TITAN MINERALS LTD

ASX ANNOUNCEMENT

6 July 2023

Maiden JORC Resource at Dynasty of 3.1Moz Gold and 22Moz Silver

Key Highlights

- Indicated and Inferred Mineral Resource Estimate of **43.54 Mt at 2.23 g/t Au & 15.7 g/t Ag for a contained 3.12 million ounces of gold and 21.98 million ounces of silver**[1]
- Mineral Resources reported by area:
  - **Cerro Verde:** 28.8Mt @ 2.08 g/t Au, 13.00 g/t Ag for **1.92 Moz Au, 12.04 Moz Ag**
  - **Iguana:** 10.9Mt @ 2.02 g/t Au, 13.68 g/t Ag for **0.71 Moz Au, 4.81 Moz Ag**
  - **Papayal:** 2.9Mt @ 3.80 g/t Au, 39.31 g/t Ag for **0.36 Moz Au, 3.71 Moz Ag**
  - **Trapichillo:** 0.9Mt @ 4.54 g/t Au, 50.85 g/t Ag for **0.13 Moz Au, 1.43 Moz Ag**
- **Significant high-grade component of 17.3Mt @ 3.77 g/t Au, 24.0g/t Ag for a contained 2.09 million ounces of gold and 13.33 million ounces of silver**[2]
- **Over half of Mineral Resources contained within 100 metres from surface**
- **39% Indicated and 61% Inferred Resources**, with majority of Indicated resources at Cerro Verde, which is largely credited to the additional drilling and QAQC work completed by Titan over this area and gives confidence that the same classification can be achieved through moderate drilling and geological workstreams at other resource areas.
- **Papayal and Trapichillo vein systems exhibit extremely high gold and silver grades**, albeit relatively low tonnes, which is largely a function of sparse drilling. These areas will be a focus for resource growth, with drilling set to commence in the coming months.
- **Dynasty Gold Project significantly derisked with completion of JORC compliant Mineral Resource**, providing a robust 3D model for targeting resource growth and initiating future mine development studies.
- **Substantial depth extensions to the epithermal Au-Ag vein system confirmed to 350m** in latest drill results at Brecha-Comanche (Cerro Verde), providing the confidence to test, and potentially add substantial resources through delineating depth extensions across the project.
- **Several high conviction areas for resource additions identified with minimal drilling required**. Several significant drill intercepts were excluded from the resource due to uncertainty in geological interpretation in some areas. Minimal drilling required to improve geological understanding in these areas, representing potential near-term future resource additions.
- **Ongoing discussions with strategic investors for Dynasty and other projects progressing**

[1] *Reporting cut-off ≥ 0.5g/t Au*
[2] *Reporting cut-off ≥ 2.0g/t Au*

Suite 1, 295 Rokeby Road,
Subiaco WA 6008

+61 8 6375 2700
info@titanminerals.com.au

titanminerals.com.au
ASX: TTM

Titan's CEO Melanie Leighton commented:

"The completion of a JORC 2012 compliant Mineral Resource for Dynasty is a fantastic achievement, which represents a significant milestone. It is the culmination of a massive body of work, including validation of historical data, considerable QAQC, and 3D geological modelling. The integration of extensive qualitative and quantitative datasets has been instrumental in generating a robust mineral resource.

"The maiden JORC compliant MRE has not only verified, but substantially grown the previous NI43-101 resource, with 3.12M ounces of gold and 21.98M ounces of silver now contained in JORC resource estimates within the epithermal vein system, and even more impressive is that more than half of the resource sits within 100 metres from surface, with preliminary optimisation studies indicating robust economics for open pit and underground mining.

"Dynasty boasts a 9km epithermal corridor, seeded with porphyry targets, and drilling to date has only tested a portion- less than half- of the system. Titan is in a prime position to rapidly grow the resource, with resource extension drill testing set to commence in the coming month, along with the continuation of exploration work programs across priority targets identified in exploration work currently underway at the Papayal and Trapichillo prospects.

"Titan aspires to emulate the success of Lundin Gold Inc. (TSX:LUG) and their world-class Fruta del Norte Gold Project in southeast Ecuador, an epithermal gold-silver intermediate sulphidation system with many similarities to Dynasty and containing Mineral Resources of 9.81 Moz gold and 15.0 Moz silver. Touted as one of the highest grade, lowest cost mines in the world, Fruta del Norte commenced operation in 2019, and in 2022 total revenue was $841 million."

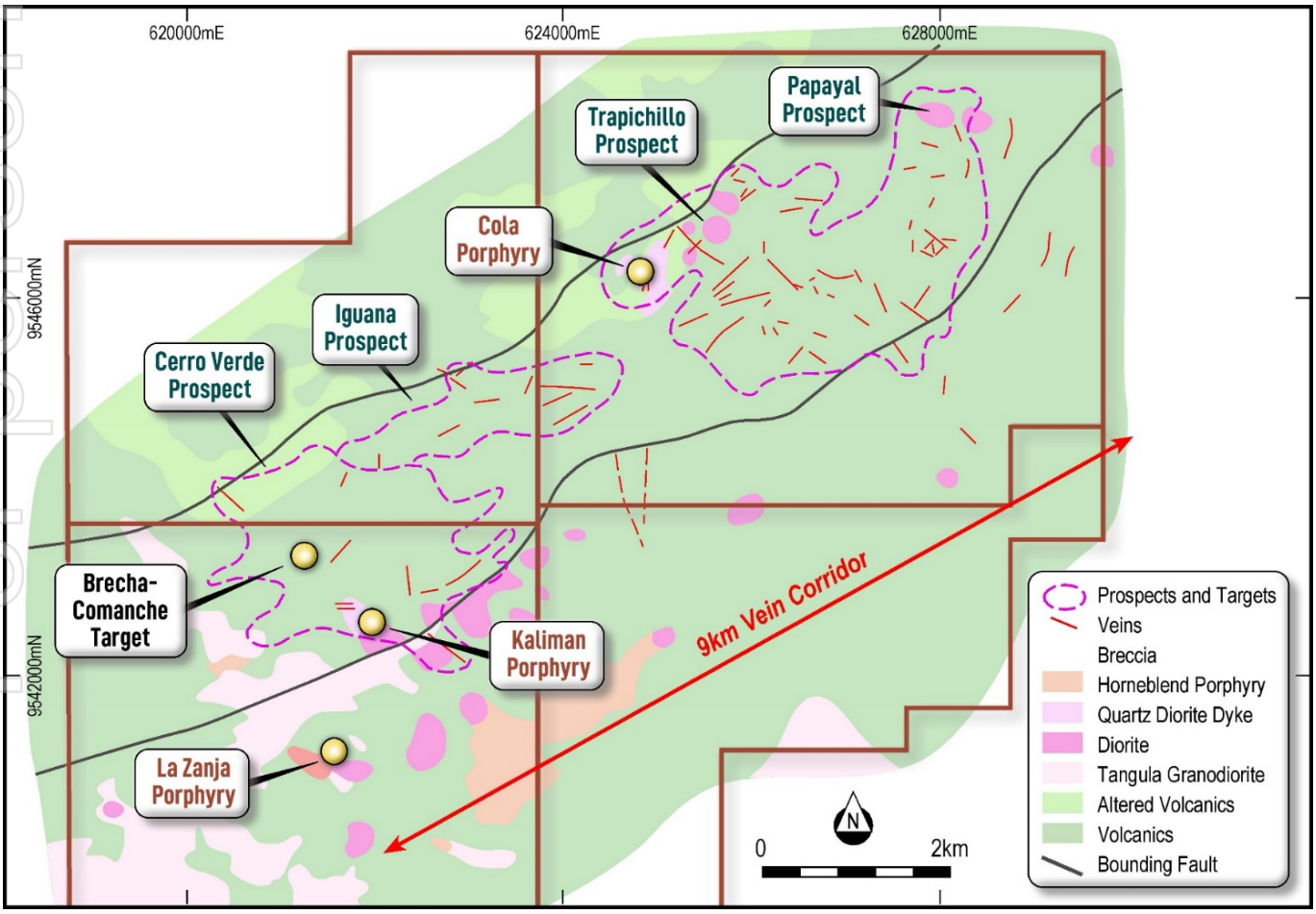

Figure 1. Dynasty Gold Project displaying simplified geology and prospect locations

Dynasty Next Steps:

- Continue drill evaluation to determine the ultimate size of the mineral system from lateral and vertical extensions to the currently defined vein system over the current 9km of strike.
- Resource growth by adding those new areas into the estimate with a focus on the more advanced Cerro Verde and Iguana prospects.
- More Trenching and drilling at Papayal and Trapichillo prospects where multiple parallel and ramifying veins have been exposed with high-grade gold, silver and high silver:gold ratios evident with textures typical of low-sulphidation, boiling zone environments.
- Continued expansion and improvement of the revised 3D geological model through integration of drilling and surface mapping, and development of a prospect scale 3D structural model.
- Regional exploration- surface mapping and geochemical sampling across 9km x 2km vein corridor to refine priority targets for exploration drilling.
- The application of advanced geophysical techniques such as Gradient-array IP surveys to assist in the mapping and drill targeting of sulphide-rich veins of the mineral system at depth and under vegetation cover.
- Further initial mine feasibility studies and baseline works with an eye on a future development options with both open pit and underground mining with onsite mineral processing.

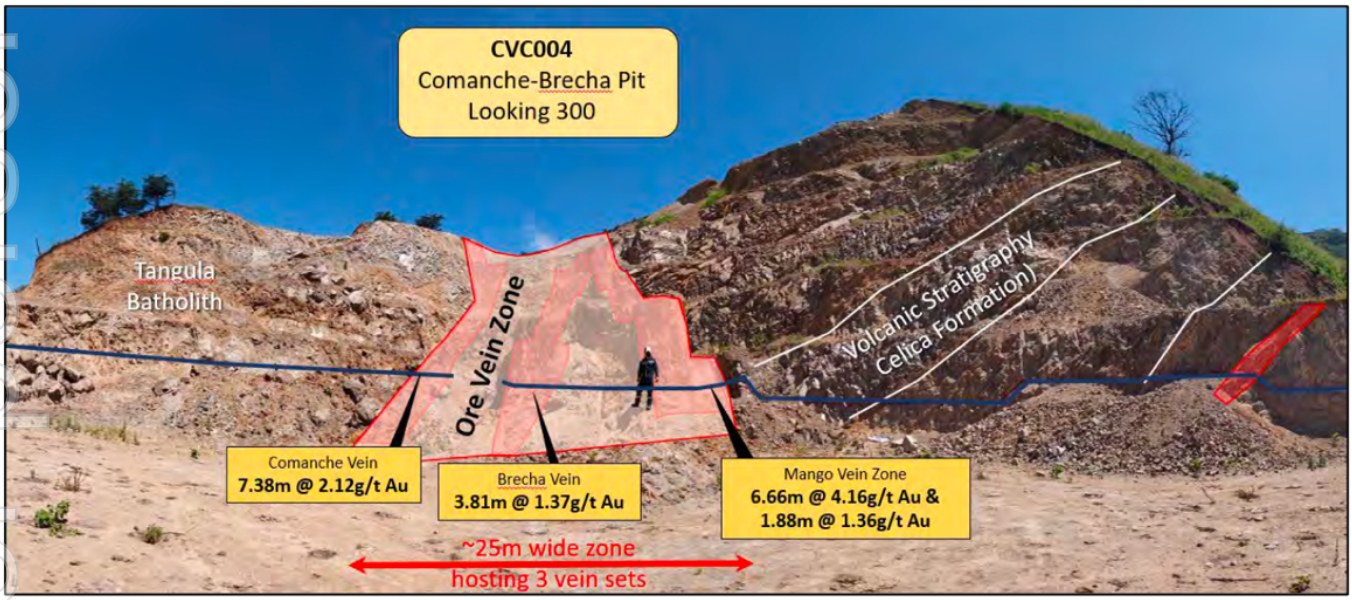

Plate 1: Brecha-Comanche vein system exposed at surface looking northwest, showing multiple vein sets separated by broad alteration zones

Enquiries:

Matthew Carr
Executive Director
Matthew.carr@titanminerals.com.au

Melanie Leighton
CEO
Melanie @ titanminerals.com.au

Dynasty Project Mineral Resource Estimate

Titan Minerals Limited (**ASX: TTM**) ("**Titan"** or the "**Company"**) is pleased to announce a first Mineral Resource Estimate (MRE), which is reported in accordance with JORC (2012) on the Company's 100% owned Dynasty Gold Project (**Dynasty**), in the Loja Province, southern Ecuador.

The 3.12 million ounce gold and 21.98 million ounce silver Mineral Resource is hosted within a 9 kilometre long by 2 kilometre wide corridor of epithermal gold and silver vein hosted mineralisation, of intermediate sulphidation type.

Interpretation and estimation of the Mineral Resource is based on data from 394 diamond drill holes (63,342.54 metres), 85 channels (2,089.02 metres) and 1,599 trenches (6,743.54 metres). Drilling and trenching campaigns were completed by Titan Minerals Ltd in 2021 and 2023 and in several phases of drilling by previous project operators from 2007 to 2019.

An assay cut-off date of 7 June was used, meaning that recent drill results from the Cerro Verde prospect were included in the MRE. This drilling was successful in confirming strong mineralisation continuity to 350 metres depth- more than 100 metres below previously drill defined mineralisation (refer to ASX Release dated 3 July 2023). These new drill results are very significant, as they demonstrate that the epithermal gold-silver system extends at depth, presenting a very real option for the Company in its strategy to target mineralisation extensions and further add resources.

The Dynasty MRE includes the Cerro Verde, Iguana, Papayal and Trapichillo prospects (refer to Figure 1), with clear potential for the resource to grow significantly, with the majority of resource remaining open, and in many areas only sparsely drilled. The epithermal gold-silver system remains largely untested below a depth of approximately 200 metres.

Completion of the JORC (2012) MRE represents a fantastic milestone for the Company and a significant derisking for the Dynasty project, with preliminary optimisation studies indicating robust economics, and the resource having potential to underpin an open pit followed by underground mining scenario.

The MRE provides a solid foundation for future resource growth and feasibility studies, in what Titan believes is a natural progression for the Dynasty Project, which has considerable exploration upside that remains to be tested.

Table 1 shows the Dynasty MRE reported by classification broken out by prospect. It is evident that the Cerro Verde prospect not only contains the bulk of the resource, but also has the highest component of Indicated resources. The larger resource and higher classification at Cerro Verde is largely due to Titan's resource development work programs dedicated to this part of the project, including infill and validation drilling, surface mapping, relogging of historical drill core and QAQC workstreams.

Table 2 shows the Dynasty Total MRE (Indicated and Inferred) at various reporting cut-off grades.

Approximately 84% of Indicated and 64% of Inferred Mineral Resources reported ≥0.5 g/t Au are within 160m from surface. Table 3 and Figure 9 detail cumulative resources by depth.

Table 1. Dynasty Project Open Pit Mineral Resource Estimate reported by Prospect Area

Prospect	Indicated					Inferred					Total				
	Tonnes (M)	Grade (g/t)		Contained Metal (Moz)		Tonnes (M)	Grade (g/t)		Contained Metal (Moz)		Tonnes (M)	Grade (g/t)		Contained Metal (Moz)	
		Au	Ag	Au	Ag		Au	Ag	Au	Ag		Au	Ag	Au	Ag
Cerro Verde	15.17	2.01	13.51	0.98	6.59	13.63	2.15	12.44	0.94	5.45	28.80	2.08	13.00	1.92	12.04
Iguana	2.41	2.36	16.08	0.18	1.25	8.52	1.92	13.00	0.53	3.56	10.93	2.02	13.68	0.71	4.81
Trapichillo	0.05	1.89	9.28	0.00	0.01	2.89	3.83	39.80	0.36	3.70	2.94	3.80	39.31	0.36	3.71
Papayal	0.46	3.04	48.24	0.05	0.72	0.41	6.24	53.80	0.08	0.71	0.87	4.54	50.85	0.13	1.43
Total	**18.09**	**2.09**	**14.73**	**1.21**	**8.57**	**25.44**	**2.33**	**16.40**	**1.90**	**13.41**	**43.54**	**2.23**	**15.70**	**3.12**	**21.98**

Notes:

1. *Reported ≥ 0.5 g/t Au*
2. *Some rounding errors may be present.*
3. *Tables are rounded as the final steps. Totals are not calculated after rounding.*
4. *M – million. Oz- ounce. g/t – grams per tonne.*

Table 2. Dynasty Project Mineral Resource Estimate at various cut-off grades

Au Cut-off	Tonnes (M)	Au (g/t)	Ag (g/t)	Contained Gold (Moz)	Contained Silver (Moz)
3.0	9.76	4.80	28.6	1.51	8.98
2.9	10.23	4.72	28.3	1.55	9.31
2.8	10.74	4.63	28.1	1.60	9.70
2.7	11.33	4.53	27.7	1.65	10.08
2.6	11.97	4.43	27.2	1.71	10.47
2.5	12.65	4.33	26.6	1.76	10.82
2.4	13.39	4.23	26.2	1.82	11.26
2.3	14.21	4.12	25.7	1.88	11.76
2.2	15.16	4.00	25.2	1.95	12.28
2.1	16.37	3.86	24.6	2.03	12.96
2.0	**17.27**	**3.77**	**24.0**	**2.09**	**13.33**
1.9	18.40	3.66	23.7	2.16	14.01
1.8	20.03	3.51	23.0	2.26	14.78
1.7	21.40	3.40	22.3	2.34	15.38
1.6	23.10	3.27	21.8	2.43	16.19
1.5	24.90	3.14	21.1	2.52	16.91
1.4	27.07	3.01	20.3	2.62	17.65
1.3	28.80	2.91	19.6	2.69	18.19
1.2	30.52	2.82	19.2	2.76	18.87
1.1	31.96	2.74	18.7	2.82	19.25
1.0	33.56	2.66	18.3	2.87	19.74
0.9	36.36	2.53	17.3	2.95	20.19
0.8	38.36	2.44	16.7	3.01	20.61
0.7	39.89	2.38	16.4	3.05	21.07
0.6	41.85	2.30	16.1	3.09	21.72
0.5	**43.54**	**2.23**	**15.7**	**3.12**	**21.98**

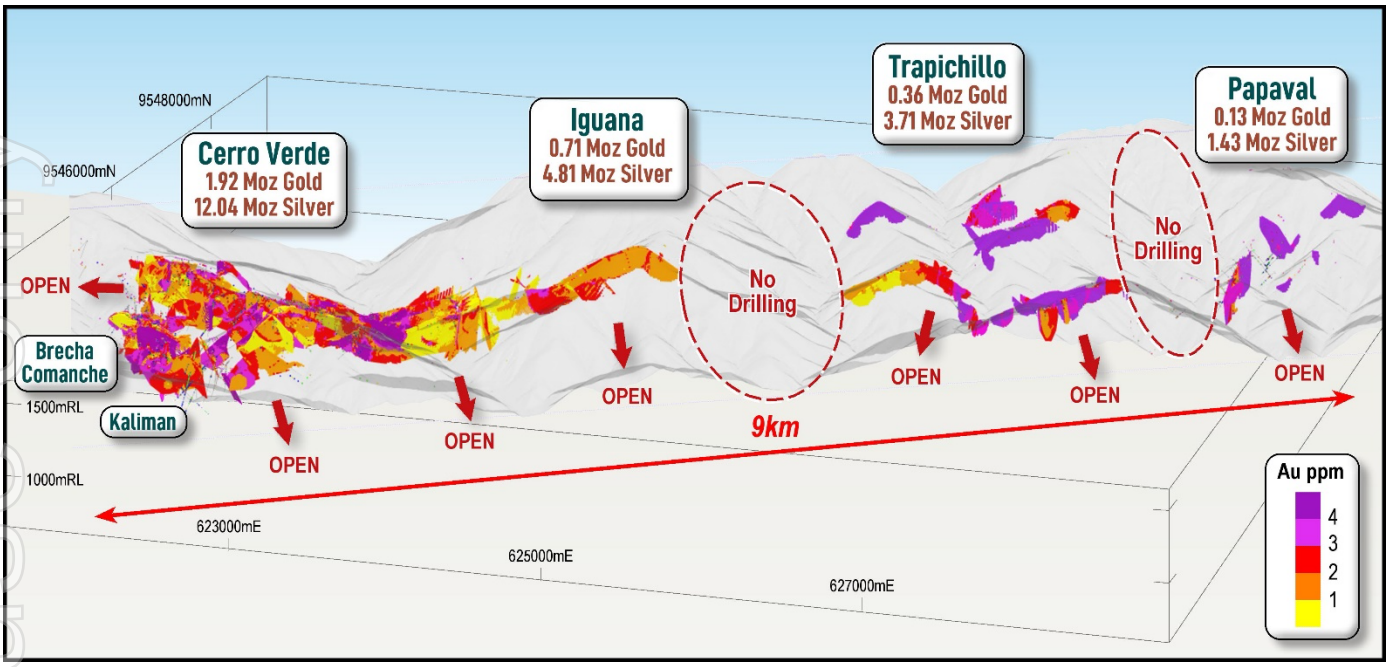

Figure 2. Dynasty Resource Oblique view looking north displaying Mineral Resources ≥ 0.5 g/t Au

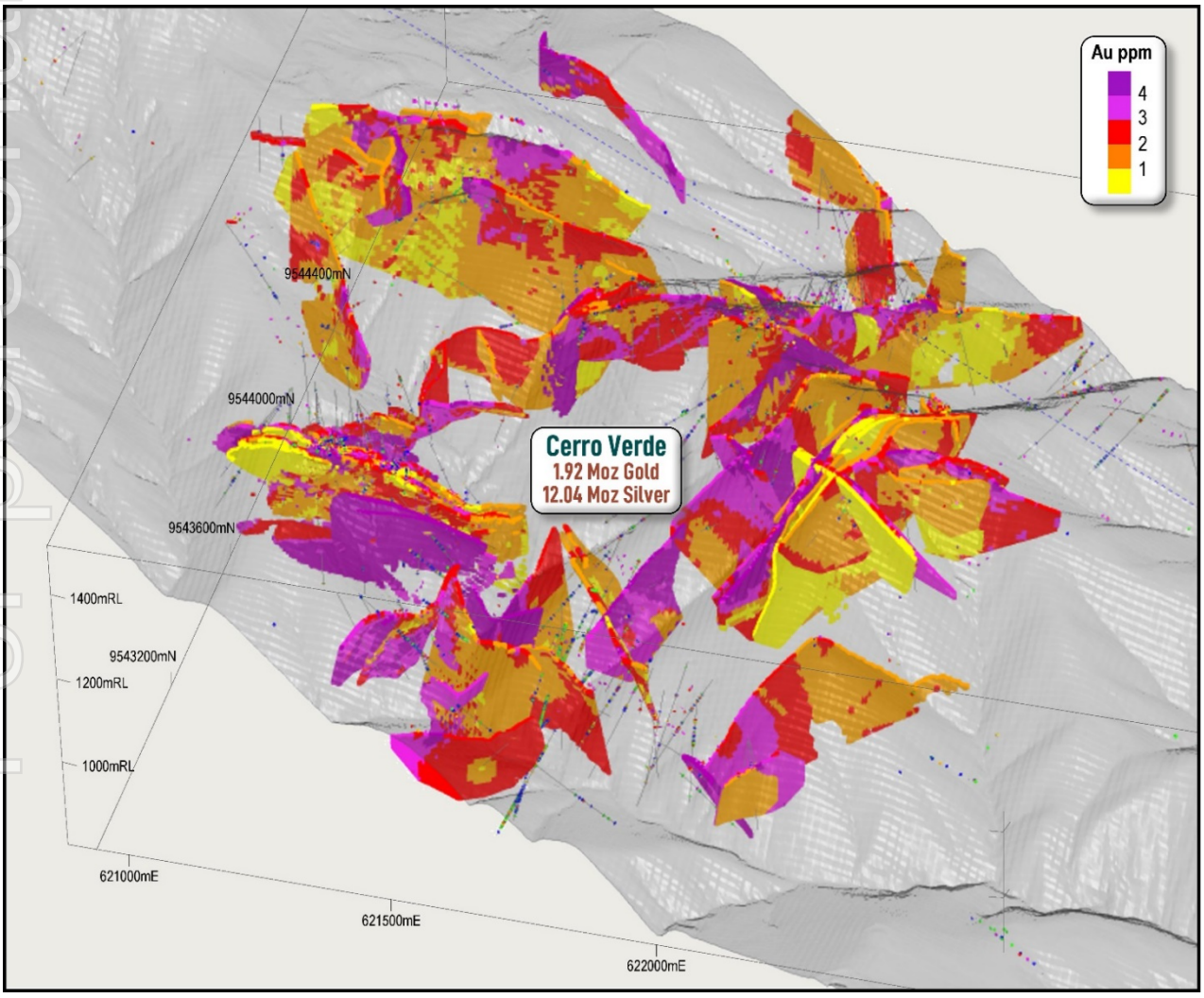

Figure 3. Cerro Verde Oblique view looking northwest displaying Mineral Resources ≥ 0.5 g/t Au

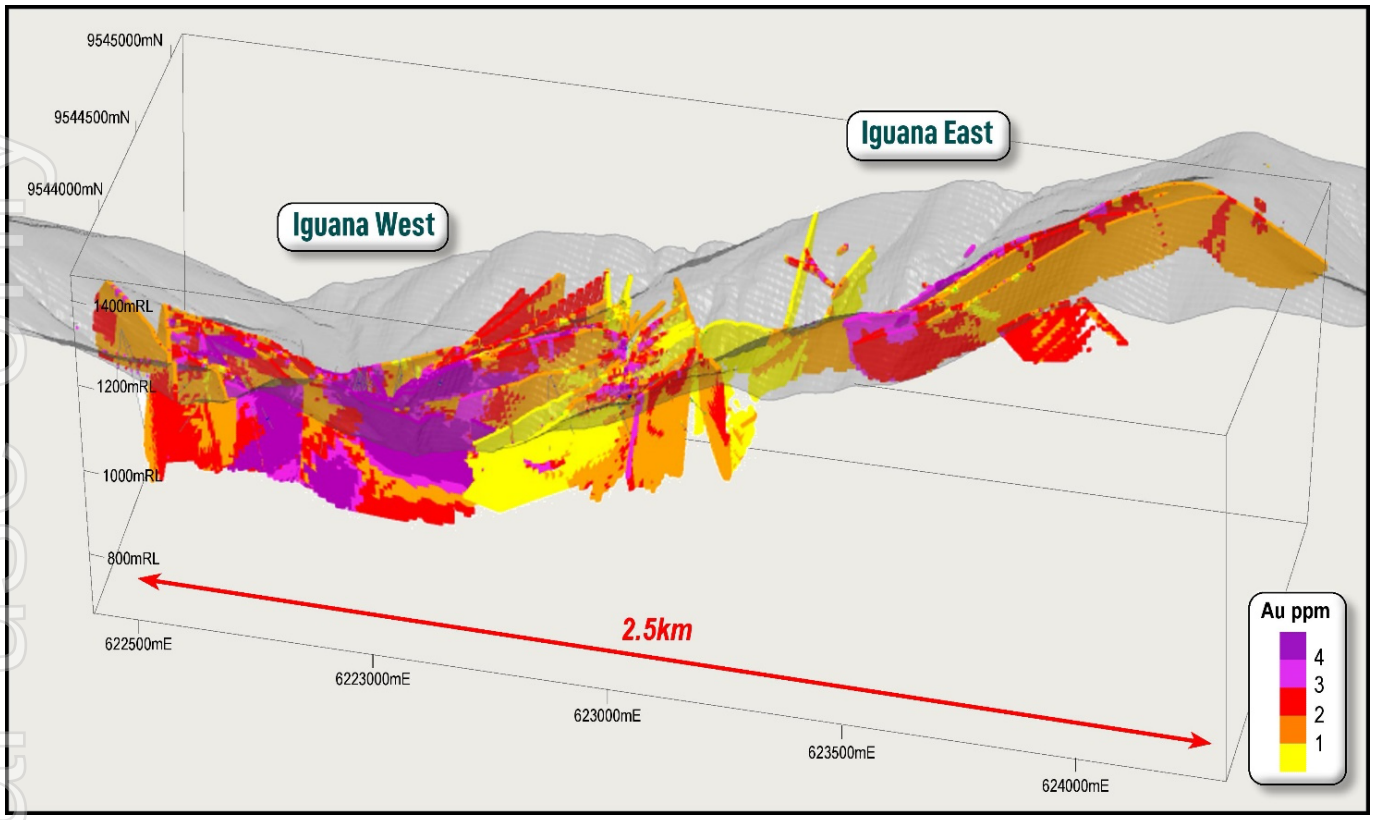

Figure 4. Iguana Oblique view looking northwest displaying Mineral Resources ≥ 0.5 g/t Au

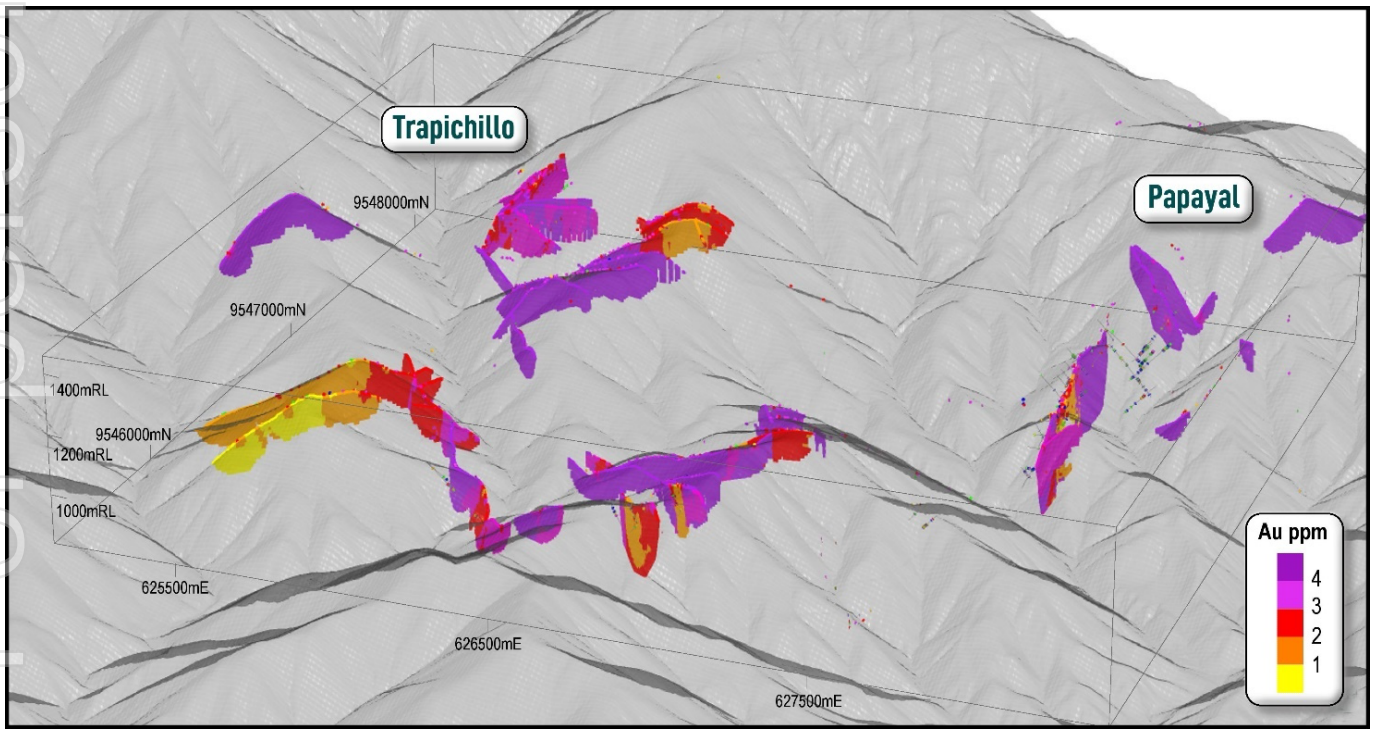

Figure 5. Papayal and Iguana Oblique view looking northwest displaying Mineral Resources ≥ 0.5 g/t Au

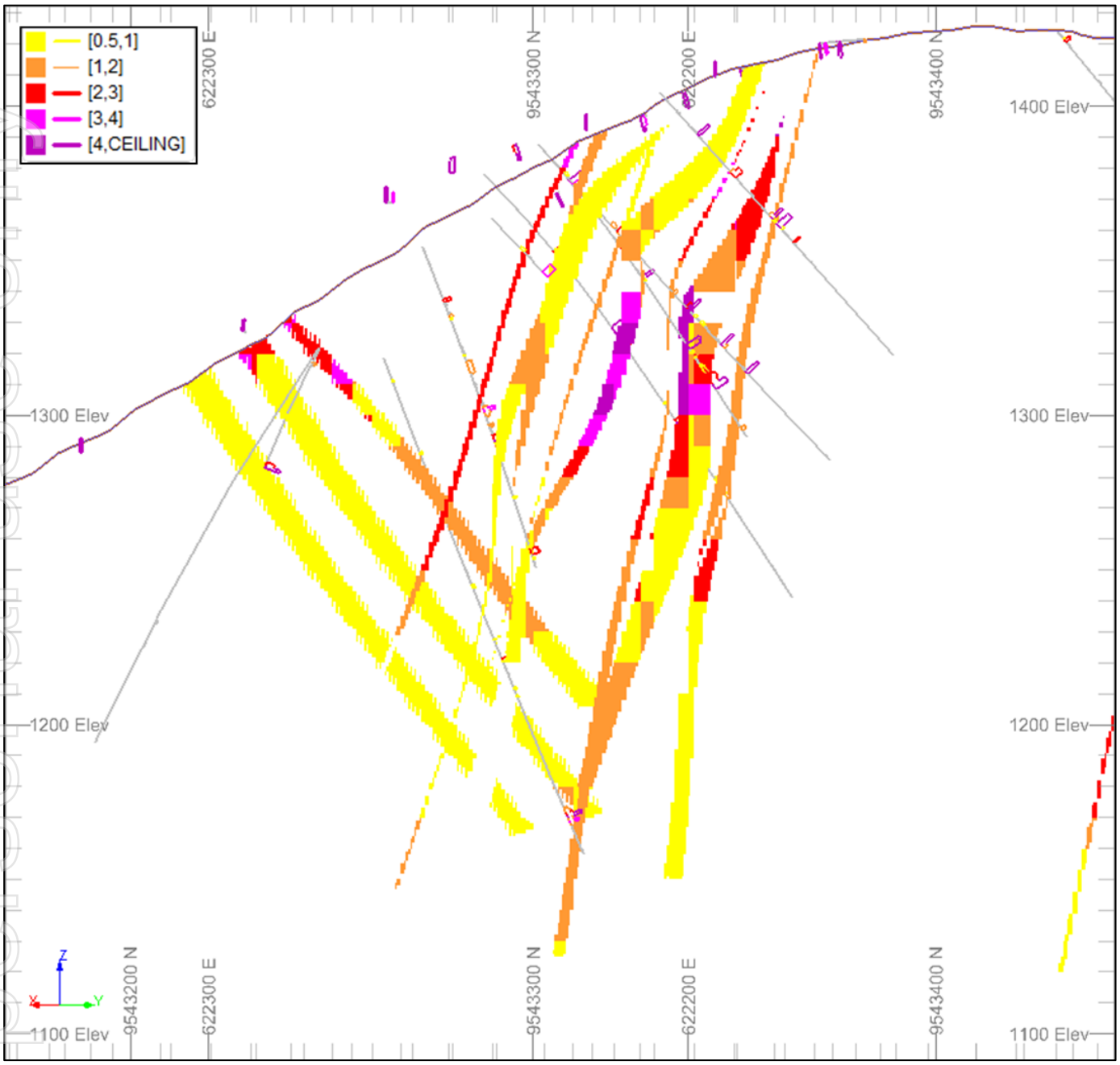

Figure 6. Cross Section looking northeast (050°) through Cerro Verde displaying Mineral Resources ≥ 0.5 g/t Au

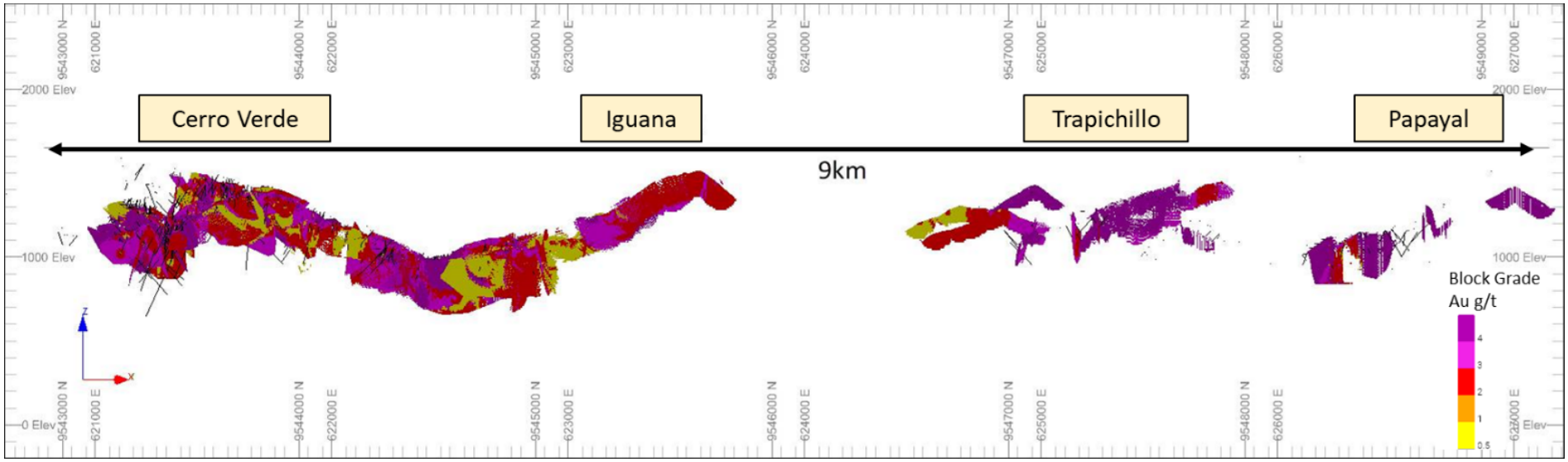

Figure 7. Long Section of Dynasty Mineral Resource looking towards north-west - 315°

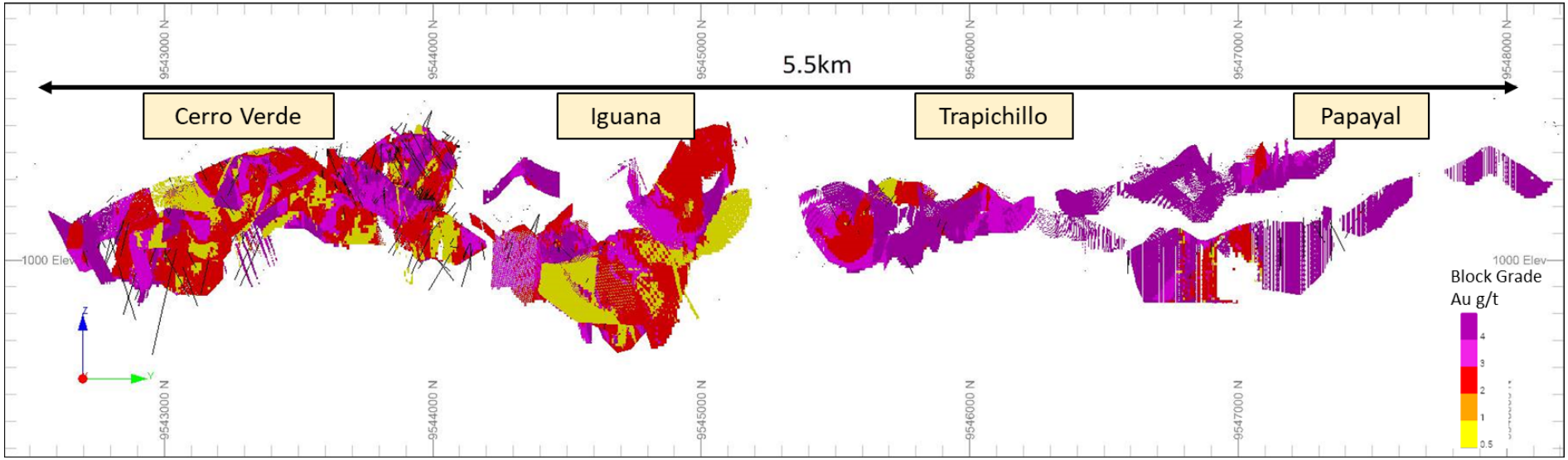

Figure 8. Long Section of Dynasty Mineral Resource looking west - 270°

Table 3. Dynasty Resource Estimate Cumulative Indicated and Inferred Contained Gold reported by depth from surface

Depth Below Surface (m)	Cumulative Tonnes				Cumulative Gold Ounces			
	Indicated (Mt)	Inferred (Mt)	Total (Mt)	Total (%)	Indicated (Mt)	Inferred (Mt)	Total (Mt)	Total (%)
20	2.03	1.96	3.99	**9%**	0.17	0.19	0.36	**12%**
40	4.28	3.91	8.20	**19%**	0.33	0.37	0.70	**23%**
60	6.40	5.98	12.38	**28%**	0.48	0.55	1.03	**33%**
80	8.32	8.05	16.37	**38%**	0.62	0.72	1.34	**43%**
100	10.05	9.98	20.03	**46%**	0.75	0.87	1.62	**52%**
120	11.53	11.78	23.31	**54%**	0.85	1.00	1.85	**59%**
140	12.88	13.50	26.38	**61%**	0.94	1.12	2.05	**66%**
160	14.18	15.12	29.30	**67%**	1.02	1.23	2.24	**72%**
180	15.32	16.59	31.91	**73%**	1.08	1.33	2.41	**77%**
200	16.25	17.95	34.20	**79%**	1.13	1.43	2.55	**82%**
220	17.08	19.12	36.20	**83%**	1.16	1.51	2.67	**86%**
240	17.75	20.26	38.00	**87%**	1.19	1.59	2.78	**89%**
260	18.02	21.63	39.65	**91%**	1.20	1.67	2.87	**92%**
280	18.05	22.94	40.99	**94%**	1.21	1.74	2.95	**94%**
300	18.07	23.91	41.98	**96%**	1.21	1.79	3.00	**96%**
320	18.08	24.50	42.58	**98%**	1.21	1.83	3.04	**97%**
340	18.08	24.84	42.92	**99%**	1.21	1.85	3.06	**98%**
360	18.09	25.07	43.16	**99%**	1.21	1.87	3.08	**99%**
380	18.09	25.24	43.33	**100%**	1.21	1.89	3.10	**99%**
400	18.09	25.36	43.45	**100%**	1.21	1.90	3.11	**100%**
>400	**18.09**	**25.44**	**43.54**	**100%**	**1.21**	**1.90**	**3.12**	**100%**

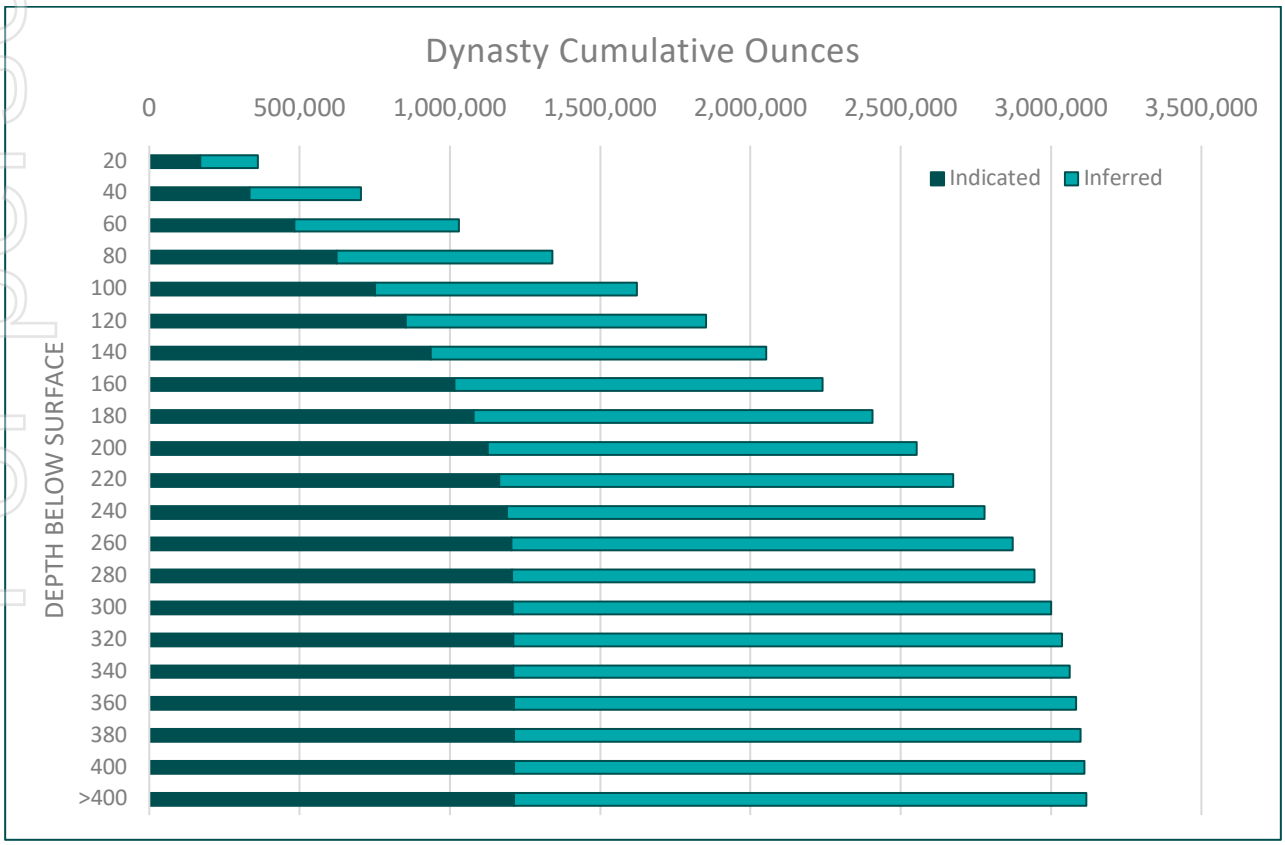

Figure 9. Dynasty Resource Estimate Cumulative Contained Gold reported by depth from surface

Dynasty Project Location

The Dynasty Gold Project (**Dynasty**) is 100% held by Titan Minerals and comprises five contiguous concessions totalling 139km² in area. Three of the concessions (PILO 9, ZAR and ZAR 1) are fully permitted for exploration and small-scale mining, and the Mineral Resource is contained within these fully permitted concessions.

The Dynasty Project is located in the Loja Province in southern Ecuador, approximately 5 kilometres from the town of Celica, which has a population of approximately 5,000 people, where the Company has accommodation and access to labour. The Dynasty Project is around two hour's drive from to the Catamayo airport, which has twice daily flights to Quito.

Access to the Project is via sealed Highway (E68), where adjacent to the highway the Company has a fully equipped exploration office with purpose-built core storage facilities, located on the Project's northwestern lease, Zar 1. Access to the Cerro Verde prospect is approximately 1 kilometre by gravel roads from the Company's office facilities. The project has power, water, and internet coverage to the office facilities.

The project elevation ranges from 1,000m to 1,600m and is covered by a mix of pasture and forest, with most landowners at the project being pastoralists. Exploration conditions are excellent with field work possible all year round, and diamond drilling capability 24 hours per day. Ecuador experiences a wet season for approximately 2-3 months of the year between March and May, where a higher level of rainfall is experienced, but this seldom affects exploration activities.

Dynasty Geology and Mineralisation

Located in a major flexure of the Andean Terrane, the Dynasty project is hosted within a corridor of mineralisation associated with early to late Miocene aged intrusions extending from Peru through northern Ecuador. The majority of porphyry copper and epithermal gold deposits in southern Ecuador are associated with magmatism in this age range, with a number of these intrusions located along the margin of the extensive Cretaceous aged Tangula Batholith, forming a favourable structural and metallogenic corridor.

There are two different styles of mineralisation evident at Dynasty, porphyry gold-copper (potassic alteration overprinted by pervasive phyllic- sericite, chlorite alteration) and intermediate sulphidation epithermal gold-silver (base metal carbonate). Figure 10 provides a schematic cross section which shows the relationship between porphyry and intermediate sulphidation mineral systems, highlighting the Dynasty epithermal mineralisation and its approximate location relative to the porphyry source.

The western side of the Titan Minerals concessions include volcanic rocks (breccias and andesitic lavas) belonging to the Cretaceous to Palaeocene Pisayambo Volcanics and Celica Formation which has been intruded sporadically by diorite dykes and slightly argillic gold bearing quartz veins and veinlets with occasional calcite-barite veins to the south, southeast and west.

Over 200 mineralised veins of varying thicknesses and varying orientation have been identified to date in the Dynasty Gold Project. The vertical extent of these veins has not yet been fully tested but some veins could be to depths exceeding 400m.

The mineralised veins in the volcanics mainly occur along a faulted zone near and sub-parallel to the contact with the Cretaceous Tangula Batholith outcropping in the east and south of the concessions.

The mineralised faults have undergone post mineralization reactivation by a northeast fault system that has displaced earlier veins by up to a few metres. A major northeast lineament with crosscutting features at 90° angle possibly indicates "strike slip" shears with sinistral stress that could have generated open spaces for the infilling quartz-sulphide vein systems.

The mineralised veins are principally open space fillings along dilational faults. Banded seams consisting of quartz and sulphides occur especially at Cerro Verde along with massive quartz veins containing disseminated sulphides. The mineralised veins have a low carbonate content at Papayal, Trapichillo and Cola, while quartz veins coexist with quartz - barite - calcite, and barite being replaced by silica at Cerro Verde and part of Trapichillo.

The gold/base metal mineralisation is restricted to the veins and stockworks with associated argillic alteration. North-south mineralisation zoning has been interpreted. The gold and silver grades vary along strike and across the vein width with "ore shoots" or "high grade pipes" producing very erratic values up to 600 g/t Au and 750 g/t Ag in some veins at Trapichillo and Papayal.

Gold occurs in its native form along with sulphides, including pyrite, sphalerite, galena, arsenopyrite, chalcopyrite and bornite.

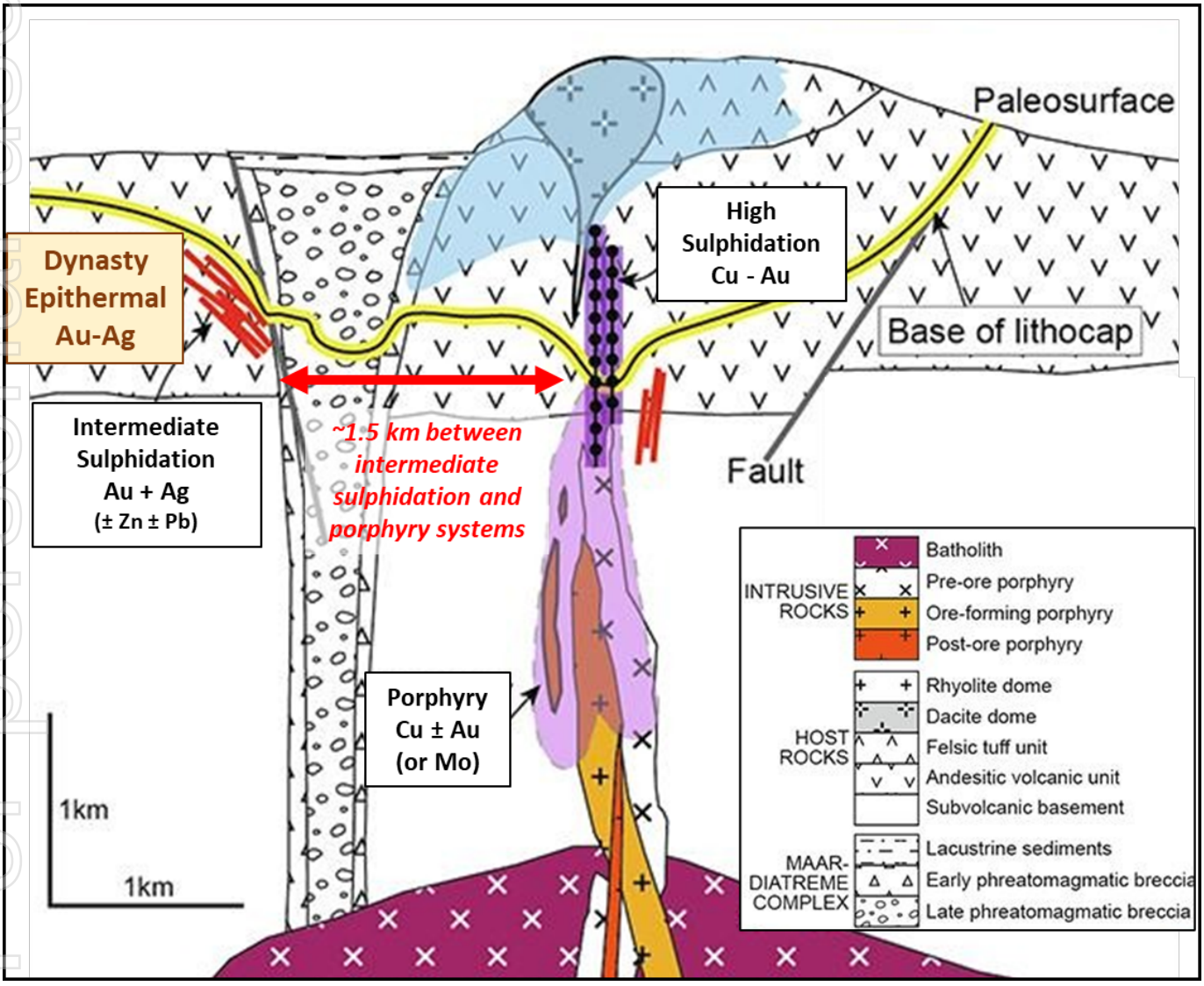

Figure 10. Schematic cross section displaying intermediate (Au-Ag ± base metal) and high sulphidation (Cu-Au) epithermal systems in relation to porphyry (Cu-Au ± Mo) mineral systems.

Resource Model and Mineral Resource Estimate

Mineral Resource Estimate Model

Interpretation of domains for grade estimation varied across the project area to suit the different styles of mineralisation and varying data density. The project was split into five areas as seen in Figure 1:

1. **Cerro Verde**. Cerro Verde has the highest density of data of the project. The area is dominated by discrete veins. The domains were constructed using either the Datamine vein generation tool or by projecting surface mapping strings using mapped dip and dip direction orientations.
2. **Brecha-Comanche**. This area is as sub-domain of Cerro Verde and dominated by breccia mineralisation rather than discrete veins therefore a probabilistic estimate of the likelihood of high and low grade was used to domain the area for grade estimation.
3. **Iguana**. Iguana shows a series of discrete veins identified in surface mapping. This was used with dip and dip direction information from surface and in drill holes at depth to great vein interpretations. The strong correlation between Au, Ag and As were also used to guide wireframe generation.
4. **Trapichillo**. Trapichillo shows a series of discrete veins identified in surface mapping. This was used with dip and dip direction information from surface and in drill holes at depth to create vein interpretations. The strong correlation between Au, Ag and As were also used to guide wireframe generation.
5. **Papayal**. Papayal shows a series of discrete veins identified in surface mapping. This was used with dip and dip direction information from surface and in drill holes at depth to great vein interpretations.

Drilling Techniques

Diamond drilling method was used to obtain HTW and NTW core (71.4/56.23 mm diameter respectively) for density and chemical analyses. Half or quarter core was submitted for analysis. Downhole survey and core orientation tools are used, Diamond core is halved with a diamond saw to ensure a representative sample. In areas with low competency (soft or broken core) Titan Minerals wrapped diamond core in packing tape prior to cutting to reduce sample loss on cutting and ensure better sample representativity.

Channel sampling is completed as representative cut samples across measured intervals cut with Titan or Titan and chisel techniques.

Data from 394 diamond drill holes (63,342.54 metres), 85 channels (2,089.02 metres) and 1,599 trenches (6,743.54 metres) were used for the interpretation and estimation.

The drill hole density varies widely in spacing and orientation in order to follow the vein orientations. Trenching and channels can be as close as 10 m and diamond drill holes as close as 25 m apart. The drill samples have been geologically logged and sub-sampled for laboratory geochemical analysis.

Sampling and sub-sampling techniques and Sample Analysis Methodology

Diamond core is split or cut in weathered profile depending on hardness and competency of the core and cut with a diamond saw in fresh rock. Weathered, faulted, and fractured diamond core, prior to cutting, are docked, and covered with packing tape to ensure a representative half sample is taken.

A cutline is systematically marked on core for cutting and the portion of core collected for analysis is systematic within each hole. Diamond core sample recovery are reported as being completed in accordance with best practices for the time of acquisition and considered to be appropriate and of good quality.

For historical drilling (pre-Titan) the Fire Assay (FA) method with Atomic Absorption Spectroscopy (AAS) was used on a 30g aliquot for gold determination. Samples returning grades >10ppm Au from the AAS finish technique are re-analysed by 30g Fire Assay for Au with a gravimetric finish.

Silver assays were determined using Aqua Regia (AQR) digestion with an AAS assay finish. A further 31 other elements including copper, lead and zinc were analysed by the Inductive Coupled Plasma (ICP) method.

During Titan's 2020 and 2021 drilling campaigns, the Fire Assay (FA) method combined with Atomic Absorption Spectroscopy (AAS) was used for gold determination using a 30g aliquot. Samples returning grades >10ppm Au from the AAS finish technique are re-analysed by 30g Fire Assay for Au with a gravimetric finish. Commencing in 2022, 50g was established as the aliquot for geochemical analyses of drill core and rock samples.

The Four Acid Digestion with inductively coupled plasma mass spectrometry (ICP-MS) finish analytical method was used for the determination of 48 other elements including Ag (ALS method: ME-MS61).

An additional charge is split from sample for four acid digests with ICP-MS reporting a 48-element suite. Within the 48 elements suite, overlimit analyses of a 5-element suite are performed with an ore grade technique (ICP-AES) if any one element for Ag, Pb, Zn, Cu, Mo exceeds detection limits in the ICP-MS method.

Estimation Methodology

Samples were flagged within the mineralisation by either wireframes or by back-flagging from the probability model coding. The data was composited to 1 m lengths honouring the domain boundaries. Statistical and geostatistical analysis was used to understand the characteristics of the mineralisation. Statistical analysis showed the populations in domains with a significant number of composites to have approximately log-normal distribution shapes for Au and Ag. There is a strong correlation between Au and Ag. Where outlier grades were identified appropriate top-cuts were applied. Top-cuts were generally not severe with relatively few composites affected.

Continuity analysis was performed on the domains with significant numbers of composites for both Au and Ag.

The models for each area were constructed using a parent block size of 10m E by 10m N by 10m RL with sub-cells of 1.0m E by 1.0m N by 1.0m RL. The parent block size was selected through kriging neighbourhood testing and considering the dimensions of the domains and drill hole spacing.

Ordinary Kriging was used to estimate grades in all domains, with estimation searches and number of samples used determined by iterative testing and validation of the estimates. Dynamic anisotropy was utilised to allow the estimation to follow the geometry of the mineralisation.

For the Cerro Verde and Brecha-Comanche areas hard boundary conditions were applied for grade estimation so that grade estimation for each sub-domain used only the data that is contained within that domain. For the other areas soft boundaries were used between domains to allow the intersections of veins with ambiguous samples to be estimated.

In some locations, drilling has not penetrated deep enough to create realistic weathering horizons. Analysis of 6,850 bulk density values showed a gradual increase in density with depth. The topography was translated in 20m increments and each zone was assigned a dry bulk density ranging from 2.56 t/m^3 near surface to 2.75 t/m^3 for material deeper than 200m.

Pit Optimisation Parameters and Cut-Off Grades

A pit optimisation exercise using NPV scheduler and Whittle software platforms was completed by ABGM Pty Ltd, a niche mining consultancy delivering world class mine technical services.

The pit optimisation only used Indicated and Inferred resources, with a grade of 0.5 g/t Au determined as an appropriate lower cut-off grade for reporting the Dynasty MRE. Resource blocks above a grade of 0.5 g/t Au are considered to have reasonable prospects of future economic extraction via surface mining methods.

The pit optimisation parameters are outlined in Table 4 and reflect internally researched costs and assumptions based on similar style deposits currently being mined.

Table 4. Dynasty Pit Optimisation Parameters

Metal Prices	***Value (US)***
Au	$1,850
Mining & Processing	***Cost***
Mining (ore + waste)	US$2.50/ tonne
Processing (ore)	US$25.00/ tonne
Selling Cost	US$3.00/oz
Pit Slope Angles	***Overall Angle***
oxide	40°
Transitional	45°
fresh	50°
Metallurgical Recoveries	***%***
Gold	93°
Silver	70°
Product	doré

Classification Criteria

The Mineral Resource has been classified as Indicated and Inferred based on confidence in the geological model, continuity of mineralisation, drilling density, confidence in the underlying database and bulk density information. Indicated material is only defined where data spacing is closer than approximately 50m along strike by 50m down dip. Inferred material is only defined where data spacing is approximately 50m to 150m along strike by 50m to 150m down dip material Mineralisation with isolated and/or very few drill hole intercepts remain unclassified until increased confidence in their volume, orientation and grade tenor is established with further drilling.

Mining and Metallurgical Methods and Parameters

Mining factors such as dilution and ore loss have not been applied. No metallurgical assumptions have been made in estimating Mineral Resources.

About the Dynasty Gold Project

The Dynasty Gold Project is an advanced stage exploration project comprising five contiguous concessions and is 139km2 in area. Three of these concessions received Environmental Authorisation in 2016 and are fully permitted for exploration and small-scale mining.

Located in a major flexure of the Andean Terrane, the Dynasty Gold Project is situated within a corridor of mineralisation extending from Peru through northern Ecuador that is associated with early to late Miocene aged intrusions. The majority of porphyry copper and epithermal gold deposits in southern Ecuador are associated with magmatism in this age range, with a number of these younger intrusions located along the margin of the extensive Cretaceous aged Tangula Batholith forming a favourable structural and metallogenic corridor for intrusion activity where Titan minerals holds a significant land position in southern Ecuador.

Exploration works at the Dynasty Gold Project have outlined an extensive zone of epithermal veining over a nine kilometres strike and over two kilometres in width. There is also considerable potential for porphyry gold, silver and copper mineralisation as identified by surface mapping, trenching and drilling at the Kaliman Porphyry prospect.

Figure 11. Titan Minerals southern Ecuador Projects, peer deposits and surrounding infrastructure

ENDS-

Released with the authority of the Board.

For further information on the company and our projects, please visit: www.titanminerals.com.au

Competent Person's Statements

Exploration results referred to in this announcement were reported by Titan in ASX announcement dated 3 July 2023. Titan confirms that it is not aware of any new information or data that materially affects the information included in that announcement. The Competent Person for the announcement was Melanie Leighton. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in the release that relates to the Estimation and Reporting of the Dynasty Mineral Resources has been compiled and reviewed by Ms Elizabeth Haren of Haren Consulting Pty Ltd who is an independent consultant to Titan Minerals Limited and is a current Member and Chartered Professional of the Australasian Institute of Mining and Metallurgy and Member of the Australian Institute of Geoscientists. Ms Haren has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activities 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 (The JORC Code). Ms Haren consents to the inclusion in this report of the matters based on her information in the form and context in which it appears.

Forward-looking Statements

This announcement may contain "forward-looking statements" and "forward-looking information", including statements and forecasts. Often, but not always, forward-looking information can be identified by the use of words such as "plans", "expects", "is expected", "is expecting", "budget", 'outlook", "scheduled", "estimates", "forecasts", "intends", "anticipates", or "believes", or variations (including negative variations) of such words and phrases, or state that certain actions, events or results "may", "could", "would", "might", or "will" be taken, occur or be achieved. Such information is based on assumptions and judgments of Titan's directors and management regarding future events and results.

The purpose of forward-looking information is to provide the audience with information about Titan's expectations and plans. Readers are cautioned that forward-looking information involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Titan and/or its subsidiaries to be materially different from any future results, performance or achievements expressed or implied by the forward-looking information. Forward-looking information and statements are based on the reasonable assumptions, estimates, analysis and opinions of Titan directors and management made in light of their experience and their perception of trends, current conditions and expected developments, as well as other factors that Titan directors and management believe to be relevant and reasonable in the circumstances at the date such statements are made, but which may prove to be incorrect. Titan believes that the assumptions and expectations reflected in such forward-looking statements and information are reasonable.

Readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions which may have been used. Titan does not undertake to update any forward-looking information or statements, except in accordance with applicable securities laws.

APPENDIX A

Dynasty Project - 2012 JORC Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g., cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *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 mineralisation that are Material to the Public Report.* *In cases where 'industry standard' work has been done this would be relatively simple (e.g., 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g., submarine nodules) may warrant disclosure of detailed information.*	• Diamond drilling method was used to obtain HTW and NTW core (71.4/56.23 mm diameter respectively) for density and chemical analyses. ½ or ¼ core was submitted for analysis. • Downhole survey and core orientation tools are used, Diamond core is halved with a diamond saw to ensure a representative sample. • Channel sampling is completed as representative cut samples across measured intervals cut with hammer or hammer and chisel techniques. • Samples were crushed to better than 70% passing a 2mm mesh and split to produce a 250g charge pulverised to 200 mesh to form a pulp sample. • 30g charges were split from each pulp for fire assay for Au with an atomic absorption (AA) finish and samples exceeding 10g/t Au (upper limit) have a separate 30g charge split and analysed by fire assay with a gravimetric finish. Samples returning >10ppm Au from the AA finish technique are re-analysed by 30g fire assay for Au with a gravimetric finish. • An additional charge is split from sample for four acid digests with ICP-MS reporting a 48-element suite. • Within the 48 elements suite, overlimit analyses of a 5-element suite are performed with an ore grade technique (ICP-AES) if any one element for Ag, Pb, Zn, Cu, Mo exceeds detection limits in the ICP-MS method.
Drilling techniques	• *Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face-sampling bit, or other type, whether core is oriented and if so, by what method, etc).*	• Drilling HTW diameter core with standard tube core barrels retrieved by wire line, reducing to NTW diameter core as required at depth • Drill core is oriented by Reflex ACT III and True Core tools,
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.*	• Diamond sample recovery is recorded on a run-by-run basis during drilling with measurements of recovered material ratioed against drill advance. • Diamond core is split in weathered material, and in competent unweathered/fresh rock is cut by a diamond saw to maintain a representative sample for the length of the sample interval.

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.*	• No correlation between sample recovery and grade is observed.
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.*	• Diamond core samples are logged in detail, with descriptions and coded lithology for modelling purposes, with additional logging comprised of alteration, geotechnical, recovery, and structural logs including measurements based on core orientation marks generated from a Reflex ACTIII downhole survey tool. • Logging is predominantly qualitative in nature but including visual quantitative assessment of sulphide and quartz content included in text comments. • Core photographs are systematically acquired for whole core with sample intervals, orientation line prior and after the sampling in both wet and dry form. • The total lengths of all reported drill holes have been logged geologically and data is uploaded to a self-validating database. ½ cut and ¼ cut core material is retained from diamond drilling for re-logging and audit purposes.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all cores 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.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of 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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Diamond core is split or cut in weathered profile depending on hardness and competency of the core and cut with a diamond saw in fresh rock. Weathered, faulted, and fractured diamond core, prior to cutting, are docked, and covered with packing tape to ensure a representative half sample is taken. • A cutline on core is systematically applied for cutting and portion of core collected for analysis is systematic within each hole. Diamond core sample recovery are reported as being completed in accordance with best practices for the time of acquisition and considered to be appropriate and of good quality. • Sample size studies have not been conducted but sample size used are typical of methods used for other Andean deposits of similar mineralisation styles.
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 geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times,*	• Assaying and Laboratory procedures reported are completed by certified independent labs and considered to be appropriate and in accordance with best practices for the type and style of mineralisation being assayed for. Gold Fire Assay technique used is a total recovery technique for gold analysis. This technique is considered an appropriate method to evaluate total gold and silver content of the samples. • No geophysical tools used in relation to the reported exploration results. • In addition to the laboratory's own quality control ("QC") procedure(s), Titan Minerals Ltd- regularly inserts

Criteria	JORC Code explanation	Commentary
	calibrations factors applied and their derivation, etc. • *Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.*	its own Quality assurance and QC samples, with over 15% of samples in reported results corresponding to an inserted combination of certified reference materials (standards), certified blank material, field duplicate, lab duplicates (on both fine and coarse fraction material.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Reported intersections are logged by professional geologists in Australia and data validated by a senior geologist. • Twin holes have not been used in the reported exploration results. The use of twinned holes is anticipated in follow-up drilling. • Original laboratory data files in CSV and locked PDF formats are stored together with the merged data. • All drilling, and surface data are stored in a self-validating MX Deposit geological database. • No adjustment to data is made in the reported results
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.* • *Specification of the grid system used* • *Quality and adequacy of topographic control.*	• Reported drill collars and channel samples are located with an RTK GPS survey unit with sub-centimetre reporting for the purpose of improved confidence in resource estimation work. A gyroscopic survey tool is used for downhole surveys • All surveyed data is collected and stored in WGS84 datum. • Topographic control is ground survey quality and reconciled against Drone platform survey data with 1m pixel resolution. Assessed to be adequate for the purpose of resource estimation
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• Data spacing for reported diamond drilling varies by prospect, targeting a nominal 80m lateral spacing and 80m vertical spacing for data acquisition. • Reported Channel sampling is collected on 10m to 20m spacing depending on resolution of structural information deemed necessary by the geology team. • Data spacing is anticipated to support mineral resource estimation for the indicated and inferred categories, with data spacing and distribution for higher confidence resource estimation categories to be defined with further modelling and geostatistical analysis work. • No Sample compositing has been applied in reported exploration results.
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.*	• The orientation of diamond drilling and trenching is perpendicular to mapped orientation of primary vein and porphyry target observed in outcrop where possible. Drilling is often completed on multiple azimuths as fan drilling with multiple holes collared from a single drill site to minimise surface disturbance, which will result in some oblique intercepts to vein orientations. The true thickness of intercepts will be accounted for following structural analysis of oriented core and 3D modelling of veins. All results in relation to this report are drilled thickness and should not be interpreted as true thickness at this time.

Criteria	JORC Code explanation	Commentary
		• No bias is considered to have been introduced by the existing sampling orientation.
Sample security	• *The measures taken to ensure sample security.*	• Samples were collected by Titan Minerals geologists and held in a secure yard prior to shipment for laboratory analysis. Samples are enclosed in polyweave sacks for delivery to the lab and weighed individually prior to shipment and upon arrival at the lab. Sample shipment is completed through a commercial transport company with closed stowage area for transport.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews of reported data completed outside of standard checks on inserted QAQC sampling.

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 licence to operate in the area.*	• Titan Minerals Ltd, through its indirect wholly owned Ecuadorian subsidiaries, holds a portfolio of exploration properties in the Loja Province of Ecuador. Amongst these, Titan holds a 100% interest in the Pilo 9, Zar, Zar 1, Zar 3A and Cecilia 1 concessions forming the Dynasty Project and totalling an area of 13,909 hectares. • Mineral concessions in Ecuador are subject to government royalty, the amount of which varies from 3% to 4% depending on scale of operations and for large scale operations (>1,000tpd underground or >3,000tpd open pit) is subject to negotiation of a mineral/mining agreement. • Pilo 9, Zar and Zar 1 are subject to a 3% royalty payable to the Ecuador Government as part of the Small Scale Mine Licensing regime currently issued in favour of the Dynasty Goldfield Project but may be subject to change in the event economic studies after exploration indicate a need to apply for a change of regime. • Concessions, Zar 3A and Cecilia 1 have not yet completed the environmental permitting process and require the grant of an Environmental Authorisation. • Mineral concessions require the holder to (i) pay an annual conservation fee per hectare, (ii) provide an annual environmental update report for the concessions including details of the environmental protection works program to be followed for the following year. These works do not need approval; and (iii) an annual report on the previous year's exploration and production activity. Mineral Concessions are renewable by the Ecuadorian Ministry of Oil, Mining and Energy in accordance with the Mining Law on such terms and conditions as defined in the Mining Law.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	Dynasty Gold Project Exploration done by other parties set out in further detail in the Titan ASX release dated 19 May 2020, and summarised below: • 1977, the Spanish-Ecuadorian joint venture company, Enadimsa, claimed 1,350ha in the La Zanja (Cerro Verde) area for exploration - no results included in reporting. • During the 1970s the United Nations explored the "Curiplaya" area, 2 km east of the Dynasty Project. Copper

Criteria	JORC Code explanation	Commentary
		and gold were detected in small quantities, data not included in reporting. • 1991–92, BHP Exploration Ltd. covered the general area with concessions, but the tenements eventually lapsed after minimal work. • 2001 to 2003, a private prospecting company, Ecuasaxon, undertook investigations in the general area and discovered anomalous gold and silver in quartz-sulphide veins in what is now the concession area. • 2003 until 2007 Dynasty Mining and Metals (later Core Gold) completed mapping, limited ground geophysical surveys and exploration sampling activity including 201 drill holes totalling 26,733.5m and 2,033 rock channel samples were taken from 1,161 surface trenches at Cerro Verde, Iguana Este, Trapichillo and Papayal in support of a maiden resource estimation. • 2008 to 2009, the Ecuadorian Government introduced an exploration moratorium, where on April 18, 2008, Ecuador's Constitutional Assembly passed a Constituent Mandate resolution (the "Mining Mandate"), which provided, among other provisions, for the suspension of mineral exploration activities for 180 days, or until a new Mining Act was approved. The Mining Act was published in late January 2009. The mining regulations to supplement and provide rules which govern the Mining Act were issued in November 2009, after which time the Mining Act and Regulations (collectively, the "Mining Law") were enacted. • 2017 to 2020 Core Gold Inc. (formerly Dynasty Mining and Metals) commenced small scale mining on a small portion of the Dynasty Project. Operations exposed a number of veins of the Canadian NI 43-101 compliant resource estimate, and operations discovered several veins of varying orientations not previously identified in drill and trench exploration activities requiring further exploration activity to quantify.
Geology	• *Deposit type, geological setting, and style of mineralisation.*	• Regionally, the Dynasty gold project lies within the compressional Inter-Andean Graben that is bounded by regional scale faults. The graben is composed of thick Oligocene to Miocene aged volcano- sedimentary sequences that cover the Chaucha, Amotape and Guamote terrains. This structural zone hosts several significant epithermal, porphyry, mesothermal, S-type granitoid, VHMS and ultramafic/ophiolite precious metal and base metal mineral deposits. • At the project scale, the intermediate volcanic hosted mineralised veins mainly occur along a faulted zone near and sub-parallel to the contact with the Cretaceous aged Tangula Batholith that extends north from Peru and is found outcropping in the east and south of the concessions. • Porphyry intrusion style mineralisation hosting gold, silver and copper mineralisation has also been mapped and intersected by drilling by at the Kaliman porphyry within the Dynasty Project area. • Gold occurs in its native form along with sulphides, including pyrite, sphalerite, galena, arsenopyrite, marcasite, chalcopyrite and bornite.
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:*	• Tabulation of requisite information for all reported drilling results with significant intercepts validated by Titan geologists and referenced in this report are included in Appendix A of this report. • Total number of drill holes and trench sites included in this report and located in graphics included in the

Criteria	JORC Code explanation	Commentary
	○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	report. • Material drill holes tabulated contain significant intercepts with gold grades exceeding 0.1g/t gold and are included in Appendix A of this report. No drill holes are excluded from maps or graphics in the report and all drill locations with or without material significant intercepts are included in maps and diagrams. Tabulation of requisite information for all reported drilling results with significant intercepts announced in this report are included in Appendix A.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off grades are usually Material and should be stated* *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.*	• No high-grade assay cut was applied to reported gold results. In the case of silver, the initial upper detection limit of the four-acid digest used is 100ppm, and an overlimit analysis method with an upper detection limit of 1,500ppm is used. • Lower cut-off for reported significant intercepts is 0.1g/t Au with up to 5m of internal dilution (results with <0.1g/t Au or un-sampled intervals where null values are taken as a zero-gold grade in calculating significant intercepts) are allowed within a reported intercept. • Significant Intercepts in Appendix A are reported for aggregate intercepts of sample intervals that are weight averaged by length of sample for results above a 0.1g/t gold cut-off. • No metal equivalent reporting is applicable to this announcement
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').*	• Reported intersections are measured sample lengths. Reported drill intersections are of unknown true width, further drilling and modelling of results is required to confirm the projected dip(s) of mineralised zones. • Reported intercepts are drilled thickness and should not be interpreted as true thickness unless otherwise indicated
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.*	• Included in body of report as deemed appropriate by the competent person

Criteria	JORC Code explanation	Commentary
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 avoiding misleading reporting of Exploration Results.*	• All material exploration results for drilling are included in this report, and location of all results are included in Figures provided in their entirety. • All results above a 0.1g/t lower cut-off are included in this report, and no upper cut-off has been applied.
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.*	• No other available datasets are considered relevant to reported exploration results. Historical exploration results include orientation studies for ground magnetics, IP Geophysics, and soil sampling grids, however each of these surveys are limited in scale relative to the project and are not considered material to assess potential of the larger project area. • Bulk density tests have been completed on areas related to the reported exploration results.
Further work	• *The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Additional drilling is planned to better define structural controls on mineralisation and assess open ended mineralisation on multiple mineralised corridors within the project area. Further mapping and sampling are to be conducted along strike of reported work to refine and prioritise targets for drill testing. • Included in body of report as deemed appropriate by the competent person

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.*	• All drilling, and surface data are stored in a self-validating MX Deposits database. • The Competent Person understands that Titan have undertaken detailed and systematic cross checking of historical data to ensure maximum integrity in the data used for Mineral Resource estimation. The process of field checks and validation is ongoing as access to ground is granted. • The Competent Person also performed general data audits and checks on the supplied data. Minor errors were adjusted.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the*	• No site visit has been undertaken by The Competent Person. Site visits are planned ahead of future Mineral Resource updates.

Criteria	JORC Code explanation	Commentary
	case.	
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 estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The interpretations are guided by the broader regional geological setting and local field observations. Extensive mapping of outcrops is critical to understanding mineralisation and has been used extensively in the geological interpretations. • The nature of the domains would indicate that alternate interpretations are possible as there are cross-cutting vein arrays. This may impact the location of interpreted veins slightly. • The confidence in the geological interpretation is good as extensive outcrop mapping has been utilised. • The geological logging and the results of the geostatistical analyses have been useful in predicting the continuity of the mineralisation for the Mineral Resource estimation.
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 Dynasty Project has been estimated over 10 by 3 kilometres with classified material to a depth of over 350m in some locations. Most mineralisation is open at depth.
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 description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *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*	• The mineralisation 1 m composites exhibit approximately log-normal distributions within each domain which is suitable for estimation by ordinary kriging. Ordinary Kriging ("OK") interpolation with dynamic anisotropy oriented 'ellipsoid' searches were used for the estimate. • Sample data was composited to 1 m down hole lengths using the 'best fit' method. Intervals with no assays were excluded from the estimates. The influence of extreme grade values was addressed by applying top-cuts to the data. These cut values were determined through statistical analysis (histograms, log probability plots, CVs, and summary multi-variate and bi-variate statistics) using Supervisor software. The maximum distance of extrapolation from data points for reportable Mineral Resources was around 150m. • The current estimate is an update of the historical 2019 reported Mineral Resource estimate which was completed using polygonal methods. The results are similar in gold ounces. • No assumptions have been made regarding recovery of by-products. • No non-grade elements have been estimated. Arsenic was also estimated. • The parent block dimensions used were 10m E by 10m N by 10m RL with sub-cells of 1.0m E by 1.0m N by 1.0m RL. The parent block size was selected through kriging neighbourhood testing and considering the dimensions of the domains and drill hole spacing. • Selective mining units were not modelled. • There are good correlations between Au, Ag and As. The variogram models and estimation parameters

Criteria	JORC Code explanation	Commentary
	comparison of model data to drill hole data, and use of reconciliation data if available.	were similar to attempt to preserve correlation however each variable was estimated independently. • Top-cuts were required for some elements in some domains as there were extreme grades which would result in overestimation using ordinary kriging if not addressed. To assist in the selection of appropriate top-cuts, log-probability plots and histograms were generated. • Validation of grade estimates was completed using a three-stage process. The first is a global comparison of declustered and top-cut (where required) composites key statistics to the block model estimates for the first search pass as well as subsequent search passes. The second is a trend analysis where the top-cut (where required) composites are sliced into windows in multiple directions and compared. The third is careful local validation of composite grades to estimated grade in multiple orientations to ensure expected grade trends are reproduced and the estimates are a good reflection of the input composites and estimation parameters. Where required, parameters were adjusted in an iterative process to ensure a robust estimation. • Validation results showed good correlation between the sample grades and the block model grades. • Datamine version 1.13.202.0 was used for block modelling, estimation, and reporting. Supervisor version 8.15.0.3 was used for statistical and geostatistical analysis.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages and grades were estimated on a dry in situ basis. No moisture values were reviewed.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• An optimisation exercise was completed to determine an appropriate resource reporting cut-off. A cut-off of 0.5 g/t Au has been applied for reporting Mineral Resources.

Mining factors and 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 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.*	• Mining method is assumed to be a combination of open pit mining followed by underground mining methods on deeper, high-grade veins that continue at depth.
		• A preliminary whittle optimisation using assumptions from peer deposits was run which resulted in open pits optimising to a maximum depth of approximately:
		  ○ 380 metres at Cerro Verde
		  ○ 320 metres at Iguana
		  ○ 120 metres at Papayal
		  ○ 160 metres at Trapichillo
		• Mining factors and assumptions used in optimisation studies are based upon peer deposits and assumed long-term commodity prices. See below:

Criteria	JORC Code explanation	Commentary

Economics/Cost

	UNIT	VALUE
Gold Price	$/oz	1850
Mining Cost	$/t Rock	2.5
Processing Cost	$/t Ore	25
Au recovery	%	93%
Ag Recovery	%	70%
Dore Selling/Security cost	$/oz	3

Pit Slopes (overall slope)

Weathered	Degrees	40
Transition	Degrees	45
Fresh	Degrees	50

Metallurgical factors and 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.*	• No metallurgical testwork has been completed, however previous small scale mining and toll treatment of the ore at an offsite process facility resulted in average recoveries of 82.3% for Au. Important to note that previous mining was conducted on oxide material only, and recovery information for transitional and sulphide material is unknown. • Small scale mining conducted in 2017-2018 extracted oxide material to a depth of up to 60m on the Esperanza Vein, which was shipped to an offsite sulphide processing facility. Metallurgical recoveries ranged from 80 to 85% and averaged 82.3% through a plant that was designed for processing and extracting gold from sulphide ore material. • Metallurgical recoveries are anticipated to be improved with metallurgical studies and optimisation of a process plant designed specifically for processing Dynasty ore.
Environmental factors and 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 assumptions have been made by the Competent Person regarding possible waste and process residue disposal options. • It is assumed that no environmental factors exist that could prohibit any potential mining development at the deposit.

Criteria	JORC Code explanation	Commentary
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 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.*	• In some locations, drilling has not penetrated deep enough to create realistic weathering horizons. • Analysis of 6,850 bulk density values showed a gradual increase in density with depth. The topography was translated in 20m increments and each zone was assigned a dry bulk density.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie 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).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• Mineral Resources were classified in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC, 2012 Edition). • The deposit has been tested with high quality drilling, sampling and assaying and extensive surface sampling. Geological logging has defined structural and lithological controls that provide confidence in the interpretation of mineralisation boundaries. The Competent Person considers that geological and mineralisation continuity has been demonstrated with sufficient confidence to allow the Dynasty Project to be classified as Indicated and Inferred Mineral Resources. • Where the data spacing is closer than approximately 50m along strike by 50m down dip material was able to be classified as Indicated. Where the data spacing is approximately 50m to 150m along strike by 50m to 150m down dip material was able to be classified as Inferred. Each vein domain was then analysed in terms of extrapolation and number of informing samples. Polygons were created for the majority of vein domains to flag Indicated and/or Inferred material. Where extrapolation was more than 70m from data polygons were created to limit classified material. Vein domains with a very low number of informing samples remain unclassified. Where material was only informed by surface sampling the highest classification possible was Inferred. • The Mineral Resource estimation and classification appropriately reflects the view of the Competent Person.
Audits and reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• No external reviews or audits have been completed, internal audits have been completed which verified the technical inputs, methodology, parameters and results of the estimate.
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*	• A quantitative procedure for assessing relative accuracy and precision has not been deemed appropriate by the Competent Person for the estimation of gold grade at this stage. • The Dynasty Mineral Resource estimates have been reported with degree of confidence commensurate with Indicated and Inferred Mineral Resources. • The data quality is good, and the drill holes have detailed logs produced by qualified geologists for all

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	of the factors that could affect the relative accuracy and confidence of the estimate. • *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.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	recent drilling. A recognised laboratory has been used for all analyses. • The Mineral Resource statement relates to global estimates of tonnes and grade. • Production information has not been compared to the estimate at this stage. • Previous mining focussed on the Cerro Verde Prospect covered approximately 500m on the southwest extent of the larger >9km long Dynasty vein swarm corridor. Small scale mining over a 3-year period commencing early 2016 averaged 3.4g/t gold from numerous veins ranging from 1.5m to 15m in width. The small-scale mining identified numerous veins not included in the previous foreign mineral resource estimate for the Dynasty Gold Project. The additional mineralisation discovered in mined open pits yielded a 40% increase in gold content versus the previous foreign mineral resource estimate for the areas mined. This additional gold is realised from a 69% increase in ore material at a 2g/t gold cut-off grade.