NI 43-101 TECHNICAL REPORT MINERAL RESOURCE ESTIMATION OF THE ELIDA PORPHYRY COPPER PROJECT IN PERU



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1 SUMMARY

1.1 Introduction

The authors were contracted by Element 29 Resources Inc. ("Element 29" or "the Company") to prepare this Technical Report (the "Report") stating an estimated mineral resource for the Elida Project (the "Project" or the "Property") in accordance with National Instrument 43-101, companion policy NI 43-101CP, Form 43-101F1 (Standards of Disclosure for Mineral Projects, 24-June 2011), and Definitions and Standards on Mineral Resources and Mineral Reserves (10-May 2014) from the Canadian Institute of Mining, Metallurgy and Petroleum (CIM).

1.2 Property Location and Ownership

The Elida Property is located in Peru and straddles the boundary between the Departments of Lima and Ancash approximately 170 km northwest of Lima and 80 km east of the coast. The Property is accessible from the city of Lima by the Pan American Highway and a secondary road with a mix of paved and unpaved surfaces that extends inland from the coastal city of Barranca.

Elida Resources SAC is a Peruvian subsidiary of Element 29 and is the titleholder of record of the 29 mining concessions that constitute the Property.

1.3 Accessibility, Climate, Local Resources, Infrastructure and Physiography

The Property is accessible by road from the city of Lima along the Pan American Highway to the coastal city of Barranca, then inland along a secondary road with paved and unpaved surfaces following the Patavilca River valley over a distance of 53 km to the Company's field facilities located in the village of Cahua. The recently drilled exploration target on the Property is 22 km farther upriver from Cahua on the same secondary road.

The Property is characterized by steep, dissected topography with the Patavilca River valley as the primary feature. Elevations on the Property range from river level at 1,200 m.a.s.l. to ridge tops over 2,000 m.a.s.l. Drill platforms are at elevations between 1,400 and 1,800 m.a.s.l.

The current drill target on the Property, Zone 1, is found at low elevations near the bottom of a steep, arid valley where average temperatures range between 16°C and 20°C. Total annual rainfall is 1153 mm ranging between averages of 16mm in August and 195mm in March.

1.4 History, Exploration and Drilling

The Elida Property originated in August 2011, when Globetrotters Resources Peru SAC ("Globetrotters") staked the 'Elida2' concession (1,000 ha.) to cover a large 3 km x 3 km Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER) alteration anomaly, identified as a priority field evaluation target. Follow-up ground evaluation of the ASTER target confirmed a 2 km x 2 km zone of phyllic – potassic \pm argillic alteration in a multi-phase quartz monzonite porphyry. Initial exploration activities were focused entirely on the 'Elida2' concession target area.

During 2012 and 2013, Globetrotters enclosed Elida2 with seven additional concessions: GBT-04, GBT-05, GBT-06, GBT-10, GBT-11, GBT-19, and GBT-34. Globetrotters also completed an outcrop geochemistry sampling program, collecting 316 samples during 2012 and into 2013. The



samples were analyzed by 35-element aqua regia ICP-AES (ME-ICP41) and 30g fire assay for gold (Au-AA23) at the ALS-Chemex facility in Lima, Peru.

Lundin Mining Peru SAC ("Lundin") optioned the Elida property from Globetrotters Peru Copper SAC, subsidiary of Globetrotters, on October 25, 2013. At that time, the Elida property totaled 4,273 ha with concessions ELIDA2, GBT-04, GBT-05, GBT-06, GBT-10, GBT-11, GBT-19, and GBT-34. In 2015, Lundin staked 16 additional concessions (LMP series) bringing the Property to its current configuration covering 19,749 ha.

Lundin undertook an exploration program on the Elida Property from 2013 to 2016, which consisted of regional and detailed geological mapping, drone topographic surveying, rock geochemistry, ground geophysical surveys (magnetics and induced polarization) culminating in a drill program of 9,880 metres in 2015 (Figure 6.2). All holes intercepted anomalous Cu-Mo mineralization; six of the holes intercepted significant Cu-Mo mineralization. Some mineralized intercepts in these drill holes were found to begin in bed rock immediately below colluvial cover.

Lundin's 18 drill holes were logged and sampled on site when completed. A total of 5,612 rock samples, including core samples, were collected and analyzed by fire assay with atomic absorption finish (Au-AA23) for gold and multi-element ICP (ME-ICP61) for base metals at the ALS-Peru Laboratory in Lima, Peru.

Lundin contracted spectral analysis of core and rock samples at ALS Global Lab using a Terraspec[™] instrument measuring VNIR and SWIR spectra for a total of 5,065 readings. Systematic magnetic susceptibility and specific gravity measurements were also taken for every rock core sample.

Lundin hired Anglo Peruana Service to run the core logging process under supervision from Lundin's geologists. The information was recorded using the software 'CORE' that permitted the incorporation of drilling data into a database immediately after the holes were completed.

The drill program completed by Lundin was interpreted to have intersected a Cu-Mo-Ag-Zn mineralized porphyry system, centered on an early quartz-feldspar porphyry stock with an elliptical shape in plan, measuring approximately 300 x 500 metres and elongated in an east-west direction. Porphyry mineralization displayed a clear zonation from a central, high temperature core containing molybdenum and minor copper outward, to a concentric copper molybdenum zone containing the more significantly mineralized drill hole intersections.

After termination of the Lundin option in September 2017, Globetrotters recommenced exploration efforts with geologic mapping of the complete property at a scale of 1:25,000 using topographic maps and Landsat imagery. More detailed geological mapping was completed on the 'Elida2' concession at a scale of 1:2,500 with the aid of topographic maps and a World Vision II satellite image with spatial resolution of 0.5 m. The main outcrops of the southern target area (Zone 4) were also mapped in detail at 1:2,500 scale.Globetrotters undertook mapping of an apparent northwest extension of the Elida System to evaluate new exploration target areas in the district. Emphasis was placed on resolving the Cretaceous stratigraphy to better correlate it with the rocks encountered in drill holes.

Community permits for the Elida property that Lundin had negotiated were reassigned to Globetrotters giving Globetrotters social license to operate until 2020. These community permits included those with the Aco community that are currently in the process of being transferred to the Company.



Element 29 Resources Inc. ("Element 29") acquired 100% ownership of Elida Resources S.A.C. through a share purchase agreement dated February 1, 2019 with Globetrotters. In 2021, Element 29 completed the drilling of 7 diamond drill holes for a total of 4,612.7m. The drill program began on July 30, 2021 and ended on December 6, 2021. The drilling campaign was aimed at drilling the Zone 1 area of the Elida deposit with the main objective of defining a mineral resource.

1.5 Geology and Mineralization

The Property lies along the Miocene metallogenic belt of central and northern Peru, which extends more than 900 km along the Cordillera Occidental and contains numerous mineral deposits of Miocene age ranging from porphyry and proximal skarns to high-sulfidation, epithermal precious-metal deposits. Most of these deposits are hosted by shelf carbonates and other sedimentary rocks of Mesozoic age and by volcanic and intrusive rocks of Tertiary age. Base- and precious-metal mineralization was closely associated with the eruption of calc-alkalic volcanic rocks and emplacement of coeval dikes and stocks.

The Peruvian segment of the Andean Cordillera is a type-example of Andean subduction, where oceanic crust of the Nazca plate is moving beneath the continental crust of the South American plate. This plate interaction has produced up to 70 km of crustal thickening along its western margin, resulting in surface uplift of thousands of metres.

In the Late Cretaceous, Andean-type subduction began by marine withdrawal and the emergence of the Andean Cordillera. This phase is characterized by multiple cycles of compression and extension from Late Cretaceous through early Pleistocene and the presence of a magmatic arc along the continental margin, producing intense plutonic and volcanic activity as it migrated eastward, forming metallic mineral deposits along the length of the Andean Cordillera.

The Elida Property was originally staked over a remote sensing target identified in Aster imagery. Ground follow-up of this anomaly eventually led to the discovery of Cu-Mo porphyry outcrops and related mineral occurrences within an alteration zone measuring 2 x 2 km. The porphyry system is a multiphase complex of quartz monzonite porphyry stocks and dikes, emplaced into Cretaceous-aged Casma Group volcano-sedimentary rocks, and into granodiorite of the eastern margin of the Coastal Batholith.

The Elida Property is underlain by volcano-sedimentary and siliciclastic sedimentary units of late Cretaceous age, identified as the Upper Casma Group. The entire volcano-sedimentary package dips 50-70 degrees west in the vicinity of the current Elida exploration target to form the west limb of a monocline along a northerly trending axis. The same volcano-sedimentary unit is sub-horizontal on the east side of this fold axis. Cretaceous-aged intrusive rocks of the Coastal Batholith have intruded the volcano-sedimentary package to the west of the Property.

The primary exploration target at Elida (Zone 1) is a zone of Cu-Mo mineralization, characterized by intense multi-phase quartz veining containing chalcopyrite and molybdenite. High-grade mineralization (>0.5 %Cu) found in steeply dipping volcano-sedimentary rocks, forms a halo around a low-grade core, consisting of quartz monzodiorite porphyry stocks (QMDP1, QMDP2) hosting molybdenite-bearing quartz veins (A-type) with minor chalcopyrite. The majority of copper is carried in A-type veins that were formed during the waning stages of potassic alteration, with a significant secondary amount of copper carried in B-type veins (chlorite-epidote-pyrite-chalcopyrite). Chalcopyrite is the principal copper sulfide mineral found in both sedimentary and intrusive host rocks. Molybdenite is the only Mo sulfide identified. Early and late porphyry dikes



carrying low Cu-Mo grades are volumetrically minor through the Elida target, so do not present significant dilution of the mineralized zone.

1.6 Mineral Resources

This is the first mineral resource estimate of the Elida copper property. It was carried out using a combined database from the Lundin (2015) and Element 29 (2021) drill programs. Copper, molybdenum and silver assays were composited to 2m intervals with higher grade outliers capped to lower thresholds. The geology model was derived from the lithology and alteration controls on copper mineralization where higher grade and lower grade domains were delineated. The spatial continuity of copper grades was assessed with variograms which in turn were used for the estimation of copper grades with ordinary kriging into a 10 m x 10 m x 10 m block model. The copper grade estimates were then statistically validated, constrained within an open pit optimized with a Lerchs-Grossman algorithm and classified as Inferred Mineral Resources.

The pit-constrained Inferred Mineral Resources for the Elida are presented in Table 1.1.

Cu Cut- Off %	Tonnes (millions)	Cu (%)	Contained Cu (MIb)	Contained Cu (tonnes)	Mo (%)	Mo Content (MIb)	Mo Content (tonnes)	Ag (g/t)	Ag Content (Moz)
0.20	321.7	0.316	2,241.2	1,016,568	0.029	205.7	93,293	2.61	27.0
Source:	Ginto (2022)								

 Table 1-1: Pit-Constrained Inferred Mineral Resources – Elida Deposit

Notes for Table 1-1:

- 1. The effective date for the Mineral Resource is September 20, 2022.
- 2. Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, changes in global gold markets or other relevant issues.
- 3. The CIM definitions were followed for the classification of inferred Mineral Resources. The quantity and grade of reported inferred Mineral Resources in this estimation are uncertain in nature, and there has been insufficient exploration to define these inferred Mineral Resources as an indicated Mineral Resource. As a result, it is uncertain if further exploration will result in upgrading them to an indicated or measured Mineral Resource category.
- 4. Mineral Resources are reported at a cut-off grade of 0.2 g/t Cu, using a US\$/CAN\$ exchange rate of 0.75 and constrained within an open pit shell optimized with the Lerchs-Grossman algorithm to constrain the Mineral Resources with the following estimated parameters: copper price of US\$3.46/lb, US\$2.00/t mining cost, US\$5.00/t processing cost, US\$1.40/t G+A, 87% copper recovery, and 45° pit slope.
- 5. The number of tonnes was rounded to the nearest hundred thousand. The number of pounds and ounces was rounded to the nearest hundred thousand. Any discrepancies in the totals are due to rounding effects.

1.7 Interpretations and Conclusions

This study presents the first mineral resource estimate of the Elida copper property. The mineral resource was estimated with the ordinary kriging technique using the composited grades to 2.0m lengths, where high-grade outliers were capped to lower thresholds. Although copper is the main element of interest, grade estimates for molybdenum and silver were also calculated.



The project has received a limited amount of drilling at a wider spacing and for such, the mineral resource is classified as Inferred. Additional drilling would be beneficial in providing greater confidence in the modeling of the geologic controls on copper mineralization, the spatial assessment of copper grade continuity, and thus the copper grade estimates.

The copper grade populations within the mineralized domains were found to be well-behaved with low coefficients of variation (values of less than 0.6). The capping of the high-grade outliers has only had a minor effect on the average grades and the metal content. For such, the usage of the ordinary kriging technique with capped composited grades is believed to be an adequate strategy for the grade interpolation process.

The geologic model of controls on copper mineralization consists of a high-grade zone and a lowgrade zone, which were developed from copper grade cut-offs, alteration, and lithology. Additional drilling is needed to provide a more intricate geologic model.

The variographic analysis of copper grades shows better spatial continuity along the 110° orientation and vertically. The modeled variograms are of passable quality and would benefit from additional tighter spaced drilling.

The QA/QC protocols from the drill programs on the project were found to follow industry practices with satisfactory results overall.

The validation of the copper grade estimates has shown good results from the various tests carried out. It can be concluded that the copper grade estimates are not biased and have an adequate amount of smoothing/variability. Therefore, it is believed that the copper grade estimates are an adequate representation of the mineral resources at Elida, based on the current geologic understanding and available data. There is good potential for additional mineral resources on the property with other untested targets.

1.8 Recommendations

Due to the wide spacing of a limited amount of drill holes on the Property to date, additional infill and exploration drilling is recommended to ascertain and expand the current mineral resource estimate. The infill drilling will allow for a more detailed model of geologic controls on copper mineralization, a more conclusive assessment of the copper grade's spatial continuity and greater confidence of the grade estimates. Based on the modeled variograms for copper, a drill hole spacing of 75m is recommended to provide a mineral resource estimate of higher confidence such as of the Indicated category.

There is excellent potential to grow the mineral resources at Elida since mineralization in Zone 1 has not been completely closed off by drill testing and given the recognition of exploration targets peripheral to Zone 1. Definition drilling in Zone 1 and exploration drilling of peripheral targets is recommended to further advance the Elida Property. A drill campaign of 2,500 metres is recommended to complete these objectives at an estimated cost of US\$ 1,050,000.

2 INTRODUCTION

2.1 Issuer

The authors were contracted by Element 29 Resources Inc. ("Element 29" or "the Company") to prepare this Technical Report (the "Report") stating an estimated mineral resource for the Elida Project (the "Project" or the "Property") in accordance with National Instrument 43-101, companion policy NI 43-101CP, Form 43-101F1 (Standards of Disclosure for Mineral Projects, 24-June 2011), and Definitions and Standards on Mineral Resources and Mineral Reserves (10-May 2014) from the Canadian Institute of Mining, Metallurgy and Petroleum (CIM). The Elida Project is located on the boundary between the Departments of Lima and Ancash, Republic of Peru.

2.2 Terms of Reference

This report has been prepared at the request of the management of Element 29 in fulfillment of its disclosure obligation under National Instrument 43-101 to report a material change following the release of an initial Mineral Resource Estimate ("MRE") for its Elida Project. The purpose of the report is to detail the MRE, summarize salient geological features and describe exploration results of the Project. This report replaces a previous technical report titled "NI 43-101 Technical Report on the Elida Property, Peru" with an effective date of February 15, 2020 (Strickland, 2020).

The effective date of this Report is September 20, 2022. The Report is based on information known to the authors up to that date.

The authors of this Technical Report do not disclaim any responsibility for the content contained herein and make appropriate caveats under Section 3 (Reliance on Other Experts).

The Issuer reviewed draft copies of this Report for factual errors. Any changes made because of these reviews did not include alterations to the interpretations and conclusions made. Therefore, the statements and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are not false and misleading at the date of this Report.

2.3 Qualified Persons

This Report was prepared by Qualified Persons Marc Jutras, P.Eng, M.A.Sc. of Ginto Consulting Inc., and Steven L. Park, C.P.G., M.Sc.

The authors are Qualified Persons with the relevant experience, education, and professional standing for the portions of the Report for which they are responsible.

The authors conducted an internal check to confirm that there is no conflict of interest in relation to their engagement in this project or with the Company and that there is no circumstance that could interfere with the Qualified Persons' judgment regarding the preparation of the Technical Report.

2.4 Independence

The co-authors of this Report neither have, nor have had previously, any material interest in Element 29 or related entities or interests. Their relationship with Element 29 is solely one of professional association between client and independent consultant. This Technical Report is



prepared in return for fees based upon agreed commercial rates and the payment of these fees is in no way contingent on the results of this Technical Report.

The authors do not have, nor hold:

- Any vested interests in any concessions held by the Company.
- Any rights to subscribe to any interests in any of the concessions held by the Company either now or in the future.
- Any vested interests either in any concessions held by the Company, or any adjacent concessions.
- Any right to subscribe to any interests or concessions adjacent to those held by the Company either now or in the future.

2.5 Definition of Property

The Property consists of 29 titled mining concessions covering 19,749 hectares located in the Departments of Lima and Ancash, Peru.

The Property is not considered an "advanced Project" as defined by the Canadian Institute of Mining (CIM) – NI 43-101 Standards for Disclosure of Mineral Projects because the Property does not have current Mineral Resources or Mineral Reserves supported by a preliminary economic assessment, a Pre-Feasibility Study, or a Feasibility Study. Therefore, Items 15 – 22 of the standard Form 43-101F1 Technical Report are not described in this Report.

2.6 Property Inspection

Co-author Steven Park completed a two-day field visit to the Elida Property on 12-13 May 2022. Company representative Dr. Paul Johnston accompanied and guided Mr. Park during the field visit, providing valuable insight into the history, geology, and current status of the Elida Project. During his visit, Mr. Park conducted a review of outcrops and drill platforms in the project area and drill core at the Company's core logging and storage facilities, both in their field office near the project site and at their warehouse in the outskirts of the city of Lima.

Mr. Park collected a total of 11 verification samples in the form of quarter-cut drill core from selected mineralized intercepts for the purpose of data verification.

2.7 Sources of Information

This Report has been prepared by the authors based on review of publicly available geological reports and maps from the *Instituto Geológico Minero y Metalúrgico* ("INGEMMET"), technical papers, and the Company's database that includes all drilling, sampling, topographic and geologic information relevant to producing a resource estimate. The authors have taken reasonable steps to verify the information provided where possible through discussions with the management and consultants of the Company.

As of the date of this report, the authors are not aware of any material fact or material change with respect to the subject matter of this technical report that is not presented in this report, which the omission to disclose would make this report misleading.

2.8 Units

Abbreviations and definitions used in the report are included in the list in Table 2-1. All measurements in this report are in metric units. All monetary amounts are stated as US dollars (US\$). All map data are presented in UTM map datum base WGS 1984, Zone 18, unless otherwise noted. Terms in Spanish are printed in italics.

Item	Abbreviation	Geological Time Chart					
Above mean sea level	a.m.s.l.						
	Δ ₇ (⁰ Nl)	Eon	Era		Period	Epoch	m.y.
Breccia	Bx					Holocene	
Canadian dollar	C\$			ς (uaternary		- 1
Centimetre(s)	cm					Pleistocene	_1 s
Certified Reference Material	CRM cm ³					Pliocene	T'.3
Cubic metre	m ³		oio		Neogene		- 1
Degree Celsius	°C		ZOL		Ũ	Miocene	22
Degree Fahrenheit	°F		Cel			Oligocene	723
Diamond drill-hole	DDH						-
Gold	Au			1	raleogene	Eocene	
Gram(s)	a	<u>0</u>				Paleocene	
Grams per metric tonne	gpt	0		_			65
Greater than	>	lö l	oic	C	retaceous		
Hectare(s)	ha	er	žo		Jurassic		
High Sulfidation		Ĭ	les				
International Organization for Standardization	ISO	la	4		Triassic		250
Kilogram(s)	kg	Ы			Permian		230
Kilometer(s)	km				1		
Lead	Pb			jeroui	Pennsylvanian		
Less than	<		ic.	foor	Mississionian		
Liter(s) Metre(s)	m		ozo	C	Pilosiosippian		
Millimetre(s)	mm		ale		Devonian		
Million tonnes	Mt		Ч		Silurian		
Million Troy ounces	Moz				onunun		
Million years ago	Ma			0	Ordovician		
Net Smelter Return Royalty	NSR				Combrian		
Parts per hillion	nnh				cambrian		540
Parts per million	ppm				Proterozoi	с	
Percentage	%	Pred	ambri	an	A		2500
Peruvian Sol	S/				Archea	1	
Provisional S. America Datum 1956	PSAD56						
Plus or minus Quality Assurance/Quality Control							
Semi-detailed Environmental Impact Study	FIAsd						
Silver	Aq						
Sociedad Anónima Cerrada	S.A.C.						
Sociedad Minera de Responsabilidad Limitada	SMRL						
Square centimetre(s)	Itda						
Square kilometre(s)	cm ²						
Ton (short 2000 lbs)	m ²						
Tonne (metric, 1.000 kg or 2.204.6 lbs)	Т						
Tonnes per day	t						
Troy ounce (31.1035 grams)	tpd						
United States dollar(s)	OZ						
Universal Transverse Mercator							
wond Geodelic System 1964							

Table 2-1:	List of at	obreviations a	nd geolo	gical time	e chart
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Source: Element 29 (2022)

3 RELIANCE ON OTHER EXPERTS

The co-author (S. Park) has relied upon a legal opinion on mineral title dated January 29, 2020 written by Mario Chirinos Dongo of Dentons Gallo Barrios Pickmann SCRL, a legal firm based in Lima, Peru (Pickmann, 2022) with address of General Cordova No. 313 Miraflores, Lima 18 Peru. This information is relied upon in Section 4 and the Summary of this report.

The co-author (S. Park) expresses no legal opinion as to the title or ownership status of the Property other than to report the finding of Dentons Gallo Barrios Pickmann SCRL and to make a cursory review of publicly available information regarding concession titles, concession maps and payments due.

The co-author (S. Park) expresses his confidence in the information provided to him by Element 29 since no extraordinary results or claims are made therein.



4 PROPERTY DESCRIPTION AND LOCATION

4.1 Elida Project Mining Concessions

The Property is made up of 29 mining concessions covering an area of 19,749 hectares in a contiguous block as shown in Figure 4-1. Concession details are listed in Table 4-1. There is currently one mineral concession internal to the Elida Property that is not discussed in this report. The Peruvian subsidiary of Element 29, Elida Resources SAC, is titleholder of record for these concessions.

The Elida concession block is spread across the districts of Huancapon and Manas in the Province of Cajatambo, Department of Lima, and the districts of Carhuapampa and Acas, Province of Ocros, Department of Ancash.



Figure 4-1: Concession map, Elida Project. Source: Element 29 (2022)

The co-author (S. Park) has relied on the legal expertise of the law firm Dentons Gallo Barrios Pickmann SCRL to verify that titles to the Property concessions are currently in good standing. Annual concession fees have been paid through the year 2022. None of the Property concessions are subject to penalty fees (section 4.5.2). The author has independently verified completion of these payments through publicly available information on the web site of the *Instituto Geológico Minero y Metalúrgico* (INGEMMET).



	File Code	Concession Name	Titleholder	Area (Has.)	Effective Area (Has.)	Annual Concession Fees, 2022 (US\$)
1	010434511	Elida2	Elida Res. SAC	1,000.00	1,000.00	3,000.00
2	010102714	GPC01	Elida Res. SAC	1,000.00	1,000.00	3,000.00
3	010102614	GBC02	Elida Res. SAC	200.00	200.00	600.00
4	010217215	GBC04	Elida Res. SAC	200.00	200.00	600.00
5	010339812	GPC05	Elida Res. SAC	1,000.00	1,000.00	3,000.00
6	010339112	GBT-04	Elida Res. SAC	1,000.00	1,000.00	3,000.00
7	010234217	GBT-05	Elida Res. SAC	100.00	49.05	147.15
8	010339912	GBT-06	Elida Res. SAC	700.00	700.00	2,100.00
9	010149113	GBT-10	Elida Res. SAC	200.00	200.00	600.00
10	010149013	GBT-11	Elida Res. SAC	100.00	100.00	300.00
11	010276213	GBT-19	Elida Res. SAC	200.00	200.00	600.00
12	010348013	GBT-34	Elida Res. SAC	200.00	200.00	600.00
13	010206614	LMP014	Elida Res. SAC	1,000.00	1,000.00	3,000.00
14	010206814	LMP015	Elida Res. SAC	900.00	900.00	2,700.00
15	010206714	LMP016	Elida Res. SAC	1,000.00	1,000.00	3,000.00
16	010206914	LMP017	Elida Res. SAC	1,000.00	1,000.00	3,000.00
17	010115415	LMP024	Elida Res. SAC	200.00	200.00	600.00
18	010115215	LMP025	Elida Res. SAC	200.00	200.00	600.00
19	010115315	LMP026	Elida Res. SAC	200.00	200.00	600.00
20	010115115	LMP027	Elida Res. SAC	1,000.00	1,000.00	3,000.00
21	010115015	LMP028	Elida Res. SAC	1,000.00	1,000.00	3,000.00
22	010114915	LMP029	Elida Res. SAC	1,000.00	1,000.00	3,000.00
23	010114815	LMP030	Elida Res. SAC	1,000.00	1,000.00	3,000.00
24	010114715	LMP031	Elida Res. SAC	1,000.00	1,000.00	3,000.00
25	010114615	LMP032	Elida Res. SAC	1,000.00	1,000.00	3,000.00
26	010114515	LMP033	Elida Res. SAC	1,000.00	1,000.00	3,000.00
27	010114415	LMP034	Elida Res. SAC	1,000.00	1,000.00	3,000.00
28	010114315	LMP035	Elida Res. SAC	1,000.00	1,000.00	3,000.00
29	010199405	Pamplona 2005	Elida Res. SAC	400.00	400.00	1,200.00
	TOTAL			19,800.00	19,749.05	\$59,247.15

 Table 4-1: List of Elida Property concessions and corresponding annual concession fees.
 Source:

 Element 29 (2022).
 Element 29 (2022).

4.2 Location

The Elida Property straddles the boundary between the Departments of Lima and Ancash approximately 170 km northwest of Lima and 80 km east of the coast. The Property is accessible

from the city of Lima by the Pan American Highway and a secondary road with a mix of paved and unpaved surfaces that extends inland from the coastal city of Barranca.

Universal Transverse Mercator (UTM), coordinates of the center of the porphyry target in the Elida Property are 260,000m E, 8,835,000m N (map datum WGS 1984). Geographic coordinates at the center of the Property are longitude 77° 13' 59" West, and latitude 10° 31' 55" South. The range of property elevations is between 1,200 and 2,600 m.a.s.l.

4.3 **Property Ownership, Transaction and Royalties**

4.3.1 Property Ownership and Terms of Transaction

Elida Resources SAC is a Peruvian subsidiary of Element 29 and is the titleholder of record of the 29 mining concessions that constitute the Property.

The Company acquired 100% ownership of Elida Resources S.A.C. through a share purchase agreement dated February 1, 2019 with Globetrotters Resource Group Inc. ("Globetrotters") whereby the Company issued 28,112,501 shares in Element 29 Resources to Globetrotters Resource Group Inc. in consideration for acquiring an 100% interest in Elida Resources SAC, and Candelaria Resources SAC.

4.3.2 Royalty

Elida Resources SAC assigned a 2% net smelter royalty (NSR) to Globetrotters for \$4,500 USD through a royalty agreement dated October 15, 2018. This NSR applies to all the mineral concessions listed in Table 4-1 except for concession 'GPC01', file code 010102714.

4.4 Surface Rights and Exploration Permits

4.4.1 Current Status of Elida Property Exploration Permits

Element 29 submitted an application with all requisite studies for a *Ficha Tecnica Ambiental* ("FTA") to the Agency for Environmental Assessment and Inspection ("OEFA") for drilling one exploration target located in the concession 'Elida 2" (file code 101434511). The FTA was approved in March 2019 and remains in force.

The Peru Ministry of Culture issued the Company a Certificate of Area Free from Archaeological Remains ("CIRA") following completion of a certified archaeological study (CIRA N° 165-2019-DCE/MC, June 13, 2019) that declared the area of proposed drilling free of any archaeological remains.

Element 29 has an active water permit for drilling on the Property.

4.4.2 Surface Area Agreements

The principal holder of surface rights on the Property is the *Comunidad Campesina de Aco de Carhuapampa*. Element 29 signed an easement agreement with the community of Aco for a surface area of 908.3990m² on September 24, 2020 that covers the primary exploration targets on the Property (Figure 4-2*Error! Reference source not found.*). This agreement has a term of 5 years that began on May 1, 2020 and terminates on April 30, 2025.





Figure 4-2: Area of surface agreement with Aco de Carhuapampa Community. Source: Element 29 (2022).

4.5 Review of General Mining Law in Peru

The Ministry of Energy and Mines of Peru is the principal governmental body responsible for regulating and managing the energy and mining sectors. Mining activities are defined and regulated through the General Mining Law of Peru, approved by the Peruvian Congress in 1992. Reconnaissance, prospecting, exploration, exploitation (mining), general labor, processing, commercialization, transport, and storage outside a mining facility are the mining activities defined under the General Mining Law.

The General Mining Law of Peru defines and regulates different categories of mining activities according to the stage of development (i.e., prospecting, exploitation, processing, and marketing). The Peruvian State does not have free carry rights or options to acquire shareholdings in mining companies. There are no requirements for participation in ownership of mining rights by indigenous persons, groups, or entities.



4.5.1 Mining Concessions

Mining concessions give the concession titleholder the right to conduct both exploration and mining activities within the concession area. Titles for mining concessions are awarded by the Institute of Geology, Mining and Metallurgy ("INGEMMET") which maintains a register of all issued mining concessions, and administers all taxes, payments and penalties related to mining concessions. The current status of any mining concession can be verified by accessing INGEMMET's database at https://www.ingemmet.gob.pe/sidemcat.

Mining concessions formed after 1991 have been required to be shaped with boundaries orthogonal to the Peruvian National Chart grid and with minimum boundary lengths of 1 km such that the minimum concession size is 100 hectares (1 km x 1 km). Concession vertices must be located on Universal Transverse Mercator (UTM) coordinates with values to the nearest 1,000 metres. Concessions formed prior to 1991 based on the system known as *Punto de Partida*, or the starting point system, were not restricted to orthogonal location or minimum concession size. As of 2016, mining concessions have been located using coordinates of map datum WGS84 of the UTM map projection system. Mining concessions that were granted prior to 2016 using coordinates based in map datum PSAD56 will be recognized according to these coordinates as transformed into map datum WGS84 as assigned by INGEMMET.

Titleholders of concessions may be either local or foreign individuals, but only corporations with Peruvian registry may hold titles to mining concessions. No foreign nationals may hold title to mining concessions that are located within 50 km of the Peruvian border.

4.5.2 Mining Concession Fees and Penalties

INGEMMET has fixed annual concession fees at US\$3.00 per hectare per year for "regular" mining companies and US\$1.00 per hectare per year for "small miners" following categories established by the Peruvian Ministry of Energy and Mines (MINEM).

All titleholders of mining concessions are required to achieve a minimum level of mineral production or investment in developing their concession within a 10-year period following award of title. This minimum level of production/investment is set to 1 UIT (*Unidad Impositiva Tributaria*) per hectare. For the year 2021, the UIT was fixed at S/.4,300 or US\$1,162 (at 3.70:1 exchange rate). If the concession titleholder does not reach this threshold of minimum production or investment between the 10th and 15th years after obtaining title, a penalty is assessed equal to 2% of UIT per hectare. The Peruvian government had increased the UIT 1.9% per year on average since 2008 but increased the UIT for 2022 to S/.4,600, an increase of 6.9% year over year.

No penalties have been incurred by any of the Property concessions since none have reached 10 years of existence.

4.5.3 Royalties and Obligations

(The following information was valid prior to the Peruvian presidential election in June 2021.)

Peru established a sliding scale of mining royalties in 2004, later modified in 2011. The modified mining royalties are the greater of 1% of sales or 1% - 12% applied to operating income.

The following is a summary of the main taxes that apply to miners in Peru apart from annual concession fees:

- Corporate tax rate is 29.5%;
- Dividend withholding tax is 5%;
- Special Mining Tax of 2% to 8.4% applied to operating mining income; and
- Special Mining Burden of 4% to 13.12% applied to operating income (only applies to mining companies with tax stabilization agreements prior to 2011); and 8% of net profit paid to employees.

Foreign investors and local enterprises may apply for particular tax, currency and other stability agreements with the government of Peru, provided that specific requirements and minimum investments are met. The agreements guarantee stability for a term of ten years concerning: (i) the income tax regime; (ii) the currency exchange regime, including the free availability of foreign currency and free remittance of capital and profits abroad (only for foreign investors); and (iii) non-discrimination.

4.5.4 Permitting Requirements for Exploration Programs in Peru

Authorization to begin exploration and mining activities is issued by a section of the Ministry of Energy and Mines (MINEM) known as the General Directorate of Mining ("DGM"). DGM also issues permits for general labor, mineral processing, and mineral transport activities as defined under the General Mining Law. The Mining Industry is also subject to the Prior Consultation Law, which defines the public consultation process for projects that may have an impact on indigenous peoples and is a requisite for project approval.

Environmental compliance of all mining projects is governed by the Agency for Environmental Assessment and Inspection ("OEFA"), an agency of the Ministry of the Environment (*Ministerio del Ambiente*). OEFA governs evaluation, supervision, inspection, and sanction of environmental matters pertaining to mining projects and operations. Environmental certifications for projects that require a Detailed Environmental Impact Assessment ("EIAd") are issued by the Environmental Certification National Service ("SENACE") of the Ministry of the Environment.

Two levels of exploration permit in Peru are provided by Supreme Decree N^o 020-2004-EM: Category 1 requiring a DIA – *Declaración de Impacto Ambiental* (Declaration of Environmental Impact); and Category II requiring a EIAsd – *Estudio de Impacto Ambiental semi-detallado* (Environmental Impact Study, semi-detailed).

No permit is required for surface exploration such as surface mapping, geochemical sampling or surface-based geophysics. Permission of the surface rights owner is required for access to the property and for any surface disturbance such as trenching or the construction of trails for exploration programs not involving drilling.

Category I allows for small-scale drilling programs using a maximum of 40 drill platforms and a maximum area of 10 hectares of surface disturbance caused by construction of drill platforms, road access, auxiliary facilities, and sampling (i.e., trenches, prospect pits). Also, construction of underground workings are allowed to a maximum combined length of 50 metres. Permits for this category require the preparation of an Environmental Impact Declaration (DIA). Pre-requisites for Category I permits are water-use permits from the Ministry of Agriculture and land-use agreements



with the surface rights owners in the form of a registered agreement resulting from town-hall meetings in the local community(s).

Category II includes exploration projects involving more than 40 drill pads and an area greater than 10 hectares of surface disturbance caused by construction of drill platforms, road access, auxiliary facilities, and sampling (i.e., trenches, prospect pits). Also, construction of underground workings are allowed for a combined length of greater than 50 metres. Permits for this category require an Environmental Impact Study-semi detailed ("EIA-sd"). Pre-requisite for Category II permits for exploration projects are water-use permits from the Ministry of Agriculture, land-use agreements with the surface rights owners and evidence of having held town-hall meetings in all nearby communities. Additionally, the EIA-sd must include a detailed reclamation program addressing surface disturbance caused by the drilling project.

FTA (Ficha Técnica Ambiental)

In 2017, the Ministry of Mines created an additional permitting category (*La Resolución Ministerial* N° 276-2017-MINAM) that would allow large and medium sized companies an expedited path to a permit for an exploration drilling program with a maximum of 20 drill platforms in which platform and road access construction would create an area of disturbance less than 10 ha. (Included in areas considered disturbed are traces of the proposed drill holes projected vertically to the surface.) The area of drilling must not be closer than 50 metres to sensitive natural areas such as lakes, rivers, wetlands or springs; nor closer than 100 metres to primary forests or buffer zones around protected natural areas.

The FTA is designed to be approved within 10 days of submittal to the Ministry of Mines but requires less environmental studies than a DIA and requires that a Plan of Environmental Control, designed and presented by the company, be carried out during the exploration program. As with permits in all categories, the FTA requires the exploration company to present a work plan to the local community in a live presentation (*Taller Participativo*) and to receive approval for the work plan from the community authorities.

The FTA remains in force for a period of five years.

The final step in permitting requires the exploration company to request an Initiation of Activities permit from the MINEM. Since all other requisite permits have been awarded at this point, approval is a formality and generally is granted within 5 days after submittal of the request.

4.6 Environmental Liabilities

The Ministry of Energy and Mines in Peru (MINEM) maintains an inventory of mining sites considered as environmental liabilities. No area within the Elida Project area is considered an environmental liability.

4.7 Other Risks

The co-author (S. Park) is not aware of any other significant factors or risks that may affect access, title, or the right or ability to perform work on the property.



5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The Property is accessible by road from the city of Lima along the Pan American Highway to the coastal city of Barranca, then inland along a secondary road with paved and unpaved surfaces following the Patavilca River valley over a distance of 53 km to the Company's field facilities located in the village of Cahua. The recently drilled exploration target on the Property is 22 km farther upriver from Cahua on the same secondary road.

The Property is characterized by steep, dissected topography with the Patavilca River valley as the primary feature. The range of elevation from river level to ridge tops is between 1,200 and 2,000 m.a.s.l. Drill platforms are at elevations ranging between 1,400 and 1,800 m.a.s.l.

The current drill target on the Property, Zone 1, is found at low elevations near the bottom of a steep, arid valley where average temperatures range between 16°C and 20°C. Total annual rainfall is 1153 mm ranging between averages of 16mm in August and 195mm in March. The rainy season occurs between November and March, along with rare minor snowfall above 4,000 m.a.s.l. elevation during this period. The dry season occurs between April and October and is also the coolest of the two seasons. Exploration and mining activity can be carried out year-round, although significant work time may be lost during the rainy season due to landslides affecting access along regional secondary roads and electrical storms on the Property.

Ample water sources are found near the project from the Patavilca River and nearby tributaries to supply continuing exploration programs. Average flow rate of the Patavilca River throughout the year is 48 m³/second; maximum flow rate during the rainy season is 236 m³/second; average minimum flow rate during the dry season is 12 m³/second (Villanueva Arce, 2017).

The Property is located near an active mining district (Uchucchacua, Iscaycruz, Mallay and Raura mines) with a long history of production. Local manual labor is available from several small towns nearby, although most Peruvian mine workers travel long distances for work – many may reside in Lima or come from as far away as Arequipa or Cajamarca. Basic food supplies, fuel and lodging can b88888888888 found in the towns of Cahua, Barranca, and Patavilca. The nearest major urban center is Barranca and closest international airport is located in Lima.

The Property and surrounding area are sparsely populated with cultivated areas limited to narrow strips of land in the river valley bottom. The Company reports it has maintained a good relationship with the local communities and does not anticipate any difficulty obtaining the necessary surface rights for any contemplated mining activity.

The Cahua Hydroelectric Plant provides electric power with an annual production of 300 GWh. This plant is located on the Patavilca River at a straight-line distance of 14.2 km downstream from the Property. The Cheves Hydroelectric Plant in the Huaura River drainage basin 45 km southeast of Cahua reports an annual production of 837 GWh.





Figure 5-1: Panoramic view of the primary exploration target, Elida Porphyry. Source: Element 29 (2022).



Figure 5-2: Hydroelectric plant and power lines near the Elida Project area. Source: Osinergmin (2022).

Cellular service is spotty in the valley bottom along the access road to the Property and at high points on the Property. The Company field facilities in Cahua have installed an internet connection.

Vegetation is quite sparse on the Property, other than a variety of cactus scattered across the desert landscape above the valley bottom. Cultivated strips of land farther downstream from the Property produce a variety of fruits such as apples, mangos, pecans, grapes and avocados. Wildlife is limited to birds, small mammals, and reptiles.

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6 HISTORY

6.1 Globetrotters Resources Peru SAC (2011-2013)

The Elida Property originated in August 2011, when Globetrotters staked the 'Elida2' concession (1,000 ha) to cover a large 3 km x 3 km ASTER alteration anomaly, identified as a priority field evaluation target. Follow-up ground evaluation of the ASTER target confirmed a 2 km x 2 km zone of phyllic – potassic <u>+</u> argillic alteration spatially associated with multi-phase quartz monzonite porphyry (**Figure 6-1**). Initial exploration activities were focused entirely on the 'Elida2' concession target area.



Figure 6-1. Alteration anomaly derived from processed ASTER data that is coincident with the Elida porphyry system. Source: Element 29 (2022)

During 2012 and 2013, Globetrotters enclosed Elida2 with seven additional concessions: GBT-04, GBT-05, GBT-06, GBT-10, GBT-11, GBT-19, and GBT-34. Globetrotters also completed an outcrop geochemistry sampling program, collecting 316 samples during 2012 and into 2013. The samples were analyzed by 35-element aqua regia ICP-AES (ME-ICP41) and 30g fire assay for gold (Au-AA23) at the ALS-Peru facility in Lima, Peru.



6.2 Lundin Mining Peru SAC (2013-2016)

Lundin Mining Peru SAC ("Lundin") optioned the Elida property from Globetrotters Peru Copper SAC, a subsidiary of Globetrotters, on October 25, 2013. At that time, the Elida property totaled 4,273 Has. with concessions ELIDA2, GBT-04, GBT-05, GBT-06, GBT-10, GBT-11, GBT-19, and GBT-34. In 2015, Lundin staked 16 additional concessions (LMP series) bringing the Property to its current configuration covering 19,749 ha.

Under the terms of the option agreement, Lundin was to make cash payments totaling US\$6,000,000 to Globetrotters over a period of 4.5 years. In addition, Lundin could have earned a 70% undivided interest in the Elida Property by incurring US\$24,000,000 in exploration expenditures during the option period.

Lundin undertook an exploration program on the Elida Property from 2013 to 2016, which consisted of regional and detailed geological mapping, drone topographic surveying, rock geochemistry, ground geophysical surveys (magnetics and induced polarization) culminating in a drill program of 9,880 metres (Figure 6-2).

Regional geological mapping was undertaken at a district scale of 1:10,000, with local detailed mapping at a scale of 1:2,500. A concurrent rock geochemistry sampling program was also completed with a total of 94 samples collected. No information is available on the analytical method used; their standard method is a 4-acid digest, ICP AES. In addition, four samples of intrusive rocks were submitted for radiometric age-dating by a U²³⁸/Pb²⁰⁶ method on magmatic zircon.





Figure 6-2. Drill holes completed by Lundin in relation to chargeability at 1412 m elevation. Source: Element 29 (2022).

Ground magnetics and induced polarization ("IP") surveys were carried out in early 2014, consisting of 8 lines of ground magnetics and 12 lines of IP along NW-SE oriented survey lines, with a total coverage of 19.5 km. The IP survey used a pole-dipole configuration at 100 m spacing. Thirty additional lines of ground magnetic surveying, at 100 m spacing along NE-SW oriented lines totaling 76.26 km was carried out in July 2014 (Figure 6-3).

Lundin completed a diamond drill program of 9,880 m with 18 drill holes in 2015. All holes intercepted anomalous Cu-Mo mineralization; six of the holes intercepted significant Cu-Mo mineralization. Diamond drill hole ELID012 returned the best assay results: 503m of 0.42 %Cu, 0.046% Mo, 3.23 g/t Ag including 265 m of 0.52 %Cu, 0.049 %Mo, 4.1 g/t Ag. Some mineralized intercepts in these drill holes were found to begin in bed rock immediately below colluvial cover.

After Lundin dropped their option in 2017, community permits for the Elida property that Lundin had negotiated were reassigned to Globetrotters giving Globetrotters social license to operate until 2020. These community permits included those with the Aco community were transferred to the Company in 2019.



The 18 drill holes were logged and sampled on site when completed. A total of 5,612 rock samples, including core samples, were collected and analyzed by fire assay with atomic absorption finish (Au-AA23) for gold and multi-element ICP (ME-ICP61) for base metals at the ALS-Peru laboratory in Lima, Peru. A summary of the drill assay results is presented in Appendix I.

Spectral analysis of core and rock samples was completed for a total of 5,065 readings by ALS-Peru using a Terraspec[™] instrument measuring VNIR and SWIR spectra. Systematic magnetic susceptibility and specific gravity measurements were also taken for every rock core sample.

Lundin hired Anglo Peruana Service to run the core logging process under supervision from Lundin's geologists. The information was recorded using their in-house software called 'CORE' that permitted the incorporation of drilling data into a database immediately after the holes were completed.

The drill program completed by Lundin was interpreted to have intersected a Cu-Mo-Ag-Zn mineralized porphyry system, centered on an early quartz-feldspar porphyry stock with an elliptical shape in plan, elongated east-west and measuring approximately 300 x 500 metres. Porphyry mineralization displayed a clear zonation from a central, high temperature core containing molybdenum and minor copper outward, to a concentric copper molybdenum zone containing the more significantly mineralized drill hole intersections.



Figure 6-3: Analytical signal from ground magnetic survey completed by Lundin in 2015 in relation to main alteration facies interpreted by Element 29 staff. Source: Element 29 (2022).



6.3 Globetrotters Resources Peru SAC (2017-2018)

After termination of the Lundin option in September 2017, Globetrotters recommenced exploration efforts with geologic mapping of the complete property at a scale of 1:25,000 using topographic maps and LandSat[™] imagery. More detailed geological mapping was completed on the 'Elida2' concession at a scale of 1:2,500 with the aid of topographic maps and a World Vision II satellite image with spatial resolution of 0.5 m. The main outcrops of the western target area (Zone 4) were also mapped in detail at 1:2,500 scale (Figure 6-6).

Globetrotters undertook mapping of an apparent northwest extension of the Elida System to evaluate new exploration target areas in the district. Emphasis was placed on resolving the Cretaceous stratigraphy to better correlate it with the rocks encountered in drill holes.



Figure 6-4: Copper geochemistry and bedrock geology produced from Globetrotter Resources Peru SAC exploration program in 2017-2018 with alteration outline from Element 29. Source: Element 29 (2022).

7 GEOLOGICAL SETTING AND MINERALIZATION

7.1 History of Metallogenic Events, Northern Peru

The Property lies along the Miocene metallogenic belt of central and northern Peru, which extends more than 900 km along the Cordillera Occidental and contains numerous mineral deposits of Miocene age (Noble and McKee, 1997) ranging from porphyry and proximal skarns (i.e., Michiquillay, Minas Conga, Antamina) to high-sulfidation, epithermal precious-metal deposits (Yanacocha, Pierina, Tantahuatay). Most of these deposits are hosted by shelf carbonates and other sedimentary rocks of Mesozoic age and by volcanic and intrusive rocks of Cenozoic age. Base- and precious-metal mineralization was closely associated with the eruption of calc-alkalic volcanic rocks and emplacement of coeval dikes and stocks.

Subsidiary metallogenic belts have been defined by deposits found to be close in age, such as the Quiruvilca-Pierina sub-belt in the Cordillera Negra containing the Quiruvilca polymetallic deposit, Pashpap Cu-Mo porphyry system, and the Pierina high-sulfidation Au-(Ag) deposit with ages ranging between 14 and 15 Ma. These deposits also define an 'Epithermal Au-Ag' metallogenic sub-belt (Figure 7-1) that continues south through the Elida Property. A younger sub-belt further east that continues south to central Peru is defined by deposits with ages less than 10 Ma (e.g., Antamina, Pasto Bueno, Yauricocha, Raura, Morococha).

7.2 Regional Geology

The Peruvian segment of the Andean Cordillera is a type-example of Andean subduction, where oceanic crust of the Nazca plate is moving beneath the continental crust of the South American plate. This plate interaction has produced up to 70 km of crustal thickening along its western margin, resulting in surface uplift of thousands of metres.

The Andean Cordillera records three major geodynamic cycles through geologic time, the last of which includes subduction during Late Triassic to late Cretaceous time. During this phase, the Cordilleran belt was the site of major shelf sedimentation, bordered on the west by island arc volcanism or a marginal volcanic rift.

In the Late Cretaceous, Andean-type subduction began by marine withdrawal and the emergence of the Cordillera. This phase is characterized by multiple cycles of compression and extension from Late Cretaceous through early Pleistocene and the presence of a magmatic arc along the continental margin, producing intense plutonic and volcanic activity as it migrated eastward, forming metallic mineral deposits along the length of the Andean Cordillera (Figure 7-2).



Figure 7-1: Metallogenic Map of Peru Indicating the Location of the Elida Project in an Epithermal Au-Ag Trend Near a Porphyry Cu Trend. Source: Element 29 (2022).



Figure 7-2: Orogenic history of Peru. Mesozoic through Cenozoic time (Cobbing and Picher, 1983).

7.3 Elida Property Geology

The Elida Property was originally staked over a remote sensing target identified in Aster imagery. Ground follow-up of this anomaly eventually led to the discovery of Cu-Mo porphyry outcrops and related mineral occurrences within an alteration zone measuring 2 x 2 km. The porphyry system is a multiphase complex of quartz monzonite porphyry stocks and dikes, emplaced into Cretaceous-aged Casma Group volcano-sedimentary rocks, and into granodiorite of the eastern margin of the Coastal Batholith.

7.3.1 Stratigraphy

7.3.1.1 Volcano-Sedimentary Sequence

The Elida Property is underlain by volcano-sedimentary and siliciclastic sedimentary units of late Cretaceous age, identified as the Upper Casma Group. As observed in drill holes on the Property, the base of this sequence is formed by intermediate volcanic and volcaniclastic units (Lower Volcanic Sequence) overlain by siliciclastic sedimentary units (Central Clastic Sequence) consisting of a shale-dominated unit, a middle calcareous-siliciclastic unit, and an upper unit of interlayered sandstone and siltstone-volcaniclastics sediments. The Upper Volcanic Sequence is similar to the Lower Volcanic Sequence with andesite volcanic and volcaniclastic units (Figure 7-3).

The entire volcano-sedimentary package dips 50-70 degrees west in the vicinity of the current Elida exploration target to form the west limb of a monocline along a northerly trending axis. The same volcano-sedimentary unit is sub-horizontal on the east side of this fold axis. Cretaceous-aged intrusives of the Coastal Batholith have intruded the volcano-sedimentary package to the west of the deposit.


7.3.1.2 Intrusive Rocks

Seven intrusive phases have been recognized in and around the Property, both in surface exposures and drill holes. These intrusive rocks range in age from the Upper Cretaceous Coastal Batholith to late Miocene and intrude the local folded sedimentary stratigraphic sequence. The Elida porphyry mineralization is related to intrusive stocks of Eocene age (40 Ma) followed by sets of late dikes (14 Ma). Ages are based on four samples of intrusive rocks that Lundin submitted for U/Pb dating of zircon in 2011.

Coastal Batholith

Granodiorite of the Coastal Batholith is found to the west of the Property where it appears gray in colour with an equigranular texture composed of anhedral quartz, subhedral feldspar, black biotite and minor hornblende.



Figure 7-3: Stratigraphic Section, Elida Project. Source: Element 29 (2022).

Intrusive Porphyries

Six intrusive phases with porphyritic texture have been identified in relation to mineralization found on the Property: two phases of quartz monzonite porphyry as early-mineral phases and latemineral porphyritic dikes of quartz monzodiorite and diorite composition. A stock of granodiorite porphyry has been recognized as a post-mineral intrusion (Figure 7-5).



Two breccias have been recognized as forming early in the intrusive sequence based on clast lithology, quartz veining and mineralization.

Intrusive rocks are classified according to modal proportions of quartz, plagioclase and alkali feldspar. The relative timing of the three earliest porphyry phases is demonstrated by cross-cutting relationships observed in drill core. The latest two porphyry phases intruded in the waning stages of mineralization, so that temporal relationship is determined primarily by comparing vein and alteration intensity. The two latest phases are sets of dikes that are volumetrically minor, accounting for less than 2% of the rock volume.

The recognized porphyries and related breccias are described below in order of oldest to youngest.

Quartz Monzonite Porphyry (QMP)

Early-mineral porphyry phase and currently the oldest recognized porphyry unit.

Light grey, porphyritic. Quartz and feldspar subhedral to euhedral phenocrysts crowded into a light grey, aphanitic groundmass. Groundmass is approximately 50% aphanitic material with <0.5 mm feldspar crystallites. Mineral proportions in groundmass and phenocrysts are equivalent.

Radiometric date of 41 Ma. (Eocene) from Lundin U-Pb dating of zircon in 2014.

Hydrothermal Breccia (HBX)

QMP clasts indicate breccia formation after intrusion of QMP.

Polymictic clasts in a clastic matrix with hydrothermal cement. Sedimentary clasts are common. Clast matrix consists of sand-size particles cemented with hydrothermal biotite and chalcopyrite. Quartz veinlets are confined to clasts and also cut the matrix.

Quartz Monzodiorite Porphyry 1 (QMDP1)

Early-mineral porphyry phase that clearly intrudes QMP.

Light grey, porphyritic. Subhedral to anhedral quartz and feldspar subhedral phenocrysts crowded into a red-brown, aplitic groundmass containing abundant, very fine-grained red-brown biotite. Mineral proportions in groundmass and phenocrysts are equivalent.

Igneous Breccia

Mechanical brecciation as a result of magma flow during intrusion of QMDP1. Later porphyry phases are not present.

Crystalline matrix composed of QMDP1. Rounded to subangular clasts (xenoliths) of country rock and QMP. Quartz veins are confined to clasts and cut the matrix.

Quartz Monzodiorite Porphyry 2 (QMDP2)

Late-mineral porphyry phase contains xenoliths of QMDP1.

Light grey, porphyritic. Euhedral quartz and subhedral feldspar subhedral phenocrysts in a light grey, aphanitic groundmass. Groundmass is approximately 90% aphanitic material with <0.1 mm feldspar crystallites. Mineral proportions in groundmass and phenocrysts are equivalent.

Radiometric date of 40 Ma. (Eocene) from Lundin U-Pb dating of zircon in 2014.

Diorite Porphyry (DIP)

Late-mineral porphyry phase presented as narrow dikes of small volume.

Grey, porphyritic. Subhedral quartz and subhedral feldspar subhedral phenocrysts in a light grey, aphanitic groundmass. Groundmass is aphanitic containing minor <0.1 mm feldspar crystallites.

Quartz Diorite Porphyry (QDIP)

Late-mineral porphyry phase, youngest of the Eocene porphyry phases. Quartz veins are not present in this unit. Presented as narrow dikes of small volume.

Dark grey, porphyritic. Subhedral plagioclase, euhedral quartz in dark green aphanitic groundmass.

Granodiorite Porphyry (GRDP)

Quartz and feldspar phenocrysts set in an aphanitic groundmass.

Radiometric date of 14 Ma. (Miocene) from Lundin U-Pb dating of zircon in 2014.



Figure 7-4: Geology and Alteration of the Elida Project in Concession Elida 2. Source: Element 29 (2022).

7.3.2 Structure

A prominent structural grain runs through the Property on a NNW trend as shown by fold axes in the local sedimentary and volcanoclastic units, and by reverse faulting that juxtaposes Cretaceous sedimentary units over Tertiary volcanics of the Calipuy Group a short distance northeast of the Property (INGEMMET, 1:50,000 scale geology quad sheets 21i-2 and 22i-1). INGEMMET mapping (Figure 7-5) also outlines a discontinuous string of NW-oriented faults, that bisects the Property through the primary exploration target and continues to the southeast, where the neighboring Condorsenga and Mallay mines fall along this inferred structural trend.



Figure 7-5: Regional geology of the northern sector of the Department of Lima and the southern sector of the Department of Ancash. Source: Element 29 (2022).

Within the current exploration target area of the Property, the most well-defined structure is a subvertical shear zone trending NNW and dipping 80-85 degrees east cutting west-dipping Cretaceous sedimentary and volcanoclastic units (Figure 7-4). It can be traced on surface through the width of the exploration zone and was found at depth in drill hole ELID025. Based on the current mapping and sub-surface drill information, the shear zone does not appear to control primary mineralization although it could influence patterns of supergene enrichment. Since the shear zone is sub-parallel to bedding in the sedimentary sequence, it is difficult to determine any displacement along the structure. Most likely this feature formed during a phase of Cretaceous compression prior to the emplacement of the Coastal Batholith.



No clear evidence has been found on the Property of fault control of porphyry intrusions and dikes. No offset has been observed in sedimentary layers across east-striking dikes exposed southeast of Zone 1. The NNW-striking porphyry through Zones 2 and 3 has a linear form, but since it has been emplaced sill-like, parallel to strata, it is difficult to determine if a fault existed before porphyry intrusion.

7.3.3 Alteration and Mineralization

7.3.3.1 Potassic Alteration

The earliest alteration recognized in the Zone 1 exploration target is potassic alteration, represented by mineral assemblages of K-feldspar, biotite, and abundant quartz in the QMD1 porphyry and in the volcanic–sedimentary wall rocks. Minor amounts of copper mineralization are associated with initial stages of potassic alteration (~0.1 %Cu), but in the majority of copper was deposited in quartz veining associated with the waning stages of potassic alteration.

Preliminary observations suggest that the potassic alteration may be subdivided into early-stage K-feldspar alteration and late-stage biotite alteration. The K-feldspar alteration is represented as A-type veins consisting of either quartz–K-feldspar veins (high-temperature, >600°C) with no sulfides or later veins of quartz–molybdenite \pm K-feldspar that truncate quartz–K-feldspar veins.

A-type veins (quartz + molybdenite ± K-feldspar ± magnetite ± anhydrite) are generally irregular and discontinuous in form, with widths ranging from millimetre-scale veinlets commonly observed in drill core to centimetre-scale widths as observed in the few outcrops found in the Elida porphyry target area (Figure 7-6). These veins are irregular to planar in form, with variable widths on a millimetre scale and are characterized by the presence of K-feldspar and fine clots or dissemination of molybdenite. Quartz is granular and generally lacks internal symmetry as typical of A-type veins in most porphyry copper systems (Gustafson and Hunt, 1975). Anhydrite commonly has been leached from these veins to depths of 300 metres below surface, forming vugs in the gangue quartz. Narrow K-feldspar alteration halos are commonly associated with the early generation of A-type veins. Late A-type veins carry significant chalcopyrite as the primary source of copper in the porphyry system.



Figure 7-6: Chalcopyrite veinlet cuts an A-type quartz-chalcopyrite-pyrite-molybdenite vein hosted in feldspathic arenite (DDH ELID022, 636.5m). Source: Element 29 (2022).

Early Halo Type (EHT) veins or alteration have been recognized at Elida as another feature of potassic alteration under high temperatures conditions (~600° C) and early in the evolution of veining and alteration in a porphyry system (Proffett and Riedell, 2016). EHT veins have pale green muscovite and secondary biotite replacing the primary intrusive textures and contain more chalcopyrite than the surrounding rock. In some cases, A-type veins appear to have occupied earlier formed fractures controlling the EHT alteration bands or halos. Pale-colored EHT features are commonly mistaken for late-stage sericite halos surrounding pyrite veinlets.

Early Sulfide veins (pyrite + chalcopyrite \pm quartz) are also part of the vein suite associated with potassic alteration, characterized by secondary biotite (phlogopite) as vein filling and a notable absence of selvage zone along veins. These are early veins that cut and are cut by A-type veins.

B-type veins are characterized by an assemblage of quartz + pyrite + chalcopyrite + molybdenite. Subhedral prismatic quartz grains locally occur with their long axes perpendicular to vein walls, indicating formation by filling open cavities during late potassic alteration, as temperatures decreased relative to A-type vein formation (Figure 7-7).

Biotite alteration is characterized by the presence of abundant secondary biotite, quartz, magnetite, and minor K-feldspar as selective replacement of primary minerals such as biotite, hornblende, and feldspar in intrusive rocks. Secondary biotite is also disseminated in volcano-sedimentary wall rocks where these rocks have been subject to potassic alteration.



Figure 7-7: Schematic Representation of Veins Found in the Elida Project Porphyry System (Modified from Sillitoe, 2010).

7.3.3.2 Propylitic Alteration

Propylitic alteration observed on the Property produced a mineral assemblage of chlorite-epidotecalcite-pyrite \pm albite. Mafic minerals in intrusive rocks are replaced by chlorite \pm magnetite; plagioclase is altered to epidote-calcite \pm sericite. Propylitic alteration is mainly found in the wall rocks on the Property. Calcareous sediments and andesite volcanic units that were subject to propylitic alteration, contain a notably greater amount of epidote compared to silicic sediments. Quartz \pm pyrite \pm epidote \pm chlorite \pm calcite veins are cut by pyrite veins associated with phyllic alteration, suggesting that the propylitic alteration was probably contemporaneous with potassic alteration and pre-dated phyllic alteration, as has been observed in most porphyry copper systems (Gustafson and Hunt, 1975).

7.3.3.3 Phyllic Alteration

Phyllic alteration mineral assemblages consist of quartz, pyrite, sericite, and calcite represented by D-type veins. Pyrite is ubiquitous as disseminated grains and in veinlets. Sericite forms prominent halos on D-type veins (quartz- sericite-pyrite-chalcopyrite). Phyllic alteration overprints previous potassic and propylitic alteration zones and has affected all the porphyry types, indicating that it mainly post-dates emplacement of all the major porphyry units.

7.3.3.4 Hypogene Copper-Molybdenum Mineralization

The primary exploration target at Elida (Zone 1) is a zone of Cu-Mo mineralization, characterized by intense multi-phase quartz veining containing chalcopyrite and molybdenite. High-grade mineralization (>0.5 %Cu) found in steeply dipping volcano-sedimentary rocks, forms a halo around a low-grade core, consisting of quartz monzodiorite porphyry stocks (QMDP1, QMDP2) hosting molybdenite-bearing quartz veins (A-type) with minor chalcopyrite. The majority of copper is carried in A-type veins that were formed during the waning stages of potassic alteration (Figure 7-8 and Table 7-1), with a significant secondary amount of copper carried in B-type veins (chlorite-epidote-pyrite-chalcopyrite).



Figure 7-8: Chalcopyrite-Molybdenite Mineralization in A-Type Quartz Vein overprinted by a Chalcopyrite-only vein (DDH ELID024, 486.4m). Source: Element 29 (2022)



Figure 7-9: Multi-Phase Quartz-Pyrite-Chalcopyrite Veining (A-Type). Source: Element 29 (2022).

Table 7-1: Descriptions of Vein Types Found in the Elida Porphyry System and QuantitativeRepresentation of Total Percent Cu and Mo in the Porphyry System Carried in Each Vein Type.Source: Element 29 (2022).

	Voin Type	Voin minoralogy	% total Cu-Mo by vein type		Description
	veni iype	vennmenalogy	Cu	Мо	Description
>	EHT	ser <u>+</u> bt <u>+</u> py <u>+</u> cpy			Halos of alteration, cm scale widths
earl	Early Sulfide	ру + сру			Sulfides, rare qtz. No selvage zone.
-	А	qtz + Mo <u>+</u> cpy <u>+</u> py <u>+</u> anh			Granular - anhedral qtz in discontinuous veins
a)	В	qtz + Mo <u>+</u> cpy <u>+</u> py			Subhuedral prismatic quartz, prominent suture
♦ late	D	qtz + cpy + py + ser			Qtz-pyrite, sericite selvage

Chalcopyrite is the principal copper sulfide mineral found in both sedimentary and intrusive host rocks. Molybdenite is the only Mo sulfide identified.

Early and late porphyry dikes carrying low Cu-Mo grades are volumetrically minor through the Elida target, so do not present significant dilution of the mineralized zone.

7.3.3.5 Supergene/Oxide Copper Mineralization

Supergene enrichment of copper in Zone 1 is found in narrow, sub-vertical structures containing secondary copper minerals and minor ferrimolybdite extending more than 200 metres below the current surface. These structures cut through zones of sulfide minerals (pyrite, chalcopyrite, molybdenite) found within a metre of the surface, suggesting that copper was leached by descending acidic solutions created from oxidizing pyrite in the phyllic alteration zone. A horizontal leached cap in Zone 2 perched at an elevation approximately 400 metres higher than Zone 1, contains abundant quartz veinlets overprinted by strong phyllic alteration and associated D-type veins (late-stage, Cu-bearing). Weathering textures and oxide mineralogy indicate significant sulfide was present before weathering. A hematite-bearing leached cap is exposed at the base of this leached zone approximately 200 metres below the highest leached outcrops.



7.3.4 Other Exploration Targets

Four additional porphyry exploration targets have been identified by geochemistry and geophysical surveys located on the margins of the Elida Porphyry within an extensive sericite-pyrite alteration zone (Figure 7-10).

As described above, Zone 2 is a partially covered zone of leached capping, coinciding with relatively intense sericite-pyrite alteration located immediately northeast of the current drill zone, Zone 1. Results from outcrop rock sampling give anomalous Cu and background Mo values in a linear outcrop exposure of quartz monzodiorite porphyry (QMDP1). Modelling of oxide zones suggests that if a horizontal zone of supergene enrichment of copper exists in Zone 2, it will be found at the base of the hematite-bearing leached zone.

Zone 3 is the continuation of the Zone 2 linear outcrop of porphyry (QMDP1) extended south along a ridge due east of Zone 1. Lundin drilled hole ELID006 toward this target area from Zone 1 and intersected a long run (>150 m) of anomalous Cu mineralization from surface, although this hole did not reach the area delimited as Zone 3.

In Zone 4, a late quartz monzonite porphyry stock (QMDP2) is exposed in steep drainages southwest of Zone 1 and on the eastern flank of the local segment of the Coastal Batholith. Intrusive crosscutting relationships established from drill core demonstrate QMDP2 intruded late in the sequence of hydrothermal events, generating A-type veins carrying lower grades of Cu mineralization than earlier porphyry intrusions. Copper mineralization was found to be as oxides that precipitated on fractures and vein surfaces in the porphyry stock. The occurrence of brochantite in outcrop suggests that supergene fluids may have migrated upward in an oxygenated hydrologic gradient.

Zone 5 is based on a chargeability anomaly from the Lundin geophysical surveys. No geochemical data has been collected from this area; this area remains untested by drilling.





Figure 7-10: Locations of the Five Elida Exploration Target Zones in Relation to Alteration and IP Chargeability Anomalies. Source: Element 29 (2022).

8 DEPOSIT TYPE

8.1 Porphyry copper-(molybdenum)

Porphyry copper deposits are defined by the following characteristics and conditions (Berger et al, 2008; Sillitoe, 2010):

- Large volumes of hydrothermally altered rock (greater than 100 million tonnes) centered on porphyritic-textured intrusions with felsic to intermediate composition.
- Cu- and Mo-bearing sulfide minerals, primarily chalcopyrite and molybdenite, localized in fracture-controlled stockwork veinlets and as disseminated grains in the adjacent altered rock matrix.
- Alteration and ore mineralization at 1 4 km depth below the paleosurface, genetically related to magma reservoirs emplaced into the shallow crust (6 to 8+ km), predominantly intermediate to silicic composition in magmatic arcs above subduction zones.
- Intrusive rock complexes emplaced immediately before porphyry deposit formation.
- Mineral deposits are predominantly in the form of vertical cylindrical stocks and/or complexes of dikes.
- Zones of phyllic-argillic and marginal propylitic alteration overlap or surround a potassic alteration assemblage.
- Copper may also be introduced during overprinting phyllic-argillic alteration events.

Copper mineralization found on the Property is best described as a calc-alkaline porphyry copper deposit as summarized below from Gustafson and Hunt (1975), Titley (1982) and Sillitoe (2010).

Porphyry copper deposits have been divided into three subclasses: 1) copper, 2) copper-gold-molybdenum, and 3) copper-molybdenum based on the deposit's gold to molybdenum ratio (Cox and Singer, 1988). Porphyry copper-gold-molybdenum deposits are considered as those having a Au:Mo ratio greater than 3 but less than 30.

A schematic representation of a porphyry copper deposit and its corresponding alteration and mineralogy is presented in Figure 8-1.

The porphyry Cu-Mo sub-model is further described since the mineralization on the Property contains anomalous values of Mo.



Figure 8-1: Schematic representation of (A) porphyry copper alteration zones and, (B) corresponding mineralogy.

General Description:

(Cu-Mo) Stockwork veinlets of quartz, chalcopyrite, and molybdenite in or near a porphyritic intrusion. Ratio of Au (in ppm) to Mo (in percent) less than 3.

Rock Types:

(Cu-Mo) Tonalite to monzogranite stocks and breccia pipes intrusive into batholithic, volcanic, or sedimentary rocks.

Rock Textures:

Intrusive rocks are porphyritic with fine- to medium-grained aplitic groundmass.

Age Range:

Cretaceous to Quaternary.

Depositional Environment:

(Cu-Mo) High-level intrusive porphyry contemporaneous with abundant dikes, faults, and breccia pipes. Cupolas of batholiths.



Tectonic Setting(s):

(Cu-Mo) Numerous faults in subduction-related volcanic plutonic arcs. Mainly along continental margins but also in oceanic convergent plate boundaries.

Mineralogy:

(Cu-Mo) Chalcopyrite + pyrite + molybdenite. Peripheral vein or replacement deposits with chalcopyrite + sphalerite + galena ± gold. Outermost zone may have veins of Cu-Ag-Sb-sulfides, barite, and gold.

Texture/Structure:

Veinlets and disseminations or massive replacement of favorable country rocks.

Alteration:

(Cu-Mo) Potassic alteration (quartz + K-feldspar + biotite (chlorite) \pm anhydrite) grading outward to propylitic. Late phyllic alteration (white mica + clay) may overprint entire deposit or primarily as capping or outer zone. High-alumina alteration assemblages may be present in upper levels of the system.

Geochemical Signature:

(Cu-Mo) Cu + Mo + Ag \pm W + B + Sr center; Pb, Zn, Au, As, Sb, Se, Te, Mn, Co, Ba, and Rb in outer zone. Locally Bi and Sn form distal anomalies. High S in all zones. Ratio of Au (ppm): Mo (percent) is less than 3. Magnetic low.

Porphyry Copper Ore Controls:

Hypogene environment: Veinlets and fractures of quartz, sulfides, K-feldspar magnetite, biotite, or chlorite are closely spaced. Ore zone has a bell shape centered on the volcanic-intrusive center. Highest grade ore is commonly at the level at which the stock divides into branches. Country rocks favorable for mineralization are calcareous sediments, diabase, tonalite, or diorite.

Supergene environment:

In the oxide zone above the water table primary sulfides are oxidized to carbonates, oxides, and sulfates (common copper minerals: malachite-azurite, cuprite, chalcanthite). In a reducing environment at the water table, secondary copper sulfides (chalcocite, covellite, and native copper) may form an enriched supergene blanket below the oxide and leached zones.

Weathering:

Intense leaching of surface; wide areas of iron oxide stain. Fractures coated with copper silicates and carbonates, hematitic limonite. Residual soils may contain anomalous amounts of rutile.

Associated Deposit Type - Skarn:

Skarns are most often formed at the contact zone between intrusions of felsic stocks and carbonate sedimentary rocks such as limestone and dolostone. Hot magmatic fluids carrying Au-Cu in solution and rich in silica, iron, aluminum, and magnesium dissolve calcium-rich carbonate rocks through the process of metasomatism forming skarn deposits. When formed in sediments near the contact with intrusive rock the resulting alteration is termed an 'exoskarn'. Where mineralized with copper and gold, the exoskarn may be referred to as a 'proximal Cu-Au skarn deposit' to differentiate it from distal Au/Zn+Pb skarns developed well away from the intrusive body.



9 EXPLORATION

Element 29's exploration program on the Elida project to date has consisted solely of a drill campaign (described in the following section) following on Lundin's 18-hole drill program in 2015 and previous mapping and geochemical sampling completed by Globetrotters and Lundin.



10 DRILLING

10.1 2014-2015 Drilling Campaign

From 2014 to 2015, Lundin Mining Peru SAC ("Lundin") undertook a 18-hole drilling campaign in the Target 1 area of the Elida deposit (Figure 10-1). A total of 9,888.9m of drilling was completed during this drilling campaign. Details of each drill hole is shown in Table 10-1. All holes intersected Cu-Mo mineralization, with six of the holes intersecting significant Cu-Mo mineralization. Hole 15ELID012 returned the best assay results, with 503 m of 0.42% Cu, 0.046% Mo, 3.23 g/t Ag including 265m of 0.52% Cu, 0.049% Mo, 4.1 g/t Ag (see Appendix I). Some mineralized intercepts begin immediately below colluvial cover, demonstrating the mineralized system sub-crops beneath the post-mineral unconsolidated cover sequence.

Hole-ID	WGS84E	WGS84N	Alt m	Depth m	Azimut	Dip	Start Date	Finish Date
14ELID001	260272	8834575	1531	575.7	45	-70	15/10/2014	05/11/2014
14ELID002	259995	8834808	1582	613.9	45	-70	06/11/2014	22/11/2014
14ELID003	259699	8834866	1736	470.6	200	-70	26/11/2014	07/12/2014
14ELID004	260266	8835138	1678	605.3	45	-70	10/12/2014	08/01/2015
15ELID005	260266	8835138	1678	547.8	225	-70	09/01/2015	25/01/2015
15ELID006	260522	8835131	1630	520.8	45	-70	27/01/2015	10/02/2015
15ELID007	260522	8835131	1630	530.0	225	-70	11/02/2015	25/02/2015
15ELID008	260522	8835131	1630	289.9	160	-55	27/02/2015	09/03/2015
15ELID009	260256	8834829	1561	507.3	45	-70	11/03/2015	23/03/2015
15ELID010	260256	8834829	1561	515.0	225	-70	24/03/2015	05/04/2015
15ELID011	259996	8835134	1711	576.6	225	70	09/04/2015	27/04/2015
15ELID012	259996	8835134	1711	558.0	45	-70	29/04/2015	15/05/2015
15ELID013	259703	8835136	1804	475.8	235	-60	18/05/2015	10/06/2015
15ELID014	259996	8835134	1711	650.1	0	-65	13/06/2015	30/06/2015
15ELID015	259967	8835429	1802	639.2	215	-75	05/07/2015	24/07/2015
15ELID016	259967	8835429	1802	602.3	45	-70	25/07/2015	12/08/2015
15ELID017	259967	8835429	1802	600.6	270	-65	14/08/2015	04/09/2015
15ELID018	259713	8835417	1857	583.6	45	-70	06/09/2015	09/09/2015

Table 10-1: Lundin's 2014-2015 Drilling Campaign – Elida Deposit. Source: Element 29 (2022).



Figure 10-1: Lundin's drill hole locations on the Elida project. Source: Element 29 (2022).

10.2 2021 Drilling Campaign

In 2021, Element 29 Resources Inc. ("Element 29") completed the drilling of 7 diamond drill holes for a total of 4,612.7m (Table 10-2). The drill program began on July 30, 2021 and ended on December 6, 2021. The drilling campaign was aimed at drilling the Zone 1 area of the Elida deposit with the main objective of defining a mineral resource.

Hole ID	WGS84_E	WGS84_N	Elev (m)	EOH (m)	Azimuth (degrees)	Dip (degrees)	Drilling started	Drilling completed
ELID019	260,056.00	8,835,184.00	1,690.00	480.00	0	-90	07/30/2021	08/17/2021
ELID020	259,900.00	8,835,350.00	1,759.00	500.00	178.5	-65	08/21/2021	9/10/2021
ELID021	260,150.00	8,835,360.00	1,740.00	770.70	178.5	-78	9/08/2021	10/05/2021
ELID022	260,273.99	8,835,319.75	1,712.76	602.20	178.5	-70	09/14/2021	10/11/2021
ELID023	260,000.00	8,834,960.00	1,613.00	662.40	180	-65	10/07/2021	11/04/2021
ELID024	259,700.00	8,835,200.00	1,794.00	650.20	83	-65	10/12/2021	11/17/2021
ELID025	260,058.00	8,835,187.00	1,690.00	947.20	0	-80	11/06/2021	12/06/2021
		TOTAL PR	OGRAM	4,612.70				

Table 10-2: Element 29's 2021 Drilling Campaign on the Elida project. Source: Element 29 (2022)

The diamond drilling was carried out by the company MDH-PD SAC, under the supervision of geologists Ewald Palpan, Juan Huamán, Jose Valderrama and Jorge Palacios, who were in charge of 2 technicians and personnel from the Aco community.

The drill holes were located with a differential GPS expressed in UTM coordinates using the WGS 1984 zone 18S map datum. Figure 10-2 displays the location of the drill holes in plan view.

A list of significant drill hole intervals for the Lundin and Element 29 holes is provided in Appendix I.



Figure 10-2: Element 29's drill hole locations on the Elida project. Source: Element 29 (2022).

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

11.1 2014-2015 Lundin's Drilling Campaign

Lundin carried out 18 diamond drill holes during the 2014-2015 drilling campaign. They were logged and sampled onsite when completed. Anglo Peruana Service was hired by Lundin to run the core logging process under the supervision from Lundin's geologists. The information was recorded using the software "CORE" that permitted incorporation of drilling data into a database immediately after the holes were completed. A total of 5,612 rock samples, including core samples, were collected and analyzed by Au-AA23 and ME-ICP61 at the ALS-Peru laboratory in Lima, Peru.

A spectral analysis of the samples was also performed, with a total of 5,065 readings completed at the ALS-Peru laboratory using a Terraspec[™] instrument measuring VNIR and SWIR spectra.

Systematic magnetic susceptibility and specific gravity measurements were also taken for every rock core sample.

11.2 2021 Element 29's Drilling Campaign

11.2.1 Transfer of the Core Boxes

A technician and two employees from the Aco community were responsible for the daily transfer of the core boxes from the drill platform to the core shack. At the drill site, the boxes' labels are first verified and then secured with two thick fasteners. A maximum of four core boxes are transported by UTV to the Patavilca river and transferred to a pick-up truck for the final stretch leading to the core shack in Cahua.

11.2.2 Recovery and RQD

At the core shack, a technician uses a measuring tape to determine core recovery. The core recovery was calculated as the ratio of the actual length of core with regards to the corresponding length of drilling. This information was then entered into the core logging software. The average core recovery of the 2021 drilling campaign was 95.98%, as seen in Table 11-1.

Hole ID	From (m)	To (m)	Recovery (%)
ELID019	0.0	480.0	95.22
ELID020	0.0	500.0	96.16
ELID021	0.0	770.7	99.20
ELID022	0.0	602.2	99.48
ELID023	0.0	662.4	90.85
ELID024	0.0	650.2	92.07
ELID025	0.0	947.2	98.91
	95.98		

Table 11-1: Core Recovery – 2021 Drilling Campaign – Elida Deposit. Source: Element 29 (2022).



The RDQ was then measured by a technician. It consists of measuring and adding all core pieces that are greater or equal to 10 cm in length that are only delimited by natural fractures. The RQD data was then entered into the core logging software by the geologist. The average RDQ for the holes of the 2021 drilling campaign was 58.36%, indicating a medium rock quality (rock is slightly weathered). Results per drill hole are presented in Table 11-2.

Hole ID	From (m)	To (m)	RQD (%)
ELID019	0.0	480.0	52.22
ELID020	0.0	500.0	46.53
ELID021	0.0	770.7	67.28
ELID022	0.0	602.2	78.36
ELID023	0.0	662.4	48.06
ELID024	0.0	650.2	38.43
ELID025	0.0	947.2	77.68
	58.36		

Table 11-2: Summary of RQD results from core, Elida project 2021 drilling campaign. Source:Element 29 (2022).

11.2.3 Core Photography

All core was photographed before and after sampling. The core box is placed on an inclined platform along with a sign displaying the information related to each core box (**Figure 11-1**). In this setting, two photographs are taken and then reviewed by the geologist for validation. If the photographs are not of sufficient quality, new photos are taken. Once the photographs are validated, they are uploaded onto the Company server in Lima under the Elida project folder. Examples of core photographs before and after sampling are shown in Figure 11-2 and Figure 11-3.





Figure 11-1: Core photography during the Elida project 2021 drilling campaign. Source: Element 29 (2022).



Figure 11-2: Example of a core photograph taken before sampling. Hole number, box number, and depth in metres are recorded on a standard panel with scale. Source: Element 29 (2022).





Figure 11-3: The same interval shown in Figure 11-2 taken after sampling. Note the 5cm long cylinder of uncut core in the bottom row was preserved for specific gravity measurement. Source: Element 29 (2022).

11.2.4 Core Logging

The project geologist oversaw logging the core in the core shack. All geologic features are directly entered into the MX Deposit[™] software from a computing tablet. The geologic features registered include lithology, alteration, mineralization, veins and structures. From this information, a graphic log was generated by the software.

11.2.5 Core Cutting

Following the logging of the core by the geologist and the generation of a graphic log, the core is marked for sample intervals. The core boxes were then transferred to the core cutting room where an experienced technician and a helper from the Aco community halved the core, under the supervision of the geologist (Figure 11-4). Members of the Aco community were given formal training in core handling and core cutting.





Figure 11-4: Drill core cutting during the Elida 2021 drilling campaign using a rotary diamond blade saw. Source: Element 29 (2022).

11.2.6 Sampling and Control Samples

A total of 2,353 samples, including original, field duplicate, blank and standard samples were sent to the ALS-Peru laboratory in Lima, Peru. A total of 49 batches of samples were sent to the lab for preparation and assaying. Only samples within the hard rock portion of the deposit were sent to the lab for analysis and none of the colluvium material was sampled. Samples were taken on 2 metre intervals within the same lithological unit, with a shorter sample length taken to avoid crossing a lithological contact, down to a minimum length of 0.7m. Half of the sample core was collected in a polyethylene sample bag (12" x 20"). If needed, the cut core was reduced to smaller pieces with a hammer. The samples are identified with 4 sample tags: one inside the sample bag, one placed in the bag enclosure, one in the core box, and a final copy kept as a reference (Figure 11-5).

Control samples such as standards, blanks and field duplicates were inserted in the sample stream with the objective of monitoring and evaluating the precision, accuracy and possible contamination of the preparation and analysis of samples at the ALS lab of Peru. The insertion rate of control samples was of 8% with 93 standards, 47 blanks and 48 filed duplicates.





Figure 11-5: Sample bag tags used for identifying samples at the Elida project. Source: Element 29 (2022).

11.2.7 Sample Sacks

The sample bags were put into large polypropylene sacks. Each sack was first identified on its outside with the sack number, the first and last sample numbers and the number of samples contained in the sack (Figure 11-6). Each sample bag was weighed before being placed in the sack. A maximum of 3 samples were placed in each sack which was closed with a security seal.

SACO
193001-1/9305
TOTAL: 03 Huest

Figure 11-6: Plastic-weave sacks used for shipping samples batches from the Elida project to the laboratory. Source: Element 29 (2022).



11.2.8 Sample Batch

Sample shipments to the ALS-Peru laboratory, consisted of 2 batches of samples made of 100 samples in 32 sample sacks. Once ready for shipping, an email containing instructions on preparation and assaying was sent to the lab with a sample remission form in attachment. This form had a specific code identifying the sample batch. There were 49 sample batches in total for this drilling campaign. Each sample batch was transported in the covered cargo bed of a Company-operated pickup truck, from the core shack located in the village of Cahua, to the ALS-Peru lab in Lima (Figure 11-7). Once the samples were delivered, a delivery sheet and a copy of the sample remission form were signed by the lab and given to the driver.



Figure 11-7: Sample batches loaded for shipment from the Elida project. Source: Element 29 (2022).

11.2.9 Specific Gravity

The determination of the specific gravity ("SG") was carried out with the technique that uses Archimedes' principle, where the difference between the dry weight in air and the weight submerged in water is proportional to the volume. For the SG measurements, representative samples of the intact core (without fractures or empty spaces) of 5 cm length were taken every 6 metres. Samples containing void spaces were coated in paraffin wax before weighing. These samples were cut at 90° from the central core axis and were not included for sampling. A total of 839 samples were taken for SG measurements. The average SG from the 2021 drilling campaign is 2.81. SG averages per drill hole are shown in Table 11-3.



Table 11-3: Specific gravity averages per drill hole from the Elida project 2021 drilling campaign.Source: Element 29 (2022).

Hole ID	From (m)	To (m)	Number of Samples	Average SG
ELID019	0.0	480.0	222	2.79
ELID020	0.0	500.0	64	2.80
ELID021	0.0	770.7	124	2.84
ELID022	0.0	602.2	95	2.83
ELID023	0.0	662.4	99	2.78
ELID024	0.0	650.2	86	2.81
ELID025	0.0	947.2	149	2.81
	2.81			

11.2.10 Sample Preparation and Assaying

The samples were prepared and analyzed at the ALS-Peru laboratory, located in the Constitutional Province of Callao, Department of Lima, Peru. The ALS-Peru laboratory has an ISO 17025 2017 accreditation.

The samples were prepared according to the following methodology:

- The sample with the bar code is registered in the system then dried and crushed to 70%
 <2mm. Approximately 250 g of the sample is pulverized to 85% <75 µm (PREP-31A).
- Raw samples with bar codes are received and logged into the system. The bar code labeling is reviewed (LOG-21d).
- The sample is split with a riffle splitter (SPL-21d).
- 250 g of the sample split is pulverized at 85% < 75 μm (PUL-31d).
- Pulps with bar code are registered in the system and reviewed. Approximately 3% of the samples are checked for the granulometry size (LOG-23).
- The pulps are split for assaying (SPL-34).
- The crusher is cleaned with barren material after each sample. It is recommended after mineralized samples (WSH-21).
- The pulverizer is cleaned with barren material after each sample. It is recommended after mineralized samples (WSH-22).

The samples were assayed with the ME-ICP41 method consisting of an aqua regia digestion (partial) finalized by ICP-AES. Details are presented in Table 11-4 below.

 Table 11-4: Multi-Element Analysis with Aqua Regia digest and ICP-AES - 2021 Drilling Campaign –

 Elida Deposit. Source: ALS-Global (2022).

Element	Range (ppm)	Element	Range (ppm)	Element	Range (ppm)
Ag	0.2-100	Fe	0.01-50%	S	0.01-10%
AI	0.01-25%	Ga	10-10,000	Sb	2-10,000
As	2-10,000	Hg	1-10,000	Sc	1-10,000
В	10-10,000	К	0.01-10%	Sr	1-10,000
Ba	10-10,000	La	10-10,000	Th	20-10,000
Be	0.5-1,000	Mg	0.01-25%	Ti	0.01-10%
Bi	2-10,000	Mn	5-50,000	TI	10-10,000
Ca	0.01-25%	Мо	1-10,000	U	10-10,000
Cd	0.5-1,000	Na	0.01-10%	V	1-10,000
Со	1-10,000	Ni	1-10,000	W	10-10,000
Cr	1-10,000	Р	10-10,000	Zn	2-10,000
Cu	1-10,000	Pb	2-10,000		
Sampling Code	ME-ICP41	Unit Price	\$6.30 USD		

Note: Although some base metals can dissolve in most geological matrices, the reported aqua regia digestion should be considered as representative only of the leachable portion of the particular analysis.

For samples with Cu, Ag and Mo assay results greater than the superior detection limit, the assaying methodology ME-OG46 was performed (Table 11-5). This method consists of an aqua regia analysis with an ICP-AES finish.

Table 11-5: A	Nalysis	with aqua re	gia digest and	ICP-AES for	r assays gr	eater thar	the superior
detection lim	it. Elida p	project 2021	drilling campa	ign. Source:	ALS-Globa	l (2022).	

Element	Range (%)	Code	Unit Price (USD)
Ag	1-1500 ppm	Ag-OG46	1.35
Cu	0.001-50	Cu-OG46	1.35
Мо	0.001-10	Mo-OG46	1.35
Pb	0.001-20	Pb-OG46	1.35
Zn	0.001-30	Zn-OG46	1.35

11.2.11 Aqua Regia Digestion Assays Versus Four-Acid Digestion Assays

In order to compare aqua regia and four-acid digestion assays, the re-analysis of 100 pulps was carried out with the ME-ICP61 method, consisting of a four-acid digestion (total digestion) with an

ICP-AES finish. Results from this comparison are presented in Table 11-6 and shown in Figure 11-8 for Cu, Figure 11-10 for Mo and Figure 11-10 for Ag. It should be noted that neither of these methods are total digestion, with the four-acid digestion method digesting slightly more silicates than the aqua regia method

Table 11-6: Statistical comparison of Aqua Regia digestion assays and four-acid digestion assays
from the Elida project 2021 drilling campaign. Source: Element 29 (2022).

	Aqua	4-Acid		Student-T Test			
Element	Regia Average (ppm)	Average (ppm)	Difference (%)	P(T <t)< th=""><th>Level of Significance</th><th>Result</th></t)<>	Level of Significance	Result	
Cu	5,915.4	5,798.2	2.0	0.41	0.05	Not statistically different (with 95% confidence)	
Мо	411.5	547.8	24.9	0.002	0.05	Statistically different (with 95% confidence)	
Ag	5.24	5.04	3.9	0.34	0.05	Not statistically different (with 95% confidence)	



Figure 11-8: Cu assay comparison of aqua regia and four-acid digestions from the Elida project **2021 drilling campaign.** Source: Element 29 (2022).





Figure 11-9: Mo assay comparison of aqua regia and four-acid digestions from the Elida project 2021 drilling campaign. Source: Element 29 (2022).



Figure 11-10: Ag assay comparison of aqua regia and four-acid digestions from the Elida project2021 drilling campaign. Source: Element 29 (2022).



From the results of this comparison, it was noted that the aqua regia grades for Cu and Ag were very similar to the corresponding grades from the four-acid digestion, with no significant statistical differences. However, the molybdenum aqua regia assays were found to be lower than the four-acid digestion assays.

Similar comparisons were undertaken for As, Sb and S with no significant statistical differences observed.

11.2.12 Total Sulfur

A total of 30 pulps were re-analyzed with the S-IR08 LECO method to determine the amount of total sulfur present in the deposit. The sample selection criteria for this analysis was to select the sulphur assays from the ME-ICP41 method with low, medium, high and above the upper detection limit grades. The LECO results for total sulphur were then compared to the copper assays in Figure 11-11.



Figure 11-11: Total sulfur assays by LECO compared with Cu assays from the Elida project 2021 drilling campaign. Source: Element 29 (2020)

11.2.13 Rhenium Analysis

The analysis for rhenium (Re) with the ME-MS62 method was also carried out to determine if molybdenum (Mo) is associated with rhenium. A total of 30 pulps were sent to the ALS lab for reassaying with a four-acid digestion method and an ICP-MS finish (ME-MS62) for the determination of rhenium. It was observed that rhenium is an element mainly associated with molybdenum sulfide (molybdenite), where rhenium replaces molybdenum.



11.2.14 Bivariate Statistics

Bivariate comparative statistics were carried out on the various elements assayed for the Elida project. It was observed that Cu is highly correlated to Ag and Zn is highly correlated to Cd. Good correlations were also observed between Sb and As, and Co and Ni. Moderate correlations were found between Cu and Co, Cu and Ni, Cu and Cd, Ag and Zn, Ag and W, Ag and Co, Ag and Cd, Mo and Zn, Mo and W, Ni and Cr, Zn and W, and W and Cd.

Correlation coefficients were ranked as follows: high: > 0.9, good: 0.75 - 0.9, moderate: 0.50 - 0.75.



12 DATA VERIFICATION

12.1 Element 29's 2021 Drilling Campaign

The 2021 drilling campaign by Element 29 consisted of 7 diamond drill holes with a total of 4,612.7 metres of drilling and 2,353 assays, including original and control assays. The samples were prepared and assayed at the ALS laboratory in Lima, Peru. Four certified reference materials (standards) from CDN Resource Laboratories Ltd. of Canada for low, medium and high copper grades were utilized, as well as blanks from quartz material certified by ActLabs of Lima for this campaign.

12.1.1 Control Samples

The control samples consisted of field duplicates, standards and blank samples. The purpose of inserting standards and blanks in the sample stream was to monitor and evaluate the accuracy of the assays as well as any possible contamination during the sample preparation and analysis process. The purpose of inserting field duplicates in the sample stream was to monitor and evaluate the precision of the assays and measure sample variability. A total of approximately 8% of the samples were control samples, amounting to 188 control samples. Additional information regarding the control samples is presented in Table 12-1.

Control Sample	Code	Sample Type	Number of Samples	Percentage of Samples	
Field Duplicate	FieldDup	Field duplicate	48 2.		
Standard	CDN-CM-32	Low Cu grade standard	25	4.0%	
	CDN-CM-33	Medium Cu grade standard	23		
	CDN-CM-34	High Cu grade standard	22		
	CDN-CM-45	High Cu grade standard	23		
Coarse Blank	CB-Actlabs-01	Coarse blank	47	2.0%	
Total			188	8.0%	

Table 12-1: Control samples summary from the Elida project 2021 drilling campaign. Source: Element 29 (2022). Element 20 (2022). Element 20 (2022).

12.1.1.1 Field Duplicate Samples

Out of the total of 2,353 samples from the 2021 drilling campaign, 48 field duplicate samples were inserted into the sample stream at a rate of 2.0%. The field duplicates were prepared by taking a $\frac{1}{4}$ core sample with another $\frac{1}{4}$ core sample as the original sample.

12.1.1.2 Certified Reference Materials (Standards) Samples

Out of the total of 2,353 samples from the 2021 drilling campaign, 93 standard samples were inserted into the sample stream at a rate of 4.0%. The standards were inserted at regular intervals to provide a uniform distribution throughout the regular sample stream. Four different certified

standards prepared at CDN Resource Laboratories Ltd. of Canada were utilized to evaluate copper, molybdenum, and silver assays. Additional information regarding the four standards is shown in Table 12-2.

 Table 12-2: Certified reference materials (standards) used in the Elida project 2021 drilling campaign. Source: Element 29 (2022).

Standard		Copper %	Molybdenum %	Silver g/t
CDN-CM-32	Low Cu grade	0.234	0.023	1.4
CDN-CM-33	Medium Cu grade	0.346	0.025	2.3
CDN-CM-34	High Cu grade	0.578	0.030	3.7
CDN-CM-45	High Cu grade	0.747	-	73.0

12.1.1.3 Blank Samples

Out of the total of 2,353 samples from the 2021 drilling campaign, 47 blank samples were inserted into the sample stream at a rate of 2.0%. The blank samples were preferably inserted after a sample that was visually assessed as of higher grade to assess any possible contamination. The blanks were prepared by the Actlabs laboratory of Peru with values as stated in Table 12-3.

 Table 12-3: Reference blanks used in the Elida project 2021 drilling campaign.
 Source: Element 29 (2022).

Element	Average Grade
Copper	< 0.5 ppm
Molybdenum	< 1.0 ppm
Silver	< 0.2 ppm

12.1.2 Quality Assurance / Quality Control Results

12.1.2.1 Precision

The assay precision was assessed by comparing the field duplicates to the original assays. Results from the comparisons for copper, molybdenum and silver are shown in Table 12-4 and in Figure 12-1, Figure 12-2, and Figure 12-3 respectively.



 Table 12-4: Comparison of field duplicates from the Elida project 2021 Drilling Campaign.
 Source:

 Element 29 (2022).
 Element 20 (2022).
 Element 20 (2022).

Element	Number of Samples	Number of Duplicates with Larger Differences	Rate
Copper	48	3	6.3%
Molybdenum	48	20	41.7%
Silver	48	6	12.5%

Results from this comparison are considered acceptable if the rate of error is lesser or equal to 10%. As seen in Table 12-4 and Figure 12-1, Figure 12-2, and Figure 12-3, the copper duplicates display good results while the silver duplicates are close to the acceptable threshold. The molybdenum duplicates, however, display a greater quantity of duplicates with larger differences. This higher rate is most likely due to the style of molybdenum mineralization being associated with quartz veinlets.



Figure 12-1: Dispersion of field duplicates for copper, Elida deposit. Source: Element 29 (2022).



Figure 12-2: Dispersion of field duplicates for molybdenum, Elida deposit. Source: Element 29 (2022).



Figure 12-3: Dispersion of field duplicates for silver, Elida deposit. Source: Element 29 (2022).

12.1.2.2 Contamination

The possibility of assay contamination was assessed with the insertion of 47 blank samples at a rate of 2% of all samples. Results of this analysis are presented in Table 12-5 and Figure 12-4, Figure 12-5, and Figure 12-6, for copper, molybdenum and silver, respectively.

Table 12-5: Comparison of blanks from the Elida project 2021 drillir	ng campaign. Source: Element 29
(2022).	

Element	Number of Samples	Number of Blanks with Larger Differences	Rate
Copper	47	8	17%
Molybdenum	47	0	0%
Silver	47	0	0%

The threshold of acceptability of the blank assays is determined by the lower detection limit, multiplied by 10. A failing rate of lesser or equal to 2% is considered acceptable.




Figure 12-4:Dispersion of blanks for copper, Elida project. Source: Element 29 (2022).



Figure 12-5:Dispersion of blanks for molybdenum, Elida project. Source: Element 29 (2022).



Figure 12-6:Dispersion of blanks for silver, Elida project. Source: Element 29 (2022).

From Table 12 3 and Figure 12-4 to Figure 12-6, it can be observed from the analysis of the blank samples that there is no contamination in the preparation of Mo and Ag assays. For copper, a few blank assays reported higher values than the threshold of acceptance. However, these values are still quite low and not considered significant.

12.1.2.3 Accuracy

The accuracy of the assays was assessed with the insertion of 93 standard samples into the sample stream, at a rate of 4% of all samples. Four types of standards from CDN Resource Laboratories Ltd. of Canada were obtained for a copper and molybdenum porphyry deposit type. The standards provided in 30g packets, were selected to reflect lower (CDN-CM-32), medium (CDN-CM-33) and higher copper grades (CDN-CM-34 and CDN-CM-45). Refer to Table 12-2 for accepted values of the elements in each certified standard.

The results from the accuracy assessment are considered as "passed" if they are within 2 standard deviations, as "warning" if they are within 3 standard deviations, and as "failed" if they are greater than 3 standard deviations. In the latter case, the results from the laboratory are rejected and 5 previous and 5 subsequent samples are sent for re-analysis at the lab. In addition, the average of the assayed standards is compared to the standard value to examine any possible bias. For such, if the average of the standard assays is within \pm 5% the results are considered "good", within \pm 5% to \pm 10% are considered "acceptable", and greater than \pm 10% are considered "failed".



12.1.2.3.1 Standard CDN-CM-32 (Low Cu Grade)

Results for the standard CDN-CM-32 are presented in Table 12-6 and in Figure 12-7 and Figure 12-8 for copper and molybdenum, respectively.

 Table 12-6: Comparison of standard CDN-CM-32, Elida project 2021 Drilling Campaign.
 Source:

 Element 29 (2022).
 Element 20 (2022).
 Element 20 (2022).

Element	Number of Samples	Number of Assays > 3 SD	Bias	
Copper %	25	0	1.2%	
Molybdenum %	25	0	-10.9%	



Figure 12-7: Standard CDN-CM-32 for copper, Elida project. Source: Element 29 (2022).





Figure 12-8:Standard CDN-CM-32 for molybdenum, Elida project. Source: Element 29 (2022).

From Table 12 6 and Figure 12-7 and Figure 12-8, it can be observed that no assays of the standard were greater than 3 standard deviations. Two assays were between 2 and 3 standard deviations for copper and only one assay was within these limits for molybdenum. In total, the average of the standard assays was 1.2% higher than the standard value for copper and 10.9% lower for the molybdenum assays.

12.1.2.3.2 Standard CDN-CM-33 (Medium Cu Grade)

Results for the standard CDN-CM-33 are presented in Table 12-7 and in Figure 12-9 and Figure 12-10 for copper and molybdenum, respectively.

Table 12-7: Comparison of Standard CDN-CM-33	Elida 2021 Drilling Campaign. Source: Element 29
(2022).	

Element	Number of Samples	Number of Assays > 3 SD	Bias	
Copper %	23	0	0.1%	
Molybdenum %	23	0	-9.6%	





Figure 12-9: Standard CDN-CM-33 for copper, Elida Project. Source: Element 29 (2022).



Figure 12-10: Standard CDN-CM-33 for molybdenum, Elida Project. Source: Element 29 (2022).

From Table 12-7 and Figure 12-9 and Figure 12-10, it can be observed that no assays of the standard were greater than 3 standard deviations. Two assays were between 2 and 3 standard deviations for copper and only one assay was within these limits for molybdenum. In total, the average of the standard assays was 1.2% higher than the standard value for copper and 10.9% lower for the molybdenum assays.

12.1.2.3.3 Standard CDN-CM-34 (High Cu Grade)

Results for the standard CDN-CM-34 are presented in Table 12-8 and in Figure 12-11 and Figure 12-12 for copper and molybdenum, respectively.

 Table 12-8: Comparison of standard CDN-CM-34 used in the Elida project 2021 drilling campaign.

 Source: Element 29 (2022).

Element	Number of Samples	Number of Assays > 3 SD	Bias	
Copper %	22	0	-1.4%	
Molybdenum %	22	0	-13.5%	



Figure 12-11:Standard CDN-CM-34 for copper, Elida project. Source: Element 29 (2022).



Figure 12-12:Standard CDN-CM-34 for molybdenum, Elida project. Source: Element 29 (2022).

From Table 12-8 and Figure 12-11 and **Figure 12-12**, it can be observed that no assays of the standard were greater than 3 standard deviations. One assay for copper and one assay for molybdenum was found between 2 and 3 standard deviations. In total, the average of the standard assays was 1.2% lower than the standard value for copper and 10.9% lower for the molybdenum assays.

12.1.2.3.4 Standard CDN-CM-45 (High Cu Grade)

Results for the standard CDN-CM-45 are presented in Table 12-9 and in **Figure 12-13** and Figure 12-14 for copper and silver, respectively.

 Table 12-9: Comparison of standard CDN-CM-45 from the Element 29 Elida project 2021 Drilling

 Campaign.
 Source: Element 29 (2022).

Element	Number of Samples	Number of Assays > 3 SD	Bias	
Copper %	23	0	1.8%	
Silver ppm	23	0	-0.4%	



Figure 12-13: Standard CDN-CM-45 for copper, Elida Project. Source: Element 29 (2022).



Figure 12-14: Standard CDN-CM-45 for silver, Elida Project. Source: Element 29 (2022).



From Table 12-9 and **Figure 12-13** and Figure 12-14, it can be observed that no assays of the standard were greater than 3 standard deviations. One assay for copper and one assay for silver was found between 2 and 3 standard deviations. In total, the average of the standard assays was 1.8% higher than the standard value for copper and 0.4% lower for the silver assays.

12.1.3 Conclusions

The response time of the ALS-Peru laboratory was on average 13 days for each batch of samples, which is considered acceptable.

The results reported by the ALS-Peru laboratory were within the acceptable margins of precision, accuracy, and contamination. The reproducibility of the assays from the field duplicates were also within acceptable ranges. Overall, the QAQC studies have indicated good results and therefore it is believed that the assay data is unbiased and of sufficient quality to be used for the estimation of the mineral resources.

12.1.4 Recommendations

As part of the quality control, it is recommended to send 2% of the samples (pulps and rejects) to a second external laboratory as a validation of the assay results reported by the ALS-Peru laboratory.

12.2 Drill Hole Database

The drill hole database was independently verified by Ginto. In this exercise, all of the assay certificates were used to ascertain the validity of the copper, molybdenum and silver grades found in digital format in the drill hole database. The collar information such as the X, Y, Z coordinates and the down hole azimuths and dips were also verified against the drill logs. From this review, no discrepancies were observed and therefore the drill hole database was considered adequately suited for the estimation of the mineral resources.

12.3 Site Visit

Co-author of this report, Mr. Park, inspected the Elida Project on May 12 - 14, 2022 accompanied by Dr. Paul Johnston, Vice-President of Exploration for Element 29 Resources. On the first day of the visit, Dr. Johnston led the author on a walking tour of the primary exploration target area (Zone 1) where the Element 29 drill program had been recently completed. No drill rigs nor related equipment were present on the property at the time of the visit other than remnants of the driller's camp. Select drillhole collars and platforms were visited and photographed. Porphyry-style veining and copper oxide mineralization were observed in road cuts and in scarce outcrops.



Figure 12-15: Typical drill hole collar monument from Element 29's 2021 drilling campaign. Source: S. Park (2022).

The second day of the visit was dedicated to reviewing core-logging and processing procedures and examining drill core at the core shack facility that Element 29 maintains on the grounds of a small, inactive hotel in the town of Cahua. This hotel also served as the field accommodations for the Element 29 technical staff.

During the recent drill program, drill core (HQ and NQ) was cut in half, sampled, logged, and was stored at the Cahua core shack in high-strength plastic core boxes. Each box is clearly marked with hole number and depth interval on the box lid and marked with hole number and sample interval on the inside rails. All boxes are stacked in numerical order by drill hole and interval depth. Core was sampled on 2-metre intervals unless a shorter interval was recommended by the logging geologist due to sharp contacts between strongly and weakly mineralized core (e.g., a drill intercept that includes a narrow, mineralized vein, lithological contacts). Core samples were sent on a regular basis by ground transportation to ALS-Peru laboratory in Lima for sample prep and analysis during the course of the drill program.



Figure 12-16: Core storage area at the Element 29 core shack facility, Elida project. Source: S. Park (2022)



Figure 12-17: Core logging tables at the Elida project. Source: S. Park (2022).



Element 29 carried out industry standard QA/QC protocol regarding drill core sample submissions for analysis. Control samples consisting of blanks, standard values (Ag, Cu) and duplicates were included in each sample batch at a rate of one control sample for each 20 samples. Standard value control samples for copper represented low values (< 0.38 %Cu), medium values (~0.50 %Cu) and high values (>0.70 %Cu).

Mr. Park selected 11 samples of variably mineralized drill core to serve as replicate verification samples: 9 samples from Element 29 drill core and 2 samples from Lundin drill core. Half-cores were taken from the core boxes representing 1.0-metre intervals and cut into quarter core pieces at Element 29's office and storage facility located in the outskirts of Lima where drill core from Lundin's drill program is stored. Two additional verification samples were taken from Lundin drill core. These replicate verification samples were sent for analysis to Certimin SA laboratory in Lima. Results from the verification samples. All sample intervals for the original samples were 2.0 metres in length.

SampleID	DDH ID	Operator	From	То	Width(m)	E29_Cu %	Verf_Cu %	% Diff	Lith
E02-182	14ELID002	Lundin	182.0	183.0	1.0	0.48	0.44	-8.3	Seds
E15-636	15ELID015	Lundin	637.6	639.2	1.6	0.58	0.57	-1.7	Seds
E19-214	ELID019	E29	214.0	215.0	1.0	0.89	0.55	-38.2	Seds
E19-422	ELID019	E29	422.0	423.0	1.0	0.40	0.57	42.5	Seds
E19-436	ELID019	E29	436.6	437.6	1.0	0.17	0.12	-29.4	Qmp
E20-328	ELID020	E29	328.0	329.0	1.0	0.69	0.87	26.1	Sed/skarn
E20-446	ELID020	E29	446.1	447.1	1.0	0.90	1.21	34.4	Seds
E21-256	ELID021	E29	256.0	257.0	1.0	0.54	0.39	-27.8	Seds
E22-207	ELID022	E29	207.4	208.4	1.0	0.98	0.55	-43.9	Seds
E22-439	ELID022	E29	439.5	440.5	1.0	0.48	0.41	-14.6	Seds
E23-128	ELID023	E29	128.9	129.9	1.0	0.43	0.29	-32.6	Seds

Table 12-10: Comparison of Cu values from original Elida project samples and verification replicate samples from Element 29 and Lundin Drilling campaigns. Source: Element 29 (2022)



Figure 12-18: Scatterplot of Cu values from replicate samples and corresponding values reported by Element 29. Source Element 29 (2022).

Review of the drill core demonstrated to the author the principal rock types, vein types, styles of alteration, and mineralization present on the property and provided the basis for the descriptions of mineralization and lithology presented in Section 7.

Element 29 was entirely cooperative in supplying the authors with all information and data requested for the verification process. Copies of laboratory certificates (in .pdf format) together with the corresponding Microsoft Excel® spreadsheets were provided by Element 29. The assay values for copper on the certificates were compared to the corresponding values on the spreadsheets as well as against the values contained in the Elida Project database. No discrepancies were found.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 Summary

In 2021, Element 29 prepared a copper-molybdenum composite sample for mineralogical assessment. The composite, labeled as 4686-01, was received on August 6, 2021 at the McClelland laboratory in Sparks, Nevada, USA. This copper-molybdenum ore sample represents the feeds of the metallurgical tests carried out with the help of Bureau Veritas Commodities Canada in Richmond, BC.

The principal objective of this study was to identify and quantify the mineral composition and fragmentation characteristics of the provided copper-molybdenum ore sample on a size-by-size basis. The copper deportment by the copper bearing minerals, copper sulfide liberations and associations with other sulfide and non-sulfide minerals were of particular interest. Consequently, the potential copper flotation performances when processing this copper-moly ore can be anticipated.

Due to the preliminary nature of the metallurgical tests, it was concluded that more advanced metallurgical test work is required to adequately assess the mineral composition, the fragmentation characteristics, and the copper flotation performance.



14 MINERAL RESOURCE ESTIMATES

This study represents the initial mineral resource estimate of the Elida deposit, located in the province of Ocros in central western Peru. There is a total of 25 drill holes on the property delineating this porphyry copper deposit.

The geologic interpretation of the copper mineralization at Elida was developed by Element 29 Resources Inc. ("Element 29") geology team in collaboration with Ginto Consulting Inc. ("Ginto"). The estimation of the mineral resources was carried out by Mr. Marc Jutras, Principal, Mineral Resources, at Ginto. Mr. Jutras is an independent Qualified Person as defined under National Instrument 43-101.

The mineral resource estimations were primarily undertaken with the Maptek[™] Vulcan[™] software and utilities internally developed in GSLIB-type format. The following sections outline the procedures undertaken to calculate the mineral resources of the Elida deposit.

14.1 Drill Hole Database

The drill hole database for the Elida deposit was provided by Element 29's geology team on March 14, 2022. The drill data is comprised of 25 holes, with 18 holes drilled by Lundin in 2014 and 2015, and 7 holes drilled by Element 29 in 2021. Details of these drilling campaigns are presented in Table 14-1:. All holes are diamond drill holes were collared in HQ size with deeper holes reduced to NQ size at depths of 400-700 metres. There are 6,908 assays in the database with copper (Cu) in %, molybdenum (Mo) in % and silver (Ag) in g/t being the elements of interest. All missing sample intervals were set to 0.0 values in the database. Statistics from the resulting drill hole database are presented in Table 14-2.

Drill hole locations are shown in Figure 14-1 in plan view and in Figure 14-2 in a perspective view with the topography. From the latter figure, it can be seen that the location of the deposit area and the drill holes are in a high relief environment.

Year	Company	Number of Holes	Metres	Size
2014	Lundin Mining Corp.	3	2,266	HQ
2015	Lundin Mining Corp.	15	7,657	HQ
2021	Element 29 Resources Inc.	7	4,612	HQ
	Total	25	14,535	HQ

Table 14-1: Drill Hole Database from the Elida project. Sourc	e: Ginto (2022).
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Figure 14-1: Drill hole location in plan view from the Elida project. Lundin holes in blue, Element 29 holes in orange. Source: Ginto (2022).



Figure 14-2: Drill hole location with topography. Perspective view looking northwest, Elida project. Lundin holes in blue, Element 29 holes in orange. Source: Ginto (2022).



Collar Data	Number of Data	Mean	Standard Deviation	Coefficient of Variation	Minimum	Lower Quartile	Median	Upper Quartile	Maximum	Number of 0.0 values	Number of < 0.0 values
Easting (X)	25	260081.0	242.451	0.001	259699.0	259967.0	260000.0	260266.0	260522.0	_	_
Northing (Y)	25	835135.0	218.213	0.0	834575.0	835088.0	835136.0	835327.0	835429.0	_	_
Elevation (Z)	25	1696.62	86.405	0.051	1530.61	1629.72	1710.99	1767.75	1857.0	_	_
Hole Depth	25	581.406	116.795	0.201	289.9	513.08	576.55	641.92	947.2	_	_
Azimuth	25	125.357	89.158	0.711	0.0	45.0	160.0	217.5	270.0	_	_
Dip	25	-69.563	6.538	-0.094	-90.0	-70.48	-70.0	-65.0	-55.69	_	_
Overburden	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	_	_
Survey Data											
Azimuth	283	149.729	99 .784	0.666	0.0	50.8	176.0	228.02	358.5	_	_
Dip	283	-68.127	8.436	-0.124	0.0	0.0	0.0	0.0	0.0	_	-
Assay Data											
Interval Length (from-to)	6908	1.935	0.22	0.113	0.4	2.0	2.0	2.0	5.7	0	0
CU_PCT	6908	0.238	0.209	0.881	0.002	0.099	0.184	0.325	4.24	0	25
MO_PCT	6908	0.023	0.029	1.257	0.0	0.006	0.015	0.03	0.829	168	25
AG_GPT	6908	2.306	11.002	4.771	0.06	0.76	1.5	2.79	794.0	0	25

Table 14-2: Drill hole database statistics, Elida deposit. Source: Ginto (2022).

14.2 Geology Model

The geology model was developed from the currently understood geologic controls on copper mineralization. Two mineralized domains were modeled from the available drill hole information: a higher copper grade (HCG) domain and a lower copper grade (LCG) domain. The HCG domain is spatially located in the periphery of the quartz-monzonite intrusive and wall rock, while the LCG domain is associated with alteration within the intrusive and its periphery. From the statistical distribution of copper grades on a probability plot, a higher-grade population is observed at a cut-off grade of approximately 0.25% Cu and a lower grade population is observed at a cut-off grade of approximately 0.08% Cu. For such, the HCG domain was modeled at a cut-off Cu grade of 0.25% using the contact of the intrusive as a boundary. As a result, the HCG domain resembles a donut-shape cylinder stretched in the east-west direction and centered on the vertical intrusive unit. The LCG domain was modeled at a 0.08% Cu, enveloping the HCG domain and the intrusive. Additional details of the mineralized domains are presented in Table 14-3, while visual representations of the wireframed mineralized domains are shown in Figure 14-3, Figure 14-4, and Figure 14-5.

Element 29's geology team provided the sectional interpretation of the HCG domain, while Ginto conducted the wireframing of the HCG domain, and the interpretation and wireframing of the LCG domain. The mineralized domains were modeled on north-south sections for each drill section. A total of 9 sections spaced from 50m to 100m apart, were utilized in the interpretation process. The HCG domain covers an area of approximately 800m east-west by 800m north-south by 1,100m vertically. The LCG domain covers an area of approximately 1,300m east-west by 1,000m north-south by 1,000m vertically.

Table 14-3:	Geology model.	Elida deposit.	Source.	Ginto	(2022)
	ocology model,	Enda acposit.	000100.	Onito	(2022).

Rock Code	Domain Code	Description	Volume (Mm³)
1	HCG	higher copper grade domain	187.0
2	LCG	lower copper grade domain	199.1

A new topography surface from a recent survey of the Elida property was also provided by Element 29 for this study. As seen in Figure 14-6, the relief in the block model area is quite steep with a difference in elevation of approximately 2,500m, ranging from 1,200m to the southeast to 3,700m to the northwest.



Figure 14-3: Geology model in plan view, Elida deposit. Source: Ginto (2022).





Figure 14-4: Geology model, perspective view looking northwest. Elida deposit. Source: Ginto (2022).





Figure 14-5:Geology model, perspective view looking southwest. Elida deposit. Source: Ginto (2022).



Figure 14-6: Topography within the block model area, plan view. Elida deposit. Source: Ginto (2022)

14.3 Compositing

The most common sampling length of the Elida deposit is 2.0 m, with approximately 80% of the assay data sampled on this interval. For such, a compositing length of 2.0 m was selected and a dynamic compositing process was utilized for this task. In this setting, the residual composites are re-distributed to the full-length composites, to allow for all composites within a domain to have the same composite length. This will avoid artifacts possibly created by the shorter residual composites.

The selection of 2.0 m as the composite length is based on the most common sampling length as well as on the envisioned block height of 10 m. This provides a ratio of block height to composite length of 5.0 (10.0 m/2.0 m), which is within guideline limits of 2 to 5.

The geology model of mineralized domains (Section 14.2) was utilized for the compositing process with each domain serving as a boundary for this procedure.

A total of 7,271 composites were generated from 25 holes, with 5,774 composites from 25 holes located within both mineralized domains.

14.4 Exploratory Data Analysis (EDA)

The exploratory data analysis (EDA) is an exercise that allows for a better understanding of the different geometric and statistical properties of the Elida deposit's Cu, Mo and Ag grades.

14.4.1 Drill Hole Spacing and Orientation

The drill hole spacing within the HCG domain is 87.9 m on average with a median of 77.5 m, while the drill hole spacing within the LCG domain is 143.2 m on average with a median of 132.0 m.

There are three main orientations of drill holes at Elida: to the northeast with azimuths ranging from 30° to 80° and dipping at -60° to -70°, to the south with azimuths ranging from 175° to 205° and dipping at -55° to -85°, to the southwest with azimuths ranging from 220° to 240° and dipping at -60° to -75°. Drill hole orientations to the north and vertical are also observed to a lesser degree. Figure 14-7 displays the orientations and dips of the drill holes at the Elida deposit. Note that the azimuths are read from the outer circle while the dips are read from the inner circles.





Figure 14-7: Orientations and dips of drill holes, Elida deposit. Source: Ginto (2022).

14.4.2 Basic Statistics

Basic statistics were conducted on composited copper, molybdenite and silver grades with histograms, probability plots, and boxplots for each mineralized domain of the geology model. These various analyses have shown positively skewed lognormal distributions of copper, molybdenite and silver grades. Results are presented in the boxplots shown in Figure 14-8, Figure 14-9, and Figure 14-10 for each mineralized domain.



Figure 14-8: Boxplots of composited copper grades by domain, Elida deposit. Source: Ginto (2022).



Figure 14-9: Boxplots of composited molybdenum grades by domain, Elida deposit. Source: Ginto (2022).



Figure 14-10: Boxplots of composited silver grades by domain, Elida deposit. Source: Ginto (2022).

As seen in, the distributions of copper grades within the HCG and LCG domains are quite homogeneous with coefficients of variation (CV) of 0.59 in both cases. This is indicative of well-behaved populations reflective of the porphyry-style mineralization.

Similar observations are made for the distributions of molybdenum grades within the two mineralized domains. In this case, the CVs are 0.84 and 1.19, which is also reflective of more homogeneous populations. Similar observations are also made for silver within the HCG domain with a low CV of 0.78, while a higher CV of 3.77 is noted for the LCG domain. The latter case is most likely caused by high-grade outliers.

14.4.3 Capping of High-Grade Outliers

It is common practice to statistically examine the higher grades within a population and to trim them to a lower grade value based on the results from specific statistical utilities. This procedure is performed on high-grade values that are considered outliers and that cannot be related to any geologic feature. In the case for the Elida deposit, the higher copper, molybdenum, and silver grades were examined with three different tools: the probability plot, decile analysis, and cutting statistics. The usage of various investigating methods allows for a selection of the capping threshold in a more objective and justified manner. For the probability plot method, the capping value is chosen at the location where higher grades depart from the main distribution. For the decile analysis, the capping value is chosen as the maximum grade of the decile containing less than an average of 10% of metal. For the cutting statistics, the selection of the capping value is identified at the cut-off grade where there is no correlation between the grades above this cut-off, or where a jump in the coefficient of variation is observed. The resulting compilation of the capping thresholds is listed in Table 14-4. One of the objectives of the capping strategy is to have less than 10% of the metal affected by the capping process.

Domains	Probability Plot	Cutting Statistics	Decile Analysis	Final	% Metal Capped	Number Capped	
			Copper %				
HCG	1.5	1.5	1.07	1.5	1.0	6	
LCG	0.7	0.7	0.5	0.7	1.0	6	
			Molybdenum %				
HCG	0.18	0.18	0.14	0.18	1.0	9	
LCG	0.19	0.19	0.15	0.19	1.0	4	
Silver g/t							
HCG	12.0	12.0	10.6	12.0	1.0	23	
LCG	19.0	19.0	15.7	19.0	9.0	8	

 Table 14-4: List of capping thresholds of high-grade outliers, Elida deposit.
 Source: Ginto (2022).



Figure 14-11: Boxplots of composited and capped copper grades by domain, Elida deposit. Source: Ginto (2022).



As seen in Table 14-4, the capping of the high-grade outliers had only a minor effect on the reduction of the contained metal of each element of interest, and for each domain, with the exception of the silver grades of domain LCG. For the silver population of the LCG domain, the high-grade outliers carried a larger portion of the contained metal and as such the capping of these values had a stronger reduction effect.

Basic statistics were re-computed with the copper, molybdenum, and silver grades capped to the thresholds listed in Table 14-4. Boxplots of Figure 14-11, **Figure 14-12**, and Figure 14-13 display the basic statistics resulting from the capping of the higher-grade outliers for copper, molybdenum and silver mineralization, respectively.



Figure 14-12: Boxplots of composited and capped molybdenum grades by domain, Elida deposit. Source: Ginto (2022).



Figure 14-13: Boxplots of composited and capped silver grades by domain, Elida deposit. Source: Ginto (2022).

It can be observed from Figure 14-11 to Figure 14-13 that the coefficients of variation are low with values below 1.16 for all elements of interest and mineralized domains. The overall effect of the capping of the high-grade outliers on both mineralized domains has been very minimal, with a reduction of the average copper grade by 0.4%, no change for the average molybdenum grade, and a reduction of the average silver grade by 3.7%.

Because of the lower coefficients of variation observed for the copper, molybdenum, and silver grade populations, it was concluded that there is no need to treat the higher-grade composites differently than the lower grade composites during the estimation process. Ordinary kriging is thus a well-suited estimation technique in this case.

14.5 Variography

A variographic analysis was carried out on the capped copper, molybdenum, and silver grade composites within the mineralized domains. The objective of this analysis was to spatially establish the preferred directions of grade continuity. In turn, the variograms modeled along those directions would be later utilized to select and weigh the composites during the block grade interpolation process. For this exercise, all experimental variograms were of the type relative lag pairwise, which is considered a robust option for the assessment of grade continuity.

Variogram maps were first calculated to examine general grade continuities in the XY, XZ, and YZ planes. The next step undertaken was to compute omni-directional variograms and down-

hole variograms. The omni-directional variograms are calculated without any directional restrictions and provide a good assessment of the sill of the variogram. As for the down-hole variogram, it is calculated with the composites of each hole along the trace of the hole. The objective of these calculations is to provide information about the short scale structure of the variogram, as the composites are more closely spaced down the hole. Thus, the modeling of the nugget effect is usually better derived from the down-hole variograms.

Directional variograms were then computed to identify more specifically the three main directions of continuity. A first set of variograms were produced in the horizontal plane at increments of 10 degrees. In the same way, a second set of variograms were computed at 10° increments in the vertical plane of the horizontal direction of continuity (plunge direction). A final set of variograms at 10° increments were calculated in the vertical plane, perpendicular to the horizontal direction of continuity (dip direction). The final variograms were then modeled with a 2-structure spherical variogram, and resulting parameters presented in Table 14-5: for copper, molybdenum and silver grade populations of the mineralized domains. No variograms were calculated outside of both mineralized domains, as no grade estimation is planned for this area.

The directions of copper, molybdenum and silver grade continuity are in general agreement with the orientation of the mineralized domains, with best directions of continuity trending east-west at an azimuth of 110° and vertically. The ranges of copper grade continuity along the principal direction (strike) are 138m for HCG and 141m for LCG, along the vertical direction (dip) are 109m for HCG and 106m for LCG, and along the minor direction (across strike and dip) are 87m for HCG and 84m for LCG. The modeled variograms for copper have relatively low nugget effects with values of 5.5% of the sill for HCG and 8.8% of the sill for HCG.

The experimental variograms are considered of passable quality overall, however infill drilling would definitively provide better definition of the variograms' continuity structures.

Plots of the variogram models can be found in Appendix II.



 Table 14-5: Modeled variogram parameters for copper, molybdenum and silver, Elida deposit.

 Source: Ginto (2022)

COPPER								
Devemetere	1 – HCG			2 – LCG				
Farallielers	Principal	Minor	Vertical	Principal	Minor	Vertical		
Azimuth*	110°	200°	110°	110°	200°	200°		
Dip**	-10°	0°	80°	0°	0°	-90°		
Nugget Effect Co		0.023		0.039				
1 st Structure C ₁		0.283		0.231				
2 nd Structure C ₂		0.111		0.174				
1 st Range A ₁	52.5m	44.4m	44.4m	56.2m	5.2m 41.8m			
2 nd Range A ₂	138.0m	87.3m	109.0m	141.0m	87.4m	106.0m		
		MOLYB	DENUM					
Devemetere	1 – HCG			2 – LCG				
Parameters	Principal	Minor	Vertical	Principal	Minor	Vertical		
Azimuth*	110°	200°	110°	110°	200°	200°		
Dip**	0°	0°	-90°	0°	0°	-90°		
Nugget Effect C ₀	0.106			0.141				
1 st Structure C ₁		0.274		0.377				
2 nd Structure C ₂		0.410		0.510				
1 st Range A ₁	12.0m	9.8m	9.8m	48.6m	37.9m	37.9m		
2 nd Range A ₂	124.0m	95.7m	117.0m	124.0m	93.9m	102.0m		
		SIL	VER					
Paramotors	1 - HCG			2 - LCG				
	Principal	Minor	Vertical	Principal	Minor	Vertical		
Azimuth*	110°	200°	110°	110°	200°	200°		
Dip**	-10°	0°	80°	0°	10°	-80°		
Nugget Effect C ₀	0.045			0.034				
1 st Structure C ₁	0.251			0.323				
2 nd Structure C ₂		0.238		0.158				
1 st Range A ₁	69.9m	52.8m	65.6m	46.5m	65.9m	46.5m		
2 nd Range A ₂	117.0m	82.8m	104.0m	130.0m	111.0m	120.0m		

* Positive clockwise from north

** Negative below horizontal

14.6 Grade Estimation

The estimation of copper, molybdenum and silver grades into a block model was carried out with the ordinary kriging technique. The estimation strategy and parameters were tailored to account for the various geometrical, geological, and geostatistical characteristics previously identified. The block model's structure is presented in Table 14-6:. It should be noted that the origin of the block model corresponds to the lower left corner, the point of origin being the exterior edges of the first block. A block size of 10m (easting) x 10m (northing) x 10m (elevation) was selected to better reflect the orebody's geometrical configuration and anticipated production rate. The block model is orthogonal with no rotation applied to it.

Coordinates	Origin m	Rotation (azimuth)	Distance m	Block Size m	Number of Blocks	
Easting (X)	257,350.0		3,650.0	10.0	365	
Northing (Y)	8,833,350.0	0°	4,450.0	10.0	445	
Elevation(Z)	600.0		3,200.0	10.0	320	
Number of Block	S		51,976,000			

Table 14-6: Block grid definition, Elida deposit. Source: Ginto (2022).

The database of 2.0 m capped copper, molybdenum and silver grade composites was utilized as input for the grade interpolation process, along with the mineralized domain model. The size and orientation of the search ellipsoid for the estimation process was based on the variogram parameters modeled for each element of interest. A minimum of 2 samples and maximum of 12 samples were selected for the block grade calculations. No other restrictions, such as a minimum number of informed octants, a minimum number of holes, a maximum number of samples per hole, etc., were applied to the estimation process. A set of 3 estimation runs was utilized for the grade interpolation process. The first estimation run utilized a search ellipsoid, dimensioned to the second range of the variograms, while the second and third runs utilized search ellipsoids dimensioned to 1.5 and 2 times the variogram ranges, respectively. The estimation parameters for copper, molybdenum and silver are presented in Table 14-7.

Table 14-7:	Estimation parameters for copper,	molybdenum and silver,	Elida deposit. S	Source:
Gnto (2022).				

Element	Domain	Minimum # of Samples	Maximum # of Samples	Search Ellipsoid – Long Axis – Azimuth / Dip	Search Ellipsoid – Long Axis - Size	Search Ellipsoid – Short Axis – Azimuth / Dip	Search Ellipsoid – Short Axis - Size	Search Ellipsoid – Vertical Axis – Azimuth / Dip	Search Ellipsoid – Vertical Axis - Size
Cu	HCG	2	12	110°/-10°	138.0m	200°/0°	87.0m	110°/80°	109.0m
	LCG	2	12	110°/0°	141.0m	200°/0°	87.0m	200°/-90°	106.0m
Мо	HCG	2	12	110°/0°	124.0m	200°/0°	96.0m	200°/-90°	117.0m
	LCG	2	12	110°/0°	124.0m	200°/0°	94.0m	200°/-90°	102.0m
Ag	HCG	2	12	110°/-10°	117.0m	200°/0°	83.0m	110°/80°	104.0m
	LCG	2	12	110°/0°	130.0m	200°/10°	111.0m	200°/-80°	120.0m

14.7 Validation of Grade Estimates

A set of validation tests were carried out on the estimates to examine the possible presence of a bias and to quantify the level of smoothing/variability.

14.7.1 Visual Inspection

A visual inspection of the block grade estimates with the drill hole grades for copper, molybdenum and silver on plans, east-west and north-south cross-sections was performed as a first check of the estimates. Observations from stepping through the estimates along the different planes indicated that there was overall a good agreement between the drill hole grades and the estimates. The orientations of the estimated grades were also according to the projection angles defined by the search ellipsoid. Examples of cross-sections and level plans for copper grade estimates are presented in Figures 14-14 to Figure 14-16.


Figure 14-14: Copper block grade estimates and drill hole grades, Section 260,000E looking west. Elida deposit. Source: Ginto (2022).



Figure 14-15: Copper block grade estimates and drill hole grades, Section 8,835,250N looking north. Elida deposit. Source: Ginto (2022).



Figure 14-16: Copper block grade estimates and drill hole grades, level 1500 m. Elida deposit. Source: Ginto (2022).

14.7.2 Global Bias

The comparison of the average grades from the declustered composites and the estimated block grades, examines the possibility of a global bias of the estimates. As a guideline, a difference between the average grades of more than \pm 10% would indicate a significant over or underestimation of the block grades and the possible presence of a bias. It would be a sign of difficulties encountered in the estimation process and would require further investigation.

Results of this average grade comparison for copper are presented in Table 14-8.

Table 14-8: Average copper grade comparison of polygonal-declustered composites with block estimates, Elida deposit. Source: Ginto (2022).

Statistics	Declustered Composites	Block Estimates	
Average Copper Grade %	0.237	0.228	
Difference	-3.6%		

As seen in Table 14-8, the difference between average copper grades of the declustered composites and the block estimates are within the limits of acceptability. It can be concluded that no significant global bias is present in the copper grade estimates.

14.7.3 Local Bias

A comparison of the grade from composites within a given block, with the estimated grade of that block provides an assessment of the estimation process close to measured data. Pairing of these grades on a scatterplot gives a statistical valuation of the estimates. It is anticipated that the estimated block grades should be similar to the composited grades within the block, however without being of exactly the same value. Thus, a high correlation coefficient will indicate satisfactory results in the interpolation process, while a medium to low correlation coefficient will be indicative of larger differences in the estimates and would suggest a further review of the interpolation process. Results from the pairing of composited and estimated copper grades within blocks pierced by a drill hole are presented in Table 14-9.

As seen in Table 14-9, the block grade estimates of copper are similar to the copper composite grades within blocks pierced by a drill hole, with a high correlation coefficient, indicating satisfactory results from the estimation process.

Table 14-9: Copper grade comparison for blocks pierced by a drill Hole. Paired composite grades with block grade estimates, Elida Deposit. Source: Ginto (2022).

In-Block Composites Avg. Cu (%)	Block Estimates Avg. Cu (%)	Difference	Correlation Coefficient
0.259	0.259	0.0%	0.949



14.7.4 Grade Profile Reproducibility

The comparison of the grade profiles of the declustered composites with that of the estimates, allows for a visual verification of an over or under-estimation of the block estimates at the global and local scales. A qualitative assessment of the smoothing/variability of the estimates can also be observed from the plots. The output consists of three graphs displaying the average grade according to each of the coordinate axes (east, north, elevation). The ideal result, is a grade profile from the estimates that follows that of the declustered composites along the three coordinate axes, in a way that the estimates have lower high-grade peaks than the composites, and higher low-grade peaks than the composites. A smoother grade profile for the estimates, from low to high grade areas, is also anticipated in order to reflect that these grades represent larger volumes than the composites.

Copper grade profiles are presented in Figure 14-17.

From the plots of Figure 14-17, it can be seen that the grade profiles of the declustered composites are well reproduced overall by those of the block estimates and consequently that no global or local bias is observed. As anticipated, some smoothing of the block estimates can be seen in the profiles, where estimated grades are higher in lower grade areas and lower in higher grade areas. To quantify the level of smoothing of the estimates, further investigation is required (see 14.7.5, Level of Smoothing/Variability).





Figure 14-17: Copper grade profiles of declustered composites and block estimates, Elida deposit. Source: Ginto (2022).

14.7.5 Level of Smoothing/Variability

The level of smoothing/variability of the estimates can be measured by comparing a theoretical distribution of block grades with that of the actual estimates. The theoretical distribution of block grades is derived from that of the declustered composites, where a change of support algorithm is utilized for the transformation (Indirect Lognormal Correction). In this case, the variance of the composites' grade population is corrected (reduced) with the help of the variogram model, to reflect a distribution of block grades (10m x 10m x 10m). The comparison of the coefficient of variation (CV) of this population, with that of the actual block estimates provides a measure of smoothing. Ideally, a lower CV from the estimates by 5 to 30% is targeted as a proper amount of smoothing. This smoothing of the estimates is desired, as it allows for the following factors: the imperfect selection of ore blocks at the mining stage (misclassification), the block grades relate to much larger volumes than the volume of core (support effect), and the block grades are not perfectly known (information effect). A CV lower than 5 to 30% for the estimates would indicate a larger amount of smoothing, while a higher CV would represent a larger amount of variability. Too much smoothing would be characterized by grade estimates around the average grade, where too much variability would be represented by estimates with abrupt changes between lower and highergrade areas.

Results of the level of smoothing/variability analysis are presented in Table 14-10: Level of smoothing/variability of copper grade estimates, Elida Deposit. As observed in this table, the CV of the copper grade estimates is within the targeted range, indicating an appropriate amount of smoothing/variability of the copper grade estimates.

Table 14-10: Level of smoothing/variability of copper grade estimates, Elida Deposit. Source: Ginto (2022).

CV – Theoretical Block Grade Distribution	CV – Actual Block Grade Distribution	Difference
0.603	0.549	-9%

14.8 Mineral Resource Classification

The mineral resource was classified as Inferred at this stage of the project. This decision mainly stems from the wide spacing of the drill holes and consequently the absence of a geology model with tighter controls on copper mineralization.

14.9 Mineral Resource Calculation

14.9.1 Density

The density was calculated from a total of 841 measurements from drill core with 757 measurements located within the HCG domain and 84 measurements located within the LCG domain. The average density per mineralized domain was assigned to the corresponding blocks, as presented in Table 14-11. There were 2 high anomalous measurements within the HCG domain that were removed from the calculations.



Domain	Average Density (t/m³)	Number of Samples
HCG	2.821	755
LCG	2.719	84

Table 14-11: Average density by mineralized domain, Elida Deposit. Source: Ginto (2022).

14.9.2 Mineral Resource Constraint

With the objective to satisfy the NI 43-101 requirement of reporting a mineral resource that provides "reasonable prospects for economic extraction", an open pit shell was optimized to constrain the mineral resources. A summary of the resource pit constraining parameters is shown in Table 14-12. The constraining pit shell optimized with the Lerchs-Grossman algorithm is shown in Figure 14-18.

Table 14-12: Mineral resource constraining parameters*, Elida Deposit. Source: Ginto (2022).

Copper Price	Mining Cost	Processing Cost	G&A Cost	Copper Recovery	Pit Slopes
\$3.46/lb	\$2.00/t	\$5.00/t	\$1.40/t	87%	45°

*All dollar amounts in US\$



Figure 14-18: Mineral resource open pit shell. Perspective view looking to the northwest, Elida Deposit. Source: Ginto (2022).

The pit-constrained inferred mineral resources are presented at various copper grade cut-offs in Table 14-13.

At a 0.20 % Cu cut-off, the pit-constrained, Inferred mineral resources, are of 321.7 Mt at an average copper grade of 0.316 % for a total of 2,241.2 million pounds of copper. At a 0.20 % Cu cut-off grade, the resource pit has a strip ratio of 1 : 0.74.

It should be noted that mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the mineral resources estimated will be converted into mineral reserves. The estimate of mineral resources may be materially affected by future changes in environmental, permitting, legal, title, taxation, socio-political, marketing, or



other relevant issues. However, there are no currently known issues that negatively impact the stated mineral resources.

The CIM definitions were followed for the classification of inferred mineral resources. The inferred mineral resources have a lower level of confidence and must not be converted to mineral reserves. It is reasonably expected that the majority of inferred mineral resources could be upgraded to indicated mineral resources with continued exploration.

Cu Cut- Off %	Tonnes (millions)	Cu (%)	Contained Cu (MIb)	Contained Cu (tonnes)	Mo (%)	Mo Content (MIb)	Mo Content (tonnes)	Ag (g/t)	Ag Content (Moz)
0.10	520.8	0.255	2,927.9	1,328,057	0.026	298.5	135,410	2.15	36.0
0.15	439.4	0.278	2,692.9	1,221,456	0.028	271.2	123,024	2.31	32.7
0.20	321.7	0.316	2,241.2	1,016,568	0.029	205.7	93,293	2.61	27.0
0.25	214.9	0.363	1,719.4	779,926	0.031	146.8	66,605	2.97	20.5
0.30	143.0	0.407	1,283.4	582,150	0.033	104.1	47,201	3.31	15.2
0.35	94.7	0.449	937.9	425,415	0.034	71.0	32,214	3.65	11.1
0.40	59.7	0.493	649.1	294,423	0.036	47.4	21,499	3.99	7.7
0.45	34.1	0.547	411.7	186,736	0.037	27.8	12,631	4.40	4.8
0.50	20.1	0.599	265.4	120,396	0.038	16.8	7,638	4.76	3.1

Table 14-13: Pit-constrained Inferred Mineral Resources, Elida Deposit. Source: Ginto (2022).

Notes:

- 1. The effective date for the Mineral Resource is September 20, 2022.
- 2. Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, changes in global gold markets or other relevant issues.
- 3. The CIM definitions were followed for the classification of inferred Mineral Resources. The quantity and grade of reported inferred Mineral Resources in this estimation are uncertain in nature and there has been insufficient exploration to define these inferred Mineral Resources as an indicated Mineral Resource and it is uncertain if further exploration will result in upgrading them to an indicated or measured Mineral Resource category.
- 4. Mineral Resources are reported at a cut-off grade of 0.2 g/t Cu, using a US\$/CAN\$ exchange rate of 0.75 and constrained within an open pit shell optimized with the Lerchs-Grossman algorithm to constrain the Mineral Resources with the following estimated parameters: copper price of US\$3.46/lb, US\$2.00/t mining cost, US\$5.00/t processing cost, US\$1.40/t G+A, 87% copper recovery, and 45° pit slope.
- 5. The number of tonnes was rounded to the nearest hundred thousand. The number of pounds and ounces was rounded to the nearest hundred thousand. Any discrepancies in the totals are due to rounding effects.

14.10 Discussion and Recommendations

This study presents the first mineral resource estimate of the Elida copper property. The mineral resource was estimated with the ordinary kriging technique using the composited grades to 2.0m lengths, where high-grade outliers were capped to lower thresholds. Although copper is the main element of interest, grade estimates for molybdenum and silver were also calculated.



The project has received a limited amount of drilling at a wider spacing and for such, the mineral resource is classified as inferred. Additional drilling would be beneficial in providing greater confidence in the modeling of the geologic controls on copper mineralization, the spatial assessment of copper grade continuity, and thus the copper grade estimates.

The copper grade populations within the mineralized domains were found to be well-behaved with low coefficients of variation (values of less than 0.6). The capping of the high-grade outliers has only had a minor effect on the average grades and the metal content. For such, the usage of the ordinary kriging technique with capped composited grades is believed to be an adequate strategy for the grade interpolation process.

The geologic model of controls on copper mineralization consists of a high-grade zone and a lowgrade zone, which were developed from copper grade cut-offs, alteration and lithology. Additional drilling is needed to provide a more intricate geologic model.

The variographic analysis of copper grades shows better spatial continuity along the 110° orientation and vertically. The modeled variograms are of passable quality and would benefit from additional tighter spaced drilling.

The validation of the copper grade estimates has shown good results from the various tests carried out. It can be concluded that the copper grade estimates are not biased and have an adequate amount of smoothing/variability. Therefore, it is believed that the copper grade estimates are an adequate representation of the mineral resources at Elida, based on the current geologic understanding and available data. There is good potential for additional mineral resources on the property with other untested targets.





16 MINING METHODS



17 RECOVERY METHODS



18 PROJECT INFRASTRUCTURE





20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT





22 ECONOMIC ANALYSIS



23 ADJACENT PROPERTIES

There are no active mining operations adjacent to the Elida property.

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24 OTHER RELEVANT DATA AND INFORMATION

All relevant data and information were presented in this report.

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25 INTERPRETATION AND CONCLUSIONS

This study presents the first mineral resource estimate of the Elida copper property. The mineral resource was estimated with the ordinary kriging technique using the composited grades to 2.0m lengths, where high-grade outliers were capped to lower thresholds. Although copper is the main element of interest, grade estimates for molybdenum and silver were also calculated.

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The variographic analysis of copper grades shows better spatial continuity along the 110° orientation and vertically. The modeled variograms are of passable quality and would benefit from additional tighter spaced drilling.

The QA/QC protocols from the drill programs on the project were found to follow industry practices with satisfactory results overall.

The validation of the copper grade estimates has shown good results from the various tests carried out. It can be concluded that the copper grade estimates are not biased and have an adequate amount of smoothing/variability. Therefore, it is believed that the copper grade estimates are an adequate representation of the mineral resources at Elida, based on the current geologic understanding and available data. There is good potential for additional mineral resources on the property with other untested targets.



26 RECOMMENDATIONS

Due to the wide spacing of a limited amount of drill holes on the Property to date, additional infill and exploration drilling is recommended to ascertain and expand the current mineral resource estimate. The infill drilling will allow for a more detailed model of geologic controls on copper mineralization, a more conclusive assessment of the copper grade's spatial continuity and greater confidence of the grade estimates. Based on the modeled variograms for copper, a drill hole spacing of 75m is recommended to provide a mineral resource estimate of higher confidence such as of the indicated category.

There is excellent potential to grow the mineral resources at Elida since mineralization in Zone 1 has not been completely closed off by drill testing and given the recognition of exploration targets peripheral to Zone 1. Definition drilling in Zone 1 and exploration drilling of peripheral targets is recommended to further advance the Elida Property. Table 26-1 outlines a budget for a drill campaign of 2,500 metres to complete these objectives at an estimated cost of US\$ 1,050,000.. Figure 26-1 displays locations of drill hole gaps within the current mineral resource area where additional mineral resources could potentially be delineated.



Figure 26-1: Drilling gaps within the mineral resource area, Elida Deposit. Source: Element 29 (2022).

Item	Amount	Units	Unit Cost (US\$)	Total (US\$)
Drill prep: platforms, road access	150	hours	200	30,000
Drill rig mobilization, remediation	200	hours	200	40,000
DDH drilling	2,500	metres	210	525,000
Sample assays + 10% QA/QC	2,750	samples	35	96,250
Wages (field and tech personnel)	60	days	1,200	72,000
Drill camp accommodation, logistics	60	days	800	48,000
Geology	30	days	500	15,000
Ongoing ESG	60	days	500	30,000
Health and Safety	60	days	1,000	60,000
Environmental permitting	1		40,000	40,000
Sub-total				956,250
Contingency 10%				95,625
Total				1,051,875

Table 26-1: Recommended drill campaign budget, Elida deposit.

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I, Marc Jutras, P. Eng., M.A.Sc., do hereby certify that:

- 1. This certificate applies to the Technical Report (Report) entitled "NI 43-101 TECHNICAL REPORT, MINERAL RESOURCE ESTIMATE OF THE ELIDA COPPER PROJECT IN PERU" prepared for Element 29 Resources Inc. with an effective date of September 20, 2022;
- 2. I am currently employed as Principal, Mineral Resources with Ginto Consulting Inc. with an office at 333 West 17th Street, North Vancouver, British Columbia, V7M 1V9;
- 3. I am a graduate of the University of Quebec in Chicoutimi in 1983, and hold a Bachelor's degree in Geological Engineering. I am also a graduate of the Ecole Polytechnique of Montreal in 1989, and hold a Master's degree of Applied Sciences in Geostatistics;
- 4. Since 1984, I have worked continuously in the field of mineral resource estimation of numerous international exploration projects and mining operations. I have been involved in the evaluation of mineral resources at various levels: early to advanced exploration projects, preliminary studies, preliminary economic assessments, prefeasibility studies, feasibility studies and technical due diligence reviews;
- I am a Registered Professional Engineer with the Engineers and Geoscientists British Columbia (license # 24598) and Engineers and Geoscientists Newfoundland and Labrador (license # 09029). I am also a Registered Engineer with the Quebec Order of Engineers (license # 38380);
- I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101;
- 7. I have not visited the project site;
- 8. I am responsible for sections 1, 10 to 14, and sections 25 and 26 of this Technical Report. I have prepared the mineral resource estimates of Section 14;
- 9. I am independent of the Issuer, Element 29 resources Inc., and related companies applying all of the tests in Section 1.5 of the NI 43-101;



- 10. I have had no prior involvement with the property that is the subject of this Technical Report;
- 11. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading; and
- 12. I have read NI 43-101, and the Technical Report has been prepared in accordance with NI 43-101 and Form 43-101F1.

Effective Date: September 20, 2022 Signing Date: November 10, 2022

Many

Marc Jutras, P. Eng., M.A.Sc. Principal, Mineral Resources, Ginto Consulting Inc.



Steven L. Park 19505 Sedgefield Terrace Boca Raton, FL 33498 (561) 945-7971

- I, Steven L. Park, do hereby certify as follows:
- 1. I am a consulting geologist residing at 19505 Sedgefield Terrace, Boca Raton, Florida, 33498, USA.
- 2. This certificate applies to the report entitled "NI 43-101 TECHNICAL REPORT MINERAL RESOURCE ESTIMATION OF THE ELIDA PORPHYRY COPPER PROJECT IN PERU with an effective date of September 20, 2022.
- 3. I am a graduate of Mackay School of Mines at the University of Nevada-Reno, 1983, with a M.Sc. in Economic Geology. I have since practiced as a professional geologist for more than thirty years in the Americas including over 20 years of continuous exploration experience in Peru. My experience includes managing mineral exploration programs across a variety of mineral deposit types, evaluating mining projects, and producing mineral resource estimates. I am a member in good standing with the American Institute of Professional Geologists (member #10849) and a Certified Professional Geologist.
- 4. I have read the definition of "qualified person" as defined by National Instrument 43-101 and certify that by reason of my education, past relevant work experience, and professional affiliation, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- 5. I am responsible for and have read sections 3 through 9 of this report entitled NI 43-101 TECHNICAL REPORT MINERAL RESOURCE ESTIMATION OF THE ELIDA PORPHYRY COPPER PROJECT IN PERU with an effective date of September 20, 2022.
- 6. I visited the Elida Property, subject of this technical report, on May 12 14, 2022.
- 7. I am independent of Element 29 Resources Inc. as defined by applying the tests set out in Section 1.5 of the Instrument. I am not, nor have been, an officer, director, or employee of any corporate entity that is any part of the subject Elida Property. For greater clarity, I do not hold, nor do I expect to receive any securities or any other interest in any corporate entity, private or public, with interests in the Elida Property or to receive any other consideration besides fair remuneration for the preparation of this report. I have not earned the majority of my income during the preceding three years from any corporate entity, private or public, with interests in the Elida Property.
- 8. I have had no prior involvement with the Elida Property that is the subject of this technical report.
- 9. I have read National Instrument 43-101, Form 43-101F1, and confirm that this technical report for which I am responsible has been prepared in compliance with that Instrument.



10. I certify that, to the best of my knowledge and belief, as of the Effective Date, this Technical Report for which I am responsible contains all the scientific and technical information that is required to be disclosed to make this technical report not misleading.

Effective Date: September 20, 2022 Signing Date: November 10, 2022

Steven L. Park, C.P.G., M.Sc. Independent Consultant





29 SIGNATURE PAGE

This Technical Report titled "National Instrument 43-101 Technical Report, Mineral Resource Estimation of the Elida Copper Project in Peru, with an effective date of September 20, 2022 was prepared under the supervision and signed by the following authors:

Dated this 10th day of November, 2022.

Mare Just.

Signature of Qualified Person Marc Jutras, P.Eng. Principal, Mineral Resources, Ginto Consulting Inc.

Dated this 10th day of November, 2022.

Signature of Qualified Person Steven L. Park, C.P.G., M.Sc. Independent Consultant

APPENDIX I – DRILLING SUMMARY

				Cu	Мо	Ag	As	CuEq	Zone	
HoleID	From	То	Length	%	%	ppm	ppm	%		Int. No.
ELID001	69.00	73.00	4.00	0.30	0.019	4.5	11	0.41	narrow interval	1
ELID002	46.00	613.90	567.90	0.28	0.048	2.5	64	0.47	Entire Min	1
ELID002	46.00	320.00	274.00	0.34	0.044	3.7	58	0.53	Upper	2
ELID002	320.00	457.00	137.00	0.28	0.050	1.8	97	0.47	Middle	3
ELID002	457.00	613.90	156.90	0.17	0.054	1.1	47	0.38	Lower	4
ELID003	162.40	166.40	4.00	0.49	0.005	7.5	49	0.58	narrow interval	1
ELID004	32.00	411.00	379.00	0.28	0.021	2.0	42	0.37	Entire Min	1
ELID004	32.00	161.00	129.00	0.27	0.023	1.7	62	0.37	Upper	2
ELID004	161.00	240.00	79.00	0.40	0.020	2.7	47	0.50	Middle	3
ELID004	240.00	347.60	107.60	0.26	0.021	2.2	23	0.36	Lower	4
ELID004	347.60	379.00	31.40	0.11	0.016	0.8	30	0.18	Upper	5
ELID004	379.00	411.00	32.00	0.24	0.017	1.7	28	0.32	Middle	6
ELID004	411.00	605.30	194.30	0.12	0.016	0.9	25	0.19	Lower	7
ELID005	58.00	547.80	489.80	0.25	0.024	2.0	54	0.35	Entire Min	1
ELID005	58.00	155.20	97.20	0.23	0.036	1.8	51	0.38	Wall rock	2
ELID005	155.20	262.00	106.80	0.21	0.018	1.7	33	0.29	QFP1	3
ELID005	262.00	319.00	57.00	0.18	0.033	1.5	27	0.31	QFP1+IBX	4
ELID005	319.00	501.60	182.60	0.32	0.019	2.7	87	0.42	QFP2	5
ELID005	501.60	547.80	46.20	0.18	0.025	1.3	14	0.22	QFP1+IBX	6
ELID006	137.00	141.00	4.00	0.31	0.018	2.6	7	0.39	Narrow interval	1
ELID007	205.00	220.50	15.50	0.34	0.019	2.9	7	0.43	narrow interval	1
ELID007	462.00	492.00	30.00	0.27	0.020	1.9	6	0.22	narrow interval	2
ELID008	44.00	67.00	23.00	0.25	0.005	2.8	4	0.29	interval 1	1
ELID009	19.00	40.00	21.00	0.45	0.023	2.7	0	0.56	interval 1	1
ELID009	501.60	547.80	46.20	0.18	0.025	1.3	14	0.22	interval 2	2
ELID010	44.60	54.25	9.65	0.61	0.066	1.2	0	0.86	narrow interval	1
ELID010	85.00	101.00	16.00	0.25	0.015	1.1	0	0.31	narrow interval	2
ELID011	20.25	576.55	556.30	0.15	0.025	1.1	0	0.25	Entire porphyry	1
ELID012	55.10	558.00	502.90	0.42	0.046	3.2	42	0.61	Entire Min	1
ELID012	55.10	131.20	76.10	0.32	0.034	2.7	12	0.46	Upper	2
ELID012	131.20	313.00	181.80	0.55	0.046	4.5	22	0.76	Middle 1	3
ELID012	313.00	333.00	20.00	0.28	0.058	2.2	24	0.51	Middle 2	4
ELID012	333.00	394.70	61.70	0.50	0.054	3.5	156	0.73	Middle 3	5
ELID012	394.70	500.00	105.30	0.26	0.055	2.0	28	0.47	Middle 4	6
ELID012	500.00	558.00	58.00	0.38	0.033	2.3	56	0.52	Lower	7
ELID013	346.00	356.00	10.00	0.35	0.009	2.1	23	0.40	narrow interval	1
ELID014	78.00	485.00	407.00	0.36	0.048	3.1	15	0.56	Entire Min	1
ELID014	78.00	161.80	83.80	0.46	0.031	4.3	13	0.61	subint average	2

Complete Table of Significant Drill Hole Intervals

GINTO CONSULTING INC.

				Cu	Мо	Ag	As	CuEq	Zone	
HoleID	From	То	Length	%	%	ppm	ppm	%		Int. No.
ELID014	161.80	231.00	69.20	0.23	0.075	2.1	10	0.52	subint poor	3
ELID014	231.00	359.35	128.35	0.46	0.063	3.7	15	0.71	subint average	4
ELID014	359.35	448.00	88.65	0.21	0.033	1.5	15	0.34	subint poor	5
ELID014	448.00	485.00	37.00	0.39	0.023	4.3	32	0.51	subint average	6
ELID014	485.00	650.10	165.10	0.13	0.020	0.8	26	0.20	external	7
ELID015	106.00	639.20	533.20	0.33	0.042	3.6	58	0.52	Entire Min	1
ELID015	106.00	229.70	123.70	0.24	0.025	2.9	25	0.36	subint poor	2
ELID015	229.70	315.00	85.30	0.46	0.039	5.5	18	0.65	subint good	3
ELID015	229.70	292.50	62.80	0.52	0.038	6.5	21	0.72	subint best	7
ELID015	315.00	429.80	114.80	0.30	0.041	3.8	16	0.48	subint average	4
ELID015	429.80	472.00	42.20	0.18	0.046	1.2	21	0.35	subint poor	5
ELID015	472.00	639.20	167.20	0.39	0.058	3.7	142	0.63	subint average	6
ELID016	137.00	214.00	77.00	0.25	0.008	4.5	28	0.32	Entire Min	1
ELID017	163.00	166.60	3.60	0.41	0.022	7.1	5	0.56	Interval 1	1
ELID017	255.00	332.00	77.00	0.38	0.011	6.4	64	0.48	Interval 2	2
ELID017	279.00	332.00	53.00	0.45	0.012	7.8	81	0.56	Interval 2a	5
ELID017	447.00	485.50	38.50	0.27	0.005	6.0	16	0.35	Interval 3	3
ELID017	536.00	542.00	6.00	0.40	0.008	17.5	50	0.59	Interval 4	4
ELID018	314.00	339.00	25.00	0.25	0.006	7.6	75	0.35	Interval 1	1
ELID018	372.50	398.95	26.45	0.31	0.007	7.4	10	0.40	Interval 2	2
ELID018	492.15	557.20	65.05	0.23	0.005	3.8	42	0.29	Interval 3	3
ELID019	43.15	426.90	383.75	0.54	0.035	4.2	47	0.71	Entire Min	1
ELID019	43.15	358.00	314.85	0.60	0.033	4.7	32	0.76	Subint Good	2
ELID020	143.00	451.00	308.00	0.43	0.028	3.9	15	0.56	Entire Min	1
ELID020	249.00	353.00	104.00	0.54	0.031	4.6	12	0.69	Subint good	2
ELID020	384.20	451.00	66.80	0.62	0.041	5.2	17	0.81	Subint good	3
ELID021	207.90	770.70	562.80	0.36	0.024	2.4	103	0.47	Entire Min	1
ELID021	244.00	660.00	416.00	0.40	0.025	2.6	90	0.51	Subint good	2
ELID022	145.00	533.00	388.00	0.34	0.026	2.4	80	0.45	Entire Min	1
ELID022	201.00	405.00	204.00	0.38	0.026	2.7	70	0.50	Subint upper	2
									Subint upper	
ELID022	201.00	229.00	28.00	0.62	0.022	4.2	66	0.74	good	3
ELID022	283.00	405.00	122.00	0.39	0.032	2.8	75	0.52	Subint lower	4
	125 00	451.00	26.00	0 / 3	0.024	2 2	79	0 55	subint lower	5
FLID022	423.00 87.00	610 50	523 50	0.45	0.024	20	30	0.35	Entire Min	1
	87.00	178 10	01 10	0.24	0.024	2.J	01	0.55	Subint upper	1 2
FLID023	425.00	610 50	185 50	0.41	0.032	4.1	10	0.30	Subint lower	2
	102 / 5	650.20	105.50	0.30	0.017	4.0 2 1	10	0.41	Entire Min	5 1
	198.45	467 50	269 05	0.30	0.034	2 Q	<u>م</u>	0.55	Subint upper	1 2
	467 50	650.20	182 70	0.31	0.020	2.0	3/	0.43	Subint lower1	2
	467 50	540.00	72 50	0.47	0.047	J.0 ⊿ ⊑	۵ ۵	0.07	Subint lower?	Л
	38 / 5	947.20	908 75	0.39	0.040	7.0	12	0.01	Entire Min	4 1
	56.45	947.20	908.75	0.39	0.035	2.9	42	0.54		1 I
				Cu	Мо	Ag	As	CuEq	Zone	
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HoleID	From	То	Length	%	%	ppm	ppm	%		Int. No.
ELID025	38.45	378.00	339.55	0.50	0.036	4.3	36	0.67	Subint upper	2
ELID025	442.00	821.20	379.20	0.30	0.032	1.9	47	0.43	Subint lower 1	3
ELID025	821.20	861.00	39.80	0.58	0.027	3.6	50	0.71	Subint lower 2	4
ELID025	861.00	947.20	86.20	0.34	0.039	2.0	65	0.50	Subint lower 3	5

Simplified Table of Significant Drill Hole Intervals

				Cu	Мо	Ag	As	CuEq
HoleID	From	То	Length	%	%	ppm	ppm	%
ELID001	69.00	73.00	4.00	0.30	0.019	4.5	11	0.41
ELID002	46.00	613.90	567.90	0.28	0.048	2.5	64	0.47
ELID003	162.40	166.40	4.00	0.49	0.005	7.5	49	0.58
ELID004	32.00	411.00	379.00	0.28	0.021	2.0	42	0.37
ELID005	58.00	547.80	489.80	0.25	0.024	2.0	54	0.35
ELID006	137.00	141.00	4.00	0.31	0.018	2.6	7	0.39
ELID007	205.00	220.50	15.50	0.34	0.019	2.9	7	0.43
ELID008	44.00	67.00	23.00	0.25	0.005	2.8	4	0.29
ELID009	501.60	547.80	46.20	0.18	0.025	1.3	14	0.22
ELID010	44.60	54.25	9.65	0.61	0.066	1.2	0	0.86
ELID011	20.25	576.55	556.30	0.15	0.025	1.1	0	0.25
ELID012	55.10	558.00	502.90	0.42	0.046	3.2	42	0.61
ELID013	346.00	356.00	10.00	0.35	0.009	2.1	23	0.40
ELID014	78.00	485.00	407.00	0.36	0.048	3.1	15	0.56
ELID015	106.00	639.20	533.20	0.33	0.042	3.6	58	0.52
ELID016	137.00	214.00	77.00	0.25	0.008	4.5	28	0.32
ELID017	279.00	332.00	53.00	0.45	0.012	7.8	81	0.56
ELID018	314.00	339.00	25.00	0.25	0.006	7.6	75	0.35
ELID018	372.50	398.95	26.45	0.31	0.007	7.4	10	0.40
ELID018	492.15	557.20	65.05	0.23	0.005	3.8	42	0.29
ELID019	43.15	426.90	383.75	0.54	0.035	4.2	47	0.71
ELID020	143.00	451.00	308.00	0.43	0.028	3.9	15	0.56
ELID021	207.90	770.70	562.80	0.36	0.024	2.4	103	0.47
ELID022	145.00	533.00	388.00	0.34	0.026	2.4	80	0.45
ELID023	87.00	178.10	91.10	0.41	0.032	4.1	91	0.56
ELID024	198.45	650.20	451.75	0.38	0.034	3.1	19	0.53
ELID025	38.45	947.20	908.75	0.39	0.035	2.9	42	0.54

APPENDIX II - VARIOGRAMS

Variograms of Copper in high-grade zone.





Variograms of Copper in low-grade zone



Variograms of Molybdenum in high-grade zone





Variograms of Molybdenum in low-grade zone





Variograms of Silver in high-grade zone





