



NI 43-101 Technical Report on the Initial Mineral Resources Estimate of the Iska Iska Polymetallic Project, Tupiza, Bolivia

Effective Date: August 19, 2023 Report Date: October 16, 2023

Prepared By: Charley Murahwi, MSc., P.Geo., FAusIMM Richard Gowans, BSc., P.Eng.

Ing. Alan J. San Martin, MAusIMM(CP) Abdoul Aziz Drame, B.Eng., P.Eng.



# **ELORO RESOURCES LIMITED.**

20 Adelaide Street East Suite 200 Toronto ON CANADA M5C 2T6 Tel: 1.416.868.9168



# **Table of Contents**

1.0 SI	JMMARY
1.1	AUTHORIZATION AND PURPOSE
1.2	PROJECT DESCRIPTION AND LAND TENURE
1.2.1	Location and Land Tenure1
1.2.2	Underlying Agreements
1.3	GEOLOGY AND MINERALIZATION
1.3.1	Geology3
1.3.2	Mineralization4
1.4	STATUS OF EXPLORATION
1.4.1	Geology/Mineralization5
1.4.2	Geophysics6
1.4.3	Diamond Drilling6
1.5	METALLURGICAL TESTWORK
1.5.1	Preliminary Estimate of Zinc, Lead and Silver Recoveries from Polymetallic
	Mineralization
1.5.2	Preliminary Estimate of Tin Recoveries8
1.5.3	Recoveries for Other Metals9
1.6	MINERAL RESOURCE
1.6.1	Modelling Strategy9
1.6.2	Estimation Approach/Strategy12
1.6.3	Grade/Tonnage Estimation Process12
1.6.4	Mineral Resources Estimate Parameters/Assumptions13
1.6.5	Mineral Resource Definition14
1.6.6	Mineral Resource Statement15
1.7	INTERPRETATION AND CONCLUSIONS
1.7.1	Geological Setting16
1.7.2	Scale of Mineralization/Deposit17
1.7.3	Metal Distribution/Domains17
1.7.4	Metallurgy19
1.7.5	Initial Mineral Resources19
1.7.6	Overall Conclusions
1.8	RECOMMENDATIONS
1.8.1	The To-do List
1.8.2	Budget
1.8.3	Micon Comments
2.0 IN	TRODUCTION
2.1	AUTHORIZATION AND PURPOSE
2.2	SOURCES OF INFORMATION
2.3	SCOPE OF PERSONAL INSPECTION
2.4	TABLE OF ABBREVIATIONS
3.0 RI	ELIANCE ON OTHER EXPERTS



4.0	PROPERTY DESCRIPTION AND LOCATION	
4.1	PROJECT/PROPERTY LOCATION	
4.2	PROPERTY DESCRIPTION AND LAND TENURE	
4.3	UNDERLYING AGREEMENTS	
4.4	BOLIVIAN MINING LAW/REGULATIONS	
4.	4.1 Overview	
4.	4.2 Mining Rights	
4.	4.3 Mining Contracts	
4.	4.4 Creation of the Jurisdictional Administrative Mining Authority	
4.	4.5 Environmental and Permitting	
4.5	MICON COMMENT	
5.0	ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSI	OGRAPHY .45
5.1	ACCESSIBILITY	
5.2	CLIMATE	
5.3	PHYSIOGRAPHY	
5.4	LOCAL RESOURCES AND INFRASTRUCTURE	
6.0	HISTORY	50
6.1	PRIOR OWNERSHIP	50
6.2	HISTORICAL EXPLORATION AND MINING	
6.	2.1 Early 1900s	
6.	2.2 Early 1960s	
6.	2.3 1990s	
6.	2.4 Early 2000s	51
6.	2.5 Current Status	51
6.	2.6 Empresa Minera Villegas (2012 to 2016)	51
6.3	HISTORICAL MINERAL RESOURCE/RESERVE ESTIMATES	51
7.0	GEOLOGICAL SETTING AND MINERALIZATION	52
7.1	REGIONAL GEOLOGY	
7.	1.1 Bolivian Tin Belt	53
7.2	LOCAL GEOLOGY AND MINERALIZATION	54
7.	2.1 Lithology/Geological Formations	54
7.	2.2 Mineral Occurrences	58
7.3	PROPERTY GEOLOGY AND MINERALIZATION	58
7.	3.1 Santa Barbara Breccia Pipe	69
7.	3.2 Huayra Kasa Breccia Pipe	70
7.	3.3 Central Breccia Pipe	70
7.4	HYDROTHERMAL ALTERATION	71
7.5	STRUCTURE	79
7.	5.1 Analysis of Faults in Diamond Drill Core	
7.	5.2 Analysis of Veins and Vein Breccias in Diamond Drill Core	82
8.0	DEPOSIT TYPES	84
8.1	DEPOSIT MODEL	



#### Page

8.2	CH	ARACTERISTICS	
8.3	IMF	LICATIONS FOR EXPLORATION	
9.0	FXPI (	ORATION	
9.1	PH	ASE 1 CAMPAIGN (2020 – 2021)	
9.1	1.1	Nature of Exploration Work	87
9.	1.2	Significant Exploration Results & Interpretation	87
9.2	PH	ASE 2 CAMPAIGN (2022 – MID 2023)	
9.	2.1	Structural Mapping	
9.	2.2	Synchrotron Analysis	
9.	2.3	Exploration Geophysics	
9.	2.4	Mineralogical Investigations	
9.3	SIG	NIFICANT RESULTS AND INTERPRETATION	
9.	3.1	Structural mapping	
9.	3.2	Synchrotron and Mineralogical Analysis	
10.0			107
10.0		ING	107
10.1			
10.2	. UKI 121	Collar Location	,
1(	).Z.I		,
10.2	ס.ע.ע חסו		
10.5			
10.4		Posults/Assaus	, 111 111
1(	0. <del>4</del> .1	Summary and Interpretation of Polovant Drilling Posults	111 11/
1(	0.4.2	Motal Polations	
10 5	ы.4.5 МІС	ON OP COMMENTS	
10.5			
11.0	SAMP	LE PREPARATION, ANALYSES AND SECURITY	
11.1	PR	DTOCOLS BEFORE DISPATCH OF SAMPLES	
1:	1.1.1	Chip Channel Samples	
1:	1.1.2	Drillhole Core Samples	
1:	1.1.3	Quality Assurance/Quality Control Measures	
1:	1.1.4	Packaging and Security	
1:	1.1.5	Laboratory Details	
11.2	LAE	BORATORY SAMPLE PREPARATION AND ANALYSES	
11	1.2.1	Laboratory Sample Preparation	
11	1.2.2	Laboratory Sample Analyses	
11	1.2.3	Laboratory QA/QC	
11	1.2.4	Bulk Density	
11.3	ELC	DRO QUALITY CONTROL MATERIALS AND RESULTS	
11	1.3.1	Certified Reference Materials	
11	1.3.2	Blank Samples	
11	1.3.3	Check Analyses	
11.4	QP	'S OPINION	122



12.0	DATA V	/ERIFICATION	
12.1	MIC	ON QP 2020 DATA VERIFICATION	
12	.1.1	Site Visit Activities	
12	.1.2	Site Visit Significant Results	
12.2	MIC	ON QP 2021 DATA VERIFICATION	
12.3	MIC	ON QP 2022 SITE VISIT	
12.4	MIC	ON QP'S OPINION/DATA VERIFICATION CONCLUSIONS	
13.0	MINER	AL PROCESSING AND METALLURGICAL TESTING	
13.1	MET	ALLURGICAL SAMPLE PROVENANCE AND CHARACTERIZATION	
13	.1.1	Mineralogical and Geometallurgical Characterization	
13.2	MET	ALLURGICAL TESTING	
13	.2.1	Pb-Zn-Ag Flowsheet Development	
13	.2.2	Tin Recovery Testwork	
13	.2.3	Hardness and Comminution Testing	
13.3	CON	CLUSIONS AND RECOMMENDATIONS	
13	.3.1	Pb-Zn-Ag Flowsheet Development	
13	.3.2	Tin Flowsheet Development	
14.0	MINER	AL RESOURCE ESTIMATES	
14.1	SYN		
14.2	EXP	LORATORY DATA ANALYSIS	
14	.2.1	Deposit Components	
14	.2.2	Drill Holes & Distribution	
14	.2.3	General Statistics on Raw Assay Data	
14.3	EST	MATION APPROACH/STRATEGY	
14.4	GEO	LOGICAL/GEOCHEMICAL/GEOPHYSICAL IN LERPRETATION	
14	.4.1	Implications on Drilling Patterns	
14.5	MOL	DELLING	
14	.5.1	Definition/Modeling of Mineralization Envelopes/Wireframes	
14.6	COM	IPOSITING/GRADE CAPPING/STATISTICS	
14	.6.1	Statistical Interpretation	
14.7	VAR	OGRAPHY/SPATIAL ANALYSIS	
14.8	EST	MATION (BLOCK MODEL/GRADE/TONNAGE)	
14	.8.1	Resource Block Model Definition	
14	.8.2	Block Grade Interpolation	
14	.8.3	Tonnage Estimate	
14	.8.4	Block Model Grade Validation	
14.9	MIN	ERAL RESOURCE ESTIMATE (MRE)	
14	.9.1	CIM Norms	
14	.9.2	MRE Strategy	
14	.9.3	Parameters/Assumptions	
14	.9.4	Mineral Resources Definition	
14	.9.5	Mineral Resources Statement	
14	.9.6	Mineral Resources Sensitivity	
14.10	) RISK	S/UNCERTAINTIES	195



15.0	MINERAL RESERVE ESTIMATES19	6
16.0	MINING METHODS	7
17.0	RECOVERY METHODS	8
18.0	PROJECT INFRASTRUCTURE19	9
19.0	MARKET STUDIES AND CONTRACTS20	0
20.0	ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT	1
21.0	CAPITAL AND OPERATING COSTS20	2
22.0	ECONOMIC ANALYSIS	3
23.0	ADJACENT PROPERTIES	4
24.0	OTHER RELEVANT DATA AND INFORMATION	6
25.0	INTERPRETATION AND CONCLUSIONS	7
25.1	REGIONAL GEOLOGICAL SETTING	7
25.2	LOCAL/PROJECT GEOLOGY AND MINERALIZATION	8
25.3	SCALE OF MINERALIZATION/DEPOSIT	8
25.4	LITHOLOGY AND ALTERATION CONTROLS	R
25.1		9
25.5		a
25.0		5
25.7	METALLURGT	0
23	5.7.1 PD-2n-Ag Flowsheet Development	0
25	5.7.2 TIN Flowsneet Development	0
25	5.7.3 MRE Metallurgical Factors	0
25.8	INTERIM MINERAL RESOURCE	1
25	5.8.1 Key Attributes	1
25	5.8.2 Overall Conclusions	3
26.0	RECOMMENDATIONS	7
26.1	THE TO DO LIST	7
26	6.1.1 Pb-Zn-Ag Flowsheet Development21	7
26	6.1.2 Tin Flowsheet Development	8
26	6.1.3 Other Testing	8
26	6.1.4 Metallurgical Samples	.8
26.2	BUDGET	0
26	6.2.1 Micon Comments	1
27.0	DATE AND SIGNATURE PAGE22	2
28.0	REFERENCES	3



29.0	CERTIFICATES	224
	· -····	

#### **APPENDICES**

APPENDIX-1 SUMMARY OF SYNCHROTRON MINERAL CLUSTER ANALYSIS

APPENDIX- II SUMMARY OF MINERALOGICAL STUDIES

APPENDIX- III ISKA ISKA MAJOR METALS DISTRIBUTION SECTION AND PLAN VIEWS

APPENDIX- IV ISKA ISKA OPTIONS FOR HIGHER GRADE POLYMETALLIC PIT RESOURCES AT NSR CUT-OFF VALUES OF US\$15/t AND US\$25/t

Page



# List of Tables

Table 1.1	General Statistics of the Iska Iska Database Assays as of 31 January 20235
Table 1.2	Comparison of Composite Grades Versus Block Grades13
Table 1.3	Summary of the Iska Iska Interim Mineral Resources as of August 19, 202315
Table 1.4	Iska Iska Deposit Metal Correlation Matrix Within the Broad 30 MinZone18
Table 1.5	Iska Iska Inferred Zn/Pb/Ag Mineral Resource Sensitivity Table
Table 1.6	Iska Iska Inferred Sn Mineral Resource Sensitivity Table
Table 1.7	Phase 1 Budget for the Iska Iska Project Taking Effect from August 2023
Table 1.8	Phase 2 Budget for the Iska Iska Project
Table 7.1	Percentage Mineralized Samples by Rock Type at Iska Iska for 8, 15 and >20 g Ag/t 62
Table 7.2	Percentage Mineralized Samples by Rock Type – Zinc for 0.4%, 0.8% and >1.2% Zn 63
Table 7.3	Percentage Mineralized Samples by Rock Type – LEAD for 0.1%, 0.3% and >0.5% Pb 64
Table 7.4	Percentage Mineralized Samples by Rock Type – TIN for 0.08%, 0.12% and >0.18% Sn 65
Table 7.5	Percentage Mineralized Samples by Alteration – Silver for 8, 15 and >20 g/t Ag73
Table 7.6	Percentage Mineralized Samples by Alteration – LEAD for 0.1%, 0.3% and >0.5%
Table 7.7	Percentage Mineralized Samples by Alteration – ZINC for 0.4%, 0.8% and >1.2% Zn 75
Table 7.8	Percentage Mineralized Samples by Alteration – TIN for 0.08%, o.12% and >0.18% Sn 76
Table 11.1	Eloro CRMs Details
Table 11.2	Eloro Tin CRM
Table 11.3	Blank Quarry Material Certified Average Assay Values Based on ALS Laboratory ME-M61 Analyses
Table 13.1	Selected Analyses of Pb-Zn-Ag Metallurgical Composites
Table 13.2	Selected Analyses of the Tin-rich Metallurgical Composites
Table 13.3	DHK-15 LCT Cycle Stability
Table 13.4	Summary of Locked Cycle Test Average Results for Sample DHK-15



Table 13.5	DHK-18 LCT Cycle Stability
Table 13.6	Summary of Locked Cycle Test Average Results for Sample DHK-18138
Table 13.7	LCT Final Concentrate Analyses
Table 13.8	Preliminary "ore sorting" Test Results – Base Metals139
Table 13.9	Preliminary "ore sorting" Test Results – Silver
Table 13.10	Summary of BCR Tin Recovery Test Results
Table 13.11	Summary of the WAI Testwork Tin Recoveries Based on 5% Sn Product Grade143
Table 13.12	Preliminary "ore sorting" Test Results – Tin149
Table 13.13	Summary of Bond Ball Mill Index Test Results (kWh/t-metric) for Zn-Pb-Ag Samples 151
Table 14.1	General Statistics of the Iska Iska Database Assays as of 31 January 2023 156
Table 14.2	Summary Statistics of Uncapped vs Capped Values in the 30 g/t AgEq Envelope
Table 14.3	Global Statistics of Composites MinZone 30 vs MinZone UG 167
Table 14.4	Table Showing Concentration of Metals Laterally in Min Zone UG (5 m composites) 168
Table 14.5	Showing Concentration of Metals Vertically in MinZone UG (5 m composites)168
Table 14.6	Iska Iska Block Model Definition
Table 14.7	MinZone 30 Summary of Grade Interpolation Parameters
Table 14.8	MinZone UG and Tin Zone Summary of Grade Interpolation Parameters
Table 14.9	Comparison of Block Grades Versus Composite Blocks
Table 14.10	Metal Price Comparison 3-year vs 1-year Averages
Table 14.11	Zn-Pb NSR Factors
Table 14.12	Summary of NRS Factors and Cut-off Grades190
Table 14.13	Summary of the Iska Iska Interim Mineral Resources as of August 19, 2023
Table 14.14	Iska Iska Inferred Zn/Pb Mineral Resource Sensitivity Table194
Table 14.15	Iska Iska Inferred Sn Mineral Resource Sensitivity Table
Table 25.1	Iska Iska Inferred Zn/Pb/Ag Mineral Resource Sensitivity Table



Table 25.2	Iska Iska Inferred Sn Mineral Resource Sensitivity Table
Table 26.1	Phase 1 Budget for the Iska Iska Project Taking Effect from August 2023 220
Table 26.2	Phase 2 Budget for the Iska Iska Project
Table 29.1	Metals with elevated concentrations* and the minerals present in mineralogical domains 1, 2, and 3

#### ix

Page



# List of Figures

Figure 1.1	Location of the Iska Iska Project2
Figure 1.2	Section Through the Iska Iska Deposit Showing the Distribution of Sn > 0.1% and Zn > 0.5% respectively
Figure 1.3	Vertical Section Through the Iska Iska Deposit Showing Ag Assays > 10 g/t in Drillholes7
Figure 1.4	Global Log-probability Plot of the Iska Iska AgEq Values10
Figure 1.5	Vertical Section of the Iska Iska Deposit Wireframes11
Figure 1.6	Location of Iska Iska Within the Western Cordillera Metallogenic District
Figure 1.7	Plan View of the Iska Iska Drill Hole Assays >= 10 g/t Ag17
Figure 1.8	Plan View of the Iska Iska Pb Assays >= 0.2% Pb
Figure 1.9	D Perspective of the Iska Iska Mineral Resources
Figure 1.10	Long Section of the Iska Iska Resource Model21
Figure 1.11	Distribution of Zn-Pb Resource at Various NSR Cut-off Values
Figure 1.12	Vertical Section Showing Infill Drilling Area Where Blocks Shown are > \$20/t NSR
Figure 1.13	Iska Iska Pit 3-D Perspective Showing Drill Hole Intersections > 0.10 g/t Au
Figure 1.14	Iska Iska Pit 3-D Perspective Showing Drill Hole Intersections > 0.10% Cu
Figure 1.15	Recommended Drill Holes for Metallurgical Testing
Figure 4.1	Location of the Iska Iska Project
Figure 4.2	Porvenir Concession
Figure 5.1	Major Access Routes and Location of the Iska Iska Project in Relation to Sucre45
Figure 5.2	Physiographic Location of the Iska Iska Project
Figure 5.3	A View of the Topography of the Iska Iska Main Area Looking North With IP Crew in the Foreground
Figure 5.4	Iska Iska Project Local Infrastructure49
Figure 7.1	Geological Provinces of Bolivia52
Figure 7.2	Regional Geological Map of Bolivia showing extent of Bolivian Tin Belt55



Figure 7.3	Age of Onset of Mineralization and Metal Zonation, Bolivian Tin Belt56
Figure 7.4	Local Geology of the Iska Iska Project Area57
Figure 7.5	Target Zones at the Iska Iska Project, May 202259
Figure 7.6	Analytical Signal Map of Iska Iska Showing Likely Extent of Major Intrusive Complex 61
Figure 7.7	Iska Iska Property Geology Map66
Figure 7.8	Longitudinal Geological Section Showing Distribution of Major Lithologies at Iska Iska 67
Figure 7.9	Iska Iska Longitudinal Section Showing Mineralization Intercepts and Alteration Patterns
Figure 7.10	Distribution of Sn and Zn, Iska Iska77
Figure 7.11	Distribution of Cu and Sn, Iska Iska77
Figure 7.12	Distribution of Ag, Iska Iska78
Figure 7.13	Distribution of Pb, Iska Iska
Figure 7.14	Distribution of Au, Iska Iska
Figure 7.15	Structural Geology of Iska Iska
Figure 7.16	Stereographic Projection of Faults, Iska Iska82
Figure 7.16 Figure 7.17	Stereographic Projection of Faults, Iska Iska
Figure 7.16 Figure 7.17 Figure 8.1	Stereographic Projection of Faults, Iska Iska
Figure 7.16 Figure 7.17 Figure 8.1 Figure 9.1	Stereographic Projection of Faults, Iska Iska82Stereographic Projection of Veins and Vein Breccias, Iska Iska83Conceptual Model of the Iska Iska Deposit and Other Surrounding Bolivian Deposits85Analytical Signal of the Total Magnetic Intensity, Iska Iska and Adjacent Property91
Figure 7.16 Figure 7.17 Figure 8.1 Figure 9.1 Figure 9.2	Stereographic Projection of Faults, Iska Iska82Stereographic Projection of Veins and Vein Breccias, Iska Iska83Conceptual Model of the Iska Iska Deposit and Other Surrounding Bolivian Deposits85Analytical Signal of the Total Magnetic Intensity, Iska Iska and Adjacent Property91Analytical Signal Map for Iska Iska and Adjacent Property92
Figure 7.16 Figure 7.17 Figure 8.1 Figure 9.1 Figure 9.2 Figure 9.3	Stereographic Projection of Faults, Iska Iska
Figure 7.16 Figure 7.17 Figure 8.1 Figure 9.1 Figure 9.2 Figure 9.3	Stereographic Projection of Faults, Iska Iska
Figure 7.16 Figure 7.17 Figure 8.1 Figure 9.1 Figure 9.2 Figure 9.3 Figure 9.4 Figure 9.5	Stereographic Projection of Faults, Iska Iska
Figure 7.16 Figure 7.17 Figure 8.1 Figure 9.1 Figure 9.2 Figure 9.3 Figure 9.4 Figure 9.5	Stereographic Projection of Faults, Iska Iska



Figure 9.8	Conductivity Data also Suggest that Mineralization is Continuous Along the Upper Parts of Santa Barbara DDH's when Averaged over a 25 m Dipole Length
Figure 9.9	Conductivity and Chargeability Data displayed within the Correlated Volume Indicated by the Santa Barbara BHIP Programs, Looking West
Figure 9.10	Lithological Domains suggested by BHIP Conductivity Data
Figure 9.11	Location of the 2022/2023 Iska Iska Mineralogical Samples Oblique (3D) View
Figure 9.12	Location of the 2022/2023 Iska Iska Mineralogical Samples Plan View104
Figure 10.1	Iska Iska Drill Plan as of August 19, 2023108
Figure 10.2	Vertical Section Showing Drill Holes and Ag Assays
Figure 10.3	Drill Bay at Huayra Kasa Adit 109
Figure 10.4	Drill Core and Sampling Facility at Iska Iska111
Figure 10.5	GeologicAI Core Scanning Facility at Iska Iska112
Figure 10.6	Iska Iska Vertical Section Showing Drill Hole Pb Assays > 0.2% Pb113
Figure 10.10	) Iska Iska Metals Pearson Correlation Matrix115
Figure 11.1	Standard AuSu-26 Accuracy Control Graph for Zn % 119
Figure 11.2	Standard EPIT-12 Accuracy Control Graph for Au g/t120
Figure 11.3	Accuracy Control Graph for Sn%
Figure 11.4	Contamination Control Graph in Blank Samples for Ag g/t121
Figure 11.5	Check/Duplicate Samples Precision Control Graph for Pb %
Figure 12.1	Assortment of Minerals Seen In Underground Artisanal Workings at Iska Iska123
Figure 12.2	Drill Core Logging/Sampling at Iska Iska
Figure 12.3	Mineralization Styles/Patterns Observed at Iska Iska
Figure 12.4	IP Survey Crew in Action SW of Huayra Kasa Adit126
Figure 12.5	Radial Drill Collar Verification at Santa Barbara Hill126
Figure 13.1	Location of 2022 / 2023 Mineralogical Test Samples at the Iska Iska Project (TOP: Oblique view; BOTTOM: Plan view)



Figure 13.2	Lead-Zinc-Silver Locked Cycle Flotation Test Flowsheet
Figure 13.3	Standard Tin Testwork Flowsheet
Figure 13.4	Low Grade Sample (0.14% Sn) - Spiral Response
Figure 13.5	Med. Grade Sample (0.38% Sn) - Spiral Response145
Figure 13.6	Low Grade Sample (0.14% Sn) - DMS Response
Figure 13.7	Med. Grade Sample (0.38% Sn) - DMS Response148
Figure 13.8	High Grade Sample (0.98% Sn) - DMS Response148
Figure 14.1	Iska Iska Deposit Drill Hole Plan155
Figure 14.2	Sectional Grade Distribution of Sn @ 0.1% (left) and Zn @ 1% (right) Threshold Looking North
Figure 14.3	Global Log-Probability Curve of the Iska Iska AgEq Values
Figure 14.4	Iska Iska Deposit Wireframes Combining 30 g/t AgEq and & 75 g/t AgEq Thresholds (UG MinZone)
Figure 14.5	Iska Iska Sn Wireframe at 0.1% Sn Threshold162
Figure 14.6	Relationship be the 30 g/t AgEq, 75 g/t AgEq and 0.1% Sn Wireframes
Figure 14.7	Log-probability plots for Ag and Pb Showing Grade Capping Thresholds165
Figure 14.8	Log-probability Plots for Sn and Zn Showing Capping Thresholds
Figure 14.9	Metal Correlations in UG MinZone169
Figure 14.10	MinZone 30 Correlogram for Ag170
Figure 14.11	MinZone UG Correlogram for Ag170
Figure 14.12	MinZone 30 Correlogram for Pb171
Figure 14.13	MinZone UG Correlogram for Pb172
Figure 14.14	MinZone 30 Correlogram for Sn173
Figure 14.15	MinZone UG Correlogram for Sn174
Figure 14.16	MinZone 30 Correlogram for Zn175
Figure 14.17	MinZone UG Correlogram for Zn



Figure 14.18	Iska Iska 50 m Swath Plot for Ag in MinZone 301	182
Figure 14.19	Iska Iska 50 m Swath Plot for Pb in MinZone 301	183
Figure 14.20	Iska Iska 50 m Swath Plot for Zn in MinZone 301	183
Figure 14.21	Iska Iska 50 m Swath Plot for Sn in MinZone 301	184
Figure 14.22	Iska Iska 50 m Swath Plot for Sn in the Tin Zone1	185
Figure 14.23	Block Model Section Showing Composites and Block Grades	185
Figure 14.24	Comparison of OK vs ID <sup>2</sup> vs ID <sup>3</sup> Interpolations1	186
Figure 14.25	3D Perspective of the Iska Iska Pit Constrained and Underground Resource	193
Figure 14.26	Iska Iska In-pit Mineral Resources Plan View1	193
Figure 14.27	Iska Iska In-pit Mineral Resources Vertical Section1	194
Figure 23.1	Location of Mina Casiterita and Other Properties Near Iska Iska	204
Figure 25.1	Location of Iska Iska Within the Western Cordillera Metallogenic District	207
Figure 25.2	Iska Iska Vertical Section Showing Drill Holes with Ag Intercepts >= 10 g/t Ag	209
Figure 25.3	Section Through the Iska Iska Deposit Showing the Distribution of Sn > 0.1% and Zn > 0.5%, respectively	210
Figure 25.4	Distribution of Zn-Pb Resource at Various NSR Cut-off Values	212
Figure 25.5	Vertical Section Showing Infill Drilling Area Where Blocks Shown are > \$20/t NSR	214
Figure 25.6	Iska Iska Pit 3-D Perspective Showing Drill Hole Intersections > 0.10 g/t Au	216
Figure 25.7	Iska Iska Pit 3-D Perspective Showing Drill Hole Intersections > 0.10% Cu	216
Figure 26.1	Recommended Drill Holes for Metallurgical Testing	219

Page



#### 1.0 SUMMARY

#### **1.1 AUTHORIZATION AND PURPOSE**

Eloro Resources Ltd. (Eloro) has retained Micon International Limited (Micon) to prepare an initial mineral resource estimate on the Iska Iska Polymetallic Project (Iska Iska or the Project) in the Department of Potosi, southwestern Bolivia, and to compile a corresponding Technical Report as defined in the Canadian Securities Administrators' (CSA) National Instrument 43-101 (NI 43-101), in compliance with Form 43-101F1, to support its release to the public.

The purpose of this Technical Report is to present an independent estimate of the Iska Iska mineral resources based on exploration work and diamond drilling completed to July 31, 2023, and to make recommendations to guide the on-going drilling program aimed at upgrading and increasing the resource. The mineral resource disclosed in this report is best described as "INTERIM" as the deposit limits still remain to be established and much of the deposit has only been tested by wide-spaced drilling.. Eloro requires an independent Technical Report in order to support regulatory disclosures.

The Project comprises a silver-tin and zinc-lead- silver polymetallic (Ag, Sn, Au, Pb, Cu, Bi, Zn, In) porphyry-epithermal complex. Since its inception in 2020, Eloro has completed detailed exploration encompassing geological mapping and geophysical investigations, carried out substantial mineralogical and metallurgical investigations and completed 96,386 m of diamond drilling in 139 drill holes. All these activities have returned positive encouraging results. This report not only supports the public disclosure of the initial mineral resource estimate and the interpretation of the exploration/metallurgical results thus far, but also provides details of Eloro's next exploration phase to upgrade and expand the mineral resources, paving the way for preliminary economic studies, and in so doing, laying the foundation for advanced economic studies. The effective date of this report is August 19, 2023.

#### **1.2 PROJECT DESCRIPTION AND LAND TENURE**

# 1.2.1 Location and Land Tenure

The Project is in the Sud Chichas Province of the Department of Potosi, southern Bolivia, approximately 48 km north of Tupiza city (Figure 1.1). It is within the Porvenir Concession which is comprised of 36 cuadrículas totaling 900 hectares (ha). "Cuadrícula" is the current mining measurement unit in Bolivia, which is an inverted pyramid with the inferior vertex pointing to the earth's core, with a surface area equal to 25 ha.

The property is centred on Universal Transverse Mercator coordinate system, World Geodetic System 1984, Zone 20K, 205,500 meters (m) East and 7,655,500 m North. Access is by road from Tupiza requiring 4-wheel drive vehicles, a journey taking 1 to 1.5 hours, depending on weather conditions.

Empresa Minera Villegas SRL, a Bolivian Mining Company, is the title holder of the Porvenir Concession/Iska Iska Project. It holds a Special Transitory Authorizations (STAs) to develop its mining activities in accordance with the legal articles described in Section 4.4.



Figure 1.1 Location of the Iska Iska Project



Source: Eloro 2023

#### 1.2.2 Underlying Agreements

Eloro, through its 98% owned Bolivian subsidiary Minera Tupiza SRL, signed a Definitive Option Agreement with Empresa Minera Villegas SRL on January 6, 2020, through which the parties agreed: i) granting Eloro an option to acquire the mining rights on Porvenir Concession, which will be subject to the fulfillment of the suspensive condition agreed therein; and ii) the terms and conditions of adequate and sufficient compensation for the granting of the option and the signing of a Mining Association Agreement (JV) between the parties.

Likewise, on January 6, 2020, a JV was signed between Eloro, through its subsidiary Minera Tupiza SRL, and Empresa Minera Villegas SRL, through which it was agreed on the obligations and rights that both will hold and exercise over the Iska Iska Project. The JV was later duly notarized, registered, and published in compliance with the applicable mining regulations.

On September 28, 2021, Minera Tupiza SRL, as Eloro's subsidiary, signed a first addendum to the Option Agreement with Empresa Minera Villegas SRL and Empresa Unipersonal Minera VIROED -a sole proprietorship company-, through which the parties agreed to include and modify the Option Agreement to increase and improve the operations, activities, and mining projects to be developed, incorporating into the Iska Iska Project the mining areas denominated Mina Casiterita and Mina Hoyada ("Additional Areas"). Empresa Unipersonal Minera VIROED is the 100% direct solicitor of two new Administrative Mining Contracts over the Additional Areas. Once the Additional Areas are granted, Eloro will have the opportunity to either: a) execute the granted option on the Additional Areas -only if the suspensive condition is met-; b) acquire 100% of participation in VIROED -only if the latter is transformed into a limited liability company-; or c) sign JVs on the Additional Areas, giving Eloro 100% economic interest in the Additional Areas.



On September 20, 2022, Minera Tupiza SRL, as Eloro's subsidiary, signed a second addendum to the Option Agreement with Empresa Minera Villegas SRL and Empresa Unipersonal Minera VIROED through which the structure and the term of payment of the Option Agreement were modified.

Finally, on November 9, 2022, a Letter of Intent (LoI) was signed between Minera Tupiza SRL, as Eloro's subsidiary, and Edwin Alan Villegas Romero and Juan Rodrigo Villegas Romero - partners of Empresa Minera Villegas SRL- through which the parties agreed to set out the terms and conditions for Eloro Resources Ltd. to acquire 100% of participation in Empresa Minera Villegas SRL once the entire purchase price has been paid.

According to the Definitive Option Agreement, its addendums, the LoI, and receipt of all the required regulatory approvals, Eloro must issue 500,000 common shares to Empresa Minera Villegas SRL and must complete the payment of US\$10 million to that company within four and a half years from the signing date of the Definitive Option Agreement. Additionally, once Eloro has control over the Additional Areas -in any manner agreed- it will have to issue 200,000 common shares to Edwin Alan Villegas Romero. During the 4.5 years, Minera Tupiza SRL will undertake an exploration and development program on the Iska Iska Project.

On September 20, 2022, the parties acknowledged that Eloro issued the corresponding 500,000 common shares in favor of Empresa Minera Villegas SRL and that it has already paid a US\$4.4 million of the company purchase price, which must be completed before July 6, 2024. More recently on October 1, 2023, Eloro made a further payment of US\$0.5 million to the vendor increasing the amount already paid to US\$4.9 million with final payment owing of US\$5.1 million.

Minera Tupiza SRL will work under the JV's terms and conditions alongside Empresa Minera Villegas SRL (Title Holder), which currently holds a Special Transitory Authorization (STA) on the Porvenir Concession to develop its mining activities under the Bolivian mining law/regulations as summarized below. To date, the Title Holder continues with the adequation procedure -migration to the new mining regime- for converting the STA into an AMC over the mining rights on the Porvenir Concession.

# **1.3 GEOLOGY AND MINERALIZATION**

The Iska Iska deposit is in the southwest part of the Eastern Cordillera morpho-structural province of Bolivia, which is endowed with several major/world class polymetallic mines and mineral deposits including Cerro Rico de Potosi, Chorolque, Silver Sand, San Bartolome, San Vicente, Tasna, Choroma, and Siete Suyos.

# 1.3.1 Geology

Iska Iska is classified as a polymetallic porphyry-epithermal deposit (Bolivian type), associated with a Miocene possibly collapsed/resurgent caldera, emplaced on Ordovician age basement. Its mineralizing sequence/events commenced with a xenothermal high temperature pulse (Sn, W, Bi) characterized by the mineralogical paragenetic association comprising quartz, pyrite, cassiterite, rutile and tourmaline, which was superimposed by a later epithermal low temperature high sulphidation phase (Ag, Zn, Pb, Cu, Au), with minerals such as sphalerite, galena, chalcopyrite, pyrite, quartz, alunite, and silver sulphides, thus culminating in a polymetallic telescoped mineralized system.



The high temperature mineralizing event was developed mostly in the granodiorite and in the early and late intrusion breccia, whereas the low temperature phase was deposited in the overlying dacitic domes, whose conduits were later affected by phreatic and phreatomagmatic explosions and brecciation, where it was redeposited in favourable lithological-structural traps including large breccia pipes, which are highly permeable structures.

Intrusive breccias related to Andean tectonism remobilized the pre-existing mineralization (Sn, Zn, Pb, Ag, Cu, Bi, etc.) and redeposited it across all the rock types within the project area. The final late stage of the mineralization event is related to a process of selective or total replacement of both clasts and matrices predominantly by Ag, Pb, Zn, Fe sulphides.

#### 1.3.2 Mineralization

The bulk of mineralization occurs within dacitic domes, the breccias and within a substantive dacitic porphyry in the caldera valley, now named the Iska Iska Porphyry, which is an important part of the overall porphyry-epithermal Ag-Pb-Zn mineralizing system. This later stage mineralization is superimposed on a higher temperature, earlier stage and likely deeper tin porphyry system which was intersected in drill holes principally on the west side of the Santa Barbara Breccia Pipe and at depth below the porphyry-epithermal mineralization.

Of the area drilled, the eastern half is enriched in Zn while the western half is enriched in Sn. In either case, the mineralization remains open (i.e., for Zn eastwards and north and south; and for Sn westwards and north and south). Thus, although the Iska Iska deposit is currently considered as one entity, in detail the deposit is split into two distinguished mineralization domains, i.e., a predominantly Zn-Pb-Ag mineralization to the east (Polymetallic Domain) and a Sn-Ag-Pb to the west (Tin Domain) – Figure 1.2.



Figure 1.2 Section Through the Iska Iska Deposit Showing the Distribution of Sn > 0.1% and Zn > 0.5% respectively

Table 1.1 which is based on unconstrained raw drill hole assays shows the statistics for the more important elements/metals within the Iska Iska Project area.



Element	Count	Mean	Std. Dev	CV	Var	Min	L.Q	Median	U.Q	Мах
Ag g/t	50907	7.78	52.43	6.74	2748.52	0.06	0.50	1.00	4.50	7050.00
Au g/t	50907	0.04	0.31	7.56	0.10	0.00	0.01	0.01	0.03	38.90
Bi %	50907	0.00	0.03	6.73	0.00	0.00	0.00	0.00	0.00	2.22
Cd %	50907	0.00	0.01	3.03	0.00	0.00	0.00	0.00	0.00	0.40
Cu %	50907	0.03	0.10	4.10	0.01	0.00	0.00	0.01	0.02	6.33
Fe %	47010	4.19	2.62	0.63	6.87	0.01	2.54	3.78	5.08	52.20
In g/t	15917	10.94	15.28	1.40	233.59	0.09	10.00	10.00	10.00	961.00
Pb %	50907	0.12	0.58	4.71	0.33	0.00	0.01	0.01	0.06	28.29
Zn %	50907	0.28	0.76	2.71	0.58	0.00	0.01	0.04	0.21	20.90
Sn %	50907	0.03	0.12	3.76	0.01	0.00	0.00	0.01	0.02	9.84

Table 1.1 General Statistics of the Iska Iska Database Assays as of 31 January 2023

Of particular note and significance are the elevated mean values of Ag, Au, In, Pb, Sn and Zn which are clearly above the general background values in the earth crust; for example, Ag has a raw mean of about 8 g/t. This assuredly demonstrates not only a wide scale but also an extremely intense mineralizing event(s).

The main mineralized structures are veins, vein breccias, veinlets, stockworks, disseminations and replacements in the breccia pipe and adjacent dacitic domains. Typically, grades in the adjacent dacitic rocks enveloping the breccia pipes tend to be higher than those in the breccia due to less dilution from unmineralized fragments that are widespread in the breccia.

# 1.4 STATUS OF EXPLORATION

# 1.4.1 Geology/Mineralization

#### 1.4.1.1 Breccia Pipes

A substantial amount of diamond drilling and geological work by the Eloro team since the May 2022 Technical Report along with bore hole induced polarization surveys (BHIP) has led to a much greater understanding of the geology of Iska Iska. The major advance in understanding is that the original breccia pipe-hosted mineralization (especially in the Santa Barbara Breccia Pipe in which the original discovery hole was drilled, (see the Eloro press release of January 26, 2021) has become a lesser part of an enormous mineralization system within the Iska Iska caldera complex with a diameter exceeding 2 km and extending to a depth of more than 1 km.

# 1.4.1.2 Geological marker

Currently, a geological marker to define mineralization/deposit limits remains elusive. Analytical results to date indicate that there is little, if any, definitive lithological control to the mineralization as significant mineralized intercepts have been encountered in all rock types encompassing dacitic and



basement sedimentary rocks. However, it should be noted that all drilling so far is within the Iska Iska Caldera Complex and the telescoping mineralization events may have obliterated lithological controls. Mineralization beyond the caldera remains to be tested. Similar to lithology, no single hydrothermal alteration type is definitive in the identification of mineralized zones. These observations culminated in a modelling strategy that utilizes a silver equivalent threshold value as discussed in detail in Section 1.6.1 below.

Currently, a Geologic AI scanning program is in progress at site. It is hoped that this program will benefit the project by establishing geometallurgical domains that will assist in a rapid recognition of the mineralization envelopes and reduce sampling/analytical costs.

# 1.4.2 Geophysics

IP downhole surveys and magnetometry collectively indicate an electrically continuous mesh of sulphide stringers, disseminations/impregnations and breccias of mineralization over the entire drilled area. This finding is well supported by the drilling results (see Figure 1.3 below) and by spatial analysis/variography described in detail in Section 14.0 of this report.

Geophysical data, i.e., 3D inverse magnetic modeling and analytical signal magnetic maps as discussed in more detail in Section 9.2.3, indicate the potential for a very extensive tin porphyry deeper in the Iska Iska system. The magnetic analytical signal map suggests that the overall deeper tin porphyry system may extend for as much as 5 km by 3 km. The central part of the Iska Iska caldera underlain by the Iska Iska Porphyry is within this large potential tin complex and is marked by a low magnetic signature surrounded by a much higher-level magnetic signature.

# 1.4.3 Diamond Drilling

To date 139 holes (principally HQ size except in deep holes where holes were stepped down to NQ size) totalling 96,386 m have been completed covering a surface area of about 2.5 km x 3 km. All drill holes intersected mineralization with reportable intersections (Figure 1.3); the deepest hole is about 1 km. Deposit limits remain open in all directions and at depth.



Eloro Resources Ltd.

Figure 1.3 Vertical Section Through the Iska Iska Deposit Showing Ag Assays > 10 g/t in Drillholes.





#### **1.5** METALLURGICAL TESTWORK

Preliminary tests at TOMRA in Germany indicate the mineralization at Iska Iska is amenable to "oresorting" with removal of at least 40% of the waste in the Polymetallic Domain and up to 80% in the Tin Domain which would substantially increase concentrator feed grades as well as reduce future operating costs and significantly lower the cut off grades (COG) for the pending mineral resource estimate update (MRE).

Positive "ore-sorting" results were obtained from composite samples of both the tin (Sn) and polymetallic (Ag-Zn-Pb) mineralization domains in the Santa Barbara area indicating its wide applicability throughout the entire deposit.

# 1.5.1 Preliminary Estimate of Zinc, Lead and Silver Recoveries from Polymetallic Mineralization

The QP recognizes that the metallurgical testwork results obtained to date are only preliminary and further optimization testwork will improve metal recoveries and quality of the final concentrate products. Nevertheless, a combination of the preliminary "ore sorting" results and results from the two locked cycle flotation tests have been used to provide preliminary metallurgical parameters for the maiden mineral resource estimate. The overall estimated metallurgical recoveries for the Polymetallic (Zn-Pb-Ag) Domain are based on pre-concentration recoveries of 97% for Zn, Pb and Ag, followed by the concentrator recoveries of Zn = 87%, Pb = 80%, Ag = 88%.

# 1.5.2 Preliminary Estimate of Tin Recoveries

The results from the tin recovery tests completed by UTO, BCR, WAI and TOMRA have been used by Eloro to develop a preliminary tin recovery flowsheet with scoping level test results that could be used to support the mineral resource estimate. In the analysis of the testwork results the tin recoveries from the testwork were adjusted to produce a 5% Sn concentrate, which is considered a reasonable feed grade for the tin fuming process. At this preliminary stage of the project development, metallurgical recoveries for the Tin Domain are based on pre-concentration recoveries of 62% for Sn followed by concentrator recoveries of Sn = 50%, Pb = 64% and Ag = 53%.

The work by WAI showed that the reasonable recoveries of potentially valuable silver, lead and gold from tin mineralization are possible. Non-optimized recoveries of Ag, Pb and Au into the bulk sulphide concentrate were 58%, 70% and 68%, respectively.

It is clear that the cassiterite within the Iska Iska deposit occurs in several forms, from relatively largegrained particles which can readily be recovered using conventional mineral processing technologies, to ultra fine grains that will remain locked in gangue or lost as slimes. The occurrence of "wood tin" has also been documented, which is a variety of cassiterite composed of radiating fibers resembling dry wood, generally formed at relative low temperatures. Although the estimate of tin recovery is based on actual results from tests undertaken on a variety of tin-rich styles of mineralization occurring at Iska Iska, separate estimates and recovery models for different tin-rich zones may be a more appropriate way forward.



# 1.5.3 Recoveries for Other Metals

Copper and gold as well as other secondary metals including indium were not included herein as additional metallurgical test programs are required to properly assess their potential contribution as by-products.

#### **1.6** MINERAL RESOURCE

# 1.6.1 Modelling Strategy

The deposit (as described under subsections 1.3.1/1.3.2 above) consists of several potentially economic components/elements that contribute to the deposit value. The polymetallic nature necessitates the use of an equivalent metal grade by consideration of the metal prices and recoveries in reporting drill intersections of significance and also in determining threshold values for modelling in the absence of a geological marker. Silver equivalent (AgEq) was selected due to Silver (Ag) having a clearly distinct anomalous average value (Table 1.1). The formula used for calculating the AgEq value is as follows:

AgEq g/t = [(Ag ppmx%Rec.xPrice/g) + (Pb ppmx%Rec.xPrice/g) + (Zn ppmx%Rec.xPrice/g) + (Sn ppmx%Rec.xPrice/g) + (Cu ppmx%Rec.xPrice/g) + (Au ppmx%Rec.xPrice/g) + (Bi ppmx%Rec.xPrice/g) + (Cd ppmx%Rec.xPrice/g)]/ (Ag Price/g x %Rec)

(where Rec. = metallurgical recovery.)

The following are not included in the AgEq formula: mining, processing, and transport costs.

Modelling of the deposit was based on an AgEq threshold value of 30 g/t based on the log-probability plot as shown below in Figure 1.4.







Figure 1.4 Global Log-probability Plot of the Iska Iska AgEq Values

The 30 g/t AgEq threshold shows a clear break from lower grade/background mineralization to higher grade mineralization. Note that a log-probability curve was used as the distribution of the AgEq values is log-normal.

Modelling the broad envelope of mineralization was achieved using a threshold value of 30 g/t AgEq as determined above. Assuming favourable economic factors (especially good metal recovery factors), the 30 g/t AgEq (30 MinZone) would possibly yield an open pit resource since the mineralization is broad and at/close to surface. Mineralization likely to yield a potential underground resource was modelled at an arbitrarily selected threshold value of 75 g/t AgEq (UG MinZone) and is entirely enclosed within the 30 g/t Ag Eq envelope.

To fully assess the significance of the tin resource, a tin-based wireframe (Tin Zone) was also modelled using a threshold value of 0.1% Sn to define the potentially economic high-grade core.

The modelled wireframes are shown in Figure 1.5.Of particular note is the fact that the 30 g/t AgEq envelope(30MinZone) encompasses all holes drilled reflecting that the mineralization remains open in all directions



Eloro Resources Ltd.

Figure 1.5 Vertical Section of the Iska Iska Deposit Wireframes





#### **Remarks:**

The use of an equivalent metal grade/NSR (net smelter return) value in multi-metal deposits is enshrined in the CIM 2019 Best Practice Guidelines (see page 34).

In all Press Releases (PRs) from 2020 up to mid 2023, Eloro assumed 100% recovery for all the metals while awaiting results for metallurgical testwork. Metallurgical recoveries for the Iska Iska deposit are now available for Ag, Pb, Sn and Zn as described under Section 1.5 above; however, recoveries for the other potentially valuable metals including Au, Cu, In, Cd and Bi are pending. Nonetheless, it is recommended that with immediate effect going forward, AgEq calculations should only include metals with established metallurgical factors.

From 2020 up to 2022, the metal prices (US\$/kg) used are as follow: Ag = \$607.00; Sn = \$23.55; Zn = \$2.98; Pb = \$1.92; Au = \$54,932.80; Cu = \$7.00; Bi = \$12.76; and Cd = \$5.50.

# 1.6.2 Estimation Approach/Strategy

As already noted above, the Iska Iska deposit is polymetallic in nature and as such, the value of its mineralized material will result from the extraction and sale of a combination of metals. For the current Initial Mineral Resource, only Ag, Pb, Sn and Zn are considered as they are the only elements for which metallurgical recoveries have been provided. Pending further success in metallurgical testwork, Cu, Au, and In and possibly others may be added to the economic equation. Based on current drilling results, none of the metals constituting the deposit is of high enough grade to make the deposit potentially economic on its own without significant contributions from the other co-products. Hence, Micon selected the Net Smelter Return (NSR) approach which recognizes co-products as opposed to the Metal Equivalent approach which recognizes a chief product supported by by-products. For the NSR method, the dollar value that each metal contributes towards the total value is calculated and is expressed as one value referred to as the NSR value. The calculation of an NSR value considers revenues, metallurgical recoveries, on-site operating costs, smelter deductions, treatment charges, penalties, and transportation costs for all metals of potential economic interest. This NSR value can then be used to derive a cut-off value, where the NSR cut-off value is then the dollar value of a given sample or block that equals the total operating costs, as appropriate.

#### **Remarks:**

It is important to note that the silver equivalent (AgEq) grade metric is not as informative as the NSR values, because it fails to include the post processing (smelting) factors such as deleterious elements charges, concentrate mass pull, treatment, and transport costs. This makes the NSR metrics a better representation of the deposit potential. AgEq is only used within this report to define the limit of the potential open pit and potential underground mineralization. All resource estimations have been done using NSR values.

# 1.6.3 Grade/Tonnage Estimation Process

Grade interpolation parameters were determined on the basis of variography as detailed in Section 14.0. The ordinary kriging (OK) technique was used for block grade interpolation. Grade interpolations



were conducted separately for each of the wireframes. The block grade interpolation was validated globally by using Inverse Distance Squared (ID2) and Inverse Distance Cubed (ID3) methods (see Section 14.0); and locally by comparing block grades with composites in the core Santa Barbara area as shown in Table 1.2 below.

Element	Co	ount	Avg. Gra	Difforence	
Element	Comps	Blocks	5 m Comps	Blocks	Difference
Ag g/t	823	14,929	34.932	34.362	-1.63%
Au g/t	823	14,929	0.065	0.068	5.21%
Cu %	823	14,929	0.095	0.092	-3.90%
Pb %	823	14,929	0.555	0.541	-2.48%
Sn %	823	14,929	0.109	0.106	-3.07%
Zn %	823	14,929	0.545	0.513	-5.87%

Table 1.2
<b>Comparison of Composite Grades Versus Block Grades</b>

Tin Envelope

Element	Co	ount	Avg. Gra	Difforence	
	Comps	Blocks	5m Comps	Blocks	Difference
Sn %	2,694	111,354	0.106	0.106	-0.05%

The comparison in Table 1.2 demonstrates that the overall estimate is reasonably conservative and matches the input data.

For tonnage estimates, SG values were interpolated within the mineralized wireframes using the  $ID^2$  method. A global average SG value of 2.87 t/m<sup>3</sup> was applied in those areas where density data was not available.

# 1.6.4 Mineral Resources Estimate Parameters/Assumptions

The economic and technical parameters/assumptions which offer the Iska Iska deposit reasonable prospects for eventual economic extraction by open pit (OP) and underground (UG) mining are as follow:

# 1.6.4.1 Economic Parameters

Three-year trailing average metal prices in US\$ of Ag = \$22.52/oz, Pb = \$0.95/lb, Sn = \$12.20/lb, Zn = \$1.33/lb, and an exchange rate of 1.30 CAD\$: 1 US\$.

Mining Costs = US\$3.41/t and US\$25.22/t for OP and UG, respectively; G & A = US\$0.55/t for Polymetallic Domain (Zn-Pb-Ag) and US\$0.68/t for the Tin Domain.



# 1.6.4.2 Technical Parameters

Metallurgical recoveries for the polymetallic Zn-Pb-Ag domain are based on pre-concentration recoveries of 97% for Zn, Pb and Ag, followed by the concentrator recoveries of Zn = 87%, Pb = 80%, Ag = 88%.

Metallurgical recoveries for the tin- domain are based on pre-concentration recoveries of 62% for Sn followed by concentrator recoveries of Sn = 50%, Pb = 64% and Ag = 53%.

For the open pit shell, the general pit slope angle was assumed to be 45 degrees based on general industry standards applicable to situations where geotechnical studies have not been conducted. The underground resource is based on continuous/coherent shapes after discounting a crown pillar of about 20 m in thickness.

#### 1.6.4.3 NSR Determination

Based on the economic and technical parameters discussed above, the NSR value for each mineral block was calculated using the following formula.

NSR Fourmula: NSR $(x_1, x_2, ..., x_n) = x_1 r_1, p_1 (V1 - R1) + x_2 r_2 p_2 (V2 - R2) + \dots + x_n r_n p_n (V_n - R_n) - \frac{c_s}{\kappa} - \frac{c_t}{\kappa}$ 

Where:

x= Grade of each metal in deposit

r= Process recovery of each metal

R= Refining cost of each metal

p= Smelting recovery of each metal

V= Market sale value of each metal

K= Metric tons of material required to produce one metric ton of concentrate

 $C_s$  = Smelter cost per ton concentrate

 $C_t$  = Transportation costs per ton of concentrate

# 1.6.5 Mineral Resource Definition

Following the validation of the interpolated grades and establishment of the NSR factors as described above, the following steps were taken to arrive at qualifying and quantifying the mineral resource:

- 1. Merging the MinZone 30, MinZone UG and the Tin Zone but maintaining the established hard boundaries in order to preserve the high grade.
- 2. Assigning NSR values to each block in the merged wireframes.
- 3. Conducting open pit optimization using Lerch Grossman method.
- 4. Defining coherent blocks beneath the optimized pit giving an allowance of a 20 m thick crown pillar.



# 1.6.6 Mineral Resource Statement

Based on the economic and technical assumptions discussed in sub-section 1.6.4, and the definition procedures described in sub-section 1.6.5, the Initial Mineral Resources for the Iska Iska deposit are summarized in Table 1.3. As already discussed, due to the multi-metal nature of the deposit, the resources are reported using NSR cut-off values which are as follows:

Polymetallic Zinc-Lead-Silver domain = US\$9.20/t for open pit (OP) and US\$34.00/t for underground (UG) mining; Tin Domain (with silver + lead credits) = US\$6.00/t for OP only. The NSR cut-off grades take into account operating costs, impact of "ore-sorting" and metallurgical recoveries in both domains.

		Average Value						
Category	Domain	Mining Method	Zn-Pb NSR Cut-off (US\$/t)	Tonnage (Mt)	Zn+Pb NSR (US\$/t)	Zn (%)	Pb (%)	Ag (g/t)
		OP	9.20	541	20.32	0.69	0.28	13.6
Inferred	Polymetallic	UG	34.40	19	42.23	1.88	0.36	18.8
		OP+UG	-	560	21.08	0.73	0.28	13.8
Inferred	Tin	OP	6.00	110	12.22	0.12	0.14	14.2

Table 1.3 Summary of the Iska Iska Interim Mineral Resources as of August 19, 2023

Notes:

1. The mineral resources have been estimated in accordance with the CIM Best Practice Guidelines (2019) and the CIM Definition Standards (2014).

2. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration. OK interpolation method was used.

3. The OP Mineral Resources are reported within a constrained pit shell (slope angle 45 degrees) at NSR cut-off values of US\$6/t and US\$9.20, for Tin Domain (Tin-Lead-Silver) and Polymetallic Domain (Zinc-Lead-Silver), respectively. The UG resource is a coherent mass (less 20 m thick crown pillar) beneath the pit reported at a cut-off of US\$34.40.

4. Metallurgical recoveries for the Polymetallic Domain are based on pre-concentration recoveries of 97% for Zn, Pb and Ag, followed by the concentrator recoveries of Zn = 87%, Pb = 80%, Ag = 88%.

5. Metallurgical recoveries for the Tin Domain are based on pre-concentration recoveries of 62% for Sn followed by concentrator recoveries of Sn = 50%, Pb = 64% and Ag = 53%.

- 6. The mineral resource estimate is based on 3-year trailing average metal prices of Ag = US\$22.52/oz, Pb = 0.95/lb, Sn = US\$12.20/lb, Zn = US\$1.33/lb, and an exchange rate of 1.30 C\$: 1 US\$.
- 7. Other economic factors include: mining costs = US\$3.41/t and US\$25.22/t for open pit and underground, respectively; G & A costs = US\$0.55/t for the Polymetallic Domain and US\$0.68/t for the Tin Domain; all-inclusive processing costs for the Polymetallic Domain = US\$8.62/t comprising US\$0.40/t for pre-concentration followed by US\$12.66/t for concentrator, and all-inclusive processing costs for the Tin Domain = US\$5.29/t comprising US\$0.40/t for preconcentration followed by US\$13.80/t for concentrator. Concentrate transportation, smelting and refining terms have been included for the Polymetallic Domain. Tin fuming recoveries and costs, and concentrate transportation, smelting and refining terms have been included for the Tin Domain.
- 8. Mineral resources unlike mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
- 9. The QPs are not aware of any known permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.
- 10. The UG resources include the 'must take' minor material below cut-off grade which is interlocked with masses of blocks above the cut-off grade within the MSO stopes.
- 11. Figures may not tally due to rounding.



12. Average stripping ratio for the open pit is 1:1. The open pit has a diameter of approximately 1.4 km and extends to a maximum depth of approximately 750 m from the summit of the Santa Barbara hill.

#### **1.7** INTERPRETATION AND CONCLUSIONS

#### 1.7.1 Geological Setting

The potential of the Iska Iska Project is unquestionable in terms of its regional geological setting. As shown in Figure 1.6, it is in the midst of a proven metallogenic district with well-established world-class mines such as Cerro Rico de Potosi, Chorolque, and San Vicente.



Figure 1.6 Location of Iska Iska Within the Western Cordillera Metallogenic District

Source: Gemmrich et al., 2020.

The fact that nearby mines of the Bolivian polymetallic type are operating profitably gives credibility to the positive results already recorded for the current/on-going metallurgical and "ore sorting" investigations at Iska Iska.



# 1.7.2 Scale of Mineralization/Deposit

The area tested by drilling measures 3 km x 2 km. It is remarkable that all holes drilled intersected reportable mineralization as shown in Figure 1.5 above and Figure 1.7 below. Thus, the drilling success rate is 100%, providing indisputable evidence for an extensively developed mineralizing system. Currently, the limits of the mineralized envelope in the project area remain undetermined.



Figure 1.7 Plan View of the Iska Iska Drill Hole Assays >= 10 g/t Ag

Source: Generated from the Iska Iska MRE Database, Micon 2023.

Based on assays received to date, the best mineralization in terms of grade and widths is within the Santa Barbara area. However, it appears that this may be an artifact of drilling density and multiple orientations of the drill holes.

# 1.7.3 Metal Distribution/Domains

Analysis of the Iska Iska deposit chief metal distributions based on assays received to date reveals the following:

Ag is ubiquitous in above average concentrations throughout the drilled area of the Iska Iska deposit as seen in Figure 1.7 above. Au is also apparently ubiquitous.

Sn of significance occurs on the west half of the drilled area as earlier noted in Figure 1.2

Zn of significance occurs on the east half of the drilled area also as earlier noted in Figure 1.2

Pb of significance generally occurs on the east half of the drilled area as shown in Figure 1.8 below.



The distribution of other metals likely to be incorporated in future mineral resource updates are shown in Appendix 3.

The metal correlations matrix (Table 1.4) shows that the strongest relationships are between Pb and Ag; Pb and Zn; Sn and Ag; Cd and Zn; and between Cd and Pb.

Element	AgCAP	AuCAP	BiCAP	CdCAP	CuCAP	PbCAP	SnCAP	ZnCAP
AgCAP	1.00	0.17	0.24	0.11	0.17	0.52	0.37	0.16
AuCAP	0.17	1.00	0.29	0.07	0.10	0.12	0.17	0.13
BiCAP	0.24	0.29	1.00	0.04	0.22	0.09	0.24	0.03
CdCAP	0.11	0.07	0.04	1.00	0.01	0.37	0.06	0.57
CuCAP	0.17	0.10	0.22	0.01	1.00	0.07	0.23	-0.02
PbCAP	0.52	0.12	0.09	0.37	0.07	1.00	0.32	0.50
SnCAP	0.37	0.17	0.24	0.06	0.23	0.32	1.00	0.06
ZnCAP	0.16	0.13	0.03	0.57	-0.02	0.50	0.06	1.00

Table 1.4 Iska Iska Deposit Metal Correlation Matrix Within the Broad 30 MinZone

Figure 1.8 Plan View of the Iska Iska Pb Assays >= 0.2% Pb





# 1.7.4 Metallurgy

#### 1.7.4.1 Pb-Zn-Ag Flowsheet Development

Preliminary testwork to date, using Pb-Zn-Ag composite samples selected by Eloro to represent typical Iska Iska mineralization, has shown that salable lead and zinc concentrates containing significant silver can be produced using conventional, industry standard technology.

Cu and Au as well as other secondary metals including In were not included herein as these require additional metallurgical tests but have potential to contribute as by-products.

#### 1.7.4.2 Tin Flowsheet Development

The metallurgical and mineralogical test results from the preliminary testwork described in this report suggest that tin deportment and cassiterite liberation characteristics vary considerably throughout the Iska Iska deposit. Although a preliminary prediction of tin recovery has been developed based on the early stage testwork results, a great deal of additional geo-metallurgical work needs to be done to optimize the flowsheet and to better understand the mineralogical constraints within the various tinrich domains.

#### 1.7.5 Initial Mineral Resources

#### 1.7.5.1 Geometry/Morphology

As already stated above, the Iska Iska mineral resources are separated into a Polymetallic (Zn/Pb/Ag) resource and a Tin (Sn/Ag/Pb) resource. The 3D perspective of the mineral resources is shown in Figure 1.9 and a vertical section is presented in Figure 1.10



Eloro Resources Ltd.

Figure 1.9 D Perspective of the Iska Iska Mineral Resources





Eloro Resources Ltd.





Note: For Sn, HG = NSR > US\$12/t & LG = NSR between US\$6/t and Us\$12/t. For Zn/Pb, HG = NSR > US\$25/t & LG = NSR between US\$9.2/t and US\$25/t. UG Resource = NSR > \$34.40/t.


# 1.7.5.2 Key Attributes

The resources are characterized by the following important attributes which will have favourable influence on the viability of the deposit in future economic studies:

- Very low average "waste to ore" stripping ratio of approximately 1:1.
- The resource grade for the Polymetallic (Zn-Pb-Ag) domain shows a zoned pattern related to the intensity of drilling Figure 1.11. The higher-grade core (Santa Barbara adit area) with NSR values > US\$25/t is the most intensely drilled part of the deposit. As the drilling becomes less intense the NSR value drops to between US\$15/t and US\$25/t. And with sparse drilling, the NSR value drops further to between US\$9.20 and US\$15.
- The distribution of higher-grade zones at/close to surface as shown in Figure 1.10 and Figure 1.11 offers an opportunity for a quick payback period when the deposit is eventually put into production. The grade-tonnage sensitivity Table 1.5 shows a range of options for future production scenarios. The scenarios that offer a balance between a high tonnage and a high grade appear to be the NSR cut-off values of US\$15 and US\$25/t. This gives a coherent mass centered around the Santa Barbara and is closest to surface as depicted in Figure 1.11.

ZnPbAg NSR	Cum.	Average Value			
Cut-off (US\$/t)	Mass (Mt)	ZnPbAg-NSR (US\$/t)	Zn (%)	Pb (%)	Ag (g/t)
50	9	62.9	1.45	1.04	59.5
45	15	56.7	1.45	0.92	49.4
40	25	50.7	1.41	0.81	41.0
35	45	44.9	1.31	0.69	34.7
30	77	39.6	1.22	0.59	29.1
25	132	34.5	1.11	0.50	24.3
20	217	29.7	0.98	0.42	20.3
15	342	25.2	0.85	0.35	16.9
11	467	21.9	0.74	0.30	14.6
9.2	541	20.3	0.69	0.28	13.6

Table 1.5 Iska Iska Inferred Zn/Pb/Ag Mineral Resource Sensitivity Table

The Tin Domain is stricto sensu also a "Polymetallic" Domain because its value is enhanced by contributions from Pb and Ag without which it would be sub-economic. The sensitivity table for the Tin Domain is shown below in Table 1.6.

A comparison between Table 1.5 above and Table 1.6 below provides evidence that at this stage the Tin Domain is of less significance compared to the Polymetallic Domain; however, it has had far less exploration drilling.



Eloro Resources Ltd.







	Cum.	Average Value				
Cut-off (US\$/t)	Mass (Mt)	SnPbAg_NSR (US\$/t)	Sn (%)	Pb (%)	Ag (g/t)	
25	5	37.8	0.23	0.77	51.3	
20	11	28.8	0.19	0.53	38.2	
18	16	26.2	0.18	0.45	34.4	
16	21	23.9	0.18	0.39	30.9	
14	29	21.5	0.17	0.32	27.3	
12	39	19.2	0.16	0.26	23.9	
10	54	16.9	0.15	0.21	20.5	
8	76	14.6	0.14	0.17	17.4	
7	92	13.3	0.13	0.15	15.7	
6	110	12.2	0.12	0.14	14.2	

Table 1.6 Iska Iska Inferred Sn Mineral Resource Sensitivity Table

# 1.7.6 Overall Conclusions

Geological mapping, geophysical surveys, and diamond drilling have revealed a potentially large deposit of significance (> 1/2 Billion tonnes) but yet to be defined to its full extent(s) and quality. The "epicentre" of mineralization appears to be in the Santa Barbara adit area, where the highest grades and widest widths have been encountered to date. However, the QP notes that there is no geological/structural explanation for the localization of high grades in this area other than the intensity of drilling in multiple orientations. Hence, the high-grade core in the Santa Barbra area is most likely an artifact of the intense drilling. In the QP's opinion, the deposit/mineral resource is poised for growth on three fronts as follows:

# 1.7.6.1 Resource Grade/Quality

Infill drilling in multiple orientations will improve the grade as exemplified by the Santa Barbara adit area with an intricate drilling pattern. Figure 1.12 shows where infill drilling is required. Concurrently with improving the metal grades, the resource Class will also upgrade into the Indicated category.

### 1.7.6.2 *Resource Quantity*

Step-out drilling eastwards, south- and northwards will expand the polymetallic resource size. Step-out drilling westwards, south-southwest and northwards will expand the tin resource.

### 1.7.6.3 Resource Value

The addition of Au, Cu, In and possibly Cd and Bi into the economic equation will increase the value of the resource, hence the need for additional metallurgical tests to establish recoveries for these metals. The distribution/spatial occurrence of Au and Cu in relation to the mineral resource pit shell is shown in Figure 1.13 and Figure 1.14, respectively.



Eloro Resources Ltd.

Figure 1.12 Vertical Section Showing Infill Drilling Area Where Blocks Shown are > US\$20/t NSR





Eloro Resources Ltd.



Figure 1.13 Iska Iska Pit 3-D Perspective Showing Drill Hole Intersections > 0.10 g/t Au

Figure 1.14 Iska Iska Pit 3-D Perspective Showing Drill Hole Intersections > 0.10% Cu





The exploration work completed, the drilling results obtained, the initial metallurgical tests results and the interim MRE obtained to date are satisfactory to justify further detailed work/investigations complemented by preliminary economic studies. The definition of the optimum limits of mineralization within the project area remains a priority for future investment decisions.

To sum up, the Iska Iska interim mineral resources are significantly large, and the growth potential is favourable as the deposit remains wide open for expansion in all directions. The tin resource area in particular, is currently under-explored west and south from the Santa Barbara adit area.

It is of prime importance to note the meshy character of the mineralization requires drilling in multiple orientations to capture the sulphide meshes adequately as has been achieved for the Santa Barbara adit area.

### **1.8 Recommendations**

The following paragraphs answer the question "WHAT NEXT FOR ISKA ISKA" in the short-, medium-, and long-term.

### 1.8.1 The To-do List

The Inferred interim mineral resource combined with metallurgical advances (including ""ore sorting"" investigations results) to date provide a sound basis upon which to move the Iska Iska project to the next level. The 'to do list' to move the project forward should include the following items which (in the QP's opinion) have equal importance:

- 1. Refining and upgrading the resource to support economic studies up to and beyond PEA level. This will involve definition (infill) drilling accompanied by further geophysical investigations (gravity) in pursuit of a possible deeper tin porphyry. It is important to recognize that infill drilling will have a dual effect of improving the metal grades and simultaneously upgrading the resource Class from Inferred into the Indicated category.
- 2. Laying the foundation for comprehensive economic/engineering studies. This will necessitate a preliminary economic assessment (PEA) to determine/identify most, if not all, of the requirements for detailed economic studies. The two options recommended for a close analysis (among other options) in the PEA are resources at cut-off values of US\$15/t and US\$25/t NSR. (See APPENDIX-IV)
- 3. Despite having defined 560 Mt tonnes of mineral resources for the Polymetallic Domain and 110 Mt of mineral resources for the Tin Domain, the deposit limits still remain unknown in all directions. Further exploration/drilling to define the deposit limits is a must do as infrastructural studies related to project economics cannot be instituted without knowledge of the deposit limits. Particular attention should be given to the Tin Domain which is still heavily underexplored.
- 4. Optimization of the deposit metals extraction process(es) cannot be over emphasized as this will enhance the overall economics of the project. In this regard the Micon metallurgy QP and Eloro have specifically recommended the programs described under sub-section 1.8.1.1 and 1.8.1.2 below.



# 1.8.1.1 Pb-Zn-Ag Flowsheet Development

The Micon metallurgy QP and Eloro recommend the following program of geo-metallurgical testing to obtain data that can support a preliminary economic assessment (PEA) for the Pb/Zn/Ag mineralization:

- Select appropriate samples to conduct additional pre-concentration testing with the best option being integrated into the overall downstream testwork (grinding flotation etc.) program. The samples should represent each pertinent Pb-Zn-Ag domain at Iska Iska using the most recent geological and mineralogical information available.
- Use products from pre-concentration for additional flotation optimization test program. This phase of testwork will include the following:
  - Mineralogical characterization of the samples.
  - Confirmation of optimum primary grind size.
  - Effect of regrind within the flotation circuit and optimized regrinding sizes.
  - Optimization of reagent selection and addition rate to reduce processing operating costs.
- Select appropriate samples and undertake additional comminution and hardness testing to support a PEA level crushing and grinding circuit design.
- Undertake a silver deportment study using samples that represent the main mineralized domains.

### 1.8.1.2 Tin Flowsheet Development

The Micon metallurgy QP and Eloro recommend the following program of geo-metallurgical testing to obtain data that can support a preliminary economic assessment (PEA) for the tin mineralization:

- Further investigate the potential for pre-concentration.
- Undertake addition tin flowsheet optimization testwork on a range of samples that represent the known tin-rich domains. The flowsheet developed at BCR and WAI will be used as a basis for this test program.
- Further investigate the recovery of lead, silver, and other potentially valuable metals from the tinrich mineralization.
- Undertake studies into the downstream processing of tin concentrate. Although this is expected to focus on traditional pyrometallurgy alternative hydrometallurgical options may also be considered, although there are currently no known commercial tin leaching processes.
- Undertake appropriate comminution and hardness testing to adequately support a PEA level design.

#### 1.8.1.3 Other Testing

Some of the Iska Iska mineralized samples tested to-date contained interesting values of copper, gold, bismuth, and indium. It is recommended to investigate the recovery of these valuable metals.





# 1.8.1.4 Metallurgical Samples

The Micon MRE QPs have recommended that representative samples be obtained from PQ holes twinned to existing drill holes as shown in Figure 1.15. MET-DSBU and MET-DSB-30 will target the Polymetallic (Zn-Pb-Ag) Domain while MET-DSB-32 will target the Tin (Sn-Ag-Pb) Domain.



Eloro Resources Ltd.

Figure 1.15 Recommended Drill Holes for Metallurgical Testing



Note for Block Model: For Sn Domain (Sn-Pb-Ag), HG = NSR Cutoff > US\$12/t & LG = NSR Cutoff between US\$6/t and US\$12/t. For Polymetallic Domain (Ag-Zn-Pb), HG = NSR Cutoff > US\$25/t & LG = NSR Cutoff between US\$9.2/t and US\$25/t.



### 1.8.2 Budget

To achieve the above goals, Eloro has proposed a 2-phased budget as summarized below in Table 1.7 and Table 1.8. Phase 2 is contingent upon the successful completion of Phase 1.

2023B Budget		CAD		
ltem	Qty	Unit Price	Subtotal	
Definition Drilling <sup>1</sup> - Santa Barbara x m	5,000	430	2,150,000	
PEA x1	1	1,350,000	1,350,000	
Metallurgical Testing - PQ Drilling x m	1,000	480	480,000	
ESG & Community Support x1	1	232,000	232,000	
Geophysics Iska - MAG IP x1	1	120,000	120,000	
Geophysics Iska - Gravity Survey x1	1	68,000	68,000	
		Total (CAD):	4,400,000	

 Table 1.7

 Phase 1 Budget for the Iska Iska Project Taking Effect from August 2023

1. Includes Bolivia Corporate, Salaries, Sample analyses & Logistics expenses.

2. USD/CAD Exchange Rate = 1.30.

The 4,000 m of drilling at top of the table is allocated as follows: 1,000 m for definition drilling within the resource area and 4,400 m for testing the Sn target on the west side of Santa Barbara.

The Phase 2 budget, which is contingent on the successful completion of Phase 1 is summarized in Table 1.8 below. In essence, the designed activities for this phase are designed to move the project to PFS level.

PHASE II - PROGRAM	USD		
Item	Qty	Unit Price	Subtotal
Property Option Payments	1	5,100,000	5,100,000
Drilling <sup>1</sup> x 1 m	35,000	315	11,025,000
Prefeasibility Study	1	1,500,000	1,500,000
Metallurgical Testing	1	200,000	200,000
NI 43-101 Report - Resource Estimate	1	200,000	200,000
Other Iska Logistical Expenses <sup>2</sup>		250,000	250,000
Other Iska Consultants <sup>3</sup>	1	100,000	100,000
Environmental Studies	1	150,000	150,000
Geophysics Iska	1	100,000	100,000
Geophysics Outside Properties	1	100,000	100,000
Community Relations Projects	1	175,000	175,000
		Total (USD):	18,900,000
		Total (CAD) <sup>4</sup> :	24,570,000

#### Table 1.8 Phase 2 Budget for the Iska Iska Project

1. Includes Bolivia Corporate, Salaries, Sample analyses & Logistics expenses.

2. Iska equipment & related services purchased outside Bolivia.

3. Iska Administration, Accounting and Technical Consultants sourced outside Bolivia.

4. USD/CAD Exchange Rate = 1.30.



### 1.8.3 Micon Comments

The Micon QPs believe that the budgets under consideration for Phase 1 and Phase 2 are reasonable and warranted and recommend that Eloro conduct the planned activities subject to availability of funding and any other matters which may cause the objectives to be altered in the normal course of business activities.



### 2.0 INTRODUCTION

#### 2.1 AUTHORIZATION AND PURPOSE

Eloro Resources Ltd. (Eloro) has retained Micon International Limited (Micon) to prepare an initial mineral resource estimate on the Iska Iska Polymetallic Project (Iska Iska or the Project) in the Department of Potosi, southwestern Bolivia, and to compile a corresponding Technical Report as defined in the Canadian Securities Administrators' (CSA) National Instrument 43-101 (NI 43-101), in compliance with Form 43-101F1, to support its release to the public.

The purpose of this Technical Report is to present an independent estimate of the Iska Iska mineral resources based on exploration work and diamond drilling completed to June 30, 2023, and to make recommendations to guide the on-going drilling program aimed at upgrading and increasing the resource. Eloro requires an independent Technical Report in order to support regulatory disclosures.

The Project comprises a silver-tin polymetallic (Ag, Sn, Au, Pb, Cu, Bi, Zn, In) porphyry-epithermal complex. Since its inception in 2020, Eloro has completed detailed exploration encompassing geological mapping and geophysical investigations, carried out substantial mineralogical and metallurgical investigations and completed 96,386 m of diamond drilling in 139 drill holes. All these activities have returned positive encouraging results. This report not only supports the public disclosure of the initial mineral resource estimate and the interpretation of the exploration/metallurgical results thus far, but also provides details of Eloro's next exploration phase to upgrade and expand the mineral resources, paving the way preliminary economic studies. The effective date of this report is August 19, 2023.

This report is intended to be used by Eloro subject to the terms and conditions of its agreement with Micon. That agreement permits Eloro to file this report as an NI 43-101 Technical Report with the CSA pursuant to provincial securities legislation. Except for the purposes legislated under provincial securities laws, any other use of this report, by any third party, is at that party's sole risk.

The requirements of electronic document filing on SEDAR (System for Electronic Document Analysis and Retrieval, <u>www.sedar.com</u>) necessitate the submission of this report as an unlocked, editable pdf (portable document format) file. Micon accepts no responsibility for any changes made to the file after it leaves its control.

Micon does not have, nor has it previously had, any material interest in Eloro or related entities. Its relationship with Eloro is solely a professional association between the client and independent consultant. This 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 report.

The conclusions and recommendations in this report reflect the authors' best judgment considering the information available to them at the time of writing. The authors and Micon reserve the right, but will not be obliged, to revise this report and conclusions if additional information becomes known to them subsequent to the date of this report. Use of this report acknowledges acceptance of the foregoing conditions.



This report includes technical information, which requires subsequent calculations or estimates to derive sub-totals, totals, and weighted averages. Such calculations or estimations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, Micon does not consider them material.

The independent Qualified Persons (QPs) responsible for the preparation of this report and for the opinion on the propriety of the proposed exploration program are Charley Murahwi, P. Geo., FAusIMM, Richard Gowans, P.Eng., Alan San Martin, MAusIMM (CP), and Abdoul Aziz Drame, P.Eng. Messrs. Murahwi and Gowans have previously spent several years working on multi-metal deposits in volcanogenic settings.

#### 2.2 SOURCES OF INFORMATION

The sources of information for this report are detailed below and include those in the public domain, as well as personally acquired data:

Data supplied by Eloro personnel.

Geology report compiled by William Pearson, PhD., P. Geo., FGC, Executive VP Exploration for Eloro and Osvaldo Arce, PhD., P. Geo, General Manager of Eloro's Bolivian subsidiary Minera Tupiza, as referenced in Section 7.0.

Mineralogical Report compiled by Nickola McKay, MSc. P.Geo., as referenced in Section 9.0.

Geophysical Report compiled by Chris Hale, PhD., P.Geo. and John Gilliatt, BSc., P. Geoph., P.Geo., as referenced in Section 9.0.

Discussions with William Pearson, PhD., P. Geo., FGC, Executive VP Exploration for Eloro.

Discussions with Osvaldo Arce, PhD., P. Geo, General Manager of Eloro's Bolivian subsidiary Minera Tupiza who is knowledgeable of the property and in charge of on-going work at the property. He is widely recognized as an expert on Bolivian mineral deposits and has written several books on Bolivian geology/mineral deposits including the following: Guia a los yacimientos metaliferos de Bolivia (2007), Metalliferous ore deposits of Bolivia (2009), and Yacimientos Metalíferos de Bolivia (2020).

Research of technical papers produced in various journals. (See references Section 28.0)

Independent analyses of channel rock chip samples.

Independent repeat analyses of sample pulps (assay splits).

Knowledge gained from previous experience with polymetallic mineralization in porphyry-epithermal complexes elsewhere.

Micon is pleased to acknowledge the helpful cooperation of the Eloro staff and management all of whom made all data requested available and responded openly and helpfully to all questions, queries, and requests for material.



#### 2.3 SCOPE OF PERSONAL INSPECTION

Micon's QP (Charley Murahwi, P. Geo., FAusIMM) conducted a site visit to the Project from 28 January to 3 February 2020. During his initial visit, the QP verified the initial channel chip sampling completed by Eloro at surface and in underground workings in 2020, examined the geology of key outcrops and exposures in underground workings, reviewed mineralization types, and discussed the Quality Assurance/Quality Control (QA/QC) protocols used by Eloro. In addition, the QP selected sample pulps (assay splits) for repeat analyses and collected independent channel chip samples from 10 of the sites previously sampled by Eloro.

Micon's follow-up site visit scheduled for mid 2021 was not undertaken due to the Covid-19 pandemic. However, during the Covid-19 peak period from March 2020 to February 2022, the Micon QP was regularly apprised of on-going drilling as well as reviews of draft press releases. In addition, Eloro provided the QP with samples of the principal mineralized lithologies to examine as well as access to all technical information.

Eloro's Executive VP for Exploration, Dr. William Pearson, Ph.D., P.Geo., FGC, conducted site visits to Iska Iska from 19 to 26 November 2021 and from 4 to 10 June 2023, during which time he inspected/reviewed all exploration and drilling activities to ensure that they were in line with the CIM Mineral Exploration Best Practice Guidelines.

The Micon QP (Charley Murahwi) next visited the Project from 13 to 16 November 2022 whilst the resource drilling delineation program was in progress. This visit enabled the QP to verify drilling and data collection techniques including QA/QC protocols.

The present report is based on exploration and drilling results and interpretation, current as of August 19, 2023.



# 2.4 TABLE OF ABBREVIATIONS

Name	Abbreviation	Name	Abbreviation
Canadian Institute of Mining,	CIM	Million ouncos	Moz
Metallurgy and Petroleum		Million ounces	MOZ
Canadian National Instrument 43-	NI 43-101	Million years	Ма
101	111-43-101	Million years	
Canadian Standards Association	CSA	Million metric tonnes per year	Mt/y
Carbon in leach	CIL	Milligram(s)	mg
Centimetre(s)	cm	Millimetre(s)	mm
Central Breccia Pipe	CBP	Net present value	NPV
Complex resistivity	CRIP	Net smelter return	NSR
Cubic feet per minute	cfm	North American Datum	NAD
Day	d	North American Free Trade Agreement	NAFTA
Degree(s)	0	Not available/applicable	n.a.
Degrees Celsius	°C	Ounces	oz
Digital elevation model	DEM	Ounces per year	oz/y
Dollar(s), Canadian and US	\$, Cdn \$ and US\$	Parts per billion	ppb
Eloro Resources Ltd	Eloro	Parts per million	ppm
Gram(s)	g	Percent(age)	%
Grams per metric tonne	g/t	Porco Breccia Pipe	PBP
Greater than	>	Quality Assurance/Quality Control	QA/QC
Hectare(s)	ha	Reverse takeover	RTO
Huayra Kasa Breccia Pipe	НКВР	Santa Barbara Breccia Pipe	SBBP
Induced polarization	IP	Second	S
Internal rate of return		Securities and Exchange	SEC
		Commission	
Iska Iska polymetallic Project	Iska Iksa, the Project	Specific gravity	SG
Kilogram(s)	kg	System for Electronic Document Analysis and Retrieval	SEDAR
Kilometre(s)	km	Système International d'Unités	SI
Less than	<	Three-dimension	3D
Litre(s)	l	Tonne (metric)	t
Metre(s)	m	Tonnes (metric) per day	t/d
Metres above sea level	masl	Underground	UG
Micon International Limited	Micon	Universal Transverse Mercator	UTM
Million tonnes	Mt	Year	У



# 3.0 RELIANCE ON OTHER EXPERTS

In this Technical Report, discussions in Sections 1.0 and 4.0 regarding royalties, permitting, taxation, and environmental matters are based on material provided by Eloro. The QPs and Micon are not qualified to comment on such matters and have relied on the representations and documentation provided by Eloro for such discussions.

All data used in this report were originally provided by Eloro. The QPs have reviewed and analyzed these data and have drawn their own conclusions therefrom.

The QPs and Micon offer no legal opinion as to the validity of the title to the mineral concessions claimed by Eloro in Sections 1.0 and 4.0 and, in that regard, have relied on information provided by Eloro.



### 4.0 PROPERTY DESCRIPTION AND LOCATION

#### 4.1 **PROJECT/PROPERTY LOCATION**

The Project is located in the Sud Chichas Province of the Department of Potosi, southern Bolivia, approximately 48 km north of Tupiza city (Figure 4.1).



Figure 4.1 Location of the Iska Iska Proiect

Source: Eloro, 2022.

The Project is accessible by road from Tupiza; a journey taking 1 to 1.5 hours, depending on weather conditions.

#### 4.2 **PROPERTY DESCRIPTION AND LAND TENURE**

The Iska Iska Project is within the Porvenir Concession (Figure 4.2) comprised of 36 cuadrículas totaling 900 hectares (ha). "Cuadrícula" is the current mining measurement unit in Bolivia, an inverted pyramid with the inferior vertex pointing to the earth's core, with a surface area equal to 25 ha. The Project includes seven small artisanal mines known as Huayra Kasa, Santa Barbara, and Porco. Minas 1 to 4, and San Juan adits.



Figure 4.2 Porvenir Concession



Source: Eloro 2023.



The property is centered on Universal Transverse Mercator coordinate system, World Geodetic System 1984, Zone 20K, 205,500 meters East and 7,655,500 meters (m) North.

Empresa Minera Villegas SRL, a Bolivian Mining Company, is the title holder of the Porvenir Concession/Iska Iska Project. It holds Special Transitory Authorizations (STAs) to develop its mining activities in accordance with the regulation described in Section 4.4.

#### 4.3 UNDERLYING AGREEMENTS

Eloro, through its 98% owned Bolivian subsidiary Minera Tupiza SRL, signed a Definitive Option Agreement with Empresa Minera Villegas SRL on January 6, 2020, through which the parties agreed: i) granting Eloro an option to acquire the mining rights on Porvenir Concession, which will be subject to the fulfillment of the suspensive condition agreed therein; and ii) the terms and conditions of adequate and sufficient compensation for the granting of the option and the signing of a Mining Association Agreement (JV) between the parties.

Likewise, on January 6, 2020, a JV was signed between Eloro, through its subsidiary Minera Tupiza SRL, and Empresa Minera Villegas SRL, through which it was agreed on the obligations and rights that both will hold and exercise over the Iska Iska Project. The JV was later duly notarized, registered, and published in compliance with the applicable mining regulations.

On September 28, 2021, Minera Tupiza SRL, as Eloro's subsidiary, signed a first addendum to the Option Agreement with Empresa Minera Villegas SRL and Empresa Unipersonal Minera VIROED -a sole proprietorship company-, through which the parties agreed to include and modify the Option Agreement to increase and improve the operations, activities, and mining projects to be developed, incorporating into the Iska Iska Project the mining areas denominated Mina Casiterita and Mina Hoyada ("Additional Areas"). Empresa Unipersonal Minera VIROED is the 100% direct solicitor of two new Administrative Mining Contracts over the Additional Areas. Once the Additional Areas are granted, Eloro will have the opportunity to either: a) execute the granted option on the Additional Areas -only if the suspensive condition is met-; b) acquire 100% of participation in VIROED -only if the latter is transformed into a limited liability company-; or c) sign JVs on the Additional Areas, giving Eloro 100% economic interest in the Additional Areas.

On September 20, 2022, Minera Tupiza SRL, as Eloro's subsidiary, signed a second addendum to the Option Agreement with Empresa Minera Villegas SRL and Empresa Unipersonal Minera VIROED through which the structure and the term of payment of the Option Agreement were modified.

Finally, on November 9, 2022, a Letter of Intent (LoI) was signed between Minera Tupiza SRL, as Eloro's subsidiary, and Edwin Alan Villegas Romero and Juan Rodrigo Villegas Romero - partners of Empresa Minera Villegas SRL- through which the parties agreed to set out the terms and conditions for Eloro Resources Ltd. to acquire 100% of participation in Empresa Minera Villegas SRL once the entire purchase price has been paid.

According to the Definitive Option Agreement, its addendums, the LoI, and receipt of all the required regulatory approvals, Eloro must issue 500,000 common shares to Empresa Minera Villegas SRL and must complete the payment of US\$10 million to that company within four and a half years from the



signing date of the Definitive Option Agreement. Additionally, once Eloro has control over the Additional Areas -in any manner agreed- it will have to issue 200,000 common shares to Edwin Alan Villegas Romero. During the 4.5 years, Minera Tupiza SRL will undertake an exploration and development program on the Iska Iska Project.

On September 20, 20222, the parties acknowledged that Eloro issued the corresponding 500,000 common shares in favor of Empresa Minera Villegas SRL and that it has already paid a US\$4.4 million of the property purchase price, which must be completed before July 6, 2024. More recently on October 1, 2023, Eloro made a further payment of US\$0.5 million to the vendor increasing the amount already paid to US\$4.9 million with final payment owing of US\$5.1 million.

Minera Tupiza SRL will work under the JV's terms and conditions alongside Empresa Minera Villegas SRL (Title Holder), which currently holds a Special Transitory Authorization (STA) on the Porvenir Concession to develop its mining activities under the Bolivian mining law/regulations as summarized below. To date, the Title Holder continues with the adequation procedure -migration to the new mining regime- for converting the STA into an AMC over the mining rights on the Porvenir Concession.

### 4.4 BOLIVIAN MINING LAW/REGULATIONS

### 4.4.1 Overview

On May 28, 2014, the Bolivian government enacted new mining legislation, establishing that any mining activity would be performed under the new legal framework of "mining administrative contracts."

Current existing STAs must follow a procedure before the Mining Administrative Jurisdictional Authority (Autoridad Jurisdictional Administrativa Minera, AJAM) to be converted into "administrative contracts." This type of "mining administrative contract" does not involve the participation of the Bolivian State through its state-owned mining corporation, known as COMIBOL. The "government take" is limited to taxes, the annual mining patents, and the "Mining Royalty" that is paid when the minerals are sold. COMIBOL does not hold any interest or participation in this type of contract. The contracts will be executed with the AJAM. The same concept applies to new applications for "mining areas."

Some existing mining rights have been applied for and granted according to the system governed by an old Mining Code, which has not been in effect since 2014. However, these rights are legal and must be converted into administrative contracts. The measuring unit of the mining concessions obtained according to the aforementioned old Mining Code system is the "pertenencia minera," which is an inverted pyramid with the inferior vertex pointing at the earth's core, with an exterior perimeter equal to one hectare. Under the new mining regime, the measuring unit is the mining grid (cuadrícula minera) comprised of twenty-five hectares.

Mining rights cannot be transferred, sold, or mortgaged. Mining Association Agreements -similar to Joint Venture Agreements- are permitted but need to be approved by the AJAM to have legal effects after following a legally established procedure.

Bolivian and foreign companies or individuals may hold mining contracts, with certain exceptions as outlined in Article 30 of the Mining Law. These exceptions include minors, government agents, armed forces members, police officers, and relatives of these individuals, according to Article 262. I of the



Constitution and Article 28 of the Mining Law, foreigners are not permitted to hold administrative mining contracts or own real estate property within a 50 km area counted from Bolivia's international borders denominated "Border Security Zone."

Some of the most important provisions of the New Mining Law relate to Mining Rights, Mining Contracts, and the creation of a new mining supervisory entity called the Jurisdictional Administrative Mining Authority, which is described in detail below.

# 4.4.2 Mining Rights

With regards to mining rights, Article 92 of the Mining Law stipulates that mining rights grant their holders the exclusive faculty to prospect, explore, exploit, concentrate, smelt, refine, industrialize, and commercialize the mineral resources, by means of mining activities, in part or over all of the productive chain. However, on the other hand, Article 93 provides that such rights shall not grant their owners' property or possession rights over such mining areas and that the holders of mining rights may not grant leases over them.

In addition, Article 94 of the Mining Law provides that the Plurinational State of Bolivia acknowledges and respects the acquired rights of individual or joint title holders, private and mixed companies, as well as other forms of private property rights with their corresponding STAs, subject to the prior transition or adjustment to the regime of administrative mining contracts, provided by the same Mining Law.

With regards to property rights, as well as the protection of investments and rights over property, Articles 95 and 102 provide that title holders shall have dominion over their investment, the mining production, movable and immovable properties built on the land, as well as the equipment and machinery installed inside and outside of the perimeter of the mining area; and that the State shall guarantee conditions of mining competitiveness and foreseeability of legal provisions for the development of the mining industry.

Lastly, Articles 97 and 99 of the Mining Law provide that title holders shall have the right to receive profit or surpluses generated by the mining activity, subject to compliance with applicable tax laws; and that the State guarantees the rule of Law over mining investments of title holders who are legally incorporated.

### 4.4.3 Mining Contracts

The Mining Law regulates mining contracts in Title IV, Chapter I. It provides that the administrative mining contract is the legal instrument "whereby the State grants mining rights for undertaking certain mining activities, to productive mining actors within the state, private and cooperative mining industry."

Under Articles 134 to 136, mining contracts shall be formalized by means of a public deed legalized before a Notary Public of the jurisdiction where the mining area is located and shall be signed by the AJAM as representative of the Executive Branch.

To be valid between the signing parties and enforceable towards third parties, mining contracts must be filed before the Mining Registry. Once executed, signatory parties shall not be able to transfer or assign their rights therein.



# 4.4.4 Creation of the Jurisdictional Administrative Mining Authority

One of the most important features of the Mining Law is the creation of a new supervisory entity, the AJAM.

The role of the AJAM is to manage, supervise and control every mining activity carried out in Bolivia, as well as the Mining Registry. Under Article 185 of the Mining Law, the transition of the STAs into administrative mining contracts is processed before the AJAM.

The procedures for converting (STAs) into Mining Administrative Contracts were issued in December 2016. These guidelines outline the legal requirements that mining entities must fulfill and submit to the AJAM to transition to Mining Administrative Contracts successfully.

The following taxes are applicable:

- Mining Royalty (Regalía Minera) ranges between 1-7% of the gross sales value of the mineral. The royalty is paid before the mineral is exported or sold in the local market (in this case, only 60% of the tax is paid).
- Income tax of 25% on net profits [Gross income (expenses+costs)]; losses can be carried forward for five years. An additional 12.5% is paid when metals/minerals reach extraordinary market prices and a Surtax of 25% on extraordinary profits obtained by mining companies.

### 4.4.5 Environmental and Permitting

The Ministry of Mining and Metallurgy is responsible for mining policy. Servicio Geologico Minero de Bolivia (SERGEOMIN) – the Bolivian Geological Survey, a branch of the Ministry, is responsible for managing the mineral titles system. SERGEOMIN also provides geological and technical information and maintains a USGS-donated geological library and publications distribution center. Also, SERGEOMIN has a GIS-based, computerized map system, and tenement maps are available.

Exploration and subsequent development activities require various degrees of environmental permits, which various company representatives have advised are within normal international standards. Permits for drill road construction, drilling, and other ground-disturbing activities can be readily obtained in 2-4 months or less upon submission of a simple declaration of intent and plan of activities.

Permitting is mainly governed by the following articles:

• Article 94 of the Mining Law of Bolivia No. 535 (Rights acquired and pre-constituted).

The Plurinational State of Bolivia recognizes and respects the acquired rights of individuals or groups of private holders, private and mixed companies, and other forms of private ownership with respect to their STAs, prior adequacy to the mining administrative contracts regime, according to this Law:

• Article 95 of the Mining Law of Bolivia No. 535 (Domain of the Title holder).

The holder of mining rights has free disposal and encumbrance on investment, mining production, edifications, real estate, equipment, and machinery installed inside and outside the perimeter of the mining area, which is the result of its investments and works:



- Article 5 of the Mining Rights Grant Regulation (Contracts between Private Mining Productive Actors).
  - Mining Association Contracts signed between Private Mining Productive Actors and regulated by the Commercial Code must be authorized by the AJAM and be registered in the Mining Registry for its validity and effectiveness between parties and enforceability against third parties.
  - The Departmental or Regional Directorate of the AJAM, for the authorization of contracts and their registration in the mining registry, will verify that they have been subscribed between productive mining actors from the private industry, that the purpose is related to any of the activities of the mining production chain and that is not contrary to the fundamentals and precepts of the Political Constitution of the State and Law No. 535 of Mining and Metallurgy.

Environmental licenses for mining projects are regulated by several laws and decrees, which include:

- Law No. 1333 of April 27, 1992, "Environmental Law," establishes Bolivia's general principles for environmental management, conservation, and protection.
- Law No. 535 of May 28, 2014, "Mining and Metallurgical Law": This Law regulates mining activities in Bolivia, including exploration, exploitation, beneficiation, refining, and smelting of mineral substances. It also establishes the requirements for obtaining an environmental license for mining operations.
- Decree No. 24176 of December 8, 1995, "Regulation to the Environmental Law": This decree provides the procedures and requirements to obtain an environmental license and the Environmental Impact Assessment (EIA) process for mining projects.
- Decree No. 24782 of July 31, 1997, "Sectoral Regulation of the Environment for the Mining Sector": This decree establishes specific environmental requirements and guidelines for mining activities in Bolivia.

### 4.5 MICON COMMENT

Micon is not aware of any of the following:

- Significant factors and risks that may affect access, title, or the right or ability to perform work on the property.
- Environmental liabilities to which the property is subject.



# 5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

#### 5.1 ACCESSIBILITY

The location of the Iska Iska Project in relation to Sucre, the official and judicial capital of Bolivia, and La Paz, the seat of the executive and legislative branches of the national government, is shown in Figure 5.1.



Figure 5.1 Major Access Routes and Location of the Iska Iska Project in Relation to Sucre

Source: Eloro, 2022.



The main access to the Iska Iska prospect is through the paved road from Tupiza to Atocha for 20 km and then by a dirt road to La Torre village (12 km), and finally on a secondary dirt road for 16 km to Huayra Kasa mine. Travel time from Tupiza takes about 1.5 to 2 hours.

### 5.2 CLIMATE

Climate within Bolivia is altitude related. The rainy period lasts from November to March and corresponds with the southern hemisphere's summer season. Of the major cities, only Potosí receives regular snowfalls, with these typically occurring between February and April at the end of the rainy season. La Paz and Oruro occasionally receive light snow. On the Altiplano and in higher altitude areas, sub-zero temperatures are frequent at night throughout the year. Snow capped peaks are present year-round at elevations greater than approximately 5,200 m.

Iska Iska is between 3,000 and 4,500 metres above sea level (masl) while the nearest city of Tupiza lies at 2,966 masl. The prevailing climate at Iska Iska and Tupiza is known as a local steppe climate. The Köppen-Geiger climate classification is BSk. The average annual temperature in Tupiza is 15.3°C (59.5°F). About 331 mm (13.0 inch) of precipitation falls annually. The summers are short, comfortable, and partly cloudy and the winters are short, cold, dry and mostly clear. Over the course of the year, the temperature typically varies from -2°C (29°F) to 23°C (74°F) and is rarely below -4°C (24°F) or above 27°C (80°F).

The Iska Iska area has a semi-arid climate, with annual rainfall of approximately 100 mm and a mean summer temperature of 12°C (54°F) between October and March. During winter, minimum temperatures average about 10°C (50°F) in June and July and summer maximums in the 18 - 20°C (64-68°F) range occur from November to February. Yearly mean temperature is 5.5°C (42°F). Vegetation is sparse to non-existent and consists of only local low bushes and shrubs.

Based on the climatic conditions described above, it is evident that exploration and/or mining activities at Iska Iska can be conducted all year round.

### 5.3 PHYSIOGRAPHY

Two Andean mountain chains run through western Bolivia (Figure 5.2), with many peaks rising to elevations greater than 6,000 masl. The western Cordillera Occidental Real forms Bolivia's western boundary with Peru and Chile, extending southeast from Lake Titicaca and then south across central Bolivia to join with the Cordillera Central along the country's southern border with Argentina. Between these two mountain chains is the Altiplano, a high flat plain system at elevations between 3,500 m and 4,000 masl. East of the Cordillera Central a lower altitude region of rolling hills and fertile basins having a tropical climate occurs between elevations of 300 m and 400 masl. To the north, the Andes adjoin tropical lowlands of Brazil's Amazon Basin.

Vegetation consisting of Tola (a tough, wind-resistant shrub) and mosslike cushions of yareta, both widely used for fuel, are well distributed, along with cactus scrub.



Eloro Resources Ltd.

Figure 5.2 Physiographic Location of the Iska Iska Project



Source: Eloro, 2022.

The Iska Iska property lies within the Andes Mountains region and is centered on the Iska Iska Hill (4,453 masl). Local topographic relief is moderate to hilly (Figure 5.3), with elevations ranging from 3,600 m to 4500 masl. The Iska Iska stock is an igneous structure that forms a prominent topographic high in this area.



Eloro Resources Ltd.

Figure 5.3 A View of the Topography of the Iska Iska Main Area Looking North With IP Crew in the Foreground



Photo: Micon QP 2022.

#### 5.4 LOCAL RESOURCES AND INFRASTRUCTURE

As shown in Figure 5.1 above, the Iska Iska property is ideally situated close to major roads/railway lines and cities served by commercial airlines, e.g., Sucre and Potosi. The closest city of Tupiza, once a thriving mining centre, is now mainly a commercial and trade hub; however, some nearby mining operations (e.g., Tolamayu zinc mine) remained after the collapse of tin prices in the mid-1980s.

Although Tupiza has its own small airport, Sucre has the closest commercial airport with regularly scheduled domestic and international flights.

Full infrastructure and an experienced mining workforce are also available in number of wellestablished mining centres/towns nearby, such as Cerro Chorolque, Potosi and Tarija. Any future mining project would need to bring in skilled workforce from these surrounding communities by road or, if necessary, from elsewhere in the province, by road or chartered flight. Supplies would also have to be trucked or brought by train to Tupiza.

The Project has sufficient land holdings for exploration and development purposes. This is evident from the aerial extent and access roots shown on Figure 5.4. Water sources are available on the property. There is power available from the national grid lines which are within 50 km radius of the property.



Figure 5.4 Iska Iska Project Local Infrastructure



Source: Eloro 2020.



### 6.0 HISTORY

#### 6.1 **PRIOR OWNERSHIP**

Empresa Minera Villegas SRL signed a lease agreement with the Bolivian State on the Porvenir concession/Iska Iska property in 2013 after establishing that the ground was open to staking. Later, Spanish colonial time workings were discovered about 500 m northeast of the Iska Iska hill. The property was owned by Empresa Minera del Sur (COMSUR) from the mid-1980s to 2009 and became open to acquisition due to lack of patent payment.

#### 6.2 HISTORICAL EXPLORATION AND MINING

The history of mining in the Iska Iska region dates back to colonial times. Silver and gold veins were discovered in the 19th century, mostly north of the Iska Iska hill where small scale silver mining was reported to have been very active.

Despite the presence of colonial workings, Eloro and Micon are not aware of any previous exploration activities conducted on the Iska Iska property. The historical mining information available in the public domain pertains to areas surrounding, or in the immediate vicinity of, the property and is summarized in the following paragraphs.

#### 6.2.1 Early 1900s

In the early 1900s, a tin deposit (Iska Iska tin deposit) was discovered 2.5 km south of the Iska Iska property and has been exploited intermittently since then.

#### 6.2.2 Early 1960s

In the early 1960s, the Iska Iska tin deposit was acquired by Napoleon Romero. At that time, it consisted of 4 concessions totaling 250 ha. The mineralization comprised 6 to 8 veins that were mined from 9 adits of which 4 attained lengths of up to 250 m. The veins widths ranged from 0.10 m to 0.80 m (averaging 0.35 m), with strikes of N60-65°W, dips of 70-75° NE and average grades of 0.4% Sn. During this period, the mine produced about 40 fine tonnes of cassiterite concentrates grading about 50% Sn, using artisanal metallurgical treatment methods.

Veins with high silver content up to 2,600 g/t Ag were locally found (Bolivian Geological Surv ey Reports, 1964, 1965 and 1967). The veins were hosted in sequences of sandstones, siltstones and slates of Ordovician age, with a general direction N10-20° E and subvertical dips. The mineralogy consisted of cassiterite, quartz, pyrite, limonite, chalcopyrite and other accessory minerals.

#### 6.2.3 1990s

In the mid-1990s, the tin area together with the Iska Iska hill ground were acquired by COMSUR for tin and silver. The exploration results in the tin area were considered unsatisfactory. The Iska Iska hill was not explored.





# 6.2.4 Early 2000s

In the early 2000s, the property was investigated for silver by Andean Silver under agreement with COMSUR. Andean Silver later withdrew from the project because of the sporadic occurrence of the silver anomalies.

### 6.2.5 Current Status

Nowadays, 100% of the mining rights of the Mina Casiterita Property, 2.5 km south of Iska Iska, belongs to Mr. Edwin Villegas. Currently, this property is inactive. (refer to Eloro press releases November 22, 2022 and August 22, 2023, and Section 23 of this report for additional information).

### 6.2.6 Empresa Minera Villegas (2012 to 2016)

Empresa Minera Villegas SRL discovered small scale ancient mine workings about 500 m northeast from the top of the Iska Iska hill during scouting traverses. The workings were attributed to Spanish colonial times because of the nature of the stonework supporting the adit. A hardened black vein (about 40 cm wide), within the adit, was sampled and assayed 120 g/t Au. According to Dr. Osvaldo Arce (pers. comm.), the vein is related to a sulfidic vein with a silicic-tourmalinic alteration coated by a thin layer of manganese oxides on surface. After further clearing the adit for 20 m to 30 m, polymetallic mineralization of silver, lead, zinc and gold was discovered.

From another side of the hill, Empresa Minera Villegas SRL developed an adit/crosscut for about 60 m and intercepted a brecciated shear zone averaging about 2 m in width. They developed along the shear zone for 10 m to15 m and encountered mineralization associated with brecciation and stockworks without a defined strike direction. Because of the uncertainty regarding this new style of mineralization, which they were not accustomed to, they invited Dr. Osvaldo Arce to carry out a geological-mining study, which was performed between January and June, 2016.

#### 6.3 HISTORICAL MINERAL RESOURCE/RESERVE ESTIMATES

There are no previous mineral resource/reserve estimates on the property.





#### 7.0 GEOLOGICAL SETTING AND MINERALIZATION

#### 7.1 **REGIONAL GEOLOGY**

On a regional geological scale, Bolivia is partitioned into six major geological environments/metallogenic provinces; these are (from east to west) the Precambrian Shield, the Chaco-Beni Plains, the Sub Andean Zone, the Eastern Cordillera, the Altiplano and the Western Cordillera. See Figure 7.1.



Figure 7.1 Geological Provinces of Bolivia

Source: SEG Newsletter Number 79, 2009.



Iska Iska is in the southwest part of the Eastern Cordillera which is endowed with several major/world class polymetallic mines and mineral deposits including Cerro Rico de Potosi, Chorolque, Silver Sand, San Bartolome, Pulacayo, San Cristobal, San Vicente, Chocaya, Animas, Tasna, Choroma and Siete Suyos.

The following description is an excerpt from the SEG Newsletter of October 2009:

The Eastern Cordillera Figure 7.1), the uplifted interior of the Andean thrust belt, includes poly-deformed Ordovician to Recent shale, siltstone, limestone, sandstone, slate, and quartzite sequences. These mainly Paleozoic clastic and metamorphic rocks have an approximate area of 280,000 km<sup>2</sup> and represent flysch basin sediments that were deposited along the ancient Gondwana margin and first deformed in the middle to late Paleozoic. Subsequent to Permian to Jurassic rifting, they were uplifted to high elevation and folded and thrusted again during Andean compression, which may have begun as early as Late Cretaceous (McQuarrie et al., 2005).

The following descriptions on the Bolivian tin belt, local geology etc. up to Section 7.5 have been written by Dr. Bill Pearson with contributions from Dr. Osvaldo Arce.

# 7.1.1 Bolivian Tin Belt

The tin province of the Andes is best developed in the Bolivian belt (Figure 7.2 and Figure 7.3), where the continental crust shows its maximum thickness of approximately 80km (McGlashan et al., 2008). Most of the Bolivian polymetallic vein-type deposits occur in this belt. The tin province is located 500 km to the east of the Pacific Ocean, and it extends for approximately 900 km in a northwest- to north-south-trending direction across Bolivia. It can be divided into a northwest-striking part between the latitude 18° S and the Peru border, and a north-south part between the latitudes 18° and 22° south towards the border with Argentina.

In the northern part, Mesozoic magmatism (Grant et al., 1980) is associated with numerous Sn-W deposits and lesser Au-Bi-Zn-Pb-Ag-Sb vein-type deposits. The Sn-W deposits are associated with a greisen type alteration (e.g., Sorata), and/or are located in the contact zones of the igneous rocks with the sedimentary host rocks. Also, the 28-19 Ma batholiths, granodioritic stocks and the syn-kinematic extrusions that occur immediately to south-southeast, control the polymetallic, zoned, and locally telescoped Sn-Ag-Zn-Pb-Bi-W deposits (e.g., Illimani, Quimsa Cruz, and Santa Vera Cruz plutons); (McBride, 1977, unp.; Grant et al., 1979, Arce-Burgoa et al., 1995, Arce-Burgoa & Guzmán, 2000). These deposits formed mainly between depths of 1 and 5 km.

In the southern part, 23-12 Ma dacitic, rhyodacitic, and quartz-lathitic porphyritic bodies are generally accompanied by hydrothermal breccia pipes and associated with the resurgence of collapse calderas. These igneous complexes of "Bolivian type" host Sn-Ag, and As-W-Pb-Zn-Sb-Bi-U mineralization, such as Colquechaca (22.6 Ma), Tasna (16.4 Ma), Chorolque (17 Ma), Tatasi (15.6 Ma), Chocaya (13.8 Ma), Potosí (13.8 Ma), and Llallagua (20.6-9.4 Ma). The most voluminous stage of mineralization occurred between 18 and 16 Ma (SERGEOMIN-YPFB, 2000).

Grant et al. (1979) identified two distinct magmatic groups for the southern segment. The first comprises the 26-20 Ma intrusive rocks that outcrop between latitudes 16°30' S and 19°50' S,



where the Llallagua tin deposit is located. The second includes the 17-12 Ma subvolcanic bodies with Sn-Ag deposits, such as occur at Cerro Rico and Chorolque, located between the latitudes 19° S and northern Argentina.

These felsic intrusions are frequently associated with ignimbrites, such as those that occur in the Potosí district, where the dome is associated with the resurgent Karikari caldera. The tin mineralization is related to different movements along a fault zone of its western margin that controlled the location of the resurgent Cerro Rico de Potosí dome.

Because the igneous rocks in both the northern and southern segments are intensely altered, their original compositions have not been determined. However, it has been possible to recognize their peraluminous character, high potassium content, and the possible contribution of crustal material in the generation of the magmas. Towards the south and east of the tin belt, there are several polymetallic deposits enriched in silver, which may indicate lower temperature hydrothermal activity.

An important stage of extrusive magmatism took place between 10 and 5 Ma, which developed the ignimbrite plateaus at Morococala, Panizos, and Los Frailes (Grant et al., 1979; Schneider, 1987; Schneider & Halls, 1985). The tin deposits are considered to have formed prior to 10 Ma and also after to the segmentation of the Farallon Plate that formed the Nazca Plate.

### 7.2 LOCAL GEOLOGY AND MINERALIZATION

The local geology is summarized in Figure 7.4.

### 7.2.1 Lithology/Geological Formations

The project area is within the Chichas Mountain range in the southern region of the Bolivian Eastern Cordillera. The dominant lithologies are Paleozoic (Tacsarian) formations, related to back-arc and foreland basins, which are locally covered by Quaternary sediments.

The Tacsarian sediments were deposited in a subsident marine basin and include the Mojona Formation (approx. 1000 m thick) that outcrops in the property area as sandstone and siltstones intercalated with laminated pelites, which can be correlated with the Agua y Toro/Pircancha Formations. The Otavi Formation (approx. 800 m thick) overlies the Mojona Formation and comprises psammites intercalated with pelites with spheroidal disjunction. The depositional environment of the Mojona unit corresponds to a transgressive cycle and greater subsidence, while the Otavi unit belongs to regressive facies from the subtidal to littoral environment. These units were formed between the Llanvirnian and the Caradocian times.

The sedimentary rocks are locally intruded by subvolcanic stocks and/or covered by extruded volcanogenic domes, aligned NW-SE and NNE that correspond to the igneous centers such as Iska Iska, Kharachi Orkho, Cerro San Miguel and Choroma. These igneous centres collectively form part of the Central Volcanic Zone (CVC). The CVC is related to the active magmatic arc attached to the Nazca Plate being subducted under the South American continental plate. The erosion of igneous rocks, their transportation and subsequent deposition are related mainly to fluvial and glacial events that modified the landscape up to the Recent Periods. See Figure 7.4.



Structurally, the Ordovician sediments reveal an intense deformation, manifested in narrow anticlines and wide synclines that occurred during the Ocloyic, Hercynian, Inca and Quechua deformation phases. The main resultant features are the Aiquile-Tupiza strike-slip fault as well as normal, thrust and strikeslip faults that affect rocks in the southern Eastern Cordillera and specifically in the Tupiza basin.

The main ore deposits in the region occur along the structural belts with NW-SE, N-S, NE-SW and NNW-SSE directions. The predominant NW-SE trend is represented by regional normal faults and thrusts, which are intersected by N-S, NE-SW and NNW-SSE oriented strike-slip and drag faults.



Figure 7.2 Regional Geological Map of Bolivia showing extent of Bolivian Tin Belt

Source: After Gemmrich et al. 2020.





Figure 7.3 Age of Onset of Mineralization and Metal Zonation, Bolivian Tin Belt



Source: Mlynarczyc and Williams-Jones, 2005.





Figure 7.4 Local Geology of the Iska Iska Project Area

Source: Eloro, 2023.


# 7.2.2 Mineral Occurrences

The Andean Eastern Cordillera of Bolivia is prolific in polymetallic deposits, some of which have been mined since the Inca period (Figure 7.2). They are spatially and genetically associated with hydrothermal fluids, generated as a product of the Nazca oceanic plate subduction below the South American continental plate.

The mineralization is generally magmatic-hydrothermal from volcanic and subvolcanic origin, whose evolution began in the Miocene and continued until the Upper Pliocene. It is polymetallic (Sn-Ag-Zn-Pb-Sb-W-Bi-U-Au) in essence, associated with domes and subvolcanic stocks in collapse-resurgent calderas.

Two types of Tertiary mineral deposits have been distinguished: the first is of the xenothermal style "Bolivian" type with tin as the most important metal and the second is porphyry-epithermal type with base and precious metals. Both are related to intrusions (stocks), Miocene domes of intermediate to felsic composition and to intrusive breccias. The mineralogy in the deposits is usually complex, being composed of a wide variety of oxides, sulphides, carbonates, sulphates, and clays.

The main mineralization is hosted in veins that fill high-angle tension fractures and faults with dominantly N-S and NW-SE orientations. The NE-SW striking veins and veinlet-swarms with complex mineralogy are less common.

The veins typically contain about 90% sulphide minerals as pyrite, marcasite and pyrrhotite (Ludington et al, 1992). They usually include enriched mineralized shoots with short vertical and horizontal extension. The main occurrences of this type in the region are Iska Iska, Choroma, Chorolque, San Vicente, Tasna and Siete Suyos.

There are also other deposit types such as orogenic Au (Sb) and Zn-Pb (Ag), which are hosted in Middle Ordovician pelitic sediments of low metamorphic grade. Structurally, the main trends are NW-SE, N-S and NNW-SSE, closely related to normal and strike-slip faults.

## 7.3 **PROPERTY GEOLOGY AND MINERALIZATION**

The NI 43-101 Technical Report of May 2022 (Micon, 2022) described a total of six mineralized targets and seven potential prospects throughout the Property (see Figure 7.5). The six mineralized zones are Santa Barbara NW Zone, Santa Barbara Breccia Pipe, Huayra Kasa Breccia Pipe, Central Breccia Pipe, Porco Breccia Pipe Zone, and Mina 2 Zone; they were recognized during early drilling, channel sampling and surface/underground geological mapping. At that time, the seven prospects yet to be sampled and drilled were Huayra Kasa North, Huayra Kasa East, Huayra Kasa South, Santa Barbara West, Santa Barbara South, Mina 2 Area, and Mina San Juan Area.







Figure 7.5 Target Zones at the Iska Iska Project, May 2022

Source: Eloro 2022.

A substantial amount of diamond drilling and geological work by the Eloro team since the May 2022 Technical Report along with bore hole induced polarization surveys (BHIP) has led to a much greater understanding of the geology of Iska Iska. There have been considerable refinements to the geological and exploration targets as shown in Figure 7.5 above, such that the original target areas sited above are for the most part no longer relevant. The major advance in understanding is that the original breccia pipe-hosted mineralization (especially in the Santa Barbara Breccia Pipe in which the original discovery



hole was drilled (see the press release of January 26, 2021) has become a lesser part of an enormous mineralization system that extends in a general NNW-SSE direction for a least 4 km, has a width of a least 2 km and extends to a depth of more than 1 km.

The bulk of mineralization occurs within dacitic domes and within a substantive dacitic porphyry in the caldera valley, now named the Iska Iska Porphyry, which is an important part of the overall porphyry-epithermal Ag-Pb-Zn mineralizing system. This later stage mineralization is superimposed on a higher temperature, earlier stage and deeper xenothermal tin porphyry system which was intersected in drill holes on the west side of the Santa Barbara Breccia Pipe and at depth below the porphyry-epithermal mineralization.

Geophysical data, particularly 3D inverse magnetic modeling and analytical signal magnetic maps as discussed in more detail in Section 9 indicate the potential for a very extensive tin porphyry deeper in Iska Iska as shown in Figure 7.6. The magnetic analytical signal map in Figure 7.6 suggests that the overall deeper tin porphyry system may extend for as much as 5 km by 3 km. The central part of the Iska Iska caldera underlain by the Iska Iska Porphyry is within this large potential tin complex and is marked by a low magnetic signature surrounded by a much higher-level magnetic signature.

Drilling and detailed geological mapping indicate that the Central Breccia Pipe is much smaller than originally thought while the Porco Breccia Pipe target is now recognized to be a series of dacitic domes which also includes the Domo San Juan about 300 m east of Porco. Dacite is the most favourable host for mineralization and is the most volumetrically extensive of the major mineralized rock types. Characteristically, dacite fractures readily and alters when penetrated by hydrothermal fluids. Table 7.1 provides a summary of the percentage of mineralized samples >30 g Ag eq/t and >90 g Ag eq/t by major rock type.



Eloro Resources Ltd.

Figure 7.6 Analytical Signal Map of Iska Iska Showing Likely Extent of Major Intrusive Complex



Drilling and detailed geological mapping indicate that the Central Breccia Pipe is much smaller than originally thought while the Porco Breccia Pipe target is now recognized to be a series of dacitic domes which also includes the Domo San Juan about 300 m east of Porco. Dacite is the most favourable host for mineralization and is the most volumetrically extensive of the major mineralized rock types. Characteristically, dacite fractures readily and alters when penetrated by hydrothermal fluids.

#### **Silver Distribution**

Silver mineralization is commonly associated with medium-grained and aphanitic dacites and intrusive breccias at the Santa Bárbara, Santa Bárbara Noroeste and Huayra Kasa Sur zones, where rocks occur silicified, sericitized and argillized. The Huayra Kasa zone is associated with sericitized and silicified sandstones with subordinate lead and zinc mineralization. In the Porco zone, silver is associated with



medium-grained and aphanitic, propylitized dacites. In the upper part of the Central breccia is found in silicified and argillized intrusion and in phreatomagmatic breccias, commonly associated with tin minerals, in the form of breccia veins, veinlets, veinlets, replacements and disseminations.

Table 7.1 gives a summary of the assay results by rock type. As noted above, the dominant host rock for silver is dacite (TDC and TDC-1) with a total of 73% of mineralized samples. Intrusion breccia contains 14% of mineralized samples while other lithologies comprise 3% or less.

Table 7.1 - Percentage Mineralized Samples by Rock Type - SILVER         ELORO       for 8, 15 and >20 g Ag/t							
			Ag (g/t)		Representation	Total	
Lithological Unit	Number of Samples	Category	Top Value	Mean	%	%	
	158	8.00 - 15.0	15.00	10.80	1.69		
OST	36	15.0 - 20.0	20.00	17.54	0.38		
	99	>20.0	492.00	48.78	1.06	3.13	
	154	8.00 - 15.0	15.00	10.12	1.64		
QT	28	15.0 - 20.0	20.00	17.44	0.30		
	51	>20.0	339.30	37.24	0.54	2.49	
	2,362	8.00 - 15.0	15.00	10.74	25.23		
TDC	685	15.0 - 20.0	20.00	17.69	7.32		
	2,137	>20.0	7050.00	79.97	22.83	55.37	
	786	8.00 - 15.0	15.00	10.75	8.40		
TDC-1	183	15.0 - 20.0	20.00	17.68	1.95		
	651	>20.0	1665.00	71.95	6.95	17.30	
	-	8.00 - 15.0	-	-	-		
TGR	-	15.0 - 20.0	-	-	-		
	-	>20.0	-	-	-	0.00	
	664	8.00 - 15.0	15.00	10.76	7.09		
TIB	177	15.0 - 20.0	20.00	17.77	1.89		
	485	>20.0	3400.00	66.60	5.18	14.16	
	136	8.00 - 15.0	15.00	10.65	1.45		
TISB	35	15.0 - 20.0	20.00	17.65	0.37		
	134	>20.0	994.00	104.54	1.43	3.26	
	27	8.00 - 15.0	14.90	10.64	0.29		
ТРВ	11	15.0 - 20.0	20.00	17.60	0.12		
	53	>20.0	309.00	53.24	0.57	0.97	
	193	8.00 - 15.0	15.00	10.54	2.06		
ТРМВ	40	15.0 - 20.0	20.00	18.11	0.43		
	77	>20.0	121.00	34.92	0.82	3.31	
Total	9,362				100.00	100.00	
Note: Litholog	gical codes ar	e as follows:					

Table 7.1 Percentage Mineralized Samples by Rock Type at Iska Iska for 8, 15 and >20 g Ag/t

OST = Ordovician Sandstone, QT = Quaternary, TDC = Dacite Porphyry, TDC-1 = Aphanitic Dacite, TGR = Granodiorite, TIB = Intrusion Breccia, TISB = Intrusive Breccia, TPB = Phreatic Breccia and TPMB = Phreatomagmatic Breccia

## Zinc Distribution

Zinc mineralization partially coincides with lead; however, due to its greater dispersion, it extends to Santa Barbara Northwest and is restricted to medium-grained dacites and aphanitic dacites, followed by sandstones, intrusion breccias, intrusive breccias, and phreatic breccias. The highest values are concentrated at the Santa Barbara and Santa Barbara Southeast zones in silicified, sericitized, and



locally propylitized and tourmalinized dacite, commonly associated with lead and silver. At Santa Barbara Northwest, zinc is hosted in a silicified aphanitic dacite. At Huayra Kasa, zinc is found in sericitized and silicified Huayra Kasa sandstone and phreatic breccia with subordinate lead. Some minor Zn concentrations occur in the propylitized dacitic dome at Porco. The mineralized structures correspond to vein breccias, veins, veinlets, replacements, and dissemination.

Table 7.2 gives the distribution of zinc in mineralized samples. Almost 91% of samples are in dacite (TDC and TDC-1) with less that 3% in each of the other lithologies.

Table 7.2 - Percentage Mineralized Samples by Rock Type - ZINC         ELORO       for 0.4%, 0.8% and >1.2% Zn							
Lithological	Number of		Zn (%)		Representation	Total	
Unit	Samples	Category	Top Value	Mean	%	%	
	139	0.40 - 0.80	0.79	0.56	1.37		
оѕт	58	0.80 - 1.20	1.20	0.98	0.57		
	107	>1.20	12.00	2.53	1.05	2.99	
	8	0.40 - 0.80	0.73	0.55	0.08		
QT	2	0.80 - 1.20	1.12	1.03	0.02		
	-	>1.20	-	-	-	0.10	
	3,276	0.40 - 0.80	0.80	0.57	32.26		
TDC	1,560	0.80 - 1.20	1.20	0.98	15.36		
	3,072	>1.20	20.90	2.68	30.25	77.87	
	751	0.40 - 0.80	0.80	0.56	7.40		
TDC-1	234	0.80 - 1.20	1.20	0.98	2.30		
	337	>1.20	14.41	2.58	3.32	13.02	
	-	0.40 - 0.80	-	-	-		
TGR	-	0.80 - 1.20	-	-	-		
	-	>1.20	-	-	-	0.00	
	161	0.40 - 0.80	0.79	0.55	1.59		
TIB	55	0.80 - 1.20	1.20	0.97	0.54		
	84	>1.20	9.74	2.66	0.83	2.95	
	51	0.40 - 0.80	0.80	0.59	0.50		
TISB	23	0.80 - 1.20	1.19	1.00	0.23		
	51	>1.20	8.31	2.83	0.50	1.23	
	80	0.40 - 0.80	0.79	0.57	0.79		
ТРВ	30	0.80 - 1.20	1.16	1.00	0.30		
	76	>1.20	7.98	2.46	0.75	1.83	
	-	0.40 - 0.80	-	-	-		
ТРМВ	-	0.80 - 1.20	-	-	-		
	-	>1.20	-	-	-	0.00	
Total	10,155				100.00	100.00	
Note: Lithological codes are as follows: OST = Ordovician Sandstone, QT = Quaternary, TDC = Dacite Porphyry, TDC-1 = Aphanitic Dacite, TGR = Granodiorite, TIB = Intrusion Breccia, TISB = Intrusive Breccia, TPB = Phreatic Breccia							

 Table 7.2

 Percentage Mineralized Samples by Rock Type – Zinc for 0.4%, 0.8% and >1.2% Zn

#### Lead Distribution

Lead mineralization is present mainly at the Santa Barbara zone sector in part of the breccia pipe to the east (associated with zinc and silver) and to the southeast (associated with zinc), and to a lesser extent in the Porco dome and in the Huayra Kasa zone. The main host lithology is dacite, followed by aphanitic



dacite, intrusive breccia, phreatic breccia, and sandstone. The favorable alterations are silicification and sericitization in the Santa Barbara dacites, propylitization in the Porco dacitic dome, and sericitization in the Huayra Kasa sandstone. The mineralized structures consist of vein breccias, veins, veinlets, replacements, and dissemination.

As shown in Table 7.3, dacite (TDC and TDC-2) account for almost 85% of mineralized samples with lead with only 5% in intrusion breccia with lessor amounts in the other principal lithologies.

ithological	Number of		Pb (%)		Representation	Total
Unit	Samples	Category	Top Value	Mean	%	%
	292	0.10 - 0.30	0.30	0.18	2.60	
OST	70	0.30 - 0.50	0.50	0.37	0.62	
	74	>0.50	10.10	1.15	0.66	3.89
	240	0.10 - 0.30	0.30	0.17	2.14	
QT	32	0.30 - 0.50	0.50	0.38	0.29	
	10	>0.50	1.59	0.80	0.09	2.51
	4,135	0.10 - 0.30	0.30	0.18	36.87	
TDC	1,383	0.30 - 0.50	0.50	0.39	12.33	
	2,314	>0.50	41.99	1.52	20.63	69.84
	1,068	0.10 - 0.30	0.30	0.17	9.52	
TDC-1	239	0.30 - 0.50	0.50	0.38	2.13	
	354	>0.50	28.29	1.43	3.16	14.81
	-	0.10 - 0.30	-	-	-	
TGR	-	0.30 - 0.50	-	-	-	
	-	>0.50	-	-	-	
	366	0.10 - 0.30	0.30	0.17	3.26	
TIB	92	0.30 - 0.50	0.50	0.39	0.82	
	126	>0.50	3.87	1.12	1.12	5.21
	146	0.10 - 0.30	0.30	0.18	1.30	
TISB	42	0.30 - 0.50	0.50	0.38	0.37	
	59	>0.50	15.90	1.73	0.53	2.20
	68	0.10 - 0.30	0.29	0.18	0.61	
ТРВ	26	0.30 - 0.50	0.50	0.38	0.23	
	63	>0.50	8.61	1.38	0.56	1.40
	15	0.10 - 0.30	0.19	0.13	0.13	
трмв	-	0.30 - 0.50	-	-	-	
	-	>0.50	-	-	-	0.13
otal	11,214				100.00	100.00

Table 7.3
Percentage Mineralized Samples by Rock Type – LEAD for 0.1%, 0.3% and >0.5% Pb

Note: Lithological codes are as follows:

OST = Ordovician Sandstone, QT = Quaternary, TDC = Dacite Porphyry, TDC-1 = Aphanitic Dacite, TGR = Granodiorite, TIB = Intrusion Breccia, TISB = Intrusive Breccia, TPB = Phreatic Breccia and TPMB = Phreatomagmatic Breccia

## Tin Distribution

Tin mineralization occurs in sericitized, argillized phases and rarely in propylitized dacite, mainly in its aphanitic phase, in association with silver and lead. Tin also occurs in late silicified intrusive breccias, mainly in the bordering sector between the Santa Barbara and Central zones. Significant tin mineralization is also present in sandstones surrounding the Porco dome, where the mineralized structures correspond to vein breccias, veinlets, and replacements.

Table 7.4 shows the distribution of tin in mineralized samples. Dacite (TDC and TDC-1) continue to be an important host but at a lower of overall percentage of 65%. Some of this tin mineralization in the



dacite probably formed as low temperature "wood tin" during oxidation. Intrusion breccia is an important host at 24% and tin mineralization here is likely of the primary xenothermal type. Other lithologies account for less than 5%.

Table 7.4 - Percentage Mineralized Samples by Rock Type - TIN								
ELORO for 0.08%, 0.12% and >0.18 Sn%								
		Sn (%)			Representation	Total		
Lithological Unit	Samples	Category	Top Value	Mean	%	%		
	24	0.08 - 0.12	0.12	0.10	0.57			
оѕт	16	0.12 - 0.18	0.18	0.15	0.38			
	14	>0.18	1.12	0.44	0.33	1.28		
	104	0.08 - 0.12	0.12	0.10	2.46			
QT	43	0.12 - 0.18	0.18	0.15	1.02			
	49	>0.18	1.99	0.43	1.16	4.64		
	876	0.08 - 0.12	0.12	0.10	20.72			
TDC	539	0.12 - 0.18	0.18	0.15	12.75			
	781	>0.18	4.04	0.43	18.48	51.95		
	223	0.08 - 0.12	0.12	0.10	5.28			
TDC-1	136	0.12 - 0.18	0.18	0.15	3.22			
	184	>0.18	5.40	0.48	4.35	12.85		
	-	0.08 - 0.12	-	-	-			
TGR	-	0.12 - 0.18	-	-	-			
	-	>0.18	-	-	-	0.00		
	333	0.08 - 0.12	0.12	0.10	7.88			
тів	228	0.12 - 0.18	0.18	0.15	5.39			
	455	>0.18	4.10	0.47	10.76	24.04		
	55	0.08 - 0.12	0.12	0.10	1.30			
TISB	29	0.12 - 0.18	0.17	0.15	0.69			
	65	>0.18	2.13	0.45	1.54	3.52		
	-	0.08 - 0.12	-	-	-			
ТРВ	-	0.12 - 0.18	-	-	-			
	-	>0.18	-	-	-	0.00		
	35	0.08 - 0.12	0.12	0.10	0.83			
ТРМВ	38	0.12 - 0.18	0.18	0.15	0.90			
	-	>0.18	-	-		1.73		
Total	4,227				100.00	100.00		
Note: Lithological codes are as follows: OST = Ordovician Sandstone, QT = Quaternary, TDC = Dacite Porphyry, TDC-1 = Aphanitic Dacite, TGR = Granodiorite, TIB = Intrusion Breccia, TISB = Intrusive Breccia, TPB = Phreatic Breccia and TPMB = Phreatomagmatic Breccia								

 Table 7.4

 Percentage Mineralized Samples by Rock Type – TIN for 0.08%, 0.12% and >0.18% Sn

The current property geology is summarized in Figure 7.7 below. Figure 7.8 is a geological longitudinal section showing distribution of lithologies.





Figure 7.7 Iska Iska Property Geology Map

Source: Eloro 2023.





Figure 7.8 Longitudinal Geological Section Showing Distribution of Major Lithologies at Iska Iska

Iska Iska is a major silver-tin polymetallic porphyry-epithermal complex associated with a Miocene collapsed/resurgent caldera, emplaced on Ordovician age rocks with major breccia pipes, dacitic domes and hydrothermal breccias. Recent drilling indicates that there is a major dacite porphyry in the center of the caldera – Iska Iska Porphyry

The Complex extends along a general NNW-SSE strike for at least 4 km, with a width of at least 2 km and extends to a depth of more than 1 km. Mineralization, age and metal contents are similar to Cerro Rico de Potosí and other major deposits such as San Vicente, Chorolque, Tasna and Tatasi located in the same geological trend. However, the other major systems do not have the high-level volcanic features including the remarkable mineralized breccia pipes that are uniquely preserved at Iska Iska. Furthermore, the strong oxidation near surface that extensively leached metals is the reason that Iska Iska was never found historically despite the intense prospecting through the region since Spanish colonial times.

Drilling across the valley of the Iska Iska Caldera indicates that this area is underlain by a coarse-grained porphyritic dacitic intrusion that is well mineralized with Ag, Zn and Pb and is the likely source of the extensive epithermal mineralization in the Santa Barbara and Central Breccia areas. The porphyry, now named the Iska Iska Porphyry, is approximately 800 m by 600 m (Figure 7.7) and is notable for the



absence of tin mineralization despite the abundance of tin in the nearby area. The tin at Iska Iska has been long recognized by Dr. Osvaldo Arce, P.Geo., an expert on Bolivian geology, as likely being the product of an earlier, higher temperature and deeper xenothermal tin porphyry, which has been overprinted by the later higher-level porphyry-epithermal Ag-Zn-Pb mineralization related to the Iska Iska porphyry and dacitic domes.

Detailed analysis and modeling of the geological, geophysical, and geochemical data at Iska Iska indicate that the hydrothermal signature for the Iska Iska porphyry-epithermal system is approximately 2.5 km along strike, up to 2 km across strike and extends to a depth of at least 1.4 km, based on drilling to-date (Figure 7.7). The mineralized and altered zone is open along strike, across strike and at depth.

Magnetic inverse modelling and limited deep drilling suggest that the tin porphyry likely underlies the Iska Iska Porphyry and occurs to the south and southwest in the Porco and Mina Casiterita areas.

The definition drilling program since the previous NI 43-101 Technical Report (Micon 2022) has more than doubled the potential volume of mineralized material to be assessed for the mineral resource.

All holes drilled to date in Santa Barbara have intersected multiple reportable intersections with many intercepts from 100 m to more than 400 m long. Complete drill results from April 2022 to the close of data for the mineral resource estimation in August 2023 are presented in appendix V.



# 7.3.1 Santa Barbara Breccia Pipe

The Santa Bárbara breccia pipe is considered by Eloro to be of phreatomagmatic origin; it is clastsupported distally and matrix-supported proximally. Surface dimensions of the pipe are approximately 750 m long by 360 m wide extending to a depth of at least 650 m. Lithologically, it is polymictic, consisting of sub-rounded to sub-angular dacite, sandstone and granodiorite clasts, cemented by a milled rock matrix that is frequently cut by later intrusive breccias. It occurs in the central part of a dacite dome, which is fine to coarse grained with a porphyritic texture and locally volcanoclastic with centimetre-scale clasts of dacite, sandstone, granodiorite, and pumice, locally crackle-brecciated. In the upper part of the phreatomagmatic breccia, there is a dacitic roof pendant as part of the dacitic dome.

The main faults/fractures in the Santa Barbara breccia pipe are normal faults which strike northwestsoutheast with steep dips. They are intersected by high angle-sinistral strike-slip shear zones, showing a local pull apart and a graben structure towards northeast-southwest.

The mineralization at the Santa Barbara breccia pipe extends in a NW-SE direction for 1,500 m x 800 m wide x 1,100 m vertically. It is polymetallic and telescoped with epithermal Ag-Pb-Zn mineralization overprinting earlier Sn mineralization.

The main mineralized structures are vein breccias, veinlets, stockworks, disseminations and replacements in the breccia pipe and adjacent dacitic domains. Typically, grades in the adjacent dacitic rocks enveloping the breccia pipe tend to be higher than those in the breccia due to less dilution from unmineralized fragments that are widespread in the breccia.

## 7.3.1.1 Iska Iska Dacite Porphyry

A porphyritic dacite (coarse and medium-grained dacite, late intrusion breccia and intrusive breccia) was intercepted by drilling southeast of the Santa Barbara Breccia piped and north of the Porco dacitic dome. It registers high resistivity and low conductivity according to the geophysical domains.

It is composed of quartz phenocrysts >5 mm in size, changing locally to medium-grained dacite, frequently showing aphanitic dacite xenoliths. Silica occurs remobilized and as irregular patterns in the groundmass. Likewise, ferromagnesian minerals like biotite show preferential directions.

At depth, in the contact between the Central BP and the Porco dome, the porphyritic dacite is cut by a small polymictic and clast-supported late intrusion breccia (including subangular medium-grained and aphanitic dacite clasts and xenoliths), which is cemented by a rock-flour matrix.

Moreover, it is frequently cut by both late intrusion breccia and intrusive (injection), clast-supported breccia that locally has been re-brecciated and cemented by a matrix of tourmaline and rock-flour.

Structurally, the Iska Iska Porphyry is affected by two major high-angle and listric faults, which follow N-S and NW-SE directions and dip to the NE. The N-S fault, namely Porco-Huayra Kasa Fault (FPHK) is a right lateral strike fault. The NW-SE fault, called the Santa Barbara Fault (FSB), is locally offset by the FPHK fault.



These main faults form antithetic and synthetic horsetails splays at depth, commonly showing mylonite, fragmented rocks, and gouge. Finally, there are minor faults, trans-tensional structures, jogs and open spaces.

The common hydrothermal alteration types are: sericitization, tourmalinization, chloritization and epidotization; all of them having superimposed silicification.

Mineralization occurs as vein breccias, veins, veinlets, disseminations, and replacements, that returned high values of Zn, Cu, Ag and Pb, and anomalous Au. The identified minerals are pyrrhotite, pyrite, sphalerite, chalcopyrite, galena, arsenopyrite, siderite and quartz.

# 7.3.2 Huayra Kasa Breccia Pipe

The Huayra Kasa breccia pipe is approximately 150 m by 200 m and was the original discovery at Iska Iska in underground holes DHK-03 and DHK-04 (Eloro press release dated November 18, 2020) This pipe formed from a phreatic explosion within a volcanogenic dacitic dome that intruded the Ordovician sedimentary basement sequence. It was very notable at the time of its discovery because similar pipes had not been identified elsewhere in Bolivia. Its discovery also led to the recognition that the potential for discovering additional breccia pipes was very good as these pipes tend to occur in clusters. This led to the discovery of the much larger Santa Barbara Breccia Pipe which was a major focus of drilling in 2021 and early part of 2022.

The Huayra Kasa Breccia Pipe is clast/matrix-supported, composed of sub-angular clasts of mediumgrained dacite, sandstone, aphanitic dacite and rare granodiorite, cemented in a milled rock matrix. Locally, it presents mosaic and jigsaw textures and re-brecciation. In addition, it displays crackling in the contact zones with sandstones (N-NW), and with the aphanitic dacite of the volcanogenic dome, having grain sizes that are medium to coarse, porphyritic (sporadic sandstone and aphanitic dacite clasts), changing to fine-grained and aphanitic dacite.

The main trend of the structures in the pipe is NW-SE (high-angle faults and lineaments), showing a slight bending towards the S. Other structures show less frequent bearings to the NE-SW and E-W. The former intersects perpendicularly, showing a structural arrangement of branching faults (horsetail splays), or extensional duplexes. As well, they are affected by a shear zone with sinistral transcurrent movement.

Mineralization in the Huayra Kasa breccia pipe shows epithermal characteristics and occurs mainly in the lithological-structurally controlled sulphide zone. To the west, the volcanoclastic dacite reveals strong anomalies of Zn, Pb, Ag and Au traces. To the southeast, a similar geochemical signature occurs in the phreatic breccia. The largest veins in the pipe occur along NW-SE and E-W faults that have local stockworks adjacent to the contacts between the dacite and the sandstone in brittle-ductile deformation zones. Leached phenocrysts in the dacite clasts of the phreatic breccia are associated with a process of replacement of feldspars by base and precious metals.

# 7.3.3 Central Breccia Pipe

The Central Breccia pipe is a structural zone consisting of a late polymictic, matrix-supported (though locally clast-supported) intrusion breccia with clasts of aphanitic dacite, granodiorite and sandstone,



cemented by a milled granodiorite matrix. Surface dimensions of the pipe are approximately 800 m long by 450 m wide extending to a depth of 1,500 m. The shape is not a typical elliptical pipe as it has been deformed by later faulting. This also reflects the likelihood that this breccia formed deeper and has been uplifted to its present position. The breccia occurs with a large dacitic dome that has a finegrained chill margin. To the west, in the contact margin of the dacite is a medium to coarse-grained granodiorite with sporadic clasts of aphanitic dacite and sandstone.

The dacite is usually interfingered with a fine-grained sandstone, presenting flow banding textures, as well as the development of manganese oxide dendrites and local silica enrichment. The aphanitic dacite displays crackling and local brecciation.

The intrusive breccia has widespread tourmaline and milled granodiorite matrix/clast-supported breccias. Both the dacite intrusion and the intrusive breccia are enriched in silica-tourmaline, reaching the upper part of the Iska Iska hill, and forming the prominent topographic high that stands out in the landscape at 4,400 m.

Structurally, the Central Breccia, comprises an inflexion point of the major structures in the zone, where the main NW-SE structures include subsidiary radial structures, perpendicular to the annular fracture of the collapsed caldera. These in turn are affected by multiple normal faults and strike-slip shear zones, changing their orientations, from NE-SW to EW and NW-SE, respectively. See Figures 7.4, 7.5, 7.7 and 7.8.

The Central Breccia to the north is in the contact zone with the Santa Barbara Breccia Pipe and hosts Ag and Sn mineralization. Towards the SE it is anomalous in Pb and Zn, which suggests an overprinting by a later epithermal phase. Mineralization occurs as breccia veins, veinlets, replacements, and disseminations, which are enriched in metals in brittle deformed sectors mainly on the NW of the Central Breccia.

## 7.4 Hydrothermal Alteration

Hydrothermal alteration processes at Iska Iska are associated with two mineralizing systems. The first is related to a deeper xenothermal tin porphyry system, in which, hydrolysis reactions and the leaching effects of metasomatic activity have resulted in sericitization. This alteration with medium pH (~5), rendered the wall rock amenable to mineralization. During this stage, pneumatolytic processes on pre-existing boron-rich rocks produced quartz-tourmaline alteration, which is partly reflected in intrusive breccias where a remobilization of both xenothermal and epithermal mineralization can be observed.

The next stage of mineralization is the medium to high sulphidation epithermal type that is superimposed on the xenothermal stage. During this time, hydrothermal fluids affected the wall rocks pervasively. At the same time the fluids were also introduced into brittle deformation zones such as faults and fractures that also acted as conduits for the mineralizing fluids. The stage begins with propylitization including epidotization and chloritization phases, in some cases, with secondary biotite development. This alteration is well developed in the Porco Breccia Pipe Zone (See Figure 7.9).



Eloro Resources Ltd.

Figure 7.9 Iska Iska Longitudinal Section Showing Mineralization Intercepts and Alteration Patterns



Source: Eloro, 2023.



Pervasive sericitization overprints propylitization, occupying greater zones of the deposit (See Figure 7.9). In addition, argillization with variable intensity is accompanied locally by decarbonization, closely related to epithermal mineralization. This alteration occurs mainly in Santa Barbara BP, Huayra Kasa BP, Central BP, upper part of Porco BP and to a lesser extent in Mina 2 (See Figure 7.9). However, in the case of Santa Barbara NW and distal zones of Central Breccia Pipe argillization is linked to faulting (See Figure 7.7). Finally, silicification is superimposed on the previous alterations, and is commonly selective. In general, it affects the tourmaline matrix of intrusive breccias and is related to silica remobilization and recrystallization throughout the whole deposit. However, the upper part of the Central Breccia exhibits a vuggy silica cap with numerous cavities and box-works, produced by the intense leaching of minerals.

#### Silver Distribution

Table 7.5 summarizes the range of silver values from drilling within the different alteration zones. Silver is equally distributed throughout the major alteration types with only tourmaline alteration containing minimal values of silver.

Table 7.5 - Percentage Mineralized Samples by Alteration - SILVER         ELORO       for 8, 15 and >20 g Ag/t								
Lithological	Number of		Ag (g/t)		Representation	Total		
Unit	Samples	Category	Top Value	Mean	%	%		
	1,371	8.00 - 15.0	15	10.71	14.65			
ARG	311	15.0 - 20.0	20	17.68	3.32			
	953	>20.0	1,315	78.68	10.18	28.15		
	1,288	8.00 - 15.0	15	10.73	13.76			
PRP	345	15.0 - 20.0	20	17.60	3.69			
	1,048	>20.0	2,870	69.95	11.20	28.64		
	795	8.00 - 15.0	15	10.69	8.49			
SER	249	15.0 - 20.0	20	17.69	2.66			
	849	>20.0	7,050	77.83	9.07	20.22		
	983	8.00 - 15.0	15	10.68	10.50			
SIL	276	15.0 - 20.0	20	17.90	2.95			
	811	>20.0	3,400	74.83	8.66	22.11		
	43	8.00 - 15.0	15	10.78	0.46			
TOUR	14	15.0 - 20.0	20	17.15	0.15			
	25	>20.0	71	34.82	0.27	0.88		
Total	9,361				100.00	100.00		

Table 7.5
Percentage Mineralized Samples by Alteration – Silver for 8, 15 and >20 g/t Ag

Note: Alteration codes are as follows:

ARG = Argillic, PRP = Propylitic, SER = Sericitic, Sil = Silicification and TOUR = Tourmalinization



Lead Distribution

Table 7.6 summarizes the range of lead values from drilling within the different alteration zones. Lead, as with silver, is distributed throughout the major alteration types but is most coming in propylitic alteration. Pb values are very low within tourmaline alteration zones.

Table 7.6 - Percentage Mineralized Samples by Alteration - LEAD       for 0.1%, 0.3% and >0.5 Pb%         RESOURCES LTD       for 0.1%, 0.3% and >0.5 Pb%						
lithological	Number of		Pb (%)		Representation	Total
Unit	Samples	Category	Top Value	Mean	%	%
	1,660	0.10 - 0.30	0	0.18	14.80	
ARG	427	0.30 - 0.50	1	0.38	3.81	
	661	>0.50	28	1.69	5.89	24.50
	2,486	0.10 - 0.30	0	0.18	22.16	
PRP	715	0.30 - 0.50	1	0.39	6.37	
	1,034	>0.50	25	1.47	9.22	37.75
	1,321	0.10 - 0.30	0	0.18	11.78	
SER	451	0.30 - 0.50	1	0.39	4.02	
	887	>0.50	21	1.41	7.91	23.70
	735	0.10 - 0.30	0	0.17	6.55	
SIL	244	0.30 - 0.50	0	0.39	2.18	
	384	>0.50	42	1.38	3.42	12.15
	129	0.10 - 0.30	0	0.17	1.15	
TOUR	49	0.30 - 0.50	1	0.38	0.44	
	35	>0.50	3	0.84	0.31	1.90
otal	11,218				100.00	100.00

 Table 7.6

 Percentage Mineralized Samples by Alteration – LEAD for 0.1%, 0.3% and >0.5%

ARG = Argillic, PRP = Propylitic, SER = Sericitic, Sil = Silicification and TOUR = Tourmalinization

## Zinc Distribution

Table 7.7 summarizes the range of zinc values from drilling within the different alteration zones. Zinc is very mobile and occurs predominantly in areas with propylitic alteration (55%) followed by lesser amounts in sericitic (18%) and argillic (15%) alteration zones. Pb values are low within silicified and tourmaline alteration zones.



Γ	ab	le	7.	7	

## Percentage Mineralized Samples by Alteration – ZINC for 0.4%, 0.8% and >1.2% Zn

the standard	Number		Zn (%)		Representation	Total
Unit	Samples	Category	Top Value	Mean	%	%
	659	0.40 - 0.80	1	0.57	6.49	
ARG	327	0.80 - 1.20	1	0.98	3.22	
	605	>1.20	21	2.67	5.96	15.66
	2,560	0.40 - 0.80	1	0.56	25.20	
PRP	1,063	0.80 - 1.20	1	0.99	10.47	
	2,001	>1.20	20	2.67	19.70	55.37
	768	0.40 - 0.80	1	0.56	7.56	
SER	346	0.80 - 1.20	1	0.98	3.41	
	733	>1.20	16	2.71	7.22	18.18
	374	0.40 - 0.80	1	0.57	3.68	
SIL	162	0.80 - 1.20	1	0.98	1.59	
	276	>1.20	17	2.57	2.72	7.99
	105	0.40 - 0.80	1	0.55	1.03	
TOUR	64	0.80 - 1.20	1	0.99	0.63	
	114	>1.20	10	2.63	1.12	2.79
otal	10,157				100.00	100.00

#### Tin Distribution

Table 7.8 summarizes the range of tin values from drilling within the different alteration zones. Tin, like silver is equally distributed throughout the major alteration types with only tourmaline alteration containing minimal values of tin although this alteration is usually an indicator of being close to tin mineralization.



Table 7.8
Percentage Mineralized Samples by Alteration - TIN for 0.08%, 0.12% and >0.18% Sn

Table 7.8 - Percentage Mineralized Samples by Alteration - TIN								
ELORO / for 0.08%, 0.12% and >0.18% Sn								
1 ith sharing l			Sn (%)		Representation	Total		
Unit	Samples	Category	Top Value	Mean	%	%		
	436	0.08 - 0.12	0.12	0.10	10.14			
ARG	264	0.12 - 0.18	0.18	0.15	6.14			
	445	>0.18	4.33	0.54	10.35	26.64		
	426	0.08 - 0.12	0.12	0.10	9.91			
PRP	234	0.12 - 0.18	0.18	0.15	5.44			
	326	>0.18	5.40	0.41	7.58	22.94		
	385	0.08 - 0.12	0.12	0.10	8.96			
SER	266	0.12 - 0.18	0.18	0.15	6.19			
	365	>0.18	4.10	0.42	8.49	23.64		
	368	0.08 - 0.12	0.12	0.10	8.56			
SIL	249	0.12 - 0.18	0.18	0.15	5.79			
	474	>0.18	9.84	0.50	11.03	25.38		
	35	0.08 - 0.12	0.12	0.10	0.81			
TOUR	17	0.12 - 0.18	0.17	0.14	0.40			
	8	>0.18	0.35	0.26	0.19	1.40		
Total	4,298				100.00	100.00		
Note: Alteratio	on codes are :	as follows:						

ARG = Argillic, PRP = Propylitic, SER = Sericitic, Sil = Silicification and TOUR = Tourmalinization

#### 7.5 METAL ZONATION

Iska Iska has distinct zones of metal zonation which are important for understanding the origin and distribution of the mineralization as well as for outlining geometallurgical zones for future development. The four principal metals Ag, Sn, Zn and Pb occur within distinct metallogenic zones. Other important metals include Au and Cu. The following section describes the distribution of these metals based on 3D models developed in Leapfrog.

Figure 7.10 shows the distribution of Sn and Zn. These metals separate the earlier xenothermal stage (Sn) from the later superimposed higher level epithermal stage (Zn). There is very little overlap between the distributions of these metals.



Eloro Resources Ltd.



Figure 7.10 Distribution of Sn and Zn, Iska Iska

Cu is part of the earlier xenothermal system where it occurs above and peripheral to Sn mineralization as shown in Figure 7.11



Figure 7.11 Distribution of Cu and Sn, Iska Iska



Ag is distributed widely across Iska Iska (Figure 7.12) with Ag occurring primarily in galena in the epithermal Ag-Zn-Pb mineralization but also within Sn mineralization likely as Ag sulphosalts.



Pb distribution is concentrated in the Santa Barbara breccia pipe and immediately surrounding area with some overlap of the Sn zone (Figure 7.13).



Figure 7.13 Distribution of Pb, Iska Iska



Figure 7.14 shows the widespread distribution of Au at Iska Iska reflecting its likely origin as orogenic Au in the basement Ordovician sedimentary rocks that has been incorporated into both the xenothermal and epithermal mineralizing system. Au is a potential biproduct. Bismuth distribution closely follows that of Au.



# 7.5 STRUCTURE

Within the regional structural framework, the Iska Iska Project is located south from the Charazani-Ayoma-Atocha domain, 120 km west from the Khenayani right-lateral thrust fault and 12 km east of the Aiquile-Tupiza right-lateral thrust fault.

Interpretations based on satellite images, structural data, magnetic (geophysical) data, and field and underground mapping show structural control with a main trend or domain to NW-SE, with faults and lineaments. Additionally, a series of secondary sets of faults of NE-SW and E-W directions, all of them controlling mineralization, with a slight trend to the WNW-ESE, associated with the NW-SE domain. A third set of secondary faults was found in a N-S direction. The set of this series of main and secondary faults makes up a Riedel-type shear system.

Regionally, the Iska Iska igneous complex is located in the center of kilometer-scale ring fractures that surround it. These enclose the current exploration area. The eastern margins appear to lack continuity, but this is due to the effect of a transgressive overprint by late Tertiary lacustrine sediments.



The Ordovician sedimentary rocks were slightly affected by the Ocloyic phase (early Paleozoic) Later, the Hercynian orogeny (late Paleozoic) transcurrent faults of N-S direction formed narrow anticlines, wide synclines, regional metamorphism, and slaty cleavage.

Tertiary (predominantly in the Miocene), a compressive phase resulted in the formation of reverse faults of Andean direction (NW-SE) and opposite vergences. It was followed by an extensional phase that led to the deposition of the main mineralization at Iska Iska.

This main NW-SE structural corridor is more evident in the Huayra Kasa and Santa Bárbara sectors. Towards the south in the Central and the Porco sectors, the structural corridor trends more to the SSE and then south.

The structural geology of the Iska Iska project as shown in Figure 7.15 consists of two main fault systems, both associated with shearing.

The first fault system is normal-sinestral type and extends to NW-SE direction (300°-315°) with NE dips. This system forms the so-called Santa Barbara structural corridor, bounded to the north by the Santa Barbara North Fault (SBNF) and to the south by the Santa Barbara South Fault (SBSF). The structural corridor is Riedel shear type, and includes the Santa Barbara Fault (SBF), of great relevance for the mineralization in the project. It is important to mention that the hanging wall of the Santa Barbara Fault hosts most of the mineralization (Sn, Ag, Zn, Pb), unlike the footwall which presents moderate mineralization. According to the stereographic analysis of the mineralized structures, these show an alignment with the Santa Barbara structural corridor in a 280-300° strike direction.

The second fault system consists of normal-dextral faults with N-S direction (0°-20°) and dips to the E. This system formed subsequent to the Santa Barbara corridor, intersecting, displacing and remobilizing a pre-existing mineralization, mainly along the Santa Barbara Fault, which demark a differentiation of the mineralization from west to east. Also, this remobilization-reactivation is marked by the xenothermal and epithermal mineralization types. Xenothermal mineralization is restricted mainly to the east, bounded by the Porco-Huayra Kasa Fault (PHKF), whereas epithermal mineralization is restricted mainly to the east, bounded by the Porco-Huayra Kasa Fault to the west (PHKWF). There is an overprinting between epithermal over xenothermal mineralization, which is restricted to the west by the FPHKW fault and to the east by the FPHK fault.



Eloro Resources Ltd.

uayra Kasa reccia Pipe anta B Tin Domain (Sn-Pb-Ag) A RROOM Cer PROPERTY / BOUNDARY PORVENIR V Cadebrury Perforete Perforete Bences Bences Bences Bences Performante Bences V Perphysite daote V Perphysite daote Stuctural Plan Map Iska Iska Project October 12, 2023 0 50 100 m 1:10000 

Figure 7.15 Structural Geology of Iska Iska



# 7.5.1 Analysis of Faults in Diamond Drill Core

Within the structural database, the main faults whose width is greater than 0.5 m are grouped into three main orientations although there is a significant dispersion of poles as shown in Figure 7.16



Figure 7.16 Stereographic Projection of Faults, Iska Iska

The main fault systems defined in the stereograms agree with the regional tectonics where there is a marked NW control (N330°), in addition to secondary NS structures (N22°) and shear zones associated with an EW system (N260°). Intersections of these structures are important sites for higher grade mineralization.

## 7.5.2 Analysis of Veins and Vein Breccias in Diamond Drill Core

The predominant mineralization is represented by veins and vein-breccia, the main ones being considered having widths greater than 0.3 m. The stereonets show that the two types have similar structural characteristics (See Figure 7.17).

There is a notable concentration of poles for both veins and vein breccias that form a main structural trend of N296° with an average dip of 57°.



VEIN - BRECCIA										
186 2003-				-	VEx 2013 4055 Flat-colour: 4562 Visc_2005					V8x_2003 1965
<pre>(% 15) (% 16) (% 1</pre>	R R	750 H								
					VEIN					
9000/0 									57 	
Table	Column	Category	Count	R-value	Карра	Mean Strike	Mean Dip	Mean Dip Az.	Mean Trend	Mean Plunge
VBx_2003										
	Whole Table		4982	0.623	2.654	309	33	39	219	57
	VBx									
	L	N105	1968	0.925	13.358	296	56	26	206	34
Vn_2003			24.11	0.001	2 677	200	22		2/2	
	Whole Table		2141	0.624	2.655	309	33	39	219	57
	Vn	N120	722	0.02	12 450	200	50	20	200	22
		N120	122	0.92	12.456	290	00	20	200	52
Table	Column	Category	Count	R-value	Карра	Mean Strike	Mean Dip	Mean Dip Az.	Mean Trend	Mean Plunge
VBx_2003			47		a :					
	Whole Table		4982	0.623	2.654	309	33	39	219	57
	VBx		1009	0.025	12 250	200		26		
		NITOE							206	24
		N105	1908	0.925	15.556	296	56	26	206	34
Vn 2003		N105	1908	0.925	15.556	296	56	26	206	34
Vn_2003	Whole Table	N105	2141	0.624	2.655	309	33	39	206	34 57
Vn_2003	Whole Table Vn	N105	2141	0.624	2.655	309	33	39	206 	34 57

Figure 7.17 Stereographic Projection of Veins and Vein Breccias, Iska Iska





# 8.0 DEPOSIT TYPES

The following descriptions are excerpts from the Micon 2022 Technical Report with minor edits from Eloro's Dr. Osvaldo Arce.

## 8.1 **DEPOSIT MODEL**

The Iska Iska polymetallic system is a large (~30 km<sup>2</sup>) that displays characteristics typical of porphyryxenothermal-epithermal systems. They are associated with magmatism generally occurring in magmatic arcs within convergent geodynamic settings and form part of the southern part of the tin belt, which follows a NW-SE fault system, also including Tasna, Chorolque, Tatasi-Portugalete and Chocaya-Animas-Siete Suyos mining districts.

The mineralization system is believed to involve mainly magmatic-hydrothermal and meteoric fluids that form high to intermediate epithermal (Zn-Pb-Ag-Cu-[Au]), (Ag-Zn) deposits, overprinted on porphyry-xenothermal (Sn-Bi-[W]) deposits. The conceptual model of the Iska Iska deposit is illustrated in Figure 8.1 below along with other Bolivian deposits.

The deposit is centered on epizonal granodiorite porphyry stocks, which were postdated by dacitic volcanic domes and closely associated with volumetrically large magmatic-hydrothermal breccias. Alteration-mineralization zoning is well developed: silicic and argillic alterations overprinted quartz-tourmaline and sericite assemblages that grade outward to propylitic alteration. The deposit, which is the product of widespread hydrothermal activity at ~14-12 Ma, is profoundly telescoped and is mainly controlled by the tectonic movement of the Nazca Oceanic Plate (subduction extension). Epithermal overprinting on porphyry alteration and mineralization is characterized by veins and fracture filling, and replacement textures between multiple episodes of alteration and sulphide mineralization.

Iska Iska is characterized by a polymetallic signature (Sn, Ag, Zn, Pb, Bi, W, Au, Sb). The style of mineralization includes groups of veins, vein breccias, vein swarms, veinlets, stockworks, and disseminations. The mineralized zones are hosted in all host rocks that include Ordovician sedimentary and metasedimentary rocks, epizonal stocks and volcanic domes. The identified metallic minerals are cassiterite, sphalerite, galena, pyrite, pyrrhotite, arsenopyrite, chalcopyrite, stibnite, stannite, tetrahedrite, wolframite, bismuthinite, and silver sulphides. The main economically exploitable metals are tin, zinc, lead and silver, with not less important gold, tungsten, bismuth, and copper.

Iska Iska is unique geologically compared with the polymetallic deposits in the region. Although it can be similar or greater than the largest Tatasi-Portugalete and Chocaya-Animas-Siete Suyos, it is in their class, and manifests attributes of all of them, since it includes the higher mineralized phreatic breccias and the subjacent tin porphyry at depth.







Source: Eloro 2022 (modified from Heuschmidt, 2000).



#### 8.2 CHARACTERISTICS

The porphyry-epithermal mineral system deposits generally have a spatial and temporal association with intermediate to felsic sub-aerial volcanic rocks and related sub-volcanic intrusions. They are thought to have formed at shallow crustal levels (<1.5 km for epithermal and <6 km for porphyry deposits: Seedorff et al., 2005; Simmons et al., 2005). This very shallow depth of emplacement and consequent low preservation potential account for the fact that geologically old (Paleozoic or older) deposits are uncommon (Seedorff et al., 2005; Simmons et al., 2005).

An important feature of the porphyry-epithermal mineral system is the telescoping of different deposit types, for instance porphyry Sn-Bi-W deposits and epithermal deposits of high and intermediate sulphidation types.

Most workers concur that magmas were probably the energy source in the porphyry-epithermal mineral system. Although the role of magmatic-hydrothermal fluids as sources of fluid, sulphur and metals is not clearly understood, the likely driver of fluid flow, whether magmatic-hydrothermal of heated meteoric, is probably magma emplacement.

Mechanisms for ore deposition in the porphyry-epithermal mineral system are many and varied, with the main mechanisms being depressurisation and associated processes such as boiling, fluid mixing, cooling, and wall rock interaction.

Porphyry-epithermal deposits are geochemically zoned, both at the district scale (as demonstrated in Figure 8.1) and deposit scales (Buchanon, 1981; Berger et al., 2008). For example, the Iska Iska deposit has an inner core of Sn, W and Bi mineralization surrounded by Ag, Pb, Zn and Au mineralization envelope followed by Cu in the outer rim. This zonation has been partially obliterated by post mineralization deformation.

Dr. Osvaldo Arce, PhD., P.Geo., (pers. comm. 2019/2020) remarks "Iska Iska has all the hallmarks of a large group of hydrothermal mineral deposits which have traditionally supplied most of Bolivia's mineral wealth. Given the telescoped (xenothermal) nature of the mineralisation, Iska Iska is a very good example of a porphyry-epithermal transition. Epithermal overprinting on xenothermal porphyry alteration and mineralization is characterized by veins and fracture filling, and replacement textures between episodes of alteration and sulfide minerals."

An important point as noted by Dr. Arce is that the epithermal stage of mineralization (Ag, Pb, Zn, Au) is later than the porphyry stage (Sn, W and Bi). Iska Iska and its surroundings have been subjected to widespread remobilization due to strong Andean tectonism that has substantially altered the overall geometry of the mineralization from its primary configuration.

## 8.3 IMPLICATIONS FOR EXPLORATION

A multi-disciplinary approach involving geological mapping and prospecting, geochemistry and geophysics using both magnetic and IP methods is being employed to unravel the mineralized bodies with economic potential. A Geologic AI scanning program has recently been introduced to facilitate geometallurgical modelling.



## 9.0 EXPLORATION

The exploration activities conducted by Eloro on the Iska Iska project are conveniently divided into two campaigns as described below.

#### 9.1 PHASE 1 CAMPAIGN (2020 – 2021)

This phase of exploration is described in detail in the previous NI 43-101 technical report entitled "Technical Report on the Exploration and Diamond Drilling of the Iska Iska Polymetallic Project, Sud Chichas Province, Department of Potosi, Bolivia" dated May 1, 2022, with an effective date of March 31, 2022. For the purposes of completeness of this section, a summary of this earlier campaign is provided below.

#### 9.1.1 Nature of Exploration Work

The following exploration activities were undertaken:

- Topographic and artisanal underground workings survey
- Surface and underground mapping/sampling
- Reconnaissance Synchrotron mineral cluster analysis
- Reconnaissance geophysical investigations

#### 9.1.2 Significant Exploration Results & Interpretation

The survey work produced a reliable topographic map of the project area for future use in resource estimation and planning of mining activities, and well-defined positions/geometries of existing underground workings.

Mapping revealed that Iska Iska Project is within a collapsed caldera complex.

Sampling of underground workings confirmed Iska Iska as a multi-metal project with the best results being recorded in the Santa Barbara adit.

Reconnaissance geophysics demonstrated that: (i) Magnetic susceptibility correlates strongly with mineralization and unmineralized host rocks are generally non-magnetic, regardless of differing lithologies; and (ii) Chargeability is closely associated with mineralization.

#### 9.2 PHASE 2 CAMPAIGN (2022 – MID 2023)

This phase of exploration involved four main activities: structural mapping, advanced Synchrotron mineral cluster analysis, detailed geophysical investigations, and mineralogical investigations. The details for each activity follow.



# 9.2.1 Structural Mapping

Eloro's structural consultant conducted detailed structural mapping/interpretation of the Iska Iska project. All details pertaining to this activity are provided under section 7.5 above.

## 9.2.2 Synchrotron Analysis

## 9.2.2.1 Background

Synchrotron mineral cluster analysis is conducted without knowledge of the sample mineralogy or geochemistry. It involves a multivariate analysis that aims to classify a suite of samples into different groups such that similar subjects are placed into the same group. The patterns are clustered based on a full X-ray diffractogram.

The synchrotron mineral cluster analysis was conducted by Dr. Lisa L. Van Loon and Dr. Neil R. Banerjee, both of Lisa Can Solutions. Their summary report is in the appendix.

## 9.2.2.2 Procedures

A synchrotron is a type of circular particle accelerator that is an extremely powerful source of broadspectrum electromagnetic radiation (e.g., visible light, infrared, UV, & X-rays), ~10 billion times brighter than the sun. The interaction between the light and sample can probe a host of physical, chemical, and structural properties of minerals at the molecular level.

Because the X-ray beam generated by a synchrotron source is highly brilliant and collimated, focusing to spot sizes from millimetres to microns allows enhanced spatial resolution and yields high signal to noise ratios not possible with lab X-ray sources. In addition, the X-ray beam is tuneable, allowing specific energies to be selected to further identify unique chemical species, redox states, and coordination chemistry present in the sample.

## 9.2.2.3 Results/Interpretation

The cluster analysis conducted on 194 samples from the Huayra Kasa, Santa Barbara and the Central breccia areas demonstrated that:

- The samples belong to the same mineralizing event.
- The mineralizing event was massive and widespread based on the spatial location of the samples.
- Cassiterite appears to be the main tin mineral in the area drilled to date.

Further detailed investigations demonstrated that significant cassiterite mineralization appears to be confined to the western part of the Iska Iska deposit. This corroborates mineralogical investigations results obtained by the Blue Coast laboratory – see section 9.2.4 below. A summary of this work is presented in appendix I.



# 9.2.3 Exploration Geophysics

The following is an extract of the summary report written for Eloro by Chris Hale and John Gilliat under the auspices of their company, Intelligent Exploration.

# 9.2.3.1 Introductory Statement

Geophysical investigations on the Iska Iska Project are being supervised by C. J. Hale Ph. D, P. Geo and J. Gilliatt, B. Sc., P. Geoph., P. Geo., Partners, Intelligent Exploration (IE). A summary of the geophysical work up was included in the April 2022 technical report and parts of that report are included here. The focus of the present document is to document additional geophysical efforts and interpretation in the following year, presenting the results obtained until March 2023.

# 9.2.3.2 Physical Characteristics of the Iska Iska Core Samples

Initially, IE measured the physical properties of a suite of ninety samples from the Iska Iska project, Bolivia selected by Dr. Osvaldo Arce. The physical property data were summarized by Hale (2021). The conclusions of that work led to the choice of Magnetic and Induced Polarization and Resistivity surveys to continue exploration in 2021-22. Those results were augmented with physical property measurements from a more widely obtained of about one hundred additional samples in early 2022, including the metallurgical samples from METSBUG-02 and DSBU-03 and a suite of samples from the Santa Bar-bara swath of drill holes.

Measured Physical properties included DC Conductivity, EM Conductivity at two different frequencies, Magnetic Susceptibility, Specific Gravity, and Chargeability.

The main conclusions resulting from the physical property measurements were summarized in the April 2022 technical report as follows:

- 1. Samples exhibited low DC conductivity except for a few that were characterized as massive sulphide mineralization. The bulk conductivity showed little variation between differing lithologies, and all significant conductivity was attributed to mineralization.
- 2. None of the Iska Iska samples was conductive at EM frequencies.
- 3. Magnetic susceptibility correlates strongly with mineralization and unmineralized host rocks are generally non-magnetic, regardless of differing lithologies.
- 4. Specific gravity is closely grouped around 2.7 regardless of the host lithology except for a few samples with elevated specific gravity linked to mineralization. There is little or no correlation between specific gravity and lead assays provided by Dr. Arce, nor any significant association of higher specific gravity with any particular host rock.
- 5. Chargeability is closely associated with mineralization.

The fundamental conclusion remains that magnetic susceptibility, conductivity, chargeability and density are all strongly correlated and higher values reflect the presence of mineralization. The physical property results suggested that both magnetic and Induced Polarization/Resistivity surveys would be useful to identify the mineralization at Iska Iska and guide drilling.



# 9.2.3.3 Magnetic Survey

An RFP for a magnetometer survey of the entire Iska Iska property was prepared by IE in November 2020 and the magnetic survey was contracted to MES Geophysics of St John's NL, who were able to undertake the survey. Data were collected between April 21, 2021, and May 24, 2021, on North-South lines (171.58 km + 9.64 km of tie-lines) spaced at 50 m over the accessible parts of the property.

The addition of the Cassiterita property and TUP-5 properties to the south and southeast of Iska Iska permitted a wider sampling of the magnetic field to provide a better external constraint on an updated inverse model of magnetic susceptibility.

Figure 9.1 shows the Total Magnetic Intensity (TMI) map for Iska Iska. At this magnetic latitude, magnetic lows are associated with the more magnetic lithologies, outside the boundary of the inferred caldera. The map is dominated by a WNW-elongated magnetic high centered near Huayra Kasa. The TMI decreases smoothly toward the southwest. In the central part of the caldera the TMI map shows mid-green colours indicating little variation in magnetic intensity aside from the gradient toward the SW. A second strong magnetic high is located at the south end of the map along the south boundary of the inferred caldera. The magnetic intensity is strongly affected by topography with magnetic highs appearing on the south side of steeper slopes to the south. Magnetic lows on the southwest margin of the Iska Iska property indicate magnetic sources at moderate depths.





Figure 9.1 Analytical Signal of the Total Magnetic Intensity, Iska Iska and Adjacent Property

Figure 9.2 shows the corresponding map of the "Analytical Signal" of the TMI. This map displays the contours of a scalar value that is proportional to the total rate of change in the magnetic intensity with position (the Pythagorean sum of dx, dy, and dz) and is thus a measure of the magnetic variability. Usually, this map correlates well with the magnetic susceptibility of the underlying rocks because the variation in the local field strength results from the interaction of the ambient magnetic field with any susceptible lithologies. High variability correlates with magnetic lows on the TMI map that indicate magnetic mineralogy along the western boundary of the Iska Iska property. The broadly circular outline of the caldera complex is indicated by higher magnetic variability, but a NW-SE trending swath of lower variability (in green) marks a zone of magnetic depletion where recent drilling has confirmed the location of the extensive epithermal mineralization in brecciated volcanic rocks.







Figure 9.2 Analytical Signal Map for Iska Iska and Adjacent Property

Local ASIG highs within the Santa Barbara and Central breccia pipes are cultural anomalies but less intense local anomalies indicate volumes with higher magnetic susceptibility, within the generally low magnetic relief that marks the brecciated zone. This is consistent with the results of the physical property measurements which showed that magnetic susceptibility (likely from pyrrhotite) is associated with sulphide mineralization within the breccia.

# 9.2.3.4 Magnetic Processing and Inverse Modeling

The ASIG map is a good first look at the distribution of magnetic susceptibility and it conforms reasonably to the known geology. An inverse model of the three-dimensional distribution of magnetic susceptibility at Iska Iska has been calculated from the surface TMI measurements. Because magnetic susceptibility correlates well with mineralization (both in the initial physical property measurements and in subsequent "kappa-meter" measurements of exploration core) a model of the susceptibility can be a reasonable proxy for mineralization, to guide drilling.

Mr. J. Mihelcic of Clearview Geophysics Inc. calculated a 3D inverse model of the magnetic susceptibility using. MAG3D V 6.0 software from the UBC Geophysical Inversion Facility. Initial constraints were



provided by IE including a maximum depth of 1,000 m, a zone of magnetic depletion due to weathering within 100 m of the surface and initial magnetic susceptibility values that were consistent with the measured magnetic susceptibilities of core samples. After magnetic data were obtained from the Cassiterita property to the south of Iska Iska, the inverse magnetic susceptibility model was updated to include the new data. Figure 9.3 shows a plan view of the magnetic susceptibility model at an elevation of 3600 m.



Figure 9.3 Magnetic Susceptibility at an Elevation of 3,600 m

Figure 9.4 shows the .3dv of the magnetic susceptibility along a North-South section. The magnetic susceptibility values modeled along this section separate the lithologies cleanly into an upper magnetically depleted zone (consistent with the initial conditions) and a "basement" profile that indicates magnetic sources becoming progressively deeper toward the south. This trend is consistent with the NNE-SSW gradient shown in the central part of the TMI map, Figure 9.1.

Clear susceptibility peaks correlate with the individual mineralized zones in breccia pipes within a generally low magnetic susceptibility. Ordovician sandstones beneath the caldera complex are essentially non-magnetic.


Figure 9.4 North-South Inverse 3D Magnetic Susceptibility Model Section Through the Caldera



The bulk of the magnetic susceptibility lies below the elevation sampled during the 2021 drilling of the Central and Porco breccia pipes, but the magnetic susceptibility associated with pyrrhotite mineralization in the more recent Santa Barbara drill holes is clearly shown. This mesh of pyrrhotite is extensive, across most of the property and seems to be progressively down-dropped along several east-trending faults.

## 9.2.3.5 BHIP Program

To date there has been little surface IP/Res survey at Iska Iska. In contrast, the property has been explored at depth with borehole measurements of resistivity and chargeability that can be used to construct a 3D model of the distribution of mineralization.

Two types of BHIP measurements have been carried out: In-hole Pole-Dipole surveys and Cross-Hole Surveys.

Pole-dipole surveys have been conducted with 10 m and 25 m dipoles. These provide information concentrated in a cylindrical volume with a 5 m or 12.5 m radius around the hole. They integrate the response from mineralization in a much larger volume than can be obtained from a few cm of drill core and thus help to establish the continuity of mineralization along drill holes, smoothing out cm scale variations in grade. The pole-dipole array also includes an expanding dipole that measures between the collar and any position at depth. At significant depths, this dipole records the response from mineralization of mineralization for the axis of the drill hole so that the radial distribution of mineralization



can be estimated by comparing the responses at characteristic distances of 5, 12.5 and ~50-100 m around each hole. The two data from the survey (Resistivity and IP Chargeability) can be profiled along the holes and correlated and contoured between nearby holes to show the spatial distribution of the conductive and chargeable mineralization.

Cross-hole measurements were carried out between nearby drill holes. Current is injected at depth in one hole while the chargeability and resistivity are profiled in a second. Cross-hole data tend to behave better in inverse modelling because the current location is fixed throughout the survey, not changing with every station like pole-dipole data; but, without a sufficient number of nearby holes the modeling software calculations may not converge to produce a reliable model. The first inverse modelling of the mineralization at Iska Iska was frustrated by the failure of boreholes to remain open beyond shallow depths and the limited number of holes available after the initial 2021 drilling program. Direct 3D correlation of the pole-dipole resistivity data at depth appears to provide a better measure of the distribution of mineralization.

Figure 9.5 shows the results of 25 m pole-dipole IP/Res measurements, superimposed on the 3D magnetic susceptibility model. It is important to recognize that in the vicinity of highly conductive mineralization the primary transmitted voltage (that induces the polarization effect) is reduced to a value near zero. As a result, a simple measure of the Mx chargeability will exhibit a low value where the mineralization is most concentrated. We have attempted to overcome this deficiency by also calculating an apparent conductivity as the reciprocal of the apparent resistivity. Rap is proportional to Vp/I where Vp is the primary transmitted voltage, and I is the transmitted current.

Figure 9.5 shows volumes where Mx is higher than 30 mV/V. High chargeability reflects mineralization and I/Vp (the apparent conductivity) reflects massive mineralization. This combined view is a good representation of the mineralization in the parts of the Santa Barbara drill holes where BHIP data could be obtained.

In Figure 9.5, it appears that the mineralization is depth limited but this is entirely because the lower parts of the Santa Barbara drill holes did not remain open for BHIP measurements. A lack of data (not mineralization!) remains, deeper than the middle of many holes. In actuality, there is a general tendency for the Mx and conductivity values to strengthen with depth.

Mineralization can be characterized by both IP/Res results and magnetic susceptibility. It extends much deeper than the depth limit suggested by the BHIP data. Although the volume of the model is somewhat arbitrary, here the chargeability minimum has been adjusted to 30 mV/V, (a significant chargeability value) and a corresponding value (30 Siemens) has been used to estimate the volume of significant conductivity. The hole-to-hole correlation is strongest in a NW direction.

Figure 9.6 shows the conductive core (I/Vp correlation) within the volume of Mx chargeability (shown faintly) for the Santa Barbara holes. As expected, the conductivity fills in gaps in the chargeability distribution highlighting areas where chargeability is reduced by low Vp. This is the expected signature of massive sulphide mineralization within a broader halo of disseminated mineralization. The combined correlation solid suggests that mineralization extends over hundreds of meters toward the N-NW. An apparent plunge toward the southeast may be an artefact of the sampling distribution as deeper data were collected more successfully later in the program, farther southeast. The depth limit



of the mineralization appears underestimated in comparison with the magnetic susceptibility model, and it remains open.



Figure 9.5 Correlated Mx and Conductivity Data for the Upper Parts of the Santa Barbara Drill Holes

The semitransparent magnetic susceptibility model shows coincident peaks, but the magnetic susceptibility model indicates that magnetic mineralization extends much deeper than the volume sampled by the IP/Res profiles.







Twenty-five-meter Pole-Dipole Mx data are plotted on the upper parts of the Santa Barbara drill holes in Figure 9.7 while Figure 9.8 shows a similar plot for conductivity, calculated as I/Vp. The profiles of Mx and Con-ductivity show that both of these parameters (that reflect mineralization) are consistently elevated over extended intervals of the boreholes. The centimeter scale variation that is apparent in core assays does not extend over the scale of tens of meters reflected in these profile data. At this scale the continuity of mineralization shown by these data is remarkable.

Figure 9.9 shows an updated view of the Santa Barbara BHIP results, looking toward the west. Data collection has been more successful to depths of about one kilometer and the BHIP technique has been refined in late 2022 and early 2023. The broad pattern indicated by the earlier BHIP program has been confirmed with these measurements including the inferred extension of the mineralization to depth shown by the inverse magnetic susceptibility models.



Figure 9.7 Profiles of Mx Chargeability are Remarkably Consistent over the Lengths of the Santa Barbara DDH's



#### Figure 9.8

Conductivity Data also Suggest that Mineralization is Continuous Along the Upper Parts of Santa Barbara DDH's when Averaged over a 25 m Dipole Length





Figure 9.9 Conductivity and Chargeability Data displayed within the Correlated Volume Indicated by the Santa Barbara BHIP Programs, Looking West



## 9.2.3.6 Interpretation of Lithological Domains from BHIP Data

BHIP measurements suggested that different lithologies could be separated using electrical resistivity. Broad scale lithological domains have been interpreted based on the variation of resistance (VP/I) using a few generally understood ideas:

- Weathering to clay will produce a low resistivity surface zone.
- Resistivity increases below the weathered zone resulting in a transition zone in which resistivity increases with depth.
- Below the oxidized zone, preservation of sulphide minerals can result in lower resistivity if the sulphide mineralization is connected and a significant concentration.
- Gaps in the sulphide mineralization will result in higher bands of resistivity.

Initial lithological domains were interpreted by Nicola McKay using detailed mineralogy and X-ray diffraction in drill holes (DSBU-3 and METSBUG-2): an upper weathered zone, upper and lower conductors, and more resistive tin bearing lithology at the maximum depth sampled. Combining the pole-dipole profiles with McKay's inferences resulted in six geophysical domains:

1. Surface (Weathered).



- 2. Transition (Increasing conductivity with depth in some holes becoming McKay's upper sulphide).
- 3. Resistive (possibly silicified, narrow zones of higher resistance, in some holes).
- 4. Conductive (McKay's upper sulphide zone).
- 5. Lower Resistive.
- 6. Lower Conductor (McKay's lower sulphide zone, not reached in many holes).

Rarely, in the deepest holes an increase in resistance was noted near the end of the hole, consistent with McKay's cassiterite zone but generally holes were not deep enough to reach this level.

### 9.2.3.7 Interpretation Procedure

VP/I profiles were plotted for Dipole 1 and Dipole 2 for all holes and resistance intervals were identified along the profiles using the VP/I ratios from Dipole 1 and compared with Dipole 2 slope changes and depth profiles for the 25 m data. Higher resolution profiles from the 10 m data were compared with the 25 m results, assigning "from and to" downhole depths for the resistance intervals. The "from and to" data for any of the six domains (where present) were input to Oasis Montaj as arbitrary "rock code" numerical values for each "domain" for 3D gridding and interpolation using a vertical cell size of 25 m and 50 m in the X and Y directions. Individual solids were generated where a particular code value could be correlated between holes and these solids were displayed as separate colours in an OM.3dv model for comparison and validation with known geological domains, the inverse magnetic susceptibility model and the distribution of mineralization.

The resulting lithological domains are shown in Figure 9.10.

Some caution must be exercised in the use of geophysical results to constrain the lithological domains because a sampling bias may be present. The depth limit of the lower conductor was not reached by many holes and this conductive lithology probably extends deeper than the present model indicates. Further, the drill holes follow a NW-SE swath across the property, limiting the amount of data on both the northeast and southwest sides of the drill pattern. The maximum correlation direction for each domain is influenced by the distribution of drill hole data but should reflect variation within the sampled volume accurately.



Eloro Resources Ltd.

Figure 9.10 Lithological Domains suggested by BHIP Conductivity Data



## 9.2.3.8 Conclusions and Recommendations

The magnetic susceptibility model has been successful in locating concentrations of mineralization that have now been drill tested. Down-hole resistance measurements confirm that the more magnetic mineralogy (especially pyrrhotite) is also highly conductive and distinct zones of mineralization can be correlated at depth from hole to hole for lengths of hundreds of meters.

Sections through the updated magnetic susceptibility model can be displayed to compare proposed step-out drill trajectories with the implied distribution of mineralization. The locations of model susceptibility maxima are more important for drill targeting than the model's solid volumes because model volumes can be influenced by arbitrarily chosen cut-off values.

BHIP can be used to gauge the off-hole extent of mineralized volumes, particularly once additional holes are added to constrain 3D models of conductivity and chargeability.

The continuity of mineralization implied by the profiles of Mx and conductivity along the Santa Barbara holes and the correlations of these data between holes lend confidence to the idea that mineralization is continuous throughout the volume sampled by the drill holes. This confidence increases as more drill holes are added to the BHIP database.



BHIP measurements should continue to be a standard part of the drill hole logging procedure and physical properties including magnetic susceptibility should be routinely determined from all drill core at Iska Iska.

Automation of magnetic susceptibility measurements as part of the core scanning workflow is recommended.

# 9.2.4 Mineralogical Investigations

The following is a summary written by **Nicola McKay, MSc., P.Geo.**, on the mineralogical work carried out under her supervision at Blue Coast ResearchParksville, Vancouver Island, British Columbia.

# 9.2.4.1 Introductory Statement

A significant program of mineralogical testing, using both automated mineralogy (QemSCAN / TIMA) and electron microprobe analysis, was completed on drill core intervals from the across the Eloro Resources Iska Iska Project during 2022/2023. The distribution of the test samples across the project is shown in Figure 9.16 The mineralogical data was collected to support several Project initiatives including 1) metallurgical flowsheet development for Sn/Ag and Pb/Zn, 2) development of preliminary geological and geometallurgical models, 3) resource modelling of tin and other value minerals and 4) training / calibration of the on-site hyperspectral scanning program. Samples were analyzed as laboratory-ground metallurgical feeds, as coarsely crushed drill core and as core specimens in thin section. The mineralogical analyses forming the basis for this compilation were completed at SGS Lakefield and XPS Sudbury and are shown in the refence list.

## 9.2.4.2 Tin

Tin minerals at Iska Iska consist of cassiterite (SnO<sub>2</sub>), Fe-cassiterite (wood tin) and stannite (Cu<sub>2</sub>FeSnS<sub>4</sub>). Tin is also present in trace to minor amounts within the structure of a variety of minerals including galena, sphalerite, Cu sulphides, Bi minerals, oxides and sulphates. Cassiterite, the target of metallurgical gravity concentration is predominant within the central Santa Barbara breccia pipe zone, while stannite is more abundant in the periphery and in deeper sulphide-rich zones. Depth zonation in tin mineralization was noted in drillhole DSBU-03, where stannite was present in low levels in upper and lower sulphide-rich zones, while cassiterite dominated in the higher tin-grade and sulphide-depleted zone between. Similar tin zonation was noted in drillhole METSBUG-03.

As noted in thin section and in coarsely crushed drill core, cassiterite and lesser Fe-cassiterite occurred as a network of fine veins, commonly associated with quartz, Fe-oxyhydroxides and sulphide minerals. In these veinlets, the cassiterite formed fine granular aggregates, cements or botryoidal encrustations up to 500  $\mu$ m in size. In laboratory-ground metallurgical samples (P<sub>80</sub> of 75  $\mu$ m or finer) cassiterite grain size P<sub>80</sub> ranged from ~10 to 30  $\mu$ m. Cassiterite liberation at these grinds was only moderate, and it formed numerous middling mineral associations with silicate gangue (quartz, tourmaline) and, depending on location, middlings with pyrite, sulphates and Fe-oxyhydroxides. Stannite showed a much wider range of grain size (~10 to ~230  $\mu$ m).



For the suite of seven test ground variability samples, metallurgical recovery of tin (as cassiterite) using sequential flotation and gravity concentration ranged from 12.6% (METSBUG-02 HG) to 48.5% (23-VAR08 from METSBUG-03) for a final concentrate grading 10% tin. Based on the mineralogical data, this variation in cassiterite tin recovery is attributed to a combination of factors including tin grade, cassiterite grain size, cassiterite liberation and the nature of its middling associations. 23-VAR08 had by far the best tin recovery of the sample set. It was from a relatively clean, quartz-tourmaline-rich core interval, with low contents of pyrite, secondary oxides, sulphate minerals, Cu minerals and phyllosilicates. Although overall cassiterite grains at a moderate grain size (METSBUG-02HG and DSBU-03C were finer-grained) with potential for both flotation and gravity concentration. Its predominant middling associations were with quartz and tourmaline, and it had a lower level of more dense middlings with pyrite, jarosite, iron oxides than other samples in the test group. Further, it had the smallest quantity of ternary / quaternary mineral associations.

Figure 9.11 Location of the 2022/2023 Iska Iska Mineralogical Samples Oblique (3D) View







Figure 9.12 Location of the 2022/2023 Iska Iska Mineralogical Samples Plan View

The ratios of Sn:Cu and Sn(sulphide)/Sn(total) show promise for use as proxies in predicting the ratio of cassiterite to stannite in metallurgical test samples, however, the Sn:Cu ratio is not useful in zones of higher copper grade.

## 9.2.4.3 Lead-Zinc

Lead occurs chiefly as galena, although small amounts of Pb-sulphosalts and non-sulphide lead oxides, sulphates and phosphates were noted. Microprobe analysis of galena in metallurgical test samples from drillholes DHK-15 and DHK-18 reported an average of 0.95% Sn (drillholes 22-VAR01 (DHK-15) and 22-VAR02 (DHK-18) and traces of silver. Sphalerite was the only Zn mineral identified. Microprobe analysis showed that the sphalerite hosted 6.95% Fe, 0.30% Cd and 0.38% Cu (based on samples from DHK-15/18).

In laboratory-ground test samples 22-VAR-01 and 22-VAR-02, galena liberation was 81.4% and 77.9%, respectively, and sphalerite liberation was 80.9% and 77.7%, respectively, for grains with >80% surface exposure. Metallurgical recovery of lead in preliminary tests was somewhat poorer for 22-VAR02 (DHK-18) than for 22-VAR01 (DHK-18), and this may be attributed to the slightly lower galena liberation and to the higher quantity of lead reporting to the -38 µm fraction in 22-VAR-01 than 22-VAR-02.



# 9.2.4.4 Precious Metals (Ag/Au)

Argentite/acanthite and freibergite were the only silver minerals identified. Silver was present as a minor to trace component of various bismuth minerals (bismuthinite and PbBi sulphosalt) and within copper sulphides. As noted, trace amounts of silver occur within galena and should report to the lead concentrate. No gold minerals were identified during this study. More specialized gold mineralogy analysis is suggested, including gold scanning of gravity concentrates and D-SIMS analysis of gold in sulphide species.

### 9.2.4.5 Copper

Copper mineralogy was not a specific focus of this study, but numerous copper species were identified including sulphides (chalcopyrite, covellite, chalcocite, bornite, tetrahedrite, freibergite, stannite) and lesser non-sulphides (chrysocolla, dioptase).

### 9.2.4.6 Other

Other minerals of potential economic interest were ferberite (FeWO<sub>4</sub>) and various bismuth species (bismuthinite, native bismuth, bismuth sulphosalts).

Gangue minerals comprised quartz, tourmaline, micas, Fe-sulphates, pyrite and lesser arsenopyrite. In drillhole DSBU-03, tourmaline abundance increased downhole, being lower in the upper dacite and higher into the lower dacite breccia. Investigation of thin sections from preliminary geophysical domains showed that higher levels of sulphide minerals (pyrite, arsenopyrite, sphalerite and/or galena corresponded with massive conductor zones at depth.

#### **Remarks:**

The above is the summary extract. Further extracts pertaining to Discussion, Conclusions, and Recommendations are in APPENDIX- II.

### 9.3 SIGNIFICANT RESULTS AND INTERPRETATION

### 9.3.1 Structural mapping

This is discussed in Section 7.5 above.

### 9.3.2 Synchrotron and Mineralogical Analysis

Both investigations demonstrated that significant cassiterite mineralization appears to be confined to the western part of the Iska Iska deposit. This separates the deposit into a tin dominant western part and Zn dominant eastern part.

### 9.3.2.1 Geophysics

IP downhole surveys and magnetometry collectively indicate an electrically continuous mesh of sulphide stringers, disseminations/impregnations and breccias of mineralization over the entire drilled



area. This finding is well supported by the drilling results and by spatial analysis/variography described in detail in Section 14.0 of this report.

Geophysical data, i.e., 3D inverse magnetic modeling and analytical signal magnetic maps as discussed in more detail in Section 9.2.3 above, indicate the potential for a very extensive tin porphyry deeper in the Iska Iska system. The magnetic analytical signal map suggests that the overall deeper tin porphyry system may extend for as much as 5 km by 3 km. The central part of the Iska Iska caldera underlain by the Iska Iska Porphyry is within this large potential tin complex and is marked by a low magnetic signature surrounded by a much higher-level magnetic signature.



### 10.0 DRILLING

There has never been any drilling on the property prior to Eloro's involvement despite the presence of artisanal workings.

#### 10.1 OVERVIEW

Eloro is executing its diamond drilling programs from the Huayra Kasa/Santa Barbara adits/underground workings and from surface. The drill programs are being executed by Leduc Drilling SRL of La Paz, Bolivia. In all drilling, the initial 1 to 5 m is PQ (85 mm) core; thereafter it is HQ sized (63.5 mm) core up to end of hole except in a few instances where depths exceed 850 m when NQ sized (47.6 mm) core is adopted.

To date 139 holes (i.e., 118 surface drill holes + 21 underground drill holes) totalling 96,386 m have been completed covering a surface area of about 2.5 km x 3 km. The lay out of drill holes is shown in Figure 10.1. A vertical section of the drilled area is shown in Figure 10.2.

The drill holes targeting breccia pipes were initially planned and drilled in a radial pattern to allow efficient drilling of the porphyry-style mineralization and the circular/ellipsoidal geometry of the breccia pipes. Drill holes targeting the northwest trending magnetic anomaly of the Santa Barbara resource area are at 100 m intervals on SW-NE sections.

#### **10.2 DRILLING PROCEDURES**

### 10.2.1 Collar Location

Once targets are defined, geologists locate drillhole collars at surface using a GPS and mark the position with a wooden stake. The new drill bay is cleared, and sumps constructed to manage drill water and cuttings. Then, the drill rig is positioned, and the drill alignment of azimuth and inclination is confirmed by the project geologist(s).

For underground drilling, a drill bay is prepared at the desired position and secured by bolting to ensure safety of the operators as shown in Figure 10.3.

### 10.2.2 Drill Hole Survey

All drillhole collars were surveyed using a SOKKIA SET 530 total station equipment. Down the hole surveys were initially conducted using the Mag Cruiser instrument (2020), True Shot instrument (2021) and a Gyro Master as from 2022 to date.







Figure 10.1 Iska Iska Drill Plan as of August 19, 2023

Source: Eloro, 2023.



Eloro Resources Ltd.



Figure 10.2 Vertical Section Showing Drill Holes and Ag Assays

Source: Micon 2023; generated from resource database.

Figure 10.3 Drill Bay at Huayra Kasa Adit



Source: Eloro, 2022.



### 10.3.3 Operational Control

The drilling and survey are supervised by the site project geologists who ensure sure that good core recoveries are obtained, depth markers are put in the right places and downhole surveys are done correctly. At the end of each shift, drill core is transported to the core shed for logging, sampling, and storage.

At the completion of each drillhole, PVC casing is placed in the drillhole by the drill contractor and Eloro Resources personnel subsequently construct a concrete monument and mark the collar with the drillhole ID, depth, dip, azimuth. PVC inserted prevents the hole from caving to allow for downhole geophysical surveys.

### **10.3 DRILL CORE LOGGING/SAMPLING**

Once core boxes arrive at the core shack, geologists complete a "quick log" to note core losses and to describe major geological features encompassing lithology, structures, alteration, and mineralization. In addition, an analysis of the best mineralized zones is made using a portable XRF for element concentrations. Before detailed logging/sampling takes place, the drill cores in the core boxes are photographed using a high-definition camera. Rock quality designation (RQD) is conducted at this stage.

Logging is completed using tablets and the DHLogger software. Eloro has had a GeologicAl core scanner on site since June 2022. All drill is routinely scanned as it is received at the core logging facility. As time has permitted historical holes have also been scanned with the current database being approximately 78,000m. Eloro has carried out extensive calibration studies using mineralogical and terraspec data to develop accurate mineral maps for sulphides, oxides, and alteration minerals. All logging information in DHLogger is routinely uploaded into the scanning system which is regularly consulted by the core loggers as logging of new holes progresses.

The logging process begins after the samples are carefully marked. Sample intervals are identified based on changes in lithology, structure, alteration, and mineralization. Generally, samples of mineralized core are in shorter interval lengths while barren/weakly mineralized core is sampled in longer intervals. The entire drill hole is sampled to establish the broader zone of mineralization.

The project geologist identifies and marks the beginning and the end of the sampling intervals, and then prepares a detailed geologic log including lithology, alteration (type and intensity), mineralization, mineralized structures, and barren structures. All these characteristics follow a regulated list of codes and parameters established by Eloro. The use of DHLogger has ensured consistency in the core logging process.

Upon completion of the logging and demarcating the sample intervals, technicians saw the core into symmetrical halves with a diamond saw, except for material which is highly fractured and contains clay minerals, which is divided manually with hammer and chisel. One half of the core is bagged, tagged with a sample number, and then sealed; the other half is put back in the core boxes and kept as a reference and check sample in the event that duplicate assays are required. All core samples are recorded in the geological drill logs and in a sample chain of custody spreadsheet. Samples are



transported in sealed bags by courier to ALS's sample prep facility in Oruro or by the project geologist to AHK's sample prep facility in Tupiza.

In addition to samples for analytical purposes, density samples are collected at the rate of 1 in every 10 m. The densities are determined using the Archimedes principal technique.

Eloro's drill core logging/sampling facility is shown in Figure 10.4 and the GeologicAI scanner facility in Figure 10.5.



Figure 10.4 Drill Core and Sampling Facility at Iska Iska

Source: Micon 2022

#### **10.4 DRILLING RESULTS AND INTERPRETATION**

#### 10.4.1 Results/Assays

Eloro began underground diamond drilling from the Huayra Kasa underground workings at Iska Iska in September 2020. In November 2020, Eloro announced the discovery of a significant breccia pipe with extensive silver polymetallic mineralization just east of the Huayra Kasa underground workings and a high-grade gold-bismuth zone in the underground workings. On November 24, 2020, Eloro announced the discovery of the SBBP approximately 150 m southwest of the Huayra Kasa underground workings.

Subsequently, on January 26, 2021, Eloro announced significant results from the first drilling at the SBBP including the discovery hole DHK-15 which returned 29.53 g/t Ag, 0.078 g/t Au, 1.45% Zn, 0.59% Pb, 0.080% Cu, 0.056% Sn, 0.0022% In and 0.0064% Bi from 0.0 m to 257.5 m.







Figure 10.5 GeologicAI Core Scanning Facility at Iska Iska

Since the initial discovery hole, Eloro has extended the drilling to cover an area measuring 2.5 km x 3 km (see Figure 10.1) above). Of uttermost significance is the fact that all holes drilled intersected mineralization (Figure 10.2), reflecting the widespread nature of the mineralizing event(s). At this stage, the orientation and limits of the mineralization are unknown. In addition to Ag, Figure 10.2, the significant results of the other metals used in the mineral resource estimate in this technical report are presented in Figure 10.6 to Figure 10.8. Significant results for other elements (Au, Cd, Cu, In, and Bi) are in APPENDIX- IV.



Eloro Resources Ltd.

Figure 10.6 Iska Iska Vertical Section Showing Drill Hole Pb Assays > 0.2% Pb.



Source: Micon 2023; generated from resource database.



Figure 10.7 Iska Iska Vertical Section Showing Drill Hole Sn Assays > 0.1%

Source: Micon 2023; generated from resource database



Eloro Resources Ltd.

Figure 10.8 Iska Iska Vertical Section Showing Drill Hole Zn Assays > 0.5% Zn.



Source: Micon 2023; generated from resource database

## 10.4.2 Summary and Interpretation of Relevant Drilling Results

The main facts emanating from the drilling results are as follows:

All holes drilled intercepted mineralization and this corroborates the results of IP downhole surveys. The mineralization remains open in all directions and at depth. Thus, the geometry of the deposit is yet to determined.

Mineralization has been encountered in all rock types within the drilled area. However, it is apparent that the western half of the drilled area is enriched in tin (Sn) whilst the eastern half of the area is enriched in zinc (Zn). This yields two mineralization domains.

The highest recorded grades are in the Santa Barbara adit area which has an intricate dense drilling pattern. It would appear denser drilling in multiple orientations defines the grade better.

Ag > 10 g/t is ubiquitous throughout the drilled area indicating a large-scale mineralizing event. This pattern is similarly displayed by Au – see appendix 3.



# 10.4.3 Metal Relations

Micon has investigated the relationship between the metals within the deposit using the Pearson correlation matrix as shown in Figure 10.7.



Figure 10.7 Iska Iska Metals Pearson Correlation Matrix

### **10.5** MICON QP COMMENTS

Eloro's drilling and sampling protocols are in line with the CIM best practice guidelines. Core recoveries beneath the overburden are excellent (+95%) and this ensures good quality samples. The restriction of sample intervals to lithological and mineralization boundaries yields a representativeness of the mineralization types encountered and facilitates geological modelling of the deposits.

Micon has not identified any drilling, sampling or recovery factors that could result in sampling bias or otherwise materially impact the accuracy and reliability of the assays and, hence, the resource database.



# 11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

#### **11.1 PROTOCOLS BEFORE DISPATCH OF SAMPLES**

### 11.1.1 Chip Channel Samples

Each chip channel sample was carefully mixed by coning and quartering after which a portion weighing between 1 kg and 2 kg was placed in a sample bag. A tag with the sample identification (ID) number was introduced in each sample bag before being sealed. The position of the sample on underground workings was marked with a corresponding ID tag for reference.

Sample reference sheets summarizing all the samples taken from each site are prepared. These sheets are used to identify where the quality control samples will be added into the sample stream and for preparing the requisition and shipment forms.

### 11.1.2 Drillhole Core Samples

Upon completion of the logging and demarcating the sample intervals, technicians saw the core into symmetrical halves with a diamond saw, except for material which is highly fractured and contains clay minerals, which is divided manually with hammer and chisel. One half of the core is bagged, tagged with a sample number, and then sealed; the other half is put back in the core boxes with a secure label of the sample taken for future reference. All core samples are recorded in the geological drill hole logs and in a sample chain of custody spreadsheet.

As in the case with chip channel samples, Sample reference sheets summarizing all the samples taken from each site are prepared. These sheets were used to identify where the quality control samples will be added into the sample stream and for preparing the requisition and shipment forms.

Samples are transported in sealed bags to ALS's sample prep facility in Oruro by courier. From Oruro, sample pulps are then sent to the ALS Global laboratory in Lima for analysis. Other sample batches are transported by the project geologist to the AHK sample prep facility in Tupiza.

## 11.1.3 Quality Assurance/Quality Control Measures

Quality Assurance/Quality Control (QA/QC) samples comprising blanks and standards/certified reference materials (CRMs) are inserted at a rate of about 2%. This implies that in a batch of about 100 to 120 samples, there are 2 blanks and 2 CRMs within the batch. The types of QA/QC materials are described in Section 11.3.

## 11.1.4 Packaging and Security

The activities pertaining to data collection, namely sampling, insertion of control samples, packaging and transportation are conducted under the supervision of the project geologist.

Other than the insertion of control samples, there is no other action taken at site. Thus, no aspect of the sample preparation for analysis is conducted by an employee, officer, director or associate of the issuer.



Samples are placed in sequence into rice bags which are labelled with company code and sample series enclosed in the bag. Requisition forms are compiled using the sample reference sheets that were generated since the previous shipment. When a shipment is ready, the sealed rice bags are dispatched to the laboratory via courier. Laboratory personnel check to ensure that no seal has been tampered with and acknowledge receipt of samples in good order via e-mail.

# 11.1.5 Laboratory Details

Eloro Resources uses two laboratories:

ALS (Oruro, Bolivia) facilities as a sample preparation laboratory of ALS (Lima, Perú) which performs the analytical work. The laboratory ALS has ISO/IEC 17025:2005 accreditation. The ALS laboratory chain is among several laboratories that regularly participate in the PTP-MAL (Proficiency Testing Program for Mineral Analysis Laboratories) round robin laboratory program provided by Natural Resources, Canada, for minerals containing gold, platinum, palladium, silver, copper, lead, zinc, and cobalt.

AHK (Potosí, Bolivia) is a laboratory subsidiary of AHK based in the UK (Great Britain), that performs the sample preparation and analytical work. The laboratory is highly regarded, having a global network of accredited laboratories with operations in over 35 countries. It is regulated by ISO/IEC 17025 and ISO 9001 accreditations.

Both laboratories are independent of Eloro.

### **11.2 LABORATORY SAMPLE PREPARATION AND ANALYSES**

## 11.2.1 Laboratory Sample Preparation

At Oruro and Tupiza, samples are prepared by crushing the sample with up to 70% of the material passing a 2 mm screen, split to 250 g, and pulverized under hardened steel to 85% passing a 75  $\mu$  screen. Following preparation, the sample pulps are sent to ALS or AHK in Lima, Peru, for analysis. The remaining sample splits/sample rejects are sent back to Eloro.

## 11.2.2 Laboratory Sample Analyses

At ALS Lima, the samples are analyzed for gold (ppm) by fire assay (Au-AA25), and for the other elements by multi-element analysis using optical emission spectrometry and the Varian Vista inductively coupled plasma spectrometer (ME-ICPORE).

For tin (Sn), earlier samples sent to ALS were analyzed by ICP-AES after Sodium Peroxide Fusion (Sn-ICP81x). In the case of AHK, the method of analysis was ICP. However, as announced in the February 26, 2021, press release, Eloro has changed the tin assay protocol to utilize X-ray fluorescence (XRF) to analyze higher Sn more accurately. Tin in the project area is suspected to occur as cassiterite which is insoluble in acid digestion, and therefore not suited for wet chemical techniques.



# 11.2.3 Laboratory QA/QC

The ALS and AHK laboratories in-house analytical QA/QC procedures include the following:

- Use of certified reference materials.
- Routine duplicate analyses.
- Use of blanks.
- Participation in round robin analytical exercises.

#### 11.2.4 Bulk Density

Most of the bulk density measurements are conducted at site but representative samples of the lithologies are being checked at the laboratories to validate the in-house measurements.

#### **11.3 ELORO QUALITY CONTROL MATERIALS AND RESULTS**

#### 11.3.1 Certified Reference Materials

The certified reference materials used in the Iska Iska project are detailed in Table 11.1 and Table 11.2.

CRM	Certified Values				Standard Deviation					
Elements	Aug/t	Ag g/t	Cu %	Pb%	Zn%	Au g/t	Ag g/t	Cu %	Pb %	Zn %
AuSu27	1.423	971	0.227	15.31	10.460	0.054	25	0.006	0.63	0.44
EPIT-08	1.081	342				0.108	15			
EPIT-15	7.210	187				0.420	11			
AuSu 26	1.180	496	0.167	8.92	12.65	0.072	26	0.008	0.39	0.49
EPIT-12	1.195	6.8				0.084	0.6			

#### Table 11.1 Eloro CRMs Details

#### Table 11.2 Eloro Tin CRM

Elements Aug/t		Two Standard Deviations (between Lab)				
Element Sn	0.1779 (%)	0.00274 (%)				

All of the certified reference materials (CRMs) are procured from the Target Rocks company in Lima, Perú. The samples are supplied in individual sealed packages of 60 g.

The insertion rate to date is approximately 2%.

The internal procedures of Eloro Resources require at least 1 standard sample to be inserted in every batch of 60 core samples. The evaluation on the performance of CRMs is conducted immediately upon receipt of assay results and appropriate action taken. The evaluation and immediate actions are carried out by the quality control geologist who enters the results of the laboratory analysis into the project's



database where he proceeds to graph, interpret, and follow up, if need be. The evaluation is recorded in a spreadsheet that includes all the necessary data sets for verification and a description of the corrective actions taken.

The criteria currently used for evaluating analytical accuracy are based on bias where:

Bias <5% ===> Good

Bias >5% y <10% ===> Acceptable

Bias >10% ===> Inacceptable

Significant results of Eloro's QA/QC programs are summarized below in Figure 11.1, Figure 11.2 and Figure 11.3.



Figure 11.1 Standard AuSu-26 Accuracy Control Graph for Zn %





Figure 11.2 Standard EPIT-12 Accuracy Control Graph for Au g/t

Figure 11.3 Accuracy Control Graph for Sn%





# 11.3.2 Blank Samples

Eloro uses quarry sandstone material obtained from the west/northwest unmineralized Ordovician sequence of the project area. The ALS laboratory certified average assays of this quarry material based on 10 randomly collected samples are shown in Table 11.3 below.

 Table 11.3

 Blank Quarry Material Certified Average Assay Values Based on ALS Laboratory ME-M61 Analyses

Item	Certified Values							
Elements	Au g/t	Ag g/t	Cu %	Pb %	Zn %			
Values	0.007	2.501	0.002	0.014	0.012			

The criteria that are used for the evaluation of blanks requires the contamination rate not to exceed 2% of the batch; otherwise, an investigation is launched to establish the cause. The results for Ag are shown in Figure 11.4 and indicate that contamination was very insignificant. Charts for the other elements show similar trends with occasional spikes.

Figure 11.4 Contamination Control Graph in Blank Samples for Ag g/t



## 11.3.3 Check Analyses

As part of its QA/QC program, Eloro conducts check analyses of assay rejects/sample pulps at umpire laboratories (Alex Stewart, SGS and Alfred H Knight laboratories) to ensure consistency and integrity in the assay data. Most of the check assays results closely match the original ALS laboratory assays. An example of the control charts used is shown in Figure 11.5.



Figure 11.5 Check/Duplicate Samples Precision Control Graph for Pb %



## 11.4 QP's OPINION

Micon's QP considers the sample preparation, security, and analytical procedures to be adequate to ensure the integrity and credibility of the analytical results to be used for mineral resource estimation. The current QA/QC sample insertion rate (1.8%) is a bit low and Micon recommends that the rate be increased to between 4% and 5%.

It is commendable that the QA/QC efforts are being complemented by the monitoring of the laboratory's performance on a real-time basis to ensure that corrective measures (if need be) are taken at the relevant time. Use of umpire laboratories this gives confidence in the validity of assays from the main laboratory (ALS) being used.



## 12.0 DATA VERIFICATION

Micon's QP has completed three phases of data verification. Comprehensive results of the first two phases (2020 and 2021) are described in the previous Micon report entitled "Technical Report on the Exploration and Diamond Drilling of the Iska Iska Polymetallic Project, Sud Chichas Province, Department of Potosi, Bolivia" dated May 1, 2022, with an effective date of March 31, 2022 – see references Section 28. Accordingly, this Section only provides summary findings for the 2020 and 2021 verifications whilst providing more detail for the 2022 site visit. Note all photographs in this section were taken by the Micon QP during the relevant site visit periods.

#### 12.1 MICON QP 2020 DATA VERIFICATION

#### 12.1.1 Site Visit Activities

Micon's QP conducted a site visit to the Iska Iska Project from 28 January 2020 to 3 February 2020 and achieved the following:

- Verified the location and good standing of the property.
- Reviewed the geology and the mineralization patterns at surface and in artisanal underground workings.
- Reviewed the reconnaissance exploration/sampling program completed in 2019.
- Conducted independent check sampling.

### 12.1.2 Site Visit Significant Results

The most significant result of the 2020 verification exercise was the confirmation of the polymetallic nature of the Iska Iska deposit by reviewing the mineralization/geology in artisanal underground workings (Figure 12.1) and by check sampling.



Figure 12.1 Assortment of Minerals Seen In Underground Artisanal Workings at Iska Iska

Notes - From left to right: Disseminated argentite; sphalerite + galena + breccia; malachite + azurite + chrysocolla; malachite + breccia; galena veinlet.



### 12.2 MICON QP 2021 DATA VERIFICATION

Micon could not conduct a site visit in 2021 due to the Covid-19 travel restrictions. However, the Micon QP was regularly kept abreast of activities at Iska Iska throughout the year in a number of ways as listed below:

- 1. Drafts of all technical press releases were sent to the QP for his review and comments prior to release.
- 2. Regular updates on drilling were provided including pictures of pertinent core and analytical results.
- 3. Representative core samples from drill core were shipped to the QP to review as described in the 2022 Technical Report.
- 4. All assay and geological data in Leapfrog was provided to the QP for his review and analysis.

Thus, verification of activities at site by the Micon QP during the Covid-19 pandemic was continuous.

**Remarks**: Based on the November 2021 site visit findings, Eloro's QP is satisfied that the exploration and drilling programs being supervised by Dr. Osvaldo Arce, P.Geo., are being conducted following the CIM Mineral Exploration Best Practice Guidelines (November 2018).

### **12.3** MICON **QP 2022 SITE VISIT**

The Micon QP site visit from October 15 to 16, 2022, focussed on verifying activities with a direct bearing on the credibility of the data generated for the estimation of mineral resources. During this visit, the QP accomplished the following and included the following: Data collection techniques, Mineralisation patterns, QA/QC and Database construction.

- 1. Verified drilling procedures, efficiencies in core recoveries and down the hole surveys.
- 2. Reviewed drill core logging (Figure 12.2) and sampling, including QA/QC protocols.



### Figure 12.2 Drill Core Logging/Sampling at Iska Iska



3. Verified mineralization patterns in drill cores comprising disseminations and massive-semi massive veinlets/impregnations, imbricate mm-size structures, veinlets, breccias and stockworks - Figure 12.16. (Number of drill holes examined = 18)



Figure 12.3 Mineralization Styles/Patterns Observed at Iska Iska

Notes:

1. Disseminated sulphides/massive sulphide impregnations. 2. Mineralized veinlets/stringers in multiple orientations. 3. Mineralized breccia zones. 4. Mixture of mineralized breccias and veinlets/stockworks. 5. Mineralization in imbricate structures/veinlet swarms. 6. Mineralization in stockwork structures

- 4. Witnessed IP down hole surveys (Figure 12.4). It should be noted that geophysical surveys and in particular downhole IP, have contributed immensely in determining the continuity of mineralization at Iska Iska (see Section 9.5) and in guiding the on-going drilling campaign to define the lateral limits of the mineralization and in targeting deeper drilling for a possible deep-seated tin porphyry.
- 5. Witnessed the Geologic AI program and examined the preliminary results as noted and described in Section 10.
- 6. Reviewed the Eloro in-house manual for QA/QC protocols and analyzed QA/QC results with emphasis on the elements Ag, Zn, Pb, and Sn which are used in the current mineral resource estimate.



7. Verified drill hole collar positions (Figure 12.5) and examined the database construction and back-up protocols.



Figure 12.4 IP Survey Crew in Action SW of Huayra Kasa Adit

Figure 12.5 Radial Drill Collar Verification at Santa Barbara Hill





### **12.4** MICON QP'S OPINION/DATA VERIFICATION CONCLUSIONS

Based on the above verifications conducted during the site visits in 2020 and 2022, and during the continuous reviews conducted during the covid era in 2021, the QP's opinion/conclusions are as follow:

The mineral resource database as of the effective date of this technical report has been generated in a credible manner.

The data from the drilling completed to date is adequate for the estimation of an Initial Mineral Resource in the Inferred category.



### 13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

Ongoing work, including flowsheet development testwork and mineralogical characterization studies, is being carried out using various samples of mineralization selected from the Iska Iska zinc-lead-silver polymetallic deposit and separately on the tin deposit, by Blue Coast Metallurgy and Research (BCR) based in Parkville, British Columbia, Canada, and Mineral Concentration Laboratory of the National Faculty of Engineering of the Technical University of Oruro (UTO) in Bolivia. TOMRA GmbH, Wedel, Germany (TOMRA) and Wardell Armstrong International, Truro, Cornwall, England (WAI).

The metallurgical flowsheet development program for the zinc-lead-silver deposit and the geometallurgical characterization of the tin minerals is being directed by Eloro's Senior Strategic Metallurgist, Mr. Mike Hallewell C.Eng.

The objective of the current coordinated work programs is to develop a geometallurgical understanding of the mineralized domains and to obtain preliminary metallurgical recovery estimates for the main valuable constituents of the mineralized material currently identified at the Project. The testwork program is a work in progress, therefore this section only summarizes the available results from metallurgical testing completed to date.

The overall metallurgical testwork / mineralogical characterization program has evolved into the development of several potential flowsheets to best fit the extensive mineralization identified within the Project area. The main metallurgical studies in the ongoing development program have focused on the following two areas:

- 1. Recovery of lead, zinc and silver from polymetallic sulphide mineralization; and
- 2. Recovery of tin, silver and lead from cassiterite-rich Iska-Iska mineralization.

The preliminary Pb/Zn/Ag development program was completed in mid-2022. Since then, the attention has been directed on understanding the tin mineralogy and developing a conceptual tin process flowsheet for the different cassiterite  $(SnO_2)$  rich domains. More recently the amenability of pre-concentration for both ore-types using coarse particle gravity separation, dense media separation (DMS) and "ore sorting" has been evaluated.

The independent Qualified Person (QP) for this section of the report is Richard Gowans P.Eng., Principal Metallurgist at Micon International Limited. The QP has reviewed the selection of metallurgical samples by Eloro used for the various metallurgical testwork programs, was involved with the metallurgical testwork completed by BCR, and reviewed the testwork undertaken by UTO, TOMRA and WAI. The QP has also reviewed the on-going test programs proposed by Eloro's Senior Strategic Metallurgist.

The testwork program completed by UTO in 2022 and 2023 comprised scoping level investigations into initially lead, zinc silver and latterly tin. UTO also completed a preliminary investigation into coarse grain gravity separation using spiral concentrators and DMS using heavy liquids.

The testwork by BCR included the development of a preliminary flotation flowsheet to maximize lead, zinc and silver into saleable concentrates and to undertake a preliminary investigation into the recovery of tin.



TOMRA completed a series of preliminary tests on "ore sorting" using samples of Zn/Pb/Ag mineralization and Sn mineralization.

Recent testwork by WAI comprised primarily of the flowsheet development for tin using multi-gravity separation and tin flotation, but also the by-product recoveries of silver and lead using sulphide flotation.

The Geometallurgical investigations have been managed by Nichola McKay P.Geo., Manager Geometallurgy at BCR.

### **13.1** METALLURGICAL SAMPLE PROVENANCE AND CHARACTERIZATION

Eloro selected the following metallurgical samples from existing drill core and new metallurgical holes. The samples itemized are only those where geo-metallurgical work had been completed at the time of issuing this Technical Report:

- 1. Pb-Zn-Ag rich mineralized breccia in discovery drill hole DHK-15, from 129 m to 197 m, 129 kg of <sup>1</sup>/<sub>4</sub> core (22-VAR-01).
- 2. Pb-Zn-Ag rich mineralized dacitic envelope from hole DHK-18, from 76 m to 139 m, 114 kg of <sup>1</sup>/<sub>4</sub> core (22-VAR-02).
- 3. Tin-rich zone from drill hole DSB-06, from 415 m to 478 m, 113 kg of ¼ core (22-VAR-03).
- 4. Two tin-rich composites from metallurgical drill hole METSBUG-02:
  - METSBUG-02 MC, from 0 m to 30 m and 39 m to 40.5 m, 183 kg of <sup>3</sup>/<sub>4</sub> core.
  - METSBUG-02 HG, from 30 m to 39 m, 35 kg of <sup>3</sup>/<sub>4</sub> core.
- 5. Two tin-rich zone composites from drill hole DSBU-03:
  - DSBU-3A, from 272 m to 277 m, 13 kg of crushed rejects.
  - DSBU-3C, from 334 m to 354 m, 48 kg of crushed rejects.
- 6. A tin-rich "oxide" composite used by UTO comprising 28.6 kg assay rejects from hole DSB 33 (357 m to 366 m) and 38.7 kg from hole DSB 34 (63 m to 77 m).
- 7. Six tin-rich variability samples from metallurgical drill hole METSBUG-03, comprising:
  - 23-VAR-01, from 489 m to 498 m, 56 kg of split core.
  - 23-VAR-02, from 515 m to 521 m, 15 kg of ¼ core.
  - 23-VAR-05, from 635 m to 647 m, 21 kg of ¼ core.
  - 23-VAR-06, from 249 m to 257 m, 9 kg of <sup>1</sup>/<sub>4</sub> core.
  - 23-VAR-07, from 281 m to 291 m, 13 kg of <sup>1</sup>/<sub>4</sub> core.
  - 23-VAR-08, from 326 m to 332 m, 9 kg of ¼ core.
  - 8. Three bulk samples for DMS and coarse gravity spiral testing:
  - About 200 kg of low-grade tin (>0.1% <0.3% Sn) composite, comprising 84 x <sup>1</sup>/<sub>4</sub> core samples from 29 different drill holes (Group 1). Approximately 100 kg forwarded to each WAI and UTO.
  - About 200 kg of medium-grade tin (>0.3% <0.6% Sn) composite, comprising 86 x ¼ core samples from 23 different drill holes (Group 2). Approximately 100 kg forwarded to each WAI and UTO.


- About 200 kg of high-grade tin (>0.6% Sn) composite, comprising 91 x <sup>1</sup>/<sub>4</sub> core samples from 31 different drill holes (Group 3). Approximately 100 kg forwarded to each WAI and UTO.
- 9. Composite high grade (about 1% Sn) sample comprising assay rejects.
- 10. Coarse samples for "ore sorting" tests:
  - Total of 145 polymetallic core interval samples, 6 sub-types (domains) from 58 drill holes. The domains were classified as follows:
    - $\circ$  Domain 1, 25 samples, high Zn (>0.5%) and low Pb (<0.4%).
    - $\circ$  Domain 2, 21 samples, low Zn (<0.4%) and high Pb (>0.5%).
    - Domain 3, 25 samples, Au bearing pyrite.
    - Domian 4, 25 samples, copper sulphides.
    - Domain 5, 25 samples, mineralized waste
    - Domain 6, 24 samples, waste
  - Total of 111 tin core interval samples, 5 sub-types (domains) from 44 drill holes. The sub samples were classified as. follows:
    - Type 1, 22 samples, low grade tin (>0.1% <0.3% Sn).
    - Type 2, 23 samples, medium grade tin (>0.3% <0.6% Sn).
    - Type 3, 22 samples, high grade tin (>0.6% Sn).
    - Type 4, 21 samples, mineralized waste.
    - Type 5, 23 samples, waste.

Selected multi-element chemical analyses of the Pb-Zn-Ag and tin-rich metallurgical composite head samples are presented in Table 13.1 and Table 13.2, respectively.

CompleID	Pb	Zn	Ag	S	S-	Au	Sn	Fe	Bi	Cd	Cu	In	As
Sample ID	%	%	ppm	%	%	ppm	%	%	ppm	ppm	%	ppm	ppm
DHK-15	1.21	2.48	30	3.5	3.1	0.02	0.12	2.37	34	120.2	0.01	30	289
DHK-18	1.01	2.89	32	4.5	4.4	0.02	0.13	3.03	14	185.4	0.04	24	178
OS Domain 1	0.62	2.45	13	3.1	-	0.09	0.07	-	-	-	0.02	-	-
OS Domain 2	2.15	0.31	131	4.1	-	0.15	0.19	-	-	-	0.14	-	-
OS Domain 3	0.23	0.64	14	3.4	-	0.88	0.12	-	-	-	0.05	-	-
OS Domain 4	0.27	0.13	33	1.7	-	0.05	0.04	-	-	-	0.59	-	-
OS Domain 5	0.13	0.15	7	1.7	-	0.05	0.02	-	-	-	0.05	-	-
OS Domain 6	0.02	0.05	1	0.7	-	0.01	0.01	-	-	-	0.02	-	-

Table 13.1 Selected Analyses of Pb-Zn-Ag Metallurgical Composites



Sample ID	Sn1	Sn-S <sup>2</sup>	Cu	Ag	Pb	Zn	<b>S</b> <sub>ΤΟΤ</sub>	S-	Au	Fe	Bi	Cd	In	As
Sample ID	%	%	%	ppm	%	%	%	%	ppm	%	ppm	ppm	ppm	ppm
DSB-06	0.49	0.01	0.01	6	0.01	0.01	4.1	4.2	0.03	4.89	25	0.6	<20	169
MB-02 MC	0.62		0.37	123	0.52	0.02	3.2	2.9	0.12	4.28	133	4.06	<20	1724
MB-02-HG	1.29		0.44	179	1.41	0.02	3.6	3.4	0.19	3.39	28	2.23	40.48	4,276
DSBU-3A	0.92		0.01	8	0.02	0	0.5	0.4	0.04	3.58				
DSBU-3C	0.52		0.01	1	0.01	0.02	3.1	3.2	0.01	3.01				
DSB-33/34	1.64			31	0.58	0.003								
VAR-01	1.67	0.25	0.60	34	0.28	0.006	29.2		1.46					
VAR-02	0.77	0.40	1.03	16	0.02	0.008	16.3		0.68					
VAR-05	0.30	0.30	0.30	10	0.06	0.029	7.9		0.12					
VAR-06	0.35		0.00	5	0.10	0.003			0.05					
VAR-07	0.62		0.01	1	0.01	0.003			0.01					
VAR-08	0.91		0.01	2		0.002			0.01					
LG Group 1 <sup>3</sup>	0.17		0.14	15	0.15	0.15	2.0		0.05					
MG Group 2 <sup>3</sup>	0.42		0.03	18	0.07	0.02	1.6		0.05					
HG Group 3 <sup>3</sup>	1.30		0.06	33	0.06	0.02	2.5		0.14					
WAI Comp	0.99		0.03	37	1.25	0.41	4.5		0.13		177	15	<50	2,090
OS Type 1	0.18		0.01	22	0.05	0.06	1.7		0.05					
OS Type 2	0.44		0.04	19	0.12	0.04	2.1		0.06					
OS Type 3	1.19		0.08	50	0.08	0.02	2.7		0.20					
OS Type 4	0.14		0.03	10	0.03	0.08	2.5		0.08					
OS Type 5	0.03		0.01	3	0.01	0.06	1.6		0.09					

# Table 13.2 Selected Analyses of the Tin-rich Metallurgical Composites

Notes:

1. Total tin assay using peroxide fusion.

2. Tin in sulphides, assay using 4 acid digestion and ICP.

3. Sample assays are weighted averages of exploration values.

## 13.1.1 Mineralogical and Geometallurgical Characterization

The following is extracted from the BCR report "Mineralogical Studies, Iska Iska Project, Bolivia, Project No. PJ5452, Nichola McKay, P Geo., August 11, 2023".

"A significant program of mineralogical testing, using both automated mineralogy (QemSCAN / TIMA) and electron microprobe analysis, was completed on drill core intervals from the across the Eloro Resources Iska Iska Project during 2022/2023. The distribution of the test samples across the project is shown in Figure 13.1. The mineralogical data was collected to support several Project initiatives including 1) metallurgical flowsheet development for Sn/Ag and Pb/Zn, 2) development of preliminary geological and geometallurgical models, 3) resource modelling of tin and other value minerals and 4) training / calibration of the on-site hyperspectral scanning program. Samples were analyzed as laboratory-ground metallurgical feeds, as coarsely crushed drill core and as core specimens in thin section. The mineralogical analyses forming the basis for this compilation were completed at SGS Lakefield and XPS Sudbury and are shown in the refence list.



#### Figure 13.1 Location of 2022 / 2023 Mineralogical Test Samples at the Iska Iska Project (TOP: Oblique view; BOTTOM: Plan view)







**Tin:** Tin minerals at Iska Iska consist of cassiterite (SnO<sub>2</sub>), Fe-cassiterite (wood tin) and stannite (Cu<sub>2</sub>FeSnS<sub>4</sub>). Tin is also present in trace to minor amounts within the structure of a variety of minerals including galena, sphalerite, Cu sulphides, Bi minerals, oxides and sulphates. Cassiterite, the target of metallurgical gravity concentration is predominant within the central Santa Barbara breccia pipe zone, while stannite is more abundant in the periphery and in deeper sulphide-rich zones. Depth zonation in tin mineralization was noted in drillhole DSBU-03, where stannite was present in low levels in upper and lower sulphide-rich zones, while cassiterite dominated in the higher tin-grade and sulphide-depleted zone between. Similar tin zonation was noted in drillhole METSBUG-03.

As noted in thin section and in coarsely crushed drill core, cassiterite and lesser Fe-cassiterite occurred as a network of fine veins, commonly associated with quartz, Fe-oxyhydroxides and sulphide minerals. In these veinlets, the cassiterite formed fine granular aggregates, cements or botryoidal encrustations up to 500 µm in size. In laboratory-ground metallurgical samples (80% passing ( $P_{80}$ ) of 75 µm or finer) cassiterite grain size  $P_{80}$  ranged from ~10 to 30 µm. Cassiterite liberation at these grinds was only moderate, and it formed numerous middling mineral associations with silicate gangue (quartz, tourmaline) and, depending on location, middlings with pyrite, sulphates and Fe-oxyhydroxides. Stannite showed a much wider range of grain size (~10 to ~230 µm).

For the suite of six test ground variability samples, metallurgical recovery of tin (as cassiterite) using sequential flotation and gravity concentration ranged from 12.6% (METSBUG-02 HG) to 48.5% (23-VAR08 from METSBUG-03) for a final concentrate grading 10% tin (30.3% and 62.5% recovery for 5% Sn



concentrate, respectively). Based on the mineralogical data, this variation in cassiterite tin recovery is attributed to a combination of factors including tin grade, cassiterite grain size, cassiterite liberation and the nature of its middling associations. 23-VAR08 had by far the best tin recovery of the sample set. It was from a relatively clean, quartz-tourmaline-rich core interval, with low contents of pyrite, secondary oxides, sulphate minerals, Cu minerals and phyllosilicates. Although overall cassiterite liberation was low in the sample, it formed a significant quantity (34%) of fully (100%) liberated cassiterite grains at a moderate grain size (METSBUG-02HG and DSBU-03C were finer-grained) with potential for both flotation and gravity concentration. Its predominant middling associations were with quartz and tourmaline, and it had a lower level of more dense middlings with pyrite, jarosite, iron oxides than other samples in the test group. Further, it had the smallest quantity of ternary / quaternary mineral associations.

The ratios of Sn:Cu and Sn(sulphide)/Sn(total) show promise for use as proxies in predicting the ratio of cassiterite to stannite in metallurgical test samples, however, the Sn:Cu ratio is not useful in zones of higher copper grade.

**Lead-Zinc:** Lead occurs chiefly as galena, although small amounts of Pb-sulphosalts and non-sulphide lead oxides, sulphates and phosphates were noted. Microprobe analysis of galena in metallurgical test samples from drillholes DHK-15 and DHK-18 reported an average of 0.95% Sn (drillholes 22-VAR01 (DHK-15) and 22-VAR02 (DHK-18) and traces of silver. Sphalerite was the only Zn mineral identified. Microprobe analysis showed that the sphalerite hosted 6.95% Fe, 0.30% Cd and 0.38% Cu (based on samples from DHK-15/18).

In laboratory-ground test samples 22-VAR-01 and 22-VAR-02, galena liberation was 81.4% and 77.9%, respectively, and sphalerite liberation was 80.9% and 77.7%, respectively, for grains with >80% surface exposure. Metallurgical recovery of lead in preliminary tests was somewhat poorer for 22-VAR02 (DHK-18) than for 22-VAR01 (DHK-18), and this may be attributed to the slightly lower galena liberation and to the higher quantity of lead reporting to the -38 µm fraction in 22-VAR-01 than 22-VAR-02.

**Precious Metals (Ag/Au):** Argentite/acanthite and freibergite were the only silver minerals identified. Silver was present as a minor to trace component of various bismuth minerals (bismuthinite and PbBi sulphosalt) and within copper sulphides. As noted, trace amounts of silver occurs within galena and should report to the lead concentrate. No gold minerals were identified during this study. More specialized gold mineralogy analysis is suggested, including gold scanning of gravity concentrates and D-SIMS analysis of gold in sulphide species.

**Copper:** Copper mineralogy was not a specific focus of this study, but numerous copper species were identified including sulphides (chalcopyrite, covellite, chalcocite, bornite, tetrahedrite, freibergite, stannite) and lesser non-sulphides (chrysocolla, dioptase).

**Other:** Other minerals of potential economic interest were ferberite (FeWO<sub>4</sub>) and various bismuth species (bismuthinite, native bismuth, bismuth sulphosalts).

Gangue minerals comprised quartz, tourmaline, micas, Fe-sulphates, pyrite and lesser arsenopyrite. In drillhole DSBU-03, tourmaline abundance increased downhole, being lower in the upper dacite and higher into the lower dacite breccia. Investigation of thin sections from preliminary geophysical domains showed





that higher levels of sulphide minerals (pyrite, arsenopyrite, sphalerite and/or galena corresponded with massive conductor zones at depth."

## **13.2** METALLURGICAL TESTING

The metallurgical flowsheet development testwork completed to date has been undertaken by BCR, UTO, TOMRA and WAI. All laboratories worked with tin-rich mineralized samples from the Iska Iska deposit, while UTO, BCR and TOMRA completed preliminary flowsheet development testwork using polymetallic (Pb-Zn-Ag) mineralization.

# 13.2.1 Pb-Zn-Ag Flowsheet Development

An initial program of preliminary scoping level metallurgical testwork was completed by the UTO in 2021 using eight (8) composite samples assembled from early-stage resource definition drilling. These samples were selected to represent oxide and sulphide mineralization from the Huayra Kasa Mine (HKM) area, the Santa Barbara Breccia Pipe (SBBP) and the Central Breccia Pipe (CBP) targets. Four of the samples were from HKM, three from SBBP and one from CBP. A detailed testwork report was issued by UTO in September 2021 entitled "Experimentacion Metalurgica con Varias Muestras De Sulfuros y Oxidos Complejos Provenientes De Minera Tupiza S.R.L".

The objective of this preliminary metallurgical testwork was to develop an early-stage conceptual understanding of metallurgy. Although the program included basic mineralogy using X-ray diffraction (XRD) analysis, preliminary gravity and leach tests, and work index determinations, the main focus of the scoping level testwork program was to investigate froth flotation, without regrinding, to recover silver into separate lead and zinc concentrates.

Several open circuit flotation tests were completed using each composite sample and the results provided a useful insight to the metallurgy of the Iska Iska project. The program was successful in providing a potential pathway to the successful recovery of lead, zinc and silver into saleable concentrates and was used as a starting point for further optimization of the metallurgy during the next phase of testwork.

An additional phase of work was undertaken by UTO in early 2022 and used three sulphide composite samples. One was described as sulphide breccia from Santa Barbara, one as sulphide envelope outside of breccia also from Santa Barbara and the third sulphide sample from Central Breccia. The program investigated the recovery of lead, zinc and silver using differential flotation and recovery of tin using gravity separation following bulk sulphide flotation. The differential flotation results were positive, similar to sulphide samples used in the 2021 testwork.

The initial testwork completed by BCR at the end of May 2022 included mineralogical characterization of samples, open circuit sulphide kinetic rougher and cleaner flotation scoping tests and locked cycle flotation tests using composite samples DHK-15 and 18. The work conducted on DHK-15 and 18 factored into consideration the preliminary test work conducted by UTO on different samples.

Following a series of approximately 20 batch rougher and cleaner tests where the preliminary flotation circuit was developed, locked cycle tests (LCT) were completed using DHK-15 and DHK-18. A locked cycle flotation test is a series of identical batch flotation tests where recycled material from the previous



cycle is added to the appropriate location in the flowsheet in the current cycle. The LCT is a standard method used to simulate continuous operating conditions.

The batch flotation tests investigated retention times, primary grinding size, different reagents, number of cleaning stages and the use of rougher concentrate regrinding. The results from these tests were used to design the LCT test protocols for both composite samples. The LCT flowsheet developed by BCR is presented in Figure 13.2.



Figure 13.2 Lead-Zinc-Silver Locked Cycle Flotation Test Flowsheet

Source: BCR.

The lead-zinc sequential flowsheet used for the LCTs included primary grinding followed by lead rougher flotation, lead rougher concentrate regrinding and 3 stages of lead cleaner. The lead rougher tailings and lead first cleaner tailings fed the zinc rougher stage, and like the lead circuit, the flowsheet included regrinding of zinc rougher concentrate followed by three zinc cleaner stages. The final residue streams were the zinc rougher tailings and zinc first cleaner tailings.

Each LCT comprised 6 cycles where the final cycles were deemed to be relatively stable, and the circuit appeared to reach equilibrium. The cycle stabilities and summaries of the average results from the last 3 cycles for DHK-15 are presented in Table 13.3 and Table 13.4, and Table 13.5 and Table 13.6 for DHK-18.



Cycle Number	Wt. (%)	Ag (%)	Pb (%)	Zn (%)	Fe (%)	Sn (%)	S (%)
Cycle 1	94.4	87.4	87.8	85.2	75.8	87.9	72.7
Cycle 2	98.6	91.2	91.2	92.6	92.5	94.9	89.7
Cycle 3	99.1	100.5	106.4	96.4	91.5	102.3	92.3
Cycle 4	99.5	93.4	90.2	96.5	98.0	99.7	96.5
Cycle 5	99.5	96.5	98.6	94.6	90.9	102.4	89.9
Cycle 6	98.9	103.1	106.8	97.0	102.0	94.1	103.0
AVG of Cycles 1-3	97.3	93.0	95.1	91.4	86.6	95.0	84.9
AVG of Cycles 4-6	99.3	97.7	98.6	96.0	97.0	98.7	96.4
AVG of Cycles 1-6	98.3	95.4	96.8	93.7	91.8	96.9	90.7

#### Table 13.3 DHK-15 LCT Cycle Stability

#### Table 13.4 Summary of Locked Cycle Test Average Results for Sample DHK-15

	14/#				%	Distribut	ion				
Product	%	Ag (g/t)	Pb (%)	Zn (%)	Fe (%)	s (%)	Ag	Pb	Zn	Fe	S
Pb Cl.3 Conc.	2.0	1047	56.7	7.37	8.84	22.6	68.1	86.9	5.9	6.1	13.1
Zn Cl.3 Conc.	4.3	186	1.58	49.6	10.9	34.3	26.5	5.3	87.1	16.6	43.4
Zn Cl.1 Tail	5.2	23	0.58	1.16	19.8	21.7	4.0	2.3	2.4	36.3	33.0
Zn Ro. Tail	88.6	0	0.08	0.13	1.30	0.40	1.4	5.5	4.5	40.9	10.5
Calc. Head	100.0	30	1.28	2.45	2.83	3.39	100.0	100.0	100.0	100.0	100.0

The LCT DHK-15 lead recovery into the final lead concentrate grading 56.7% Pb was 86.9% while the silver grade was 1,047 g/t. The zinc recovery into a final zinc concentrate containing 49.6% Zn was 87.1%. The total silver recovery was 94.6%, including 68.1% and 26.5% into the lead and zinc concentrates, respectively.

#### Table 13.5 DHK-18 LCT Cycle Stability

Cycle	Wt. (%)	Ag (%)	Pb (%)	Zn (%)	Fe (%)	S (%)
Cycle 1	93.7	80.9	83.9	79.5	81.5	83.6
Cycle 2	98.1	94.4	98.0	102.2	92.0	92.1
Cycle 3	96.5	90.1	88.9	96.1	92.8	89.7
Cycle 4	101.3	103.2	103.6	99.7	106.4	105.3
Cycle 5	99.3	98.1	98.6	100.5	95.8	97.3
Cycle 6	99.9	93.6	93.2	96.2	96.8	99.2
AVG of Cycles 1-3	96.1	88.5	90.2	92.6	88.8	88.5
AVG of Cycles 4-6	100.1	98.3	98.5	98.8	99.7	100.6
AVG of Cycles 1-6	98.1	93.4	94.3	95.7	94.2	94.5



		Assays						%	Distribut	ion	<b>S</b> 5.9			
Product	Wt.%	Ag (g/t)	Pb (%)	Zn (%)	Fe (%)	S (%)	Ag	Pb	Zn	Fe	S			
Pb Cl.3 Conc.	1.4	1057	56.2	7.10	5.40	18.9	43.5	72.2	3.4	2.2	5.9			
Zn Cl.3 Conc.	5.0	258	1.40	51.4	8.27	32.0	37.6	6.4	86.9	12.0	35.2			
Zn Cl.1 Tail	9.6	39	1.00	1.36	11.7	11.9	10.9	8.7	4.4	32.4	25.1			
Zn Ro. Tail	84.0	3	0.17	0.19	2.21	1.84	8.1	12.6	5.2	53.4	33.8			
Calc. Head	100.0	34	1.10	2.96	3.47	4.56	100.0	100.0	100.0	100.0	100.0			

Table 13.6Summary of Locked Cycle Test Average Results for Sample DHK-18

The lead recovery for LCT DHK-18 into the final lead concentrate grading 56.2% Pb was 72.2% while the silver grade was 1,057 g/t. The zinc recovery into a final zinc concentrate containing 51.4% zinc was 86.9%. The total silver recovery was 81.0%, including 43.5% and 37.6% into the lead and zinc concentrates, respectively.

Samples of final concentrate products from each LCT were submitted for multi-element analyses to assess the distribution of other potential valuable or deleterious components (see Table 13.7).

Analyta	Unite	LCT D	HK-15	LCT DI	-1K-18
Analyte	Units	Lead Con.	Zinc Con	Lead Con.	Zinc Con
Au	ppm	n/a	n/a	n/a	n/a
Ag	ppm	1,114	191	1,057	256
As	ppm	1,049	871	669	337
Bi	ppm	1,567	126	1,028	46
Cd	ppm	420	2,349	788	3,087
Cu	ppm	1,370	2,637	4,863	5,383
Fe	%	6.2	10.4	4.9	8.6
Pb	%	62.1	1.9	56.7	1.5
S	%	20.8	34.4	17.8	31.6
Sb	ppm	3,137	596	17,726	1,526
Se	ppm	<10	<10	51.8	<10
Sn	%	1.0	0.3	1.5	0.5
Zn	%	6.7	50.4	6.3	48.7

Table 13.7 LCT Final Concentrate Analyses

Acceptable separate lead and zinc concentrates containing significant payable silver that adds considerable value to these products have been produced from both samples. Potentially deleterious elements that might incur a penalty charge include antimony, bismuth and tin for the lead concentrate, and antimony, cadmium, iron and tin for the zinc concentrate.

# 13.2.1.1 Pre-concentration of Ag-Zn-Pb Mineralization ("ore sorting")

A total of 145 polymetallic samples comprising 6 sub-types from 58 drill holes were selected by Eloro for preliminary static bench scale amenability ore-sorting testing by TOMRA. TOMRA's sensor-based sorting technology used X-Ray Transmission (XRT) sensors to sort both the polymetallic and tin samples.



The simulation results based on the TOMRA scan data and assay values reported by WAI from a series of five tests are summarized in Table 13.8 for base metals (Cu, Pb and Zn) and Table 13.9 for silver.

Description	Set 1	Set 2	Set 3	Set 4	Set 5
Rocks classified as Product (wt.%)	75%	63%	57%	51%	43%
Product Grade (% Cu+Pb+Zn)	3.56	4.14	4.57	4.87	5.32
Waste Grade (% Cu+Pb+Zn)	0.21	0.36	0.41	0.51	0.70
Feed Grade (% Cu+Pb+Zn)	1.32	1.32	1.32	1.32	1.32
Cu, Pb, Zn Recovery	98%	95%	93%	91%	85%

Table 13.8 Preliminary "ore sorting" Test Results – Base Metals

#### Table 13.9 Preliminary "ore sorting" Test Results – Silver

Description	Set 1	Set 2	Set 3	Set 4	Set 5
Rocks classified as Product (wt.%)	75%	63%	57%	51%	43%
Product Grade (g/t Ag)	59.9	69.3	76.3	83.1	92.1
Waste Grade (g/t Ag)	2.2	5.7	6.9	6.7	9.1
Feed Grade (g/t Ag)	45.2	45.2	45.2	45.2	45.2
Ag Recovery	99%	95%	93%	93%	89%

These results clearly show that "ore sorting" could be very beneficial for the pre-concentration of polymetallic sulphide mineralization at Iska Iska. Using test Set 3 as an example, 43% of the weight was rejected as waste containing only 7% of the valuable base metals (Zn, Pb and Cu) and silver.

# 13.2.1.2 Preliminary Estimate of Zinc, Lead and Silver Recoveries from Polymetallic Mineralization

The QP recognizes that the results obtained to date are only preliminary and further optimization testwork will improve metal recoveries and quality of the final concentrate products. Nevertheless, a combination of the preliminary "ore sorting" results and results from the two flotation LCT have been used to provide preliminary metallurgical parameters for the maiden mineral resource estimate. The overall estimated metallurgical recoveries are 76% Pb and 53% Ag into a lead concentrate, and 82% Zn and 30% Ag into a zinc concentrate (total silver recovery equates to 83%).

# 13.2.2 Tin Recovery Testwork

Scoping level tin flowsheet development testwork using traditional gravity and flotation technologies has been undertaken by BCR and UTO with additional multi-gravity/flotation testwork completed at WAI.

# 13.2.2.1 Testwork Completed by UTO

As part of the testwork program undertaken in early 2022 using three sulphide composite samples, UTO not only investigated the recovery of lead, zinc and silver using differential flotation, but also the



recovery of tin using gravity separation following bulk sulphide flotation. Although the final tin recoveries were low, due to non-optimized conditions, concentrates as high as 42% Sn were produced.

In 2023 UTO completed testwork using a relatively high-grade 67 kg tin sample composed of assay rejects from holes DSB 32 and DSB 33. UTO investigated gravity separation using shaking tables and a centrifugal concentrator and flotation. It was noted that the crushed assay rejects samples contained considerable proportion of fines ( $32\% - 75 \mu m$ ), which was not ideal.

Flotation using a relative coarse grind of around  $-105 \,\mu$ m upgraded the feed from 1.68% Sn to about 6% Sn, and a recovery of 51%. The scoping flotation tests were preliminary, and a much-improved performance would be expected with a finer grind and optimized flotation conditions.

By grinding to  $212 \mu m$ , rougher shaking table gravity concentration using two size (+/-  $105 \mu m$ ) followed by re-treatment of rougher tailings by centrifugal concentration and centrifugal concentrator concentrate cleaning using a shaking table, a final combined product with a grade of 39% Sn was produced with a Sn recovery of 60.0%. Similar results were obtained using the centrifugal concentrator for pre-concentration (4.3% Sn product with 76% Sn recovery) followed by shaking table cleaning. It is noted that this sample had a very high Sn:Cu ratio which is the exception rather than the norm.

An additional test was completed by UTO in April 2023 using a composite sample with an average grade of 0.95% Sn. The procedure used was based on the standard protocol developed by Eloro and BCR. The overall tin recovery into the final combined concentrate containing 22.2% Sn was 16.2%.

In June and July 2023, UTO completed a series of coarse gravity and DMS scoping tests using low, medium and high-grade tin composites. This work is discussed later in Section 13.2.2.4.

# 13.2.2.2 Testwork Completed by BCR

Initial scoping tests were undertaken by BCR using composite sample DSB-06. The mineralogical characterization (see Section 13.1.1) shows that the tin mineralization occurring in this sample was relatively fine and therefore this sample was used for the development of a tin flotation circuit, which can recover much finer cassiterite grains compared to multi gravity concentration. The flotation conditions developed by BCR using DSB-06 were used for subsequent tin recovery testwork described below.

A standard testing protocol was developed by Eloro and BCR, Figure 13.3 presents the testwork flowsheet.





Figure 13.3 Standard Tin Testwork Flowsheet

Source: BCR.



The standard tin testing procedure includes the following steps:

- 1. Primary grind to  $P_{80}$  of 75  $\mu$ m.
- 2. Sulphide rougher flotation with rougher concentrate regrind and cleaner stage to recovery misplaced tin in the sulphide concentrate.
- 3. Primary gravity tin recovery using a centrifugal concentrator to recover the coarser grained cassiterite present.
- 4. To maximize the efficiency of downstream tabling, the centrifugal concentrator product was screened into three size ranges, +38 μm, -38 μm + 20 μm, and -20 μm.
- 5. Gravity separation of each size fraction using a Met-Solve Analytical Table (MAT).
- 6. Tin rougher flotation of centrifugal concentrator tailings to recover the finer cassiterite grains that the upstream centrifugal concentrator is unable to recover.
- 7. Screening of flotation concentrate into two size ranges, +25 μm which is reground, and 25 μm.
- 8. Gravity separation of each size fraction using a MAT.

Several samples were selected by Eloro to test using the standard BCR tin recovery procedure. Sample selection was based on certain criteria, including variable tin grade, ore type and copper content. All samples were also submitted for mineralogical characterization so that the results can be correlated with tin mineral deportment and liberation. The samples selected are described in Section 13.1. The results from the metallurgical tests completed to date are summarized in Table 13.10.

				Feed Gra	de			Sn Recovery (%)		
Sample ID	Sn¹ (%)	Sn² (%)	Cu (%)	Pb (%)	Zn (%)	Ag (g/t)	S⁻ (%)	5% Sn Con.	10% Sn Con	
METSBUG-02 HG	1.29	0.0	0.4	1.4	0.0	179	3.6	30.3	5.8	
23-VAR-1	2.1	0.3	0.6	0.3	0.0	38	32.4	27.3	24.3	
23-VAR-6	0.3	0.0	0.0	0.1	0.0	4	0.9	38.0	23.2	
23-VAR-7	0.6	0.4	0.0	0.0	0.0	1	1.6	41.0	28.5	
23-VAR-8	0.9	0.0	0.0	0.0	0.0	2	1.2	62.5	48.5	

#### Table 13.10 Summary of BCR Tin Recovery Test Results

Notes:

1. Total tin using peroxide fusion.

2. Sulphide tin using four acid digestion and ICP.



## 13.2.2.3 Testwork Completed by WAI

Approximately 30 kg of assay rejects comprising high grade tin mineralization was forwarded by Eloro to WAI in April 2023. This composite sample, containing 0.99% Sn, 37 g/t Ag, 0.13 g/t Au, 1.3% Pb and 4.5% S, was tested using a flowsheet similar to the one presented in Figure 13.3. The three main differences comprised the Falcon centrifugal concentrator weight yield was increased to circa 40%, multi-gravity separator (MGS) replaced MAT Table, and the Falcon centrifugal concentrator tailings were reground to -45 microns prior to tin flotation to maximize tin flotation stage recovery which is unable to recover coarse particles. A summary of the final test results is shown in Table 13.11.

	Stage Reco	very at 5% S	in Grade	Overall Recovery at 5% Sn Grade					
Product	Mass	Distribu	tion (%)	Macc	Tin	Distribution (%)			
FIGURE	Mass %	Tin	Sulphur	Mass %	Grade %	Tin	Sulphur		
Sulphide Flotation Concentrate	8.2	8.4	75.8	8.2	1.01	8.4	75.8		
Sulphide Flotation Tailings	91.8	91.6	24.2	91.8	0.99	91.6	24.2		
Falcon Concentrate	41.7	73.2	59.9	38.3	1.73	67.1	14.5		
Falcon Tailings	58.3	26.8	40.1	53.5	0.45	24.5	9.7		
Falcon MGS Concentrate	21.7	66.1	47.2	8.8	5.00	44.4	6.8		
Falcon MGS Tailing	78.3	33.9	52.8	29.5	0.75	22.7	7.7		
Tin Float Concentrate	39.1	85.6	90.6	20.9	1.00	21	8.8		
Tin Float Tailings	60.9	14.4	9.4	32.6	0.11	3.5	0.9		
Tin Float MGS Concentrate	7.5	30.0	9.0	1.2	5.00	6.3	0.8		
Tin Float MGS Tailings	92.5	70.0	91.0	19.3	0.80	14.7	8.0		
Total Tin Concentrate	-	-	-	10	5.00	50.7	7.6		

# Table 13.11 Summary of the WAI Testwork Tin Recoveries Based on 5% Sn Product Grade

The results from this preliminary scoping test shows an overall tin recovery of 50.7% into a product containing 5% Sn.

The batch sulphide flotation test, which included roughing, rougher concentrate regrinding and a single cleaning stage with cleaner scavenging, resulted in a bulk sulphide concentrate containing 41% S, 263 g/t Ag, 1.1 g/t Au and 10.1% Pb, with corresponding recoveries of 76%, 58%, 68% and 70%, respectively.

Intensive cyanide leaching of the sulphide concentrate gave 48-hour gold and silver leach extractions of 29% and 38%, respectively.



#### 13.2.2.4 Pre-concentration of Tin Mineralization

The potential to upgrade mined mineralization before grinding and beneficiation was investigated by scoping level program of metallurgical tests. Coarse gravity and DMS were tested by UTO while TOMRA completed a series of preliminary bench scale static "ore sorting" tests.

#### Coarse Gravity Separation

Gravity concentration tests were undertaken by UTO using spiral concentrators. Approximately 20 kg aliquots of the low and medium grade composite samples were ground to four different sizes (420 µm, 300 µm, 210 µm and 150 µm), pre-floated to remove sulphides, then fed multiple times to the test spiral concentrator, concentrate was recovered from each pass. The results from the spiral tests are presented in Figure 13.4 and Figure 13.5.





Figure 13.4 Low Grade Sample (0.14% Sn) - Spiral Response

Figure 13.5 Med. Grade Sample (0.38% Sn) - Spiral Response





The spiral test results show only minor upgrading of the samples. The low grade -210 µm test was an outlier in that there was a relatively good pre-concentration of this sample. For this test, 80% of the weight was rejected with a tin loss of about 50%.

Considering that the spiral feed will require grinding, the test results were not encouraging enough to include spiral concentrators as part of the tin flowsheet.

## Dense Media Separation

Preliminary DMS simulation tests were undertaken by UTO using heavy liquids. The three grade composites (low, medium and high) were used for these tests. The bench scale sink-float tests for each sample were completed using three size fractions (+9.5 mm, -9.5 mm +4.8 mm and -4.8 mm +1.2 mm) and four densities (2.9, 2.8, 2.7 and 2.6 g/cm<sup>3</sup>).



The results from the heavy liquid tests are presented in Figure 13.6, Figure 13.7 and Figure 13.8. All the tests showed a positive upgrading response.

The three low-grade sample test results were similar, a rejection of 80% of the mass resulted in a tin loss of around 60%. The +9.5 mm medium grade test was only marginally successful, but the two finer tests (+4.8 mm and +1.2 mm) produced good results with tin losses of around 40% with an 80% weight loss to rejects. All the high-grade tests using the three size fractions gave similar results with tin losses of around 25% to 40% with 80% weight rejection.









Figure 13.7 Med. Grade Sample (0.38% Sn) - DMS Response

Figure 13.8 High Grade Sample (0.98% Sn) - DMS Response







## "Ore sorting"

A total of 111 tin samples comprising 5 sub-types from 44 drill holes were selected by Eloro for preliminary amenability ore-sorting testing by TOMRA. The results from a series of five bench scale static tests for the samples classified as "high" and "medium" grade are summarized in Table 13.12. The "low" grade sample results, which were unavailable for publication, were reported by TOMRA to be similar to the "high" grade results.

#### Table 13.12 Preliminary "ore sorting" Test Results – Tin



High Grade Samples	Set 1	Set 2	Set 3	Set 4	Set 5
Rocks classified as Product (wt.%)	62%	44%	38%	32%	27%
Product Grade (% Sn)	0.97	1.34	1.53	1.73	1.98
Waste Grade (% Sn)	0.07	0.07	0.08	0.12	0.13
Feed Grade (% Sn)	0.63	0.63	0.63	0.63	0.63
Tin Recovery	96%	94%	92%	87%	85%
Medium Grade Samples	Set 1	Set 2	Set 3	Set 4	Set 5
Rocks classified as Product (wt.%)	62%	44%	38%	32%	27%
Product Grade (% Sn)	0.55	0.67	0.70	0.70	0.77
Waste Grade (% Sn)	0.16	0.19	0.21	0.26	0.26
Feed Grade (% Sn)	0.40	0.40	0.40	0.40	0.40
Tin Recovery	85%	74%	67%	55%	52%
Low Grade Samples	Set 1	Set 2	Set 3	Set 4	Set 5
Rocks classified as Product (wt.%)	62%	44%	38%	32%	27%
Product Grade (% Sn)	NA	NA	NA	NA	NA
Waste Grade (% Sn)	NA	NA	NA	NA	NA
Feed Grade (% Sn)	NA	NA	NA	NA	NA
Tin Recovery	NA	NA	NA	NA	NA

These results suggest that "ore sorting" could be beneficial for the pre-concentration of the tin mineralization at Iska Iska. Using test Set 5 as an example, 73% of the weight was rejected as waste containing 15% Sn for the high-grade samples and 48% Sn of the medium-grade material.

## 13.2.2.5 Preliminary Estimate of Tin Recoveries

The results from the tin recovery tests completed by UTO, BCR, WAI and TOMRA have been used by Eloro to develop a preliminary tin recovery flowsheet with scoping level test results that could be used to support the mineral resource estimate. In the analysis of the testwork results the tin recoveries from the testwork were adjusted to produce a 5% Sn concentrate, which is considered a reasonable feed grade for the tin fuming process. At this preliminary stage of the project development an estimate of approximately 35% tin recovery has been established based on a combination of pre-concentration and beneficiation using flotation and multi-gravity separators.

The work by WAI showed that the reasonable recoveries of potentially valuable silver, lead and gold from tin mineralization are possible. Non-optimized recoveries of Ag, Pb and Au into the bulk sulphide concentrate were 58%, 70% and 68%, respectively.



It is clear that the cassiterite within the Iska Iska deposit occurs in several forms, from relatively large-grained particles which can readily be recovered using conventional mineral processing technologies, to ultra fine grains that will remain locked in gangue or lost as slimes. The occurrence of "wood tin" has also been documented, which is a variety of cassiterite composed of radiating fibers resembling dry wood, generally formed at relative low temperatures. Although the estimate of tin recovery is based on actual results from tests undertaken on a variety of tin-rich styles of mineralization occurring at Iska Iska, separate estimates and recovery models for different tin-rich zones may be a more appropriate way forward.

## 13.2.3 Hardness and Comminution Testing

Bond ball mill index testing has been completed on the 2021 samples prepared for the initial scoping testwork program at UTO and the composite samples delivered to BCR in 2022. The results for all these tests are summarized in Table 13.13.

Comple Description	Lab	Product Closing Size (μm)				
Sample Description	LaD	212	149	105		
SLF EN (HK)	UTO	14.11	14.62	15.28		
SLF BX (HK)	UTO	13.07	14.33	15.14		
SLF BX (SB)	UTO	15.16	15.86	16.26		
OX EN (SB)	UTO	13.34	13.68	14.94		
SLF EN (SB)	UTO	15.34	15.58	16.32		
OX BX (HK)	UTO	17.63	18.28	18.65		
SLF BX (C)	UTO	15.04	15.24	15.52		
OX BX (SB)	UTO	15.60	15.69	15.95		
DHK-15 composite	BCR	18.10	-	-		
DHK-18 composite	BCR	16.90	-	-		
Average Results	-	15.43	15.41	16.01		
Standard Deviation	-	1.61	1.29	1.11		

#### Table 13.13 Summary of Bond Ball Mill Index Test Results (kWh/t-metric) for Zn-Pb-Ag Samples

The Bond ball mill index results are relatively consistent, averaging around 16.0 kWh/t when using a product screen size of 105 μm.

A Bond ball mill index test by BCR using the tin-rich sample DSB-06 gave a test result of 16.0 kWh/t.



#### **13.3** CONCLUSIONS AND RECOMMENDATIONS

#### 13.3.1 Pb-Zn-Ag Flowsheet Development

Preliminary testwork to date, using Pb-Zn-Ag composite samples selected by Eloro to represent typical Iska Iska mineralization, has shown that salable lead and zinc concentrates containing significant silver can be produced using conventional, industry standard technology. Eloro and the QP recommends the following program of geo-metallurgical testing to obtain data that can support a preliminary economic assessment (PEA) for the Pb/Zn/Ag mineralization:

- Select appropriate samples to conduct additional pre-concentration testing with the best option being integrated into the overall downstream testwork (grinding flotation etc.) program. The samples should represent each pertinent Pb-Zn-Ag domain at Iska Iska using the most recent geological and mineralogical information available.
- Use products from pre-concentration for additional flotation optimization test program. This phase of testwork will include the following:
- Mineralogical characterization of the samples.
- Confirmation of optimum primary grind size.
- Effect of regrind within the flotation circuit and optimized regrinding sizes.
- Optimization of reagent selection and addition rate to reduce processing operating costs.
- Select appropriate samples and undertake additional comminution and hardness testing to support a PEA level crushing and grinding circuit design.
- Undertake a silver deportment study using samples that represent the main mineralized domains.

## 13.3.2 Tin Flowsheet Development

The metallurgical and mineralogical test results from the preliminary testwork described in this report suggest that tin deportment and cassiterite liberation characteristics vary considerably throughout the Iska Iska deposit. Although a preliminary prediction of tin recovery has been developed based on the early stage testwork results, a great deal of additional geo-metallurgical work needs to be done to optimize the flowsheet and to better understand the mineralogical constraints within the various tin-rich domains. Eloro and the QP recommends the following program of geo-metallurgical testing to obtain data that can support a preliminary economic assessment (PEA) for the tin mineralization:

• Further investigate the potential for pre-concentration.



- Undertake addition tin flowsheet optimization testwork on a range of samples that represent the known tin-rich domains. The flowsheet developed at BCR and WAI will be used as a basis for this test program.
- Further investigate the recovery of lead, silver and other potentially valuable metals from the tin-rich mineralization.
- Undertake studies into the downstream processing of tin concentrate. Although this is expected to focus on traditional pyrometallurgy alternative hydrometallurgical options may also be considered, although there are currently no known commercial tin leaching processes.
- Undertake appropriate comminution and hardness testing to adequately support a PEA level design.

## 13.3.2.1 Other Testing

Some of the Iska Iska mineralized samples tested to-date contained interesting values of copper, gold, bismuth, and indium. It is recommended to investigate the recovery of these valuable metals.



## 14.0 MINERAL RESOURCE ESTIMATES

## **14.1** Synopsis/Key Factors

The resources presented hereunder are aptly referred to as Initial Resources due to the following circumstances:

- The limits of the deposit remain unknown as every single hole drilled at Iska Iska to date has intersected mineralization.
- Early stage metallurgical testwork is still far from complete as recoveries for some of the deposit components that include Au and Cu, and possibly In, Cd and Bi as well, are yet to be determined.
- Recovery of Ag & Pb from Sn-rich zones is yet to be optimized.
- Optimal recovery route(s) of metals for complex situations where Sn and Zn/Pb/Ag all occur in significant quantities is yet to be investigated.
- Potentially deleterious elements of significance were used; however, they still remain to be finalized.

Iska Iska is classified as a polymetallic porphyry-epithermal deposit (Bolivian type), associated with a Miocene possibly collapsed/resurgent caldera, emplaced on Ordovician age basement. Its mineralizing sequence/events commenced with a xenothermal high temperature pulse (Sn, W, Bi) characterized by the mineralogical paragenetic association comprising quartz, pyrite, cassiterite, rutile and tourmaline, which was superimposed by a later epithermal low temperature high sulphidation phase (Ag, Zn, Pb, Cu, Au), with minerals such as sphalerite, galena, chalcopyrite, pyrite, quartz, alunite, and silver sulphides, thus culminating in a polymetallic telescoped mineralized system.

Of the area drilled, the eastern half is enriched in Zn while the western half is enriched in Sn. In either case, the mineralization remains open (i.e., for Zn eastwards and north and south; and for Sn westwards and north and south). Thus, although the Iska Iska deposit is currently considered as one entity, in detail the deposit is split into two distinguished mineralization domains, i.e., a predominantly Zn-Pb-Ag mineralization to the east (Polymetallic Domain) and a Sn-Ag-Pb to the west (Tin Domain).

The Iska Iska central deep seated geophysics anomaly (3 D magnetic inversion model) adjoining the Casiterita property to the south/southwest is interpreted as being indicative of a tin porphyry; however, this needs to be confirmed by drilling. Reconnaissance drilling results on the Casiterita property (ref. Eloro PR of August 22,2023) confirms a Tin Domain in the southwestern part of the greater Iska Iska region.



#### **14.2** EXPLORATORY DATA ANALYSIS

#### 14.2.1 Deposit Components

Multi-element analysis confirms that the deposit has a whole suite of elements of possible economic interest which include the following:

Silver (Ag), gold (Au), zinc (Zn), lead (Pb), copper (Cu), tin (Sn), bismuth (Bi), cadmium (Cd) and indium (In). Quantities/grades are given in percent (%) for Zn, Pb, Cu, Sn, Bi, In and Cd and in grams per tonne (g/t) for Ag, Au, and AgEq.

#### 14.2.2 Drill Holes & Distribution

The deposit area has been tested by 118 surface drill holes and 21 underground drill holes as shown in Figure 14.1. All the drilling has been conducted using HQ (63.5 mm) core size except in deep holes where the holes were stepped down to NQ size after attaining a depth of about 900 m. There are two main patterns of drilling: radial drilling on the breccia pipes and in the central area with underground workings, and south-southwestwards commencing from the northwest sector covering mainly the magnetic anomaly.

#### Figure 14.1 Iska Iska Deposit Drill Hole Plan





The most intensely drilled area is the Santa Barbara adit section which is covered in 3D in all directions.

# 14.2.3 General Statistics on Raw Assay Data

The general statistics of the entire database raw assays is summarized in Table 14.1.



Element	Count	Mean	Std. Dev	сv	Var	Min	L.Q	Median	U.Q	Мах
Ag g/t	50907	7.78	52.43	6.74	2748.52	0.06	0.50	1.00	4.50	7050.00
Au g/t	50907	0.04	0.31	7.56	0.10	0.00	0.01	0.01	0.03	38.90
Bi %	50907	0.00	0.03	6.73	0.00	0.00	0.00	0.00	0.00	2.22
Cd %	50907	0.00	0.01	3.03	0.00	0.00	0.00	0.00	0.00	0.40
Cu %	50907	0.03	0.10	4.10	0.01	0.00	0.00	0.01	0.02	6.33
Fe %	47010	4.19	2.62	0.63	6.87	0.01	2.54	3.78	5.08	52.20
In g/t	15917	10.94	15.28	1.40	233.59	0.09	10.00	10.00	10.00	961.00
Pb %	50907	0.12	0.58	4.71	0.33	0.00	0.01	0.01	0.06	28.29
S %	31783	2.46	2.71	1.10	7.35	0.01	0.86	1.84	3.20	41.20
Sn %	50907	0.03	0.12	3.76	0.01	0.00	0.00	0.01	0.02	9.84
Zn %	50907	0.28	0.76	2.71	0.58	0.00	0.01	0.04	0.21	20.90

Of particular note and significance are the elevated mean values of Ag, Pb, Sn and Zn which are clearly above the general background values in the earth crust; for example, Ag has a raw mean of about 8 g/t. This undoubtedly demonstrates not only a wide scale but also an extremely intense mineralizing event(s).

#### **14.3 ESTIMATION APPROACH/STRATEGY**

The approach taken by Micon towards establishing the Iska Iska Interim Mineral Resources model is as follows:

- Geological/Geochemical/Geophysical Interpretation.
- Deposit modelling.
- Compositing and grade capping.
- Statistical Interpretation:
- Global average grades.
- $\circ$  Determination of trends/zonation.
- Spatial analysis/Variography.
- Block model Grade and Tonnage estimation.
- Mineral Resource Estimation:



- o Strategy
- Technical/Mining parameters.
- Economic/Processing parameters + G&A.
- Resource NSR cut-off values (open pit and underground).
- NSR assignment to blocks.
- Pit constrained resource definition.
- Underground resource definition.
- MRE Risks.

# **14.4** GEOLOGICAL/GEOCHEMICAL/GEOPHYSICAL INTERPRETATION

There are no obvious/definitive lithological or alteration attributes that can be used for modelling the polymetallic telescoped mineralized system of the Iska Iska deposit. In short, a clearcut geological feature delineating the deposit limits currently remains undefined/elusive.

Geochemical data/assays show remarkable continuity over the drilled area as mineralization has been encountered in all drill holes completed to date. With this continuity comes an apparent broad lateral zonation with Sn enrichment in the west while Zn enrichment is dominant in the eastern sector (Figure 14.2).

#### Figure 14.2 Sectional Grade Distribution of Sn @ 0.1% (left) and Zn @ 1% (right) Threshold Looking North





IP downhole surveys and magnetometry collectively indicate an electrically continuous mesh of sulphide stringers, disseminations/impregnations and breccias of mineralization over the entire drilled area. In brief, IP Conductivity has demonstrated an electrically continuous deposit. This is supported by drilling results and variography.

## 14.4.1 Implications on Drilling Patterns

The meshy fabric of the deposit comprising intermingled mineralised and unmineralized zones is such that:

Drill holes in any orientation/inclination can intersect/miss significant mineralization. No two drill holes no matter how close will reflect mineralization to the same degree, even scissor holes. This randomness/random aspect is uniformly distributed throughout the deposit and is consistent with the mesh model of the Iska Iska mineralization. In this regard, it is noted that the apparent concentration of high grades in the Santa Barbara adit area has no geological explanation other than the intensity of drilling in various orientations. Thus, the accuracy/precision of the mineral resource estimate is uniquely dependent on the number of samples (drill holes) in the estimate.



## 14.5 MODELLING

## 14.5.1 Definition/Modeling of Mineralization Envelopes/Wireframes

In the absence of a robust geological feature to guide the modelling of the deposit, a metal threshold value/grade was the only option for modelling. And due to the multi-metal nature of the deposit, a silver equivalent (AgEq g/t) value was adopted to differentiate the mineralization envelope from the background unmineralized mass. AgEq was selected due to its (Ag) clearly distinct anomalous average value in raw samples (Table 14.1). The formula used for calculating the AgEq value is as follows:

AgEq g/t = [(Ag ppmx%Rec.xPrice/g) + (Pb ppmx%Rec.xPrice/g) + (Zn ppmx%Rec.xPrice/g) + (Sn ppmx%Rec.xPrice/g) + (Cu ppmx%Rec.xPrice/g) + (Au ppmx%Rec.xPrice/g) + (Bi ppmx%Rec.xPrice/g) + (Cd ppmx%Rec.xPrice/g)]/ (Ag Price/g x %Rec)

(where Rec. = metallurgical recovery.)

From 2020 up to mid 2023, the metal prices (USUS\$/kg) used are as follow: Ag = US\$607.00; Sn = 23.55; Zn = US\$2.98; Pb = US\$1.92; Au = US\$54,932.80; Cu = US\$7.00; Bi = US\$12.76; and Cd = US\$5.50. Metallurgical recovery was assumed to be 100% for all the metals as metallurgical testwork results were not yet available. The following are not included in the AgEq formula: mining, processing, and transport costs.

The histogram showing the distribution of the AgEq values in the drilled area is log-normal; accordingly, a log-probability plot was used to determine the threshold value differentiating mineralized from un-mineralized material. The threshold value determined is 30 g/t AgEq as shown in Figure 14.3.







Modelling the broad envelope of mineralization was achieved using a threshold value of 30 g/t AgEq as determined above. Assuming favourable economic factors (especially good metal recovery factors), the 30 g/t AgEq envelope (30 MinZone) would possibly yield an open pit resource since the mineralization is broad and at/close to surface. Mineralization likely to yield a potential underground resource was modelled at an arbitrarily selected threshold value of 75 g/t AgEq (UG MinZone) and is entirely enclosed within the 30 g/t Ag Eq envelope (Figure 14.4).

Figure 14.4 Iska Iska Deposit Wireframes Combining 30 g/t AgEq and & 75 g/t AgEq Thresholds (UG MinZone)





Note: 30 MinZone = 30 g/t AgEq wireframe; UG MinZone = 75 g/t AgEq wireframe

To fully assess the significance of the tin resource, a tin-based wireframe, i.e., Tin Zone (Figure 14.5) was also modelled using a threshold value of 0.1% Sn to define the potentially economic high-grade core.

#### Figure 14.5 Iska Iska Sn Wireframe at 0.1% Sn Threshold





The relationship between the 3 wireframes is shown in Figure 14.6.







Remarks: Initial metallurgical tests results for Ag, Pb, Sn and Zn were made available in mid-August 2023; tests and results for the other elements including Au, Cu, In, Bi and Cd are awaited. The QP has discussed and agreed with Eloro that any future AgEq calculations should be restricted to include only those metals with metallurgical recoveries as the project progresses towards economic studies.

At this early stage in the development of Iska Iska mineral resource, it was deemed unnecessary to partition the modelled wireframes into oxidized, transitional and sulphide zones. The partitioning is to be done once the deposit limits have been defined. However, weathering at Iska Iska is minimal.

## **14.6** COMPOSITING/GRADE CAPPING/STATISTICS

Compositing was conducted to (i) ensure equal weighting of samples for grade capping purposes and (ii) standardize the support in the construction of variograms. A composite length of 1.5 m for capping estimation was selected based on the mode of the sample lengths in all the wireframes.



Samples population histograms revealed log-normal metal distributions; accordingly, log-probability plots were used to assess the grade capping threshold values for Zn, Pb Cu, Sn, Bi, Cd, Ag and Au. The log-probability plots for the key elements utilized in the mineral resource estimate are shown in Figure 14.7 and Figure 14.8.



Figure 14.7 Log-probability plots for Ag and Pb Showing Grade Capping Thresholds

Figure 14.8 Log-probability Plots for Sn and Zn Showing Capping Thresholds




The grade capping values determined above were applied to all the 3 wireframes shown in Figure 14.6. An analysis of the means before and after grade capping is presented in Table 14.2 below and shows that the capping thresholds applied are modest.

Element	Raw Mean	Capped Mean	Capping Value						
Ag ppm	9.40	8.98	750						
Pb %	0.151	0.147	10						
Sn %	0.039	0.38	1.70						
Zn %	0.339	0.337	8.00						

# Table 14.2Summary Statistics of Uncapped vs Capped Values in the 30 g/t AgEq Envelope

The global statistics of the 30 g/t AgEq (MinZone 30) and of the UG potential (MinZone UG) after grade capping are presented in Table 14.3 and demonstrate that the metal grades in the UG potential envelope are > or = twice the MinZone 30. The Sn average in the Tin zone wireframe before and after grade capping remains 0.11% Sn.



0.791

11,000

#### **Table 14.3 Global Statistics of Composites MinZone 30 vs MinZone UG** Capping MinZone 30 MinZone UG Element Value Mean Mean Ag ppm 750 8.98 17.60 Pb % 10 0.376 0.147 0.062 Sn % 1.70 0.038

0.337

40,939

The poor Sn grade in the UG envelope is likely due to very limited drilling.

Zn %

Count

8.00

-

#### 14.6.1 Statistical Interpretation

#### 14.6.1.1 Distribution of High Grades

For all the metals without exception, grades are highest in the most intensely drilled part(s) of the deposit. Thus, the artifact of drilling density and orientation of the holes must not be overlooked. The denser the drilling the better the grade definition. In this regard it is noted that the apparent high-grade core surrounding the Santa Barbara adit has no geological explanation other than the density of drilling.

#### 14.6.1.2 Lateral Distribution

The lateral zonation showing Sn enrichment in the west versus Zn enrichment in the east is rather obscure in the MinZone 30 envelope which is loose/more widespread but is more pronounced in the UG envelope (MinZone 75) as shown in Table 14.4.



(5 m composites)								
Eastings	Ag g/t Mean	Pb % Mean	Sn % Mean	Zn % Mean				
All Eastings	17.60	0.38	0.06	0.79				
5000E	5.37	0.02	0.42	0.01				
5100E	19.86	0.18	0.14	0.21				
5200E	21.31	0.32	0.09	0.47				
5300E	23.13	0.50	0.07	0.84				
5400E	10.83	0.35	0.03	1.11				
5500E	6.18	0.20	0.01	0.77				
5600E	15.57	0.41	0.01	0.99				

#### Table 14.4 Table Showing Concentration of Metals Laterally in Min Zone UG (5 m composites)

# 14.6.1.3 Vertical Distribution

Vertical distribution shows Zn depletion in the topmost (weathered zone). High concentrations of all metals are roughly within the same interval (4200 l to 4000 l) and closer to the top (Table 14.5) and is centred around the Santa Barbara adit area which is the densest drilled area. Other than this, there is no definite zonal pattern vertically. However, the Sn values at lower levels appear to be picking up as reflected by drill hole DPC-09.

(0 00									
Elevations	Ag g/t Mean	Pb % Mean	Sn % Mean	Zn % Mean					
All Levels	17.60	0.38	0.06	0.79					
4300L	28.86	0.29	0.18	0.00					
4200L	39.16	0.57	0.12	0.47					
4100L	18.28	0.54	0.07	1.10					
4000L	13.42	0.39	0.06	0.99					
3900L	8.72	0.28	0.03	0.72					
3800L	8.60	0.18	0.04	0.62					
3700L	12.73	0.20	0.04	0.72					

#### Table 14.5 Showing Concentration of Metals Vertically in MinZone UG (5 m composites)



Elevations	Ag g/t Mean	Pb % Mean	Sn % Mean	Zn % Mean
3600L	9.65	0.28	0.04	0.98
3500L	17.02	0.24	0.03	0.83
3400L	21.69	0.17	0.04	0.48

# 14.6.1.4 Metal Correlations

The metal correlations patterns are summarized in Figure 14.9. The strongest relationships are between Ag and Pb, Zn and Cd, Sn and Ag, and between Zn and Pb. The two chief components (Sn & Zn) are spatially separated except in the Santa Barbara adit area where there is an overlap.

Indep/Dep	AgCAP	AuCAP	BiCAP	CdCAP	CuCAP	PbCAP	SnCAP	ZnCAP
AgCAP	1.00	0.12	0.45	0.07	0.18	0.52	0.42	0.06
AuCAP	0.12	1.00	0.25	0.04	0.03	0.10	0.10	0.08
BiCAP	0.45	0.25	1.00	0.04	0.13	0.18	0.27	0.02
CdCAP	0.07	0.04	0.04	1.00	-0.04	0.35	0.02	0.64
CuCAP	0.18	0.03	0.13	-0.04	1.00	0.05	0.16	-0.08
PbCAP	0.52	0.10	0.18	0.35	0.05	1.00	0.37	0.40
SnCAP	0.42	0.10	0.27	0.02	0.16	0.37	1.00	-0.03
ZnCAP	0.06	0.08	0.02	0.64	-0.08	0.40	-0.03	1.00

#### Figure 14.9 Metal Correlations in UG MinZone

Note: The metal correlations in the 30 MinZone is similar to that in the UG MinZone

The overall metal correlations confirm that Iska Iska and its surroundings have been subjected to widespread remobilization due to strong Andean tectonism that has substantially altered the mineralization pattern from its primary configuration. The metal correlations also demonstrate the need to use an NSR value in the mineral resource estimation process.

#### 14.7 VARIOGRAPHY/SPATIAL ANALYSIS

Spatial analysis/variography was conducted for all the deposit constituents with emphasis on the main elements of economic interest (i.e., Ag, Pb, Sn, and Zn) that are used in the mineral resources estimate. The results are presented in Figure 14.10 to Figure 14.17. For all metals, correlograms were adopted as they showed better stability and continuity than conventional variograms.



For all the major elements, the variograms display long ranges of influence. This reflects continuity/uniformity of the pattern of mineralization. Thus, the meshy character of the mineralization is uniformly manifested throughout the deposit. This phenomenon is consistent with the observed grade distributions earlier noted (see Figure 14.2) and corroborated by geophysics (down-hole IP conductivity) which reveal the deposit to be electrically continuous with no trend and no orientation. The fact that all holes drilled on property intersected mineralization is further testimony to the remarkable continuity of the mineralization pattern.



#### Figure 14.10 MinZone 30 Correlogram for Ag

Figure 14.11 MinZone UG Correlogram for Ag





Figure 14.12 MinZone 30 Correlogram for Pb





Figure 14.13 MinZone UG Correlogram for Pb





Figure 14.14 MinZone 30 Correlogram for Sn





Figure 14.15 MinZone UG Correlogram for Sn





Figure 14.16 MinZone 30 Correlogram for Zn





Figure 14.17 MinZone UG Correlogram for Zn





# 14.8 ESTIMATION (BLOCK MODEL/GRADE/TONNAGE)

#### 14.8.1 Resource Block Model Definition

The block model definition is presented in Table 14.6. The upper limit representing surface topography is based on the digital terrain model (DTM) provided by Eloro. The parent block size is based on the envisaged SMU and drill hole spacing in the core Santa Barbara area.

Item	X	Y	Z
Origin/Minimum Coordinates	204400.00	76547700.00	4450.00
Extent	1800.00	2500.00	1600.00

#### Table 14.6 Iska Iska Block Model Definition



Parent Block Size (m)	10	10	10
Child/Sub-block Size (m)	-	-	-
Rotation (degrees)		0	

# 14.8.2 Block Grade Interpolation

The search ellipse configuration and dimensions for grade interpolation were defined using a combination of the variography results, drill hole spacing, and the geometry/orientation of the deposit. The search ellipse is isotropic (in x and y) as dictated by variography and geophysics.

The search/grade interpolation parameters are summarized in Table 14.7 and



Table 14.8. A three-pass estimation procedure was adopted for all the domains. The third pass was adopted to populate all blocks within estimation domains. The block grade interpolations/estimations were conducted using the ordinary kriging (OK) technique.



Envelope Elemen		Orig (	inal Variog Correlogran	ram/ n	Dass	Searching Ellipsoid Range		Orientation			5 m Comps Selection			
Envelope	Etement	Major	Semi- major	Minor	Pass	Major	Semi- major	Minor	Dip	Dip Azimuth	Pitch	Min	Мах	Max/ Hole
		300	300	250	1	120	120	100	90	90	90	16	24	4
	Ag	300	300	250	2	240	240	200	90	90	90	16	24	4
		300	300	250	3	600	600	500	90	90	90	8	12	4
		350	350	200	1	140	140	80	90	90	90	16	24	4
	Au	350	350	200	2	280	280	160	90	90	90	16	24	4
		350	350	200	3	700	700	400	90	90	90	8	12	2
		350	350	200	1	140	140	80	90	90	90	16	24	2
	Bi	350	350	200	2	280	280	160	90	90	90	16	24	2
		350	350	200	3	700	700	400	90	90	90	8	12	2
		400	400	300	1	160	160	120	90	90	90	16	24	2
20 g/t AgEg	Cd	400	400	300	2	320	320	240	90	90	90	16	24	2
SU g/L AgEq		400	400	300	3	800	800	600	90	90	90	8	12	2
(LOW Grade Caldera)		250	250	200	1	100	100	80	90	90	130	16	24	2
Culturity	Cu	250	250	200	2	200	200	160	90	90	130	16	24	2
		250	250	200	3	500	500	400	90	90	130	8	12	2
		400	400	300	1	160	160	120	90	90	90	16	24	2
	Pb	400	400	300	2	320	320	240	90	90	90	16	24	2
		400	400	300	3	800	800	600	90	90	90	8	12	2
		350	350	300	1	140	140	120	90	90	90	16	24	2
	Sn	350	350	300	2	280	280	240	90	90	90	16	24	2
		350	350	300	3	700	700	600	90	90	90	8	12	2
		400	400	300	1	160	160	120	90	90	90	16	24	2
	Zn	400	400	300	2	320	320	240	90	90	90	16	24	2
		400	400	300	3	800	800	600	90	90	90	8	12	2

# Table 14.7MinZone 30 Summary of Grade Interpolation Parameters



Table 14.8	
MinZone UG and Tin Zone Summary of Grade Interpolation Paran	neters

Envelope Elemen		Original Variogram/ Correlogram		Dass	Searching Ellipsoid Range		Orientation			5 m Comps Selection				
Envelope	Element	Major	Semi- major	Minor	Pass	Major	Semi- major	Minor	Dip	Dip Azimuth	Pitch	Min	Мах	Max/ Hole
		250	250	150	1	100	100	60	90	90	90	16	24	2
Ag	Ag	250	250	150	2	200	200	120	90	90	90	16	24	2
		250	250	150	3	500	500	300	90	90	90	8	12	2
		150	150	75	1	60	60	30	90	90	90	16	24	2
	Au	150	150	75	2	120	120	60	90	90	90	16	24	2
		150	150	75	3	300	300	150	90	90	90	8	12	2
		200	200	150	1	80	80	60	90	90	90	16	24	2
Bi	Bi	200	200	150	2	160	160	120	90	90	90	16	24	2
		200	200	150	3	400	400	300	90	90	90	8	12	2
		200	200	150	1	80	80	60	90	90	90	16	24	2
UG	Cd	200	200	150	2	160	160	120	90	90	90	16	24	2
Potential		200	200	150	3	400	400	300	90	90	90	8	12	2
High Grade		200	200	175	1	80	80	70	90	90	90	16	24	2
Core	Cu	200	200	175	2	160	160	140	90	90	90	16	24	2
		200	200	175	3	400	400	350	90	90	90	8	12	2
		250	250	200	1	100	100	80	90	90	90	16	24	2
	Pb	250	250	200	2	200	200	160	90	90	90	16	24	2
		250	250	200	3	500	500	400	90	90	90	8	12	2
Sr		300	300	250	1	120	120	100	90	90	70	16	24	2
	Sn	300	300	250	2	240	240	200	90	90	70	16	24	2
		300	300	250	3	600	600	500	90	90	70	8	12	2
		200	200	180	1	80	80	72	90	90	90	16	24	2
	Zn	200	200	180	2	160	160	144	90	90	90	16	24	2
		200	200	180	3	400	400	360	90	90	90	8	12	2



# 14.8.3 Tonnage Estimate

The database contains 203 SG measurements of which 139 were conducted at the ALS laboratory and the balance of 64 at the AHK laboratories; in all instances the measurements were obtained using the Archimedes principal technique. Although rather sparse, the measurements are mostly evenly distributed throughout the deposit and yield a global average value of 2.87 t/m<sup>3</sup>.

For tonnage estimates, SG values were interpolated within the mineralized wireframes using the ID<sup>2</sup> method. A global average SG value of 2.87 t/m<sup>3</sup> was applied in those areas where density data was not available.

#### 14.8.4 Block Model Grade Validation

The OK interpolated block grades were validated globally, locally and visually as detailed below.

#### 14.8.4.1 Global Validation

Global validation of interpolated grades was achieved by using swath plots in the MinZone 30 as demonstrated in Figure 14.18 to Figure 14.21.



Figure 14.18 Iska Iska 50 m Swath Plot for Ag in MinZone 30







Figure 14.19 Iska Iska 50 m Swath Plot for Pb in MinZone 30

Figure 14.20 Iska Iska 50 m Swath Plot for Zn in MinZone 30









Figure 14.21 Iska Iska 50 m Swath Plot for Sn in MinZone 30

# 14.8.4.2 Local Validation

Local Validation was achieved statistically by comparisons between block grades and composite grades in the core Santa Barbara area as summarized in Table 14.9 below.

Flomont	Co	ount	Avg. Gra	Difforence		
Element	Comps	Blocks	5 m Comps	Blocks	Difference	
Ag g/t	823	14,929	34.932	34.362	-1.63%	
Au g/t	823	14,929	0.065	0.068	5.21%	
Cu %	823	14,929	0.095	0.092	-3.90%	
Pb %	823	14,929	0.555	0.541	-2.48%	
Sn %	823	14,929	0.109	0.106	-3.07%	
Zn %	823	14,929	0.545	0.513	-5.87%	

Table 14.9 Comparison of Block Grades Versus Composite Blocks

#### Tin Envelope

Floment	Co	ount	Avg. Gra	Difforence	
Element	t Comps Blocks 5m Comps Blocks				Difference
Sn %	2,694	111,354	0.106	0.106	-0.05%

Further local validation was achieved by a swath plot of Sn in the Tin Zone wireframe as shown in Figure 14.22.





Figure 14.22 Iska Iska 50 m Swath Plot for Sn in the Tin Zone

# 14.8.4.3 Visual Evidence

The model blocks and the drillhole intercepts were reviewed interactively in 3D mode to ensure that the blocks were honouring the drillhole data. The agreement between the block grades and the drill intercepts was found to be satisfactory.

The close match between drill hole intercepts and the interpolated block grades is demonstrated in Figure 14.23.



Figure 14.23 Block Model Section Showing Composites and Block Grades



# 14.8.4.4 Interpolation Method Comparison

A comparison of interpolation methods i.e., OK versus Inverse Distance Squared (ID<sup>2</sup>) and Inverse Distance Cubed (ID<sup>3</sup>) shows a close similarity between the results as demonstrated in Figure 14.24. This also substantiates the continuity of the mineralization pattern.

Figure 14.24 Comparison of OK vs ID<sup>2</sup> vs ID<sup>3</sup> Interpolations



# 14.8.4.5 Overall Comments

All the three methods used to validate block grade estimation supported the estimation results. Of particular importance is the fact that the Table 14.9 above clearly demonstrates that the overall estimate is reasonably conservative and matches the input data.



# 14.9 MINERAL RESOURCE ESTIMATE (MRE)

#### 14.9.1 CIM Norms

The CIM Definition Standards (2014) require that a Mineral Resource must have "reasonable prospects for eventual economic extraction".

The "reasonable prospects for eventual economic extraction" requirement generally imply that the quantity and grade estimates meet certain economic thresholds and that the mineral resources are reported at an appropriate cut-off grade that takes into account extraction scenarios and processing recoveries.

# 14.9.2 MRE Strategy

As already noted above, the Iska Iska deposit is polymetallic in nature and as such, the value of its mineralized material will result from the extraction and sale of a combination of metals. For the current Initial Mineral Resource, only Ag, Pb, Sn and Zn are considered as they are the only elements for which metallurgical recoveries have been provided. Pending further success in metallurgical testwork, Cu, Au, and In and possibly others (Cd, Bi) may be added to the economic equation. Based on current drilling results, none of the metals constituting the deposit is of high enough grade to make the deposit potentially economic on its own without significant contributions from the other co-products. Hence, Micon selected the Net Smelter Return (NSR) approach which recognizes <u>co-products</u> as opposed to the Metal Equivalent approach which recognizes <u>a chief product supported by by-products</u>. For the NSR method, the dollar value that each metal contributes towards the total value is calculated and is expressed as one value referred to as the NSR value. The calculation of an NSR value considers revenues, metallurgical recoveries, smelter deductions, treatment charges, penalties, and transportation costs for all metals of potential economic interest. This NSR value can then be used to derive a cut-off value, where the NSR cut-off value is then the dollar value of a given sample or block that equals the total operating costs, as appropriate.

**Remarks:** It is important to note that the silver equivalent (AgEq) grade metric is not as informative as the NSR values, because it fails to include the post processing (smelting) factors such as deleterious elements charges, concentrate mass pull, treatment, and transport costs. This makes the NSR metrics a better representation of the deposit potential. AgEq is only used within this report to define the limit of the potential open pit and potential underground mineralization. All resource estimations have been done using NSR values.

#### 14.9.3 Parameters/Assumptions

The economic and technical parameters/assumptions which offer the Iska Iska deposit reasonable prospects for eventual economic extraction by open pit and underground mining are described below.

#### 14.9.3.1 Economic Factors

Analysis of metal prices over a 3-year period and 1-year period (both to May 15, 2023) shows a close match as shown in Table 14.10.



Metal	Unit	3-year avg US\$	1-year avg US\$
Au	oz	1,833	1,881
Ag	oz	22.52	22.62
Cu	lb	3.78	4.02
Pb	lb	0.95	0.97
Zn	lb	1.33	1.43
Sn	lb	12.20	13.49

#### Table 14.10 Metal Price Comparison 3-year vs 1-year Averages

Based on Table 14.10, Micon adopted the following 3-year trailing average metal prices: Ag = US\$22.52; Sn = US\$12.20/lb; Zn= US\$1.33/lb and Pb = US\$0.95/lb.

Other economic factors supplied by Eloro's mining consultant (GEMIN) are mining costs = US\$3.41/t and US\$25.22/t for open pit and underground, respectively; and G & A = US\$0.55/t for Zn/Pb domain and US\$0.68/t for Sn domain.

# 14.9.3.2 Technical Factors – NSR

As already described in sub-section 14.9.2 above, the net smelter return (NSR) refers to the revenues expected from the mill feed, taking into consideration mill recoveries, transport costs of the concentrate to the smelter, treatment and refining charges, and other deductions at the smelter. For the Iska Iska Initial MRE, these NSR factors are summarized in Table 14.11 and Table 14.12



#### Table 14.11 Zn-Pb NSR Factors

"ore sorting"	Units	Value	Comments
Amount ROM to sorter	%	80	Preliminary estimate, MPH
Weight of sorter rejects	%	43	Same for Pb, Zn and Ag
Metal losses to rejects	%	7	Same for Pb, Zn and Ag
Ore sorter op costs	US\$/t of circuit feed	0.4	Preliminary estimate from TOMRA
Concentrator op costs	US\$/t of circuit feed	12.66	Preliminary estimate, Micon
Operating Costs	Units	Value	Comments
Mining costs (OP)	US\$/t mined	3.41	GEMIN, March 2023
Mining costs (UG)	US\$/t mined	25.22	GEMIN, March 2023
Process costs	US\$/t ROM ore	8.62	Preliminary estimate, includes OS and concentrator
G&A costs	US\$/t ROM ore	0.55	Assume \$10M/year
Proces +G&A Costs	US\$/t ROM ore	9.17	
Metallurgical Recoveries, in	ncludes OS		
Lead	%	75.5	Into Pb con, average of LCT tests+OS recovery
Zinc	%	82.1	Into Zn con, average of LCT tests+OS recovery
Silver	%	52.9	Into Pb con, average of LCT tests+OS recovery
Silver	%	30.2	Into Zn con, average of LCT tests+OS recovery
Silver	%	83.1	Total Into Pb and Zn con
Concentrate Grades			
	% Pb	56.4	Average of LCT tests
Load concentrate	g/t Ag	1052	Average of LCT tests
Lead concentrate	%Zn	7.2	Average of LCT tests
	% Sn	1.27	Average of LCT tests
	% Zn	50.5	Average of LCT tests
Zing concontrato	g/t Ag	222	Average of LCT tests
2inc concentrate	% Pb	1.5	Average of LCT tests
	% Sn	0.45	Average of LCT tests
Lead Concentrate Marketin	Ig		
Lead concentrate moisture	% water	8%	Preliminary estimate, pressure filter
Transportation	US\$/wmt	70	Preliminary estimate
Marketing fee/insurance	% deduction	0.50%	Preliminary estimate
Smelter treatment charge	US\$/dmt	75	OpenMIneral June 2022
Lead payable	%	95%	OpenMIneral June 2022
Silver payable	%	95%	OpenMIneral June 2022
Silver refining charge	US\$/oz payable	0.50	OpenMIneral June 2022
Penalties	US\$/dmt	56	OpenMIneral June 2022, assumed Sb,Sn,Bi
Zinc Concentrate Marketin	g		
Zinc concentrate moisture	% water	8%	Preliminary estimate, pressure filter
Transportation	US\$/wmt	70	Preliminary estimate
Marketing fee/insurance	% deduction	0.50%	Preliminary estimate
Smelter treatment charge	US\$/dmt	235	OpenMIneral June 2022
Zinc payable	%	85%	OpenMIneral June 2022
Silver payable	%	52%	OpenMIneral June 2022
Silver refining charge	US\$/oz payable	0.50	OpenMIneral June 2022
Penalties	US\$/dmt	2.00	OpenMIneral June 2022, assumed Sb,Cd,Fe,Sn



A summary of the NSR factors and the resultant cut-off parameters are shown in Table 14.12 Summary of NRS Factors and Cut-off Grades.

	Sn Conc/	Fum Ore	Zn/Pb Conc Ore		
Parameters	lska Iska –	lska Iska –	lska Iska –	lska Iska –	
	ОР	UG	ОР	UG	
NSR Value (US\$/t)	\$1	\$1	\$1	\$1	
Recovery - Process (%)	100.0%	100.0%	100.0%	100.0%	
Mining Dilution (%)	0.0%	0.0%	0.0%	0.0%	
Payability (%)	100.00%	100.00%	100.00%	100.00%	
Royalties (%)	0.0%	0.0%	0.0%	0.0%	
Royalties (US\$/t)	\$0.00	\$0.00	\$0.00	\$0.00	
Other Taxes (%)	0.00%	0.00%	0.00%	0.00%	
Other Taxes (US\$/t)	\$0.00	\$0.00	\$0.00	\$0.00	
Mining Costs (US\$/t)	\$3.41	\$25.22	\$3.41	\$25.22	
Processing (US\$/t)	\$5.29	\$5.29	\$8.62	\$8.62	
G&A (US\$/t)	\$0.68	\$0.68	\$0.55	\$0.55	
Other (US\$/t)	\$0.00	\$0.00	\$0.00	\$0.00	
Rehandling (US\$/t)	\$0.00	\$0.00	\$0.00	\$0.00	
Cut-off - Breakeven (US\$/t)	9.38	31.19	12.58	34.39	
Cut-off - Internal (US\$/t)	5.97	31.19	9.17	34.39	

#### Table 14.12 Summary of NRS Factors and Cut-off Grades

# 14.9.3.3 NSR Determination

Based on the economic and technical parameters discussed above, the NSR value for each mineral block was calculated using the following formula.

NSR Fourmula: NSR $(x_1, x_2, ..., x_n) = x_1 r_1, p_1 (V1 - R1) + x_2 r_2 p_2 (V2 - R2) + \dots + x_n r_n p_n (V_n - R_n) - \frac{c_s}{\kappa} - \frac{c_t}{\kappa}$ 

Where:

- x= Grade of each metal in deposit
- r= Process recovery of each metal
- R= Refining cost of each metal
- p= Smelting recovery of each metal
- V= Market sale value of each metal
- K= Metric tons of material required to produce one metric ton of concentrate
- $C_s$  = Smelter cost per ton concentrate
- $C_t$  = Transportation costs per ton of concentrate



# 14.9.3.4 Technical Factors – Mining

For the open pit shell, the general pit slope angle was assumed to be 45 degrees based on general industry standards applicable to situations where no geotechnical studies have no been conducted. The underground resource is based continuous/coherent shapes after discounting a crown pillar of about 20 m in thickness.

# 14.9.4 Mineral Resources Definition

Following the validation of the interpolated grades and establishment of the NSR factors as described above, the following steps were taken to arrive at qualifying and quantifying the mineral resource:

- 1. Merging the MinZone 30, MinZone UG and the Tin Zone but maintaining the established hard boundaries in order to preserve the high grade.
- 2. Assigning NSR values to each block in the merged wireframes.
- 3. Conducting open pit optimization using Lerch Grossman method.
- 4. Defining coherent blocks beneath the optimized pit giving an allowance of a 20 m thick crown pillar.

#### 14.9.5 Mineral Resources Statement

Based on the economic and technical assumptions discussed in sub-section 14.9.3, and the definition procedures described in sub-section 14.9.4, the Initial Mineral Resources for the Iska Iska deposit are summarized in Table 14.14. As already discussed, due to the multi-metal nature of the deposit, the resources are reported using NSR cut-off values which are as follows:

Polymetallic Zinc-Lead-Silver domain = US\$9.20/t for open pit (OP) and US\$34.00/t for underground (UG) mining; Tin Domain (with silver + lead credits) = US\$6.00/t for OP only. The NSR cut-off grades take into account operating costs, impact of "ore-sorting" and metallurgical recoveries in both domains.

Item				Average Value				
Category	Domain	Mining Method	ZnPbAg NSR Cut-off (US\$/t)	Tonnage (Mt)	ZnPbAg NSR (US\$/t)	Zn (%)	Pb (%)	Ag (g/t)
		OP	9.20	541	20.32	0.69	0.28	13.6
Inferred Zinc-L	Zinc-Lead	UG	34.40	19	42.23	1.88	0.36	18.8
		OP+UG	-	560	21.08	0.73	0.28	13.8
Category	Domain	Mining Method	SnPbAg NSR Cut-off (US\$/t)	Tonnage (Mt)	SnPbAg NSR (US\$/t)	Sn (%)	Pb (%)	Ag (g/t)
Inferred	Tin	OP	6.00	110	12.22	0.12	0.14	14.2

Table 14.13Summary of the Iska Iska Interim Mineral Resources as of August 19, 2023

Notes:



- 1. The mineral resources have been estimated in accordance with the CIM Best Practice Guidelines (2019) and the CIM Definition Standards (2014).
- 2. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration. OK interpolation method was used.
- 3. The OP Mineral Resources are reported within a constrained pit shell (slope angle 45 degrees) at NSR cut-off values of US\$6/t and US\$9.20, for Tin Domain (Sn-Pb-Ag) and Zinc-Lead Domain (Zn-Pb-Ag), respectively. The UG resource is a coherent mass (less 20 m thick crown pillar) beneath the pit reported at a cut-off of US\$34.40.
- 4. Metallurgical recoveries for the Polymetallic (Zn-Pb-Ag) Domain are based on pre-concentration recoveries of 97% for Zn, Pb and Ag, followed by the concentrator recoveries of Zn = 87%, Pb = 80%, Ag = 88%.
- 5. Metallurgical recoveries for the Tin (Sn-Pb-Ag) Domain are based on pre-concentration recoveries of 62% for Sn followed by concentrator recoveries of Sn = 50%, Pb = 64% and Ag = 53%.
- 6. The mineral resource estimate is based on 3-year trailing average metal prices of Ag = US\$22.52/oz, Pb = 0.95/lb, Sn = US\$12.20/lb, Zn = US\$1.33/lb, and an exchange rate of 1.30 C\$: 1 US\$.
- 7. Other economic factors include: mining costs = US\$3.41/t and US\$25.22/t for open pit and underground, respectively; G & A costs = US\$0.55/t for the Polymetallic Domain and US\$0.68/t for the Tin Domain; all-inclusive processing costs for the Polymetallic Domain = US\$8.62/t comprising US\$0.40/t for pre-concentration followed by US\$12.66/t for concentrator, and all-inclusive processing costs for the Tin Domain = US\$5.29/t comprising US\$0.40/t for pre-concentration followed by US\$13.80/t for concentrator. Concentrate transportation, smelting and refining terms have been included for the Polymetallic Domain. Tin fuming recoveries and costs, and concentrate transportation, smelting and refining terms have been included for the Tin Domain.
- 8. Mineral resources unlike mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
- 9. The QPs are not aware of any known permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.
- 10. The UG resources include the 'must take' minor material below cut-off grade which is interlocked with masses of blocks above the cut-off grade within the MSO stopes.
- 11. Figures may not tally due to rounding.
- 12. Average stripping ratio for the open pit is 1:1. The open pit has a diameter of approximately 1.4 km and extends to a maximum depth of approximately 750 m from the summit of the Santa Barbara hill.

A three-dimensional perspective of the Iska Iska Interim mineral resources is shown in Figure 14.25.





Figure 14.25



Note: For Sn, HG = NSR > US\$12/t & LG = NSR between US\$6/t and US\$12/t. For Zn/Pb, HG = NSR > \$25/t & LG = NSR between \$9.2/t and \$25/t. UG Resource = NSR > US\$34.40/t.

Figure 14.26 and Figure 14.27 show plan view and vertical section view of the Initial Mineral Resources.



Figure 14.26 Iska Iska In-pit Mineral Resources Plan View







Figure 14.27 Iska Iska In-pit Mineral Resources Vertical Section

# 14.9.6 Mineral Resources Sensitivity

The grade/tonnage sensitivity tables have been generated for both the Zn/Pb concentrates and Sn concentrates using the base case scenarios with cut-off -grades of NSR US\$9.20 and NSR US\$6.00, respectively. The sensitivity of the Mineral Resources Estimate to a range of cut-off grades (COGs) for each resource type is shown in Table 14.14 and Table 14.15.

	Cum.	Average Value				
off (US\$/t)	Mass (Mt)	ZnPb-NSR (US\$/t)	Zn (%)	Pb (%)	Ag (g/t)	
50	9	62.9	1.45	1.04	59.5	
45	15	56.7	1.45	0.92	49.4	
40	25	50.7	1.41	0.81	41.0	
35	45	44.9	1.31	0.69	34.7	
30	77	39.6	1.22	0.59	29.1	
25	132	34.5	1.11	0.50	24.3	
20	217	29.7	0.98	0.42	20.3	
15	342	25.2	0.85	0.35	16.9	
11	467	21.9	0.74	0.30	14.6	
9.2	541	20.3	0.69	0.28	13.6	

Table 14.14	
Iska Iska Inferred Zn/Pb Mineral Resource Sensitivity Tab	ole



	Cum.	Average Value				
Cutoff (US\$/t)	Mass (Mt)	SnPbAg_NSR (US\$/t)	Sn (%)	Pb (%)	Ag (g/t)	
25	5	37.8	0.23	0.77	51.3	
20	11	28.8	0.19	0.53	38.2	
18	16	26.2	0.18	0.45	34.4	
16	21	23.9	0.18	0.39	30.9	
14	29	21.5	0.17	0.32	27.3	
12	39	19.2	0.16	0.26	23.9	
10	54	16.9	0.15	0.21	20.5	
8	76	14.6	0.14	0.17	17.4	
7	92	13.3	0.13	0.15	15.7	
6	110	12.2	0.12	0.14	14.2	

#### Table 14.15 Iska Iska Inferred Sn Mineral Resource Sensitivity Table

# **14.10 Risks/Uncertainties**

The mineral resource estimate will always be sensitive and vulnerable to fluctuations in (a) the price of base- and precious metals, and (b) the metallurgical recovery efficiencies. In addition, environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues may materially affect the estimated mineral resources. Furthermore, it should be noted that mineral resources, unlike mineral reserves, do not have demonstrated economic viability.



# 15.0 MINERAL RESERVE ESTIMATES



# 16.0 MINING METHODS



# **17.0 RECOVERY METHODS**



# **18.0 PROJECT INFRASTRUCTURE**



# **19.0 MARKET STUDIES AND CONTRACTS**



# 20.0 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT


# 21.0 CAPITAL AND OPERATING COSTS

Not applicable.



# 22.0 ECONOMIC ANALYSIS

Not applicable.



## 23.0 ADJACENT PROPERTIES

A tin prospect known as Mina Casiterita owned by Empresa Minera Villegas SRL bounds the property about 2.5 km south-southwest of the Iska Iska hill – see Figure 23.1. Other than this, there are no other adjoining properties to Iska Iska. With the exception of Casiterita, at present there are no mining/exploration activities in the immediate vicinity of the Iska Iska Project. In November 2022, Eloro staked several properties to the west and northwest of Iska Iska as shown in Figure 23.1.



Figure 23.1 Location of Mina Casiterita and Other Properties Near Iska Iska

Source: Eloro 2023



On November 22, 2022, Eloro announced the pending acquisition of the Mina Casiterita and Mina Hoyada properties covering 14.75 km2 southwest and west of Iska Iska. These properties connect with the TUP-3 and TUP-6 claims previously staked by Eloro. Eloro has also staked additional land in the area. Subject to the finalization of the granting of the mining rights process and the completion of the acquisition transaction for the Mina Casiterita and Mina Hoyada properties, the total land package in the Iska Iska area to be controlled by Eloro will total 1,935 quadrants covering 483.75 km2.

Artisanal mining in the 1960's identified high grade tin (Sn) veins on the Mina Casiterita property that are hosted in an intrusive dacite. Production from 1962 to 1964 is reported by the Departamento Nacional de Geología in Bolivia to be 69.85 tonnes grading 50.60% Sn.

Recently completed magnetic surveys by Eloro has outlined an extensive, near surface, magnetic intrusive body on the Mina Casiterita property immediately southwest of Iska Iska. This intrusive hosts the previously mined high-grade tin veins and is very likely the continuation of the porphyry tin intrusion projected to be below the epithermal Ag-Sn-Zn-Pb mineralization at Iska Iska. Initial reconnaissance drilling at Casiterita returned 0.17% Sn over 52.75m in the vicinity of these old artisanal workings.



## 24.0 OTHER RELEVANT DATA AND INFORMATION

Not applicable.



## 25.0 INTERPRETATION AND CONCLUSIONS

#### 25.1 REGIONAL GEOLOGICAL SETTING

The potential of the Iska Iska Project is unquestionable in terms of its regional geological setting. As shown in Figure 25.1, it is in the midst of a proven metallogenic district with well-established worldclass polymetallic mines and mineral deposits including Cerro Rico de Potosi, Chorolque, and San Vicente.



Figure 25.1 Location of Iska Iska Within the Western Cordillera Metallogenic District

Source: Gemmrich et al., 2020.

The fact that nearby mines of the Bolivian polymetallic type are operating profitably gives credibility to the positive results already recorded for the current/on-going metallurgical and "ore sorting" investigations at Iska Iska.



## 25.2 LOCAL/PROJECT GEOLOGY AND MINERALIZATION

Iska Iska is classified as a polymetallic porphyry-epithermal deposit (Bolivian type), associated with a Miocene possibly collapsed/resurgent caldera, emplaced on Ordovician age basement. Its mineralizing sequence/events commenced with a xenothermal high temperature pulse (Sn, W, Bi) characterized by the mineralogical paragenetic association: quartz, pyrite, cassiterite, rutile and tourmaline, which was superimposed by a later epithermal low temperature high sulphidation phase (Ag, Zn, Pb, Cu, Au), with minerals such as sphalerite, galena, chalcopyrite, pyrite, quartz, alunite, and silver sulphides, thus culminating in a polymetallic telescoped mineralized system.

The high temperature mineralizing event was developed mostly in the granodiorite and in the early and late intrusion breccia, whereas the low temperature phase was deposited in the overlying dacitic domes, whose conduits were later affected by phreatic and phreatomagmatic explosions and brecciation, where it was redeposited in favourable lithological-structural traps including large breccia pipes, which are highly permeable structures.

Intrusive breccias related to Andean tectonism remobilized the pre-existing mineralization (Sn, Zn, Pb, Ag, Cu, Bi, etc.) and redeposited it across all the rock types within the project area. The final late stage of the mineralization event is related to a process of selective or total replacement of both clasts and matrices predominantly by Ag, Pb, Zn, Fe sulphides.

## 25.3 SCALE OF MINERALIZATION/DEPOSIT

The area tested by drilling measures 3 km x 2 km as demonstrated in Section 10.0. The drilling success rate is 100%. It is remarkable that all holes drilled intersected reportable mineralization as shown in Figure 25.2, providing indisputable evidence for an extensively developed mineralizing system. Currently, the limits of the mineralized envelope in the project area remain undetermined.

Thus far, after almost 3 years of drilling totalling 96,386 m in 139 holes, the mineralization remains open in all directions and at depth. The deepest hole is about 1 km. Based on assays received to date, the best mineralization in terms of grade and widths is within the Santa Barbara adit area.

#### 25.4 LITHOLOGY AND ALTERATION CONTROLS

Currently, a geological marker to define mineralization/deposit limits remains elusive. Analytical results to date indicate that there is little, if any, definitive lithological control to the mineralization as significant mineralized intercepts have been encountered in all rock types encompassing dacitic and basement sedimentary rocks. However, it should be noted that all drilling so far is within the Iska Iska Caldera Complex and the telescoping mineralization events may have obliterated lithological controls; mineralization beyond the caldera remains to be tested. Similar to lithology, no single hydrothermal alteration type is definitive in the identification of mineralized zones. These observations culminated in a modelling strategy that utilizes a silver equivalent threshold value as discussed earlier.

Currently, a Geologic AI scanning program is in progress at site. It is hoped that this program will benefit the project by establishing geometallurgical domains that will assist in a rapid recognition of the mineralization envelopes and reduce sampling/analytical costs.



Figure 25.2 Iska Iska Vertical Section Showing Drill Holes with Ag Intercepts >= 10 g/t Ag



Source: Generated from the mineral resource database, Micon 2023

## 25.5 GEOPHYSICS

IP downhole surveys and magnetometry collectively indicate an electrically continuous mesh of sulphide stringers, disseminations/impregnations and breccias of mineralization over the entire drilled area. This finding is well supported by the drilling results (see Figure 25.2 above) and by spatial analysis/variography described in detail in Section 14.0 of this report.

Geophysical data, i.e., 3D inverse magnetic modeling and analytical signal magnetic maps as discussed in more detail in Section 9.6, indicate the potential for a very extensive tin porphyry deeper in the Iska Iska system. The magnetic analytical signal map suggests that the overall deeper tin porphyry system may extend for as much as 5 km by 3 km. The central part of the Iska Iska caldera underlain by the Iska Iska Porphyry is within this large potential tin complex and is marked by a low magnetic signature surrounded by a much higher-level magnetic signature.

#### **25.6 METAL DISTRIBUTION/DOMAINS**

Of the area drilled, the eastern half is enriched in Zn while the western half is enriched in Sn. In either case, the mineralization remains open (i.e., for Zn eastwards and north and south; and for Sn westwards and north and south). Thus, although the Iska Iska deposit is currently considered as one entity, in detail the deposit is split into two distinguished mineralization domains, i.e., a predominantly Zn-Pb-Ag mineralization to the east (Polymetallic Domain) and a Sn-Ag-Pb to the west (Tin Domain) – Figure 25.3.



Figure 25.3 Section Through the Iska Iska Deposit Showing the Distribution of Sn > 0.1% and Zn > 0.5%, respectively.



Ag is ubiquitous in above average concentrations throughout the drilled area of the Iska Iska deposit as seen in Figure 25.2 above. Pb of significance generally occurs on the east half of the drilled area. The distribution of other metals likely to be incorporated in future mineral resource updates are shown in Appendix 3.

## 25.7 METALLURGY

## 25.7.1 Pb-Zn-Ag Flowsheet Development

Preliminary testwork to date, using Pb-Zn-Ag composite samples selected by Eloro to represent typical Iska Iska mineralization, has shown that salable lead and zinc concentrates containing significant silver can be produced using conventional, industry standard technology.

Cu and Au as well as other secondary metals including In were not included herein as these require additional metallurgical tests but have potential to contribute as by-products.

## 25.7.2 Tin Flowsheet Development

The metallurgical and mineralogical test results from the preliminary testwork described in this report suggest that tin deportment and cassiterite liberation characteristics vary considerably throughout the Iska Iska deposit. Although a preliminary prediction of tin recovery has been developed based on the early stage testwork results, a great deal of additional geo-metallurgical work needs to be done to optimize the flowsheet and to better understand the mineralogical constraints within the various tin-rich domains.

#### 25.7.3 MRE Metallurgical Factors

Based on the work completed to date, the following metallurgical factors are recommended for the initial mineral resources estimate:



- Metallurgical recoveries for the polymetallic Zn-Pb-Ag domain are based on pre-concentration recoveries of 97% for Zn, Pb and Ag, followed by the concentrator recoveries of Zn = 87%%, Pb = 80%, Ag = 88%.
- Metallurgical recoveries for the tin- domain are based on pre-concentration recoveries of 62% for Sn followed by concentrator recoveries of Sn = 50%, Pb = 64% and Ag = 53%.

Cu and Au as well as other secondary metals including In were not included herein as these require additional metallurgical tests but have potential to contribute as by-products.

#### 25.8 INTERIM MINERAL RESOURCE

#### 25.8.1 Key Attributes

The resources are characterized by the following important attributes which will have favourable influence on the viability the deposit in future economic studies:

- Very low average stripping ratio of approximately 1:1.
- The resource grade for the Polymetallic (Zn-Pb-Ag) domain shows a zoned pattern related to the intensity of drilling Figure 25.4. The higher-grade core (Santa Barbara adit area) with NSR values > US\$25/t is the most intensely drilled part of the deposit. As the drilling becomes less intense the NSR value drops to between US\$15/t and US\$25/t. And with sparse drilling, the NSR value drops further to between US\$9.20 and US\$15.
- Distribution of higher-grade zones at/close to surface offers an opportunity for a quick payback period when the deposit is eventually put into production. The grade-tonnage sensitivity Table 25.1 shows a range of options for future production scenarios. The scenarios that offer a balance between a high tonnage and high grade appear to be the NSR cut-off values of US\$15/t and US\$25/t. This gives a coherent mass still close to surface as depicted in Figure 25.4.

	Cum. Mass (Mt)	Average Value				
ZnPbAg NSR Cut-off (US\$/t)		ZnPbAg- NSR (US\$/t)	Zn (%)	Pb (%)	Ag (g/t)	
50	9	62.9	1.45	1.04	59.5	
45	15	56.7	1.45	0.92	49.4	
40	25	50.7	1.41	0.81	41.0	
35	45	44.9	1.31	0.69	34.7	
30	77	39.6	1.22	0.59	29.1	
25	132	34.5	1.11	0.50	24.3	
20	217	29.7	0.98	0.42	20.3	
15	342	25.2	0.85	0.35	16.9	
11	467	21.9	0.74	0.30	14.6	
9.2	541	20.3	0.69	0.28	13.6	

Table 25.1 Iska Iska Inferred Zn/Pb/Ag Mineral Resource Sensitivity Table









The Tin Domain is stricto senso also a "polymetallic" domain because its value is enhanced by contributions from Pb and Ag without which it would be sub-economic. The sensitivity table for the Tin Domain is shown below in Table 25.2.

	Cum.	Average Value				
Cut-off (US\$/t)	Mass (Mt)	SnPbAg_NSR (US\$/t)	Sn (%)	Pb (%)	Ag (g/t)	
25	5	37.8	0.23	0.77	51.3	
20	11	28.8	0.19	0.53	38.2	
18	16	26.2	0.18	0.45	34.4	
16	21	23.9	0.18	0.39	30.9	
14	29	21.5	0.17	0.32	27.3	
12	39	19.2	0.16	0.26	23.9	
10	54	16.9	0.15	0.21	20.5	
8	76	14.6	0.14	0.17	17.4	
7	92	13.3	0.13	0.15	15.7	
6	110	12.2	0.12	0.14	14.2	

Table 25.2 Iska Iska Inferred Sn Mineral Resource Sensitivity Table

A comparison between Tables 25.1 and 25.2 provides evidence that at this stage the Tin Domain is of less significance compared to the Polymetallic Domain; however, it has had far less exploration drilling.

## 25.8.2 Overall Conclusions

Geological mapping, geophysical surveys, and diamond drilling have revealed a potentially large deposit of significance (> 1/2 Billion tonnes) but yet to be defined to its full extent(s) and quality. The "epicentre" of mineralization appears to be in the Santa Barbara adit area, where the highest grades and widest widths have been encountered to date. However, the QP notes that there is no geological/structural explanation for the localization of high grades in this area other than the intensity of drilling in multiple orientations. Hence, the high-grade core in the Santa Barbra area is most likely an artifact of the intense drilling. In the QP's opinion, the deposit/mineral resource is poised for growth on three fronts as follows:

# 25.8.2.1 Resource Grade/Quality

Infill drilling in multiple orientations will improve the grade as exemplified by the Santa Barbara adit area with an intricate drilling pattern. Figure 25.5 shows where infill drilling is required. Concurrently with improving the metal grades, the resource Class will also upgrade into the Indicated category.









# 25.8.2.2 Resource Quantity

Step-out drilling eastwards, south- and northwards will expand the polymetallic resource size. Step-out drilling westwards, south-southwest and northwards will expand the tin resource.

## 25.8.2.3 Resource Value

The addition of Au, Cu, In and possibly Cd and Bi into the economic equation will increase the value of the resource, hence the need for additional metallurgical tests to establish recoveries for these metals. The distribution/spatial occurrence of Au and Cu in relation to the mineral resource pit shell is shown in Figure 25.6 and Figure 25.7, respectively.

The exploration work completed, the drilling results obtained, the initial metallurgical tests results and the interim MRE obtained to date are satisfactory to justify further detailed work/investigations complemented by preliminary economic studies. The definition of the optimum limits of mineralization within the project area remains a priority for future investment decisions.

To sum up, the Iska Iska interim mineral resources are significantly large, and the growth potential is favourable as the deposit remains wide open for expansion in all directions. The tin resource area in particular, is currently under-explored westwards and south-southwestwards from the Santa Barbara adit area.

It is of prime importance to note that the meshy character of the mineralization requires drilling in multiple orientations to capture the sulphide meshes/stringers adequately as has been achieved for the Santa Barbara adit area.





Figure 25.6 Iska Iska Pit 3-D Perspective Showing Drill Hole Intersections > 0.10 g/t Au

Figure 25.7 Iska Iska Pit 3-D Perspective Showing Drill Hole Intersections > 0.10% Cu





# 26.0 **RECOMMENDATIONS**

The following paragraphs answer the question "WHAT NEXT FOR ISKA ISKA" in the short-, medium-, and long-term.

# 26.1 THE TO DO LIST

The Inferred interim mineral resource combined with metallurgical advances (including ""ore sorting"" investigations results) to date provide a sound basis upon which to move the Iska Iska project to the next level. The 'to do list' to move the project forward should include the following items which (in the QP's opinion) have equal importance:

- Refining and upgrading the resource to support economic studies up to and beyond PEA level. This will involve definition (infill) drilling accompanied by further geophysical investigations (gravity) in pursuit of a possible deeper tin porphyry. It is important to recognize that infill drilling will have a dual effect of improving the metal grades and simultaneously upgrading the resource Class from Inferred into the Indicated category.
- Laying the foundation for comprehensive economic/engineering studies. This will necessitate a preliminary economic assessment (PEA) to determine/identify most, if not all, of the requirements for detailed economic studies. The two options recommended for a close analysis (among other options) in the PEA are resources at cut-off values of US\$15/t and US\$25/t NSR. (See appendix 4)
- Despite having defined 560 Mt tonnes of mineral resources for the Polymetallic Domain and 110 Mt of mineral resources for the Tin Domain, the deposit limits still remain unknown in all directions. Further exploration/drilling to define the deposit limits is a must do as infrastructural studies related to project economics cannot be instituted without knowledge of the deposit limits. Particular attention should be given to the Tin Domain which is still heavily underexplored.
- Optimization of the deposit metals extraction process(es) cannot be over emphasized as this will enhance the overall economics of the project. In this regard the Micon metallurgy QP and Eloro have specifically recommended the programs described under sub-section 26.1.1 and 26.1.2 below.

## 26.1.1 Pb-Zn-Ag Flowsheet Development

The Micon metallurgy QP and Eloro recommend the following program of geo-metallurgical testing to obtain data that can support a preliminary economic assessment (PEA) for the Pb/Zn/Ag mineralization:

- Select appropriate samples to conduct additional pre-concentration testing with the best option being integrated into the overall downstream testwork (grinding flotation etc.) program. The samples should represent each pertinent Pb-Zn-Ag domain at Iska Iska using the most recent geological and mineralogical information available.
- Use products from pre-concentration for additional flotation optimization test program. This phase of testwork will include the following:
  - Mineralogical characterization of the samples.
  - Confirmation of optimum primary grind size.



- Effect of regrind within the flotation circuit and optimized regrinding sizes.
- Optimization of reagent selection and addition rate to reduce processing operating costs.
- Select appropriate samples and undertake additional comminution and hardness testing to support a PEA level crushing and grinding circuit design.
- Undertake a silver deportment study using samples that represent the main mineralized domains.

## 26.1.2 Tin Flowsheet Development

The Micon metallurgy QP and Eloro recommend the following program of geo-metallurgical testing to obtain data that can support a preliminary economic assessment (PEA) for the tin mineralization:

- Further investigate the potential for pre-concentration.
- Undertake addition tin flowsheet optimization testwork on a range of samples that represent the known tin-rich domains. The flowsheet developed at BCR and WAI will be used as a basis for this test program.
- Further investigate the recovery of lead, silver, and other potentially valuable metals from the tinrich mineralization.
- Undertake studies into the downstream processing of tin concentrate. Although this is expected to focus on traditional pyrometallurgy alternative hydrometallurgical options may also be considered, although there are currently no known commercial tin leaching processes.
- Undertake appropriate comminution and hardness testing to adequately support a PEA level design.

#### 26.1.3 Other Testing

Some of the Iska Iska mineralized samples tested to-date contained interesting values of copper, gold, bismuth, and indium. It is recommended to investigate the recovery of these valuable metals.

#### 26.1.4 Metallurgical Samples

The Micon MRE QPs have recommended that representative samples be obtained from PQ holes twinned to existing drill holes as shown in Figure 26.1. Drill holes MET-DSBU and MET-DSB-30 will target the Polymetallic (Zn-Pb-Ag) Domain while drill hole MET-DSB-32 will target the Tin (Sn-Ag-Pb) Domain.







Note for Block Model: For Sn Domain (Sn-Pb-Ag), HG = NSR Cutoff > US\$12/t & LG = NSR Cutoff between US\$6/t and US\$12/t. For Polymetallic Domain (Ag-Zn-Pb), HG = NSR Cutoff > US\$25/t & LG = NSR Cutoff between US\$9.2/t and US\$25/t.



#### 26.2 BUDGET

To achieve the above goals, Eloro has proposed a 2-phased budget as summarized below in Table 26.1 and Table 26.2. Phase 2 is contingent upon the successful completion of Phase 1.

2023B Budget	CAD		
ltem Qty		Unit Price	Subtotal
Definition Drilling <sup>1</sup> - Santa Barbara x m		430	2,150,000
PEA x1	1	1,350,000	1,350,000
Metallurgical Testing - PQ Drilling x m	1,000	480	480,000
ESG & Community Support x1		232,000	232,000
Geophysics Iska - MAG IP x1	1	120,000	120,000
Geophysics Iska - Gravity Survey x1		68,000	68,000
		Total (CAD):	4,400,000

Table 26.1Phase 1 Budget for the Iska Iska Project Taking Effect from August 2023

1. Includes Bolivia Corporate, Salaries, Sample analyses & Logistics expenses.

2. USD/CAD Exchange Rate = 1.30.

The 4,000 m of drilling at top of the table is allocated as follows: 1,000 m for definition drilling within the resource area and 4,400 m for testing the Sn target on the west side of Santa Barbara.

The Phase 2 budget, which is contingent on the successful completion of Phase 1 is summarized in Table 26.2 below. In essence, the designed activities for this phase are designed to move the project to PFS level.

PHASE II - PROGRAM	USD		
Item	Qty	Unit Price	Subtotal
Property Option Payments		5,100,000	5,100,000
Drilling <sup>1</sup> x 1 m	35,000	315	11,025,000
Prefeasibility Study		1,500,000	1,500,000
Metallurgical Testing		200,000	200,000
NI 43-101 Report - Resource Estimate		200,000	200,000
Other Iska Logistical Expenses <sup>2</sup>		250,000	250,000
Other Iska Consultants <sup>3</sup>		100,000	100,000
Environmental Studies		150,000	150,000
Geophysics Iska		100,000	100,000
Geophysics Outside		100,000	100,000
Community Relations Projects		175,000	175,000
		Total (USD):	18,900,000
		Total (CAD) <sup>4</sup> :	24,570,000

Table 26.2 Phase 2 Budget for the Iska Iska Project

1. Includes Bolivia Corporate, Salaries, Sample analyses & Logistics expenses.

2. Iska equipment & related services purchased outside Bolivia.



- 3. Iska Administration, Accounting and Technical Consultants sourced outside Bolivia.
- 4. USD/CAD Exchange Rate = 1.30.

#### 26.2.1 Micon Comments

The Micon QPs believe that the budgets under consideration for Phase 1 and Phase 2 are reasonable and warranted and recommend that Eloro conduct the planned activities subject to availability of funding and any other matters which may cause the objectives to be altered in the normal course of business activities.



#### 27.0 DATE AND SIGNATURE PAGE

"Charley Murahwi" {signed and sealed}

Charley Murahwi, M.Sc., P.Geo., FAusIMM Micon International Limited Signing Date: 16 October 2023. Effective Date: 19 August 2023.

"Richard Gowans" {signed and sealed}

Richard Gowans, B.Sc., P.Eng. Micon International Limited Signing Date: 16 October 2023. Effective Date: 19 August 2023.

"Alan J. San Martin" {signed and sealed}

Alan J. San Martin MAusIMM(CP) Micon International Limited. Signing Date: 16 October 2023. Effective Date: 19 August 2023.

"Abdoul Aziz Drame" {signed and sealed}

Abdoul Aziz Drame, B.Eng. P.Eng. Micon International Limited. Signing Date: 16 October 2023. Effective Date: 19 August 2023.



#### 28.0 REFERENCES

Arce-Burgoa O. (2007). Guia a los yacimientos metaliferos de Bolivia.

Arce-Burgoa O. (2009). Metalliferous ore deposits of Bolivia.

Arce-Burgoa O. (2020). Yacimientos Metalíferos de Bolivia.

Arce-Burgoa, O. pers.comm., 2020/2021/2022.

Arce-Burgoa, O. & Goldfarb, R.J., 2009. Metallogeny of Bolivia. SEG Newsletter #79.

Berger et. al. 2008. Preliminary Model of Porphyry Copper Deposits, U.S. Geological Survey, Open-File Report, pp. 2008-1321.

Bolivia Geological Survey Reports, 1964, 1965 & 1967.

Buchanan, LJ.,1981. Precious Metal Deposits associated with Volcanic Environments in the Southwest, in Dickson, W.R, and Payne, W.D., eds., Relations of Tectonics to Ore Deposits in the Southern Cordillera. Arizona Geol. Soc. Digest 14, pp. 237-262.

Eloro Resources Inc., Press Releases October 21, 2021, and January 19, 2022, available on the corporate website under "News and Media"

Hale, C. J., 2021, Physical Property Measurements: Iska Iska, unpublished memo to Dr. W. N. Pearson, Executive Vice President (Exploration), Eloro Resources April 19, 2021.

Hale, C.J. and Gilliatt, B., 2022. Iska Iska exploration review, unpublished preliminary report to Eloro Resources Ltd.

Gemmrich, L., Torró, L., Melgarejo, J.C., Oscar Laurent, O., Jean Vallance, J., et al., 2021. Trace element composition and U-Pb ages of cassiterite from the Bolivian tin belt. Mineralium Deposita, Spinger, 2021, 56 (8), pp.1491-1520.

Mihelcic, J., 2021 Total Field Ground Magnetics Inversion Model, Iska Iska Project, Bolivia, unpublished memo to Dr. W. N. Pearson Executive Vice President (Exploration) July 19, 2021.

Pearson, W.N. pers. comm., 2021/2022.

Seedorff et. al. 2005. Porphyry deposits: Characteristics and origin of hypogene features, Economic Geology 100th Anniversary Volume, pp. 251-298.

Simmons et.al. 2005. Geological characteristics of epithermal precious and base metal deposits, Economic Geology 100th Anniversary Volume, pp. 485-522.

Murahwi et.al. 2022 Technical Report on the Exploration and Diamond Drilling of the Iska Iska Polymetallic Project, Sud Chichas Province, Department of Potosi, Bolivia" Micon Technical Report dated May 1, 2022, with an effective date of March 31, 2022.



# 29.0 CERTIFICATES



# CERTIFICATE OF QUALIFIED PERSON CHARLEY MURAHWI, P.GEO., FAusIMM

As an author of this report entitled "NI 43-101 Technical Report on the Initial Mineral Resource Estimate of the Iska Iska Polymetallic Project, Tupiza, Bolivia" dated October 16, 2023, with an effective date of August 19, 2023, I, Charley Murahwi do hereby certify that:

- 1. I am employed as a Senior Economic Geologist by, and carried out this assignment for, Micon International Limited, 601 – 90 Eglinton Ave East, Toronto, ON, Canada, M4P 2Y3, telephone 416 362 5135, e-mail cmurahwi@miconinternational.com.
- I hold the following academic qualifications:
   B.Sc. (Geology) University of Rhodesia, Zimbabwe, 1979.
   Diplome d'Ingénieur Expert en Techniques Minières, Nancy, France, 1987.
   M.Sc. (Economic Geology), Rhodes University, South Africa, 1996.
- 3. I am a registered Professional Geoscientist in Ontario (membership # 1618) and in PEGNL (membership # 05662), a registered Professional Natural Scientist with the South African Council for Natural Scientific Professions (membership # 400133/09) and am a Fellow of the Australasian Institute of Mining & Metallurgy (FAusIMM) (membership number 300395).
- 4. I have worked as a mining and exploration geologist in the minerals industry for over 40 years. During this time, I have gained experience in a wide variety of deposits including gold-silver in skarn/lode/vein and shear hosted/orogenic systems, and gold-copper-lead-zinc in VMS/porphyry systems, amongst others. As an independent consultant, I have undertaken the technical and financial evaluation of mining and exploration projects in a number of countries in Central and Southern Africa, Canada, USA, Spain, Portugal, Turkey, Panama, Brazil, Bolivia, Mexico, West Africa, and Australia.
- 5. I do, by reason of education, experience, and professional registration, fulfill the requirements of a Qualified Person as defined in NI 43-101. My work experience includes 18 years on gold, silver, copper, tin/tantalite and volcanogenic multi-metal projects (on and off mine), 12 years on Cr-Ni-Cu-PGE deposits in layered intrusions/komatilitic environments and 11 years as a consultant with Micon.
- 6. I visited the Iska Iska Project from January 28, 2020, to February 3, 2020; and from 13 to 16 November 2022.
- 7. As of the date of this certificate to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make this report not misleading.
- 8. I am independent of the parties involved in the Iska Iska property as described in Section 1.5 of NI 43-101.
- 9. I have read NI 43-101 and the portions of this Technical Report for which I am responsible have been prepared in compliance with this Instrument.
- 10. I am responsible for all Sections in this report except Sub-section 1.5, and Section 13 of this Technical Report.

Signing Date:16 October 2023Effective Date:19 August 2023

"Charley Murahwi" {signed and sealed}

Charley Murahwi, MSc., P. Geo. FAusIMM



# CERTIFICATE OF QUALIFIED PERSON RICHARD GOWANS, P.ENG.

As an author of this report entitled "NI 43-101 Technical Report on the Initial Mineral Resource Estimate of the Iska Iska Polymetallic Project, Tupiza, Bolivia" dated October 16, 2023, with an effective date of August 19, 2023, I, Richard Gowans do hereby certify that:

- 1. I am employed as the Principal Metallurgist by, and carried out this assignment for Micon International Limited, 601 90 Eglinton Ave East, Toronto, ON, Canada, M4P 2Y3 tel. +1 416 362-5135; e-mail: rgowans@micon-international.com.
- I hold the following academic qualifications:
   B.Sc. (Hons.) Minerals Engineering, The University of Birmingham, U.K., 1980
- 3. I am a registered Professional Engineer in the province of Ontario (membership number 90529389); as well, I am a member in good standing of the Canadian Institute of Mining, Metallurgy and Petroleum.
- 4. I have worked as an extractive metallurgist in the minerals industry for over 39 years. This includes 7 years in operations with Impala Platinum, South Africa; 8 years engineering consulting with LTA Limited, South Africa; 3 Years engineering consulting with SNC Lavalin, Canada and about 25 years consulting with Micon International, my present employer. I have worked with a broad variety of commodities including gold, PGEs, base metals, speciality metals/minerals and industrial minerals. I have worked in a wide range of technical areas as a manager and engineer including mineral processing, hydrometallurgy, pyrometallurgy, logistics and infrastructure design and review, and capital and operating cost estimation.
- 5. I do, by reason of education, experience and professional registration, fulfill the requirements of a Qualified Person as defined in NI 43-101. My work experience includes the management of technical studies and design of numerous metallurgical testwork programs and metallurgical processing plants.
- 6. I have not visited the Iska Iska Project.
- 7. I am responsible for the preparation of Sections 1.5 and 13 of this report.
- 8. I am independent of the parties involved in the Iska Iska Project as defined in Section 1.5 of NI 43-101.
- 9. I have had no prior involvement with the Iska Iska property.
- 10. I have read NI 43-101 and the portions of this report for which I am responsible have been prepared in compliance with the instrument.
- 11. As of the date of this certificate, to the best of my knowledge, information and belief, the sections of this Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make this report not misleading.

Signing Date16 October 2023Effective date19 August 2023

"Richard Gowans" {signed and sealed}

Richard Gowans, BSc., P.Eng.



# CERTIFICATE OF QUALIFIED PERSON ING. ALAN J. SAN MARTIN, MAUSIMM(CP)

As the co-author of this report entitled "NI 43-101 Technical Report on the Initial Mineral Resource Estimate of the Iska Iska Polymetallic Project, Tupiza, Bolivia" dated October 16, 2023, with an effective date of August 19, 2023, I, Alan J. San Martin, do hereby certify that:

- 1. I am employed as a Mineral Resource Specialist by, and carried out this assignment for, Micon International Limited, whose address is Suite 601, 90 Eglington Ave. East, Toronto, Ontario M4P 2Y3., tel: (416) 362-5135, e-mail <u>asanmartin@micon-international.com</u>.
- 2. I hold a Bachelor Degree in Mining Engineering (equivalent to B.Sc.) from the National University of Piura, Peru, 1999;
- 3. I am a member in good standing of the following professional entities:
  - The Australasian Institute of Mining and Metallurgy (AusIMM), Membership #301778
  - Canadian Institute of Mining, Metallurgy and Petroleum, Member ID 151724
  - Colegio de Ingenieros del Perú (CIP), Membership # 79184
- 4. I have been working as a mining engineer and geoscientist in the mineral industry for over 23 years;
- I am familiar with the current NI 43-101 and, by reason of education, experience and professional registration as Chartered Professional, MAusIMM(CP), I fulfill the requirements of a Qualified Person as defined in NI 43-101. My work experience includes 5 years as Mining Engineer in exploration (Peru), 4 years as Resource Modeller in exploration (Ecuador) and 14 years as Mineral Resource Specialist and mining consultant in Canada;
- 6. I have read NI 43-101 and Form 43-101F1 and the portions of this Technical Report for which I am responsible have been prepared in compliance with that instrument and form.
- 7. I have not visited the property that is the subject of the Technical Report.
- 8. I have not co-authored previous Micon reports for the property that is the subject of the Technical Report.
- 9. I am independent of Eloro and its related entities, as defined in Section 1.5 of NI 43-101.
- 10. I am jointly responsible for Section 14 of this Technical Report.
- 11. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make this technical report not misleading.

Signing Date 16 October 2023

Effective Date 19 August 2023

"Alan J. San Martin" {signed and sealed}

Ing. Alan J. San Martin, MAusIMM(CP)





## **CERTIFICATE OF QUALIFIED PERSON**

## Abdoul A. Drame, B.Eng., P.Eng.

As the co-author of this report entitled "NI 43-101 Technical Report on the Initial Mineral Resource Estimate of the Iska Iska Polymetallic Project, Tupiza, Bolivia" dated October 16, 2023, with an effective date of August 19, 2023, I, Abdoul Aziz Drame, do hereby certify that:

- I am employed as a Senior Mining Engineer by, and carried out this assignment for, Micon International Limited, 601 – 90 Eglinton Ave East, Toronto, ON M4P 2Y3. tel. (416) 362-5135, email: <u>adrame@miconinternational.com</u>.
- 2. I hold the following academic qualifications:
  - Bachelor of Mining Engineering, Ecole Polytechnique, Montreal, Quebec, Canada, 2016.
- 3. I am a registered Professional Engineer of Ontario (License # 100543529).
- 4. I am familiar with NI 43-101 and by reason of education, experience, and professional registration, fulfill the requirements of a Qualified Person as defined in NI 43-101. My work experience includes over 7 years integrating an operation with project experience across a range of mining studies of varying complexity through scoping, pre-feasibility, feasibility, and operational phases. I have a firm understanding of mining methods, mine planning, and scheduling in conjunction with in-depth knowledge of underground drill and blast design and execution.
- 5. I have read NI 43-101, and this Technical Report has been prepared in compliance with the instrument.
- 6. I have not visited the Iska Iska Project.
- 7. I have not written or co-authored any previous Technical Reports for the mineral property that is the subject of this Technical Report.
- 8. I am independent of Eloro and its subsidiaries according to the definition described in NI 43-101 and the Companion Policy 43-101 CP.
- 9. I am jointly responsible for Sections 14 of this Technical Report.
- 10. As of the date of this certificate to the best of my knowledge, information and belief, the sections of this Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make this report not misleading.

Signing Date16 October 2023Effective Date19 August 2023

"Abdoul A. Drame" {signed and sealed as of the report date}

Abdoul A. Drame, B.Eng., P.Eng.

**Mining Engineer** 





# APPENDIX- I SUMMARY OF SYNCHROTRON MINERAL CLUSTER ANALYSIS



#### SUMMARY

Synchrotron mineralogical cluster analysis was performed on a set of 286 whole-rock assay powders from Huayra Kasa, Santa Barbara, Central Breccia Pipe, Porco, and Porco Adit. Seven (7) domains are identified based on the full synchrotron X-ray diffractogram. **These mineralogical domains are determined without a priori knowledge of the samples**. Domain one is the largest (213 samples; 75%). Domain two includes 42 samples (15%), and Domain 3 includes 22 samples (8%). The other domains only contain a few samples each and are likely outliers so are not considered further. Domain one contains elevated levels of Sn, Ag, Bi, Cu, and Zn. Domain 2 contains elevated levels of Sn, Ag, Cu, Pb, and Zn. Domain 3 contains elevated levels of Sn, Ag, Cu, Pb, and Zn.

89/286 samples matched the criteria defined by Nichola McKay (Blue Coast Research) and Mike Hallewell (Senior Strategic Metallurgist) for the geochemical *TIN AND POLYMETALLIC DOMAINS*. 94% of the samples are in mineralogical domains 1, 2, and 3, which are associated with elevated levels of Sn, Ag, Pb, and Zn. This indicates that the mineralogical signatures for mineralogical domains 1, 2, and 3 can be used as a tool for ore vectoring to the geochemical *TIN AND Zn and Pb POLYMETALLIC DOMAINS*. This could lead to a predictive method using mineralogy for vectoring toward and spatially defining geochemical domains of economic importance.

The mineralogical cluster analysis objectively identifies samples with complementary mineralogy that is the result of the time-integrated effects of geological processes. The identified domains are likely related to variations in fluid composition, precipitation mechanism, or host rock. The 3D distribution of the domains can be evaluated in the context of lithological and structural variability within the project area.

The mineralogical domains have important implications for geometallurgy and processing. When plotted in 3D within the block model, these domains can be used to identify blocks with different processing needs. The mineralogy of the domains can also be used to inform selection for composite materials for metallurgical testing.

	Mineralogical Domain			
	1	2	3	
	Sn, Ag, Cu, Zn	Sn, Ag, Cu, Pb, Zn, In	Sn, Ag, Cu, Pb, Zn, In	
Quartz	✓	✓	✓	
Muscovite	✓	✓	1	
Tourmaline	✓	✓	1	
Siderite	✓			
Pyrite	✓	✓	1	
Sphalerite	✓	✓	1	
Galena	✓	✓	✓	
Chalcopyrite				
Arsenopyrite	~			
Sulphates (Jarosite/Alunite)	~	~	LISA CAN	

# Table 1 Metals with elevated concentrations\* and the minerals present in mineralogical domains 1, 2, and 3

\*Mean concentrations ≥ 30 AgEq, Sn ≥ 0.1 %, Zn ≥ 0.5 %, Pb ≥ 0.5 %.



#### **Details of Analysis**

70 samples match the criteria for the geochemical *TIN DOMAIN*. 45/70 (65%) are in mineralogical domain one and the mean Sn concentration is 1.1%. The samples are predominantly found at higher elevation at Santa Barbara. 9/70 samples (13%) are in mineralogical domain two and the mean Sn concentration is 0.3%. The samples are found at Huayra Kara at elevation 3600 m– 4050 m. 12/70 samples (17%) are in mineralogical domain three and the mean Sn concentration is 1.0%. The samples are found at Santa Barbara at elevation 3800 m– 4050 m.

16 samples match the criteria for the geochemical Zn *POLYMETALLIC DOMAIN*. 12/16 samples (75%) are in mineralogical domain one and the mean Zn concentration is 0.9%. The samples are found predominantly at higher elevation at Santa Barbara. 3/16 samples (19%) are in mineralogical domain two and the mean Zn concentration is 4.8%. The samples trend from Huayra Kasa to Porco with decreasing elevation.

Tree samples match the criteria for the geochemical Pb *POLYMETALLIC DOMAIN*. They are in mineralogical domain one and the mean Pb concentration is 1.0%. The samples are found at Huayra Kasa at elevation 4130 m- 4150 m.



# APPENDIX- II SUMMARY OF MINERALOGICAL STUDIES



#### DISCUSSION

#### SN:CU RATIO

The Sn:Cu ratio is being used at Iska Iska as an indicator of the presence of cassiterite vs stannite. For a sample containing only cassiterite and no other tin or copper minerals, the Sn:Cu ratio is essentially infinity. For a sample containing stannite and no other tin or copper minerals, the ratio of Sn:Cu is 1. Between 1 and infinity is a zone of mixed stannite and cassiterite. In zones of low Cu this ratio works well. As Cu grade increases and the Sn:Cu goes below 1, the complexity of the mineral associations increases and are less predictable.

Figure 1 shows the Iska Iska metallurgical and geological samples plotted on a bivariate Cu vs Sn plot for samples >0.1% Sn and <4.5% Cu. The samples are coloured by tin deportment as cassiterite (red being high cassiterite). Shapes define the various sample types (metallurgical and geological). For the metallurgical samples and DSBU-03 (all solid shapes), the ratio has proven very useful in predicting cassiterite vs stannite content. The ratio was not as useful for the polymetallic and geophysical samples where tin occurred as cassiterite and as sulphides (stannite, galena, sphalerite) and there were other copper minerals (chalcopyrite, Cu-silicate) present.







Figure 1 Sn vs Cu plot showing test samples coloured by % cassiterite. Only samples with >0.1% Sn (peoxide fusion) and <4.5% Cu. **Error! Reference source not found.** presents the same plot but with t he scale expanded to include high Cu values.



## Sn(total) vs Sn(sulphide)

- Another set of chemical analyses that can be used to predict cassiterite vs sulphide tin (stannite or tin in galena, sphalerite) is Sn(sulphide) using 4-acid ICP analysis and Sn(total) using peroxide fusion or XRF. This pair of analyses was performed for a set of the mineralogical samples reviewed here (Figure 3). Samples are filtered to those with >0.1% Sn(T).
- The six metallurgical feed samples (Section 4.1) were well predicted (green squares). Geological samples (Section 5) showed much more scatter (orange circles). This scatter is attributed to their mineralogical analysis as thin sections which will provide a less precise a match to geochemistry as that of a ground metallurgical feed.
- Further investigation of this technique is warranted. It could make a good addition to the resource drilling geochemical package.



Figure 3 Tin deportment as cassiterite based on geochemistry and mineralogy. Only samples >0.1% Sn (T).



#### CONCLUSIONS

Based on the mineralogical data summarised in this report, the mineral assemblage at Iska Iska consists of:

#### **Tin Minerals**

- The main tin minerals are cassiterite (SnO2), Fe-cassiterite (wood tin) and stannite (Cu2FeSnS4).
- In some zones, Sn was associated with Fe-oxyhydroxides (goethite), creating a SnFeOOH-type phase in which the Sn ranged from 32 to 69%. Textural features support this phase being termed 'wood tin'. Tin was also identified in other alteration minerals including jarosite, and various Pb sulphates and oxides.
- Tin occurred in low levels within the structure of galena (average of 0.95%), sphalerite (average of 0.29%) and Cu sulphide minerals (average of 0.57% in chalcopyrite). Tin was also noted within various Pb sulphosalt minerals. These occurrences mean that in zones with high base metal content, a proportion of the tin grade will be tied up in the base metal sulphides, and that tin will be present within base metal concentrates.



• Based on drillhole geochemistry and core logging, and supported by the mineralogical work reported here, cassiterite is the dominant tin mineral in central region of Iska Iska, where grades are above 0.2% Sn, while stannite and lesser other forms occur in the periphery. Downhole spatial zonation of tin minerals were noted in DSBU-03, with stannite present in the higher-sulphide zones at top and bottom, and cassiterite present in the higher-grade tin zone in between.

## **Base Metals**

- Lead: Galena (PbS) was the primary lead mineral identified. Trace levels of silver, at the limit of detection of the microprobe were identified within the structure of galena. Very minor amounts of lead sulphosalts were also identified. In zones of alteration, lead occurred in a variety of sulphate minerals, including anglesite (PbSO4) and other mixtures with Fe, As and/or Sn. Pb was also identified an oxides and phosphates.
- **Zinc** occurred as sphalerite ((Zn,Fe)S). Microprobe analysis of the sphalerite from DHK-15 and DHK-18 showed a relatively ferroan sphalerite, with a mean of 7% Fe. Cadmium and tin were identified as low level constituents (mean of 0.29% and 0.30%, respectively). Zinc was identified as minor constituent in stannite (mean of 1.9%).
- **Copper:** Although the focus of these programs of mineralogical study numerous copper minerals were identified including chalcopyrite, covellite, chalcocite, bornite, stannite, tetrahedrite and freibergite. Trace amounts of non-sulphide copper (dioptase and chrysocolla) were noted in the MD-series samples.
- **Tungsten**: Trace amounts of ferberite (*FeWO*<sub>4</sub>) was identified in DSBU-03 core samples and in the MDseries samples.
- **Bismuth**: A variety of bismuth minerals were identified including bismuthinite, native bismuth and bismuthPb sulphides.

#### **Precious Metals**

- **Silver**: Silver minerals consisted of argentite/acanthite ( $(AG_2S)$  and freibergite  $(Ag, Cu, Fe)_{12}(Sb, As)_4S_{13}(Sb, As)4S13$ . Silver was also present within bismuth minerals and copper sulphide. Very trace amounts (near detection of microprobe) was identified within galena.
- No gold minerals were identified during this study.

## Tin Process Minerology

- In this section, cassiterite / Fe-cassiterite occurred as a network of fine veins within the host rock and associated with quartz, Fe-oxyhydroxides and sulphide minerals. In these veinlets, cassiterite formed fine granular aggregates or cements up to 500 um in size, as noted in DSB-06 and METSBUG-02 and in the rock slabs from DSBU-03.
- In laboratory-ground metallurgical samples (P80 of 75 um or finer) cassiterite P80 ranged from ~10 to 30 um. Stannite showed a wider range of grain size (~10 to ~230 um).
- In the suite of seven test ground variability samples, metallurgical recovery of tin (as cassiterite) using sequential flotation and gravity concentration ranged from 12.6% (METSBUG-02 HG) to 48.5% (23-VAR08 from METSBUG-03) for a final concentrate grading 10% tin. Based on the


mineralogical data, this variation in cassiterite tin recovery is attributed to a combination of factors including tin grade, cassiterite grain size, cassiterite liberation and the nature of its middling associations. 23-VAR08 had by far the best tin recovery of the sample set. It was from a relatively clean, quartz-tourmaline-rich core interval, with low contents of pyrite, secondary oxides, sulphate minerals, Cu minerals and phyllosilicates. Although overall cassiterite liberation was low in the sample, it formed a significant quantity (34%) of fully (100%) liberated cassiterite grains at a moderate grain size (METSBUG-02HG and DSBU-03C were finer-grained) with potential for both flotation and gravity concentration. Its predominant middling associations were with quartz and tourmaline, and it had a lower level of more dense middlings with pyrite, jarosite, iron oxides than other samples in the test group. Further, it had the smallest quantity of ternary / quaternary mineral associations.

- Analysis of tin flotation test F3 Cl3 Conc and Ro Tail derived from METSBUG-02 MC showed that cassiterite, with a P80 um <11 um still had not been effectively liberated.
- Overall, the test samples require the subtle improved liberation of the cassiterite, without formation of slimes to improve overall recovery.

## PbZn Process Minerology

- A preliminary lead-zinc flotation program was completed metallurgical feed samples 22-VAR-01 (drillhole DHK-15) and 22-VAR-02 (drillhole DHK-18).
- Galena liberation at a grind target  $P_{80}$  of 70 um was <u>81.6% and 77.9%</u>, respectively, for grains with >80% free surfaces at a target  $P_{80}$  of 70 um. Although the overall liberation characteristics for the two samples were quite similar, 23-VAR-01 had slightly higher liberation and contained a higher proportion of both total Pb and liberated galena reporting to the -38 um size fraction in comparison with 23-VAR-02. These features may contribute to the somewhat lower Pb rougher recovery achieved from 23-VAR-02 in comparison with 23-VAR-01.
- Sphalerite liberation was <u>80.9% and 77.7%</u> for 22-VAR-01 and 22-VAR-02, respectively. Zn rougher recoveries were very good for both samples,
- Based on electron microprobe analyses, Pb concentrates can be expected to contain trace levels of tin and silver, while Zn concentrates will contain Fe, Sn and Cd. Cleaner concentrates from the test program reported an average of 1052 ppm Ag and 1.25% Sn in lead concentrate an average of 9.6% Fe and 0.3% Snin the zinc concentrate.

### RECOMMENDATIONS

Based on the mineralogical studies reported here, recommendations are noted below:

- This report studies the feed to a complex metallurgical tin flowsheet and attempts to its diagnose metallurgical recovery. Given the complexity of the circuit, moving forward, it is important to acquire mineralogical analyses on the various feeds and concentrates of the test.
- For tin ores, it is important to carefully characterize the nature of the middling associations (binaries and ternaries) as they impact the density of the particle reporting to the gravity circuit.
- Further study of Pb and Zn mineral chemistry in mineral concentrates is recommended for improved predictions of impurity levels.



- Study of gold mineralogy using a combination of automated mineralogy gold scans on gravity concentrates and Dynamic SIMS (D-SIMS) analysis of solid solution / colloidal gold content of sulphide species (pyrite, arsenopyrite, chalcopyrite, Bi minerals).
- Acquisition of sulphide tin measurements using 4-acid ICP in future drilling campaigns. This combined with Sn(T) will provide a strong proxy for cassiterite vs sulphide-hosted tin ratio.
- Laser ablation ICP study of the low-level silver content in galena.



# APPENDIX- III ISKA ISKA MAJOR METALS DISTRIBUTION SECTION AND PLAN VIEWS

Iska Iska Project



## **PLAN VIEWS**



















# **SECTION VIEWS**























# APPENDIX- IV ISKA ISKA OPTIONS FOR HIGHER GRADE POLYMETALLIC PIT RESOURCES AT NSR CUT-OFF VALUES OF US\$15/t AND US\$25/t





CUT-OFF US\$15/t NSR





#### CUT-OFF US\$25/t NSR



# **END OF REPORT**