource estimation. The interval grade is calculated by linear weighted average, with no cutting of grades. Intercept grades were calculated as linear weighted averages. In determining intercept lengths, a lower cut-off grade of 0.3g/t Au was used. The intercept is calculated down hole and begins where the assay reaches 0.30 g/t Au or above and continues to the point where > 2 metres grading <0.30 g/t Au is reached (i.e. lengths of up to 2 metres of internal dilution are incorporated). For reporting Ag no cut off limit has been applied, the value reported is simply the linear weighted average over the corresponding Au interval. • The broad nature of the mineralisation interpretation means in some instances shorter intervals of higher grade may be present within an individual drill hole. • Not applicable, metal equivalents are not reported
Relationship between mineralization widths and intercept lengths	• These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralization 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').	• The mineralisation in the North Knoll is believed to have a north-westerly alignment, with westerly dip. Recent confirmatory drilling has been spatially arranged normal to this orientation. Mineralisation in the South West Slopes area is also north-westerly trending with a steeper to sub-vertical west dip. • Sample intervals have been described as down hole intervals and observation of data on section indicates the down hole intercepts are a reasonable indication of mineralisation widths in the North Knoll area. Most

Criteria	JORC Code explanation	Commentary
		drilling in the South West Slopes area is vertical and therefore intercept length is not likely to relate to true thickness. The wire-framing process prior to estimation accounts for this.
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.	• Appropriately scaled plans and sections have been provided in this announcement. A plan showing all drill hole collar locations accompanies this announcement as Figure 1. Selected sections showing drill hole traces, mineralisation extents for North Knoll and SW Slopes have also been furnished as Figure 2a, 2b, 2c and 2d.
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.	• Comprehensive reporting of all material data has been adopted.
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.	The company has previously released a valuation and assessment report on the group of tenements. This document provides details of geological observations, previous investigations, geochemistry and geophysical survey results. Figure 1 shows the position of drill holes referred to in Tables 1 and 2.
Further work	• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• Recommendations for further work are described in the accompanying release • Additional resource areas have been described in previously released documentation by the company.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	• Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. • Data validation procedures used.	• Pre-MMM drilling was provided to MMM in an extensive database compiled by Terrasearch Pty Ltd and managed with the Explorer3 Database Management Software. Terrasearch's work included re-logging holes and standardizing data. Drilling by a joint-venture partner in the mid-2000's was compiled in a separate database. Geko-Co undertook a review of the existing databases including random checking prior to merging data in to a single database. Location data was stored in local and AMG84 co-ordinate systems and transformed by MMM. The transformed collar positions were randomly checked in the field. Selected historic drill hole collars in the area of the South West Slopes, Vein 355, and North Knoll were identified in the field and checked for location accuracy with a Garmin handheld GPS. The handheld GPS location was found to be within 0.5m to 4m of the recorded location; based on this result the position of historic holes were assumed to be accurate. • For MMM drilling sample records were generated in the field at the time of drilling and checked by the supervising geologist, before being digitised in the office. Sample interval data was linked to assay data provided by ALS in CSV format and duplicate and blank sample assays were checked to ensure assays were provided in the sampled sequence. Data was loaded in to the project database via the Explorer3 Database Management system allowing validation rules to be applied. Data was exported via Explorer3 in to a specific Microsoft Access Database for use in resource estimation. Exported data was visually checked in 3D space using Gemcom Xplorpac and Geosoft Target software. Martlet undertook some additional validation checks on the Microsoft Access database. The checks included, missing intervals, overlapping intervals, duplicate samples, co-located collars, excessive downhole survey deviations. MMM drilling results were compared to Pre-MMM data (held within the original database) from the same areas. While this was not a twinning exercise several holes were very close to the original drilling. Recent results support the historic data to the degree that could be expected for the spatial relationships and style of mineralisation.
Site visits	• Comment on any site visits undertaken by the Competent Person and the	• Mr. Michael Johnstone has undertaken numerous site inspections for

Criteria	JORC Code explanation	Commentary
	outcome of those visits. • If no site visits have been undertaken indicate why this is the case.	project due diligence and exploration planning. Mr. Todd Axford has undertaken site inspections prior to and during the MMM drilling. Mr. Axford was involved with field checks of historic drill collars, selection of functional drill sites, and implementation of drilling, sampling, and logging procedures. Dr Andrew Richmond was an exploration geologist for Marlborough Gold Mines in the late 1980s and early 1990s and was responsible for exploration drilling at Mount Mackenzie during those times. In May 2015 Dr Richmond undertook a post-MMM drilling site visit to view drill core and chips, and discuss drilling and surveying procedures with the on-site supervising geologist. • Not applicable
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource	• The Mount Mackenzie area is recognized as a high sulphidation epithermal system. There has been significant work completed since the 1980's which has led to confidence in the current interpretation. The current work is supported by the previous interpretive work. To constrain the resource estimate the current work focused on interpretation of a broader mineralisation envelope utilising available geochemistry, interpreted alteration and lithological logging. The mineralised envelopes generated are believed to be an appropriate representation of the location and volumes of broadly mineralised material. • Data utilized in the interpretation of the mineralised envelopes at Mount Mackenzie consisted of historic drill hole logging and assays, past interpretations, and data acquired during the 2015 drilling program. The historic and recent drill data indicates an inverse relationship between gold mineralisation and manganese; in some cases areas of low gold content were included within the mineralised envelopes, where local trends suggested the area was expected to be part of the mineralised system, on the basis of low manganese assays. Drill-hole collars were adjusted to the topographic surface prior to geological interpretation. • The current resource estimate used a single interpretation, generated via a multi-stage interpretation process, including sectional interpretation and

Criteria	JORC Code explanation	Commentary
	estimation.	three dimensional interpretations, which resulted in the final mineralisation envelopes. Some section plots of past interpretations were available for comparison and review. In general, the interpretations are similar, locally they vary over time with the addition of new data. Support has not been found for an alternative interpretation that would significantly alter the gross resource.
	• The use of geology in guiding and controlling Mineral Resource estimation.	• With the deposit being high sulphidation epithermal there is not a simple geological control, such as may be seen in some other deposit types. The distribution of mineralisation is expected to relate to pre-mineralisation permeability and post mineralisation structural displacement. As would be expected for this style of deposit, there is a general association between alteration and mineralisation but no hard boundaries. The resource estimate was constrained by a number of mineralisation envelope wireframes (discussed above).
	• The factors affecting continuity both of grade and geology.	• Grade distribution is thought to be dependent on permeability, inherent permeability of the pre-mineralisation lithology and permeability related to structure. Work on the Mount Mackenzie area has involved iterative mapping and geological interpretation exercises. The area has been subject to several stages of deformation. The most recent interpretation suggests late stage generally north-westerly trending dextral faulting may have offset the mineralized geology on a project scale. The unconformity below the Coppermine Tuff Unit daylighting on Mount Mackenzie and dipping shallowly off to the west, is interpreted as post gold mineralisation. The estimation of grade was limited by the wireframe envelopes. Where drill density decreased mineralisation limits were restricted to a distance generally equal to half the typical hole spacing i.e. if holes were spaced at 20 metres the interpretation extended 10 metres beyond the last hole.
Dimensions	• The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	• The SW Slopes Resource is restricted to a single zone with dimensions 420m by 200m by 120m. The North Knoll Resource consists of a series of mineralised zones that vary from 50m by 30m by 20m up to 350m by 180m by 100m
Estimation and modelling techniques	• The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a	• Block grade estimation for both Au and Ag was by ordinary kriging (OK). OK was considered suitable for the style of mineralisation, size of blocks relative to the drill hole spacing, and the assumed open pit mining selectivity.

Criteria	JORC Code explanation	Commentary
	description of computer software and parameters used.	• Drill holes were composited to 2m and flagged with Vulcan V8.2 software. • Martlet proprietary software was used for variogram analysis and OK. • Hard boundaries for mineralised domain wireframes, with each domain estimated independently. • Blocks outside the mineralised wireframes were assigned default Au and Ag grade values of 0.0 g/t. • Au values capped at 15 g/t (SW Slopes) or 20 g/t (North Knoll). • Ag values capped at 50 g/t (SW Slopes) or 150 g/t (North Knoll). • Indicated and some Inferred blocks estimated using 13 – 16 samples with a maximum of 4 samples from any 1 drill hole. • Some Inferred blocks estimated using 2 – 12 samples with a maximum of 4 samples from any 1 drill hole. • A three-pass search strategy was employed with search ellipsoids orientated in accordance with identified spatial anisotropy as under: **North Knoll** • Maximum search distance of 35 m by 35 m by 10 m for search pass 1 • Maximum search distance of 50 m by 50 m by 15 m for search pass 2 • Maximum search distance of 150 m by 150 m by 40 m for search pass 3 **SW Slopes** • Maximum search distance of 25 m by 25 m by 15 m for search pass 1 • Maximum search distance of 40 m by 40 m by 25 m for search pass 2 • Maximum search distance of 150 m by 150 m by 40 m for search pass 3
	• The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	• Current resource estimate in reasonable accordance with an historical 1994 resource estimate prepared by Marlborough Gold Mines using AusIMM mineral reporting standards applicable at that time. There has been no additional check estimates or mine production.
	• The assumptions made regarding recovery of by-products.	• Both Au and Ag are assumed to be recoverable.

Criteria	JORC Code explanation	Commentary
	• Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation). • In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. • Any assumptions behind modelling of selective mining units. • Any assumptions about correlation between variables. • Description of how the geological interpretation was used to control the resource estimates. • Discussion of basis for using or not using grade cutting or capping. • The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	• No elements other than Au and Ag were estimated. • 5m by 5m by 5m blocks were used and are suitable for the majority of the resource where drill hole spacing is ≤25m. • Not applicable. • No assumptions were made. • Hard boundaries were based on the mineralised domain wireframes, with each domain estimated independently. • Grade capping was used for both Au and Ag. • The OK block model was validated by: (1) visual examination of the estimated block grades against the drill hole assays on plan and in section; (2) comparing declustered statistics against the statistics of the block estimates by domain; (3) swath plots; and (4) a theoretical assessment of smoothing of the block estimates using the Discrete Gaussian change of support method. No material issues were noted.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• Resource tonnages are estimated on a dry in situ basis
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• The resource is reported for cut-off Au grades of 0.35 g/t for oxide and 0.55 g/t for primary material, calculated using a A$2,760/oz gold price and other mining factors listed below. The resource is reported solely on the Au cut-off grade, and Ag has not been considered in the calculation of the cut-off grades or in assessing resource blocks
Mining factors or assumptions	• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining	• The resource is based on the assumption of a small-scale open pit mine with gold recovery by CIP/CIL • The resource estimate assumes free selection of the 5m by 5m by 5m blocks

Criteria	JORC Code explanation	Commentary

	methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	• Dilution and/or ore loss have not been considered
		• The Mineral Resource is restricted to mineralised material that falls within an open pit shell generated by Whittle software (Lerchs-Grossman algorithm) using the following parameters:
		  • A$2,760/oz Au and A$26/oz Ag price
		  • Au recoveries of 94% for oxide and 59% for primary material.
		  • Ag recoveries of 89% for oxide and 53% for primary material.
		  • Mining costs of A$2.40/t for oxide ore, and A$2.56/t for primary ore and waste material.
		  • Processing cost of A$21.70/t.
		  • Grade control costs of $2.00/t of ore.
		  • Office and administration costs of $5.48/t of ore.
		  • Overall slope angles of 42.5 to 45 degrees.
		  • Note that, the parameters above are preliminary in nature and are subject to confirmation by feasibility work on the project.

Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	• Recovery factors assumed for the cut-off grade calculations and open pit optimisation are based on leach extractive testwork on15 variability composites, and 5 master composites which were prepared from HQ bore core.
Environmental factors or assumptions	• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	• No environmental impediments to the project are known. The primary material contains sulphide minerals in low quantities that would need to be contained during mining.
Bulk density	• Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of	• Bulk density measurements were made on 34 waxed diamond core samples using the Archimedes water immersion method. Samples were selected from two diamond core holes in the main North Knoll mineralised zone. No

Criteria	JORC Code explanation	Commentary
	the samples. • The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	bulk density measurements are available for the SW Slopes mineralization • The method employed for bulk density measurement accounted for void spaces. Limited bulk density measurements have indicated that some clay zones have significantly lower bulk density values. These zones have not been segregated spatially but accounted for on a global basis by assigning the rounded down average bulk density to all blocks of similar oxidation status. • Dry in situ bulk density was assigned to blocks based on the degree of oxidation, which was modelled as a series of surfaces. •Completely oxidized material was assigned a bulk density of 2.4 t/m^3 •Partially oxidized material was assigned a bulk density of 2.5 t/m^3 •Non-oxidized or fresh material was assigned a bulk density of 2.7 t/m^3 These values are averages of the samples measured (including one clay sample) and have been rounded to reflect their degree of uncertainty. • Where blocks were cut by the oxidation surfaces bulk density was assigned on a pro rata basis by considering the proportion above/below these surfaces • Due to the various alteration types bulk density is likely to be spatially variable, but there is currently insufficient information to model this variability.
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	• The mineral classification has been assigned on a block by block basis, initially via the search parameters. Downgrading of some blocks was applied due to the historical nature of some drilling information and limited bulk density information. • Indicated blocks required a minimum of 4 drill holes within the search distances described for Pass 2 above. Additional consideration was given to the number of samples used for kriging and the kriging slope of regression. • Material in the SW Slopes area was restricted to Inferred Resources due a lack of confirmatory drilling by MMM. • Numerous factors related to the reliability of the sample data and confidence in the geological interpretation and block metal estimates were considered when assigning the resource classification.

Criteria	JORC Code explanation	Commentary
	• Whether the result appropriately reflects the Competent Person's view of the deposit.	• The Competent Person considers the applied resource classifications to be appropriate.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• The current Mineral Resource estimate has not been the subject of any audit or review.
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.	• The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code. • Geostatistical methods to quantify the relative accuracy of the resource have not been undertaken. • Historical drilling forms a large part of the data used to calculate the resource estimate. QA/QC procedures associated with this drilling were insufficient to form a view on their reliability. However, confirmatory drilling by MMM indicates that a material bias is unlikely in the North Knoll area. • Collection of additional bulk density data could result in significant changes to local tonnages, however, a material impact on the global resource tonnage is unlikely. • The cut-off used to determine the Mineral Resources was based on assumed mining and metallurgical factors that are preliminary in nature and require confirmation through feasibility work.
	• The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	• The resource statement relates to the global resource estimate
	• These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• Not applicable

Forward-Looking Statements

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning QMines Limited planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "expect," "intend," "may", "potential," "should," and similar expressions are forward-looking statements. Although QMines believes that its expectations reflected in these forward- looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that further exploration will result in the estimation of additional Mineral Resources.

Competent Person Statements

Ore Reserve Estimate – Mt Chalmers

The Information in this Report that relates to the Open Pit Optimisation and Ore Reserve Estimate and is based on information compiled by Mr Gary McCrae, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Mr McCrae is a full-time employee of Minecomp Pty Ltd. Mr McCrae 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 McCrae consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Mineral Resource Estimate

The information in this report that relates to mineral resource estimation is based on work completed by Mr. Stephen Hyland, a Competent Person and Fellow of the AusIMM. Mr. Hyland is Principal Consultant Geologist with Hyland Geological and Mining Consultants (HGMC), who is a Fellow of the Australian Institute of Mining and Metallurgy and holds relevant qualifications and experience as a qualified person for public reporting according to the JORC Code in Australia. Mr Hyland is also a Qualified Person under the rules and requirements of the Canadian Reporting Instrument NI 43-101. Mr Hyland consents to the inclusion in this report of the information in the form and context in which it appears.

Mr Hyland has reviewed the mineral resource estimate reported by Resource and Energy Group and considers the information presented in the market announcement provided is an accurate representation of the available data and studies for the Mt Mackenzie project.

Exploration

The information in this document that relates to mineral exploration and exploration targets is based on work compiled under the supervision of Mr Glenn Whalan, a member of the Australian Institute of Geoscientists (AIG). Mr Whalan is QMines' principal geologist and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity that 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' (JORC 2012 Mineral Code). Mr Whalan consents to the inclusion in this document of the exploration information in the form and context in which it appears.

QMINES Sustainable Australian Copper

Ore Reserve Mt Chalmers

Deposit[3]	Reserve Category	Tonnes (Mt)	Cut Off (% Cu)	Cu (%)	Au (g/t)	Zn (%)	Ag (g/t)	S (%)
Mt Chalmers	Proven	5.1	0.3%	0.72	0.58	0.25	4.70	5.80
Mt Chalmers	Probable	4.5	0.3%	0.57	0.37	0.29	5.50	3.60
Total[1]		**9.6**	**0.3%**	**0.65**	**0.48**	**0.27**	**5.20**	**4.30**

Mineral Resource Estimate Mt Chalmers

Deposit[4]	Resource Category	Tonnes (Mt)	Cut Off (% Cu)	Cu (%)	Au (g/t)	Zn (%)	Ag (g/t)	S (%)
Mt Chalmers	Measured	4.2	0.3%	0.89	0.69	0.23	4.97	5.37
Mt Chalmers	Indicated	5.8	0.3%	0.69	0.28	0.19	3.99	3.77
Mt Chalmers	Inferred	1.3	0.3%	0.60	0.19	0.27	5.41	2.02
Total[2]		**11.3**	**0.3%**	**0.75**	**0.42**	**0.23**	**4.60**	**4.30**

Mineral Resource Estimate Develin Creek

Deposit	Resource Category	Tonnes (Mt)	Cut Off (% Cu)	Cu (%)	Zn (%)	Au (g/t)	Ag (g/t)	
Develin Creek	Indicated	2.90	0.3%	1.09	0.98	0.15	6.04	Not in Mine Plan
Develin Creek	Inferred	1.23	0.3%	0.81	1.58	0.16	6.00	
Total		**4.13**	**0.3%**	**1.07**	**1.16**	**0.15**	**6.02**	

Mineral Resource Estimate Woods Shaft

Deposit[5]	Resource Category	Tonnes (Mt)	Cut Off (% Cu)	Cu (%)	Au (g/t)	Zn (%)	Ag (g/t)	
Woods Shaft	Inferred	0.54	0.3%	0.50	0.95	-	-	Not in Mine Plan
Total[3]		**0.54**	**0.3%**	**0.50**	**0.95**	**-**	**-**	

[1] ASX Announcement – *Mt Chalmers PFS Supports Viable Copper & Gold Mine, 30 April 2024. Rounding errors may occur.*
[2] ASX Announcement – *Mt Chalmers PFS Supports Viable Copper & Gold Mine, 30 April 2024. Rounding errors may occur.*
[3] ASX Announcement - *Maiden Woods Shaft Resource, 22 November 2022. Rounding errors may occur.*

About QMines

QMines Limited (**ASX:QML**) is a Queensland focused copper and gold exploration and development Company. The Company owns 100% of the Mt Chalmers (copper-gold) and Develin Creek (copper-zinc) deposits, located within 90km of Rockhampton in Queensland.

Mt Chalmers is a high- grade historic mine that produced 1.2Mt @ 2.0% Cu, 3.6g/t Au and 19g/t Ag between 1898-1982.

Following several resource updates, Mt Chalmers and Develin Creek now have Measured, Indicated and Inferred Resources (JORC 2012) of **15.5Mt @ 0.82% Cu, 0.35g/t Au, 0.47% Zn & 5g/t Ag.**[1]

QMines' objective is to make new discoveries, commercialise existing deposits and transition the Company towards sustainable copper production.

Projects & Ownership

Mt Chalmers	100%
Develin Creek	100%

QMines Limited

ACN 643 312 104

ASX:**QML**

Unlisted Options
5,750,000

Shares on Issue
428,902,886

Directors & Management

Andrew Sparke
Executive Chairman

Peter Caristo
Non-Executive Director (Technical)

Glenn Whalan
Geologist (Competent Person)

James Anderson
General Manager Operations

Elissa Hansen
Non-Executive Director & Company Secretary

Compliance Statement

With reference to previously reported Exploration results and mineral resources, 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, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parametres 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.

1. ASX Announcement – Develin Creek Resource Upgrade. 12 March 2025.

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APPENDIX 1: JORC Code, 2012 Edition – Table 1 Checklist

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (eg cut channels, random chips, or specific specialized 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. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralization that are Material to the Public Report.	• Samples were obtained from 5.25 inch percussion drillholes, with lesser amounts obtained from 5.5 inch Reverse Circulation drilling, and minor HQ3, and NQ2 coring. For percussion and RC drilling the sample intervals typically either 1 or 2m over the drilled interval. Cored intervals were generally sampled at 1m or less if a change in lithology or alteration was noted within the sample interval. The combined resource database for the Mount Mackenzie Prospect totals 619 drillholes for 59707m of drilling comprising: **Pre-MMM drilling: DDH4-MMRC664** 23 DDH Holes for 2364m, 23 Percussion holes with NQ Diamond Tails for 16278m, 440 DTH Percussion holes for 27282m and 120 RC Holes for 17417m **MMM drilling MMRC665-677 and MMRC679, plus MMDD678 and MMDD680** 13 RC Holes for 1146m, and 2 DDH Holes for 120m • MMM RC samples (MMRC665-MMRC677 & 679) were collected for every meter drilled from a three-tier riffle splitter which was housed under the cyclone. Sample was in the main dry and free flowing. Pre-MMM RC samples were collected every meter from either a self splitting agitating cyclone (PDH83-PDH160) or manual 50/50 splitter (MMRC613-MMRC664). Pre-MMM percussion samples were recovered from the surface casing diverter into an on-board cyclone. At the end of each sample run (typically 1-2m) the hammer was pulled off bottom, and the hole bailed with air. Dry sample from the cyclone was immediately released into a riffle splitter and manually split to achieve a 3-5kg lab sample and a 1kg reference sample. Wet sample was directed to drainage bins and allowed to dewater. After dewatering a 3-5kg lab sample was scooped out of the bin. It is noted that the wet sampling procedure did result in some loss of fines. No other specialized or industry standard measurement tools have been used for sampling. • In general, the complete intervals drilled have been sampled and tested. Some of the early holes were selectively tested based on quantitative logging details (for example material above the post mineralisation Copper Mine Tuff unconformity may not have been assayed). Details of all intersections, sampled intervals and results are included in supporting documentation.

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	• 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 mineralization types (eg submarine nodules) may warrant disclosure of detailed information.	• Reverse circulation and core drilling was used to obtain 1m samples from which approximately 3-5 kg was collected and pulverized to produce a 50g charge for fire assay with a AAS finish. In addition, a 30g sample for multi element analysis by ICP, or Acid Digestion was prepared and analyzed. DTH Percussion drilling was used to obtain 2m composite samples, which were pulverized to produce a 30g charge for fire assay. Details of sample mass for Percussion DTH samples have not been documented but are believed to have ranged from 3-5kg, in line with prevailing industry practice. The vast majority of testwork for Pre and MMM drilling has been carried out by Australian Laboratory Services (ALS). The principal test methods being PM209 and AA26 for Au, and IC580 or ICP61 for multi-element analysis.
Drilling techniques	• 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).	• The exploration results are based on drilling programs comprising combination of HQ/NQ, Reverse Circulation (RC) drilling, and Open Hole DTH Percussion drilling. A 5.25'' or 5.5'' inch face sampling hammer bit was used for MMM RC drilling, and a standard 5.25" DTH hammer for Pre-MMM percussion drilling. For early RC drilling it is not clear from the drilling records whether a face sampling hammer or conventional hammer with a cross-over sub was used, most likely conventional. Pre-collars and surface casing for all drilling was in the main 6 inch and set 3m to 8m from surface. Recent cored holes have been orientated and RC holes have been surveyed downhole using a gyroscope. Directional surveys for Pre-MMM drill holes MMRC614-664 were completed using either a Humphrey or Eastman Camera. Down hole directional surveys were also carried out on boreholes PDH538-PDH612 however the method used is not recorded.
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximize sample recovery and ensure representative nature of the samples.	• Core recoveries for all DDH have been recorded and are based on linear and not mass measurement. MMM RC samples recoveries were measured qualitatively, and comparatively based on the supervising geologists experience and assessment of bagged bulk sample volumes. Data recorded on a sample record log in the field as drilling progressed and sample masses checked on scale, and reweighed at the lab. Pre-MMM percussion drilling and RC recoveries such as sample mass are not recorded. There are occasional references to "good chip" or "poor" recovery. • For RC drilling the drilled interval is continuously sampled every meter using either a three-way splitter slung directly under the cyclone or a two way self splitting cyclone. The splitter was checked every sample to ensure no residue

Criteria	JORC Code explanation	Commentary
	• 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.	remained from the previously drilled interval, and the cyclone checked regularly. For MMM drilling, in addition to recording variance in recovered sample, field procedures involved highlighting any variance in observed sample recovery to the driller immediately in order to ensure consistent recoveries. HQ triple tube was adopted to maximize DDH core recoveries. • No relationship has been identified at this stage.
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. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. • The total length and percentage of the relevant intersections logged.	• All bores are geologically logged to a level suitable for resource estimation. Lithology, alteration, mineralisation and weathering condition has been noted on all logs. For cored holes anisotropies such as joint, fracture and veins have been logged as well. • Logging is qualitative and descriptive. Photography of drill core was only routinely carried out on post 1999 drilling. Chip trays for sieved samples from every percussion and RC hole, together with remnant core have been retained and stored for future reference. • In the main 100% of drilled intervals have been logged; intervals of no recovery are noted on logs and sample registers.
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique.	• Core samples were half split lengthwise for assay. For specific metallurgical testing the entire core was used over selected intervals. • For MMM RC samples, a three-way riffle splitter was used to obtain 1m sub samples with a weight of approximately 3kg. For Pre-MMM RC samples (PDH83-PDH160) an agitating self splitting cyclone was used to recover sub-samples with a weight of approximately 5kg. Percussion samples were manually riffle split to recover a sample with a weight of 3-5kg. In most cases the sample has been classed as wet or dry on the drilling log header, and a review of these indicates majority of samples were dry. • The field procedures adopted for RC and DDH sub sampling are in the main Industry standard and appropriate. The methods used to dewater Pre-MMM DTH percussion samples resulted in a partial loss of fines, and could have introduced a sample bias. Wet intervals sampled in this manner comprise a small proportion of the resource database.

Criteria	JORC Code explanation	Commentary
		After initial collection in the field all subsequent sample preparation is carried out in a laboratory, under controlled conditions and specified by the relevant standards. MMM sample preparation and analysis was undertaken at ALS Laboratory Townsville, an ISO accredited laboratory. Pre-MMM work was completed by ALS at either Brisbane for DDH1-PDH612 or Townsville MMRC613-MMRC664. ALS utilises industry best practise for sample preparation for analysis involving drying of samples, crushing to <5mm and then pulverising so that +85% of the sample passes 75 microns prior to subdivision for analysis.
	• Quality control procedures adopted for all sub-sampling stages to maximize representivity of samples.	• For MMM RC drilling, site QA/QC procedures involve the use of blanks and duplicates. The insertion rate of these averaged one QA/QC sample per 20 metres drilled. Duplicates were generated on-site from the original split sample via the cone and quarter method. Blanks consisted of crushed gravel sourced from off site and are characterised by a geochemical signature unique from the mineralisation at Mount Mackenzie. For Pre-MMM RC drilling (MMRC613-664) site QA/QC procedures involved the use of duplicates, and standards. An evaluation of assay registers for these boreholes indicates insertion rates which typically included 1 standard for each borehole, and 1 duplicate for each 30-50m drilled. For Pre-MMM percussion drilling there is no documented process for field duplicate or second half sampling or use of standard samples.
	• 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.	• Field duplicates were collected at 1m intervals directly from the splitter and included in the sample stream. These have been tracked, analysed and checked by the principal consultant for Geko-Co. ALS also include certified reference samples and blanks in each sample batch, as part of that company's internal QA/QC protocols. No material issues were noted.
	• Whether sample sizes are appropriate to the grain size of the material being sampled.	• Microscopy and metallurgical test work has indicated that gold is likely to be fine-grained. No coarse gold has been observed. The 5.25" to 5.5" hole diameter and collection of a 3-5kg (split on site) sample over an interval of between 1 and 2m is industry standard practice and considered to generate appropriately sized samples for the style of mineralization.

Criteria	JORC Code explanation	Commentary
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.	• For MMM drilling, a 50g charge for fire assay was analysed using ICP-AES (AA26) which is an Industry standard for Gold ore grade determination. Broad spectrum, 33-element analysis has been determined on 30g sub samples pulverised to pass 75um, using a 4-acid digest, followed by ICP-AES. Analyites which are over limit are retested using a more appropriate method. The Pre-MMM drilling selected a 30g charge for fire assay and AAS finish for gold (PM209), and acid digestion for multi element determination (IC580). This was an industry standard procedure throughout the 1980s and 1990's. The assay methods used for Au are considered to be total.
	• 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.
	• 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.	• Current ALS QA/QC involves the use of internal laboratory standards using certified reference material, blanks, splits and replicates as part of the in-house procedures. The QA protocol requires that for each batch of 40 samples a reagent blank, two replicate determinations, and two standards are included. The system also uses a bar coding and scanning technology that provides complete chain of custody records at every stage of the analytical process. For Pre-MMM testing QA protocols adopted by ALS are not known, although repeat test results, particularly over higher-grade intervals are included in the dataset.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel.	• All sampled intersections are verified by the site Geologist, who has been present on site during the complete drilling process. The sampled intersections are then checked by the principal consultant for Geko-Co, by reference to hole number, drilling depths sample numbers, blanks and standards introduced into the sampling stream. The final results are then reviewed by the exploration manager for MMM. The general tenor of early mineralised drill hole intercepts have been confirmed through additional infill and extensional drilling by several companies that joint ventured onto the project, and by the confirmatory drilling of MMM.
	• The use of twinned holes.	• Not applicable.
	• Documentation of primary data, data entry procedures, data verification,	• The primary data was collected at the drill site as drilling progressed by the

Criteria	JORC Code explanation	Commentary
	data storage (physical and electronic) protocols. • Discuss any adjustment to assay data.	Site Geologist and Field Technician. The Site Geologist recorded all lithological logging data directly in digital format via a rugged computer. The sample data, including allocation of sample number to interval, sample quality/recovery data, and insertion of QA/QC samples was recorded on a field sheet by the Field Technician and reviewed by the Site Geologist in the field. This data was later digitised in the office and validated against assay files and checked by the Principal Geologist. Field sheets are kept on file and digital data backed up. The project data base is independently maintained in Explorer 3 data management software. This software has capability to identify data entry errors. Pre-MMM drill hole data and geological logs were obtained from the previous owners/operators. Where possible this information has been verified (or augmented) against historical exploration reports lodged with regulatory authorities. • Analytical data is not adjusted.
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.	• All MMM borehole sites were located in the field by registered Surveyors (Terrex Spatial) using RTK GPS methods which involves setting up a GPS base station on a known State control mark and a GPS remote over the drill collar. Following completion, the boreholes have also been relocated by Terrex Spatial. The surveyor's instrument was checked for accuracy by reference to a known, control station. The stated accuracy is +/- 0.05m in both horizontal and elevation. Pre-MMM drillholes were initially located with reference to a local grid by total station survey if clear line of site was available or a transit traverse if not. The surveying standards applied at the time would have been industry standard. In 1999 the local grid co-ordinates were transformed to AMG66, and to GDA94 in 2015. In 2015 a check survey was carried out over 230 historic drillholes, which identified positional (easting and northing) errors ranging from a few centimeters to up to 5m. The discrepancies have been accepted and probably relate to inaccuracies in transforming from local grid to AMG and then GDA. For MMM drilling gyroscopic downhole surveys were completed for each hole by Surtron Pty Ltd. The stated accuracy is 0.25^{o} in azimuth and 0.05^{o} in inclination. The Gyroscope was able to be lowered to effectively end of hole in 8 holes, with the surveyed length of the remaining 5 holes ranging from 58% to 83% of the drilled depth. Downhole surveys using either Eastman or

Criteria	JORC Code explanation	Commentary
		Humphrey Camera were carried out on boreholes MMRC614-665, although accuracy is not recorded. A few earlier holes PDH538-612 were also surveyed; however the method and its accuracy are not recorded.
	• Specification of the grid system used.	• The Grid System is GDA94 Zone 55. Azimuth has been reported by Surtron as Magnetic (declination applied 8.812 degrees).
	• Quality and adequacy of topographic control.	• Collar RLs and surface elevation string lines surveyed by Terrex Spatial have been used to prepare a Digital Terrain Model (DTM). Terrex Spatial also picked up the position of approximately 230 drill collars at the site to allow recent results to be compared with historic drilling data. The check survey identified errors in the early drill-hole elevations. For modelling purposes, the DTM prepared using elevation data acquired during 2015 exploration has been used over a part of the prospect known as the North Knoll. For the remainder of the project site a DTM prepared by UTS Geophysics and based on an aerial survey carried out in 2007 has been applied. The UTS survey has a stated accuracy of +/-2.5m. There are small elevation discrepancies, usually within the stated accuracies, between the 2 topographic surfaces.
Data spacing and distribution	• Data spacing for reporting of Exploration Results.	• Data spacing for reporting these Exploration Results is in the order of 5 to 50m.
	• 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 orientation provides significant coverage on section and plan to determine the degree of geological and grade continuity commensurate with the resource classifications applied.
	• Whether sample compositing has been applied.	• Drill hole samples have not been composited prior to assaying. Results for samples <2m were composited to 2m post assaying for resource estimation purposes.
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.	• An evaluation of drill data on section indicates that the holes have been mainly been drilled at a reasonable orientation to the principal resource areas and no significant bias would be expected. Mineralisation is generally dipping 60-80^{0} west-south-west; in some instances steep dipping mineralisation has been tested with vertical holes. However, the density of drilling is quite high and resource and mineralised extents are reasonably well confined.
	• If the relationship between the drilling orientation and the orientation of key	• The orientation of drilling is not considered to have introduced sampling

Criteria	JORC Code explanation	Commentary
	mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	bias.
Sample security	• The measures taken to ensure sample security.	• Chain of custody for MMM samples. Samples were checked against the sample record sheet in the field prior to collection into sequentially numbered plastic bags. The plastic bags were sealed with cable ties before being secured in bulker bags, along with sample submission sheets. The sample batches were loaded by the field team and freight forwarded to ALS Townsville by the transport contractor without any trans-shipment. The receiving laboratory verified sample numbers against the sample submission sheet/manifest, and confirmed receipt. After receipt the samples were bar coded and tracked through the entire analytical process. Pre-MMM samples were collected in pre-numbered calico bags that were tied and then placed into polyweave sacks that were secured by tape prior to dispatch via a transport contractor to either ALS Brisbane or Townsville.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• At this stage no audits or reviews of sampling techniques has been carried out.

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 security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.	• The area under assessment is located wholly within MDL2008. MDL2008 is a mineral development license. A public interest enquiry confirms Mount Mackenzie Mines (MMM) as having 100% interest in the tenement. MMM is a wholly owned subsidiary of Resources and Energy Group (REG) The land, from which the Exploration Results have been derived, is not subject to Native Title Interests, and does not encompass Strategic cropping lands, wilderness or protected landscapes. • At the time of reporting the tenement is in good standing. There are no known impediments which would prohibit operations in accordance with the license conditions, and the environmental authority.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• This tenement package was formerly held under joint venture between Smarttrans (formerly Coolgardie Gold) and Australian Reproductive Health Services (formerly Marlborough Gold Mines). Over many years several companies had joined with Marlborough Gold Mines to form joint ventures over the area of EPM10006, including Australian Consolidated Exploration (1975-76), Utah Development (1981-82), Peabody (1984-85), Freeport McMoran (1987-89), Dragon Mining (1995), Coolgardie Gold / SmartTrans Holdings (1997-2014), Jeteld (2002-06) and Newcrest Mining (2007-08).
Geology	• Deposit type, geological setting and style of mineralization.	• High Sulphidation epithermal gold deposit of Late Carboniferous age associated with the Conners Magmatic Arc in the Queensland part of the New England Fold Belt.
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: o easting and northing of the drill hole collar o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth o 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.	• Co-ordinate location, elevation, hole length, dip and azimuth of all material holes is provided within the announcement • Selected results provided within the announcement. • Results were included in REZ's MRE

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Data aggregation methods	• 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.	• Results are reported within as length averages. Cut off grade for compositing was 0.5 g/t Su with no internal dilution. Results reported within are 1 g/t Au or better • The broad nature of the mineralisation interpretation means in some instances shorter intervals of higher grade may be present within an individual drill hole. • Not applicable, metal equivalents are not reported
Relationship between mineralization widths and intercept lengths	• These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralization 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').	• The mineralisation in the North Knoll is believed to have a north-westerly alignment, with westerly dip. Recent confirmatory drilling has been spatially arranged normal to this orientation. Mineralisation in the South West Slopes area is also north-westerly trending with a steeper to sub-vertical west dip. • Sample intervals have been described as down hole intervals and observation of data on section indicates the down hole intercepts are a reasonable indication of mineralisation widths in the North Knoll area. Most drilling in the South West Slopes area is vertical and therefore intercept length is not likely to relate to true thickness. The wire-framing process prior to estimation accounts for this.
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.	• Appropriately scaled plans and sections have been provided in this announcement. A plan showing all drill hole collar locations accompanies this announcement.
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should	• Comprehensive reporting of all material data has been adopted.

Criteria	JORC Code explanation	Commentary
	be practiced to avoid misleading reporting of Exploration Results.	
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.	REZ has previously released a valuation and assessment report on the group of tenements. This document provides details of geological observations, previous investigations, geochemistry and geophysical survey results.
Further work	• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• Recommendations for further work are described in the accompanying release