TITAN MINERALS LTD

ASX ANNOUNCEMENT

4 September 2023

NEW RESOURCE EXPANSION TARGETS IDENTIFIED AT DYNASTY

Key Highlights

- **Mapping and surface rock chip sampling has confirmed several new high-grade gold and silver resource growth targets at the Papayal and Trapichillo prospects at the Dynasty Project**
- **Peak rock chip values returned from additional veins and extensional veins at Papayal and Trapichillo include:**
  - **43.1 g/t Au, 1,500 g/t Ag in rock chip TM07416**
  - **26.4 g/t Au, 25.2 g/t Ag in rock chip TM051242**
  - **26.0 g/t Au, 155 g/t Ag rock chip TM075151**
  - **22.7 g/t Au, 689 g/t Ag in rock chip TM051008**
  - **23.5 g/t Au. 28.4 g/t Ag in rock chip TM07540**
- **Recent soil geochemistry results have confirmed potential resource extensions and new areas of mineralisation, with multiple large-scale coincident gold-silver anomalies identified**
- **Trenching in these newly identified target areas is being undertaken to improve geological understanding and structural controls on mineralised vein systems**
- **Preparations for resource growth drilling at Dynasty now well advanced and set to commence in mid-September**

Titan's CEO Melanie Leighton commented:

"Titan have been focused on unlocking the potential at the Papayal and Trapichillo prospects at the Dynasty Project, with these latest surface mapping and geochemistry results further confirming the potential for substantial resource growth.

"Importantly, most of the new high-grade rock chip results with grades in excess of 20 g/t Au have been returned from new veins discovered at Papayal and Trapichillo and highlight the tenor of mineralisation we are targeting as part of our resource growth strategy.

"We are very pleased to see the efforts of our geology team being rewarded with these positive results and are excited to fire up the drill rigs in these high-grade areas to continue to add value to Dynasty through rapid resource growth."

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Dynasty Exploration Activities Update

Titan Minerals Limited (**Titan** or the **Company**) (**ASX:TTM**) is pleased to provide an update on exploration activities at the Papayal and Trapichillo prospects, at the Company's 100% held Dynasty Gold Project (**Dynasty**) in southern Ecuador, where Titan geologists have been undertaking mapping and surface geochemical sampling ahead of planned resource growth drilling which is set to commence in mid-September.

The Papayal and Trapichillo prospects were identified as high priority resource growth areas following completion of the maiden JORC Compliant Mineral Resource Estimate (MRE) in July 2023, where Mineral Resources reported by prospect are currently:

- **Cerro Verde:** 28.8Mt @ 2.08 g/t Au, 13.00 g/t Ag for **1.92 Moz gold, 12.04 Moz silver**
- **Iguana:** 10.9Mt @ 2.02 g/t Au, 13.68 g/t Ag for **0.71 Moz gold, 4.81 Moz silver**
- **Papayal:** 0.9Mt @ 4.54 g/t Au, 50.85 g/t Ag for **0.13 Moz gold and 1.43 Moz silver**
- **Trapichillo:** 2.9Mt @ 3.80 g/t Au, 39.31 g/t Ag **for 0.36 Moz gold 3.71 Moz silver**

The Papayal and Trapichillo vein systems exhibit extremely high gold and silver grades, albeit relatively low tonnes, which is largely a function of sparse drilling and lack of exploration. Recent exploration work programs have largely focused on these prospects which lie at the northeastern end of the 9 kilometre long vein system at the Dynasty Project.

In recent months the Company's geological team have been conducting surface mapping, rock chip sampling and systematic soil geochemical sampling programs over the high-grade Papayal and Trapichillo prospects, with an aim to define further high grade, high margin gold-silver resources in these underexplored and to date sparsely drill tested areas.

Soil samples have been taken on a 200m x 100m grid spacing, and in high priority areas infill soil sampling has also been completed on a 200m x 50m spacing to define new targets for exploration and resource growth. Pleasingly, several resource extensions and new exploration target areas have been highlighted by recent mapping and soil and rock chip geochemistry.

Multi-element soil geochemical results have highlighted several new target areas which exhibit large-scale coincident gold, silver, arsenic and antimony anomalism. In some cases, these multi-element geochemical anomalies extend more than 2 kilometres and are observed to trend both northeast - mimicking the 9-kilometre structurally controlled vein corridor; and north-south – similar to the Papayal gold-silver resources which has been defined by historical drilling and trenching.

Rock chip sampling completed in conjunction with surface mapping has returned several new high-grade gold-silver ± copper ± lead ± zinc results in areas of newly identified epithermal veining which sit outside of previously defined resources.

Peak values returned from recent rock chip sampling at Papayal include:

- 43.1 g/t Au, 1,500 g/t Ag in rock chip TM07416
- 26.0 g/t Au, 155 g/t Ag in rock chip TM075151
- 22.7 g/t Au, 689 g/t Ag in rock chip TM051008
- 23.5 g/t Au. 28.4 g/t Ag in rock chip TM07540
- 16.75 g/t Au, 255 g/t Ag in rock chip TM07156
- 14.0 g/t Au, 31.2 g/t Ag in rock chip TM051222
- 12.9 g/t Au, 184 g/t Ag in rock chip TM07477

Peak values returned from recent rock chip sampling at Trapichillo include:

- 26.4 g/t Au, 25.2 g/t Ag in rock chip TM051242
- 14.5 g/t Au, 100 g/t Ag in rock chip TM051220
- 9.96 g/t Au, 240 g/t Ag in rock chip TM0512110
- 8.9 g/t Au, 34.7 g/t Ag in rock chip TM051223
- 6.76 g/t Au, 38.7 g/t Ag in rock chip TM051109
- 4.95 g/t Au, 99.6 g/t Ag in rock chip TM051107
- 4.36 g/t Au, 84.1 g/t Ag in rock chip TM051104
- 4.15 g/t Au, 93.7 g/t Ag in rock chip TM051226

Further exploration work is being undertaken in the form of mapping and trenching to identify the primary source of soil geochemical anomalism, and to understand mineralised vein widths, orientations, and any structural intersection points that may represent high-grade, wide plunging ore shoot targets.

Trenching over these newly defined target areas will provide a much better geological understanding, with geological observations and geochemical information to be incorporated into the design of drilling to optimally test these new high priority targets.

These newly identified high-grade vein systems represent immediate targets and will feature in resource growth drilling programs planned to commence at Dynasty in mid-September.

The Company looks forward to providing further updates as trenching programs are completed and results are received.

About the Papayal prospect

Detailed mapping at Papayal has provided further insight into the local geology and controls on mineralisation, with a summary of the key mapping observations detailed below.

Dominant lithologies consist of andesitic flows with thin intercalations of volcanoclastic units. Outcrops of dioritic composition are also observed, they are largely equigranular, in some areas grading to granodiorite with quartz eyes.

Most alteration is observed to be related to fault zones and proximal to veins. Argillic and phyllic alteration with mineral assemblage of illite - smectite ± sericite is evident as narrow halos surrounding mineralised veins. Andesite and volcanoclastic rocks exhibit propylitic alteration with dominant chlorite and occasional veinlets of carbonate observed.

Regionally, a family of faults is observed trending northeast, dipping variably to the northwest and to the southeast. These faults appear to be controlling both the Cerro Verde and Papayal mineral vein systems. Veins are largely controlled by primary structures and regional scale faults and appear to be better developed in more brittle units such as the diorite or brecciated volcaniclastic units.

Most veins are observed to be subparallel and have a preferential north-south orientation, dipping 60-70˚ to the west. Veins are observed to be segmented, with small-scale (decimeter to metre) lateral (and possibly vertical) displacement; however, the mapped vein systems extend for several hundred metres. This dominant array of veins is likely controlled by early fault architecture, however there are some veins that exhibit different orientations, possibly infilling later linking/ cross-cutting structures.

At least four mineralisation events have been observed in veins at Papayal, and although the timing and relationship of these events is not well understood, initial observations indicate the following order of mineralisation events:

1. Carbonate phase, with pyrite and possibly minor gold mineralisation, which seems be increasing towards the southern part of the prospect,
2. White opaque quartz, slightly milky, characterized by mainly pyrite and gold mineralisation,
3. Breccia event in which fluids richer in silver ± antimony introduced,
4. Transparent quartz phase, with pyrite, galena, sphalerite ± traces of arsenopyrite and chalcopyrite. Tellurium is also present in this final mineralizing event, which is also known to have an association with gold.

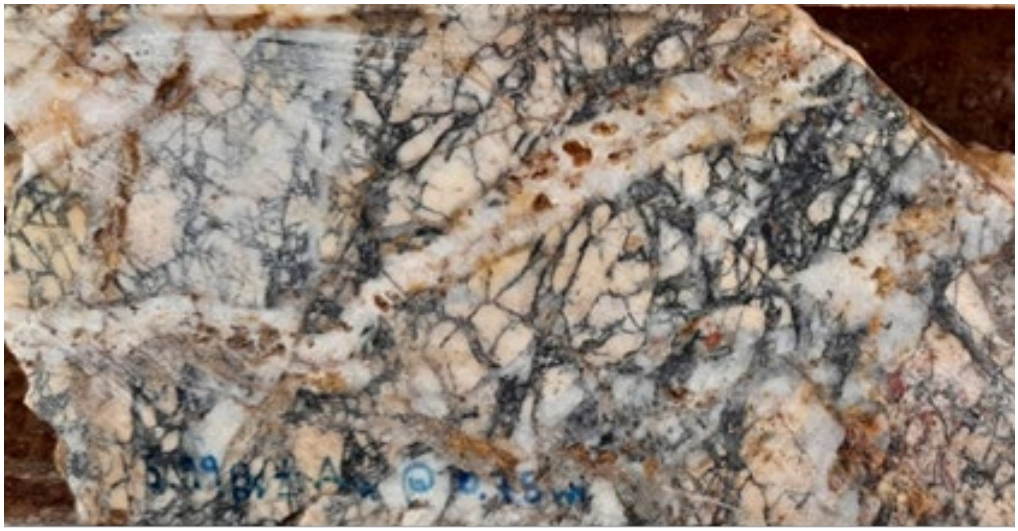

Plate 1.05DDH04:22m. White quartz vein, brecciated, filled with Ag, and cut by later more transparent quartz veinlet.

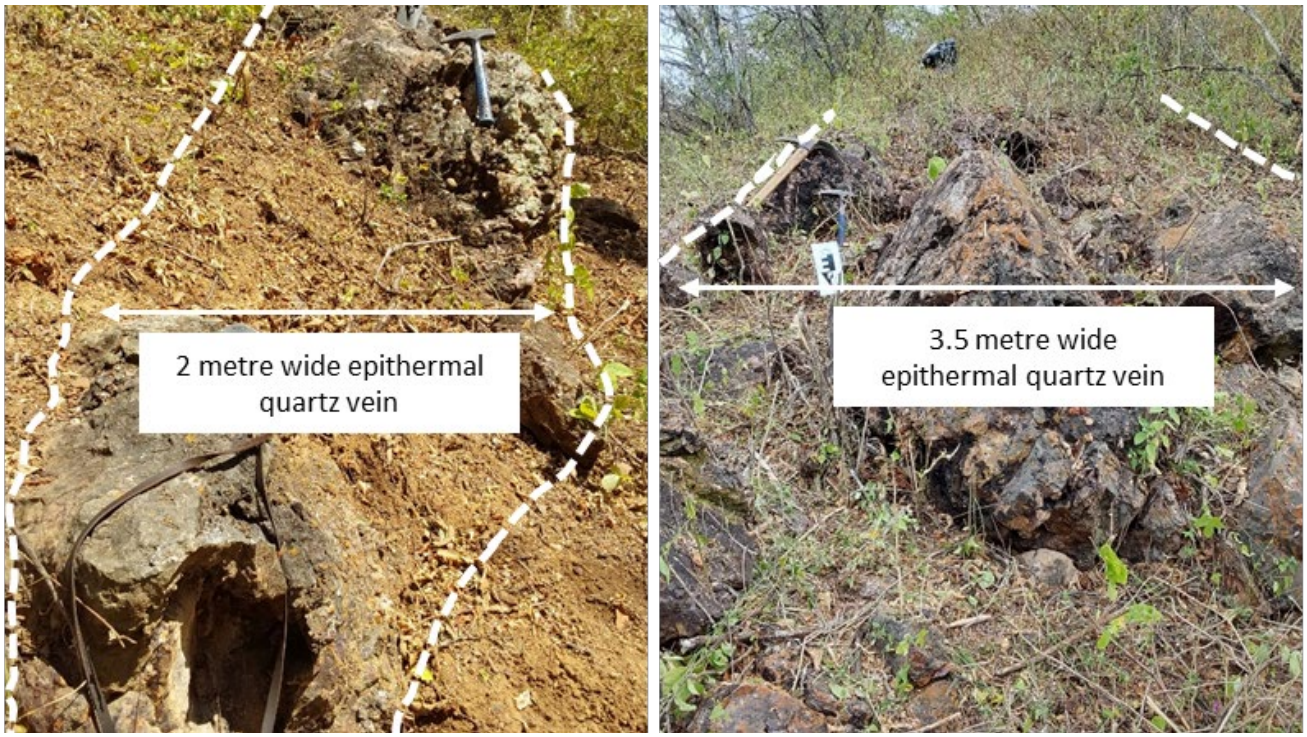

Plate 2. Left: 5-metre-wide quartz vein (granular and porous texture) with pyrite ± tetrahedrite? ± galena. Right: The same vein ~30 metres to the south, displaying pyrite and iron oxide mineralisation.

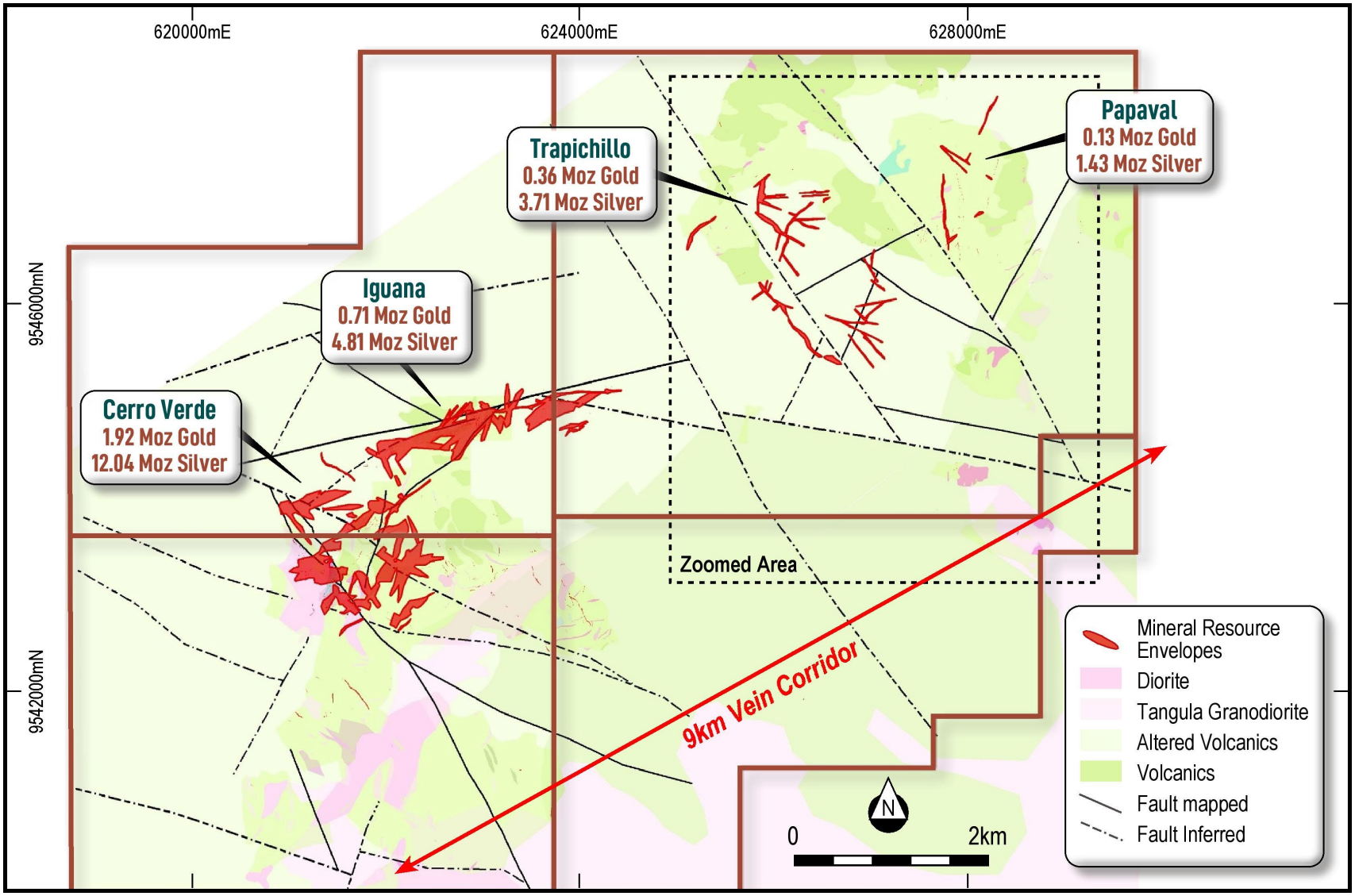

Figure 1. Dynasty Gold Project displaying simplified geology, prospect locations and Mineral Resource envelopes

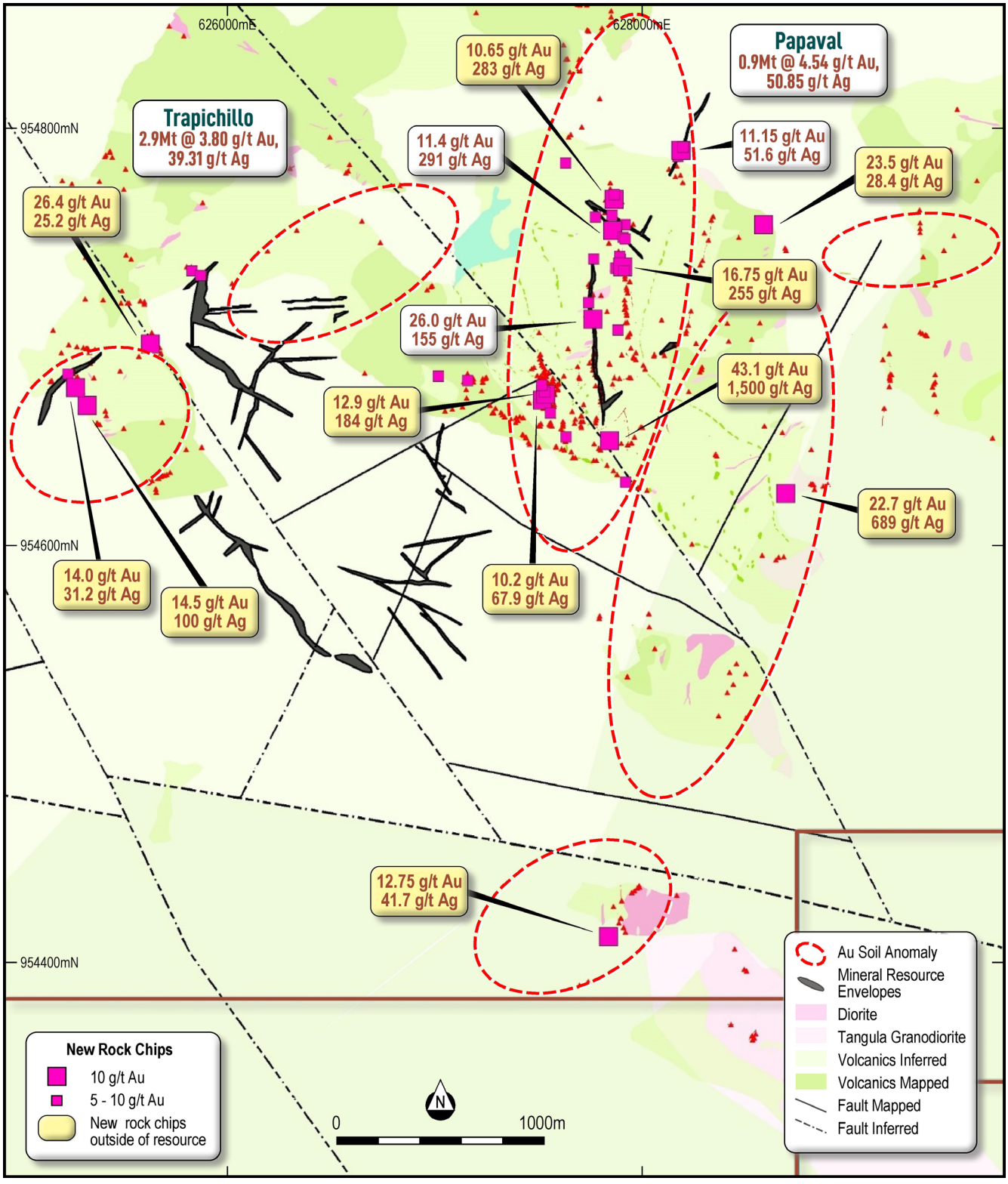

Figure 2.Plan view displaying Papayal surface mappign and new rock chip results in relation to Mineral Resources

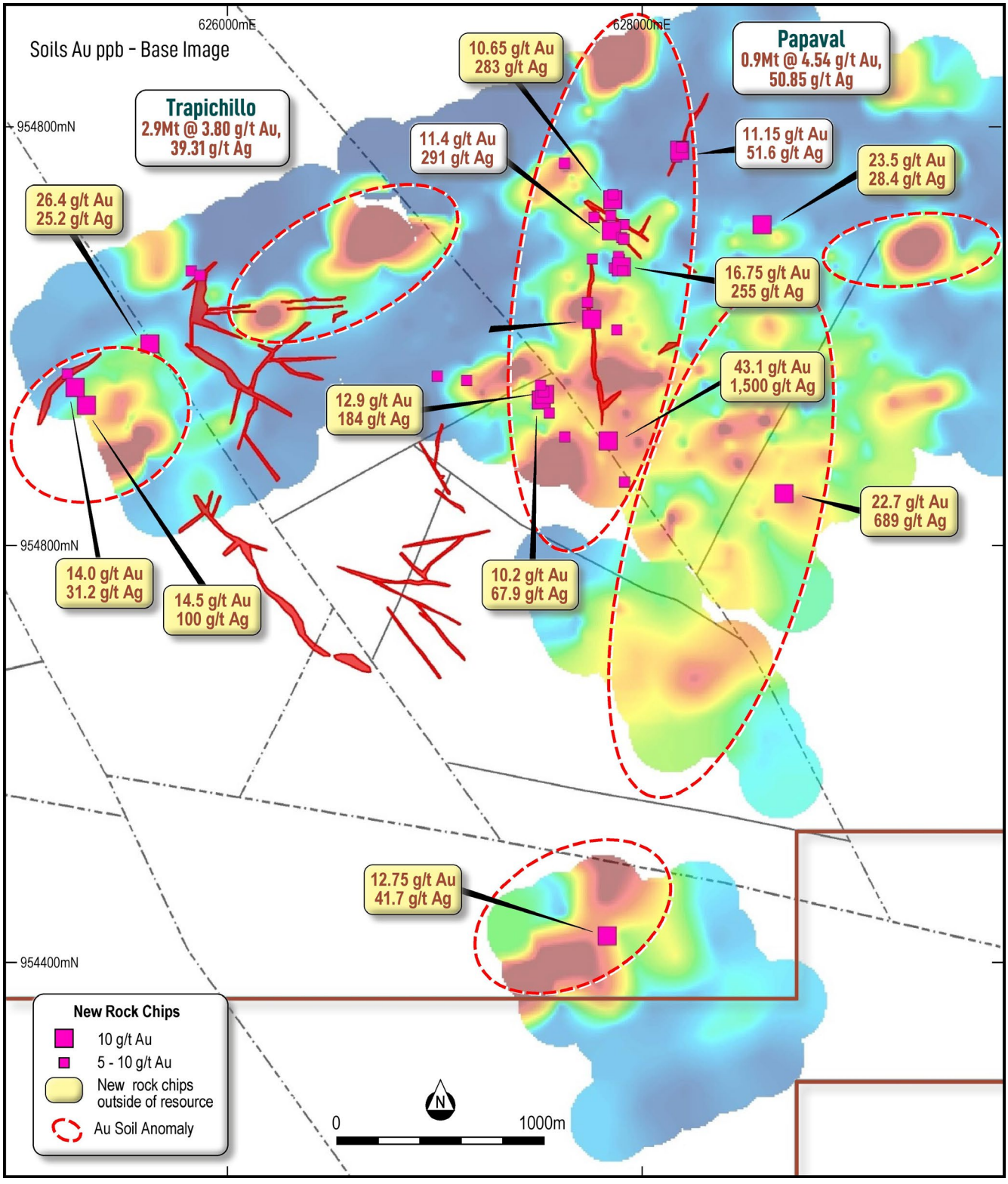

Figure 3. Plan view displaying Papayal surface soil sampling (Au ppb) in relation to Mineral Resources

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 all exploration activities.

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 one kilometre 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.

Titan published a JORC Compliant Mineral Resource Estimate (MRE) for the Dynasty Project on 6 July 2023. The 3.12 million ounce gold and 21.98 million ounce silver 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 was 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.

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 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.

Approximately 84% of Indicated and 64% of Inferred Mineral Resources reported ≥0.5 g/t Au are within 160m from surface. The Cerro Verde prospect contains the bulk of the resource, and also has the highest component of Indicated resources. The larger resource and higher classification at Cerro Verde are 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.

Suite 1, 295 Rokeby Road,
Subiaco WA 6008

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

Figure 4. Titan Minerals southern Ecuador Projects, peer deposits and surrounding infrastructure

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Released with the authority of the Board.

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

Contact details:

Investor Relations: Australia

Melanie Leighton – Chief Executive Officer
E: melanie@titanminerals.com.au
Ph: +61 8 6375 2700

Investor Relations: Australia

Matthew Carr –Executive Director
E: matthew.carr@titanminerals.com.au
Ph: +61 8 6375 2700

Competent Person's Statements

The information in this report that relates to Exploration Results is based on and fairly represents information compiled by Ms Melanie Leighton, who is an experienced geologist and a Member of The Australian Institute of Geoscientists. Ms Leighton is a full-time employee at Titan Minerals and has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which she is undertaking to qualify as a Competent Person as defined in the JORC 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources, and Ore Reserves'. Ms Leighton consents to their inclusion in the report of the matters based on this information in the form and context in which it appears.

With respect to estimates of Mineral Resources, announced on 6 July 2023, (MRE Announcement) the Company confirms that it is not aware of any new information or data that materially effects the information in the MRE Announcement and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

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 law.

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APPENDIX A

Table 1. Papayal and Traphichillo Rock Chip Results

Target	Sample ID	Northing (m)	Easting (m)	Elevation (m)	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)
Papayal	TM07416	627841	9546499	984	43.10	1500.00	0.32	3.54	0.08
	TM07151	627762	9547082	1145	26.00	155.00	0.06	0.98	0.04
	TM07540	628579	9547536	1158	23.50	28.40	0.00	0.04	0.00
	TM051008	628685	9546247	933	22.70	689.00	0.18	1.79	0.22
	TM07156	627905	9547334	1163	16.75	255.00	0.05	1.93	0.03
	TM051222	625337	9546669	1413	14.00	31.20	0.24	0.40	0.21
	TM07477	627534	9546723	1022	12.90	184.00	0.13	4.04	0.03
	TM07576	627836	9544122	1072	12.75	41.70	0.00	0.02	0.00
	TM07449	627856	9547507	1253	11.40	291.00	0.06	0.62	0.04
	TM07530	628185	9547892	1403	11.15	51.60	0.02	1.14	0.05
	TM07198	627863	9547656	1345	10.65	283.00	0.07	1.31	0.06
	TM07480	627520	9546695	1020	10.20	67.90	0.00	0.21	0.01
	TM07453	627915	9547539	1251	8.52	96.40	0.00	0.40	0.01
	TM07439	627851	9547583	1295	8.49	237.00	0.03	0.89	0.04
	TM07197	627863	9547681	1320	8.41	159.00	0.06	1.18	0.02
	TM07529	628193	9547909	1414	8.00	49.50	0.01	0.54	0.05
	TM07155	627908	9547316	1155	7.81	131.00	0.01	0.31	0.02
	TM07158	627893	9547372	1178	7.72	220.00	0.05	1.37	0.01
	TM07415	627918	9546302	925	7.62	38.80	0.02	0.06	0.11
	TM07160	627870	9547330	1155	7.55	382.00	0.05	0.70	0.02
	TM07473	627515	9546769	1053	7.50	1500.00	0.19	4.43	0.03
	TM07443	628175	9547882	1404	7.42	43.70	0.01	0.04	0.01
	TM07157	627889	9547385	1185	6.95	221.00	0.03	1.22	0.01
	TM07199	627856	9547648	1320	6.88	111.00	0.03	0.46	0.04
	TM07475	627529	9546735	1024	6.82	456.00	0.15	1.09	0.12
	TM07152	627739	9547164	1135	6.73	83.60	0.03	0.04	0.01
	TM07006	627020	9546811	1112	6.49	39.10	0.03	0.44	0.15
	TM07450	627773	9547574	1278	6.31	329.00	0.04	1.46	0.01
	TM07649	627556	9546633	987	6.21	36.40	0.01	0.17	0.06
	TM07186	627880	9547033	1065	6.04	155.00	0.01	0.95	0.01
	TM07448	627905	9547476	1226	5.87	478.00	0.02	0.84	0.01
	TM07154	627764	9547373	1180	5.77	73.50	0.01	0.43	0.01
	TM07442	628168	9547863	1393	5.59	113.00	0.01	0.08	0.01
	TM07011	627160	9546790	1082	5.54	2.52	0.01	0.02	0.04
	TM07190	627629	9547834	1320	5.32	4.37	0.01	0.00	0.00
	TM07672	627631	9546520	975	5.22	1090.00	0.51	0.96	1.34
	TM07447	627915	9547467	1219	5.12	123.00	0.01	0.24	0.01
	TM07495	627535	9546827	1063	4.99	297.00	0.05	0.65	0.03

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Target	Sample ID	Northing (m)	Easting (m)	Elevation (m)	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)
	TM07165	627914	9547132	1085	4.96	36.00	0.00	0.05	0.00
	TM07574	627908	9544166	1042	4.90	25.10	0.02	0.15	0.16
	TM07018	626655	9547556	1353	4.77	9.21	0.01	0.01	0.01
	TM07452	627904	9547546	1260	4.69	40.90	0.00	0.04	0.00
	TM07445	627870	9547570	1284	4.63	137.00	0.03	0.49	0.05
	TM07472	627519	9546776	1045	4.57	179.00	0.07	1.12	0.09
	TM07444	627868	9547498	1249	4.46	91.90	0.03	0.36	0.04
	TM07493	627540	9546810	1052	4.36	38.80	0.02	0.19	0.04
	TM07193	627819	9547595	1295	4.30	137.00	0.03	0.13	0.05
	TM07150	627770	9547027	1130	4.26	33.80	0.06	0.30	0.14
	TM07494	627534	9546826	1063	4.24	135.00	0.02	0.61	0.01
	TM07464	628281	9546844	1084	4.22	55.50	0.01	0.16	0.02
	TM07172	627968	9546923	1029	4.01	148.00	0.15	3.43	0.10
Trapichillo	TM051242	625640	9546963	1215	26.40	25.20	0.10	0.24	0.13
	TM051220	625282	9546756	1428	14.50	100.00	0.09	1.16	0.20
	TM051110	625839	9547317	1395	9.96	240.00	0.01	0.07	0.01
	TM051223	625244	9546822	1430	8.90	34.70	0.12	1.30	0.37
	TM051109	625880	9547294	1405	6.76	38.70	0.00	0.01	0.01
	TM051107	626029	9547254	1465	4.95	99.60	0.01	0.17	0.01
	TM051104	625611	9547157	1225	4.36	84.10	0.19	1.35	4.15
	TM051226	625397	9546578	1376	4.15	93.70	0.10	2.35	0.22

Coordinates in WGS84 Zone 17S

Suite 1, 295 Rokeby Road,
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info@titanminerals.com.au

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APPENDIX B

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.*	• No drilling included in this announcement. • Rock chip samples were dried at a temperature < 60°C, 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. • 50g charges were split from each pulp for fire assay for Au with an atomic absorption (AA) finish. Samples returning >10ppm Au from the AA finish technique are re-analysed by 50g 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. • Soil samples were dried at a temperature < 60°C, sieve sample to 180 microns (80 mesh), and pulverized up to 250g of the sample to achieve 85% passing through 75 microns mesh to form a pulp sample. • 50g charges were split from each pulp for super trace gold and multielement in soils analysis. • Au was analysed by Aqua regia extraction with ICP-MS finish. An additional charge is split from sample for four acid digests with ICP-MS reporting a 48-element suite.
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).*	• No drilling included in this announcement.
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.* • *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 drilling included in this announcement.
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.*	• No drilling included in this announcement. • Geological observations have been routinely recorded for rock chip samples as part of detailed surface geological mapping.

Criteria	JORC Code explanation	Commentary
	• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	

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.*
		• Rock chip samples were submitted in their entirety for analysis, no subsampling was completed.
		• Soil sample preparation involved:
		  ○ A 0.40 x 0.40 m hole is dug until it reaches the horizon to be sampled.
		  ○ Once Horizon B or C is reached the sampling begins.
		  ○ The material is extracted and passed through a 2 mm sieve, one kilo is taken from the sample that passes through the sieve (fine fraction sample), and the same procedure is performed with the material that remains in the sieve (coarse fraction sample), a complete sample of this material.
		  ○ Once sampling is completed the hole is refilled.

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, 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.*	• 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 or other instruments were 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 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.*	• No drilling reported, only surface soil and rock chip sample results • 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*	• No drillholes reported

Criteria	JORC Code explanation	Commentary
	• *Quality and adequacy of topographic control.*	
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 soil sampling geochemical results was on a 200m x 50m spacing and in some areas a 200m x 50m spacing. • Data spacing for reported rock chip samples was on an irregular/ ad hoc basis, with samples taken at the geologists' discretion as part of their surface mapping activities. • 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.*	• Rock chip samples may have been taken along the length of mineralised vein structures, so bias may be introduced. However, rock chip sample results are used for exploration targeting purposes,and will not be considered for resource estimation purposes. • No bias is considered to have been introduced by the soil sampling orientation, as the soil samples were taken on a systematic grid spacing, considered to be perpendicular to, and appropriate for, the style of mineralisation.
Sample security	• *The measures taken to ensure sample security.*	• Samples were collected by Titan Minerals field technicians and 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 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

Criteria	JORC Code explanation	Commentary
		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:*
	  ○ *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.*
		• Tabulation of requisite information for all reported rock chip results with significant values validated by Titan geologists and referenced in this report are included in Appendix A of this report.
		• Only significant rock chip samples considered as significant ie. results > 4.0 g/t Au have been reported.
		• Rock chip samples have been tabulated containing significant values with gold grades exceeding 4.0g/t Au and are included in Appendix A of this report. Rock chips with values < 4.0 g/t Au are excluded from maps or graphics in the report.

Data aggregation	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off*	• 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

Criteria	JORC Code explanation	Commentary
methods	*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.*	analysis method with an upper detection limit of 1,500 ppm is used. • Lower cut-off for reported significant values is 4.0 g/t Au • No data aggregation has been used for reporting of significant rock chip values. • 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 rock chip values are point data, and do not represent true widths of mineralisation. • Additional trenching, drilling and modelling of results is required to confirm the true width and orientation of mineralised zones. •
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
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 surface geochemistry are included in this report, and location of all results are included in Figures provided in their entirety.
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.
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 mapping, trenching and 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