

NEW HIGH GRADE GOLD DRILL HITS AT PAPAYAL

Key Highlights

- First drilling into new Julia vein system, Papayal prospect, Dynasty Gold Project has successfully intersected high grade epithermal gold and silver, with significant intercepts including:
 - 2.00m @ 5.29 g/t Au, 32.4 g/t Ag from 12.0m &
 - 3.22m @ 2.77 g/t Au, 120 g/t Ag, 3.10% Pb from 28.0mwithin a broader intersection of 29.0m @ 0.95 g/t Au, 33.44 g/t Ag from 12.0m in PPDD23-002.
 - 5.27m @ 3.53 g/t Au, 72.3 g/t Ag from 85.81m
- including 0.66m @ 25.1 g/t Au, 492 g/t Ag, 0.42% Cu, 0.66% Pb, 0.54% Zn from 88.57m in PPDD23-001.
- 2.02m @ 2.98 g/t Au, 84.02 g/t Ag from 75.08m
- including 0.51m @ 9.34 g/t Au, 275.00 g/t Ag from 76.05m in PPDD23-010.
- 0.40m @ 3.5 g/t Au, 107 g/t Ag from 58.35m &
 - 0.40m @ 65.5 g/t Au, 83.2 g/t Ag from 81.62m in PPDD23-013.
- Mapping and surface geochemical work programs being expanded to Papayal south in an area that has never previously been explored, representing a significant opportunity to identify further new drill targets and grow resources at the Dynasty Project.
 - 3D Geological model now being updated for Papayal and Cerro Verde prospect areas ahead of Dynasty resource update.
 - Pre-scoping study workstreams underway to assess Dynasty mining methods and optimisation and preliminary metallurgical processing options and recoveries.

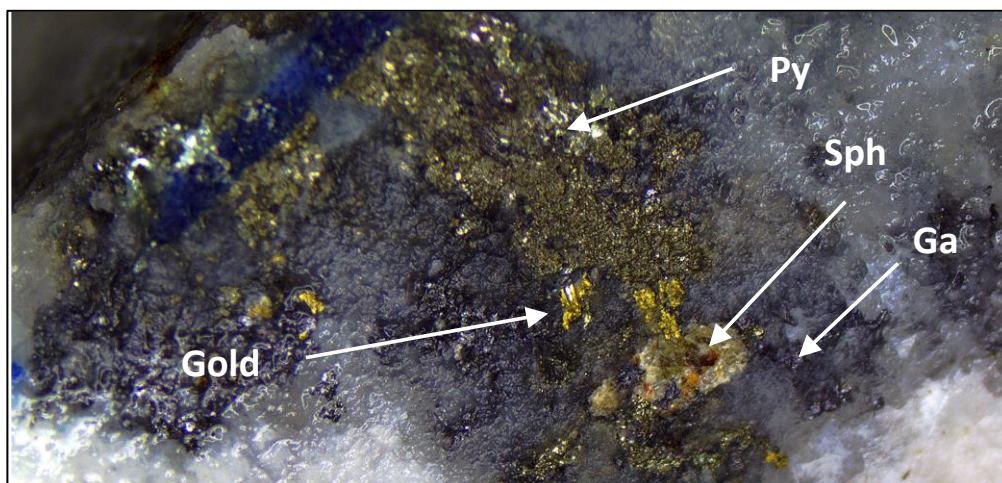


Plate 1. PPDD23-013 (81.70m) 0.40m @ 65.5g/t Au, 83.20g/t Ag. Quartz-carbonate vein with gold-galena-sphalerite-pyrite.

Titan's CEO Melanie Leighton commented:

"We are very pleased with results returned from our first ever drilling into the newly discovered Julia vein system at the Papayal prospect. With several coherent high-grade intercepts, these fantastic results confirm our ability to define new exploration targets and further grow the substantial 3.12Moz gold and 22Moz silver resource at the Dynasty Gold Project."

"The geology team continue to advance mapping and surface geochemical exploration programs, having recently secured access to additional land to the south of Papayal, and importantly in a completely new, highly prospective area that has never previously been explored."

"We look forward to what our mapping and surface geochemical sampling might unveil at Papayal south, and we are confident that there is a significant amount of mineralisation yet to be discovered and defined at the project."

"Pre-scoping study workstreams have commenced, with this work important in understanding and optimising mining method/s, mining and process throughput rates, determining potential metallurgical recoveries, while also providing a preliminary economic assessment of the current resource inventory."

"Titan has a busy year ahead with plenty of news to come as we continue to advance our flagship Dynasty Gold Project."

Papayal Resource Growth Drilling Results

Titan Minerals Limited (**Titan** or the **Company**) (**ASX:TTM**) is pleased to provide an update on the Company's 100% held Dynasty Gold Project (**Dynasty**) in southern Ecuador, and to announce results from recently completed resource growth drilling at the Papayal prospect (**Papayal**).

Current resources at Papayal comprise **0.9Mt @ 4.54 g/t Au, 50.85 g/t Ag** for a contained **0.13 Moz gold, 1.43 Moz silver**, representing a high-grade part of the 9 kilometre epithermal system and a high priority area for resource growth.

In total 13 diamond holes for 1,267 metres were drilled at Papayal, representing the first ever drilling completed at the newly identified Julia vein system recently discovered by Titan's geologists, located outside of Papayal's currently defined resources.

Drilling was designed to test the continuity and depth extent of the Julia vein system, which had previously been defined by Titan's mapping and trenching at surface.

Several significant high-grade gold and silver intercepts were returned confirming continuity of mineralisation from surface down to approximately 60 metres below surface. Significant diamond drilling results include:

- **PPDD23-002:**
 - **2.00m @ 5.29 g/t Au, 32.4 g/t Ag from 12.0m &**
 - **3.22m @ 2.77 g/t Au, 120 g/t Ag, 3.10% Pb from 28.0m**
within a broader intersection of 29.0m @ 0.95 g/t Au, 33.44 g/t Ag from 12.0m.
- **PPDD23-001:**
 - **5.27m @ 3.53 g/t Au, 72.3 g/t Ag from 85.81m**
Including 0.66m @ 25.1 g/t Au, 492 g/t Ag, 0.42% Cu, 0.66% Pb, 0.54% Zn from 88.57.
- **PPDD23-010:**
 - **2.02m @ 2.98 g/t Au, 84.02 g/t Ag from 75.08m**
Including 0.51m @ 9.34 g/t Au, 275.00 g/t Ag from 76.05m.

- **PPDD23-013:**
 - **0.40m @ 65.5 g/t Au, 83.2 g/t Ag** from 81.62m &
 - 0.40m @ 3.5 g/t Au, 107 g/t Ag, 0.32% Cu, 0.47% Pb, 0.65% Zn from 58.35m.
- **PPDD23-007:**
 - 3.00m @ 1.93 g/t Au, 58.43 g/t Ag, 0.2% Pb from 27.0m.
- **PPDD23-008:**
 - 3.91m @ 0.95 g/t Au, 48.04 g/t Ag, 0.32% Pb from 35.41m,
 - 4.20m @ 1.01 g/t Au, 6.4 g/t Ag, 0.34 % Zn from 42.8m &
 - 5.60m @ 0.53 g/t Au, 13.5 g/t Ag, 0.18 % Zn from 51.8m.
- **PPDD23-003:**
 - 1.90m @ 1.41 g/t Au, 81.9 g/t Ag, 0.34 % Pb from 24.5m &
 - 2.27m @ 1.57 g/t Au, 14.54 g/t Ag from 50m

Including 0.97m @ 3.53 g/t Au, 96.3 g/t Ag from 51.3m.

Surface trenching also returned several intervals of vein hosted gold and silver mineralisation at the Julia target, further supporting the above drill results and the geometry of mineralisation extending from surface. Significant trench results include:

- **3.60m @ 2.53 g/t Au, 124 g/t Ag**
within a broader intersection of 6.0m @ 1.62 g/t Au, 82.7 g/t Ag in PPT23-008.
- 4.20m @ 1.17 g/t Au, 56.5 g/t Ag in PPT23-010.
- 1.80m @ 2.39 g/t Au, 124 g/t Ag in PPT23-004.
- 1.05m @ 2.64 g/t Au, 111.7 g/t Ag
within a broader intersection of 3.35m @ 0.97 g/t Au, 36.8 g/t Ag in PPT23-003.
- 0.5m @ 5.22 g/t Au, 1500 g/t Ag in PPT23-011.

Trenching was also used to validate historical drill results and interpreted mineralisation in areas of low confidence within the Papayal main lode resource. These trenches returned wide, high-grade intercepts of gold and silver mineralisation, providing good confidence in the resource estimate in these areas:

- **4.50m @ 4.50 g/t Au, 115.1 g/t Ag** in PPT23-019
- **4.67m @ 2.32 g/t Au, 84.2 g/t Ag**
within a broader intersection of 9.97m @ 1.31 g/t Au, 44.4 g/t Ag in PPT23-020.

Titan also developed additional trenches to the south, along strike of the Papayal resource. These trenches were successful in confirming the continuation of mineralisation to the south, where the mineralisation remains open and untested for a strike length of approximately 700 metres.

- **2.37m @ 5.60 g/t Au, 14.8 g/t Ag** in PPT23-024
- 1.08m @ 3.74 g/t Au, 65.1 g/t Ag in PPT23-018
- 1.14m @ 2.35 g/t Au, 19.3 g/t Ag in PPT23-017

Further confirming the potential continuation of mineralisation along strike, is historical drillhole 05DDH012 which returned a result of 10.1m @ 0.84 g/t Au, 67.75 g/t Ag from 51 m downhole. This

historical hole is located 700 metres from the southernmost drillhole at Papaval main lode, with the area between drillholes never previously explored.

Titan's latest drill and trench results combined with historical data highlight the presence of vein hosted high grade mineralisation to the south of Papaval, and this area now a high priority focus. Titan's geologists are extending mapping and surface geochemical sampling to the south of Papaval, where early reconnaissance work has highlighted it to be a highly prospective area.

The Company looks forward to providing further updates as exploration work programs advance at the Dynasty Gold Project.

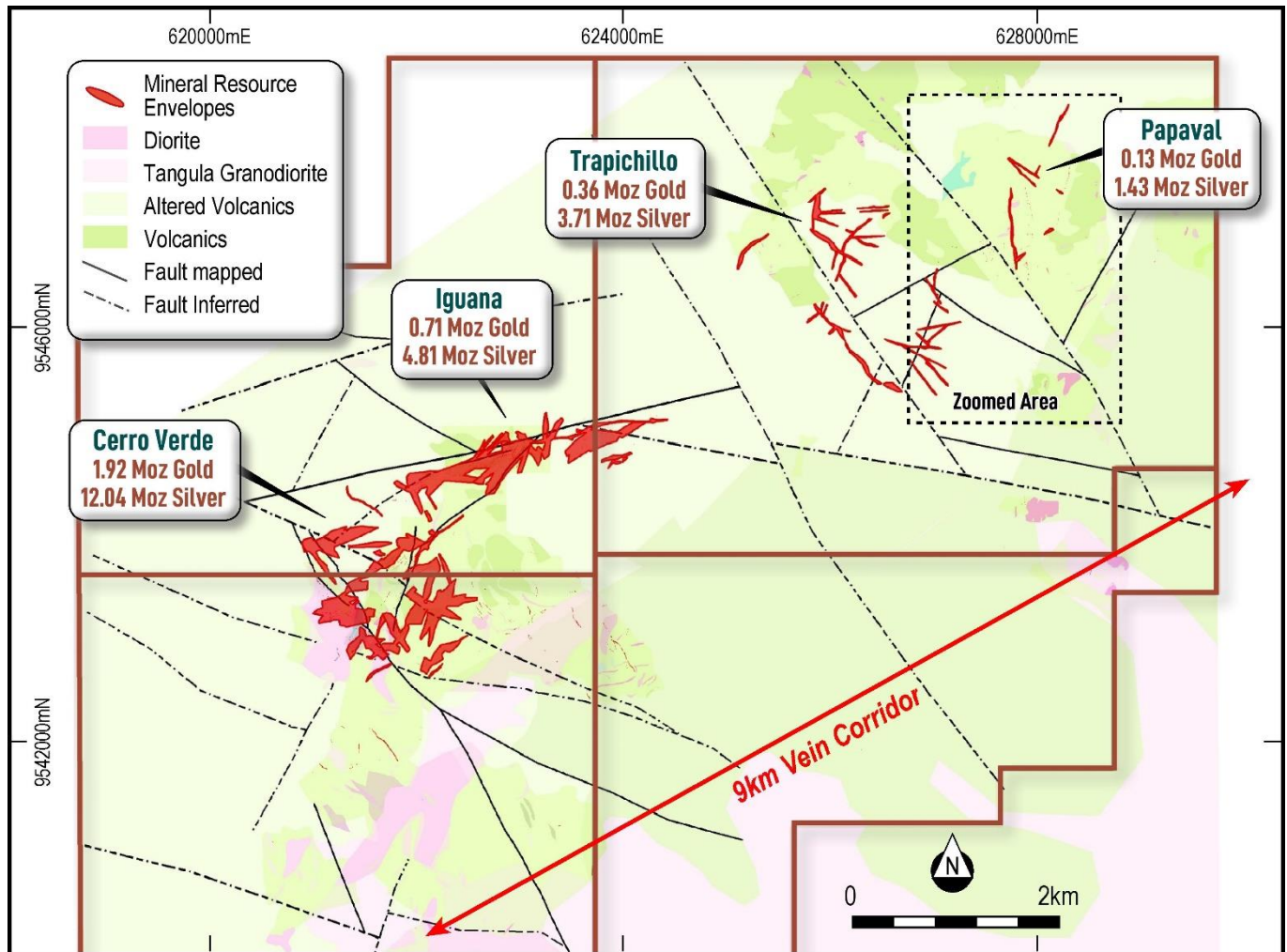


Figure 1. Dynasty plan view displaying Mineral Resources, prospects and geological interpretation. Refer to Figure 2 for Zoomed Area.

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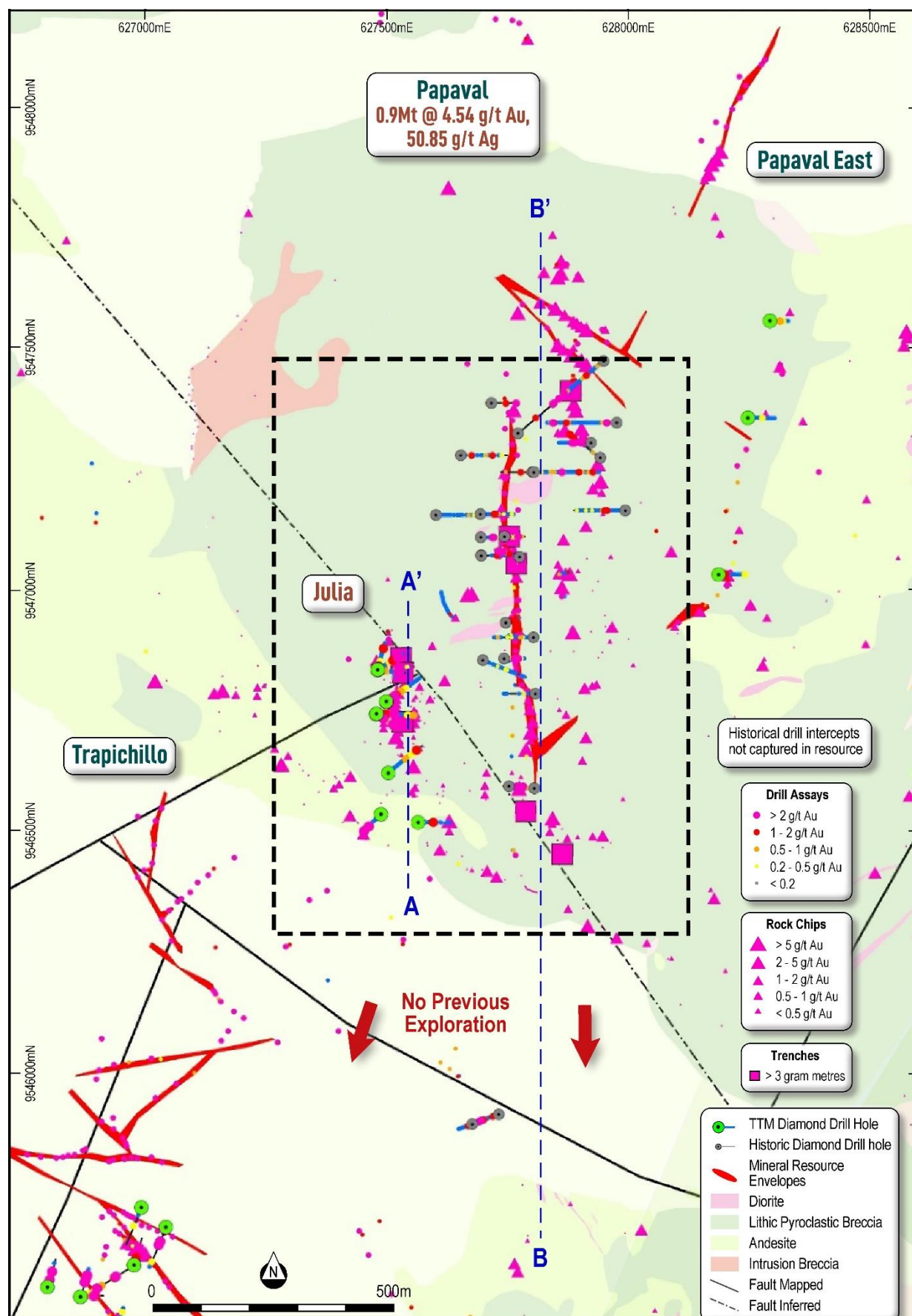


Figure 2. Zoom into Papaval and Trapichillo prospects displaying Mineral Resources, geology, drilling (historical and TTM), trenches and rock chips. Refer to Figure 3 for Zoomed Area (dashed rectangle).

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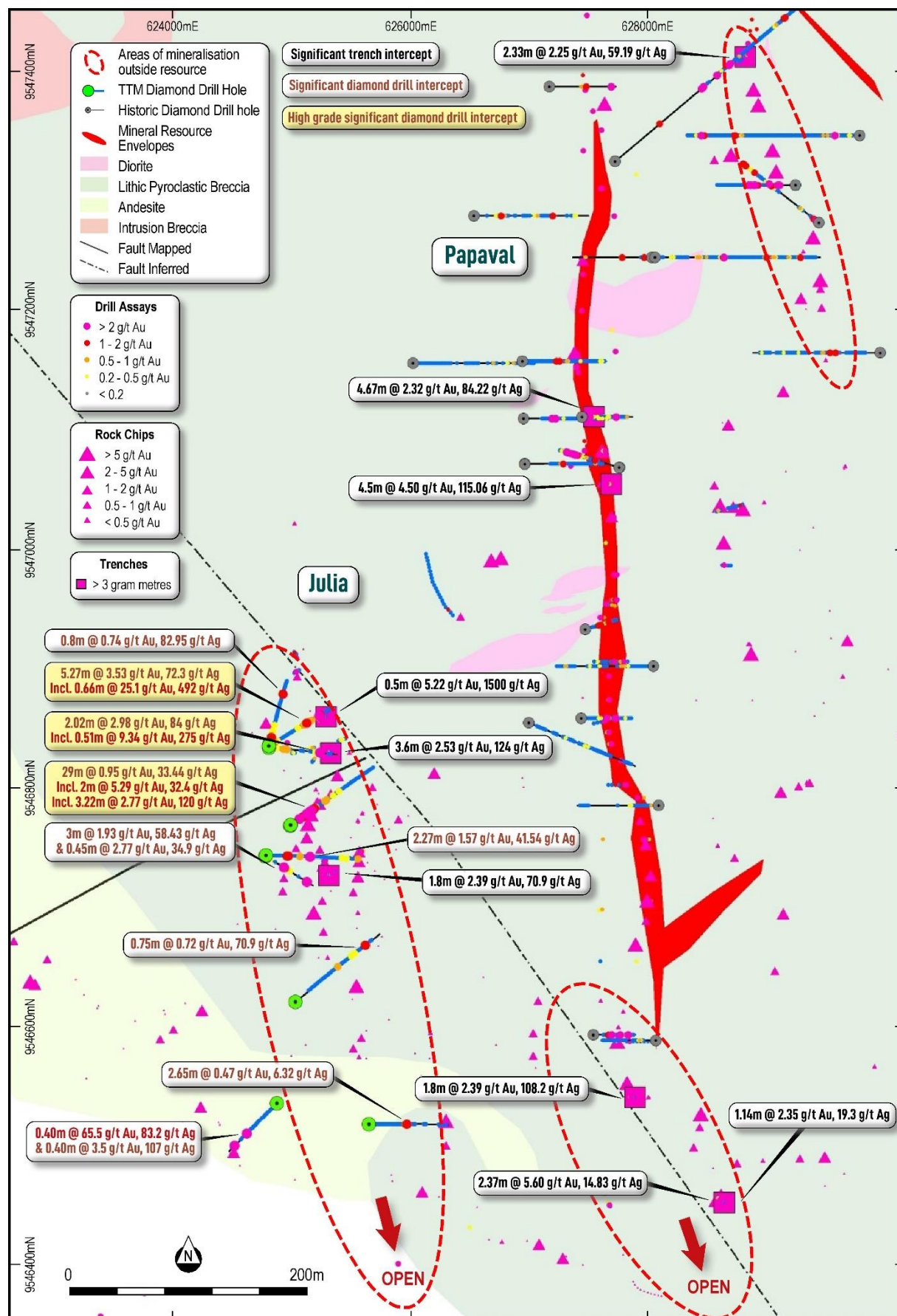


Figure 3. Zoom into Julia target displaying Titan's recent drilling and trenching with significant intersections annotated.

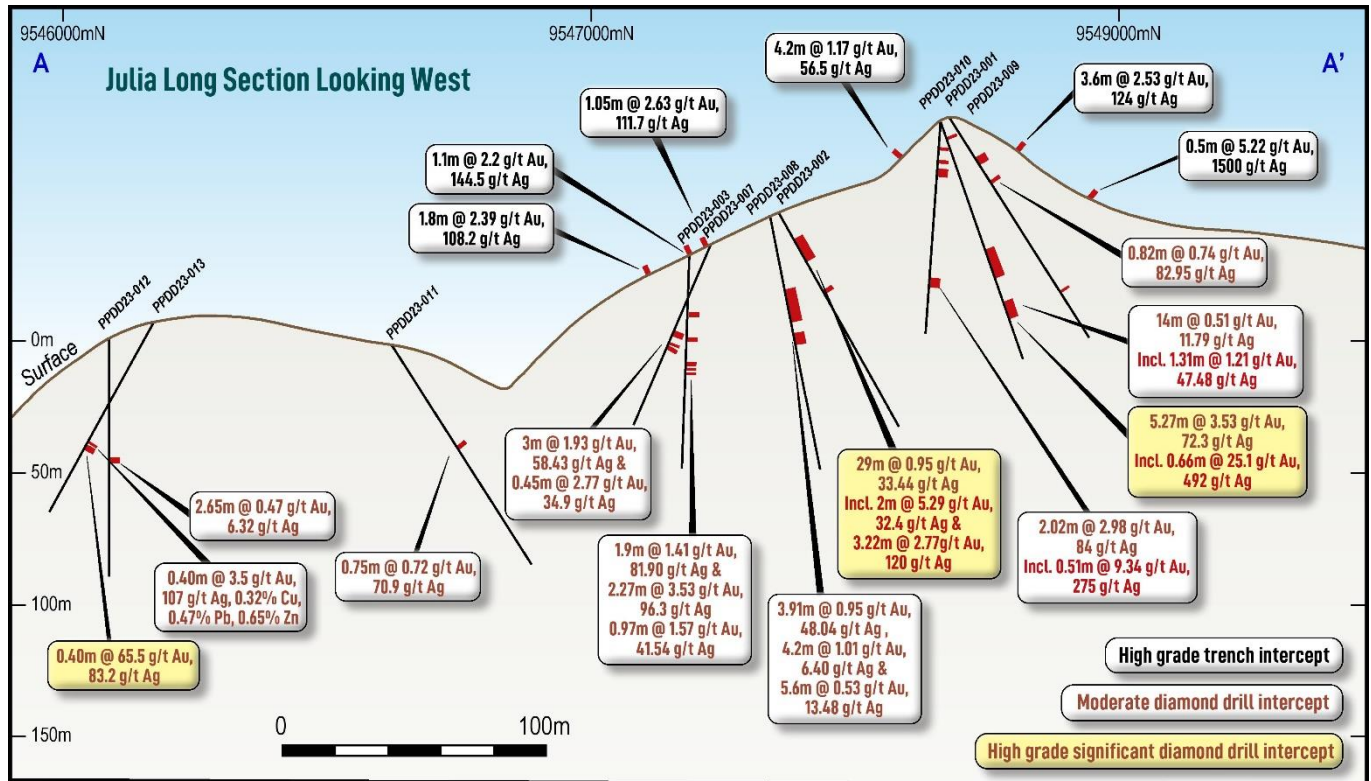


Figure 4. Long Section A-A' - Julia target displaying Titan's drilling and significant intersections.

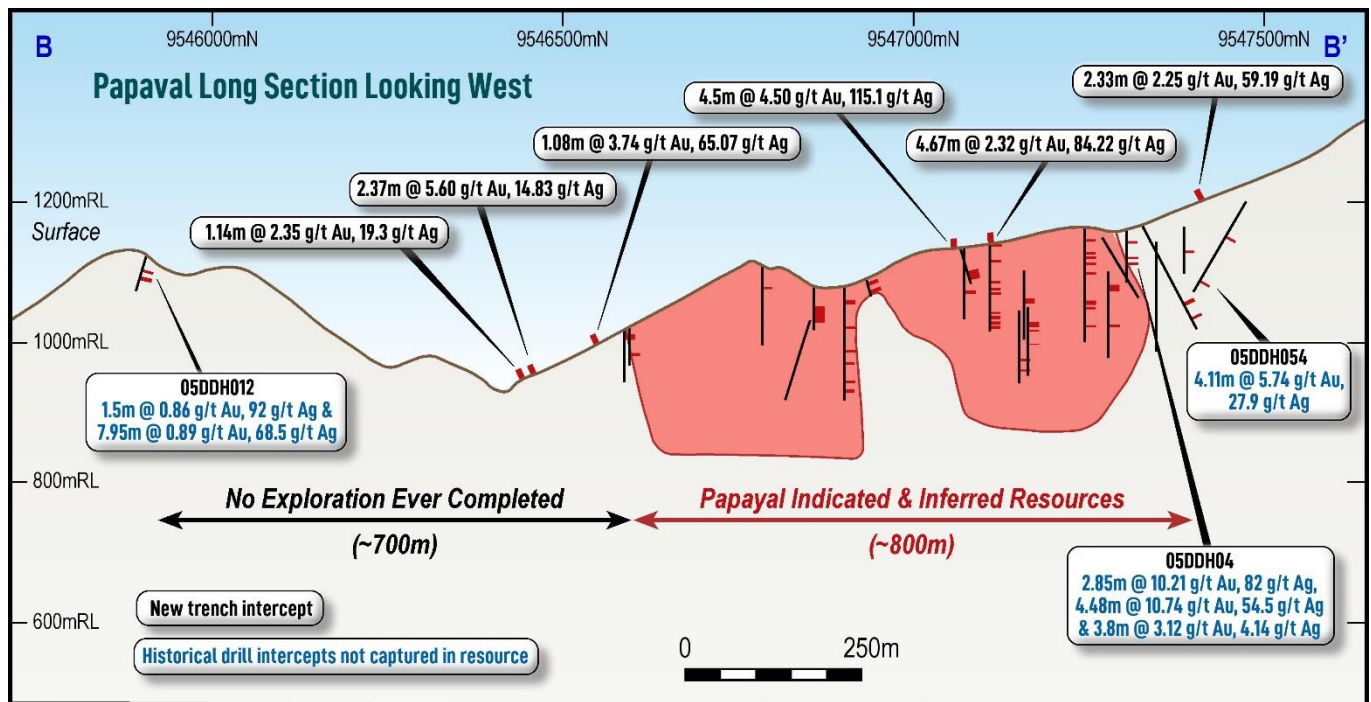


Figure 5. Long Section B-B' - Displaying extent of Papaval currently defined Indicted an Inferred Mineral Resources, Titan's recent significant trench intersections, historical drilling and significant intersections outside current resource.

Julia Geology, Alteration & Mineralisation

The Julia vein system consists of andesites with pockets of lithic pyroclastics (lapillistone to lapilli-tuff breccia). The volcanic units exhibit moderate propylitic alteration (chlorite-carbonates-epidote).

Hydrothermal breccias with abundant disseminated pyrite are evident with alteration varying between phyllic and argillic. Phyllic alteration is also observed at depth, overprinting the volcanic units and overprinting the epithermal event. This implies that a porphyry-type system is proximal.

Interpretation of structural data from drilling and surface mapping highlights most epithermal veins to be steeply dipping, northwest-southeast oriented, and associated with faults of the same trend. Thus, demonstrating a dominant structural control in mineralisation (veins associated with a shear zone type deformation). Other vein orientations at Julia are north-south and northeast-southwest and are also associated with other fault sets.

These structural controls are likely influencing the variability in fracturing and width of the permeable damage zones that surround the faults and serve as preferential pathways for epithermal mineralisation.

Diamond hole PPDD23-002 intersected an ore shoot comprising epithermal veining with extensive argillic alteration halos, returning a significant intercept of 14.62 m @ 1.20 g/t Au, 63.87 g/t Ag, 1.14 % Pb, 0.08 % Zn. This plunging ore shoot is interpreted to the intersection of northwest-southeast and northeast-southwest structures.

Vein textures vary from granular-massive to comb-crustiform bands, exhibiting argillic alteration haloes dominated by illite-smectite and abundant disseminated pyrite.

Mineralisation is dominated by epithermal quartz-carbonate polymetallic veins ranging from 0.01 - 1.20 metres in width at surface, which descend on average to <0.01 - 0.9 metres true width at depth, as verified in diamond drilling.

Gangue mineralogy is dominated by quartz, calcite, and occasionally magnesium carbonates (rhodochrosite), and gypsum. This mineral assemblage suggests that epithermal veins are intermediate sulphidation type, formed from meteoric hydrothermal fluids dominated by water and an almost neutral pH.

The mineral assemblages associated with significant mineralisation are Au-Ag-Pb-Zn±As±Cu, which have been observed in sulphides such as galena, sphalerite, pyrite, chalcopyrite, and visible gold. Silver values are generally higher than gold values.

According to literature, the characteristics observed for Julia, such as Ag-Au system rich in carbonate base metals (galena and sphalerite), could be associated with deeper intermediate sulphidation deposits, which generally have a closer spatial association with magmatic-hydrothermal systems, and which form as peripheral veins to porphyry systems. The below figure depicts the possible level of Julia within the epithermal system.

This is an important revelation for mineralisation within the Papayal prospect and indicates that the mineralisation is potentially proximal to a copper porphyry system.

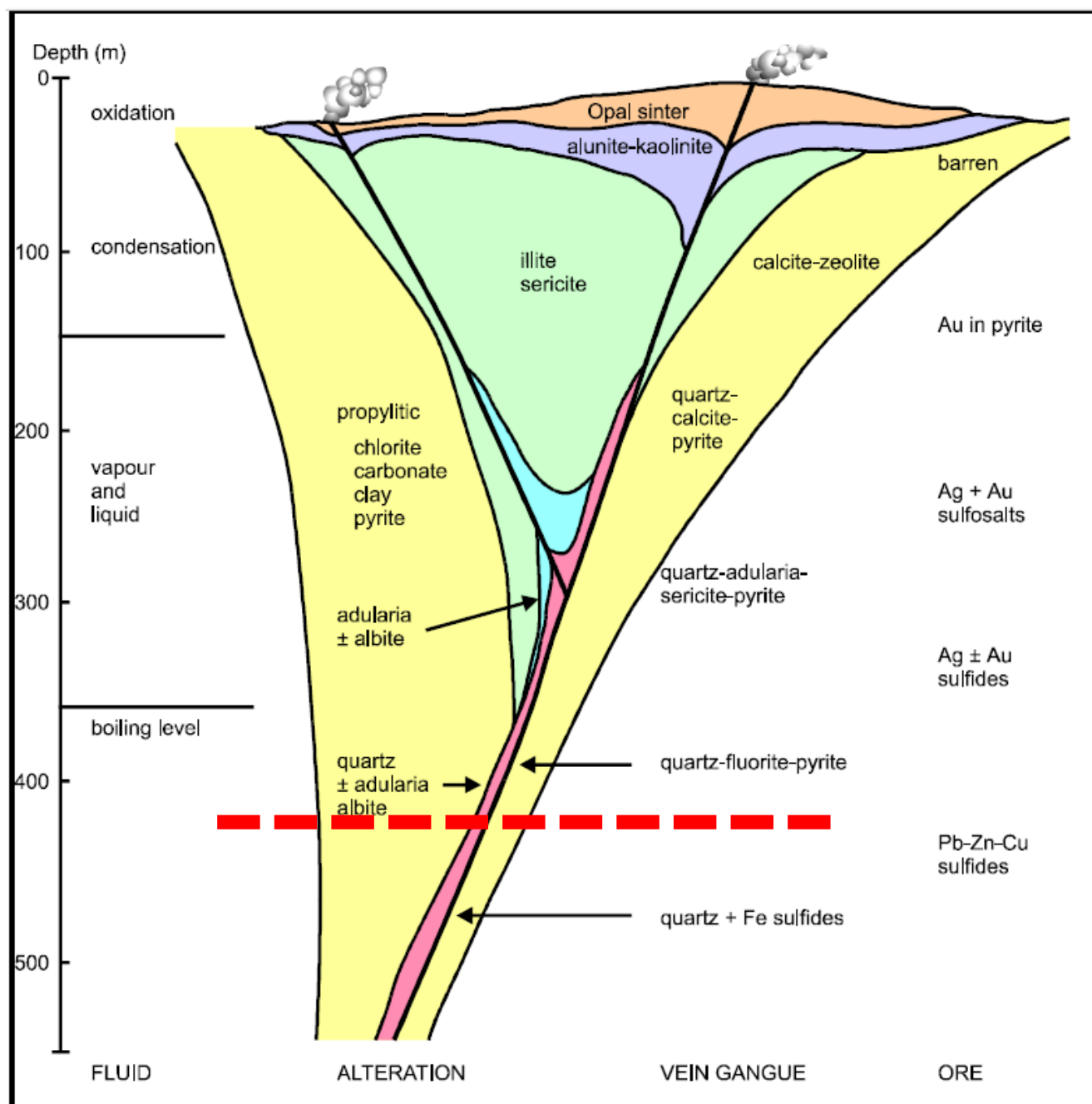


Figure 6. Epithermal model, Buchanan 1981, showing the interpreted level of the system at Papaya.

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.

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 and copper mineralisation as identified by surface mapping, trenching and drilling at the Kaliman prospect.

Table 1. Dynasty Mineral Resource Estimate, July 2023

Dynasty Project	Tonnes (M)	Indicated				Inferred				Total					
		Grade (g/t)		Contained Metal (Moz)		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.

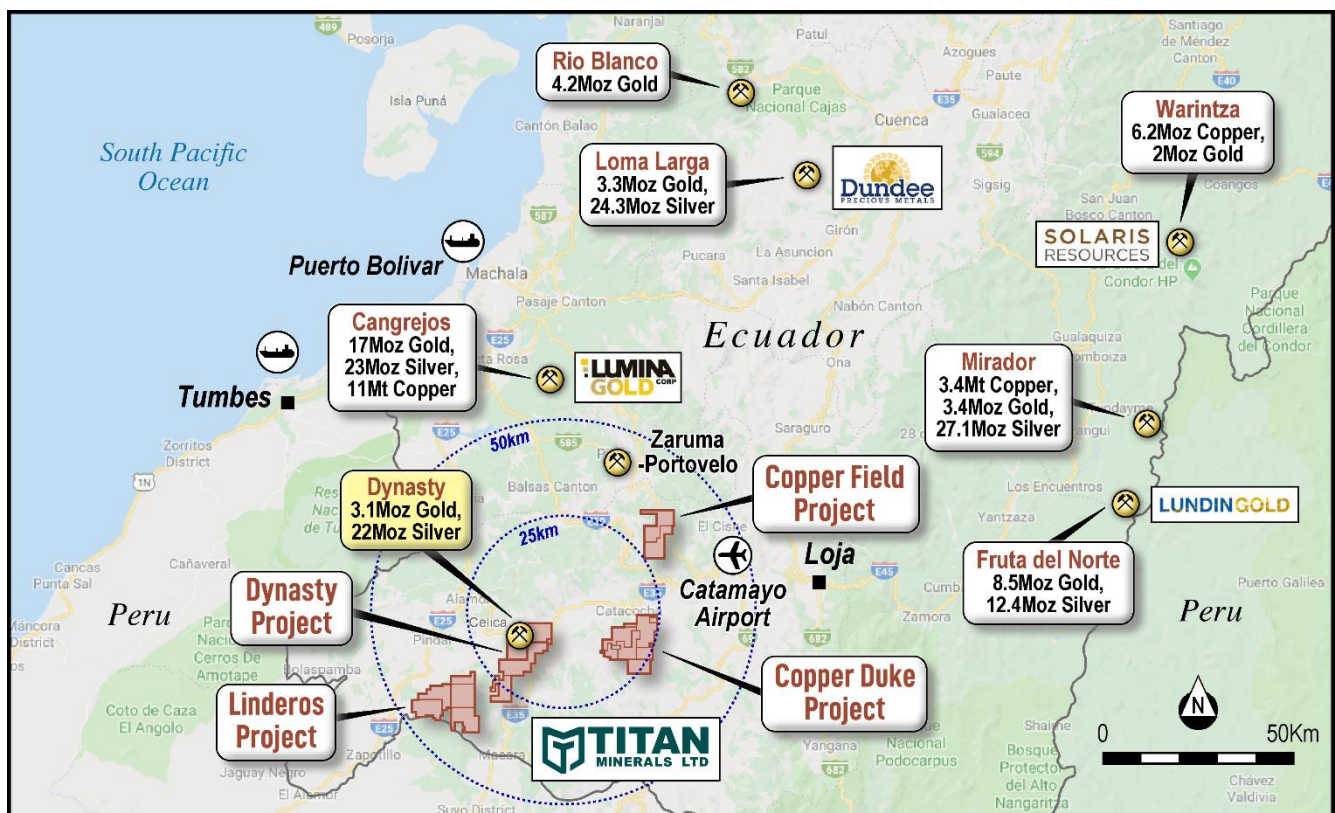


Figure 7. Titan Minerals southern Ecuador Projects, peer deposits and surrounding infrastructure

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

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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.

Appendix A.

Table 1. Significant Intersections for Papayal Diamond Drilling

Hole ID		From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)
PPDD23-001		10.00	15.20	5.20	0.35	7.46	0.01	0.01	0.02
	and	61.00	75.00	14.00	0.51	11.79	0.01	0.09	0.30
	including	66.29	67.60	1.31	1.21	47.48	0.04	0.33	0.78
	and	85.81	91.08	5.27	3.53	72.29	0.06	0.11	0.12
	including	88.57	89.23	0.66	25.10	492	0.42	0.66	0.54
PPDD23-002		12.00	41.00	29.00	0.95	33.44	0.04	0.54	0.07
	including	12.00	14.00	2.00	5.29	32.40	0.02	0.04	0.06
	& including	28.00	31.22	3.22	2.77	120	0.09	3.10	0.05
PPDD23-003		24.50	26.40	1.90	1.41	81.90	0.03	0.34	0.07
	and	50	52.27	2.27	1.57	41.54	0.02	0.06	0.15
	including	51.3	52.27	0.97	3.53	96.30	0.05	0.13	0.33
PPDD23-004		18.16	19.68	1.52	0.85	2.34	0.01	0.01	0.09
PPDD23-007		27.00	30.00	3.00	1.93	58.43	0.03	0.20	0.09
	and	65.00	65.45	0.45	2.77	34.90	0.02	0.02	0.07
PPDD23-008		35.41	39.32	3.91	0.95	48.04	0.05	0.32	0.10
	and	42.80	47.00	4.20	1.01	6.40	0.03	0.02	0.34
	and	51.80	57.40	5.60	0.53	13.48	0.03	0.06	0.18
PPDD23-009		20.00	23.66	3.66	0.31	2.52	0.00	0.00	0.02
	and	79.08	79.90	0.82	0.74	82.95	0.04	0.26	0.18
PPDD23-010		75.08	77.10	2.02	2.98	84.02	0.04	0.16	0.04
	including	76.05	76.56	0.51	9.34	275	0.04	0.30	0.01
PPDD23-011		64.40	65.15	0.75	0.72	70.90	0.04	0.37	0.39
PPDD23-012		48.08	50.73	2.65	0.47	6.32	0.04	0.12	0.13
	and	105.45	105.95	0.50	1.18	16	0.02	0.30	0.19
PPDD23-013		58.35	58.75	0.40	3.50	107	0.32	0.47	0.65
	and	81.62	82.02	0.40	65.50	83.2	0.02	0.10	0.03

Table 2. Significant Intersections for Papayal Trenches

Trench ID		From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)
PPT23-002		2.00	3.10	1.10	2.22	144.5	0.17	1.18	0.18
PPT23-003		2.00	5.35	3.35	0.97	36.8	0.04	0.26	0.11
	including	2.30	3.35	1.05	2.64	111.7	0.05	0.81	0.06
PPT23-004		2.00	3.80	1.80	2.39	108.2	0.07	1.72	0.04
PPT23-008		2.80	8.80	6.00	1.62	82.7	0.04	0.32	0.06
	including	3.20	6.80	3.60	2.53	124	0.03	0.37	0.02
PPT23-010		1.70	5.90	4.20	1.17	56.5	0.02	0.21	0.04
PPT23-011		3.75	4.25	0.50	5.22	1500	0.12	1.68	0.03
PPT23-017		3.50	4.64	1.14	2.35	19.3	0.02	0.04	0.05

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Trench ID		From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)
PPT23-018		1.53	5.02	3.49	1.30	23.1	0.03	0.25	0.17
	including	2.11	3.19	1.08	3.74	65.1	0.08	0.73	0.34
PPT23-024		0.00	6.81	6.81	2.11	7.0	0.01	0.05	0.06
	including	2.58	4.95	2.37	5.60	14.8	0.01	0.09	0.02
PPT23-013		11.08	12.49	1.41	1.47	38.4	0.04	0.87	0.05
PPT23-015		2.00	2.81	0.81	2.47	127.6	0.11	0.94	0.09
PPT23-022		2.00	6.15	4.15	1.43	50.9	0.03	0.53	0.10
	including	3.82	6.15	2.33	2.25	59.2	0.02	0.70	0.03
PPT23-019		2.00	6.50	4.50	4.50	115.1	0.02	0.45	0.12
PPT23-020		0.00	9.97	9.97	1.31	44.4	0.02	0.08	0.05
	including	1.79	6.46	4.67	2.32	84.2	0.02	0.12	0.03

Table 3. Collar Details for Papayal Diamond Drilling

Target	Hole ID	Easting (m)	Northing (m)	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)
Julia	PPDD23-001	627482	9546835	1085	60	-55	111.15
	PPDD23-002	627501	9546768	1052	55	-45	122.07
	PPDD23-003	627480	9546743	1025	90	-45	109.41
	PPDD23-007	627479	9546742	1025	120	-50	74.42
	PPDD23-008	627500	9546768	1052	55	-70	106.73
	PPDD23-009	627482	9546835	1086	15	-56	101.36
	PPDD23-010	627482	9546833	1086	95	-55	100.8
	PPDD23-011	627505	9546620	1005	50	-46	126.33
Papayal East	PPDD23-004	628189	9547031	1143	90	-45	80.53
	PPDD23-005	628250	9547356	1209	90	-45	80.45
	PPDD23-006	628296	9547558	1261	90	-45	54.12
Julia South	PPDD23-012	627566	9546518	993	90	-51	106.29
	PPDD23-013	627489	9546535	1009	225	-52	93.31

NB. Collar locations are given in WGS84 Datum.

Table 4. Collar Details for Papayal Trenches

Target	Trench ID	Easting (m)	Northing (m)	Elevation (m)	Length (m)	Dip (°)	Azimuth (°)
Julia	PPT23-002	627,527	9,546,738	1032	5.53	17	80
	PPT23-003	627,558	9,546,746	1011	5.4	-6	80
	PPT23-004	627,533	9,546,726	1025	6.0	-6	60
	PPT23-008	627,530	9,546,859	1065	9.5	47	235
	PPT23-010	627,534	9,546,829	1063	5.9	30	280
	PPT23-011	627,509	9,546,898	1060	7.7	30	243
Papayal South	PPT23-017	627,767	9,546,452	943	6.7	-38	157
	PPT23-018	627,789	9,546,540	997	5.0	-15	271
	PPT23-024	627,864	9,546,452	972	6.8	-4	305

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Target	Trench ID	Easting (m)	Northing (m)	Elevation (m)	Length (m)	Dip (°)	Azimuth (°)
Papayal-Outside Resource	PPT23-013	627,867	9,547,034	1070	14.5	-4	79
	PPT23-015	627,862	9,546,986	1065	9.8	-25	92
	PPT23-022	627,882	9,547,412	1196	6.2	30	52
Papayal-Within Resource	PPT23-019	627,769	9,547,054	1136	8.5	-13	276
	PPT23-020	627,755	9,547,111	1150	10.0	3	90

NB. Collar locations are given in WGS84 Datum.

APPENDIX B

Dynasty Project - 2012 JORC Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> 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. <p>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.</p>	<ul style="list-style-type: none"> 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. Trench and 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. 50g 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 0g 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	<ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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. No correlation between sample recovery and grade is observed.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining 	<ul style="list-style-type: none"> Diamond core samples are logged in detail, with descriptions and coded lithology for modelling purposes, with additional logging comprised of alteration, geotechnical,

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Criteria	JORC Code explanation	Commentary
	<p><i>studies and metallurgical studies.</i></p> <ul style="list-style-type: none"> <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> <i>The total length and percentage of the relevant intersections logged.</i> 	<p>recovery, and structural logs including measurements based on core orientation marks generated from a Reflex ACTIII downhole survey tool.</p> <ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> <i>If core, whether cut or sawn and whether quarter, half or all cores taken.</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality, and appropriateness of the sample preparation technique.</i> <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <i>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.</i> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> <i>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.</i> <i>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.</i> 	<ul style="list-style-type: none"> 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 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	<ul style="list-style-type: none"> <i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> Reported intersections are logged by professional geologists in Australia and data validated by a senior geologist in Ecuador. 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

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Criteria	JORC Code explanation	Commentary
		<p>database.</p> <ul style="list-style-type: none"> No adjustment to data is made in the reported results
Location of data points	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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	<p>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</p> <ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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. No bias is considered to have been introduced by the existing sampling orientation.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> No audits or reviews of reported data completed outside of standard checks on inserted QAQC sampling.

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Section 2 - Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<p>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:</p> <ul style="list-style-type: none"> 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

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		<p>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.</p> <ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> <i>Deposit type, geological setting, and style of mineralisation.</i> 	<ul style="list-style-type: none"> 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 Tangua 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	<ul style="list-style-type: none"> <i>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:</i> <ul style="list-style-type: none"> <i>easting and northing of the drill hole collar</i> <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> <i>dip and azimuth of the hole</i> <i>down hole length and interception depth</i> <i>hole length.</i> <i>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.</i> 	<ul style="list-style-type: none"> 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 report.
Data aggregation	<ul style="list-style-type: none"> <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off</i> 	<ul style="list-style-type: none"> 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

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Criteria	JORC Code explanation	Commentary
methods	<p>grades are usually Material and should be stated</p> <p>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.</p> <ul style="list-style-type: none"> The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<p>analysis method with an upper detection limit of 1,500ppm is used.</p> <ul style="list-style-type: none"> Lower cut-off for reported significant intercepts is 0.2g/t Au with up to 4m 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. No metal equivalent reporting is applicable to this announcement
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> 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'). 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Included in body of report as deemed appropriate by the competent person
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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 0.2g/t Au are included when reporting high grade vein hosted gold mineralisation. No upper cut-off has been applied.
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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