

22 September 2021



Thick Gold Mineralised Zones at Butchers Creek

Strong results from Meteoric's follow-up drilling program at the Butchers Creek Deposit, part of the Palm Springs Gold Project W.A., confirm the presence of thick zones of gold mineralisation enhancing the anticline hinge zone target

Highlights

- Anticlinal hinge zone intersections confirm large, robust intervals including:-
 - BCRD483 – 57m @ 1.6g/t Au from 223m
including 18m @ 3.1g/t Au from 234m
 - BCRD484 – 32m @ 1.4g/t Au from 266m
including 4m @ 6.0g/t Au from 266m
- Results further enhance the excellent progress to date at Palm Springs and provide confidence for Meteoric to forge ahead with a Scoping Study looking at open pit and underground development scenarios
- Remaining assay results anticipated in October
- 2021 regional exploration activities to discover repeats of Butchers Creek underway

Meteoric Resources NL (ASX: MEI) ("Meteoric" or the "Company") is pleased to report it has now received the first results from the 2021 program carried out at the Company's Palm Springs Gold Project in WA.

Dr Andrew Tunks Meteoric MD said:

"We learned a great deal about the Butchers Creek Deposit from last year's highly successful drill program, in particular, gold mineralisation is stratabound within a single thick syenite unit and that the highest grade and thickest parts of the orebody occur within the hinge zone of a regional scale anticlinal fold hinge. This gold mineralisation forms a robust high-grade zone that plunges shallowly southeast. This work produced a global resource statement of 5.2 Mt @ 1.9 g/t for 319,000 ounces of gold including 1.9 Mt @ 2.2 g/t for 139,000 oz of Indicated Resource. In fact, this makes it the largest gold resource in the belt outside the Nicholsons deposit and we see it as central to any potential new development in the Halls Creek region."

The 2021 drilling program has further fleshed out our mineralisation model. The orebody is exposed beneath the historic pit and plunges away to the south, with recent drilling results supporting the presence of high-grade shoots occurring within the thick moderate-grade Hinge Zone. It seems logical from the orebody geometry that development could proceed underground to the south from a substantially enlarged historic open pit.

Based upon these results we will now move into the following key studies: Open pit optimisations to develop ore immediately beneath the historic pit; underground development scenarios to exploit deepest portions of the resource, initial preliminary metallurgical studies on 2021 drill core, and assessing process route designs. These will all be fed into a Scoping level study.

While proceeding with this plan, we have commenced exploring for repeat orebodies within close proximity of the Butchers Creek Deposit.

2021 Resources

Meteoric announced a maiden Mineral Resource for the Project to the Market on 3 June 2021.

Deposit	Lower Cut-off (g/t)	Resource Classification	Tonnes (Mt)	Gold Grade (g/t)	Contained Gold (oz)
Butchers Creek	0.8	Indicated	1.9	2.2	139,000
	0.8	Inferred	3.3	1.7	180,000
Sub-total		Ind + Inf	5.2	1.9	319,000
Golden Crown	0.8	Inferred	0.4	3.1	38,000
PSPG Global Resource			5.6	2.0	357,000

Note: Figures may not add up due to rounding.

Previously released drillholes from Butchers Creek that are included in the Mineral Resource Estimate include:-

Historic holes beneath the Open Pit (refer ASX:MEI 15 June 2020):

- 19m @ 8.8 g/t Au in BCR250 [56m]
- 6m @ 13.9 g/t Au in BCRC322 [150m]
- 7m @ 4.2 g/t Au & 8m @ 17.4 g/t Au in BCD230 [49m]
- 6m @ 21.2 g/t Au in BCD230 [60m]
- 38m @ 2.4 g/t Au in BCD336 [170m]

Drilling by the Company during the 2020 field season (refer ASX:MEI - 2nd & 30th November 2020 & 8th Feb 2021):

- 69m @ 4.38g/t Au [181m] in BCRD467 including 19m @ 7.22/t Au [204m]
- 56m @ 2.69g/t Au [181m] in BCDD372 including 18m @ 4.85/t Au [203m]
- 55m @ 3.21g/t Au [175m] in BCRD468 including 8m @ 7.56/t Au [179m]
- 53m @ 2.14g/t Au [147m] in BCRC466
- 45m @ 2.25g/t Au [259m] in BCRC475 including 5m @ 10.77/t Au [261m]
- 34m @ 2.48g/t Au [170m] in BCRC470 including 4m @ 7.75/t Au [170m]
- 21m @ 6.07g/t Au [264m] in BCRC476 including 2m @ 47.83/t Au [268m]
- 8m @ 10.41g/t Au [156m] in BCDD373

2021 Drilling Program

Drilling for the 2021 season was carefully planned to improve confidence in the high-grade portions of the resource (5.2Mt @ 1.9g/t Au [319,000 oz]) by targeting the hinge zone position in areas with insufficient drilling, and, also testing for continuations of mineralised syenite south of the current resource. The Company completed 10 drill holes for a total of 3,241m (1,959m RC and 1,282m DD) which comprised 9 RC pre-collars (only 5 received diamond tails) and 1 diamond tail re-entry of BCRC482 from the 2020 drill campaign (Figure 1 & Table 2).

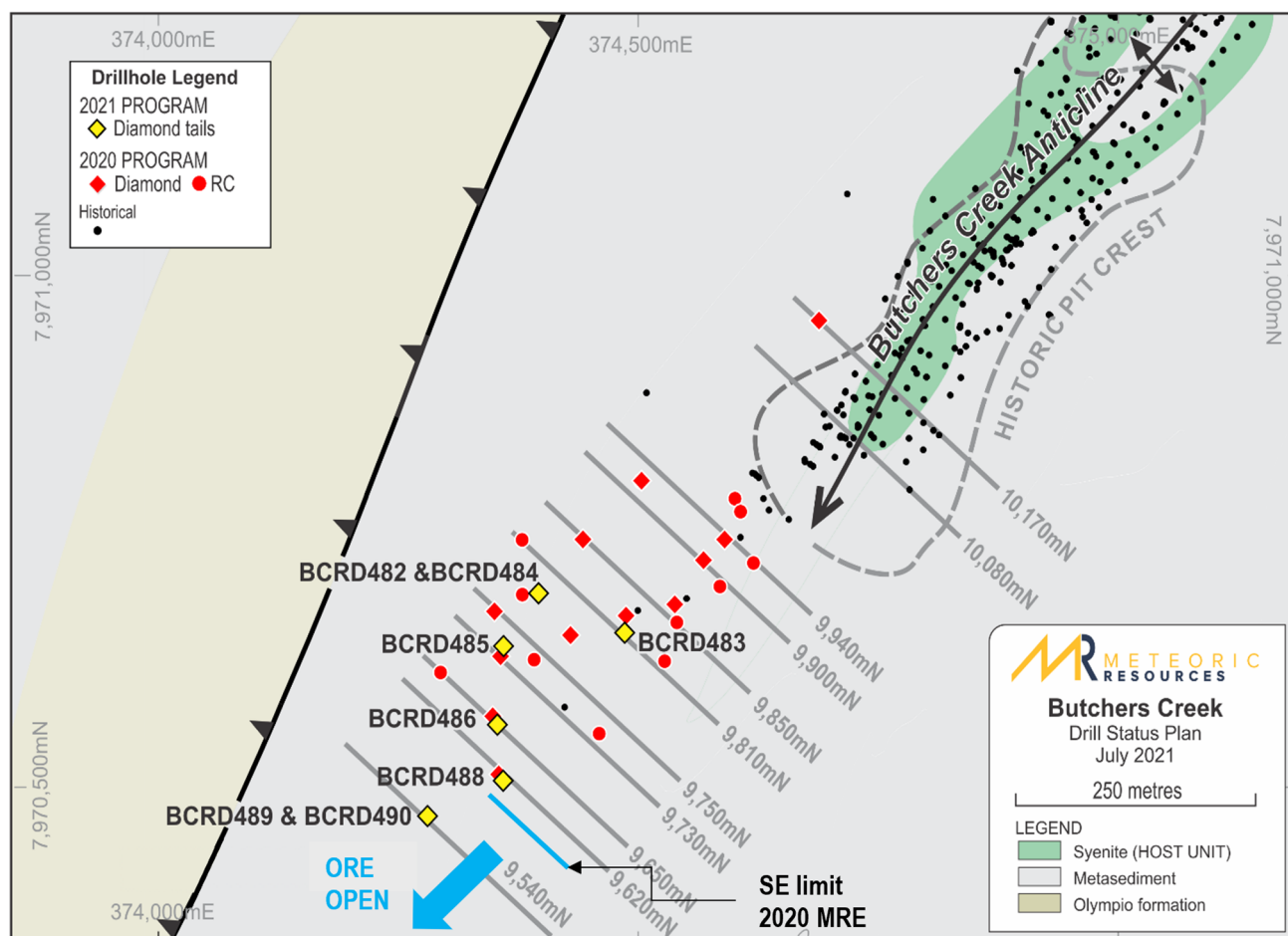


Figure 1. Project geology and collar plan showing historic drill holes and MEI's 2020 & 2021 programs.

Blue line shows SE limit of 2020 MRE. Solid blue arrow shows direction of fold plunge and orebody which remains open.

Geology and Mineralisation

Mineralisation at Butchers Creek is stratabound within a single intermediate intrusive unit (syenite). The localisation of alteration, including intense sulfidation and related gold mineralisation within the syenite appears to be related to a rheology contrast between the syenite and the surrounding sedimentary rocks. The syenite deforms in a brittle manner allowing veining, fracturing and alteration to concentrate there. This is most prevalent in the hinge zone region of a northeast striking, shallowly southwest plunging fold where thick zones of mineralisation (up to 70m down hole) are often intersected.

The syenite is generally albitised with abundant quartz + carbonate + chlorite veins and localised sulphide veinlets and alteration haloes containing pyrite > pyrrhotite >> arsenopyrite. The best mineralised intercepts exhibit strong albite alteration and abundant sulphides. In addition, recent petrological investigation clearly shows the gold is related to the sulphides present in the syenite with gold occurring dominantly as inclusions within pyrite and pyrrhotite.

Section 9810m N (BCRD483 Figures 1 & 2)

Drilling on Section 9810mN confirmed continuity of the Hinge Zone intersected 40m north in BCRD467 (69m @ 4.38g/t Au from 181m - ASX:MEI 30 November 2020). BCRD483 intersected an 82m thick zone of syenite in the Hinge Zone grading 57m @ 1.6g/t Au from 223m, including 18m @ 3.1g/t Au from 234m (Figure 2).

The presence of an internal higher grade zone -18m @ 3.1g/t Au within the broader 57m wide intercept supports the existence of postulated high-grade shoots within the broader hinge zone intersections. These shoots will be modelled for possible extraction by both open-pit and underground mining methods during the evaluation studies that will commence once all results are received.

Section 9780m N (BCRD482 & 484, Figures 1 & 3)

Drilling on Section 9780mN confirmed continuity of the Hinge Zone intersected 40m south in BCRD475 (45m @ 2.54g/t Au from 259m - ASX:MEI 15/06/2020). BCRD484 intersected a 79m thick zone of syenite in the Hinge Zone grading 32m @ 1.4g/t Au from 266m (including 4m @ 6.0g/t Au from 266m), and 20m @ 0.7g/t Au from 311m (Figure 2).

As above, the presence of a higher grade inclusion – 4m @ 6.0g/t Au supports the presence of postulated high-grade shoots within the hinge zone intersections.

Section 9540m N (BCRD489 & 490)

Drilling on Section 9540m N (80m south of existing drilling) extends mineralisation to the south of the Resource. BCRD489 intersected sporadic mineralisation in an 84.5m thick zone of syenite in the Hinge Zone of the anticline. BCRD490 was drilled below this and intersected a significant 48m width of syenite (slightly oblique intersection) on the western Limb of the anticline.

Table 1: 2021 Drilling - Mineralised Intercepts Table.

Section	Hole ID	Sample Type	From (m)	To (m)	Interval (m)	Au Grade (g/t)	Gram.Metres (g/t.m)	Ore Zone
9810m N	BCRD483	RCD	223.00	280.00	57.00	1.59	91	Hinge
		<i>including</i>	234.00	252.00	18.00	3.09	56	Hinge
9780m N	BCRD484	DD	266.00	298.00	32.00	1.39	44	Hinge
		<i>including</i>	266.00	270.00	4.00	6.03	24	Hinge
	BCRD484		311.00	331.00	20.00	0.68	14	Hinge
		<i>including</i>	311.00	317.00	6.00	1.09	7	Hinge
9540m N	BCRD489	DD	325.00	328.00	3.00	1.22	4	Hinge
			348.00	352.00	4.00	0.58	2	Hinge
			365.00	367.00	2.00	0.92	2	Hinge
	BCRD490		446.00	447.00	1.00	1.13	1	West Limb

*Minimum 2m width, lower cut-off 0.5g/t Au, maximum 5m internal dilution.

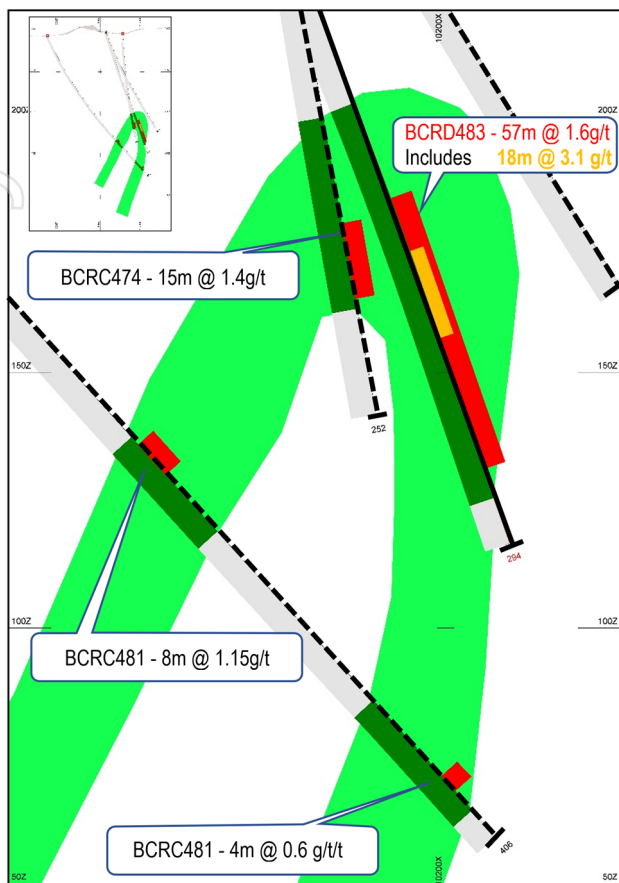


Figure 2. Detailed X-Section 9810m N: BCRD483 geology and mineralised intercept.

Hole BCRD483 intercepted a broad hinge zone of 57m @ 1.6 g/t with an internal high-grade zone of 18m @ 3.1 g/t.

Solid drill traces are holes from 2021 Drilling Program
Geology is shown to left of trace and significant gold grades to right. Host Syenite = Green.

Dashed drill traces are holes BCRD 481 and BCRC 474 are from 2020 Drilling Program.

Inset shows complete x- section from surface.

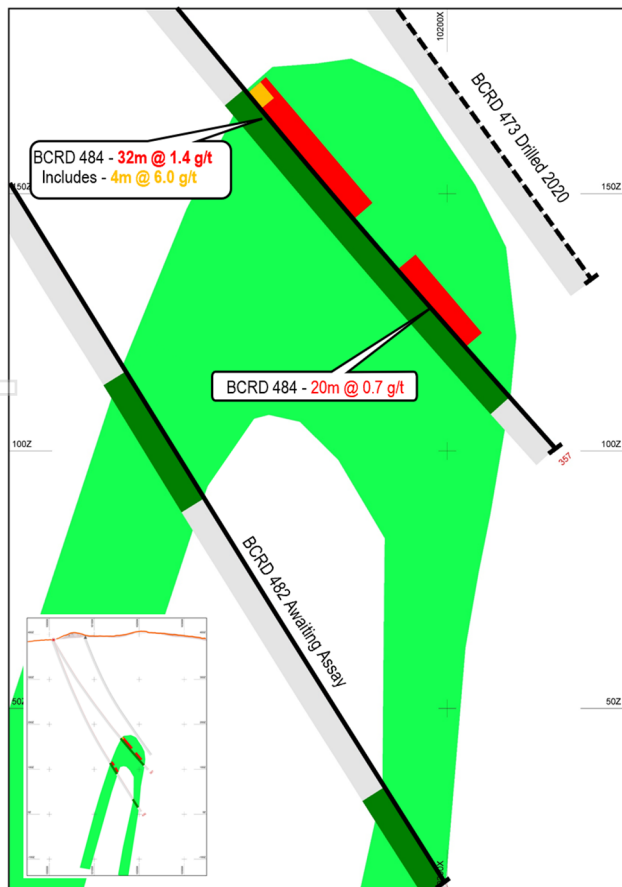


Figure 3. Detailed X-Section 9780m N: BCRD484 geology and mineralised intercept. BCRD 482 awaiting assay.

Hole BCRD482 intercepted a broad hinge zone of 32m @ 1.4 g/t with an internal high-grade zone of 4m @ 6.0 g/t from 266m downhole. A further zone of 20m @ 0.7 g/t was intercepted from 311.

Solid drill traces are holes are from 2021 Drilling Program
Geology is shown to left of trace and significant gold grades to right. Host Syenite = Green.

Dashed drill traces are holes are from 2020 Drilling Program.

Inset shows complete x- section from surface.

Table 2: Butchers Creek 2021 drill hole information.

Section	Hole ID	Hole Type	Easting	Northing	RL	Dip	Azi	RC Depth (m)	DD Interval (m)	Final Depth (m)
9810m N	BCRD483	RCD	374491	7970653	394	-73	123	258	36.4	394.4
9780mN	BCRD482	DD	374388	7970691	388	-69	118	0	112	430
9780m N	BCRD484	RCD	374389	7970691	388	-58	122	251	106.3	357.3
9710m N	BCRD485	RCD	374357	7970627	387	-61	122	250	28	278
9660m N	BCRD486	RCD	374345	7970575	387	-66	125	180	151.6	331.6
9615m N	BCRD488	RCD	374344	7970521	389	-70	125	234	0	234
9535m N	BCRD489	RCD	374258	7970483	389	-66	122	163	240	403
9535m N	BCRD490	RCD	374258	7970483	389	-75	122	300	289.8	589.8
9535m N	BCRD491	RC	374202	7970437	389	-63	122	148	0	148
9535m N	BCRD487	RC	374202	7970437	389	-69	122	175	0	175
								1,959.0 m	1,282.1 m	

*Geographic Datum is GDA94, Zone 52 South

'Italics' denotes hole did not reach syenite.

Board Role Change

The Company advises that Patrick Burke, who has served as Executive Chairman during this past extremely active period, will be stepping back into his Non-Executive Chairman role with immediate effect.

Competent Person Statement

The information in this announcement that relates to exploration results is based on information reviewed, collated and fairly represented by Mr Peter Sheehan who is a Member of the Australasian Institute of Mining and Metallurgy and a consultant to Meteoric Resources NL. Mr Sheehan has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Sheehan consents to the inclusion in this report of the matters based on this information in the form and context in which it appears. Additionally, Mr Sheehan confirms that the entity is not aware of any new information or data that materially affects the information contained in the ASX releases referred to in this report.

This announcement has been authorised for release by the Board.

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Appendix 1 - JORC Code, 2012 Edition Table 1

Section 1 Sampling Techniques and Data

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

Criteria	Commentary
<i>Sampling techniques</i>	• REVERSE CIRCULATION (RC) drilling was used to obtain 1 m samples from which 3-5 kg was split out, then sent to the laboratories to be pulverised to produce a 50 g charge for fire assay. • DIAMOND CORE (DD) drilling was used to obtain 1 m samples from which 3-5 kg was cut, then sent to the laboratories to be pulverised to produce a 50 g charge for fire assay.
<i>Drilling techniques</i>	• RC drilling was carried out using a McCulloch DR950 with 3.5' rods and a 5.7/8' face sampling hammer. • DD drilling was completed using a McCulloch DR950 drilling rig which produced HQ3 diameter core. • The core was oriented using the TruCore UPIX tool and structural measurements were collected in zones of mineralisation and/or zones of interest.
<i>Drill sample recovery</i>	• Core loss is systematically measured and recorded by the Field Technician when the core is received from the rig. Additionally, it is often recorded by the Geologist in the Comments section of the summary logging sheets. Core recovery was excellent with >98% recoveries in fresh rock. • The condition of RC drill chips are recorded in the Comments section of the sample sheets if there was 'wet sample' or 'no sample' return. To (2) holes experienced excessive water and were abandoned (at >300m depth). Only the last 2-3 metres returned 'wet' samples. • The utilisation of a high capacity RC drill rig (listed above) ensures recoveries are maximized in the deep RC drilling. • No relationship (positive or negative) was observed between recovery and gold grade. There is no reason to believe any sample bias has been introduced as a result of the recovered sample fraction.
<i>Logging</i>	• RC drill holes were geologically logged on 1m intervals and in sufficient detail to support descriptions of rock types and mineralisation presented in the Announcement above. • DD drill holes were logged based on lithology/alteration boundaries and in sufficient detail to support descriptions of rock types and mineralisation presented in the Announcement above. • Logging is qualitative in nature recording: oxidation, texture, rock type, structure type and alpha angles, alteration type and intensity, sulphide type and percentages. • All DD and RC drill holes were logged in their entirety for the 2020 drilling program.
<i>Sub-sampling techniques and sample preparation</i>	• DD Core for sampling was systematically sawed in half (using a cut line as a reference) and Half Core was generally submitted to the laboratory for analysis. The same side of the cut line was submitted for analysis to maximise representivity. Where Duplicate samples were required, the half core was sawed in half again and quarter core for the relevant interval was submitted to the laboratory for analysis. • RC chips were split by individual metre at the drill rig into 3-5kg sub samples using a cone splitter. • Both sampling methods are considered appropriate for Au determination given the sample size and are supported by Standard Industry practices.
<i>Quality of assay data and laboratory tests</i>	• Analysis was carried out by Australian Laboratory Services (Perth, WA), an accredited Laboratory, namely. Au determination was by Fire Assay (50g charge). • No additional methods or tools for sampling are considered in the text. • Quality control samples were inserted every 20 samples with a mixture of standards, blanks and duplicates. For RC a duplicate sample was taken from the cone splitter. For DD where quarter core was sampled, quarter core was submitted as a duplicate sample. Where half core was sampled, quarter core was submitted as a duplicate sample. Where whole core was sampled, no duplicate samples were submitted.

Criteria	Commentary
<i>Verification of sampling and assaying</i>	- Significant intersections in the above announcement were cross checked by site geologists by revisiting the individual chip trays or diamond drill core and making a visual comparison of observed alteration with reported gold grades, and/or against recorded drill hole logs. - Significant intersections in historic drill holes in the area of the existing pit were supported by grade control drilling. The author is encouraged by reported recovered mill reconciled grades of 2.09g/t Au versus a stated resource grade of 2.10g/t Au. While this is not definitive it does lend weight to accurate drilling grades. - Several historic RC holes (BCRC*) were twinned by historic diamond holes (BCD*). For several holes both grade and intersection width varied significantly. This will be followed up in subsequent work. - MEI completed several twin drill holes of historic drill holes in the 2020 drilling program with results and geostatistics to be reported upon when complete (upon receipt of all outstanding assays). - Drill hole information was recorded on a combination of paper logs and excel spreadsheets in the field, then transferred into an access database at the completion of the program. Data checks are run by Project manager subsequent to loading the data looking for incomplete or incorrect intervals in the database. - Assay data has not been adjusted.
<i>Location of data points</i>	- Drill hole collars have been picked up with a handheld GPS and recorded using MGA94 datum. - MNG Survey based in Kununurra provided survey control for the drill program and all 2020 drill hole collars will be picked up using a DGPS using MGA. - Current topographic control (20m contours) plus collar pickups are considered adequate as a basis for the design and reporting of exploration drilling.
<i>Data spacing and distribution</i>	- Drill spacing over the historical resource at Butchers Creek is generally 40m between collars, drilled on sections 20m apart. - Drill spacing for 2021 program is up to 80m between collars, drilled on sections 40m-50m apart. - The drill spacing is considered sufficient to support exploration results. - No compositing has been applied to exploration results.
<i>Orientation of data in relation to geological structure</i>	- Mapping of the pit floor and walls during open cut mining by PMA identified a complex vein system. The structural orientation of mineralized vein system at Mt Bradley is poorly understood. All MEI's 2021 DD holes were orientated with structural and lithological data recorded in the logging to better understand any veining. - The drill orientation for all holes at Mt Bradley is dominantly at right angles to the strike of the stratigraphy but not necessarily the vein array. The majority of holes at Butchers Creek are angled with an easterly drill azimuth, which is optimal to test both steep and shallow west dipping mineralisation. Several vertical holes are shown on section.
<i>Sample security</i>	- All sampling of MEI's 2021 drilling program was supervised and carried out by experienced geologist and technician. Both RC and DD samples were bagged in calico bags onsite, with 4 calico's bags containing samples were transferred into a ploy-weave bag and then into a large bulka bag for transport via road from Halls Creek to ALS in Perth using a reputable transport company. - The security of the sampling process is considered to be appropriate by the author.
<i>Audits or reviews</i>	No audits or reviews have been conducted on the project.

Section 2 Reporting of Exploration Results

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

Criteria	Commentary
<i>Mineral tenement and land tenure status</i>	Shown in Appendix 2.
<i>Exploration done by other parties</i>	- A Low-Level aerial Magnetic-Radiometric survey was flown over 30% of the project area in Dec 1996. - Southern Geoscience completed a litho-structural analysis of the aeromagnetic and identified 16 exploration targets for gold mineralisation. - Two regional stream sediment surveys were completed Geochemex (1996) and Stockdale (1997) and 440 sites sampled. - PMA completed infill stream sediment sampling of 16 target areas and three high priority areas were identified. - Prior to Meteoric, there hasn't been any systematic exploration or drilling of these tenements since mine closure in June 1997.
<i>Geology</i>	- The project is located within the Halls Creek Mobile Zone and includes numerous gold occurrences, the majority of which are associated with quartz vein systems developed within anticlinal hinges and adjacent to fault zones. The Butchers Creek mine sequence is composed of Lower Proterozoic turbiditic sediments, trachyandesitic volcanics of the Olympio Formation, Butchers Ck Member and basic sills and dykes, which are tightly folded and metamorphosed to greenschist facies. - Mineralisation is associated with the quartz vein arrays associated with the brittle deformation of massive trachyandesite, particularly where its highly altered, with a high sulphide occurrence. - Gold mineralisation is associated with anticlinal fold hinges, which plunges at 20-30degrees to the south from the southern limit of the open cut. The folded trachyandesite is within a tightly folded overturned anticline, with the western limb dipping 70 west and eastern limb dipping 85 degrees west dipping, beside a major north trending regional shear zone.
<i>Drill hole Information</i>	Provided in Table 1 of main report.
<i>Data aggregation methods</i>	- Mineralized Intercepts provided in Appendix 1 are uncut, have a minimum width of 2m, use a lower-cut 0.5g/t Au, and allow a maximum of 2m internal dilution. - Generally, where >75% of the contained metal for an intercept is contained within <25% of the width, short lengths with high-grades are reported as "including..." - No Metal Equivalents are used.
<i>Relationship between mineralisation widths and intercept lengths</i>	- All assay intervals are down hole intersections, the true width isn't reported. - The drill orientation for reported holes is dominantly at right angles to the strike of the stratigraphy, but not necessarily the vein array. The majority of holes at Butchers Creek are angled with an easterly drill azimuth, which is optimal to test both steep and shallow west dipping mineralisation. Several vertical holes are shown on section. - Mineralisation is interpreted to dip 70°-80° towards the (grid) west, drilling is generally oriented 60°-80° to (grid) east. Therefore, true widths are likely to be ~25% narrower than reported downhole widths.
<i>Diagrams</i>	Refer to body of the announcement for Cross-Sections and Drill Collar plots.
<i>Balanced reporting</i>	Mineralised Intercepts for all drill holes reported in the above report are presented in the Appendices.
<i>Other substantive exploration data</i>	There is no other substantive exploration data that is meaningful and material to the current Release.
<i>Further work</i>	Refer to the body of announcement.

Appendix 2 – Palm Springs Project Tenement Summary

Tenement	Type	MEI %	Area (Ha)
M80/106	Mining Lease	97%	38.8
M80/315	Mining Lease	97%	511.6
M80/418	Mining Lease	100%	6.8
E80/4856	Exploration Licence	100%	4200.0
E80/4874	Exploration Licence	100%	1100.0
E80/4976	Exploration Licence	100%	1780.0
E80/5059	Exploration Licence	100%	5000.0
P80/1766	Prospecting Licence	100%	120.0
P80/1768	Prospecting Licence	100%	120.0
P80/1839	Prospecting Licence	100%	5.8
P80/1854	Prospecting Licence	100%	8.0
P80/1855	Prospecting Licence	100%	44.0