ASX: TSO | ACN 106 854 175

TESORO RESOURCES

Detailed Metallurgical Test Work Confirms Excellent Gold Recoveries Up to 98% Gold Recovery

Detailed metallurgical test work conducted on representative drill core samples from the Tenera Gold Deposit exhibit very high gravity and cyanide leach gold recoveries up to 98%.

Metallurgical test work tested gravity gold and cyanide leach recoveries for 250, 200, 150 and 75 μm grind sizes.

Recoveries for all grind sizes exceeded 90% when leached in sea water over a 24-hour period.

These results are consistent with the previously announced metallurgical test work (ASX Announcement 9 June 2020) and confirm the potential for processing using a conventional crush, grind, gravity recovery and leach flowsheet.

This test work provides metallurgical data of sufficient detail to be used for Pre-Feasibility Study ("PFS") level metallurgical assessment of the Tenera Gold Deposit.

Tesoro Resources Limited (Tesoro or **the Company)** (ASX: TSO) is pleased to announce the results of the detailed metallurgical test work conducted on mineralised material from the Ternera deposit at the Company's El Zorro Gold Project, Chile.

The test work program was designed to assess the gravity recovered gold component and cyanide leaching characteristics over a range of grind sizes. The test work program provides a PFS level of assessment for the gravity recovery and leach kinetics of the various mineralised zones at Tenera.

Initial metallurgical test work was conducted on a composited sample that represented the various mineralised zones at Tenera. Samples were selected from the various mineralised zones that lie within the Tenera Mineral Resource Estimate as reported on 29 July 2021. Results for the composite sample are summarised below in Table 1:

Head	Grade	Grind	Gravity Recovery	Cyanide Extraction	Overall Recovery	Tails Grade
Assay Au g/t	Metallurgical calculated Au g/t	Micron	%	%	%	Au g/t
1.12	1.42	250	27.35	62.79	90.14	0.14
	1.19	200	41.72	52.41	94.13	0.07
	1.26	150	30.72	65.32	96.04	0.05
	1.26	75	30.91	66.70	97.61	0.03

Table 1: Gold recoveries and leaching kinetics from composite sample

Tesoro Managing Director Zeff Reeves commented:

"These metallurgical test results are exceptional. The results confirm high gravity and cyanide leach recoveries that can be achieved for processing of material from Ternera using, very simple, conventional gravity and CIL processes at a very coarse grind size. The recoveries we are seeing, particularly at the coarse 200 micron grind size, are exceptional and offer considerable cost and operational advantages to a future mining operation at El Zorro. This work will enable the development of a preliminary project flowsheet and continues to de-risk the project as it advances toward development."

TERNERA DETAILED METALLURGICAL TEST WORK PROGRAM

A total of 518kg of mineralised rock samples were collected from 53 diamond drill holes from Tenera, representing each of the mineralised and grade zones within the Resource.

The initial test work, the results for which are shown above, was conducted on an 8kg composite sample generated from each of the main mineralised units at Tenera. Test work was conducted by ALS Metallurgical Laboratories in Perth , Western Australia.

The assayed head grade for the sample was 1.12g/t Au.

The following test work, using sea water, was conducted on the sample:

- Detailed head assay analysis
- Gravity recoverable Gold (GRG) Test
- Grind size establishment (250 micron, 200 micron, 150 micron and 75 micron)
- Gravity Cyanide Leach Tests for 250 micron, 200 micron, 150 micron and 75 micron.

Gravity and Leaching Test work at different Grind Sizes

Gravity and cyanide leaching test work was conducted on the 8kg composite sample at a variety of grind sizes to determine the sensitivity of cyanide leaching characteristics and gravity recoverable gold to grind size. Test work was also conducted to allow the selection of preferred grind sizes to be targeted for future test work and process flow sheet design.

The sample was ground to 850 µm and then subjected to gravity concentration. The gravity concentrate was subjected to intensive leaching, recombination of the gravity tails and intensive leach residues, followed by grind size establishment (250 micron, 200 micron, 150 micron and 75 micron) followed by the bottle roll leach tests for each grind size.

Head	Grade	Grind	Gravity Recovery	Cyanide Extraction	Overall Recovery	Tails Grade
Assay Au g/t	Metallurgical calculated Au g/t	Micron	%	%	%	Au g/t
1.12	1.42				90.14	
	1.19	200	41.72	52.41	94.13	0.07
	1.26	150	30.72	65.32	96.04	0.05
	1.26	75	30.91	66.70	97.61	0.03

The overall gold recoveries and leaching kinetics are shown below.

Table 1: Gold recoveries and leaching kinetics from composite sample

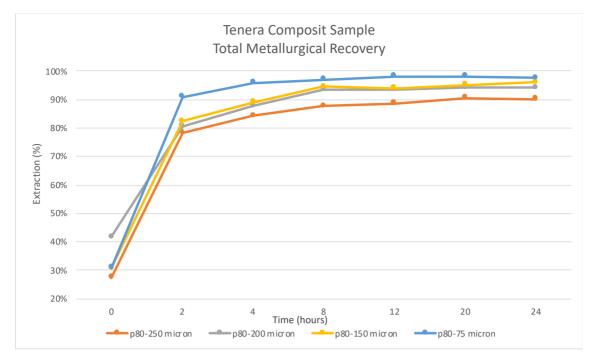


Figure 1: Gold recovery kinetics at different grind sizes

The test work results indicate that mineralised material from Tenera has a very high gravity recoverable portion, rapid cyanide leach kinetics and is only marginally sensitive to grind size.

Based on these test work results a grind size of 200 micron has been selected as the basis of future test work programs and process flow sheet design. 200 microns is considered a very coarse grind and indicates the potential for utilisation of a low operational cost milling processes.

METALLURGY NEXT STEPS

These results represent the initial stages of the Tenera detailed metallurgical test work program. The remainder of the test work program will focus the metallurgical response of 11 composite samples consisting of the main mineralised zones and grade ranges at Tenera.

The test work will provide sufficient metallurgical information to allow a PFS level of assessment to be completed.

Authorised by the Board of Tesoro Resources Limited.

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About Tesoro

Tesoro Resources Limited was established with a strategy of acquiring, exploring, and developing mining projects in the Coastal Cordillera region of Chile. The Coastal Cordillera region is host to multiple world class copper and gold mines, has well established infrastructure, service providers and an experienced mining workforce. Large areas of the Coastal Cordillera remain unexplored due to the unconsolidated nature of mining concession ownership, but Tesoro, via its in-country network and experience has been able secure rights to a district scale gold project in-line with the Company's strategy. Tesoro's 95% owned Chilean subsidiary owns 85% of the El Zorro Gold Project.



Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr Zeffron Reeves (B App Sc (Hons) Applied Geology) MBA, MAIG). Mr Reeves is a member of the Australian Institute of Geoscientists and a Director and shareholder of the Company. Mr Reeves has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Reeves consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

Future Performance

This announcement may contain certain forward-looking statements and opinion. Forward-looking statements, including projections, forecasts and estimates, are provided as a general guide only and should not be relied on as an indication or guarantee of future performance and involve known and unknown risks, uncertainties, assumptions, contingencies and other important factors, many of which are outside the control of the Company and which are subject to change without notice and could cause the actual results, performance or achievements of the Company to be materially different from the future results, performance or achievements of the Company to be materially different from the future results, performance or achievements expressed or implied by such statements. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward looking statements or other forecast. Nothing contained in this announcement nor any information made available to you is, or and shall be relied upon as, a promise, representation, warranty or guarantee as to the past, present or the future performance of Tesoro.

APPENDIX – JORC TABLES

JORC Table 1

Section 1: Sampling Techniques and Data

\geq	riteria 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 downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. 	Metallurgical tests have been completed on composite samples of ore taken from drill core from the Ternera Gold Deposit. For full drill results and details refer to ASX announcement 16 September 2021 Appendix 1 and 2. The composite sample is a blended sample of all identified ore types from the Ternera Deposit to provide a representative sample for the Deposit. Details of assay a metallurgical analysis undertake are contained within the body of this report.		
	5	 Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 	Tesoro Diamond drill holes were drilled with HQ. Sampling was half core at geological and significant mineralisation boundaries. Tesoro consider this appropriate for the style of mineralisation.		
		Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done, this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	Diamond drilling was used to obtain ½ core samples of various lengths (minimum 0.25m), from which 1kg of material was pulverised passing 200 mesh to produce a 50g charge for fire assay fusion with a gravimetric finish. Multielement assays were completed by 4-acid digest with a 2.5g charge. Tesoro consider these appropriate assay techniques.		
Ć	Drilling techniques	 Drill type (e.g. core, reverse circulation, openhole 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.). 	Tesoro has completed 230 diamond drill holes for 72,935m . Diamond drill holes were drilled with HQ. Sampling was half core at geological and significant mineralisation boundaries. Standard tube was used.		
	Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. 	Core recovery was estimated using the drillers recorded depth marks against the length of the core recovered. Reviewing the core photos, there are occasional shears/faults where core is broken. There is however no significant core loss.		
	15	 Measures taken to maximise sample recovery and ensure representative nature of the samples. 	A single tube system was employed and in general core recovery good.		
		 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. 	There appears to be no potential sample bias as there was no regular loss of core.		
		 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. 	Geological core logging to a resolution of 25 cm was undertaken with a record kept of, inter alia, colour, lithology, weathering, grain size, mineralisation, alteration, geotechnical characteristics etc. Diamond core is stored at the Company's warehouse. Tesoro consider the data to be of an appropriate level of detail to support a future resource estimation.		
		 Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. 	Logging of diamond core was qualitative and diamond core was photographed.		
		• The total length and percentage of the relevant intersections logged.	All drilled intervals are logged and recorded.		
	Subsampling techniques and	 If core, whether cut or sawn and whether quarter, half or all core taken. 	Drill core was cut, and half core was collected for analysis		
	sample preparation	 If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. 	Tesoro has not completed any percussion drilling.		

Criteria	JORC Code explanation	Commentary
	 For all sample types, the nature, quality and appropriateness of the sample preparation technique. 	Collection of half core ensured the nature, quality and appropriateness of the collected sample. The sample preparation of crushing half core at the lab to mm size prior to splitting off a 50g charge (either by cone/quarter or riffle) for pulverisation provides an appropriate and representative sample for analysis.
	Quality control procedures adopted for all subsampling stages to maximise representivity of samples.	Half core was collected for the entirety of the Tesoro drilling, a such there was consistency throughout the drilling. Core was logged by a qualified geoscientist. Each subsample is considered to be representative of the interval.
	 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. 	Sampling of half core is representative of the in-situ material. There are field duplicate samples collected from the diamond core with irregular results. Field drill core duplicates are irregular by nature and it has been recommended by Tesoro's consultants to use coarse reject material to monitor the sample preparation.
	• Whether sample sizes are appropriate to the grain size of the material being sampled.	sample sizes collected were considered appropriate to reasonably represent the material being tested.
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.	Assays reported in this report were undertaken at the accredited laboratory of ALS Metallurgical Laboratories in Perti Western Australia,, which is fully certified. Core samples of various lengths were crushed and blended to produce a homogenous composite which was assayed (minimum 0.25m) from which 1kg of material was pulverized passing 200 mesh to produce a 50 g charge for fire assay fusion with gravimetric finish. Multielement assays were completed by 4-acid digest with a 2.5 g charge. All techniques are appropriate for the element being
		determined.
D	 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. 	Standard chemical analyses were used for grade determination. There was no reliance on determination of analysis by geophysical tools.
	 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. 	QAQC procedures included the insertion of Certified Reference Materials (CRMs) (5%) and blank material (2%), Check sample (5%) and check assaying 5% Cube Consulting Pty Ltd manage the database for Tesoro. The laboratories used have generally demonstrated analytical accuracy at an acceptable level within 95% confidence limits.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel.	A number of independent consulting geoscientists (Cube Consulting, Oliver, and Cooley) external to Tesoro have verified the intersections for holes ZDDH0001 to ZDDH0080. Holes ZDDH0081 onwards have been verified by multiple appropriately qualified Company personnel.
9	The use of twinned holes.	no twinned holes have been completed
\mathcal{D}	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Tesoro drilling is digitally entered and stored following documented core handling protocols. The protocols are considered adequate.
	Discuss any adjustment to assay data.	No adjustments were made to Tesoro Drilling
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Tesoro drill hole collars have been surveyed accurately using differential GPS for holes ZDDH0001 to ZDDH00080. Holes ZDDH0081 onwards have been surveyed using handheld GPS and will be surveyed using differential GPS once the drill program has concluded.
	Specification of the grid system used.	The grid system used PSAD56 19S
	Quality and adequacy of topographic control.	The topography generated from an accurate topographic survey data completed by a registered surveyor and has been used for the current control.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Drill hole spacing is variable between 25m and 200m
	 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. 	The spacing of drill holes is variable and satisfactory for reconnaissance level drilling. The holes are not intended to be used for resource estimates at this stage of exploration.

Criteria	JORC Code explanation	Commentary	
	 Whether sample compositing has been applied. 	Sample composites was not employed.	
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.	Drill holes were drilled across the interpreted strike of the mineralization	
	 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. 	Tesoro diamond drilling at various orientations does not reveal any bias regarding the orientation of the mineralised horizons.	
Sample security	 The measures taken to ensure sample security. 	Chain of Custody of digital data is managed by the Company. Physical material was stored on site and, when necessary, delivered to the assay laboratory. Thereafter laboratory samples were controlled by the nominated laboratory which to date has been Bureau Veritas and ALS Santiago. All sample collection was controlled by digital sample control file(s) and hardcopy ticket books.	
Audits or reviews	 The results of any audits or reviews of sampling techniques and data. 	No audits have been undertaken.	

(Criteria in this section apply to all succeeding sections)

Section 2: Reporting of Exploration Results

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

Criteria		the preceding section also apply to this sec JORC Code explanation	Commentary
Mineral tenement a land tenure status	nd	 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. 	Information regarding tenure is included in the company's December 2020 half yearly report released to the ASX on 12 March 2021 Tesoro Resources Ltd, 95% owned Chilean subsidiary, Tesoro Mining Chile SpA, owns 85% of the El Zorro Gold Project Concessions.
		 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. 	The Concession is believed to be in good standing with the governing authority and there is no known impediment to operating in the area.
Exploration done by oth parties		 Acknowledgment and appraisal of exploration by other parties. 	Little historical exploration has been undertaken in either project area. Coeur d'Alene's Chilean exploration division undertook activities on the Ternera prospect, under an option agreement with the previous owners between April 1990 and January 1993.
Geology		 Deposit type, geological setting and style of mineralisation. 	The mineralisation model is to likely to be intrusive related gold deposit. The key characteristics that are consistent with this style deposit include:
00			 Low sulphide content, (typically <5%); reduced ore mineral assemblage that typically comprises pyrite and lacks primary magnetite or hematite
			 Mineralisation occurs as sheeted vein deposits or stockwork assemblages and often combine gold with variably elevated Bi, W, As, Mo, Te, and/or Sb but low concentrations of base metals as seen in the initial four holes by Tesoro at El Zorro
			 Restricted and commonly weak proximal hydrothermal alteration
6			Intrusions of intermediate to felsic composition.
Drillhole information		 A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: 	Information relating to current drill program presented in this report.
		$\circ~$ easting and northing of the drillhole collar	
		 elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar 	
		$\circ $ dip and azimuth of the hole	
		$\circ~$ downhole 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 	

Criteria	JORC Code explanation	Commentary		
	from the understanding of the report, the Competent Person should clearly explain why this is the case.			
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 cutting of grades has been undertaken at this early stage of exploration drilling. Downhole intercepts are calculated using a length weighted averaging method.		
	 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. 	All individual results for holes ZDDH00001 to ZDDH00016 are reported in prospectus dated 30th October 2019 lodged by Plukka Ltd. Down hole length weighted average results are calculated usin a 0.20g/t Au cut off and a maximum of 5m internal dilution		
)	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents are reported.		
Relationship between	• These relationships are particularly important in the reporting of Exploration Results.			
mineralisation widths and intercept lengths	 If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported. 	The mineralisation forms sub-vertical sheeted veins and individual veins and may form plunging zones within the mineralised structures. Drilling by Tesoro has been undertaken to test these orientations.		
\mathcal{O}	 If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known'). 	Exploration results are reported as downhole widths as the true width is not known with any certainty.		
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 drillhole collar locations and appropriate sectional views. 	Relevant maps and diagrams are included in the body of the report.		
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 assay results from drilling are reported. Reporting of visible gold occurrences in drill core is by visual inspection only and final gold content is not known until assay results have been received.		
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. 	All material exploration data is reported in the body of the repo		
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).	Further work will be focused on drill testing the Ternera mineralisation and additional prospects as defined in the work program. Core will be used for metallurgical testwork and resource modelling is planned.		
	 Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	Diagrams have been included in the body of this report.		