

Linderos Project – Significant Epithermal Gold and Copper Porphyry Mineralised System Outlined

Highlights

- Copper porphyry and epithermal gold style mineralisation intersected from surface in relogged drilling interpreted to be part of the prolific Miocene metallogenic belt
- Exploration plan for the second half of 2021 defined geochemistry, geophysics and drilling activity planned following compilation of historical work
- Historical drill results on epithermal gold targets at Meseta and Loma Alta include:
 - 28.8m @ 2.56 g/t gold; including 5.94m @ 10.8 g/t gold LDH004
 - 8.88m @ 4.70 g/t gold LDH004A
 - $\circ \quad 14.32m \ @ \ 1.43g/t \ gold \ \ LDH003$
 - 6.33m @ 4.65g/t gold MD3
- Tenor of porphyry mineralisation improves with depth, three of five historical holes ending in mineralization and open at depth; including:
 - 99.75m @ 0.26% copper from 255m drilled depth, including 19.3m @ 0.39% copper at end of hole (open at depth) – ERIKA01
 - 84.85m @ 0.32% copper (from surface to EOH), including 19.95m @ 0.45% copper from 25.5m drilled depth- ERIKA02
 - 46m @ 0.19% copper from surface,
 32m @ 0.11% copper from 53m drilled depth,
 67m @ 0.13% copper from 103m drilled depth, and
 20m @ 0.21% copper from 181m to end of hole (open at depth) ERIKA02A

Titan Minerals Limited (ASX: TTM) (Titan or the Company) is pleased to announce a summary of historic work completed at the Linderos Project and an outline of planned exploration activity for the next 6 months.

Titan has completed a compilation and verification process of historical results for JORC Compliant reporting of previous exploration activity completed at Linderos. By relogging the historical holes Titan has reinterpreted the geological systems at Linderos and has highlighted a much larger system for targeting.

Multiple prospects have been identified within the Linderos Project concession package (Figure 2). The advanced stage Copper Ridge Prospect, Meseta Gold Camp and Loma Alta Gold Prospect all have mineralisation evidenced in previous drilling. The early-stage Victoria Prospect highlights a similar footprint of alteration as Copper Ridge and favourable surface geochemistry requires follow-up exploration.

The Copper Ridge Prospect is host to an outcropping porphyry, likely part of the prolific Miocene metallogenic belt, which hosts a large proportion of mineralised copper porphyry and epithermal gold system's extending from Peru throughout Ecuador in the Andean Terrane.

Commenting on the Linderos Project, Titan Managing Director, Laurie Marsland said:

"Our priority remains delivering the JORC resource at Dynasty and developing the unlocked potential of the asset, but as we continue to build Ecuador's next mining development company we need to continually work on the Company's assets and better understand the exciting geological potential we have at Titan. Linderos is a large landholding, hosting both high grade gold and bulk tonnage copper potential associated with a significant outcropping, high tenor copper anomalism. The recent discovery is located within the extensive alteration halo of the Miocene aged porphyry system where exploration work is in its infancy. We plan to systematically explore Linderos and to discover what appears to be a high-grade epithermal gold project sitting on a porphyry. We are all excited about the potential we see at Linderos."



Linderos Geological Setting

Located in a major flexure of the Andean Terrane, the Linderos 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 (Refer to Figure 1).



Figure 1: Location of Titan Minerals Projects in Southern Ecuador with outlines of major metallogenic belts



Linderos Exploration Plan

The Company has recently commenced an exploration campaign at Linderos comprised of surface geochemistry, with planned heli-borne geophysics, and ground IP geophysical surveys expected to be completed over the next four months. Further details of geophysical survey work will be included in further updates as survey designs are finalised. The exploration activity has commenced on the Linderos project with a focus on advancing Linderos to diamond drilling during the second half of this year.

The Copper Ridge and Meseta prospects are the key area of focus in the current exploration campaign, with previous work highlighting the potential for high-grade gold mineralisation near surface ready for immediate drill targeting within the Meseta gold camp. Broad alteration and extensive lower grade gold mineralisation associated with the high-grade gold intercepts at Meseta demonstrate that further drilling of gold targets in the near term will also provide strong support to concurrently assess the scale of potential for the Copper Ridge porphyry target. Longer term exploration plans will be defined as exploration progresses where a tier 1 target could emerge from the associated Cu-Mo system and epithermal gold mineralisation in the telescoping Miocene aged porphyry system (refer to Figure 9).

Linderos Project Overview

Located 20km southwest of the Company's flagship Dynasty Gold Project where drilling for resource estimation update is underway, the Linderos Project is comprised of four contiguous concessions totalling over 143km² located near the Peruvian border in southern Ecuador's Loja Province (refer to Figure 2).



Figure 2: Regional scale geology of the Linderos Project Area and prospect location map



Copper Ridge Prospect

Copper Ridge is an advanced stage exploration target featuring outcropping copper and molybdenum anomalism with subsurface mineralisation confirmed in historical reconnaissance drilling. The Cu-Mo mineralised zone mapped in soil geochemistry (refer to Figure 3) is centered on dacite porphyry intrusions that are approximately 1km in diameter. The porphyry stock is haloed by a significant footprint of quartz stockworks and porphyry related alteration covering a >3km² area. At the northern and eastern margins of the porphyry, sizable argillic to advanced argillic alteration zones associated with extensive gold anomalism overprinted by multiple zones of high-grade epithermal related gold mineralization have been mapped.

Historical diamond drilling totals 2,061m drilled in 16 holes on the Copper Ridge prospect that occurred in 3 campaigns between 1974 and 2005 with better results including;

- o 99.75m @ 0.26% copper from 255m drilled depth ERIKA01
- $\circ~$ 84.85m @ 0.32% copper (from surface to end of hole) ERIKA02
- $\circ~~20m$ @ 0.21% copper from 181m to EOH (open at depth) ERIKA02A
- 77.05m @ 0.19% copper (from surface to end of hole) DHW05
- o 50.25m @ 0.33% copper (from surface to end of hole) DHW06



Figure 3: Copper results from historical soil and rock sampling campaigns across the Copper Ridge Prospect and Meseta Gold Camp





Figure 4: Panoramic view looking south towards the Copper Ridge Prospect (background) and Meseta Camp (foreground) Cu-Mo-Au system.



Figure 5: Copper oxide staining in weathered dacite porphyry at Copper Ridge Prospect

Figure 6: Dense quartz stockwork in the centre of dacite porphyry at Copper Ridge Prospect.



Copper Ridge Prospect - Exploration History

The Copper Ridge Cu-Mo system was discovered in the 1970's as part of a United Nations survey, where regional scale programmes completing surface geochemistry and ground geophysical surveys including geochemistry survey and follow-up drilling work over the present day Linderos E concession. The initial soil survey totalled 284 samples over a 1km by 2km grid area averaging approximately 50m x 120m sample spacing returning peak values of 768ppm Cu and defining a >200ppm Cu anomaly at surface that correlates well with mapped porphyry intrusion at surface (refer to Figures 3 & 9).

In 2004 to 2005, Dynasty Metals and Mining ("DMM") completed a follow-up survey overlapping the main copper anomaly to confirm anomalism, and add gold and other elements to the results, where the previous UN survey analysed for only copper and molybdenum. The DMM survey totalled 55 samples over a 0.8km by 1km survey grid on nominal 150m by 200m sample spacing. Peak soil values returned up to 1200ppm copper values.

The first relatively deeper drilling (totalling 5-holes drilled) was conducted in 2005 targeting the main porphyry stock. The deepest drill-hole from the 2005 programme features copper grades that are increasing with depth, with ERIKA01 averaging 0.31% Copper in the final 43.3m drilled, and also averaging 0.39% copper in the final 19.3m of the hole. In total, three holes in the five-hole program were terminated in favourable copper mineralisation (Refer to Appendix A).

Meseta Gold Camp

To the immediate north and east of the Copper Ridge Prospect, gold mineralization across the Meseta gold camp is hosted in steep to sub-vertical fault structures at the margins of the porphyry stock and is associated with strong silicification and oxidation of the sulphides. Several features suggesting the presence of an intermediate to high-sulphidation gold system at these areas have been observed.



Figure 7: Vuggy Silica alteration associated with high-sulphidation style epithermal gold mineralisation

Figure 8: Shear hosted gold mineralisation in epithermal style, porphyry margin targets



Meseta Gold Camp high grade epithermal gold mineralisation was initially identified in 2017 sampling of artisanal working on a break-away slope. The slope exposes a stockwork of oxidised veinlets capped by transported boulders forming a plateau of perched alluvial sediments. The alluvial cap covers mineralisation and alteration in the area forming a geochemically blind target beneath only a few meters of transported cover material.



Figure 9: Gold in rock chips at the Copper Ridge and Meseta Camp areas with historical drill locations over generalised geology

In 2017, a channel sampling program was completed totalling 29 trenches for over 1,160m of excavation with 2,033 samples taken over artisanal workings. Trenches for sampling were excavated on 3m to 10m line spacing covering an approximately 100m x 150m area. The sampling returned significant (>0.5g/t gold) assays for over 100m strike extent along a northwest trend from assays submitted to the previous operator's in-house production lab. Previous assay results were not analysed to a standard to be included in quantifying mineral resource estimations; however, the tenor of the results underpin plans for follow-up sampling work. Peak assay results of individual samples include up to 326g/t gold with 141 g/t silver, and up to 161g/t gold with 87g/t silver within the better composited channel samples including;

- 21m @18.5g/t gold in trench Linderos-13
- 19.95m @ 14.3g/t gold in trench Linderos-16
- o 18.2m @ 14.74g/t gold in trench Linderos-14



In 2018, diamond drilling totalling over 1,926m from 11 holes was completed in follow-up to 2017 trench results outlined above. Drilling confirmed higher grade mineralisation in fresh rock below trenches and tested for extensions of mineralisation under very thin transported cover for up to 1km projected trend to the east. All holes in that programme intersected extensive hydrothermal related alteration and localised gold mineralisation (refer to Appendix B). Better intercepts reported include;

- 5.94m @ 10.8 g/t gold from 36.4m drill depth-LDH004
- 8.88m @ 4.70 g/t gold from 40.65m drill depth LDH004A
- o 14.32m @ 1.43g/t gold from 45.44m drill depth LDH003

The high-grade epithermal gold at Meseta Gold Camp most likely represents a telescoped porphyry copper system where the hydrothermal system is cooling over time and gold mineralisation is overprinting the footprint of the porphyry systems (refer to Figure 10). The reported high grade gold intercepts are associated with elevated Zn-Pb base metal anomalism, and are hosted within broad zones of elevated gold anomalism in a mineralised silica cap.

From Titan's re-logging of historical core, recent petrology and preliminary gold deportment study work, it is apparent that the higher grade gold values returned in assay results are associated with massive-sulphide polymetallic veins, while the extensive haloes of lower grade gold mineralisation intersected in all 11 Meseta holes drilled to date are consistently related with free gold occurring in the intensely altered wallrock hosting extensive quartz stockworks of varying intensity. At a lower gold grade cut-off of 0.1g/t Au, the eleven holes drilled at Meseta deliver more extensive zones of gold anomalism, demonstrating an association with the larger metallogenic system, with results from several holes averaging:

- 61.55m @ 1.41 g/t gold from surface in LDH004, including the 5.94m @ 10.8g/t gold intercept reported at a 0.5g/t Au cut-off
- 84.1m @ 0.67 g/t from 2.2m depth in LDH004A at 0.1g/t Au cut-off, including the 8.88m @ 4.70 g/t gold intercept from 40.65m drill depth reported at a 0.5g/t Au cutoff
- 109.8m @ 0.29 g/t gold from 3.2 m depth in hole LDH005, followed by
- 55.35m @ 0.37 g/t gold from 158.6m in LDH005 at 0.1g/t Au cut-off, including the 6m
 @ 0.6 g/t gold intercept from 191.5m drill depth reported at a 0.5g/t Au cut-off
- o 86.2m @ 0.54 g/t gold from 12.4m in LDH003A
- 68m @ 0.60 g/t gold from surface; and
 25m @ 0.41 g/t gold from 172.85m in LDH003



This interpreted overlap of metal deposition over time at the interface of the overlapping Meseta Gold Camp and Copper Ridge porphyry targets have a potential economic impact on development of a larger mineralised system. The associated mineralisation types define potential for discovery of higher – grade Cu-Mo mineralization at depth beneath both the Copper Ridge and Meseta Gold areas suggesting significant size potential in un-tested extensions to the Copper Ridge porphyry system.



Figure 10: Diagram of Conceptual Target at Linderos Project for telescoping porphyry systems Illustrating how epithermal style gold systems overprint porphyry style systems and correlation to mapped and drilled mineralisation at the Copper Ridge and Meseta Gold Camp areas (modified from Sillitoe, 2010)



Loma Alta Gold Prospect

Initial soil geochemistry surveys and drilling at the Chorrera concession located in the southeast of Linderos was completed in 2007-08 under a Joint Venture arrangement with Mariana Resource Ltd ("Mariana"). Each company contributed ground to form a consolidated land position around the Loma Alta Prospect at the Chorrera Concession's southern border, which Mariana defined as the Macara Project.

Mariana completed a soil survey covering a 600m long corridor of northeast trending gold anomalism within the Chorrera concession sampled on a 12m by 50m spaced grid (refer to Figure 11). Peak assay results from soils include 2.07g/t and 0.753g/t gold values from a total of seven sample above the 0.25g/t Au threshold.

Follow-up drilling on gold anomalism in soils totaled an eight-hole programme completed by Mariana, of which six holes totalling 858m drilled are located within the Linderos Project concession (refer to Appendix C).



Figure 11: gold results in soil and rock chip from historical surface geochemistry, with historical drill locations on diagrammatic geology.



Victoria Prospect

The Victoria Prospect (Figure 12) is an early-stage exploration target featuring an extensive footprint of hydrothermal alteration and scattered anomalism from limited rock chip sampling work to date. Victoria is a priority target for Titan's exploration pipeline where systematic geochemistry and geophysical data acquisition work is planned to better define the tenor and scale of mineralisation along the prolific Andean Miocene metallogenic belt.



Figure 12: Mapped alteration at the Copper Ridge and Victoria Prospects



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Competent Person's Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr Travis Schwertfeger, who is a Member of The Australian Institute of Geoscientists. Mr Schwertfeger is the Chief Geologist for the Company and has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he 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'. Mr Schwertfeger consents to their inclusion in the report of the matters based on his information in the form and context in which it appears.

APPENDIX A – Copper Ridge 1974 & 2005 Historical Drilling Results



Significant intercepts table for Linderos Project calculated using a 0.10% copper Cut-Off and reported intercepts include up to 6m internal waste.

(D)	

Prospect	HoleID	Azimuth	Dip	Depth of Hole (m)	Easting	Northing	RL		From (m)	To (m)	Drill Thicknes s (m)	Gold (g/t)	Copper (%)	Molybdenmum (ppm)
									162	213	51	0.017	0.19%	10
COPPER	EDIKA01	205	60	254 65	601990	0527620	250		255.55	354.65	99.75	0.058	0.26%	21
RIDGE	LUIKAOI	303	-00	554.05	001009	9327030	350	Including	275	302	27	0.079	0.32%	11
								and ending in:	312	354.65	43.3	0.076	0.31%	25
COPPER	FRIKAO2	200	-50	84.4	601303	0527720	222	hole ending in:	0	84.85	84.85	0.054	0.32%	43
RIDGE	LNIKAUZ	200	-30	04.4	001303	5527755	555	including	25.5	45	19.5	0.066	0.45%	47
									0	46	46	0.016	0.19%	10
COPPER	FRIKΔΩ2Δ	010	-60	200.8	601303	9527739	333		53	85	32	0.010	0.11%	20
RIDGE		010	00	200.0	001303	5527755	555		103	170	67	0.028	0.13%	20
								hole ending in:	181	200.8	19.8	0.056	0.21%	28
CODDED									15	56	41	0.015	0.12%	34
RIDGE	ERIKA03	075	-60	250.0	601010	9527776	305		89	101	12	0.011	0.16%	28
									112	120	8	0.010	0.12%	22
COPPER RIDGE	ERIKA04	000	-90	255.6	602081	9527802	340		No Signij	ficant Interd	repts			
COPPER RIDGE	DHW01	000	-90	66.83	600882	9527473	309.00		1	56.08	55.08	No Assays	0.13%	13
COPPER									0	30.21	30.21	No Assays	0.15%	26
RIDGE	DHW02	000	-90	82.4	600967	9527428	302		39.4	50.1	10.7	Below Detection	0.08%	21
COPPER		000	00	F0.02	601127	0527202	200		3	11.56	8.56	Below Detection	0.16%	10
RIDGE	DHW03	000	-90	50.02	601127	9527393	309	hole ending in:	33.74	50.02	16.28	Below Detection	0.20%	18
COPPER RIDGE	DHW04	000	-90	23.18	601617	9527773	296		No Signij	ficant Interd	repts			
COPPER RIDGE	DHW05	000	-90	77.05	600827	9527508	300	hole ending in:	0	77.05	77.05	Below Detection	0.19%	19

APPENDIX A – Copper Ridge 1974 & 2005 Historical Drilling Results



	Prospect	HoleID	Azimuth	Dip	Depth of Hole (m)	Easting	Northing	RL		From (m)	To (m)	Drill Thicknes s (m)	Gold (g/t)	Copper (%)	Molybdenmum (ppm)
	COPPER RIDGE	DHW06	000	-90	50.25	601582	9527598	313	hole ending in:	0	50.25	50.25	Below Detection	0.33%	43
\sim	COPPER		000	00	04.26	601127	0527759	222		1	23	22	Below Detection	0.21%	4
	RIDGE	DHW07	000	-90	94.20	601137	9527758	323	hole ending in:	88	94.26	6.26	Below Detection	0.12%	8
	COPPER RIDGE	DHW08	000	-90	32.79	601352	9527923	290		No Signij	ficant Interd	cepts			
)	COPPER RIDGE	DHW09	000	-90	38.02	600862	9528228	271		No Significant Intercepts					

APPENDIX B – 2018 Gold-Silver Historical Drilling Results



Significant Intercept table for Linderos Gold Project diamond drilling results at 0.5g/t Au cut-off, with significant intercepts inclusive of up to 4m internal dilution.

HoleID	Azimuth	Dip	Depth of Hole (m)	Easting	Northing	Elevation		From (m)	To (m)	Drill Thickness (m)	Gold (g/t)	Silver (g/t)
	213	-45	279.85	601459	9528692	320		135.77	136.17	0.40	0.52	2.9
LDII001	215	75	275.85	001433	5520052	520		211.00	213.00	2.00	3.27	1.3
								57.26	57.56	0.30	3.55	2.1
LDH002	213	-45	239.5	601189	9528749	280		86.00	88.00	2.00	0.62	8.8
								175.30	175.60	0.30	2.89	1.2
								18.00	20.00	2.00	2.91	2.6
								34.87	39.00	4.13	1.62	25.0
						28705 319		45.44	59.76	14.32	1.43	4.3
LDH003	213	-45	218.2	601236	9528705		including	56.30	59.76	3.46	4.62	8.4
								182.42	186.90	4.48	1.18	7.7
							including	182.42	183.10	0.68	5.83	32.3
								195.90	197.90	2.00	1.36	2.5
								12.40	23.60	11.20	0.49	6.9
								35.00	44.15	9.15	0.85	2.3
							including	43.85	44.15	0.30	17.80	20.4
LDH003A	213	-45	98.6	601247	9528726	318		71.40	79.00	7.60	2.46	15.6
							including	77.30	78.10	0.80	20.30	109.3
								83.70	88.45	4.75	1.38	3.0
								92.00	94.00	2.00	0.97	0.8
	33	-45	130	601253	9528729	319		40.50	40.85	0.35	0.59	2.9
LDHOUSD	55	-+J	150	001200	5526725	515		113.15	113.60	0.45	1.13	1.4

APPENDIX B – 2018 Gold-Silver Historical Drilling Results



	HoleID	Azimuth	Dip	Depth of Hole (m)	Easting	Northing	Elevation		From (m)	То (m)	Drill Thickness (m)	Gold (g/t)	Silver (g/t)
\geq									3.00	4.00	1.00	0.55	15.2
_ P									19.45	24.00	4.55	1.96	8.9
									31.00	32.00	1.00	0.73	2.1
	LDH004	276	-50	113.4	601204	9528689	318		36.40	42.34	5.94	10.8	11.4
								including	36.40	37.93	1.53	25.0	12.9
									40.36	40.90	0.54	35.3	51.6
									55.70	57.70	2.00	2.11	1.5
									18.50	19.35	0.85	0.86	7.5
									31.00	31.60	0.60	0.73	1.7
4		276	-75	222.8	601204	0528680	219		32.80	33.30	0.50	0.96	3.6
	.DH004A	270	-75	227.0	001204	9320009	510		40.65	49.53	8.88	4.70	5.6
								including	47.70	48.45	0.75	17.1	12.1
3									80.00	84.30	4.30	0.84	5.9
									13.10	14.90	1.80	0.76	4.3
L	.DH004B	247	-50	127	601204	9528689	318		26.80	32.30	5.50	2.11	4.0
									107.75	107.95	0.20	16.0	73.7
3									2.60	7.30	4.70	0.72	10.2
ן ו		247	-70	159.9	601204	0528680	219		31.00	37.30	6.30	2.56	4.2
	.DH004C	247	-70	130.0	001204	9320009	510	including	36.60	37.30	0.70	18.4	6.8
									148.80	149.80	1.00	0.90	2.4
									3.00	5.62	2.62	0.63	5.7
) L	DH004D	213	-50	103.45	601204	9528689	318		21.15	23.40	2.25	3.77	6.4
								including	22.80	23.40	0.60	12.5	18.6

APPENDIX B – 2018 Gold-Silver Historical Drilling Results



	HoleID	Azimuth	Dip	Depth of Hole (m)	Easting	Northing	Elevation	From (m)	To (m)	Drill Thickness (m)	Gold (g/t)	Silver (g/t)
								16.70	18.20	1.50	0.55	0.7
								25.70	26.70	1.00	1.03	1.1
								49.55	50.50	0.95	2.13	16.1
								55.00	56.50	1.50	0.50	3.0
								65.00	69.00	4.00	1.99	10.7
))								75.00	79.00	4.00	0.68	10.7
\mathcal{D}	LDH005	213	-45	230.05	601310	9528653	320	111.80	113.00	1.20	0.55	0.8
								148.00	149.45	1.45	0.89	2.9
)								158.60	159.70	1.10	0.62	6.3
2								177.00	178.00	1.00	6.27	3.6
\mathcal{D}								180.74	181.20	0.46	3.65	50.0
シ								191.50	197.50	6.00	0.60	4.6
3								200.75	205.00	4.25	0.52	0.9

APPENDIX C – 2007-08 Loma Alta Prospect Gold-Silver Historical Drilling Results



Prospect	HoleID	Azimuth	Dip	Depth of Hole (m)	Easting	Northing	Elevation	From (m)	To (m)	Drill Thickness (m)	Gold (g/t)	Silver (g/t)
Loma Alta	MD-1	180	-60	113.65	606787	9524175	625	25.80	26.65	0.85	5.47	0.9
Loma Alta	MD-2	180	-50	112.32	606863	9524154	586	33.07	39.40	6.33	4.65	4.8
Loma Alta	MD-3											
								65.21	69.50	4.29	1.71	1.6
Loma Alta	MD-4	180	-60	223.35	606787	9524270	628	73.40	74.70	1.30	5.57	2.0
								126.06	132.50	6.44	1.23	0.5



APPENDIX D - Linderos 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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	 All reported Drilling across three historical campaigns from 1974 through 2005 sampled with diamond core. Reported Diamond Drilling completed in 2005 was drilled to approximately 120m depths recovering HQ diameter core, then extended to final depths reported for deeper holes recovering NQ diameter core ½ core was submitted for analysis Samples were crushed to passing a 2mm mesh and split to produce a 250g charge pulverised to 200 mesh to form a pulp sample. Reported Channel Sampling was done as continuous and equal sampling of an excavated exposure of in-situ material to provide a representative sample of material sampled Reported Rock chip samples are composite grab samples collected from in situ outcrops selected by the geologist. Reported Soil samples are recovered from map and assay files, but no detailed reporting located on sampling techniques or tools utilised.
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 of HQ and NQ diameter core with standard tube core barrels retrieved by wire line. Trenching was accomplished in costeans cleared by mechanised equipment, then channels for sampling dug by hand with pick and shovel.
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 records of sample recovery located for reported historical drilling No detailed records of drilling methods and techniques located for reported historical drilling No correlation between sample recovery and grade can be assessed with available data.
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. 	 Reported samples are not logged geologically or geotechnically to a level of detail to support mineral resource estimation in accordance with principle of the JORC Code. Historical assay and logging work is not of a quality to be relied upon for metallurgical assessment work time. No core Photos or detailed geologic logs are available for drill core collected in the 1974 and 1978 campaigns. The total reported lengths of drill core from the 2005 campaign is available for re-logging and relevant intersections have been logged for alteration and lithology Trenches are not systematically photographed, but area is still open for systematic mapping and mineralisation to be confirmed in re-sampling work.
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. 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. 	 2007 to 2018 campaigns reported, Diamond core is split or cut in weathered profile and cut in fresh rock with half core sent for analysis. Sample sizes collected in field and subsequent sub-sampling and laboratory analysis are assessed to be appropriate in size and analytical method for the style and setting of gold mineralisation being assessed. No detailed record of cutting and sampling methodologies is located for historical drilling results reported from 1974 to 1978. Channel samples collected are continuous and equal sampling of an outcrop or excavated exposure in a channel sampling method of in-situ material to provide a representative sample

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Criteria	JORC Code explanation	Commentary
		of material sampled.
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.	 Assay techniques for 1974 and 1978 historical campaigns reported are considered total technique, however techniques do not conform with modern best practices for quantifying mineralisation, and historical results from early campaigns reported are not of a quality to include in mineral resource estimation. Historical Channel Sampling by Core Gold Inc. was submitted for analyses at Core Gold's in-house, uncertified laboratory used for ore control in a production setting. Risk of sample contamination and lack of blind QaQc means results will not be relied upon for mineral resource estimation work, and are reported and utilised for exploration targeting purposes only.
	 For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations 	No geophysical tools used in reported drilling
	 factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	 No detailed reported of quality control procedures located in historical datasets prior to 2008and are not anticipated to be included in resource estimation work. Data is reviewed before being accepted into the database, and data quality ranked based on the availability and quality of QaQc, lab certification, and previous chain of custody in relation to samples.
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. 	 Archive diamond core material from the reported 2005 drilling campaign has been reviewed by Titan personnel to validate the presence of mineralisation correlating to reported assay results reported. Twin holes have not been used in the reported exploration results. No primary data log sheets or data procedures available for 1974 and 1978 drill campaigns reported. Core Gold (previous operator) datasets were archived in various excel spreadsheets with various data structure and logging methods. As part of the data verification process, Titan has compiled all available logging and assay datasets available into a single self-validating Access database
	Discuss any adjustment to assay data.	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. 	 Majority of diamond drillholes are monumented in the field so locations are preserved for re-survey with a differential GPS in support of mineral resources estimation. Trench samples are all located by a single point at the Trench's "Start point" surveyed by handheld GPS. Surveys are accurate to < 5m in horizontal precision. The sample locations are then measured by tape and azimuth from the Start Point, or extrapolated from the start point based on dip and azimuth of the trench.
	• Specification of the grid system used	• All surveyed data was collected and stored in PSAD56 datum, and datasets have been translated into WGS84 datum for reporting purposes. Confirmation of
	• Quality and adequacy of topographic control.	 Topographic control is based on WorldDEM satellite DEM datasets with 12m sample density. The method of topographic control is deemed adequate at this exploration stage of the project, and a process of upgrading all drill datasets to ground survey control quality will be progressed concurrent with planned follow-up and confirmatory drill programmes.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Data spacing for reported Diamond drilling is irregularly spaced and spacing is based on existing access, or terrain, regolith and geomorphology with no defined or systematic drill or trench spacing the space of the space
	 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. 	 Exploration Activity is at a reconnaissance and target generation stage, and data spacing is

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Criteria	JOF	RC Code explanation	Со	mmentary
	•	Whether sample compositing has been applied.		inadequate for mineral resource estimation at this time.
			•	No sample compositing applied in reported results
Orientation of data in relation to geological	•	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	•	Geometry of the mineralisation identified in drilling has not been outlined with adequate sample density to comment on potential for bias in sampling. Relationship between drill orientation and orientation of key mineralised structures is not yet
structure		structures is considered to have introduced a sampling bias, this should be assessed and reported if material.		defined, and requires further drilling to assess.
Sample security	•	The measures taken to ensure sample security.	•	2005 Campaign Samples were collected by Dynasty Mining and Metals personnel and held in a secured yard at the Companies operations in Celica, Loja prior to shipment for laboratory analysis.
			•	No reporting has been located in relation to sample security and chain of custody for 1974 and 1978 drill campaigns reported.
Audits or reviews	•	The results of any audits or reviews of sampling techniques and data.	•	No 3rd party Assay Confirmation work recently completed on Historical drilling
			•	2018 diamond drilling initially analysed by uncertified laboratories have had pulverised material sent to 3rd party certified labs, introducing blind standards and confirming presence of mineralisation, however the material analysed by 3rd party lab is sourced from prep lab of the uncertified lab used for production related ore control, and potential for sample contamination in the prep stage has not been assessed by a competent person.

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 and Zamora-Chinchipe Provinces of Ecuador. The Linderos project is comprised of four concessions in the Loja Province with Titan holding 100% interest in the Linderos E, Naranjo, Dynasty 1, and Chorrera, concessions totalling an area of 143 square kilometres.
		 Mineral concessions in Ecuador are subject to government royalty, the amount of which varies from 3% to 5% 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.
		 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 adhered to for the following year submitted to the Environmental Department of the Ministry of Energy and Mines. 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 Ministry of Energy and Mines in accordance with the Mining Law on such terms and conditions as defined in the Mining Law.
		• The Company is not aware of any social, cultural, or environmental impediments to obtaining a licence to operate in the area at the time of this report beyond the scope of regular permitting

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		are not deemed admissible for use in quantifying metal content or resource estimate calculation. Results are referenced within the report as they are utilised in target ranking and exploration targeting. No surface samples, including previous channel sampling work are excluded from maps or graphics in the report for the purpose of balanced reporting.
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 . 	 No high-grade assay cut was applied to reported exploration results. A lower cut-off of 0.5g/t Au was applied to generate significant intercepts in Appendices B & C, and a lower cut-off of 0.1% copper was applied to drill assay results to generate significant intercepts reported in Appendix A. Diamond core is campled on pominal 1m intercepts. Sample intercepts are varied locally at a sample of the pominal 1m intercepts.
	• 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 site geologist's discretion to segregate sampling of key geological features (contacts) or sample intervals can be broken to align with substantial changes in alternation or mineralisation styles. Reported significant intercepts
	• The assumptions used for any reporting of metal equivalent values should be clearly stated.	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. 	 All reported intersections are measured sample lengths and true thickness is estimated where adequate information is available on the orientation of target structures. Due to the early exploration stage of the project, determination of true widths and definition of mineralized directions is not possible for all reported results.
	• 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').	 True widths to be estimated with completion of more advance exploration and commencement of both oriented core drilling and commencement of 3D visualisation and modelling work with project advancing to a scoping stage.
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 to avoid 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. Surface sampling in systematic channels is represented in figures and graphics as rock chip samples for all historical sampling completed.
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.	 Geological interpretation and summary of previously reported geochemical survey results included in figures. No other available datasets are considered relevant to reported exploration results. No metallurgical test results, bulk density, or groundwater tests have been completed on areas related to the 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).	Included in body of report.
	 Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	Included in body of report as deemed appropriate by the competent person