

SEDGMAN

UPDATED MINERAL RESOURCE ESTIMATE NI 43-101 TECHNICAL REPORT FOR THE TOROPARU PROJECT, CUYUNI-MAZARUNI REGION, GUYANA.

Prepared for:



ARIS MINING CORPORATION

550 Burrard Street, Suite 2900 Vancouver BC V6C 0A3 Canada

Prepared by:

Ekow Taylor, FAusIMM (CP), QP Mining Plus Pty Ltd

Maria Muñoz, MAIG, QP Mining Plus Perú S.A.C

Karl Haase, P.Eng., QP Sedgman Canada Ltd

Effective Date: February 10, 2023

Report Date: March 31, 2023



CONTENTS

-i	igures & Tables8						
1	Su	ummary					
	1.1	Pro	perty Description and Ownership	. 10			
	1.2	Ge	ology and Mineralization	. 10			
	1.3	Sta	tus of Exploration, Development and Operations	. 11			
	1.4	Roy	alties, Agreements and Encumbrances	. 11			
	1.4	1.1	The Alphonso Joint Venture	. 11			
	1.4	1.2	The Godette Agreement	. 12			
	1.4	1.3	The Toroparu Precious Metals Purchase Agreement (the "Toroparu PMPA")	. 12			
	1.4	1.4	The Consulting Agreement	. 13			
	1.4	1.5	Royalties	. 13			
	1.5	Mir	neral Processing and Metallurgical Testing	. 14			
	1.6	Mir	neral Resource Estimate	. 14			
	1.7	Cor	nclusions and Recommendations	. 15			
	1.7	7.1	Geology, Mineral Resources and Economic Analyses	. 15			
	1.7	7.2	Mineral Processing and Metallurgical Testing	. 17			
2	Int	rodu	ction	. 19			
	2.1	Issu	uer and Purpose of the Technical Report	. 19			
	2.2	Sou	rce Information	. 19			
	2.3	Qu	alified Person and Personal Property Inspection	. 19			
	2.4	Cur	rencies, Units and Coordinate System	. 20			
3	Re	lianc	e On Other Experts	. 21			
1	Pro	opert	y Description and Location	. 22			
	4.1	Pro	perty Location	. 22			
	4.2	Mir	neral Tenure	. 23			
	4.3	Issu	uer's Interest	. 24			
	4.4	Roy	valties, Agreements and Encumbrances	. 24			



	4.	4.1	The Alphonso Joint Venture	24
	4.	4.2	The Godette Joint Venture	25
	4.	4.3	The Toroparu Precious Metals Purchase Agreement (the "Toroparu PMPA")	26
	4.	4.4	The Consulting Agreement	26
	4.	4.5	Royalties	27
	4.5	Env	ironmental Liabilities	27
	4.6	Per	mits	27
	4.7	Sigr	nificant Factors and Risks	28
5	A	ccessil	pility, Climate, Local Resources, Infrastructure and Physiography	29
	5.1	Тор	ography, Elevation, Vegetation and Climate	29
	5.2	Pro	perty Access, Transport, Population Centres and Mining Personnel	29
	5.3	Sur	face Rights	30
	5.4	Infr	astructure	30
	5.5	Pov	ver and Water	30
6	Н	istory		31
	6.1	Earl	y Work	31
	6.2	ETK	- 1999 to 2009	31
	6.3	San	dspring - 2010 to 2021	32
	6.4	GCN	M Mining (renamed to Aris Mining) - 2021 to Present	34
	6.5	Hist	orical Mineral Resource and Mineral Reserve Estimates	35
	6.6	Pas	t Production	36
7	G	eologi	cal Setting and Mineralization	37
	7.1	Reg	ional Geology	37
	7.2	Loc	al Geology	37
	7.3	Pro	perty Geology	39
	7.4	Min	eralization and Alteration	40
	7.5	Stru	ıcture	41
8	D	eposit	Types	43
9	F	xnlora	tion	. 44



	9.1	Geo	ological Mapping	44
	9.2	Sur	face Sampling	44
	9.3	Geo	ophysics	46
10) Dril	lling		47
	10.1		Orilling Summary	47
	10.2		Orilling Procedures	49
	10.	2.1	Drillhole Collar and Downhole Surveys	49
	10.	2.2	Diamond Drilling Procedures	50
	10.	2.3	Geological Logging	50
	10.	2.4	Core Recovery	51
	10.	2.5	Oriented Drill Core	51
	10.	2.6	Reverse Circulation Drilling Procedures	51
	10.3	N	Material Impact on the Accuracy and Reliability of Drilling Results	51
11	L San	nple	Preparation, Analysis and Security	52
	11.1	li	ntroduction	52
	11.2	C	Core Sampling and Security	52
	11.3	L	aboratory Sample Preparation Procedures and Analytical Methods	53
	11.	3.1	Quality Assurance and Quality Control Procedures	54
	11.4	В	Bulk Density	55
	11.5	N	Material Impact on the Accuracy and Reliability of Sample Data	55
12	2 Dat	ta Ve	erification	56
	12.1	G	Geology Data Reviews	56
	12.2	N	Metallurgical Data Review	57
	12.3		Data Adequacy	57
13	3 Mir	nera	l Processing and Metallurgical Testing	58
	13.1	li	ntroduction	58
	13.2	S	GGS Metallurgical Testwork Program 2009 (Toroparu Deposit)	59
	13.3	S	GGS Metallurgical Testwork Program 2011 (Toroparu Deposit)	59
	13.	3.1	Mineralogy, Gold Deportment and Liberation Studies	59



13.	3.2	Comminution	. 59
13.	3.3	Metallurgical Testwork	60
13.4	S	GGS Metallurgical Testwork Program 2012 to 2013 (Toroparu Deposit)	61
13.5	li	nspectorate Saprolite Testwork Program 2012 to 2013 (Toroparu Deposit)	64
13.6	A	ALS and FLSmidth Metallurgical Testwork Programs 2014 (Toroparu Deposit)	64
13.	6.1	ALS Testwork	64
13.	6.2	FLSmidth Testwork	65
13.	6.3	Saprolite Testwork	65
13.7	N	Metallurgical Testwork 2018 - 2020 (Sona Hill Deposit)	66
13.	7.1	Base Metallurgical Laboratories ("BML", April 2019)	66
13.	7.2	Base Metallurgical Laboratories (December 2019)	68
13.	7.3	Base Metallurgical Laboratories (February 2020)	68
13.	7.4	Base Metallurgical Laboratories Program BL0895 (February 2022)	68
13.8	C	Conclusions and Recommendations	69
13.	8.1	Toroparu Deposit	70
13.	8.2	Sona Hill Deposit	71
13.	8.3	Recommendations	. 72
14 Mir	nera	l Resource Estimates	73
14.1		Disclosure	73
14.2	C	Conventions	73
14.	2.1	Modelling Methodology	73
14.	2.2	Block Dimensions	73
14.	2.3	Variograms	73
14.	2.4	Orientations	73
14.3		Data Review	74
14.	3.1	Mineral Resource Database	74
14.4	В	Bulk Density	74
14.5		Data Checks	74
14.6	(-	Seology and Mineralization Modelling	. 75



	14.6.1	Topography	. 75
	14.6.2	Weathering and Lithology Modelling Technique	. 75
	14.6.3	Mineralization Modelling Technique	. 79
1	4.7	Data Compositing and Extreme Grade Treatment	. 83
	14.7.1	Data Checks and Preparation	. 83
	14.7.2	Drillhole Orientation Bias Checks	. 84
	14.7.3	Sample Compositing Method	. 84
1	4.8	Statistical Analysis	. 84
	14.8.1	Top Cut Analysis Method	. 85
1	4.9	Variography	. 89
	14.9.1	Variogram Analysis Method and Results	. 89
1	4.10	Block Modelling	. 89
	14.10.	1 Block Model Method	. 89
	14.10.	2 Block Model Construction Validation	. 91
1	4.11	Block Model Estimation	. 91
	14.11.	1 Grade Estimation	. 91
	14.11.	2 Bulk Density Estimation	. 92
	14.11.	3 Grade Estimation Validation	. 93
	14.11.	4 Visual Comparison – Block Model and Drillholes Assays	. 93
	14.11.	5 Block Model Versus Composite Data Statistics	. 94
	14.11.	6 Swath Plots	. 94
1	4.12	Mineral Resource Classification	. 95
1	4.13	Cut-Off Grade Assumptions	100
1	4.14	Mineral Resource Tabulation	100
1	4.15	Mineral Resource Sensitivity	100
1	4.16	Material Factors	103
15	Miner	al Reserve Estimates	104
16	Minin	g Methods	105
17	Recov	ery Methods	106



18	Project Infrastructure				
19	Market Studies and Contracts				
20	Environmental Studies, Permitting and Social or Community Impact	109			
21	Capital and Operating Costs	110			
22	Economic Analysis	111			
23	Adjacent Properties	112			
24	Other Relevant Data and Information	113			
25	Interpretation and Conclusions	114			
2	25.1 Mineral Resource Estimate	114			
2	25.2 Mineral Processing and Metallurgical Testing	115			
26	Recommendations	116			
27	References	118			
28	Date, Signatures and Certificates of Qualified Persons				
Apr	pendix A – Toroparu Mineral Titles	122			



FIGURES & TABLES

Table 1-1: Toroparu Project mineral resources effective February 10, 2023	15
Table 2-1: Responsibilities of each Qualified Person	
Table 4-1: Upper Puruni concession list	
Table 10-1: Toroparu Project drill summary table	47
Table 13-1: Average assay results (SGS 2012 testwork)	61
Table 13-2: ACO combined results from gravity separation and LCT tests (SGS 2013 testwo	ork) 61
Table 13-3: ACO gravity, cleaner flotation and cleaner tail leach summary (SGS 2013 te	stwork)
	62
Table 13-4: Combined gravity and flotation gold recovery for the LCO composites (SC	SS 2013
testwork)	63
Table 13-5: Toroparu deposit proposed processing parameters	70
Table 13-6: Sona Hill deposit proposed processing parameters	71
Table 14-1: Modelled geological units	75
Table 14-2: Toroparu deposit descriptive basic statistics for gold mineralization domains	86
Table 14-3: Toroparu deposit descriptive basic statistics for copper mineralization domai	ns 87
Table 14-4: Sona Hill deposit descriptive basic statistics for gold mineralization domains.	88
Table 14-5: Sona Hill deposit descriptive basic statistics for copper mineralization domain	າ 89
Table 14-6: Toroparu deposit block model extents and block sizes	90
Table 14-7: Sona Hill deposit block model extents and block sizes	90
Table 14-8: Assigned bulk density	92
Table 14-9: Toroparu block model mean versus declustered sample mean	94
Table 14-10: Sona Hill block model mean versus declustered sample mean	94
Table 14-11: Toroparu mineral resource classification criteria	95
Table 14-12: Sona Hill mineral resource classification criteria	96
Table 14-13: Toroparu deposit optimized resource pit shell parameters	98
Table 14-14: Sona Hill deposit optimized resource pit shell parameters	99
Table 14-15: Toroparu underground MSO parameters	99
Table 14-16: Toroparu Project Mineral Resources effective 10 February 2023	101
Table 14-17: Sensitivity of the 2023 MRE to cut-off grade	102
Figure 4-1: Property location map	
Figure 4-2: Property location map showing titles	
Figure 7-1: Regional geology	
Figure 7-2: Local geology map	38



Figure 7-3: Aeromagnetic data interpretation plan
Figure 7-4: Schematic structural model for Toroparu
Figure 10-1: Plan of Toroparu Project drill collars coloured by hole type
Figure 10-2: Typical cross section of drilling through the Toroparu deposit looking northwest. 49
Figure 13-1: Cleaning flowsheet 1 – ALS, 2015 testwork (left), cleaning flowsheet 2 - ALS, 2015
testwork (right)
Figure 13-2: Standard flowsheet (BML, 2019 testwork)
Figure 13-3: Standard flowsheet with flotation and regrind (BML, 2019 testwork)
Figure 13-4: Standard flowsheet with regrind of the gravity concentrate (BML, 2019 testwork)67
Figure 13-5: Gold extraction optimization tests
Figure 14-1: Plan view of weathering and lithology interpretation across the Project showing
location of Toroparu and Sona Hill deposits77
Figure 14-2: Toroparu deposit cross section of the weathering and lithology interpretation
(looking NNW)
Figure 14-3: Sona Hill deposit cross section of the weathering and lithology interpretation
(looking N)
Figure 14-4: Plan view of Toroparu gold mineralization domains overlayed on modelled
lithologies at -185m elevation
Figure 14-5: Plan view of Sona Hill gold mineralization domains overlayed on modelled lithologies
at -80m elevation81
Figure 14-6: Plan view of Toroparu deposit copper mineralization domains overlayed on modelled
lithologies at -185m elevation
Figure 14-7: Plan view of Sona Hill deposit copper mineralization domains overlayed on modelled
lithologies at –185 m elevation
Figure 14-8: NESW cross section of Toroparu block model looking NW comparing block model
grades with informing composites
Figure 14-9: Isometric view looking northeast of the Toroparu deposit open pit and underground
mineral resources coloured by resource classification, optimized resource pit shell and
underground MSO97
Figure 14-10: Isometric view looking northeast of the Sona Hill deposit showing open pit mineral
resources coloured by resource classification and the optimized resource pit shell



1 SUMMARY

1.1 Property Description and Ownership

The Toroparu gold project, (the "Property" or the "Project") is located in the Cuyuni-Mazaruni Region of Guyana, approximately 215 kilometres ("km") southwest of the capital city of Georgetown. The Project and adjacent properties are collectively known as the Upper Puruni Concessions. The Project contains two gold deposits with mineral resources, referred to as Toroparu deposit and Sona Hill deposit (collectively "Toroparu" unless otherwise indicated). The Sona Hill deposit is located approximately 5 km to the southeast of the Toroparu deposit.

The Project is 100% owned by Aris Mining through its indirectly owned subsidiary, ETK, Inc. ("ETK").

1.2 Geology and Mineralization

The Toroparu and Sona Hill deposits are located in the Amazonian Craton of the Guiana Shield, within the northwest trending Puruni volcano-sedimentary belt, in a sequence of metasedimentary and meta-volcanic rocks along the contact of a small intra-belt pluton. Other gold deposits in Guyana related to similar intrusive bodies include Aurora and Omai. The northwest trending features at the Project follow lithological contact zones and show a sigmoidal flexure zone to the northwest of the Project.

Thin, discontinuous mineralized shear zones at Toroparu are developed mainly in the volcanic rocks. Higher grade, discontinuous shear zone hosted mineralization is narrow and mostly parallel to the schistosity. The main controls on mineralization are the west-northwest striking axial planar schistosity and vein swarms that are well developed in the volcanic rocks, and the folded contact between an intrusive complex and the volcanic rocks, particularly the contact of an igneous breccia that forms an important rheological contrast, similar to many other orogenic gold deposits that are strongly controlled by competency contrasts.

Mineralization at the Toroparu deposit has been intersected in drillholes for up to 2.5 km along strike, up to 250 metres ("m") wide, and up to 600 m in depth, and at Sona Hill for up to 900 m along strike, up to 250 m wide, and up to 300 m in depth. Both deposits are open at depth. Recent structural interpretation work indicates that the main body of mineralization at Toroparu is likely part of a major regional fold structure striking west-northwest to northwest, with a distinct sigmoidal shape and higher gold grades within the bend (Pratt and Smeraglia, 2022). The deposit dips roughly 55° to the west.



The Sona Hill deposit has similar controls on mineralization but with a lower copper content and orientation, with a strike to the north and a dip approximately 30° to the west.

1.3 Status of Exploration, Development and Operations

The first activity at the Project was alluvial placer mining by Mr. Alfro Alphonso ("Alphonso") that commenced in 1997. The alluvial material was mostly exhausted by 1999 and work proceeded deeper into the underlying saprolite, which eventually developed into the Toroparu saprolite open pit. This operation continued until 2001. ETK began exploration in 1999 and following a joint venture agreement between ETK and Alphonso in 2000, commenced rehabilitation and upgrading the 240 km access road into the Property to facilitate the transport of mining equipment and supplies to the Project.

Systematic exploration activities at Toroparu commenced in 2011 and includes mapping, surface geochemical sampling, near surface auger drilling, geophysical surveys, reverse circulation drilling, and diamond drilling. The geochemical sampling identified the Toroparu northwest area and Sona Hill, as well as a number of other anomalies. Drilling has taken place at the Property from 2006 to 2022, mostly for resource definition at the Toroparu and Sona Hill deposits. A total of 1,326 drillholes for 265,948 m are present in the resource drilling database.

The first mineral resource estimate for the Project was completed in 2008, followed by two updates in 2010. The first preliminary economic assessment ("PEA") was completed in 2011, followed by an updated mineral resource estimate and PEA in 2012. A mineral resource estimate and prefeasibility study was completed in 2013. This was followed by an updated mineral resource estimate in 2018, a PEA in 2019, and then by an updated mineral resource estimate and PEA in 2021. The current mineral resource estimate disclosed in this technical report supersedes and replaces all these historic estimates.

The current infrastructure on site includes roads, an airstrip, a camp, and drill core logging and storage facilities.

1.4 Royalties, Agreements and Encumbrances

1.4.1 The Alphonso Joint Venture

The Toroparu deposit is located on property that was originally subject to the Mining Joint Venture Agreement (as defined herein) effective August 1, 1999, and as amended and restated in 2008 by the A&R Joint Venture Agreement (as defined herein).

In March 2020, ETK exercised its option under the A&R Joint Venture Agreement to purchase all of Alphonso's right, title and interest to the claims and permits on the Property listed in Appendix



A hereto and all minerals and mineral deposits, ores, concentrates, metals, materials, tailings, dumps and mine wastes, in, on and under the claims (the "Option Interest") excepting and reserving only to Alphonso the right to conduct the alluvial mining activities on certain lands not associated with the Project, all as more particularly described in the A&R Joint Venture Agreement, and the use by Alphonso of certain roads and an airstrip constructed by ETK. ETK paid \$20 million to exercise the option and in addition to acquiring the Option Interest, ETK's obligations to make further payments under the A&R Joint Venture Agreement were terminated.

In connection with the option exercise, Alphonso delivered to ETK a written affirmation, declaration of trust and receipt acknowledging that he hold all lands and permits subject to the A&R Joint Venture Agreement in trust for the exclusive benefit of ETK until such time that the GGMC (as defined herein) and the Minister of Mining of Guyana convert certain of the Small Scale Claim licenses and Mining Permits that are subject to the A&R Joint Venture Agreement to large scale mining licenses, and issue the same in the name of ETK.

1.4.2 The Godette Agreement

The Sona Hill deposit is located on property that was originally subject to the Godette Joint Venture (as defined herein) effective April 1, 2008. The Godette Heirs remain the registered owners of four mining permits but have irrevocably contributed and committed all their right, title, and interest in the mining permits for the benefit of ETK and the Godette Joint Venture and have granted ETK the exclusive right to conduct operations until such time as the large scale mining licenses have been secured. The cost of such conversion process is the responsibility of ETK but the Godette Heirs have agreed to execute such documents and agreements and take such actions as are reasonably necessary to assist in the transition of the mining permits to large scale mining licenses.

1.4.3 The Toroparu Precious Metals Purchase Agreement (the "Toroparu PMPA")

The Toroparu PMPA refers to the Amended and Restated Precious Metals Purchase Agreement among Wheaton Precious Metals International Ltd. ("WPMI"), Aris Mining Toroparu Holdings Ltd. (formerly GoldHeart Investment Holdings Ltd. ("GoldHeart")), a wholly-owned subsidiary of Aris Mining, and Aris Mining Guyana Holdings Corp. (formerly Sandspring Resources Ltd. ("Sandspring") and a wholly-owned subsidiary of Aris Mining) dated April 22, 2015. The original gold metal purchase agreement was entered into in November 2013 and amended in December 2013.

Pursuant to the terms and conditions of the Toroparu PMPA, WPMI has agreed to purchase 10% of the gold and 50% of the silver production from the Toroparu Project in exchange for up-front cash deposits totalling \$153.5 million. WPMI has made initial payments totalling \$15.5 million,



with the remaining \$138.0 million to be paid in instalments during construction of the Toroparu Project, subject to WPMI's election to proceed following receipt of a final feasibility study for the Toroparu Project, environmental study and impact assessment and other project related documents. If WPMI elects not to proceed with the remaining stream financing of \$138.0 million, WPMI will be entitled to either (i) a refund from Aris Mining of \$13.5 million of the \$15.5 million already paid and termination of the Toroparu PMPA or (ii) a reduction of the gold stream percentage from 10% to 0.909% and the silver stream percentage from 50% to nil.

1.4.4 The Consulting Agreement

A consulting agreement was executed between ETK and Alphonso & Sons ("A&S") on November 1, 2013 (the "Consulting Agreement") and which survived the exercise by ETK of the option under the A&R Joint Venture Agreement as described above. Pursuant to the consulting agreement, A&S is to be paid, commencing on the first anniversary of ETK receiving cashflow sufficient to develop and construct a conventional open pit mining and flotation and cyanide leach process operation on the Property with on-site and off-site support operations (with such cash flow to be determined in a definitive feasibility study), eight annual payments of a minimum of \$1.0 million adjusted upwards in accordance with the indexing formula set out in the Consulting Agreement (to a maximum of \$2.0 million), followed by five extended payments of a maximum of \$1.0 million (provided the daily price of gold averaged over a twelve-month period or a calendar month period, as applicable, exceeds \$1,750 per ounce) subject to downward indexation based on a formula set out in the Consulting Agreement.

1.4.5 Royalties

ETK executed a mineral agreement with the Government of Guyana on November 9, 2011 (the "Mineral Agreement") that details all fiscal, property, import-export procedures, taxation provisions, and other related conditions for the continued exploration and future mine development and operation of an open pit mine at Toroparu. The Mineral Agreement implements a two-tiered gold royalty structure of 5% of gold sales at gold prices up to \$1,000 per ounce and 8% of gold sales at gold prices above \$1,000 per ounce, as well as a royalty of 1.5% on sales of other valuable metals and minerals.

ETK has negotiated the terms of an Investment Agreement with the Guyana Office for Investment ("GO-Invest") which governs the terms by which the Company, directly or indirectly through contractors, undertakes the activities as set out in the Mineral Agreement such as importing vehicles, machinery, equipment and materials required for building the Toroparu Project and also governs the terms by which the Guyana Revenue Authority will extend certain tax exemptions. It



is expected that ETK and GO-Invest will enter into the agreement once the Conversion (as defined herein) is complete.

1.5 Mineral Processing and Metallurgical Testing

Metallurgical testwork was undertaken between 2009 and 2020, contributing to a growing understanding of the properties of the mineralization at the Toroparu and Sona Hill deposits and their response to comminution, gravity concentration, rougher and cleaner flotation, and cyanide leaching.

The testwork has confirmed that flotation and free milling cyanidation process routes can achieve high recoveries of both gold and copper as well as payable silver values. Sona Hill has tellurium associated gold which impacts leach kinetics and will require additional processing reagents and varied parameters to achieve high recoveries.

1.6 Mineral Resource Estimate

The Toroparu mineral resource estimate effective February 10, 2023, is shown in Table 1-1. The mineral resource cut-off grade was established using a long-term gold price of \$1,650 per ounce and an overall metallurgical gold recovery of 83%. Gold royalties were assumed at 8%. With the assumption that the mill feed from Toroparu and Sona Hill will be treated at a gold processing facility, a processing cost of \$22 per tonne was used. This resulted in a marginal cut-off grade calculation of 0.5 grams per tonne ("g/t") gold.

The underground mineral resource is reported within Mineable Stope Optimizer shapes generated at a cut-off grade of 1.5 g/t gold and is inclusive of material below 1.5 g/t gold grade within those shapes.



Area	Category	Tonnes (Mt)	Grade Gold (g/t)	Grade Copper (%)	Grade Silver (g/t)	Contained Gold (koz)	Contained Copper (kt)	Contained Silver (koz)
	Measured	42.3	1.45	0.14	1.8	1,967	61	2,455
	Indicated	69.0	1.42	0.08	1.3	3,159	55	2,817
Open Pit	Measured + Indicated	111.3	1.43	0.10	1.5	5,126	116	5,272
	Inferred	9.7	1.29	0.04	0.8	404	4	255
	Measured	0.1	1.89	0.03	0.4	8	<1	2
	Indicated	3.6	2.08	0.05	0.7	239	2	76
Underground	Measured + Indicated	3.7	2.07	0.05	0.7	247	2	78
	Inferred	11.5	2.07	0.04	0.7	764	5	262
	Measured	42.4	1.45	0.14	1.8	1,975	61	2,457
	Indicated	72.6	1.46	0.08	1.2	3,398	57	2,893
Total	Measured + Indicated	115.0	1.45	0.10	1.5	5,373	118	5,350
	Inferred	21.2	1.71	0.04	0.8	1,168	9	517

Table 1-1: Toroparu Project mineral resources effective February 10, 2023

Notes:

- 1. Mineral resources are not mineral reserves and have no demonstrated economic viability.
- 2. The mineral resource estimate was prepared by Ekow Taylor, FAusIMM (CP) and Maria Muñoz, MAIG, both of Mining Plus, who are Qualified Persons as defined by NI 43-101. Ms. Muñoz has reviewed and verified the drilling, sampling, assaying, and QAQC protocols and results, and is of the opinion that the sample recovery, preparation, analyses, and security protocols used for the mineral resource estimate are reliable for that purpose.
- 3. Totals may not add up due to rounding.
- 4. Open pit mineral resources are reported above a cut-off grade of 0.5 g/t gold within an optimized pit shell using a gold price of \$1,650 per ounce. Underground mineral resources are reported within Mineable Stope Optimizer shapes generated at a cut-off grade of 1.5 g/t gold and is inclusive of material below 1.5 g/t gold within those shapes.
- 5. There are no known legal, political, environmental, or other risks that could materially affect the potential development of the mineral resources.

1.7 Conclusions and Recommendations

1.7.1 Geology, Mineral Resources and Economic Analyses

Mining Plus offers the following conclusions:

- The Toroparu Project is a large, structurally controlled orogenic gold deposit with numerous features similar to many other orogenic gold deposits that are strongly controlled by competency contrasts.
- The exploration and drilling practices conform to industry best practices, and the resultant drilling pattern is sufficient to interpret the geometry and the mineralization boundaries with confidence.



- The sample preparation, security protocols, and analytical procedures adopted for the Project drilling conform to industry best practices.
- The mineral resource estimate for Toroparu, effective February 10, 2023, is based on a verified and sufficiently reliable database comprising of 617 drillholes at Toroparu and 181 drillholes at Sona Hill.
- Mining Plus utilized mining software to create three-dimensional wireframe interpretations based on a new detailed structural analysis for the mineral resource estimate and has undertaken an assessment of reasonable prospects for economic extraction on the assumption of open pit and underground mining in assessing the continuity of the mineralization above the selected cut-off grades.
- Both the Toroparu and Sona Hill deposits are comprised of saprolitic material overlying non-oxidized hard rock material, with the Toroparu deposit containing zones higher in copper.
- The QAQC program is adequate, and the assay results within the resource database are suitable for use in the mineral resource estimate.
- Mining Plus's review of the results of previous independent sampling confirms the presence of gold in the same order of magnitude as the original samples for the Toroparu and Sona Hill deposits.
- There are no known legal, political, environmental, or other risks that could materially affect the potential development of the mineral resources.
- There are no known significant factors or risks that might affect access or title, or the right or ability to perform work on the Property.

Mining Plus recommends the following:

- Bulk density measurements must be carried out using the paraffin wax water immersion method. This method ensures a more accurate determination of bulk density for any sample regardless of the weathering state and porosity by coating the oven-dried sample piece in a thin, even layer of paraffin wax and then determining weights.
- Regular samples constituting at least 3% of the total bulk density measurements are to be submitted to an independent laboratory for measurements using the water immersion method to compare with site measurements.
- Standard controls should include a low-grade standard, near the cut-off grade of the deposit; a mean grade standard, near the mean grade of the deposit; and a high-grade standard, near the 90th percentile of the deposit grade.
- While the QAQC program is considered adequate, it is necessary to include pulp blanks to rule out contamination during the reading of the analyte.



- Conduct infill drilling on 60 m drill sections at Toroparu and 40 m drill sections at Sona Hill
 for those areas that are currently averaging 50 m to 100 m drill spacing, to confirm
 continuity of mineralization, follow up on extensions to inferred mineral resources, and
 potentially upgrade inferred mineral resources to indicated. A staggered pattern is
 recommended to optimize drillhole planning.
- Continue with the gap analysis currently underway to assess the Project data readiness
 for a prefeasibility study level and to identify the approximate resources required to
 collect any additional information, if necessary, to achieve a prefeasibility study level. The
 estimated cost of the gap analysis is \$85,000.
- Depending on the outcome of the gap analysis, collect any additional information and proceed with a prefeasibility study of the Project. The estimated cost of the prefeasibility study is \$1.6 million.

1.7.2 Mineral Processing and Metallurgical Testing

Sedgman offers the following conclusions:

- The response of the Toroparu and Sona Hill deposits to comminution, gravity concentration, rougher and cleaner flotation, and cyanide leaching were investigated. Both deposits are comprised of auriferous saprolitic material overlaying non oxidized auriferous hardrock while the Toroparu deposit also contains zones higher in copper.
- The Toroparu and Sona Hill deposits both contain mineralization which is amenable to a gravity-leach flowsheet.
- High cyanide soluble copper areas within the Toroparu deposit are amenable to a gravity-flotation flowsheet.
- Areas of the Sona Hill deposit that contain high tellurium have slower leach kinetics and thus recovery could be lower if the processing parameters remain the same for this deposit.
- The Sona Hill deposit composites show mineralization in the range of soft to moderately hard material. The presence of auriferous tellurides that are slower leaching require a finer grind and elevated pH to achieve high extractions.
- Comminution tests indicated that the Toroparu deposit mineralization is a moderate to hard and abrasive material, and a significant proportion of the gold is native. High saprolite blends may allow elevated processing rates of hard material feed if viscosity or rheology does not impact processing design. Gravity recovery of 30-50% gold is possible at a primary grind size of P₈₀ 150 µm which is also an optimal size for recovery.



Sedgman offers the following recommendations:

- Mineralization containing tellurium should be a focus on a separate test program to optimize processing parameters including investigation into leach temperatures.
- Material handling testwork of saprolite and hard rock mineralization should be considered prior to any detailed design of the processing facility.
- Mapping any future mine plan against the metallurgical testwork should be considered for future studies.
- Further variability testwork to ensure that metallurgical information is valid over the
 entire mine life should be considered including a focus on the first three years of
 production, for any future mine plans.
- A gap analysis should be undertaken prior to moving to an economic study. Sedgman estimates a cost of \$15,000 to \$20,000 for the mineralogy, metallurgy and infrastructure components of a gap analysis.



2 INTRODUCTION

2.1 Issuer and Purpose of the Technical Report

Mining Plus Pty Ltd ("Mining Plus") was retained by Aris Mining Corporation ("Aris Mining") to complete an updated mineral resource estimate ("2023 MRE") and supporting technical report for the Toroparu Project located in Cuyuni – Mazaruni Region, Guyana based on a new detailed structural analysis and updated geological model.

The 2023 MRE follows the 2014 CIM Definition Standards on Mineral Resources and Mineral Reserves ("CIM Definition Standards") and the 2019 CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines ("CIM Guidelines").

The technical report has been prepared for Aris Mining in compliance with the disclosure requirements of National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and related Form 43-101F1 Technical Report, to disclose updates to the mineral resource estimate for the Toroparu Project based on a new detailed structural analysis and updated geological model.

The effective date of this technical report is February 10, 2023. No new material information has become available between this date and the signature date given on the certificate of the qualified person ("Qualified Person").

Aris Mining is a Canadian mining company with its common shares listed on the Toronto Stock Exchange under the symbol "ARIS".

2.2 Source Information

Unless otherwise stated, information, data, and illustrations contained in this report or used in its preparation have been prepared by Aris Mining or Mining Plus for the purpose of this technical report.

2.3 Qualified Person and Personal Property Inspection

This technical report was prepared by Mr. Ekow Taylor, FAusIMM (CP), Senior Principal Geology Consultant & Geology Team Leader of Mining Plus, Ms. Maria Muñoz, MAIG, Principal Resource Geologist of Mining Plus, and Mr. Karl Haase, P.Eng, Director of Engineering of Sedgman Pty Limited, all of whom are Qualified Persons as defined by NI 43-101 and are independent of Aris Mining for the purpose of NI 43-101. The Qualified Persons for the technical report and sections for which each Qualified Person is responsible are presented in Table 2-1.



Ms. Muñoz visited the Toroparu Project on March 3 to March 5, 2023, for the purpose of this mandate. During the visit, Ms. Muñoz reviewed the exploration drilling, sampling and sample security protocols, drill core and the core cutting and storage facilities, interpretations of the mineralized structures, and the locations of existing drillholes. She also reviewed the site layout and logistics for future mining and processing, the environmental layout, and safety protocols.

Mr. Taylor and Mr. Haase have not undertaken a personal property inspection.

Table 2-1: Responsibilities of each Qualified Person

Qualified Person	Responsible Sections
Ekow Taylor, FAusIMM (CP)	2: Introduction; 3: Reliance On Other Experts; 4: Property Description
	and Location; 5: Accessibility, Climate, Local Resources, Infrastructure
	and Physiography; 6: History; 7: Geological Setting and Mineralization;
	8: Deposit Types; 9: Exploration; 14: Mineral Resource Estimates; 23:
	Adjacent Properties; 24: Other Relevant Data and Information; and the
	relevant summaries of those sections included in 1: Summary; 25:
	Interpretation and Conclusions; and 26: Recommendations.
Maria Muñoz, MAIG	10: Drilling; 11: Sample Preparation, Analyses and Security; and 12:
	Data Verification; and the relevant summaries of those sections
	included in 1: Summary; 2: Introduction; 25: Interpretation and
	Conclusions; and 26: Recommendations.
Karl Haase, P.Eng	12.2: Data Verification; 13: Mineral Processing and Metallurgical
	Testing and the relevant summaries of those sections included in 1:
	Summary; 2: Introduction; 25: Interpretation and Conclusions; and 26:
	Recommendations.

2.4 Currencies, Units and Coordinate System

Unless expressly stated otherwise in this technical report, all currency amounts are in United States Dollars ("\$"); quantities are in metric units, as per standard Canadian and international practice, including tonnes ("t"), kilograms ("kg") or grams ("g") for weight, kilometres ("km") or metres ("m") for distance, hectares ("ha") for area, and gram per tonne ("g/t") for gold and silver grades; Project data coordinates relate to Universal Transversal Mercator ("UTM") grid Zone 20N: 1956 Provisional South American Datum.



3 RELIANCE ON OTHER EXPERTS

In preparing this report, Mining Plus has relied entirely on information the issuer, Aris Mining, provided regarding environmental liabilities described in Section 4.5 and the current legal status of permits described in Section 4.6.



4 PROPERTY DESCRIPTION AND LOCATION

4.1 Property Location

The Property is located in the Cuyuni-Mazaruni Region of Guyana, approximately 215 km southwest of the capital city of Georgetown, at approximately 6°27′1″ N and 60°3′11″ W. A map showing the location of the Property is shown in Figure 4-1. The Toroparu Project and adjacent properties are collectively known as the Upper Puruni Concessions. The Project contains two gold deposits with mineral resources, referred to as Toroparu and Sona Hill deposits. The Sona Hill deposit is located approximately 5 km to the southeast of the Toroparu deposit.

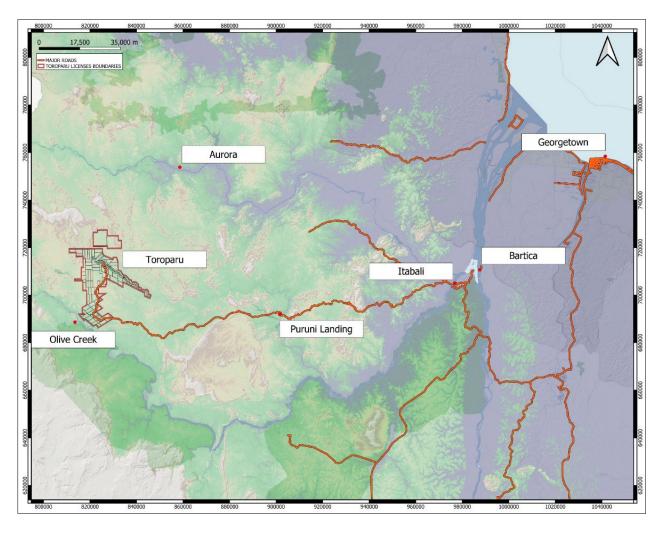


Figure 4-1: Property location map



4.2 Mineral Tenure

Mineral properties in Guyana allow for four scales of operation. Mineral properties are subject to annual rentals. An application fee of \$100 and a work performance bond equal to 10% of the approved budget are also required.

- Small Scale Claim licenses are 460 m by 245 m or a river claim consisting of one mile of a navigable river.
- Mining Permits ("MPs") for medium scale mining operations and Prospecting Permits Medium Scale ("PPMSs") cover between 150 and 1,200 acres each and are restricted to Guyanese ownership or by a joint venture between a Guyanese and a foreigner, whereby the two parties jointly develop the Property. The rental rates for each of the MPs are \$1.00 per acre per year and the rental rates for each of the PPMSs are \$0.25 per acre for the first year with an increment of \$0.10 per acre for every additional year.
- Prospecting Licenses ("PLs") cover between 500 and 12,800 acres and are granted to local
 or foreign companies. Rental rates for PLs are \$0.50 per acre for the first year, \$0.60 per
 acre for the second year, and \$1.00 per acre for the third year with an increase of \$0.50
 per acre for the fourth and fifth years. Large areas for geological surveys are granted as
 Permission for Geological and Geophysical Surveys with the objective of applying for PLs
 over the favourable ground.
- Mining Licenses are granted for large scale mining operations.

The Upper Puruni Concessions are held by ETK, a 100% owned subsidiary of Aris Mining. A summary list of the titles is provided in Table 4-1 and a map showing the location of the titles is shown in Figure 4-2. A full list of the titles is given in Appendix A. The Project holds or has applied for each of the four types of titles, including MPs that are the subject of the Alphonso and Godette joint ventures, PPMSs that are the subject of the Alphonso joint venture and that are renewed annually, Small Scale Claims that are the subject of the Alphonso joint venture and are renewed annually, and two open PLs applications which have been with the Guyana Geology and Mines Commission ("GGMC") for approval since February 2020. Rentals on the claims and permits controlled by ETK are payable annually by the expiry date of each claim and permit.

Area (Acres) **Title Description** Number **Mining Permits** 25 24,406.0 Prospecting Permits Medium Scale 65 63,763.0 7 **Small Scale Claims** 189.0 **Prospecting License Applications** 2 16,824.0 Total 99 105,182.0

Table 4-1: Upper Puruni concession list



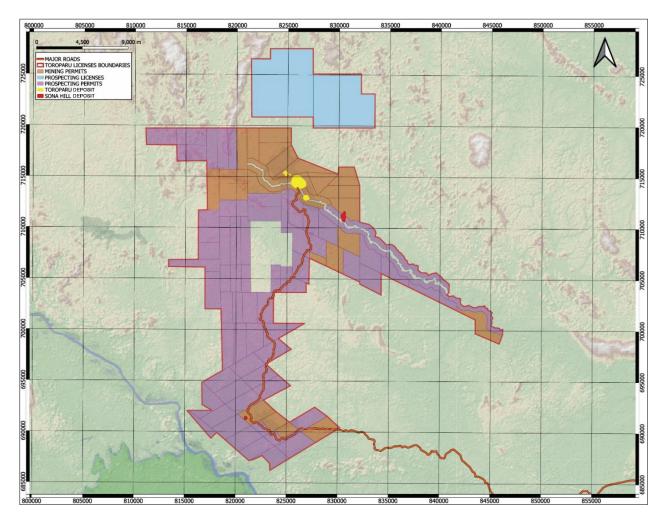


Figure 4-2: Property location map showing titles

4.3 Issuer's Interest

The Project is 100% owned by Aris Mining through its indirectly owned subsidiary, ETK.

4.4 Royalties, Agreements and Encumbrances

4.4.1 The Alphonso Joint Venture

The Toroparu deposit is located on property that was originally subject to the Mining Joint Venture Agreement which documented the terms and conditions of the Alphonso joint venture, then known as the Upper Puruni Venture (the "Mining Joint Venture Agreement"). The Mining Joint Venture Agreement was entered into between Mr. Alfro Alphonso and Mr. Gregory K. Graham effective August 1, 1999. This original agreement was amended and restated in its entirety effective January 1, 2008 pursuant to the terms of an amended and restated joint venture agreement between Alfro Alphonso and ETK (the "A&R Joint Venture Agreement").



In March 2020, ETK exercised its option under the A&R Joint Venture Agreement and acquired the Option Interest excepting and reserving only to Alphonso the right to conduct the alluvial mining activities on certain lands not associated with the Project, as set out in the A&R Joint Venture Agreement, and the use by Alphonso of certain roads and an airstrip constructed by ETK. ETK paid \$20 million to exercise the option and in addition to acquiring the Option Interest, ETK's obligations to make further payments under the A&R were terminated.

In connection with the option exercise, Alphonso delivered to ETK a written affirmation, declaration of trust and receipt acknowledging that he hold all lands and permits subject to the A&R Joint Venture Agreement in trust for the exclusive benefit of ETK until such time that the GGMC and the Minister of Mining of Guyana convert the Small Scale Claim licenses and MPs that are subject to the A&R Joint Venture Agreement to large scale mining licenses, and the same are issued in the sole name of ETK. ETK is required to pay any and all costs, including any fees or rentals, associated with such lands and permits. Alphonso further acknowledged that he is obligated to take any such action as may be reasonably requested by ETK, the GGMC or the Minister of Mining to complete such conversion.

4.4.2 The Godette Joint Venture

The Sona Hill deposit is located on property that is subject to the Godette joint venture (the "Godette Joint Venture"). Through its wholly owned subsidiary ETK, Aris Mining has rights to four MPs (the "Godette MPs") pursuant to the joint venture agreement effective April 1, 2008 (the "Godette Agreement"). ETK has sole operatorship and sole decision-making discretion in all matters pertaining to gold exploration on the lands subject to the Godette Agreement. ETK also has the sole and exclusive right to sell all gold, other precious metals, or gemstones it may recover from the properties. On December 21, 2012, ETK purchased 100% of the Godette's interest in the Godette Agreement for \$300,000. The Godette Heirs remain the registered owner of the Godette MPs; however, under the Godette Agreement, the Godette Heirs have irrevocably contributed and committed all their right, title, and interest in the Godette MPs for the benefit of ETK and the Godette Joint Venture and have granted ETK the exclusive right to conduct operations. Further, the Godette Heirs have agreed that during the term of the Godette Agreement, the Godette Heirs will not deal or attempt to deal with any right, title, or interest in the Godette MPs or in their interest in the Godette Agreement in any way that would or might affect the right of ETK to conduct operations on the lands subject to the Godette MP. Finally, the Godette Heirs have agreed to execute such documents and agreements and take such actions as are reasonably necessary to assist in the conversion of the Godette MPs to large scale mining licenses which shall be issued solely in the name of ETK.

ETK holds an irrevocable power of attorney from the Godette Heirs, providing ETK, with among



other powers, the right to take any action that the Government of Guyana may require to issue a Mining Permit covering the Godette MP's.

4.4.3 The Toroparu Precious Metals Purchase Agreement (the "Toroparu PMPA")

The Toroparu PMPA refers to the amended and restated precious metals purchase agreement among WPMI Aris Mining Toroparu Holdings Ltd. (formerly GoldHeart), a wholly-owned subsidiary of Aris Mining, and Aris Mining Guyana Holdings Corp. (formerly Sandspring, a wholly-owned subsidiary of Aris Mining) dated April 22, 2015. The original gold metal purchase agreement was entered into in November 2013 and amended in December 2013.

Pursuant to the terms and conditions of the Toroparu PMPA, WPMI has agreed to purchase 10% of the gold and 50% of the silver production from the Toroparu Project in exchange for up-front cash deposits totalling \$153.5 million. WPMI has made initial payments totalling \$15.5 million, with the remaining \$138.0 million to be paid in instalments during construction of the Toroparu Project, subject to WPMI's election to proceed following receipt of a final feasibility study for the Toroparu Project, environmental study and impact assessment and other project related documents. If WPMI elects not to proceed with the remaining stream financing of \$138.0 million, WPMI will be entitled to either (i) a refund from Aris Mining of \$13.5 million of the \$15.5 million already paid and termination of the Toroparu PMPA or (ii) a reduction of the gold stream percentage from 10% to 0.909% and the silver stream percentage from 50% to nil.

4.4.4 The Consulting Agreement

The Consulting Agreement between ETK and A&S was executed on November 1, 2013, and which survived the exercise by ETK of the option under the A&R Joint Venture Agreement as described above. Pursuant to the Consulting Agreement, A&S is to be paid, commencing on the first anniversary of ETK receiving cashflow sufficient to develop and construct a conventional open pit mining and flotation and cyanide leach process operation on the Property with on-site and off-site support operations (with such cash flow to be determined in a definitive feasibility study), eight annual payments of a minimum of \$1.0 million adjusted upwards in accordance with the indexing formula set out in the Consulting Agreement (to a maximum of \$2.0 million), followed by five extended payments of a maximum of \$1.0 million (provided the daily price of gold averaged over a twelve-month period or a calendar month period, as applicable, exceeds \$1,750 per ounce) subject to downward indexation based on a formula set out in the Consulting Agreement.



4.4.5 Royalties

ETK is a party to a Mineral Agreement with the Government of Guyana that details all fiscal, property, import-export procedures, taxation provisions, and other related conditions for the continued exploration and future mine development and operation of an open pit mine at Toroparu. The Mineral Agreement implements a two-tiered gold royalty structure of 5% of gold sales at gold prices up to \$1,000 per ounce and 8% of gold sales at gold prices above \$1,000 per ounce, as well as a royalty of 1.5% on sales of copper and other valuable minerals.

4.5 Environmental Liabilities

There are no known environmental liabilities at the Project.

4.6 Permits

ETK holds all the necessary permits and permissions currently required to conduct its exploration work and medium-scale mining and gravity recovery of gold and other minerals on the Project. In order to advance the project, ETK has applied to the GGMC and the Minister of Mining of Guyana to convert the Small Scale Claim licenses, Mining Permits and Prospecting Permits it presently holds through the A&R Joint Venture Agreement and the Godette Agreement to large scale mining licenses and to issue the same in the name of ETK (the "Conversion").

The Project has renewed its environmental permit effective for the period between August 2019 and July 2024. The environmental permit must be renewed by submitting a completed Application Form for Renewal of Environmental Authorization to the Environmental Protection Agency of Guyana no later than January 31, 2024.

The Ministry of Natural Resources of Guyana and the Ministry of Public Infrastructure of Guyana (the "Ministries") have also settled on the terms of a road users' agreement to be entered into upon completion of the Conversion, wherein, among other things, the Ministries will facilitate any arrangements that are required by ETK in order to enjoy unhindered and reasonable access to a road built on public lands leading to the Project and ETK will maintain and rehabilitate sections of such road, subject to the final terms of such agreement.

ETK has negotiated the terms of an Investment Agreement with GO-Invest which governs the terms by which the Company, directly or indirectly through contractors, undertake the activities as set out in the Mineral Agreement such as importing vehicles, machinery, equipment and materials required for building the Toroparu Project and also governs the terms by which the Guyana Revenue Authority will extend certain tax exemptions. It is expected that ETK and GO-Invest will enter into the agreement once the Conversion is complete.



4.7 Significant Factors and Risks

Mining Plus is not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform on-going work programs on the Property.



5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Topography, Elevation, Vegetation and Climate

The topography is flat to gently undulating to hilly, with elevations ranging from 94 m to 105 m above sea level at the Toroparu deposit and from 60 m to 120 m above sea level at the Sona Hill deposit. There are steep hills of up to 200 m above sea level.

The Project is located in a poorly drained tropical rain forest with associated vegetation that has been cleared in the areas of the camp, airstrip, and access roads.

Weather records are based on data measurements collected from a meteorological base station established during baseline environmental studies in 2007, and two regional weather stations managed by the Guyanese Hydrometeorological Agency at Mazaruni, located 200 km from the Project, and at Enachu, located 75 km from the Project. The average temperature on site is around 28°C with a minimum of 18°C and a maximum of 38°C. Humidity is high with an average of 82%, with values ranging from between 64% and 100%. Average annual precipitation is 2,625 millimetres with two wet seasons occurring between December to February and between May to July. The dry season is the ideal time to carry out geochemical sampling, drilling, and geophysical surveys, but exploration can be carried out on a year-round basis. The same is assumed for any future mining operations.

5.2 Property Access, Transport, Population Centres and Mining Personnel

Road access to the Property from Georgetown has been available since construction of the southern access road was completed by ETK in 2003. The route is via 128 km of paved highway south to Bartica, a ferry crossing of the Essequibo River at Bartica to Itabali, then 200 km west on a public gravel road to the south gate at Toroparu Junction, then 25 km north to the Project site. Overland travel time is approximately 12 to 16 hours in the dry season.

The project can also be accessed via a one hour, 220 km charter flight from Ogle Airport in Georgetown to the 2,500 foot airstrip at the Project. The airstrip is licensed and certified by the Guyana Aviation Agency.

Heavy equipment and cargo may be transported by small ocean-going vessels and barges on the Essequibo River to Itabali, then loaded on to trucks for the 230 km overland journey to Toroparu crossing the Puruni River at the town of Puruni Landing, located approximately 60 km from Itabali, on a company operated 40 tonne ferry barge.



Heavy equipment operators are available from Georgetown, which has a population of around 809,000, and the town of Linden located approximately 110 km south of Georgetown, which has a population of approximately 45,000, and from other population centres in Guyana. The nearest population centre is at Bartica, which is located 230 km away from site and has a population of approximately 20,000. Equipment and supplies come from Georgetown.

5.3 Surface Rights

ETK, is the beneficial holder of all right, title and interest in the lands subject to the Project and therefore also has all surface rights.

5.4 Infrastructure

The Property has sufficient area to allow for future tailings storage areas, waste disposal areas, and processing plant sites.

5.5 Power and Water

There is no nearby power grid. Water is available through the year from the Wynamu River, its creeks, and from rainfall run off.



6 HISTORY

6.1 Early Work

The first known gold mining in the Project area was by alluvial mining methods around 1887. Regional and local mapping was undertaken in 1950. Alphonso began mining old tailings and river alluvium at Toroparu in 1997 using high pressure water jets to wash the material into a pit and then pumped the slurry up to a sluice box. The alluvial material was mostly exhausted by 1999 and work proceeded deeper into the underlying saprolite, which eventually developed into the Toroparu saprolite open pit. This operation, which utilized up to 15 dredges, continued until 2001.

6.2 ETK - 1999 to 2009

Exploration by ETK at Toroparu began in 1999 with the Alphonso Joint Venture, which named ETK as the Project operator.

Between 1999 and 2018, ETK conducted extensive auger drill sampling campaigns around the Toroparu saprolite open pit and on a regional scale for the purposes of evaluating the possibility of re-working the mine tailings, to test the saprolites beneath the alluvial cover in areas of historic gold workings, to determine regional gold potential, and to identify surface mineralization for follow up by diamond drilling. Geochemical and trench sampling and geophysical surveys were also conducted during this period to identify gold mineralization targets.

In 2000, ETK commenced rehabilitation and upgrade of the 240 km access road into the Property.

In 2004, ETK commissioned a gravity circuit to test mine the tailings and saprolite.

ETK conducted intermittent, seasonal test mining from saprolite at the saprolite open pit from late 2004 to early 2007 using hydraulic sluicing and a gravity circuit with screens, ball mill, centrifugal concentrators, and shaker tables.

The first diamond drilling on the Property began in late 2006, comprised of 23 drillholes that identified gold mineralization over a volume of 600 m by 300 m by 300 m around the Toroparu saprolite open pit. In 2008 a further seven drillholes were completed, which expanded the known mineralization to 650 m by 350 m by 425 m. The first mineral resource estimate was prepared effective October 26, 2008, utilizing 27 drillholes for 9,492 m.

In 2009, ETK conducted an initial metallurgical scoping test program from saprolite and hard rock samples collected from drill core at the Toroparu deposit, in order to assess the amenability of the saprolite and bedrock for typical gold and copper recovery.



On November 24, 2009, Sandspring acquired 100% of GoldHeart, which through its wholly owned subsidiary ETK held the mineral and prospecting rights to the Project and adjacent properties.

6.3 Sandspring - 2010 to 2021

Sandspring began a diamond drilling program in 2010 for resource definition and infill of the main mineralization zone, to step out drilling to the east-southeast, west-northwest, and west of the Toroparu saprolite open pit, to expand and upgrade the mineral resource categories of mineralization identified in previous drill programs. Five geotechnical drillholes were also completed for pit slope geotechnical design. Sandspring also conducted geophysical surveys over the Toroparu deposit and reconnaissance grids over the Ameeba, Manx, and Timmermans prospects.

Sandspring completed two mineral resource estimates in 2010, effective May 12, 2010, and September 12, 2010.

In 2010, CM Power Inc. undertook an evaluation of the hydro power capacity of the Kumarau Falls on the Kumurung River, which was a former United Nations Development Program sponsored project, located 35 km southwest of Toroparu.

In 2011, Sandspring conducted a mineral resource definition diamond drilling program focussed on the eastern main mineralized zone of the Toroparu deposit to increase the mineral resources and to upgrade inferred mineral resources to measured and/or indicated resources. This work identified the main lithologies and controls on mineralization. The diamond drilling database contained 225 drillholes for 111,668 m completed between 2006 and 2011. Additional diamond drilling was conducted later in 2011 adjacent to the main zone area to explore for nearby satellite deposits, as well as reconnaissance diamond drilling over areas with promising surface exploration results, including Ameeba and Manx, located several kilometres to the northwest and northeast of the Toroparu deposit, respectively.

Sandspring prepared an updated mineral resource estimate and PEA of the Toroparu deposit effective April 30, 2011, utilizing diamond drilling data available up to December 31, 2010. A prefeasibility study level pit slope design report was prepared in October 2011.

Other exploration work conducted by Sandspring in 2011 included a regional saprolite geochemistry sampling program focussed on high gold potential areas and semi-regional and detailed geochemical sampling where alluvial mining activities showed gold potential, geophysical surveys over several gold prospects including Ameeba, Timmermans, Manx, and northwest of the Toroparu deposit to complete the 2010 grids, and a light detection and ranging ("LIDAR") survey to produce a detailed topographic contour map. Additionally, SGS completed a



metallurgy gold deportment study for Sandspring on a 400 kg composite sample of the Toroparu mineralization collected from 23 diamond drillholes, to determine gold occurrences and to identify and evaluate any mineralogical factors that might affect gold recovery.

In mid-2011 the access road to the Project was improved and rehabilitated over a total distance of 240 km. A road work contract was signed with the GGMC in 2012 to finance part of the total road rehabilitation costs. Approximately 100 km of the road rehabilitation work was conducted by a local construction company.

Sandspring signed a Mineral Agreement on November 9, 2011 with the Government of the Republic of Guyana, which defined all fiscal, property, import-export procedures, taxation provision, and other related conditions for the continued exploration, mine development, and mining and processing operations at the Property. The Government of Guyana agreed to grant a large scale mining license which allows the start of commercial production once economic feasibility is demonstrated.

In 2012, 142 holes were completed for the Toroparu deposit area, bringing the diamond drilling database to a total of 367 holes for 145,723 m completed between 2006 and 2012. Sandspring completed an updated mineral resource estimate and PEA of the Toroparu deposit, effective January 30, 2012, utilizing the diamond drilling data available up to October 2011.

Exploration work in 2012 included regional and detailed auger sampling to assess regional gold potential and to identify local gold anomalies, geochemical sampling surveys, and re-analyses of previous geophysical survey data. Reverse circulation drilling was also conducted to test gold anomalies identified by the saprolite geochemistry samples. The results for Ameeba were limited. Sandspring also conducted reverse circulation and diamond drilling at Sona Hill, which showed encouraging but scattered gold intercepts with no significant copper.

Project work in 2012 included a preliminary design study on the access road reconstruction from the Itabali port facility to the Project, a distance of 230 km, including a conceptual roadway reconstruction design plan, cost estimates, and preliminary solicitation of qualified contractors. In June 2012 the Environmental Permit was signed and granted by the Environmental Protection Agency. A monitoring program commenced to assess the upstream and downstream Kumurung river flow characteristics as well as rainfall in the Project watershed.

In 2013, Sandspring completed a mineral resource estimate and the first mineral reserve estimate for an open pit project as part of a prefeasibility study effective May 8, 2013.

Following the 2013 prefeasibility study, Sandspring continued to conduct exploration to evaluate other areas on the Property, including auger and soil sampling of regional targets, past and current alluvial gold prospecting, and by exploration diamond drilling. This work included regional



geochemical and auger sampling of saprolite at the Otomung concession and infill saprolite sampling at Sona Hill, prior to diamond drilling. The Otomung samples collected during 2015, 2016, and 2017 showed weak gold values but identified a clear 8 km trend similar to the Toroparu deposit. The Wynamu Hill gold anomaly was discovered by geochemical surveys in 2012 and 2013.

Three diamond drilling programs comprising 184 holes for 21,963 m were conducted at Sona Hill in 2015, 2016, and 2018, which was utilized for the first mineral resource estimate for Sona Hill, effective September 20, 2018. Other work at Sona Hill included geochemical sampling and geophysical surveys conducted between 2015 and 2016.

Sixty-two diamond drillholes were also completed at the Wynamu exploration target in 2016 and 2018, with promising results. In 2018, additional diamond drilling was undertaken at Ameeba focussed on saprolite hosted gold mineralization, which returned narrow and scattered results.

Sandspring changed its name to Gold X Mining Corp. ("Gold X") on November 29, 2019. A diamond drilling program was undertaken in 2020 and 2021, consisting of 114 holes for 20,750 m at the Toroparu main and southeast areas to test a new geological interpretation of narrow, cross-cutting high grade structures, compared to the previous interpretations of a large, low-grade deposit.

On June 4, 2021, Gran Colombia Mining Corp. ("Gran Colombia") acquired all of the issued and outstanding shares of Gold X, and indirectly, the Toroparu Project.

On November 29, 2021 Gran Colombia changed its name to GCM Mining Corp ("GCM Mining").

6.4 GCM Mining (renamed to Aris Mining) - 2021 to Present

In June 2021, GCM Mining completed the acquisition of Gold X and began refining the Project development options at Toroparu. GCM Mining completed an updated mineral resource estimate and PEA on the Project, effective December 2, 2021, utilizing 528 diamond drillholes and three trenches completed between 2006 and 2021 for the Toroparu deposit and 181 diamond drillholes for the Sona Hill deposit.

GCM Mining also began pre-construction activities in 2021, including hiring the Project team and key contractors, preparation of camp facilities, rehabilitation of the Project airstrip, design and civil works related to the camp, road, and water management, electrical network design, permitting, design of initial environmental and social governance initiatives, and various environmental studies. Following the 2021 PEA, GCM Mining undertook additional infill drilling, made preparations for a prefeasibility study, and worked with the local governmental agencies to finalize the amended mining license for a large-scale mining license incorporating an open pit



and underground mine operating plan as outlined in the 2021 PEA that was submitted in early 2022.

On September 26, 2022, Aris Gold Corporation completed a business combination with GCM Mining, and the combined entity was renamed Aris Mining. Aris Mining indirectly holds 100% of the Property through its wholly owned subsidiary, ETK. Following the business combination, Aris Mining started a re-evaluation and optimization process for the Toroparu Project, and reduced the previously planned expenditures until such time as the development plan is fully defined. As part of this review process, Aris Mining undertook a new detailed structural analysis and updated geological model to produce the current mineral resource estimate detailed in this technical report. Aris Mining is progressing with additional studies to update, fully define, and optimize the development plan.

6.5 Historical Mineral Resource and Mineral Reserve Estimates

The first mineral resource estimate for the Project was completed by P&E Mining Consultants Inc ("P&E") effective October 26, 2008. Mineral resource estimate updates by P&E were prepared effective May 12, 2010 and September 12, 2010. The first PEA was completed by P&E effective April 30, 2011. An updated mineral resource estimate and PEA was completed by P&E effective January 30, 2012. In 2013 SRK Consulting U.S. ("SRK") completed an updated mineral resource estimate effective March 31, 2013, and a prefeasibility study to support the first mineral reserve estimate, effective May 8, 2013. SRK completed an updated mineral resource estimate effective September 20, 2018, and a PEA, effective June 11, 2019.

The most recent historical mineral resource estimate was an updated mineral resource estimate and a PEA effective December 1, 2021, prepared by Nordmin Engineering Ltd. ("Nordmin"), based on an updated geological interpretation. The mineral resource estimate was effective December 1, 2021, and included open pit and underground mineral resources of 110.9 Mt at 1.26 g/t gold for 4.5 Moz of gold in the measured category, 74.1 Mt at 1.66 g/t gold for 4.0 Moz of gold in the indicated category, and 13.8 Mt at 2.74 g/t gold for 1.2 Moz of gold in the inferred category, utilizing a cut-off grade of 0.40 g/t gold for open pit resources and 1.8 g/t gold for underground resources (Nordmin Engineering, 2022).

A Qualified Person has not done sufficient work to classify any of these historical estimates as current mineral resources or mineral reserves, and Mining Plus does not consider any of these historical estimates to be current mineral resources or mineral reserves. These historical mineral resource and mineral reserve estimates have been superseded by an updated structural and geological interpretation, and an updated mineral resource estimate using updated assumptions and parameters and should not be relied upon.



6.6 Past Production

Historical gold production from the Project has been from shallow alluvial and saprolite mining and placer processing of free gold. Undocumented small-scale sluice and riffle table processing of alluvium and shallow lag gravels continues to the present day. There are no records of the gold production.

ETK undertook intermittent, seasonal test mining between late 2004 to early 2007 from the saprolite open pit using hydraulic sluicing and a gravity circuit with screens, ball mill, centrifugal concentrators, and shaker tables. There are no records of the gold production.



7 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

The Project is located in the northern half of the Amazonian Craton of the Guiana Shield and is mainly underlain by supracrustal Paleo-Proterozoic aged volcano-sedimentary belts and large granitoid batholiths of the Barama-Mazaruni Supergroup. These belts form the northwest trending Puruni volcano-sedimentary belt comprised of basal mafic tholeiitic basalts and minor ultramafic rocks overlain by alternating mafic to intermediate volcanic rocks and sedimentary rocks, generally metapelites and greywackes. The Puruni volcano-sedimentary belt extends between the Aurora batholith to the north of the Project and the Putareng batholith to the southwest of the Project. The Putareng batholith corresponds to a calc-alkaline intrusive complex with small, elongate intra-belt plutons. The Toroparu and Sona Hill deposits are developed along the contact of one of these small intrusive bodies. Other gold deposits in Guyana related to similar intrusive bodies include Aurora, located approximately 50 km to the northeast of Toroparu, and Omai, located approximately 180 km to the southeast of Toroparu. Younger irregularly shaped mafic intrusions are widespread in the area. The northwest trending features follow lithological contact zones and show a sigmoidal flexure zone to the northwest of the Project. The Toroparu deposits occur close to the crossing of the west-northwest trending Puruni lineament and the north-northwest trending Wynamu lineament (Figure 7-1).

7.2 Local Geology

The Toroparu and Sona Hill deposits are hosted in a sequence of meta-sedimentary and meta-volcanic rocks in a greenstone belt between Proterozoic granitoid batholiths. A plan of the local geology is shown in (Figure 7-2).

Regional aeromagnetic-radiometric lineament data indicates the presence of major folds that are likely to occur at a smaller, deposit scale. The upright fold axial planes appear to strike northwest and plunge both northwest and southeast, as shown in Figure 7-3. Local aeromagnetic data show similar curved magnetic lineaments and probable folds with an interpreted northwest to west-northwest strike and plunging both northwest and southeast. It is possible that Toroparu is located along a northwest striking and southeast plunging fold. Sona Hill is located along north trending and west dipping lithologies and structures. Evidence of folding is widespread in the geophysical data, drillhole data, and rare surface exposures.



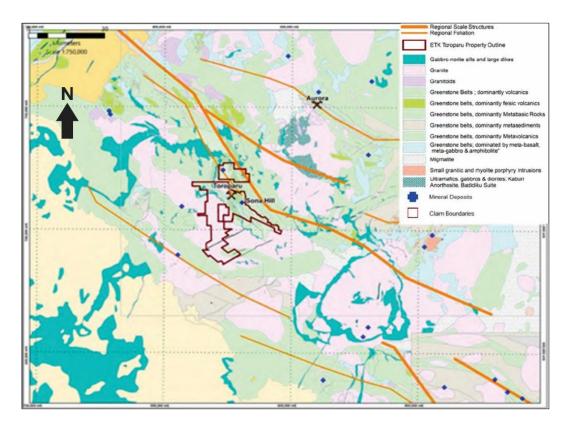


Figure 7-1: Regional geology

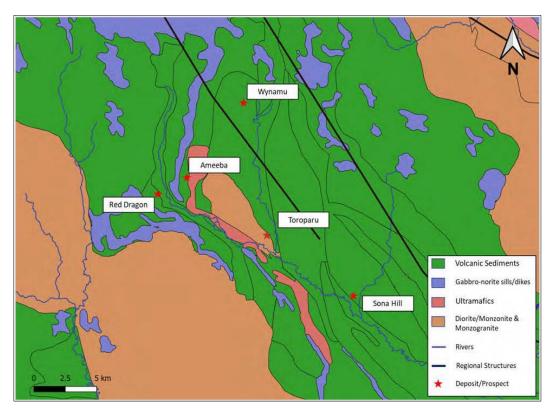


Figure 7-2: Local geology map



Mineralization at the Toroparu deposit has been intersected in drillholes for up to 2.5 km along strike, up to 250 m wide, and up to 600 m in depth, and at Sona Hill for up to 900 m along strike, up to 250 m wide, and up to 300 m in depth. Recent structural interpretation work indicates that the main body of mineralization at Toroparu is likely part of a major regional fold structure striking west-northwest to northwest, with a distinct sigmoidal shape and higher gold grades within the bend (Pratt and Smeraglia, 2022). Folding and ductile deformation resulted in a west-northwest to northwest striking schistosity and parallel mineralized veins, dykes, and shear zones.

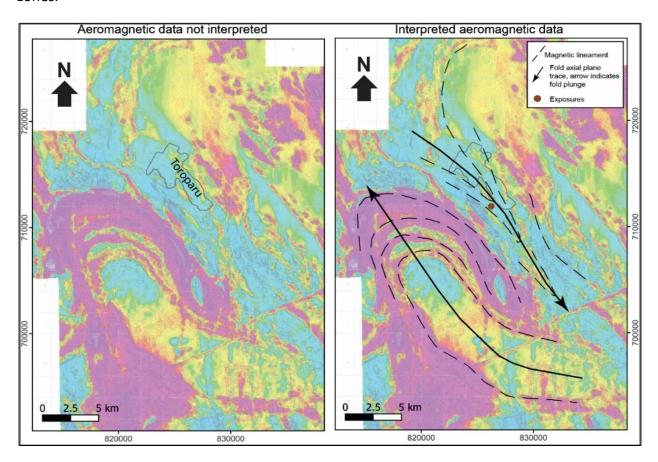


Figure 7-3: Aeromagnetic data interpretation plan

7.3 Property Geology

Thin, discontinuous mineralized shear zones at the Toroparu deposit are developed mainly in the volcanic rocks. Higher grade, discontinuous shear zone hosted mineralization is narrow and mostly parallel to the schistosity. The main controls on mineralization are the west-northwest striking axial planar schistosity and vein swarms that are well developed in the volcanic rocks, and the folded contact between an intrusive complex and the volcanic rocks, particularly the contact of an igneous breccia that forms an important rheological contrast, similar to many other



orogenic gold deposits that are strongly controlled by competency contrasts. The deposit dips roughly 55° to the west.

The Sona Hill deposit has similar controls on mineralization but strikes to the north and dips around 30° to the west.

Two dyke phases are present including hornblende porphyritic andesite dykes and dolerite dykes. Most dykes have an apparent thickness of less than 0.5 m, but some dykes up to 2.5 m thick also occur. The hornblende porphyrite andesite dykes are weakly to intensely deformed with schistosity roughly parallel to that of the host rock. In places, these dykes are folded. Despite being sheared and folded, the dykes are mostly non-mineralized, although some mineralized veins occur along the contacts. Some of these dykes are cut by mineralized shear zones. The dolerite dykes are fine grained, non-sheared, and non-mineralized. They crosscut gold mineralized veins, silicified zones, and shear zones. They postdate both the deformation and the gold mineralizing events.

A thick, gradational, 10 m to 35 m thick layer of saprolite with preserved mineralized quartz veins and veinlets, showing evidence of some gold leaching, is present at the surface at Toroparu and reaches up to 60 m thick at Sona Hill. A weathering profile comprised of overburden, saprolite, and a transition zone has been interpreted for the mineral resource estimate. The overburden has abundant low grade gold mineralization but little high grade.

7.4 Mineralization and Alteration

Mineralization at the Toroparu deposit estimated as mineral resources in the main zone has a footprint of around 1.3 km along strike, around 500 m across strike, and a depth of 550 m. There is a zone of mineral resources approximately 1.1 km to the southeast of the main zone with a footprint of around 400 m along strike, 230 m across strike, and a depth of 250 m. There are a few other small zones of mineral resources on the order of 100 m long along strike of and parallel to the main zone. The mineralized shear zones are narrow and discontinuous. Sona Hill has a footprint of around 950 m along strike, up to 300 m wide, and a depth of around 200 m. Sona Hill is characterized by a lower copper content. Both deposits are open at depth.

The main body of mineralization at Toroparu is characterized by three different vein assemblages.

 Gold mineralized quartz and chalcopyrite or bornite veinlets occur both in the volcanic and intrusive rocks and appear to be focused on the boundary between them, particularly within a marginal igneous breccia. Chalcopyrite and quartz are commonly coarse and intergrown. The veinlets are more abundant and thinner in the volcanic rocks, are parallel



to the schistosity, and tend to have lower gold grades. The veins are less continuous in the intrusive rocks and igneous breccia but tend to be of higher gold grade and contain molybdenite. Within the intrusive rocks, the veins show an intense chlorite alteration halo. Vein swarms in the volcanic rocks are in zones up to tens of metres thick with low to medium gold grades, with scattered high grades coinciding with high chalcopyrite content. In places, the veins are folded and boudinaged, with chalcopyrite often concentrated in the boudin necks. Veins range between less than 1 mm up to a few centimetres thick. There are rare 0.4 m to 0.5 m thick veins.

- Gold mineralized chalcopyrite only veinlets occur in the volcanic and intrusive rocks.
 These veinlets are up to a few millimetres thick and are strongly transposed and
 dismembered parallel to schistosity and are also folded. In places, chalcopyrite veinlets
 form a scattered network in quartz veins.
- Gold mineralized quartz and molybdenite veins are also present, mostly in the igneous breccia along the intrusive-volcanic contact. These veins are scattered and contain high gold grades.

Local gold mineralized silica alteration occurs as discrete patches or as zones up to tens of metres thick that affect volcanics, intrusives, and igneous breccias. In places the silica is associated with epidote. Silica alteration is characterized by disseminated chalcopyrite and is crosscut by quartz chalcopyrite veins and chalcopyrite veinlets. In contrast with the schistose rocks, the veinlets have an apparent random orientation. Silica alteration halos occur around the chalcopyrite veinlets and have higher gold grades.

7.5 Structure

The mineralized veins are folded, sheared, transposed, and boudinaged, and are rotated by shearing parallel to the schistosity in both volcanic and intrusive rocks. Mineralized veins, shear zones, schistosity, and the hornblende porphyritic andesite dykes show a consistent west-northwest to northwest strike and moderate to steep southwest dip, consistent with the regional northwest strike of folds interpreted from the aeromagnetic data. This fractal similarity suggests that the main pit mineralization is part of a major regional fold structure. It is likely that these folds are tight, and most limbs and contacts are parallel to schistosity. Fold areas may be areas of high grade and likely have a shallow plunge and present an exploration target. Figure 7-4 shows a schematic structural model for Toroparu in the main zone area.



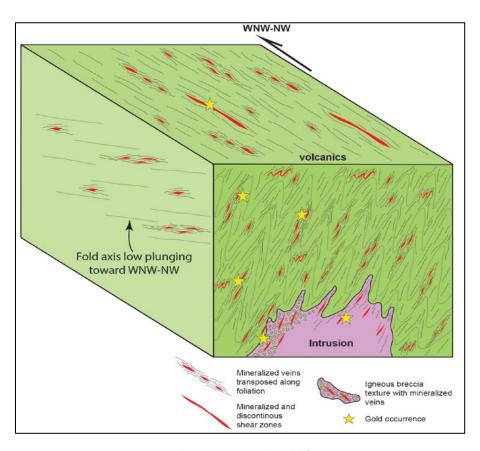


Figure 7-4: Schematic structural model for Toroparu

Shear zones with a distinctive intense schistosity and sigmoidal shape ranging in thickness from 0.1 m to up to a few metres are common in the Toroparu main pit area, especially in the volcanic rocks. Gold mineralized quartz and chalcopyrite veins are sheared, transposed to parallel and are folded along the shear zones. Some of the shear zones are flooded by silica alteration. Non-mineralized shear zones are characterized by smectic and carbonate, possibly ankerite. Most of the gold mineralized veins, shear zones, non-mineralized shear zones, schistosity, and bedding show a northwest strike and a steep to moderate southwest dip.

The main tectonic event in the Toroparu area is interpreted to be regional folding of volcanic rocks and a pre-existing intrusion. Folding and shortening rotated the mineralized veins and hornblende porphyritic andesite dykes parallel with schistosity. Mineralized veins may have initially formed as tension gashes in the early stages of deformation. A flattened, deformed porphyry vein system is another possible interpretation. Continued folding and flattening rotated the veinlets, resulting in shearing, transposition, and boudinage along schistosity. When shortening intensity reached a critical point and the folds locked, shear zones developed, possibly under a transpressional stress regime. The timing of the silica alteration event is uncertain but is associated with higher gold grades. Finally, non-deformed and non-mineralized dolerite dykes crosscut the folds. They are considered too thin to significantly dilute the gold resource.



8 DEPOSIT TYPES

The interpretation of the deposit type at Toroparu is uncertain, with possibilities including an unusually copper rich orogenic gold deposit on the basis of the host greenschist metamorphic rocks and a strong control of mineralization due to competency contrasts, as well as a metamorphosed porphyry gold-copper deposit. Recent structural interpretation work suggests that Toroparu is not a classic lode type orogenic gold deposit and is unlikely to be a deformed porphyry deposit (Pratt and Smeraglia, 2022). A disseminated or sheeted vein type deposit can be used as a guide for exploration planning purposes.



9 EXPLORATION

The first activity at the Project was alluvial placer mining by Alphonso that commenced in 1997. ETK began exploration in 1999 and following the Mining Joint Venture Agreement with Alphonso in 2000, commenced rehabilitation and upgrading the 240 km access road into the Property to facilitate the transport of mining equipment and supplies.

Systematic exploration activities at Toroparu commenced in 2011 and include mapping, surface geochemical sampling, near surface auger drilling, geophysical surveys, reverse circulation drilling, and diamond drilling. The surface sampling initiates on a wide grid spacing and is tightened following areas of interest, and is utilized, along with initial reverse circulation drilling, to identify high value targets for diamond drilling. The geochemical sampling work identified geochemical markers for specific lithological units and the geophysical surveys showed that magnetic highs overlap the mineralized zones. The geochemical sampling identified the Toroparu northwest area, Sona Hill, Sona Hill South, Majuba located to the south and southeast of the Toroparu deposit, and the Ameeba Hills anomalies. Work in the Otomung area resulted in weak findings, possibly due to masking of the saprolite by overlying clay layers several metres thick. None of the exploration samples described in this section have been used for the current mineral resource estimate.

9.1 Geological Mapping

Regional and local mapping has been undertaken in phases since 1950, both by the title holders and by external parties, including the GGMC. The GGMC undertook regional mapping supported by geochemical drainage sampling in 2000, which showed gold and copper anomalies in the immediate Toroparu area.

9.2 Surface Sampling

ETK began auger drill sampling in 1999 to the east and west of the Toroparu deposit saprolite pit to evaluate re-processing the tailings from previous mining. Further auger drilling was carried out between 2001 and 2003 in the same area. In 2008 mechanized auger drilling was conducted over a 2 km by 3 km area to the northwest of the Toroparu saprolite open pit. Nine northeast trending lines of auger samples were collected, spaced 500 m apart, to test the saprolitic rocks beneath the alluvial cover in an area of historic gold workings. In 2009 approximately 2,500 saprolite samples were collected from hand and power augers from depths of 1 m to 15 m. The sample grids were oriented perpendicular to regional structures, extending approximately 4.5 km to the west-northwest of the Toroparu resource area, and identified several gold anomalies along the geological trends. In 2012, Sandspring collected 3,480 regional saprolite samples using a hand



auger. Between 2013 and 2018, Sandspring conducted auger sampling to follow up on targets identified by regional structure and geology trends, and past and present alluvial gold prospecting.

Drainage geochemical sampling was conducted by the GGMC between 2003 and 2004 in the PL blocks to the north of the Toroparu saprolite pit and around the pit and reported that gold mineralization could extend at least 6 km to the northwest and 1 km to the southeast of the Toroparu saprolite pit. In 2011 Sandspring conducted a regional saprolite geochemistry sampling campaign in the Upper Puruni area, focussing on areas considered to be prospective for gold, including the surrounding northwest, north, and northeast areas of Toroparu, including the Ameeba, Manx, and Timmermans alluvial prospects. 2,891 samples were collected. Semiregional and detailed geochemical sampling was performed on areas where alluvial mining activities showed gold potential, for a total of 4,390 samples. Additional work by Sandspring was completed in 2012, which increased the samples to a total of 7,850 covering an area of around 450 km². In 2013 Sandspring collected 378 saprolite samples from the Makapa area over a final grid of 200 m by 100 m, which confirmed a north-northeast oriented, 1 km long and 500 m wide gold anomaly covering two small hills. In 2015 Sandspring collected 951 geochemical samples in the Otomung River area which returned weak gold values along an 8 km trend. In 2016 Sandspring collected 660 geochemical samples on a 250 m by 100 m grid over previously identified anomalies at the Otomung River area, with an additional 305 samples collected from a 30 km2 area to extend the 2015 grid. This geochemical sampling grid was tightened with 885 geochemical samples in 2017 to an area of 100 m by 125 m and another 50 m by 125 m anomaly further north. The grid was further tightened in 2018 with an additional 885 saprolite samples that returned weak gold assays. At Sona Hill, Sandspring conducted concurrent geochemical sampling and geophysical surveys during 2015 and 2016 on a 100 m by 50 m grid, but there are very few exposed alluvial sediments.

Geochemical samples collected during 2010 and 2011 were taken from the soil layer, and if possible, from the laterite layer, at a depth of approximately 0.3 m and 0.5 m, using a hand auger. QAQC samples comprising blanks, standards, and field duplicates were submitted at 20 routine sample intervals. The samples were dried and prepared at the onsite Acme preparation laboratory and submitted for inductively coupled plasma ("ICP") analysis.

Geochemical samples collected during 2015, 2016, 2017, and 2018 were submitted to Bureau Veritas Commodities Laboratory ("Bureau Veritas") for assay by aqua regia digestion and ultratrace ICP analysis.

Trench channel samples were completed for ETK in 2005 and 2006 to investigate gold mineralization in the saprolites of the pit area over an area of about 180 m by 100 m. In 2009,



ETK completed 41 trenches totalling 6,000 m, spaced at regular intervals and oriented perpendicular to the regional structural trend, over a 5 km strike length to the northwest of the Toroparu saprolite open pit.

9.3 Geophysics

In 2006 and 2007, TerraQuest conducted a 5 km by 4.5 km high resolution tri-sensor magnetic and radiometric airborne survey for ETK around the Toroparu saprolite open pit area. This identified a magnetic low area just to the north of a large magnetic high area of unknown origin. The survey outlined a number of magnetic and radiometric anomalies in the areas adjacent to the Toroparu saprolite open pit. In late 2010 and early 2011, TerraQuest conducted airborne geophysical surveys over the Otomung area, including magnetics, four channel radiometrics and very low frequency electromagnetics.

In 2010, 85-line kilometres of gradient array induced polarization and magnetometer surveys were performed by Insight Geophysics for Sandspring over the Toroparu deposit area and at the Ameeba, Manx, and Timmermans prospects. The surveys were done along 200 m spaced lines over an area of 4.8 km by 2.8 km. The induced polarization surveys showed anomalies corresponding to the Toroparu granodiorite pluton. Chargeability was low over areas of high gold-copper mineralization despite the presence of sulfides. In 2011 17 line kilometres of combined gradient array induced polarization and magnetometer surveys were carried out at Ameeba, Timmermans, Manx, and northwest of the Toroparu deposit, to complete the grids begun in 2010. At Sona Hill, Sandspring conducted an 18-line km induced polarization survey in 2015 to 2016 over the saprolite geochemical sampling grid, which suggested an extension of the west dipping, low angle, strongly altered shear zone to the west, with the potential for additional mineralization in the hangingwall. The chargeability survey did not reveal any significant results due to the low sulfide content of the Sona Hill mineralization. Resistivity did not provide reliable information to differentiate lithology, due to the similar mineralogy of the intrusives and volcanics.

In 2011, Sandspring had a LIDAR survey flown over a 250 km² area around the Toroparu deposit to produce a detailed topographic contour map.



10 DRILLING

10.1 Drilling Summary

Drilling has taken place at the Property from 2006 to 2022, mostly for resource definition at the Toroparu and Sona Hill deposits, and for exploration at the Wynamu, Ameeba, Red Dragon, Majuba, and Timmermens prospects. Drilling commenced with ETK, followed by Sandspring, Gold X, and GCM Mining (now Aris Mining). A total of 1,326 drillholes for 265,948 m are present in the resource drilling database provided to Mining Plus by Aris Mining. A drill summary table is provided in Table 10-1.

Additionally, 13 geotechnical and 110 condemnation drillholes were drilled between 2021 and 2022.

Mining Plus considers that the drillholes in the Toroparu and Sona Hill deposits have adequate spacing between holes to define mineral resources for the mineralization style. Those holes in the same area, but towards the periphery or with a wider drilling grid have not been considered for the mineral resources estimate. Drilling used during the resource estimate corresponds to 617 diamond drill holes at Toroparu and 181 drillholes (152 diamond, 29 reverse circulation) at Sona Hill.

Table 10-1: Toroparu Project drill summary table

Target	Operator	Years Drilled	Hole Type	Number of Holes	Total Metres
	ETK	2006 to 2009 Diamond		52	20,336
		2010 to 2014	Diamond	467	161,665
	Sandspring	2012	Reverse Circulation	81	6,330
Toroparu		2014	2014 Air Core		6,132
		2014	Unknown	4	104
	Gold X	2020 to 2021	Diamond	114	20,751
GCM Mining		2021 to 2022	Diamond	50	5,135
	Sandspring	2012 to 2018	Diamond	154	18,994
Sona Hill	Sandspring 2012		Reverse Circulation	30	2,969
Sandspring		2016 to 2018 Diamond		62	6,430
Wynamu		2014	Air Core	26	689
A	Sandspring	2011 to 2018	Diamond	33	7,219
Ameeba		2012	Reverse Circulation	29	2,920
Red Dragon	Sandspring	2012 Reverse Circulation		37	3,503
Majuba	GCM Mining	2021 to 2022	Diamond	12	1,676
Timmermens	Sandspring	2010	Diamond	3	1,095



A plan of the drillhole collars is provided in Figure 10-1 and a representative cross section of the drillhole spacing with the lithological and weathering model is provided in Figure 10-2.

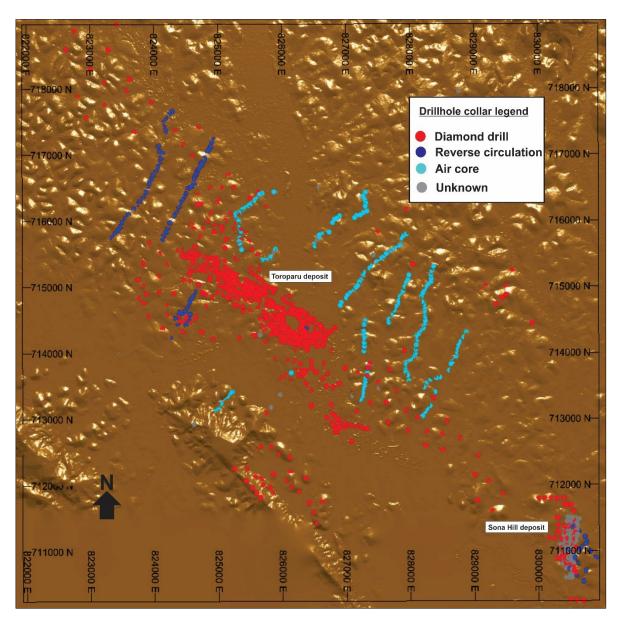


Figure 10-1: Plan of Toroparu Project drill collars coloured by hole type



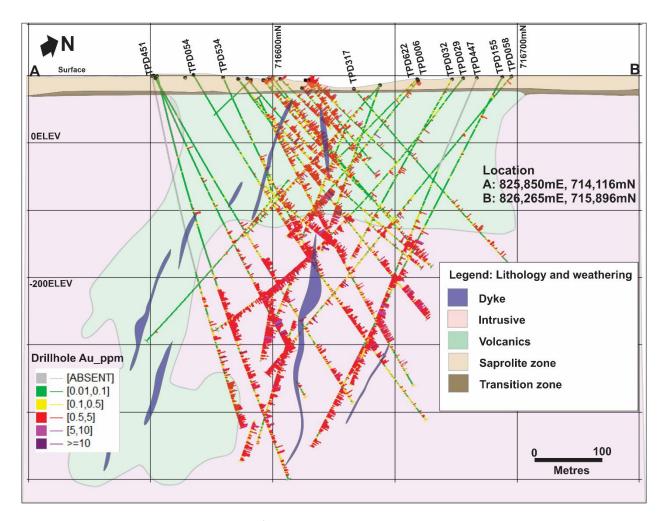


Figure 10-2: Typical cross section of drilling through the Toroparu deposit looking northwest

10.2 Drilling Procedures

All drilling at the Project has been undertaken on behalf of the Property owners by Orbit Garant Drilling Services ("Orbit") of Canada.

10.2.1 Drillhole Collar and Downhole Surveys

Drillholes are initially collared in the field using a mobile handheld GPS. Downhole surveying was carried out by Orbit using a digital EZ Track single/multi-shot instrument at 50 m intervals. The first downhole survey measurement is conducted at 15 m down the drillhole and compared with the initial surface compass measurement. A correction factor of 15° sourced from the National Centre for Environmental Information is applied to the azimuth due to the magnetic declination. On completion of the drillholes, the drillhole collars are then marked in the field with steel pipe or steel bar monuments marked with the drillhole identification numbers. Finally, all the drillhole collars are accurately surveyed by differential GPS and validated against the LIDAR topography.



10.2.2 Diamond Drilling Procedures

All diamond drilling is undertaken using a triple tube initiated as HQ diameter (77 mm) and completed through the first 30 m to 40 m of saprolite into hard rock, and then reduced to NQ diameter (60 mm) for the remainder of the drillhole.

Core is produced in 3 m core runs and to a lesser extent 1.5 m and placed into polycarbonate plastics core boxes. Cut polycarbonate plastics blocks are placed at the end of each drill run by the driller to record hole depths. Core is marked and oriented to check against the driller's blocks, ensuring that all core loss is taken into account. Core recoveries are recorded at the drill site by drill run. The drill core boxes are then transported by the field technician to the core logging facility.

10.2.3 Geological Logging

The core is cleaned and checked for continuity, and downhole depths are marked. A geologist completes geological logging for all drillholes, and the logging is representative across the deposits. The lithology, alteration, structural characteristics and rock quality designation are logged and recorded in a digital format following standard procedures and geological codes. Data is recorded onto Sitetools internal software developed to manage the geology database with a customized lithology, alteration, and mineralization codes library. The early drilling campaign used GEMS Logger software.

Structural measurements logged include the orientation of fractures, lithology contacts, foliation, and veins/veinlets, and alpha and beta angles of structural features are recorded from oriented core. In situ quartz vein and other structural orientations were also obtained from 45 drillholes at Sona Hill in 2016.

In 2012 nine drillholes were surveyed by Terratec-Geoservices, measuring optical image, ultrasonic image, natural gamma ray emissions, electrical resistivity, induced polarization, azimuth and dip, and total magnetic field, and provided an interpretation of the images identifying the fractures-foliation contacts and veins.

In 2014 Sandspring carried out a relogging campaign to maintain the consistency of the logging of the different drilling campaigns, which has been maintained to date. In Mining Plus' opinion, the geological logging is done to sufficient detail and has seen improvement over time.

All drill cores are photographed both wet and dry before undertaking geochemical sampling.



10.2.4 Core Recovery

Mining Plus has reviewed the drill core recovery results and found that recovery is sufficient, with average recoveries of 93% achieved. Minor instances of low recovery were noted, typically within the first 10 m of drilling related to the saprolite zone. Additionally, areas of low recovery were noted to be restricted to single sample intervals with no discernible spatial relationship.

10.2.5 Oriented Drill Core

All core, where possible, is oriented using an ACT III NQ3 orientation tool in unweathered rock, usually from 50 m downhole. The field technicians at the drill rig site perform the core orientation. The oriented parts of the drill core are pieced together, an orientation line is drawn on all core pieces, and the structural data is recorded onto Reflex IQ-Logger.

10.2.6 Reverse Circulation Drilling Procedures

There are no details available regarding the reverse circulation drilling procedure. However, these holes are noted to be mostly located in non-mineralized or very low grade zones and have minimal impact on the mineral resource estimates.

10.3 Material Impact on the Accuracy and Reliability of Drilling Results

There are no known drilling, sampling, or recovery factors that could materially impact the accuracy and reliability of the results, and the data is considered suitable for the estimation of mineral resources.



11 SAMPLE PREPARATION, ANALYSIS AND SECURITY

11.1 Introduction

The data used to support the geological interpretations, mineral resource estimation, and conclusions and recommendations in this technical report are based mainly on diamond drill core samples and a low proportion of reverse circulation sampling dating from 2006 onwards. The sample preparation methods, quality control, and security measures during the chain of custody of the samples were completed at different times and by different companies. However, the sampling procedures have been maintained over time with some slight changes as a result of continuous improvement.

Sample preparation, assaying and analytical procedures have been carried out by different laboratories over time, including MS Analytical ("MSA"), Acme Analytical Laboratories (Chile) S.A. ("Acme") now Bureau Veritas since 2015 and Actlabs Guyana Inc. ("ACT"). The samples used in the mineral resource estimate are predominantly analyzed by Acme (approximately 71%), MSA (approximately 16%) and Bureau Veritas (approximately 8%) with the latter being the main laboratory for Sona Hill.

11.2 Core Sampling and Security

The sample intervals were marked by the geologist and the core was cut in half with a diamond bladed saw. Saprolite samples are split with a trowel. Both the diamond bladed saw and trowel are cleaned before each sampling. The majority of sample lengths are 1.5 m, with a minimum width of 0.50 m respecting lithological contacts. There are unmineralized narrow dykes less than 0.50 m, and in this case the sample is proportionally completed with wall rock up to 0.50 m.

Before 2018, most samples were taken regularly at 1.50 m lengths and, to a lesser extent, a mix of sample intervals ranging between 0.01 m to 16.0 m. Mining Plus reviewed these variable sample intervals noting that they constitute a small proportion and, in most cases, are intervals of non-mineralization to very low grades.

The sampled half of the core is placed in a labelled bag with a tag number, and the remaining half of the core retained as reference core is kept in the core boxes and photographed.

All on-site sampling was conducted by company employees who managed the security and chain of custody throughout the receipt of the core at the drill rig, the logging, sampling, and delivery to the laboratory.



11.3 Laboratory Sample Preparation Procedures and Analytical Methods

A large percentage of the sample preparation was completed at the facilities of each independent analytical laboratory. Between June 1, 2011, to 2014, sample preparation was completed at the on-site facility managed and operated directly by Acme. The prepared samples were then flown to Acme Laboratories in Georgetown, Guyana, and from there shipped to either Acme of Santiago, Chile, or Acme of Vancouver, Canada, for analysis.

Sample preparation at Bureau Veritas involved initial weighing and drying each sample. The entire sample was then crushed to 80% passing -10 mesh and a 250 gram split was taken and pulverized to 85% passing -200 mesh.

At MSA, the entire sample was dried and crushed to 70% passing -10 mesh. A 250 gram sample split was taken for each sample and pulverized to 85% passing -200 mesh.

There are no records of the sample preparation method used at the ACT facility.

All samples were primarily assayed for gold, in the case of Toroparu most samples were assayed for copper and given the low copper content at Sona Hill, the copper analysis was selective. Samples were not regularly assayed for silver. The analytical method applied has been consistent over time and is summarized below:

- Gold: samples were analyzed for gold by fire assay on a 50 gram charge with atomic absorption spectrometry ("AAS") finish. Any sample with an assay greater than 10 g/t Au was re-analyzed using fire assay with gravimetric finish.
- Copper and silver: all samples were analyzed by four acid digest with AAS finish on a 0.5 gram split.

In 2014, a campaign was initiated to assay existing sample pulps, by compositing two existing typically 1.5 m intervals into one 3.0 m interval. These samples were assayed mainly using aqua regia digestion of a 15 gram split, with an ICP finish.

In 2016, 973 pulp samples were assayed by Bureau Veritas for cyanide soluble copper for metallurgical processing and mine planning. The data was insufficiently representative for the intended purpose and the work was abandoned.

Before Acme was acquired by Bureau Veritas, it was accredited under the general ISO 9001:2000 (Quality Management Systems) regulations but did not have ISO 17025 (Testing and Calibration Laboratories) laboratory accreditation. Most of the sample were prepared on-site by Acme and analyzed at their facility in Chile. Bureau Veritas is ISO 9001:2008 and ISO/IEC 17025:2005 certified, and sample preparation and analyses were done at their facility in Canada.



The samples sent to the MSA Laboratory have been prepared and analyzed at their Georgetown facility. MSA is a recognized international laboratory and has ISO 45001:2018 and ISO 9001 certifications, and ISO 17025 accreditation.

There are no records of accreditation for ACT. All the samples analyzed by ACT underwent preparation and analysis at their Georgetown facility.

Acme, Bureau Veritas, MSA and ACT operate as independent commercial certified laboratories both locally and internationally and have no relationship with the past or present Project operators.

11.3.1 Quality Assurance and Quality Control Procedures

Sandspring initiated a QAQC protocol in 2010 for Toroparu and Sona Hill that included the submission of one coarse duplicate, two certified standards, and a blank sample for each 32 regular samples. Monthly QAQC reports reviewed indicate assay results were subject to a pass/fail process where QAQC data were evaluated against set parameters and were either passed or failed. Where the QAQC sample failed the evaluation, a corrective action was taken which sometimes included re-assay of the entire batch. Re-assays were subject to the same evaluation process.

QAQC data submitted with the Toroparu deposit drill samples prior to 2020 includes 4,220 submissions from a pool of 14 different gold/copper certified standards, 2,784 coarse blanks, and 1,252 drill core duplicates. Ninety-two sample swaps or laboratory failures were identified in the results returned for the certified standards. The blank results returned indicate possible short-term calibration issues at the laboratory, but no significant grade contamination is evident. No issues are identified with the duplicate sample results.

During the 2020 to 2021 drilling campaigns at the Toroparu deposit, QAQC data submissions included 622 samples from a pool of five different gold/copper/silver certified standards and 854 coarse blanks. A review of the results did not identify issues with the standard results, and no significant grade contamination is evident.

Drill samples from the Sona Hill deposit submitted during 2012 and 2017 to 2018 included 421 submissions from a pool of six different certified standards, 216 coarse blanks, and 257 core duplicate samples. A review of the QAQC results identified no issues with the standards, blank samples, and the duplicate samples.



11.4 Bulk Density

Bulk density measurements have been completed on 0.10 m lengths of diamond drill core, at 15 m and 25 m depths downhole, and subsequently every 25 m in saprolite. In bedrock the measurement is taken at every 50 m intervals. All measurements were completed onsite by company employees, using the Archimedes method by the weight in air, weight in water method. In the saprolite zone the core was covered with plastic to seal the pores before taking the wet weight. Paraffin wax sealing method was not used as the drill core was mostly in unweathered rock and considered to have little or no porosity.

11.5 Material Impact on the Accuracy and Reliability of Sample Data

It is the opinion of the Qualified Persons responsible for this technical report that the sampling, sample preparation and analysis, security, and QAQC protocols are consistent with generally accepted industry best practices and are suitable for the mineral resource estimate. The Qualified Person's review of the QAQC data has shown that there is no indication of any material bias in the assays, there is no evidence of material sample contamination, and the duplicate samples show the expected variability for the mineralization style.



12 DATA VERIFICATION

12.1 Geology Data Reviews

Mining Plus conducted a site visit between March 3 and 5, 2023, and verified the data supporting the Toroparu Project mineral resource estimate. The purpose of the site visit was:

- To understand the geological and geographic environment of the Project.
- To verify the nature and extent of all exploratory work relevant to the current mineral resource estimate.
- To field check key drill collar coordinates.
- To undertake verification of mineralization and non-mineralized core intercepts.
- To review the Standard Operating Procedures relating to:
 - Drilling, sampling, and analytical processes, covering several stages in the sampling and assaying chain from raw samples to prepared pulps.
 - Geological logging, re-logging, core sampling processes, analytical QAQC controls, and chain of custody.
 - Bulk density determination methods.
- To undertake a visit to the retained sample storage facilities for core, rejects, and pulps.
- To undertake a review of the database management processes.

Following the site visit, Mining Plus concludes that the drilling and sampling information are sufficiently reliable to interpret the mineralized structure's boundaries and that the resource database is reliable to support the mineral resource estimate. The following were observed:

- Mining Plus considers that the drilling procedures conform to industry best practices, and the resultant drilling pattern is sufficient to interpret the geometry and the mineralization boundaries with confidence.
- Mining Plus is of the opinion that the sample preparation, security protocols, and analytical procedures adopted for the Project drilling conform to industry best practices.
- Mining Plus considers that the geology and mineralization controls are well understood and are appropriately applied during the development of the drilling and geological interpretation.
- The survey control and collar survey are considered accurate.
- The available information indicates that the resource database has been compiled and validated and forms an appropriately reliable basis for the mineral resource estimate.
- The QAQC program, as designed and implemented, is adequate, and the assay results within the resource database are suitable for use in a mineral resource estimate.



• Mining Plus's review of the results of previous independent sampling has confirmed the presence of gold in the same order of magnitude as the original samples for the Toroparu and Sona Hill deposits.

Mining Plus made a number of minor recommendations for continuous improvement.

12.2 Metallurgical Data Review

Sedgman has reviewed the metallurgical testwork history, protocols, and results. In Sedgman's opinion the data and assumptions used to estimate metal recoveries for the cut-off grade calculation for the mineral resource estimate are sufficiently reliable for that purpose.

12.3 Data Adequacy

It is the opinion of the Qualified Persons responsible for the preparation of this technical report that the data used to support the mineral resource estimate are adequate and suitable for that purpose.



13 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 Introduction

Multiple metallurgical testwork programs starting in 2009 have yielded substantial information regarding the physical properties of the various feed grade mineralization in the Toroparu and Sona Hill deposits and the material's response to comminution, gravity concentration, rougher and cleaner flotation, and cyanide leaching. Both the Toroparu and Sona Hill deposits are comprised of auriferous saprolitic material overlaying auriferous non oxidized hardrock, while the Toroparu deposit also contains zones higher in copper.

For the Toroparu deposit, testwork has shown that both generalized gold mineralized material designations, average copper ore ("ACO") and low copper ore ("LCO"), benefit from gravity concentration prior to further processing. Gravity gold recoveries of 38% were demonstrated for both ACO and LCO mineralized materials.

Cyanide leach testwork was conducted to determine the amenability of the ACO and LCO mineralized materials. Overall gold recoveries from ACO and LCO mineralized materials were determined to be 88% and 96%, respectively. These recoveries include gravity concentration, flotation, and cyanide leaching.

Testwork completed in 2022 was targeted at variability testing of samples from the northwest and the southeast of the Toroparu deposit. In gravity-leach flowsheet testing, gold recoveries of the two zones were 84.7% and 92.1% respectively, while the gravity-rougher testing showed 82% gold recovery and 83.7% copper recovery for the northwest area and 85.5% gold recovery and 84.4% copper recovery for the southeast area.

For the Sona Hill deposit, testwork has shown that there are three major lithologies that were designated to be tested – saprolite ("SAP"), granodiorite ("GRDT") and granodiorite high quartz ("GRDT-QZ"). The Sona Hill deposit was also noted to have tellurium ("Te") associated gold, which can impact leach kinetics.

Test results for the Sona Hill deposit showed that the saprolite components had high gold recoveries of 94% to 98% using a simple gravity-leach flowsheet. The remaining two lithologies (GRDT and GRDT-QZ) had lower initial gold recoveries (81% to 85% for GRDT and 74% to 85% for GRDT-QZ) using the same grind size (P_{80} of 150 μ m) as the Toroparu deposit.

Improvements to leach recoveries were found with decreasing grind size, extending leach time and adjusting pH however these variables all impact economics and would need to be optimized during design. Adjusting pH was found to have a significant impact on overall leach recovery,



when adjusting from pH of 10 to pH of 12, eleven of the twelve test samples showed a recovery improvement. The range of recovery improvement was 2% to 15.1% and the only sample which showed lower recovery had minimal tellurium content (0.5 g/t).

13.2 SGS Metallurgical Testwork Program 2009 (Toroparu Deposit)

The testwork program used a single composite sample which was made of nine hard rock samples, crushed to passing 10 mesh (2.0 mm) and combined as well as a single pulp sample taken from the saprolite gravity tailings mixture. The overall gold recovery in the flotation rougher concentrate and cyanidation of flotation tailing was approximately 98%. Cyanidation on the saprolite gravity tailing mixture revealed that more than 95% of the gold was extracted using conventional cyanidation conditions, with low cyanide consumption. The results indicate that the saprolite tailings mixture responded well to cyanidation.

13.3 SGS Metallurgical Testwork Program 2011 (Toroparu Deposit)

Five hard rock composite samples and three saprolite composite samples were prepared from drill core for the 2011 test program.

13.3.1 Mineralogy, Gold Deportment and Liberation Studies

The mineralogical breakdown using quantitative mineralogy ("QEMSCAN") particle mineral analysis on the Master Composite shows that the sample is dominated by silicates with chalcopyrite being the sulphide mineral with the greatest content. Gold deportment studies on the Master Composite at P_{80} of 150 μ m showed that the majority of gold is native gold in this sample, suggesting that gravity recovery may be considered in the process flowsheet. Other gold minerals include electrum, maldonite, petzite and hessite.

Liberation studies showed that liberation of copper minerals improve substantially at grinds finer than 150 μ m. In contrast pyrite mineralization is widely distributed with significant liberation at all size fractions in the range of 80% and over 90%. Copper minerals and pyrite have negligible mutual association, so producing a marketable concentrate was expected to be possible.

13.3.2 Comminution

The SAG mill comminution ("SMC") test results conducted on four hardrock samples and the Master Composite show an average A*b value of 23.3 and DWi value of 11.8 which indicate that the feed material is in the category of hard-mineralized material compared to values in the JK Tech DW database. The Bond Ball mill work index ("BWi") and Rod mill work index ("RWi") on the Master Composite are 18.2 and 19.3. The high values of BWi and RWi confirm the hardness



of the mineralized material. The bond abrasion index ("Ai") on the Composite Sample was reported as 0.294 g placing the sample into the abrasive range.

13.3.3 Metallurgical Testwork

Testwork was conducted on the Master Composite in three phases and included gravity separation, flotation and cyanidation testwork. The gravity concentration test results indicate that 30 to 50% gravity recovery of gold may be possible at a primary grind size of 150 μ m.

Flotation testwork was undertaken in different phases to test different flowsheets and grind sizes. The phase 1 testwork showed that with standard flotation chemicals, rougher recovery is grind size sensitive. In phase 2, flotation testwork was conducted on two separate flowsheet processes. Flotation of gravity tails showed that 120 μ m to 150 μ m would be a suitable primary grind size for the rougher flotation stage and gold and copper were effectively recovered at mass recoveries in the range of 5% to 11%. In an alternative flowsheet, flotation of the residual copper minerals led to copper rougher concentrate recoveries ranging from 60% to 80%.

Phase 2 was extended on a gravity tail flotation flowsheet with three open circuit rougher-cleaner tests and found that 150 μ m was the optimal grind size for recovery while keeping a good mass pull for the cleaner circuits. The best copper, gold, and silver recoveries of 83.3%, 76.1% and 52.8% respectively were obtained in the grind size of P₈₀ 150 μ m. The cleaner concentrate and cleaner tailing of these tests were used in cyanidation tests.

In phase 1 cyanide leaching was done on the whole ore at a P_{80} target of 150 and 75 μ m, as well as on rougher concentrate with 90% and 97% gold extractions on whole ore and rougher concentrate. Regrinding led to increased leaching of copper in the rougher concentrate cyanidation.

In phase 2 cyanidation was done on gravity tailings, rougher tailings, rougher concentrate and Mozley gravity concentrate. It was concluded that direct cyanidation of the gravity tailing considerably improves gold recovery with an increase of 8.5%, while the recovery of copper is improved through rougher flotation.

In the phase 2 extension, cyanide leaching was performed on gravity tailings at different grind sizes, as well as cyanidation of cleaner concentrate and tailings. Cyanidation of cleaner tailing was excellent with a gold extraction of 88.2%, while cyanidation of the cleaner concentrate was poor with a gold extraction of 59.0%. The third cyanidation test was performed on the cleaner scavenger tailings, the final extraction of gold was about 81%.



13.4 SGS Metallurgical Testwork Program 2012 to 2013 (Toroparu Deposit)

The 2011 testwork at SGS focused on finding the most efficient processing alternative for the recovery of gold and copper from a composite of all mineralized material from the Toroparu deposit. Mineral resource and geologic models produced over the course of 2011/2012 identified that two geographically distinct types of gold mineralization occurred at the Toroparu deposit, that were distinguishable based on sulphide and copper content, and that these mineralized material types could be mined, stockpiled, and processed separately to improve processing efficiency and overall recovery.

The metallurgical test program conducted by SGS in 2012 focused on two main gold mineralized material types which were classified as ACO and LCO. ACO and LCO assay results are shown in Table 13-1.

Sample	Cu (%) Ag (g/t)		S (%)	Cu NaCN (%)	
ACO Composite (Average)	0.19	2.5	0.21	0.037	
LCO Master Composite	0.74	0.8	0.071	0.012	

Table 13-1: Average assay results (SGS 2012 testwork)

The testwork program on the ACO sample involved gravity separation, flotation, and cyanidation of the flotation and gravity separation products. In gravity separation, gold recovery increased with reduction in P_{80} and was consistent over 150 μ m. These tests were consistent with the 2011 tests results, which indicate gravity gold recoveries range from 30% to 50%.

Bulk rougher flotation was performed on the gravity tailings products for evaluation of grind size, and a grind size P_{80} of 150 μ m was selected for subsequent flotation testwork. Open circuit cleaning flotation tests showed that regrind has little or no effect on the performance of the cleaner flotation and CMC (non-sulfide gangue depressant) dosage is critical. Locked cycle tests ("LCT") followed. The combined results for the gravity and LCT tests can be found in Table 13-2.

Grind Size Gravity Recovery (%) Cleaner Flotation (%) Combined Recovery (%)
Campaign Au Ag Au Ag Au Ag

65

79.1

69.2

Table 13-2: ACO combined results from gravity separation and LCT tests (SGS 2013 testwork)

The response of the gravity concentrate stream, gravity tailings stream, and cleaner scavenger tailings stream to cyanide leaching was examined in a series of tests. Gravity concentrate

67.2

38.5

11.9

150 μm



underwent intensive cyanidation. Gold extraction was 99% for all cases and silver extraction was 97%. The results show that the feed size has no effect on leaching recovery.

Gravity tailings underwent bulk cyanidation. There was an increase in gold extraction with decreasing feed size. At the feed P_{80} size range of 240-72 μ m, gold and silver extractions were at 71% to 87% and 75% to 77% respectively. The copper extractions were low and not influenced by varying feed size.

The combined extraction of gold and silver from the gravity separation stage and cyanide leaching ranged from 82% at P_{80} 240 μ m to 94% at P_{80} 72 μ m for gold and from 75% for P_{80} 240 μ m to 80% for P_{80} 75 μ m for silver. Cleaner tailing underwent cyanidation, the extraction of gold and silver was 72% and 64% respectively and was accompanied by a copper extraction of 34%.

The overall recovery of the gravity separation coupled with cleaner flotation and cyanide leaching of the cleaner tailing is summarized from SGS in Table 13-3.

Grind Size	necovery (70)		Cleaner Con Recovery (%)		Cleaner Tail Recovery (%)		Cleaner Tail CN Leach (%)		Combined Recovery (%)	
Campaign	Au	Ag	Au	Ag	Au	Ag	Au	Ag	Au	Ag
150 μm	38.5	11.9	67.2	65.0	12.6	10.2	72.2	64.2	85.4	74.9

Table 13-3: ACO gravity, cleaner flotation and cleaner tail leach summary (SGS 2013 testwork)

Cyanide leaching of the gravity separation tailing offers higher gold and silver recovery than rougher flotation and also cleaner flotation combined with leaching of the cleaner tailing. However, the cyanide consumption and copper extraction from the cleaner flotation processing route is 0.11 kg/t and 1.8% copper respectively. This is considerably lower than the gravity tailing leaching route that resulted in cyanide consumption and copper extraction of 1.24 kg/t and 18.0% copper respectively.

The LCO metallurgical testwork program involved testing of a Master Composite and the four Variability Composites to evaluate response to gravity separation, rougher flotation, and cyanidation of gravity separation concentrate.

Gravity concentrate gold recovery for the Master Composite ranged from 28.9% for P_{80} grind size 225 μ m to 58.9% for P_{80} grind size 75 μ m. The gold recovery for Variability Composites at P_{80} grind size 75 μ m range from 37.7% to 60.8% and at a P_{80} grind size of 150 μ m, gold recoveries ranged from 38.8% to 57.9%.

Scoping rougher flotation tests were performed on gravity tailings produced at three different grind sizes. The recovery of copper and gold increased as a function of finer grind size, while the



recovery of silver did not display this trend. The copper recovery increased from 93.6% at P_{80} 252 μ m to 97.2% at P_{80} 125 μ m. Similarly, the gold recovery increased from 79.7% at P_{80} 252 μ m to 84.3% at P_{80} 125 μ m. In order to compare the results of these tests to the testing of the ACO sample, a P_{80} grind size of 150 μ m was selected for the subsequent bulk rougher flotation tests. The average of three tests of the Master Composite showed a gold recovery of 75%.

The overall combined gravity and flotation gold recovery, representing the average of all applicable tests from the Master and Variability Composites, is shown in Table 13-4.

Composite
Au Gravity Recovery
(%)
Au Flotation Recovery
(%)
Au Combined
Recovery (%)
75.1
91.9

Table 13-4: Combined gravity and flotation gold recovery for the LCO composites (SGS 2013 testwork)

Gravity tailing were submitted for bulk cyanidation tests under carbon in pulp ("CIP") protocol, and total recovery of 95.9% gold was assigned to the LCO composite.

Rougher concentrate obtained from the flotation tests were submitted for CIP cyanidation tests. The combined results for gravity separation, rougher flotation and rougher concentrate leaching showed gold extraction ranged from 89% to 95% and silver extraction ranged from 60% to 82%, copper extractions did not exceed 14% and iron extractions were very low at 1.5%. However, there was still a significant amount of iron present in solution which resulted in high cyanide consumption. The combined recovery for gold ranged from 79% to 85% and from 30% to 50% for silver.

The main objective of the ACO and LCO testwork program was to compare the performance of direct cyanide leaching of the gravity tailing and cyanide leaching of a flotation product. The flotation product of interest was flotation cleaner scavenger tailings for the ACO program while it was a rougher concentrate for the LCO program.

The results show that the gravity separation and leaching of the gravity separation tailing for all grind sizes offers higher overall gold recovery. However, the cyanide consumption and capital cost of the direct leaching are the essential factors in choosing the optimized method for gold recovery. The results show that the cyanide consumption and copper extraction for the case of cyanide leaching of the cleaner tailing for the ACO Composite is considerably lower than the direct cyanide leaching of the gravity separation tailing case. Conversely, in the case of the LCO composites, the cyanide consumption and copper extraction of the rougher concentrate is higher than the direct gravity tailing case.



13.5 Inspectorate Saprolite Testwork Program 2012 to 2013 (Toroparu Deposit)

This test program focused on gold recovery from saprolites. Saprolite samples were subjected to gravity concentration using a 3-inch Knelson concentrator followed by Mozley table. Gold recoveries for the fine and coarse samples were approximately 50% and 27%, respectively. Intensive cyanide leaching of the gravity concentrates resulted in recoveries of 97% from both samples.

Flotation tests on the fine saprolite sample were performed to investigate different P₈₀ and reagent schemes on the recovery of gold. Recoveries between 70%-86.7% were achieved. Cyanide leach and carbon in leach ("CIL") tests showed that different sodium cyanide ("NaCN") dosages had no effect on gold recovery, however CIL tests achieved slightly higher recoveries versus leach recovery.

13.6 ALS and FLSmidth Metallurgical Testwork Programs 2014 (Toroparu Deposit)

This testwork program was conducted by ALS and FLSmidth on ACO and LCO bulk composite samples prepared from available samples from previous programs.

The corrected gravity recoverable gold value at the target grind of 150 μ m, was 38.5%.

Flotation tests at target grind P₈₀ were conducted by FLSmidth on ACO samples to evaluate the use of copper selective collectors to produce a high copper grade rougher concentrate followed by a bulk rougher scavenger float to maximize recovery. Extended rougher scavenger flotation reached overall flotation recovery of approximately 97% copper, 86% gold, 78% silver and 98% total sulphur.

13.6.1 ALS Testwork

A series of batch rougher and cleaner tests were conducted on the Bulk Composite to develop a flowsheet and reagent scheme for copper recovery. A gravity stage on the flotation flowsheet was not found to increase the overall gold or silver recovery. However, the revenue for gold from a gravity concentrate would probably be greater than the losses attributed to the gold sales from a mixed concentrate.

Regrind tests on the bulk composite were conducted to develop a flowsheet and reagent scheme for copper recovery.

Two different cleaning flowsheets were tested to assess cleaning performance on the rougher concentrates shown in Figure 13-1. The optimal test results in terms of copper performance utilized PAX and a split regrind configuration.



Locked cycle tests were done by recirculation of the second cleaner tailing stream into the cleaner feed of the subsequent cycle.

Copper concentrate analyses through ICP and QEMSCAN bulk mineral analysis involved the identification of deleterious elements that may invoke penalty upon sale including bismuth (380 g/t to 631 g/t), selenium (500 g/t to 770 g/t) and tellurium (292 g/t to 396 g/t). Arsenic content was also close to typical penalty.

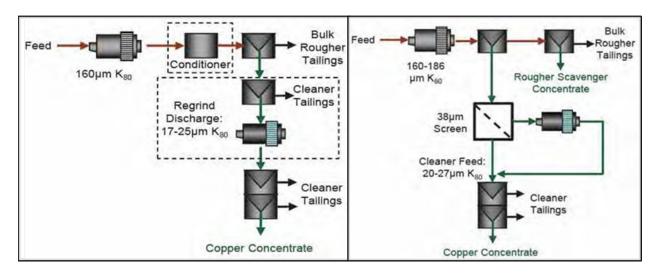


Figure 13-1: Cleaning flowsheet 1 – ALS, 2015 testwork (left), cleaning flowsheet 2 - ALS, 2015 testwork (right)

13.6.2 FLSmidth Testwork

Leach tests were conducted to evaluate the impact that grind would have on overall gold recovery. LCO gravity gold recovery appears to peak at around 120 μ m, while both leach and overall recovery steadily improve with finer grind.

Diagnostic leach tests were used to determine the association of the unrecovered gold from these tests. More of the unrecovered gold was found to be cyanide extractable at grind sizing finer than P_{80} 159 μm .

13.6.3 Saprolite Testwork

Overall, about 99% of the gold was recovered from each of the bulk composites with between 29% and 52% of the gold being recovered in the gravity circuit and the remainder being recovered through the cyanide leach.

Overall gold recovery from the sub composites ranged from about 93% to 99% with gravity recovery ranging from 5% to about 38% of the feed gold and cyanide extractions accounting for a further 61% to 88% of the feed gold.



Copper within the composites returned assay results between 0.02% and 0.36%. Within either sample group, the significance of this copper on a cyanidation leach would depend on whether the copper is present in a cyanide soluble mineral, which can increase cyanide consumption.

13.7 Metallurgical Testwork 2018 - 2020 (Sona Hill Deposit)

13.7.1 Base Metallurgical Laboratories ("BML", April 2019)

Testwork consisted of process development on three master lithological composites: SAP-MC (saprolite), GRDT-MC (granodiorite) and GRDT-QZ (granodiorite high quartz). Samples contained 1.5 g/t, 3.0 g/t and 3.6 g/t of gold, respectively. Tellurium was added to elements of analysis due to the gold associated with tellurium having a negative effect on gold leaching. The samples contained 10, 6 and 11 g/t tellurium.

The BWi and Ai for the SAP-MC sample was determined to be 8.6 kilowatt hours per tonne ("kWh/t") and 0.011 respectively, indicating this feed material to be very soft and not abrasive. The BWi, RMi and Ai for the GRDT-QZ sample was determined to be 12.3 kWh/t, 14.1 kWh/t and 0.186, which classifies the sample as moderately hard and mildly abrasive. Three flowsheet configurations were tested to maximize gold extraction (Figure 13-2, Figure 13-3, and Figure 13-4).

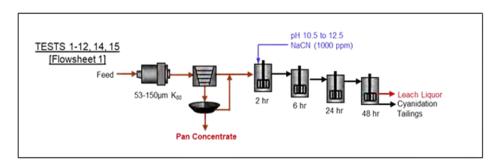


Figure 13-2: Standard flowsheet (BML, 2019 testwork)

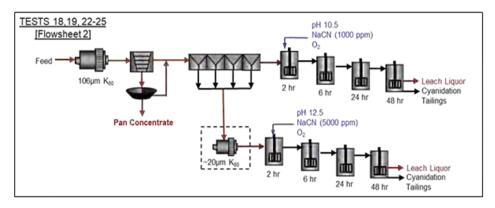


Figure 13-3: Standard flowsheet with flotation and regrind (BML, 2019 testwork)



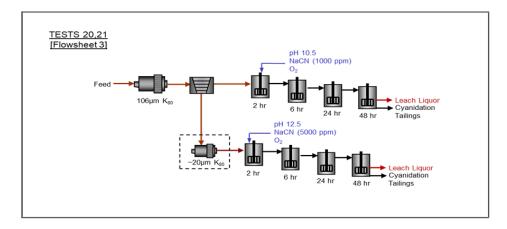


Figure 13-4: Standard flowsheet with regrind of the gravity concentrate (BML, 2019 testwork)

All flowsheets included a primary grinding stage, followed by Knelson gravity concentration and cyanide leaching of the gravity tailings. The flowsheets evaluated implemented a rougher flotation stage prior to leaching the gravity tailings, as well as cyanide leaching of the rougher concentrate with and without a regrind stage. The testwork further investigated the effect of cyanide leaching the gravity concentrate, with and without a regrind stage.

Test results indicated that gold from the SAP-MC sample presents high extractions of 94% to 98% when applying a gravity leach flowsheet. Gold from the GRDT-MC sample presented extractions of 81% and 85% while the GRDT-QZ sample extractions were between 74% and 85% via the same flowsheet. Finer primary grinding of the samples resulted in a minor improvement in leach kinetics and gold extraction for these samples. At a primary grind size of P_{80} 53 μ m, testwork demonstrated that at a pH of 12.5 a significant increase to gold extraction and leach kinetics of the gravity tailings occurred.

Implementing a rougher flotation stage after the gravity concentration and regrinding the rougher concentrate prior to leaching resulted in a significant increase in overall gold recovery up to 96% for GRDT- MC and up to 97% for GRDT-QZ.

Leach residues were subjected to a multi-stage diagnostic leach test to determine the gold deportment in the leach residues. The diagnostic results indicate that the majority of the gold may be associated with arsenical minerals or minerals that are attacked by nitric acid. However, it is most likely the association with tellurides that is responsible for the bulk of the residual gold.

Trace mineral search in rougher concentrates revealed that gold occurred mainly as minerals containing tellurium and locked binaries with pyrite and sulphide gangue, so further regrinding would be necessary to expose the gold surface for cyanide leaching and extended times may be needed as tellurium minerals are slower in leaching.



13.7.2 Base Metallurgical Laboratories (December 2019)

This was a follow up testwork program to explore the effect of fine grind and high pH leaching on tellurium samples. The results showed some grind sensitivity to leach extraction at a pH of 10. However, the benefit was observed to be limited and potentially not economic to chase finer and finer grinds. Coarser grind sizes in the 106 μ m to 125 μ m range at elevated pH of 12.5 typically presented higher extractions than those achieved at finer grinds and low pH.

13.7.3 Base Metallurgical Laboratories (February 2020)

It was proposed the Sona Hill deposit mill feed would be processed by blending with other Toroparu deposit feed material including saprolites. Various composites from earlier programs were used. Most of the tests presented high extractions under the elevated pH conditions applied to the Sona Hill variability samples and blends thereof with mid to high 80% and low 90% extractions being achieved.

The work suggests that there is some synergistic benefit in blending the material types with the potential that the lower pH saprolite is being partially neutralized by the other master composites.

The leaching is observed to be substantially complete at 48 hours and several percent points of additional leach extraction are achieved over the 24 to 48-hour period. The practicality of the facility having a 48-hour residence time for these other feed stocks will be a function of economics at the time of detailed design.

13.7.4 Base Metallurgical Laboratories Program BL0895 (February 2022)

This program was aimed at testing a series of variability samples of the Toroparu deposit lithologies to the northwest and southeast.

Comminution test results indicate that the southeast zone samples ranged from 12.5 to 18.4 kWh/t for Bond mill work index, which averaged 15.8, meaning a moderate to hard feed material. For the higher grade copper samples, the range was 8.6 to 27.8 kWh/t with an average of 18.3 kWh/t and an 85th percentile of 22.4 kWh/t, indicating hard feed material. Similarly, $A \times B$ of the copper samples ranged from 21.9 to 48.6, with an average of 28.5 and 85th percentile of 25.7, which is competent feed material. Abrasion testing was completed on the higher grade copper samples and ranged from 0.036 to 0.451, with an average of 0.23.

Variability samples from the northwest zone were tested via a gravity leach flowsheet. Among the samples, there were nine tests which had recoveries lower than 85%. The gold extraction optimization test results are shown in Figure 13-5.



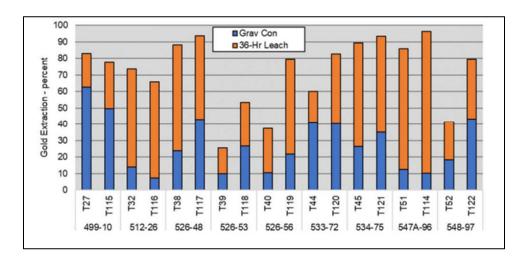


Figure 13-5: Gold extraction optimization tests

The southeast zone samples under the same flowsheet had an average recovery of 92.1%, which is much better than the northwest zone samples.

Gravity rougher tests showed an 82% gold recovery and an 83% copper recovery for the northwest variability samples. Among the samples, poor copper recoveries were linked to low sulphur levels. The southeast zone had an average gold recovery of 85.5% and an average copper recovery of 84.4%. The poor performing samples had low sulphur content.

Gravity leach and gravity rougher underwent three stage diagnostic leach tests which showed the majority of gold as cyanide leachable, and copper consistently locked in acid digestible minerals with minor cyanide leachable components.

13.8 Conclusions and Recommendations

The testwork has confirmed that flotation and free milling cyanidation process routes are capable of achieving high recoveries of both gold and copper as well as payable silver values. The processing strategies have influenced the test work programs over the Project development period. These blends will have their own characteristics, but testwork results are generally observed to align with the expected values for the blends.

Not all blends from all sources have been tested. This is in part due to sample availability but also due to the ongoing development of the Project over the intervening period. Designs will need to consider how this may be managed in a full-scale processing plant.

Saprolitic material adds to viscosity considerations as well as mill operating practices. Being soft, the power demand in the milling circuit is reduced and so high saprolite blends may allow



elevated processing rates of hard material. However, classification operations will need to be monitored if viscosity gets too high.

13.8.1 Toroparu Deposit

The Toroparu deposit accommodates several different zones which have been divided for processing by the amount of cyanide soluble copper that is present within the material type. The Toroparu deposit also has a saprolite cover which then transitions into fresh rock at various depths throughout and impacts the metallurgical properties, including hardness and reagent dosages.

With the most recent comminution results, a single stage SAG is not recommended, despite some moderate success on hard material in other locations; this would present some technical challenges. More common circuits for this material would involve multiple comminution steps which would minimize the reduction ratios in each stage and help to manage the control philosophy of the circuit.

It is noted that soluble cyanide copper will need to be managed. As the Project develops, particularly during operation, the anticipated blend ratios may change. Consequently, the flowsheet will require some flexibility to address this. The impact of copper on the carbon circuit has yet to be evaluated at a range of soluble copper concentrations. There is the opportunity with new sample availability to conduct some work to explore this if deemed justified. Table 13-5 highlights the proposed processing parameters which need to be validated via study into recovery methods and economics.

Flotation testwork was focused on areas with high copper grades and a gravity-flotation flowsheet was utilized to recover as much gold to doré as possible without impacting copper recoveries. ICP and QEMSCAN mineral analysis on the copper concentrates produced from the Toroparu deposit identified several deleterious elements which may have some penalty on concentrates including bismuth, selenium, tellurium and arsenic.

Table 13-5: Toroparu deposit proposed processing parameters

Toroparu Parameters	Based on testwork to date
Grind size	150 μm P ₈₀
Bond Ball Mill Work Index	Design: 23.1 / Range: 8.6 – 27.8
NaCN consumption – northwest area	0.4 kg/t (average)
NaCN consumption – southeast area	0.23 kg/t (average)
Abrasion Index	Design: 0.215 / Range: 0.04-0.45



13.8.2 Sona Hill Deposit

The Sona Hill fresh blends have differing characteristics for the leaching of gold. Namely, auriferous tellurides that are slower leaching require a finer grind and elevated pH to achieve high extractions. Blending Sona Hill fresh material with other material types will increase the operating cost of the other material (heightened quicklime demands) and lower extractions from the Sona Hill component than would be achieved if the Sona Hill material were processed alone at lower throughput to achieve a finer grind. Telluride leach kinetics improve with temperature, which should be tested in future studies.

The high pH regimes needed to process the Sona Hill material will influence the carbon circuit performance, which must be considered in the elution technology's design and process selection. It is also a consideration for the cyanide detoxification process and the design and capacity of reagent systems, notably the pH modifier.

Early work conducted by SGS reported the presence of tellurides in the tested samples. These samples originated within the central portion of the Toroparu deposit. Slow leaching was observed for some of these samples, which aligns with the presence of auriferous tellurides. However, the testwork conducted post these SGS programs (2014 and later) has not shown slow leaching scenarios and has supported a reduced leach residence time. This inconsistency has been highlighted by the more recent Sona Hill testwork and warrants further evaluation.

The Sona Hill deposit requires a finer grind size (P_{80} 125 μ m) than the Toroparu deposit. It will likely require additional processing considerations to achieve recoveries above 85%, such as higher NaCN dosages (1,000 g/t versus 500 g/t) and significantly higher lime dosages for feed material containing. (Table 13 6) highlights the proposed processing parameters for the Sona Hill deposit which need to be validated via study into recovery methods and economics.

Sona Hill Parameters	Based on testwork to date		
Sona Hill grind size	125 μm P ₈₀		
Bond Ball Mill Work Index	Range 8.6 – 14.1 (limited testwork)		
NaCN consumption	0.49 kg/t (high pH) and 1.02 (low pH)		
Abrasion Index	Design: 0.215 / Range: 0.04-0.45		

Table 13-6: Sona Hill deposit proposed processing parameters



13.8.3 Recommendations

The following recommendations are made:

- Elevated temperature leach tests on Sona Hill variability (high tellurides) samples.
- A variability program focused on telluride containing material would be appropriate prior to any detailed design phase to ensure processing parameters can be met for the life of mine.
- Review of the testwork data and establish if tellurides in earlier work (pre-2014) may have been responsible for slow leaching samples and if this observation may influence CIL design.
- Expanded mapping of all existing testwork to drillhole locations and block model.
- Further diagnostic leach and mineralization categorization on poor performing samples.
- Further variability testwork focused on future mine plan mapping and ensuring there is a
 good representativity across the life of mine with a focus on the initial years of
 production.
- For flotation flowsheets copper concentrate analyses through ICP and QEMSCAN bulk mineral analysis involved the identification of deleterious elements that may invoke penalty upon sale including bismuth, selenium and tellurium. Arsenic content was also close to typical penalty. Further lock-cycle testing and marketing studies of produced concentrates should be completed over a variety of samples representative of the deposit areas amenable to flotation.
- The most recent testwork program answered many unknowns for the deposit on a gravity-leach flowsheet basis. However, the telluride impact on the performance of specific samples remains unresolved.



14 MINERAL RESOURCE ESTIMATES

14.1 Disclosure

The mineral resource estimate for the Toroparu Project was completed by Mining Plus based on data provided by Aris Mining and has an effective date of February 10, 2023.

The mineral resource estimates reported herein are not mineral reserves and have no demonstrated economic viability.

14.2 Conventions

14.2.1 Modelling Methodology

Based on the data provided, Mining Plus combined the Toroparu and Sona Hill deposits databases into a single Leapfrog Geo project and used it to create combined weathering and lithology wireframes over both deposits. Mineralization wireframes were developed separately for each deposit.

The weathering, lithology and mineralization wireframes were used to guide the mineral resource estimation of the deposits using the linear geostatistical estimation method of ordinary kriging in Datamine Studio RM.

14.2.2 Block Dimensions

Three dimensional ("3D") entities follow the format X by Y by Z where X refers to the Easting distance in metres, Y refers to the Northing distance in metres, and Z refers to the Reduced Level ("RL") or vertical distance in metres.

14.2.3 Variograms

Variograms are the experimental and modelled semi-variograms produced as part of the geostatistical analysis.

14.2.4 Orientations

Linear orientations are defined in terms of plunge and plunge directions. Resultant planes are defined in terms of dip and dip direction.

In conventional 3D variogram analysis, directional variograms are modelled in three principal directions as follows:



- Major axis (in the direction of the plunge of mineralization).
- Semi-major axis (perpendicular to the major axis but still in the plane of the mineralization).
- Minor axis (in the direction across the dip of the mineralization orthogonal to the other two axes).

These directions are referred to as the principal directions as they relate respectively to the strike, downdip and cross-strike directions if the major axis is modelled in the same direction as the strike of the geological plane (at zero plunge).

14.3 Data Review

14.3.1 Mineral Resource Database

Mining Plus was provided with a drillhole database in CSV format as indicated in Table 10-1 and topographic wireframe model in DXF and Datamine .dm formats. The data was recorded in the metric system.

14.4 Bulk Density

The database provided contains bulk density measurements available for 7,067 samples from the Toroparu deposit and 723 samples from the Sona Hill deposit. Accompanying reports indicates the bulk density results were provided from laboratory Archimedean measurements from 0.1 m length samples taken from core. The bulk density varies from 1.00 g/cm³ to 4.78 g/cm³ for the total measurements.

14.5 Data Checks

The internal consistency of the drillhole database provided was verified using Leapfrog Geo and Datamine Studio RM software. The initial checks conducted include:

- Cross table checks (e.g., to check a drill hole has collar information but no assays)
- Final assay and geology depths validated against collar end of hole depth.
- Check for overlapping intervals or gaps in the assay and geology tables.
- Checks for duplicate drill hole names and/or duplicate coordinates.
- Checks for null collar coordinates or coordinate values of zero.
- Check for integer coordinate values indicating lack of detailed survey data.
- Check for extreme variations (greater than 10°) in drillhole azimuth or dip between consecutive downhole survey records.



Mining Plus's data checks revealed a number of errors that were managed by removing problematic data from the data used for the estimate.

14.6 Geology and Mineralization Modelling

The drillhole data used for the geological modelling for the 2023 MRE was based on an extract from the database provided to Mining Plus by Aris Mining as described in the previous section.

A total of 1,077 drillholes was used for the wireframe modelling at the Toroparu deposit whilst a total of 212 drillholes was used for the Sona Hill deposit wireframe modelling.

Unsampled, missing or negative assays for gold ("Au") and copper ("Cu") were replaced with 0.0001 g/t Au and 0.0000001% Cu for the modelling process.

14.6.1 Topography

Mining Plus used the supplied LIDAR files to create a topography surface over both deposits.

14.6.2 Weathering and Lithology Modelling Technique

Mining Plus simplified and grouped the supplied lithology and weathering codes based on the report and recommendations from Pratt and Smeraglia (2022) to create eight lithology codes including three weathering zones, across both the Toroparu and Sona Hill deposits (Table 14-1).

Modelled Entity Code **Description OVB** Overburden Weathering SAP Saprolite TRA Transition zone DYKE Dolerite dykes **VOLC** Volcanic sediments Lithology UND VOLC Undifferentiated volcanic sediments **GAB** Gabbro-norite and ultramafic **INTR** Felsic intrusions – dolerite/monzonites and monzogranites

Table 14-1: Modelled geological units



14.6.2.1 Weathering

The lower contact for each weathering code was interpreted from logged intervals and core photos where logging data was not available. Where alternate bands of weathering have been logged, it was simplified by combining intervals based on the predominant unit.

14.6.2.2 Lithology

Dolerite dykes ("DYKE"): Mining Plus modelled 37 individual dykes at Toroparu. The dykes at Sona Hill are less abundant and less continuous.

Volcanic sediments ("VOLC"): VOLC intervals were interpreted from logged volcanics, and away from the drilling data, regional aeromagnetics and available maps were used to interpret the volcanic sediments in the northeast and southwest of the Project area.

Gabbro ("GAB"): The GAB unit is intersected in the southwest of the modelled area away from both deposits but has been included in the lithology model for completeness. The drillhole intercepts and the regional aeromagnetics inform the gabbro interpretation.

Felsic Intrusions ("INTR"): INTR are defined as the volume remaining after all other units have been modelled. The regional aeromagnetic data was used to constrain the intrusive unit to the southwest of the model boundary with undifferentiated volcanics ("UND_VOLC") assigned to the remaining northeast volume.

Leapfrog Geo was used to combine the weathering and lithology units into a three-dimensional model. Plan view and sectionals views of the 3D weathering and lithology models are presented in Figure 14-1, Figure 14-2 and Figure 14-3

77



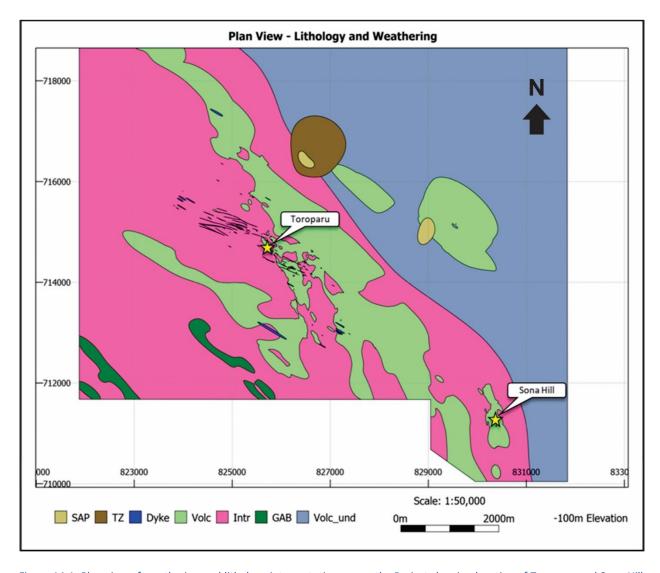


Figure 14-1: Plan view of weathering and lithology interpretation across the Project showing location of Toroparu and Sona Hill deposits



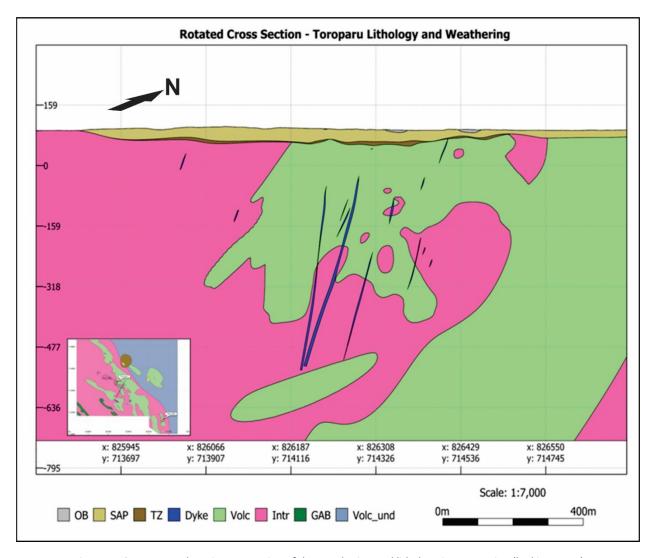


Figure 14-2: Toroparu deposit cross section of the weathering and lithology interpretation (looking NNW)



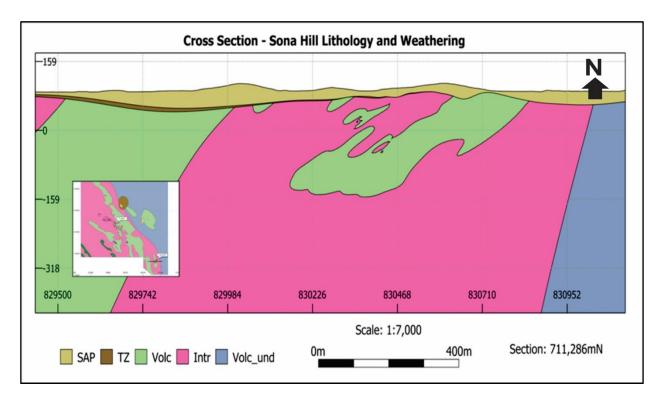


Figure 14-3: Sona Hill deposit cross section of the weathering and lithology interpretation (looking N)

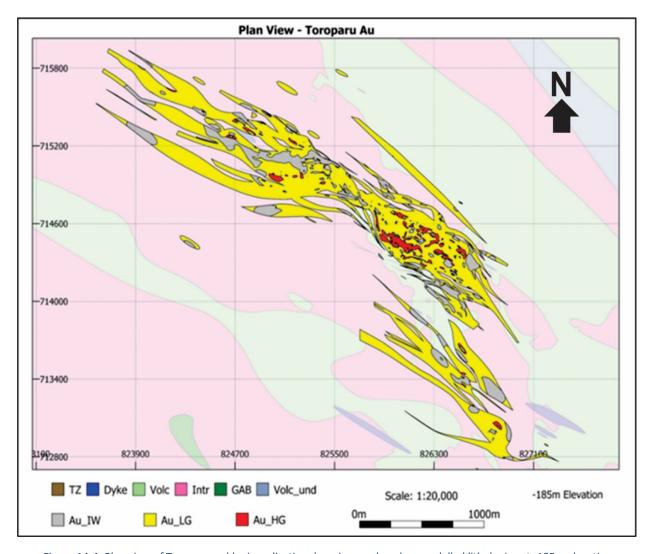
14.6.3 Mineralization Modelling Technique

The Toroparu and Sona Hill mineralization exhibits anastomosing, sigmoidal patterns in core and outcrop. Mining Plus used these small-scale patterns to interpret the larger scale patterns for the mineralization domains used to estimate gold, copper, and silver. The mineralized veins have been folded, sheared, transposed and boudinaged, with scales ranging from 0.1 m to a few meters. For gold and copper mineralization, three domains were modelled for each element: low grade mineralization, high grade mineralization and internal waste. Silver was estimated from within the gold/copper domains.

14.6.3.1 Gold Mineralization Domains – Toroparu Deposit

A low-grade gold domain ("AULG") was modelled at a minimum gold grade of 0.09 g/t and includes up to 11 m of internal waste. A waste domain internal to the AULG mineralization ("AUIW") was modelled to contain material below the 0.09 g/t gold grade. A high-grade gold mineralization domain ("AUHG") was modelled at a minimum of 1 g/t gold grade and is internal to AULG domain. An example plan view of the gold mineralization interpretation at Toroparu is shown in Figure 14-4.





Figure~14-4: Plan~view~of~To roparu~gold~mineralization~domains~overlayed~on~modelled~lithologies~at~-185m~elevation~domains~overlayed~on~modelled~lithologies~at~-185m~elevation~domains~overlayed~on~modelled~lithologies~at~-185m~elevation~domains~overlayed~on~modelled~lithologies~at~-185m~elevation~domains~overlayed~on~modelled~lithologies~at~-185m~elevation~domains~overlayed~on~modelled~lithologies~at~-185m~elevation~domains~overlayed~on~modelled~lithologies~at~-185m~elevation~domains~overlayed~on~modelled~lithologies~at~-185m~elevation~domains~overlayed~on~modelled~lithologies~at~-185m~elevation~domains~overlayed~on~modelled~lithologies~at~-185m~elevation~domains~overlayed~on~modelled~lithologies~at~-185m~elevation~domains~overlayed~on~modelled~lithologies~at~-185m~elevation~domains~overlayed~ou~domains~overlayed

14.6.3.2 Gold Mineralization Domains – Sona Hill Deposit

The AULG mineralized domain was generated at a minimum gold grade of 0.045 g/t and includes up to 5.5 m of internal non-mineralized material below 0.045 g/t gold grade. A high-grade domain, AUHG, was modelled internal to the AULG domain at a minimum of 0.12 g/t gold grade and with up to 4.5 m of internal low grade (AUILG). An example plan view of the gold mineralization interpretation at Sona Hill is shown in Figure 14-5.



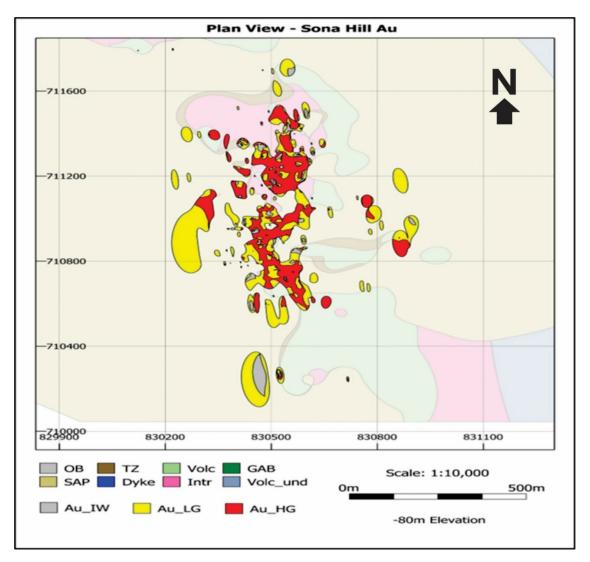


Figure 14-5: Plan view of Sona Hill gold mineralization domains overlayed on modelled lithologies at -80m elevation

14.6.3.3 Copper Mineralization Domains – Toroparu Deposit

The Toroparu deposit low-grade copper mineralization domain ("CULG") was modelled at a minimum of 0.0120% copper grade and includes up to 11 m of internal waste. A high-grade copper mineralization domain ("CUHG") was modelled internal to the CULG domain at 0.1% minimum copper grade with up to 9 m of internal low grade. An example plan view of the copper mineralization interpretation at Toroparu is shown in Figure 14-6.



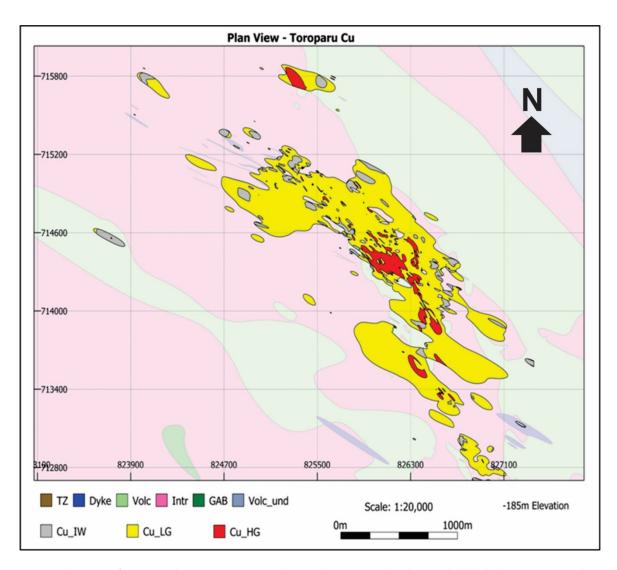


Figure 14-6: Plan view of Toroparu deposit copper mineralization domains overlayed on modelled lithologies at -185m elevation

14.6.3.4 Copper Mineralization Domains – Sona Hill Deposit

The Sona Hill CULG was modelled at a minimum grade of 0.065% copper and includes up to 1.5 m of internal waste. No internal waste or high-grade domains were modelled. An example plan view of the copper mineralization interpretation at Sona Hill is shown in Figure 14-7.



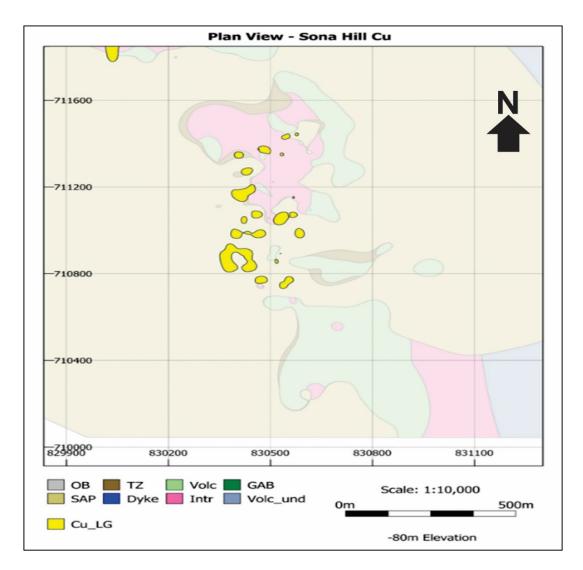


Figure 14-7: Plan view of Sona Hill deposit copper mineralization domains overlayed on modelled lithologies at –185 m elevation

14.7 Data Compositing and Extreme Grade Treatment

14.7.1 Data Checks and Preparation

Mining Plus converted the drillhole data files to desurveyed drillhole database files within Datamine Studio RM™. As well as creating the desurveyed drillhole file, the input data underwent further validation checks and treatments. The validation checks ensured the following:

- That SURVEY data exists for all drillholes.
- That X, Y, Z (COLLAR coordinates) are not absent for drillholes.
- That the drillhole identification number (BHID) in the SURVEY file has a reading for AT=0 (Start of hole).
- That each BHID in the COLLAR coordinate file has at least one entry in the SURVEY file.



- That downhole intervals TO values are greater than the interval FROM values.
- That the FROM/TO intervals for one sample does not overlap the FROM/TO of the next sample.
- That FROM/TO interval are not duplicated.
- That no negative values are subsequently used in the estimation.
- That assay values have appropriate units.

The following treatments were applied to the desurveyed file prior to compositing:

- Non-sampled intervals were set to absent values.
- Below detection assays were set to the absolute value of detection values for the elements.

14.7.2 Drillhole Orientation Bias Checks

Mining Plus also noted that several drillholes were oriented in different and sub-optimal directions. Analysis of the mineralized samples separated by drilling direction shows a bias where the drill holes are poorly oriented. Based on these observations, Mining Plus decided to exclude a further 41 poorly oriented drill holes from being used in the mineral resource estimate.

14.7.3 Sample Compositing Method

Drillhole data was flagged with the modelled lithological and mineralization wireframes. The flagging feature utilized the desurveyed sample interval centroid in determining the spatial relationship with the wireframe solids. Within each of the wireframes, the samples were composited to 1 m lengths for Au, Cu and Ag and statistical analysis completed. The resulting drillhole composite assay database file with capping levels established was used for the estimation process. Additionally, the contacts between the overlying weathering assemblage (weathered) and the underlying fresh (unweathered) rock portions were coded into each mineralized zone. Only samples within the mineralized wireframes were included within the grade interpolation exercise.

14.8 Statistical Analysis

Statistical analysis was conducted on the 1 m composited data flagged with mineralization domain codes. Snowden's Supervisor™ software was used to complete all statistical analyses. Univariate statistics of the composite data were compiled within each mineralization domain. Histograms, log-probability plots, the coefficient of variation ("CV") statistic, Sichel's mean statistic, the mean-variance plots and 3D visualization were used to evaluate the composite grade values and determine the appropriate top cut grades for each mineralized domain. Summary



statistics were then generated for Au, Cu and Ag and tabulated. Histograms, probability plots and mean-variance plots were produced for Au, Cu and Ag in all domains.

Generally, the grade distributions for Au, Cu and Ag are positively skewed and the underlying population was assumed to be approximately log normal.

14.8.1 Top Cut Analysis Method

Histograms, log-probability plots, mean-variance plots, the CV value, and Sichel's mean from summary statistics supported with 3D visualization of grades were considered in determining appropriate top cut values for each element. Where a top cut value is applied, all grade values greater than the top cut value are set to the top cut value (capped). Capping has been completed on composited data. Generally, a CV value greater than 1 indicates extreme values that may be problematic during estimation and alerts the need for investigation for top-cutting. Consideration was given to the cut percentile, and the capped mean was compared with the log estimated mean (Sichel's mean) and the arithmetic mean of the uncut data. During capping and where Sichel's mean approach is solely used, data is capped until the arithmetic mean of the cut data equals or is close to Sichel's mean of the uncut data. This is because where a log-normal distribution is assumed, Sichel's mean is the best estimator of the mean of the distribution. To prevent severe capping, data has not been cut below the 99th percentile of the population.

Additional restrictions were applied to values close to the 95th percentile of the population where required during estimation by using the high-grade restriction rule in Datamine Studio RM. This limits the influence of high grades, thus improving local estimation. The high-grade restriction rule was found to be generally required for gold and copper mineralization but less for silver mineralization. The high-grade restriction rule applied was generally at the range of the first structure of the variogram supported by geology data.

The univariate basic statistics and top cut values summary tables for the high grade and low grade mineralized domains at the Toroparu and Sona Hill deposits are shown in Table 14-2, Table 14-3, Table 14-4 and Table 14-5.



Table 14-2: Toroparu deposit descriptive basic statistics for gold mineralization domains

Toroparu Deposit AUHG			
	Au (g/t)	Cu (%)	Ag (g/t)
Number of samples	10,458	10,388	3,451
Minimum	0.0025	0.0001	0.008
Maximum	471.6	4.66	79.00
Mean	2.45	0.17	2.91
Standard deviation	6.80	0.20	3.32
Coefficient of variation	2.78	1.14	1.14
Log estimated mean (Sichel's mean)	2.25	0.23	3.20
Top cut value	30.00	2.00	30
Number of samples cut	29	4	2
Cut data mean	2.29	0.17	2.8427
Cut data coefficient of variation	1.20	1.11	1.06
Percentile cut	99.7%	99.96%	99.9%
Cut versus uncut data mean	-6%	-2%	-2%
Cut versus uncut data Sichel's mean	2%	-28%	-11%
	Toroparu Deposit AU	LG	
	Au (g/t)	Cu (%)	Ag (g/t)
Number of samples	69,173	68,550	19,929
Minimum	0.0025	0.0000	0.0030
Maximum	855.80	7.67	101.00
Mean	0.43	0.06	0.88
Standard deviation	3.75	0.08	1.43
Coefficient of variation	8.78	1.47	1.63
Coefficient of variation Log estimated mean (Sichel's mean)	8.78 0.41	1.47 0.08	1.63 1.05
		-	
Log estimated mean (Sichel's mean)	0.41	0.08	1.05
Log estimated mean (Sichel's mean) Top cut value	0.41 20.00	0.08 1.00	1.05 18
Log estimated mean (Sichel's mean) Top cut value Number of samples cut	0.41 20.00 32	0.08 1.00 16	1.05 18 9
Log estimated mean (Sichel's mean) Top cut value Number of samples cut Cut data mean	0.41 20.00 32 0.40	0.08 1.00 16 0.06	1.05 18 9 0.87
Log estimated mean (Sichel's mean) Top cut value Number of samples cut Cut data mean Cut data coefficient of variation	0.41 20.00 32 0.40 1.92	0.08 1.00 16 0.06 1.30	1.05 18 9 0.87 1.26



Table 14-3: Toroparu deposit descriptive basic statistics for copper mineralization domains

Toroparu Deposit CUHG			
	Au (g/t)	Cu (%)	Ag (g/t)
Number of samples	16,415	16,417	6,818
Minimum	0.0025	0.0005	0.03
Maximum	855.8	3.82	101
Mean	1.10	0.21	2.52
Standard deviation	6.96	0.16	2.85
Coefficient of variation	6.31	0.78	1.13
Log estimated mean (Sichel's mean)	1.17	0.21	2.50
Top cut value	10	None	15
Number of samples cut	88	-	35
Cut data mean	1.00	-	2.46
Cut data coefficient of variation	1.29	-	0.89
Percentile cut	99.46%	-	99.49%
Cut versus uncut data mean	-9%	-	-2%
Cut versus uncut data Sichel's mean	-17%	-	-1%
	Toroparu Deposit Cl	JLG	
	Au (g/t)	Cu (%)	Ag (g/t)
Number of samples	79,790	79,801	19,926
Minimum	0.0005	0.000137	0.001
Maximum	220.68	7.43	56.47
Mean	0.37	0.04	0.67
Standard deviation	1.51	0.05	0.93
Coefficient of variation	4.07	1.28	1.38
Log estimated mean (Sichel's mean)	0.41	0.04	0.71
Top cut value	20.00	1.50	10
Number of samples cut	44	3	14
Cut data mean	0.36	0.04	0.66
Cut data coefficient of variation	2.62	1.05	1.09
Percentile cut	99.94%	99.996%	99.93%
Cut versus uncut data mean	-3%	0%	-1%
Cut versus uncut data Sichel's mean	-12%	-2%	-7%



Table 14-4: Sona Hill deposit descriptive basic statistics for gold mineralization domains

Sona Hill Deposit AUHG			
	Au (g/t)	Cu (%)	Ag (g/t)
Number of samples	4,161	753	753
Minimum	0.005	0.000137	0.01
Maximum	143.90	0.06	38.77
Mean	1.13	0.01	1.06
Standard deviation	2.56	0.01	1.83
Coefficient of variation	2.27	0.81	1.73
Top cut value	30	None	11.65
Number of samples cut	6	-	1
Cut data mean	1.12	-	1.03
Cut data coefficient of variation	2.17	-	1.52
Percentile cut	99.9%	-	99.9%
Cut versus uncut data mean	-1%	-	-3%
	Sona Hill Deposit	AULG	
	Au (g/t)	Cu (%)	Ag (g/t)
Number of samples	3,148	559	559
Minimum	0.003	0.0008	0.01
Maximum	22.06	0.12	6.60
Mean	0.17	0.01	0.43
Standard deviation	0.49	0.01	0.56
Coefficient of variation	2.94	1.10	1.30
Top cut value	4.6	-	2.65
Number of samples cut	4	-	4
			0.42
Cut data mean	0.16	-	0.42
Cut data mean Cut data coefficient of variation	0.16 2.60	-	1.08
		-	



	Sona Hill Deposit CU				
	Au (g/t)	Cu (%)	Ag (g/t)		
Number of samples	2,003	1,873	1,873		
Minimum	0.003	0.0008	0.01		
Maximum	25.03	0.12	24.28		
Mean	0.30	0.01	0.49		
Standard deviation	1.13	0.01	1.05		
Coefficient of variation	3.80	1.10	2.14		
Top cut value	None	None	None		
Number of samples cut	-	-	-		
Cut data mean	-	-	-		
Cut data coefficient of variation	-	-	-		
Percentile cut	-	-	-		
Cut versus uncut data mean	-	-	-		

Table 14-5: Sona Hill deposit descriptive basic statistics for copper mineralization domain

14.9 Variography

14.9.1 Variogram Analysis Method and Results

Variogram construction was completed for each mineralized zone using the composited data to characterize the spatial continuity of elements using Snowden Supervisor software v8.15.0.

The variogram study was integrated with mineralized domain models. The resulting continuity directions were validated with domain models to ensure the correct orientation of strike, dip and plunge directions of the ellipsoid are compatible with known mineralization or structural orientations.

14.10 Block Modelling

14.10.1 Block Model Method

The block model construction applied to the Project mineral resource estimate was completed within Datamine Studio RM™ software. A three-dimensional non-rotated block model was constructed to cover the limits of the Toroparu and Sona Hill deposits respectively into which the estimate of Au, Cu and Ag was completed. The block model extents and block sizes are presented in Table 14-6 and Table 14-7 for the mineralized and non-mineralized areas.



At the Toroparu deposit, two parent block sizes were considered appropriate for the block model. A parent block dimension of 10 mE x 10 mN x 5 mRL was considered suitable where the average drillhole spacing is within 25 m. A 20 mE x 20 mN x 5 mRL parent block size was used in areas of the deposit where the average drill spacing varies from 60 m to 200 m. Only one parent block size was used at Sona Hill. Parent blocks were sub-blocked ensuring high resolution at mineralization boundaries where mineralization can thin significantly. The block models were coded with mineralization and lithological domain variables corresponding to the modelled wireframe.

Table 14-6: Toroparu deposit block model extents and block sizes

Model	Dimension	Minimum coordinate	Maximum coordinate	Block Size (m)	Sub-Block Size (m)
	X	822,900	827,800	10/20	2.5
Mineralization	Υ	711,900	716,800	10/20	2.5
	Z	-900	400	5	2.5
	Х	822,900	827,800	40	2.5
Waste	Y	711,900	716,800	40	2.5
	Z	-900	400	40	2.2

Table 14-7: Sona Hill deposit block model extents and block sizes

Model	Dimension	Minimum coordinate	Maximum coordinate	Block Size (m)	Sub-Block Size (m)
	X	829,800	831,200	12.5	1.25
Mineralization	Υ	709,900	712,150	25	1.25
	Z	-250	200	10	0.625
	Х	829,800	831,200	12.5	1.25
Waste	Υ	709,900	712,150	25	1.25
	Z	-250	200	10	0.625



14.10.2 Block Model Construction Validation

The block model construction was validated to ensure the following:

- All blocks contain all the required fields.
- Default codes are correctly applied.
- Domain variables are correctly assigned according to the corresponding wireframes.
- Parent blocks and sub-blocks are correctly applied, and the sub-blocks provide a reasonable definition of the wireframes.

There is no evidence of block model leaking due to possible wireframe errors such as openings, crossings, or inconsistencies.

14.11 Block Model Estimation

The variogram models described above have been used within an ordinary kriging linear estimation process to derive optimal weights applied to composite grade values for the block grade estimates for each estimation domain. Mining Plus has estimated gold, silver and copper grades using Datamine Studio RM software.

14.11.1 Grade Estimation

The ordinary kriging estimation parameters common to all estimation domains are as follows:

The block model estimation was completed using the top cut composite files. To preserve the orientation of mineralization, the "Dynamic Anisotropy" option of Datamine Studio RM™ was used which allows for orienting the search volume precisely along the modelled mineralization orientations and follows the mineralisation trend. To preserve local grade variation, the search neighbourhood strategy that resulted after kriging neighbourhood analysis was employed. The analysis was conducted for regions within the dataset for variable test parameters. The parameters tested and optimized were the parent block sizes, search distances, number of composites, and block discretisation. The kriging neighbourhood analysis exercise was completed using only gold composite data.

For each domain estimated for the Toroparu deposit, three grade estimation search passes were used with the size of the first search designed to include as much local data as possible to minimise conditional bias. A second search identified all un-estimated blocks and attempted to generate values for these blocks as well, using an extended range search similar to that applied within the first estimation search. The first estimation search used a minimum of five or eight and a maximum of 30 composites and allowed a search distance within 60% of the estimated



element's variogram range. The second estimation search used a minimum of four or eight and a maximum of 15 to 25 composites and was allowed to search within a distance set to the full extent of the estimated variable's continuity range. After the first two searches, the third estimation search was used to fill any un-estimated blocks. Less than 10% of the blocks were estimated with a minimum of one composite and a maximum of 5 composites for the third estimation pass.

A minimum of six and a maximum of 20 composites were used for the first and second searches for the Sona Hill grade estimate. The third search used a minimum of two and a maximum of 20 (in general); the fourth used a minimum of two and a maximum of 10 composites. A maximum of five composites per drill hole was applied for all searches.

During the grade estimate, high-grade composites were spatially restricted to characterise the spatial distribution of the elements and to reduce the smoothing of very high grades not supported by data.

14.11.2 Bulk Density Estimation

Dry bulk densities were assigned to the block models according to the weathering profile and lithology. The assigned values reproduced in Table 14-8 were derived from the average of the available bulk density measurements.

Donosit	Lithology	В	ulk Density (g/c	m³)
Deposit	Lithology	Oxide	Transition	Fresh
	Dykes	1.82	2.36	2.76
	Gabbro	1.82	2.36	2.97
Toroparu	Intrusive	1.82	2.36	2.72
	Volcanics	1.82	2.36	2.73
	Undifferentiated Volcanic	1.82	2.36	2.73
	Dykes	1.74	2.75	2.81
	Gabbro	1.74	2.75	2.76
Sona Hill	Intrusive	1.74	2.75	2.81
	Volcanics	1.74	2.75	2.75
	Undifferentiated Volcanic	1.74	2.75	2.75

Table 14-8: Assigned bulk density



14.11.3 Grade Estimation Validation

Standard block model grade estimation validation was completed using visual and numerical methods. Visual methods included the interrogation of the block model comparing individual estimated grades with input drillhole data grades. Numerical methods included direct queries of the block model to ensure that all estimation passes have been completed successfully, the assessment of swath plots and statistical comparison of the global naïve and de-clustered composite mean grades versus block estimated grades.

14.11.4 Visual Comparison – Block Model and Drillholes Assays

The Toroparu and Sona Hill block models were examined on sections to observe the consistency of block grade estimates and drillholes sample grades within the sample database. Figure 14-8 shows a representative cross-section of the Toroparu deposit model. The figure show blocks coloured by estimated gold grade and drillhole traces coloured by one metre composited gold grades. In general, there is a reasonable consistency between high/low grade blocks and drillholes. Visual comparison of the estimated grades shows no significant grade smearing.

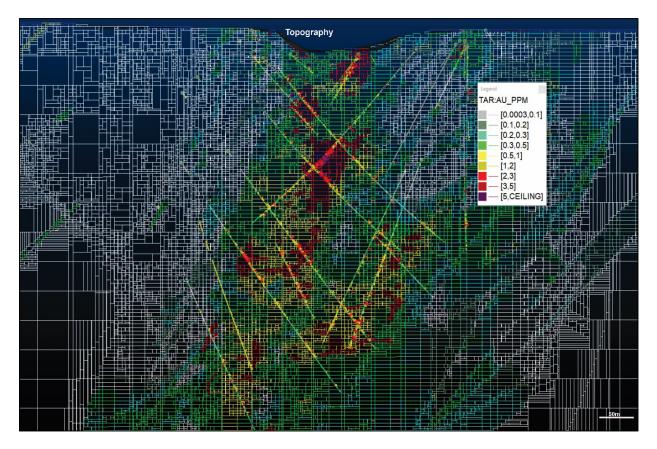


Figure 14-8: NESW cross section of Toroparu block model looking NW comparing block model grades with informing composites.



14.11.5 Block Model Versus Composite Data Statistics

The global block volume weighted estimated mean grade was checked against the parent cell declustered composite data for the Toroparu and the Sona Hill deposits and tabulated in Table 14-9 and Table 14-10. The estimates generally appear conservative but show an acceptable reproduction of the mean and reasonable to support Measured, Indicated and Inferred mineral resources as defined.

Domain	Block model volume weighted mean grade	Parent cell declustered composite mean grade	Variance: block mean vs declustered composite mean grade
Gold mineralization - AUHG	2.17 g/t Au	2.24 g/t Au	-3.3%
Gold mineralization - AULG	0.35 g/t Au	0.39 g/t Au	-12.0%
Copper mineralization - CUHG	0.19 % Cu	0.21 % Cu	-9.1%
Copper mineralization - CULG	0.04 % Cu	0.04 % Cu	-11.6%

Table 14-9: Toroparu block model mean versus declustered sample mean

Table 14-10: Sona	Hill block model	mean versus dec	lustered sample mean

Domain	Block model volume weighted mean grade	Parent cell declustered sample mean grade	Variance: block mean vs declustered sample mean grade
Gold mineralization - AUHG	1.10 g/t Au	1.09 g/t Au	-0.9%
Gold mineralization - AULG	0.16 g/t Au	0.16 g/t Au	1.3%
Copper mineralization	0.01 % Cu	0.01 % Cu	-2.3%

14.11.6 Swath Plots

Swath plots of estimated block mean grades, drillhole composite mean grades and the number of composites by easting, northing and elevation were constructed for Au, Cu and Ag. The block estimated means from these swath plots are not strictly comparable but is a useful tool in detecting significant global bias. The trends observed on the Toroparu and Sona Hill block model swath plots show the expected smoothing of grades but overall, there is very good correlation and the absence of global bias.



14.12 Mineral Resource Classification

The mineral resource has been classified as either Measured, Indicated, and Inferred based on confidence in the geological interpretation, grade continuity, sample spacing and volume constraint to provide estimates with the reasonable prospect for eventual economic extraction threshold.

The full classification criteria used for the Toroparu deposit and Sona Hill deposit are presented in Table 14-11 and Table 14-12 respectively. A combination of these factors guided the manual digitising of strings on drill sections to construct envelopes that were used to control the mineral resource categorisation. This process allows review of the geological control/confidence on the deposit. No Measured mineral resource was classified for the Sona Hill estimate.

NI 43-101 requires mineral resource estimates to have a reasonable prospect for eventual economic extraction. This implies that the estimates meet specific economic criteria and that the mineral resources are reported to an appropriate cut-off grade that reflects extraction scenarios and processing recoveries. The Toroparu deposit gold mineralization reflects large scale open pit and a potential for underground extraction to meet this requirement. Sona Hill is amenable by open pit extraction only.

Table 14-11: Toroparu mineral resource classification criteria

Measured Mineral Resource	Indicated Mineral Resource	Inferred Mineral Resource
Drillhole spacing, geological confidence, estimation confidence and the reasonable prospect of eventual economic extraction	Drillhole spacing, geological confidence, estimation confidence and the reasonable prospect of eventual economic extraction	Drillhole spacing, geological confidence, estimation confidence and the reasonable prospect of eventual economic extraction
Drill grid spacing up to 30 m along strike of deposit and 40 m down dip	Drill grid spacing greater than measured grid but less than 60 m along strike of deposit and less than 80 m down dip	Drill grid within 150 m along strike and 150 m down dip
High level of confidence in interpretating geology and handling geological complexities	Relatively lower level of confidence in interpretating geology and handling geological complexities than measured	Relatively lower level of confidence in interpretating geology and handling geological complexities than indicated
Within measured wireframe with minimum of 90% of blocks with slope of regression ("ZZ") > 0.4. Estimated within first pass	Within the indicated wireframe minimum of 80% blocks with ZZ>0.2. Estimated within second search pass	Low level estimation quality. Estimated within third pass search

search pass



Measured Mineral Resource	Indicated Mineral Resource	Inferred Mineral Resource
Drillhole spacing, geological confidence, estimation confidence and the reasonable prospect of eventual economic extraction	Drillhole spacing, geological confidence, estimation confidence and the reasonable prospect of eventual economic extraction	Drillhole spacing, geological confidence, estimation confidence and the reasonable prospect of eventual economic extraction
Not applicable	Close-spaced drilling from 25 m by 25 m up to 40 m by 40 m and estimated within the first or second pass. These areas are enclosed within the Indicated wireframe for each domain.	Informed by drilling spaced from 50 m by 50 m up to 100 m by 100 m and have been estimated on the second or third pass with more than one drillhole.
Not applicable	Relatively lower level of confidence in interpretating geology and handling geological complexities than measured	Relatively lower level of confidence in interpretating geology and handling geological complexities than indicated
Not applicable	KE>50%. Estimated within first or	Low level estimation quality. Estimated within second or third

Table 14-12: Sona Hill mineral resource classification criteria

To determine the quantities of material satisfying the reasonable prospect of eventual economic extraction by an open pit, the Lerchs-Grossman optimising algorithm was used to evaluate the profitability of each of the estimated mineral resource blocks based on its value using a long-term gold price of \$1,650/oz to produce optimized resource pit shells. Mineable Shape Optimizer ("MSO") was also run for the underground mineralization at Toroparu deposit. The optimization parameters assumed in the study are summarised in Table 14-13, Table 14-14 and Table 14-15.

second search pass

It should be noted that the optimization results were used exclusively to assess the reasonable prospect of eventual economic extraction by open pit and underground mining methods and do not represent an attempt to estimate mineral reserves.

Model blocks contained within the conceptual optimized resource pit shells and MSO shapes shown in Figure 14-9 and Figure 14-10 are considered to meet the reasonable prospects for economic extraction by an open pit and underground operation, respectively, and are therefore reported as a mineral resource.

Model blocks outside the resource pit shell and MSO shapes were excluded from the reported mineral resources as they did not meet the mineral resource requirement. This material can potentially convert to mineral resources in the future through further drilling and/or under more favourable economic assumptions.



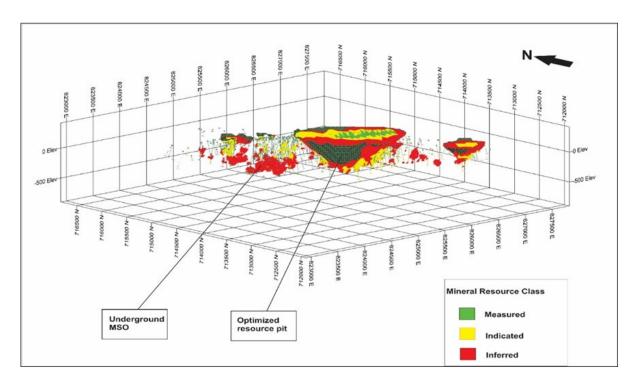


Figure 14-9: Isometric view looking northeast of the Toroparu deposit open pit and underground mineral resources coloured by resource classification, optimized resource pit shell and underground MSO

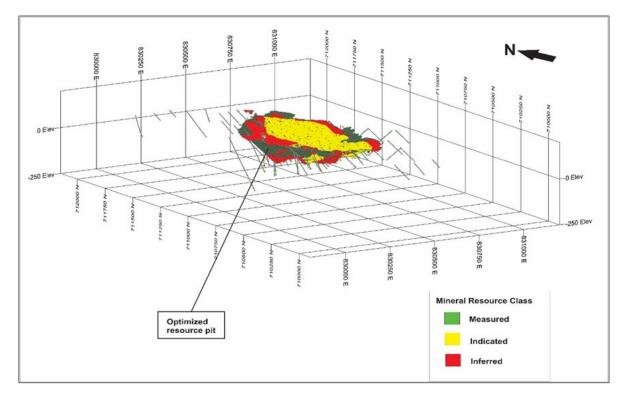


Figure 14-10: Isometric view looking northeast of the Sona Hill deposit showing open pit mineral resources coloured by resource classification and the optimized resource pit shell



Table 14-13: Toroparu deposit optimized resource pit shell parameters

Parameter	Assumptions used in the optimisation				
Mineral Resources Included	Measured + Indicated + Inferred				
Gold Price	\$1,650/oz				
Royalties	8%				
Net Gold Price	\$1,518/oz				
Net Gold Price	\$48.80/g				
Overall Gold CIL Recovery	84%				
Overall Gold Flotation Recovery	80%				
Overall Copper Flotation Recovery	88%				
Total Processing Cost - CIL	\$22/t				
Total Processing Cost - Flotation	\$16/t				
Average Mining Cost	\$2/t				
G&A Cost	\$6/t				
Mining Dilution	0%				
Mining Loss	0%				
Overall Pit Slope Angle (Transition Rock)	30°				
Overall Pit Slope Angle (Fresh Rock)	45°				
NPV Optimized Shell Selected	Revenue Factor 1				



Table 14-14: Sona Hill deposit optimized resource pit shell parameters

Parameter	Assumptions used in the optimisation				
Mineral Resources Included	Indicated + Inferred				
Gold Price	\$1,650/oz				
Royalties	8%				
Net Gold Price	\$1,518/oz				
Net Gold Price	\$48.80/g				
Overall Gold CIL Recovery	83%				
Total Processing Cost CIL	\$22/t				
Average Mining Cost	\$2/t				
G&A Cost	\$6/t				
Mining Dilution	0%				
Mining Loss	0%				
Overall Pit Slope Angle (Transition Rock)	30°				
Overall Pit Slope Angle (Fresh Rock)	45°				
NPV Optimized Shell Selected	Revenue Factor 1				

Table 14-15: Toroparu underground MSO parameters

Parameter	Assumptions used in the optimisation				
Mineral Resources Included	Measured + Indicated + Inferred				
Gold Price	\$1,650/oz				
Royalties	8%				
Average Mining Cost	\$36/t				
Total Processing Cost CIL	\$16/t				
G&A Cost	\$12/t				
Overall Gold Process Recovery	88%				
Mining Dilution	15%				
Mining Loss	95%				
MSO Shape Parameters	Minimum width: 2m				



14.13 Cut-Off Grade Assumptions

The mineral resource cut-off grade was established using a long-term gold price of \$1,650/oz and an overall metallurgical recovery of 83% as Process Cost/ (Net Gold Price x Metallurgical Recovery). Gold royalties were assumed at 8%. With the assumption that the mill feed from Toroparu and Sona Hill will be treated at a gold processing facility, a processing cost of \$22/t was used. This resulted in a marginal cut-off grade calculation of 0.5 g/t Au.

The underground mineral resource is reported within Mineable Stope Optimizer shapes generated at a cut-off grade of 1.5 g/t Au and is inclusive of material below 1.5 g/t Au within those shapes.

14.14 Mineral Resource Tabulation

The Toroparu Project mineral resources effective February 10, 2023 are summarised in Table 14-16.

14.15 Mineral Resource Sensitivity

Table 14-17 presents the 2023 MRE at different cut-off grades to demonstrate the sensitivity of the estimate. The base case at 0.5 g/t Au is the cut-off grade utilized for the mineral resource estimate. All other cut-off grades are presented for comparative purposes only.



Table 14-16: Toroparu Project Mineral Resources effective 10 February 2023

Deposit	Area	Mineral Resource Category	Tonnes Kt	Grade Gold (g/t)	Contained Gold (koz)	Grade Copper (%)	Contained Copper (kt)	Grade Silver (g/t)	Contained Silver (koz)
Toroparu	Open Pit	Measured	42,291	1.45	1,967	0.14	61	1.8	2,455
		Indicated	62,280	1.42	2,846	0.09	55	1.3	2,559
		Inferred	7,872	1.29	326	0.05	4	0.8	196
	Underground	Measured	130	1.89	8	0.03	<1	0.4	2
		Indicated	3,582	2.08	239	0.05	2	0.7	76
		Inferred	11,470	2.07	764	0.04	5	0.7	262
Sona Hill	Open Pit	Measured	-	-	-	-	-	-	-
		Indicated	6,764	1.44	313	<0.01	<1	1.2	258
		Inferred	1,856	1.31	78	<0.01	<1	1.0	59
Total		Measured	42,420	1.45	1,975	0.14	61	1.8	2,457
		Indicated	72,627	1.46	3,398	0.08	57	1.2	2,893
		Measured + Indicated	115,047	1.45	5,373	0.10	118	1.5	5,350
		Inferred	21,198	1.71	1,168	0.04	9	0.8	517

- Mineral resources are not mineral reserves and have no demonstrated economic viability.
- The mineral resource estimate was prepared by Ekow Taylor, FAusIMM (CP) and Maria Muñoz, MAIG, both of Mining Plus, who are Qualified Persons as defined by NI 43-101. Ms. Muñoz has reviewed and verified the drilling, sampling, assaying, and QAQC protocols and results, and is of the opinion that the sample recovery, preparation, analyses, and security protocols used for the mineral resource estimate are reliable for that purpose.
- Totals may not add up due to rounding.
- Open pit mineral resources are reported above a cut-off grade of 0.5 g/t gold within an optimized pit shell using a gold price of \$1,650 per ounce. Underground mineral resources are reported within Mineable Stope Optimizer shapes generated at a cut-off grade of 1.5 g/t gold and is inclusive of material below 1.5 g/t gold within those shapes.
- There are no known legal, political, environmental, or other risks that could materially affect the potential development of the mineral resources.



Table 14-17: Sensitivity of the 2023 MRE to cut-off grade

Resource Category	Cut-Off Gold (g/t)	Tonnes (kt)	Grade Gold (g/t)	Grade Copper (%)	Grade Silver (g/t)	Contained Gold (koz)	Contained Copper (kt)	Contained Silver (koz)
	0.3	82,174	0.94	0.09	1.6	2,473	77	4,132
	0.4	59,103	1.17	0.12	1.7	2,215	71	3,231
Measured	0.5	42,412	1.45	0.13	1.8	1,975	57	2,456
	0.6	32,323	1.73	0.14	1.9	1,798	46	1,946
	0.7	27,304	1.93	0.15	1.9	1,694	41	1,690
	0.3	154,266	0.89	0.07	1.1	4,410	112	5,450
	0.4	104,129	1.15	0.08	1.2	3,850	80	3,969
Indicated	0.5	72,310	1.46	0.08	1.2	3,394	57	2,885
	0.6	56,085	1.73	0.08	1.3	3,111	44	2,271
	0.7	48,179	1.90	0.08	1.3	2,947	38	1,982
	0.3	33,798	1.22	0.04	0.8	1,325	15	826
Inferred	0.4	24,885	1.53	0.04	0.8	1,226	11	608
	0.5	20,531	1.76	0.04	0.8	1,164	9	500
	0.6	18,618	1.89	0.04	0.7	1,131	8	445
	0.7	17,148	2.00	0.04	0.8	1,100	7	416



14.16 Material Factors

Mining Plus considers that the drilling and sampling information is sufficiently reliable to interpret the boundaries of the mineralized structures and that the sample grade data are sufficiently reliable to support the mineral resource estimate. No known environmental, permitting, legal, title, taxation, socio-economic, marketing, political, environmental, or other relevant factors could materially affect the potential development of the mineral resources.



15 MINERAL RESERVE ESTIMATES



16 MINING METHODS



17 RECOVERY METHODS



18 PROJECT INFRASTRUCTURE



19 MARKET STUDIES AND CONTRACTS



20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

This section is not applicable to this technical report.



21 CAPITAL AND OPERATING COSTS

This section is not applicable to this technical report.



22 ECONOMIC ANALYSIS

This section is not applicable to this technical report.



23 ADJACENT PROPERTIES

There is no relevant information on adjacent properties to report.



24 OTHER RELEVANT DATA AND INFORMATION

There is no additional information to report.



25 INTERPRETATION AND CONCLUSIONS

25.1 Mineral Resource Estimate

The Project comprises a large, structurally controlled orogenic gold deposit with numerous features similar to many other orogenic gold deposits that are strongly controlled by competency contrasts.

Drilling has taken place at the Project from 2006 to 2022, mostly for resource definition at the Toroparu and Sona Hill deposits. A total of 1,326 drillholes for 265,948 m are present in the resource database, a sub-set of which formed the basis for the mineral resource estimate effective February 10, 2023.

Mining Plus considers that the drilling and sampling information is sufficiently reliable to interpret the boundaries of the mineralized structures and that the sample grade data are sufficiently reliable to support the mineral resource estimate. No known environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors could materially affect the potential development of the mineral resources.

Mining Plus utilized mining software to create three-dimensional wireframe interpretations based on a new detailed structural analysis and updated geological model for the mineral resource estimate and has undertaken an assessment of reasonable prospects for economic extraction on the assumption of open pit and underground mining in assessing the continuity of the mineralization above the selected cut-off grades.

The Toroparu Project mineral resource effective February 10, 2023 is estimated to include measured and indicated mineral resources of 115 million tonnes grading 1.45 g/t gold, 0.10% copper and 1.5 g/t silver for 5.4 million ounces contained gold, 118 thousand tonnes contained copper, and 5.4 million ounces contained silver and an inferred mineral resource of 21.2 million tonnes grading 1.71 g/t gold, 0.04% copper, and 0.8 g/t silver for 1.2 million ounces of contained gold, 9 thousand tonnes contained copper, and 517 thousand ounces contained silver.

The open pit mineral resource is reported above a 0.5 g/t gold cut-off grade within an optimized resource pit shell using a long-term gold price of \$1,650 per ounce. The underground mineral resource is reported within mineable stope optimizer shapes generated at a cut-off grade of 1.5 g/t gold, including material below 1.5 g/t gold.



25.2 Mineral Processing and Metallurgical Testing

A large body of testwork has been conducted between 2009 and 2022 which has yielded significant information around the physical and material properties of the Toroparu and Sona Hill deposits.

The response of the Toroparu and Sona Hill deposits to comminution, gravity concentration, rougher and cleaner flotation, and cyanide leaching were investigated. Both deposits are comprised of auriferous saprolitic material overlaying non oxidized auriferous hardrock while Toroparu deposit also contains zones higher in copper.

Toroparu and Sona Hill deposits both contain mineralized material which is amenable to a gravity-leach flowsheet.

High cyanide soluble copper areas within the Toroparu deposit are amenable to a gravity-flotation flowsheet.

Areas of Sona Hill that contain high tellurium have slower leach kinetics and thus recovery could be lower if the processing parameters remain the same for this deposit.

The Sona Hill composites show mineralization in the range of soft to moderately hard. The presence of auriferous tellurides that are slower leaching, require a finer grind and elevated pH to achieve high extractions.

Comminution tests indicated that Toroparu is a moderate to hard mineralized and abrasive material and major gold is native gold. High saprolite blends may allow elevated processing rates of hard material if viscosity/rheology does not impact processing design. Gravity recovery of 30-50% gold is possible at primary grind sizes of P_{80} 150 μ m which is also an optimal size for recovery.

Production sampling to determine cyanide soluble copper levels and telluride content will be key in keeping plant recovery high and allowing plant metallurgists to manage variation in the mill feed material over time.



26 RECOMMENDATIONS

Mining Plus recommends the following:

- Bulk density measurements must be carried out using the paraffin wax water immersion method. This method ensures a more accurate determination of bulk density for any sample regardless of the weathering state and porosity by coating the oven-dried sample piece in a thin, even layer of paraffin wax and then determining weights.
- Regular samples constituting at least 3% of the total bulk density measurements are to be submitted to an independent laboratory for measurements using the water immersion method to compare with site measurements.
- Standard controls should include a low-grade standard, near the cut-off grade of the deposit; a mean grade standard, near the mean grade of the deposit; and a high-grade standard, near the 90th percentile of the deposit grade.
- While the QAQC program is considered adequate, it is necessary to include pulp blanks to rule out contamination during the reading of the analyte.
- Conduct infill drilling on 60 m drill sections at Toroparu and 40 m drill sections at Sona Hill
 for those areas that are currently averaging 50 m to 100 m drill spacing, to confirm
 continuity of mineralization, increase the extent of inferred mineral resources and
 potentially upgrade inferred mineral resources to indicated. A staggered pattern is
 recommended to optimize drillhole planning.
- Follow up on depth extensions at the Toroparu deposit to increase the extent of the inferred mineral resource.
- Continue with the gap analysis currently underway to assess the Project data readiness
 for a prefeasibility study level and to identify the approximate resources required to
 collect any additional information, if necessary, to achieve a prefeasibility study level. The
 estimated cost of the gap analysis is \$85,000.
- Depending on the outcome of the gap analysis, collect any additional information and proceed with a prefeasibility study of the Project. The estimated cost of the prefeasibility study is \$1.6 million.

Sedgman recommends the following:

Not all blends from all sources have been tested. This is in part due to sample availability
but also due to the ongoing development of the Project over the intervening period.
Additional testwork is recommended to understand all blends from all mill feed sources.
Designs will need to consider how this may be managed in the full-scale processing plant.



- The Sona Hill fresh blends have differing characteristics for leaching of gold values. Namely, the presence of auriferous tellurides that are slower leaching, requiring a finer grind and elevated pH to achieve high extractions. Blending of Sona Hill fresh material with other material types increases the operating cost of the other mill feed (elevated quicklime demands) and lower extractions from the Sona Hill component than would be achieved if the Sona Hill were processed alone at lower throughput so as to achieve a finer grind. Blending potential should be covered in the next study phase.
- Cyanide soluble copper needs to be managed. As the Project develops, particularly during
 operation, the anticipated blend ratios may change. Consequently, the flowsheet requires
 some flexibility to address this. The impact of copper on the carbon circuit has yet to be
 evaluated at a range of soluble copper concentrations. There is the opportunity with new
 sample availability to conduct some work to explore this if deemed justified.
- Elevated temperature leach tests on Sona Hill variability (high telluride) samples.
- Expanded mapping of all existing testwork to drillhole locations and block model.
- Further diagnostic leach and mineralization categorization on poor performing samples where the sample relates to a significant material feed to the plant.
- Material handling testwork of saprolite and hard rock feed should be considered prior to any detailed design of the processing facility.
- A gap analysis should be undertaken prior to moving to an economic study. Sedgman estimates that the Mineralogy, Metallurgy and Infrastructure gap analysis would cost approximately \$15,000 to \$20,000.



27 REFERENCES

Author and Date	Title
CIM, 2014	CIM Definition Standards for Mineral Resources and Mineral Reserves. Prepared by the CIM Standing Committee on Reserve Definitions, adopted by CIM Council 19 May 2014
CIM, 2019	CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines. Prepared by the CIM Mineral Resource and Mineral Reserve Committee, adopted by the CIM Council on 29 November 2019.
Nordmin Engineering, 2022	Revised NI 43-101 Technical Report and Preliminary Economic Assessment for the Toroparu Gold Project, Upper Puruni River Region of Western Guyana. Technical Report prepared by Nordmin Engineering for GCM Mining, dated 4 February 2022.
Pratt and Smeraglia, 2022	Geological model for the Toroparu gold deposit, Guyana. Report prepared by Warren Pratt and Luca Smeraglia of Specialised Geological Mapping Ltd for Aris Mining, dated October 2022.



28 DATE, SIGNATURES AND CERTIFICATES OF QUALIFIED PERSONS

CERTIFICATE OF QUALIFIED PERSON – EKOW TAYLOR, FAUSIMM (CP)

This certificate applies to the technical report prepared for Aris Mining Corporation ("Aris Mining" or the "Issuer") entitled: "Updated Mineral Resource Estimate NI 43-101 Technical Report for the Toroparu Project, Cuyuni-Mazaruni, Guyana" signed on March 31, 2023 (the "Technical Report") and effective February 10, 2023.

I, Ekow Taylor, FAusIMM (CP), do hereby certify that:

- 1. I am employed as Senior Principal Geology Consultant with Mining Plus Pty Ltd ("Mining Plus"), at Bravo Building, 1 George Wiencke Drive, Perth Airport, WA, 6105, Australia.
- I graduated with a Bachelor of Science Geological Engineering degree with Honours from the University of Science and Technology, Ghana, in 1999. I have worked as a Geologist for a total of 24 years since my graduation from the university.
- 3. I am a Fellow and Chartered Professional in good standing of the Australasian Institute of Mining and Metallurgy (member number 990584). My relevant experience cuts across exploration, mine geology, and Mineral Resource estimation gained over 23 years in Australia and West Africa. My experience includes Geology Manager, Principal Geologist, Resource Geology Manager, and Mine Geology Superintendent roles, and have led technical assurance across the geology value chain from the operational level to my current role in consulting for Mining Plus.
- 4. I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("NI 43-101") and certify that, by reason of my education, affiliation with professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be an independent person for the purpose of NI 43-101.
- 5. I am responsible for Sections 2, 3, 4, 5, 6, 7, 8, 9, 14, 23, 24 and the applicable summaries of those sections included in Sections 1, 25 and 26 of the Technical Report.
- 6. I have not visited the Toroparu Project site.
- 7. I have not had any prior involvement with the property that is the subject of the Technical Report.
- 8. As of the date of this Certificate, to my knowledge, information and belief, the sections of this Technical Report for which I am responsible contain all the scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
- 9. I am independent of the Issuer applying all the test in Section 1.5 of NI 43-101.
- 10. I have read the NI 43-101 and the sections for which I am responsible in this Technical Report have been prepared in accordance with NI 43-101 and Form 43-101F1.

Dated this 31st day of March 2023

(Original signed)

Ekow Taylor, FAusIMM (CP)



CERTIFICATE OF QUALIFIED PERSON – MARIA MUNOZ, MAIG

This certificate applies to the technical report prepared for Aris Mining Corporation ("Aris Mining" or the "Issuer") entitled: "Updated Mineral Resource Estimate NI 43-101 Technical Report for the Toroparu Project, Cuyuni-Mazaruni, Guyana" signed on March 31, 2023 (the "Technical Report") and effective February 10, 2023.

I, Maria Muñoz, MAIG, do hereby certify that:

- 1. I am employed as Principal Resource Geologist with Mining Plus Perú S.A.C, ("Mining Plus") at Av. Jose Pardo 513, Office 1001, Miraflores, Lima, Perú, 15074.
- I graduated with a Bachelor of Science in Geological Engineering degree from the National University of San Agustin, Arequipa, Perú in 2003. I have practiced my profession as a Geologist for a total of 16 since my graduation from the university.
- 3. I am a Member in good standing of the Australian Institute of Geoscientist (member number 7570). My relevant experience cuts across exploration, mine geology, and mineral resource estimation gained over 16 years in Perú, Chile and Thailand. My operations experience includes Principal Geologist, Mining Resources Development Manager and Head of Modeling roles. In addition to direct operational experience, I have been a consulting geologist for Mining Plus since 2019.
- 4. I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("NI 43-101") and certify that, by reason of my education, affiliation with professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be an independent person for the purpose of NI 43-101.
- 5. I am responsible for Sections 10, 11, 12 and the summaries of those sections included in Sections 1, 25 and 26 of the Technical Report.
- 6. I visited the Toroparu Project on March 2 to March 4, 2023, for the purpose of this Technical Report.
- 7. I have not had any prior involvement with the property that is the subject of the Technical Report.
- 8. As of the date of this Certificate, to my knowledge, information and belief, the sections of this Technical Report for which I am responsible contain all the scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
- 9. I am independent of the Issuer applying all the test in Section 1.5 of NI 43-101.
- 10. I have read the NI 43-101 and the sections for which I am responsible in this Technical Report have been prepared in accordance with NI 43-101 and Form 43-101F1.

prepared in accordance with Ni 43-101 and Form 43-101F1.
Dated this 31 st day of March 2023
(Original signed)
Maria Muñoz, MAIG



CERTIFICATE OF QUALIFIED PERSON – KARL HAASE, P.Eng

I, Karl Haase, P.Eng do hereby certify that:

- 1. I am Director of Engineering of Sedgman Pty Limited, Suite 860, 625 Howe Street, Vancouver BC Canada V6C 2T6
- 2. This certificate applies to the technical report titled "Updated Mineral Resource Estimate NI 43-101 Technical Report for the Toroparu Project, Cuyuni-Mazaruni, Guyana" with an Effective Date of February 10, 2023 (the "Technical Report").
- 3. I graduated with a degree in Chemical Engineering from the University of Queensland, Australia, in 2009. I have worked as an engineer in the mining industry for a total of 13 years since my graduation from university. I am registered as a Professional Engineer with Engineers and Geoscientists BC.
- 4. I have read the definition of "qualified person" set out in National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- 5. I have not visited the Toroparu Property.
- 6. I am responsible for Section 12.2, 13 and the relevant summary of Section 13 in sections 1.4, 1.6, 25, and 26
- 7. I am independent of Aris Mining Corporation as described in section 1.5 of NI 43-101.
- 8. I have had no prior involvement with the property that is the subject of the Technical Report.
- 9. I have read NI 43-101 and Form 43-101F1, and the sections of the Technical Report I am responsible for have been prepared in compliance with that instrument and form.
- 10. As of the aforementioned Effective Date, to the best of my knowledge, information, and belief, the sections of the Technical Report I am responsible for contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 31 st day of March 2023	
(Original signed)	
Karl Haase, P.Eng	
Director of Engineering, Sedgman Pty Limited	



APPENDIX A – TOROPARU MINERAL TITLES

The permits listed in the table below are subject to the A&R Joint Venture Agreement and are held in trust for the exclusive benefit of ETK until such time that the GGMC and the Minister of Mining of Guyana convert such permits to large scale mining licenses and issue the same in the name of ETK.

Permit Type	GS8 Number	MP Number	Area (Acres)	Location	Map Number	5th Year Renewal Date
Mining Permit	A-4/MP/000/	007/2004	1,123	Mazaruni	24NE	28/04/2024
Mining Permit	A-4/MP/001/	008/2004	1,117	Mazaruni	24NE	28/04/2024
Mining Permit	A-4/MP/002/	009/2004	1,200	Mazaruni	24NE	28/04/2024
Mining Permit	A-4/MP/003/	010/2004	1,145	Mazaruni	24NE	28/04/2024
Mining Permit	A-4/MP/004/	011/2004	603	Mazaruni	24NE	28/04/2024
Mining Permit	A-4/MP/005/	012/2004	858	Mazaruni	24NE	28/04/2024
Mining Permit	A-4/MP/006/	013/2004	1,098	Mazaruni	24NE	28/04/2024
Mining Permit	A-4/MP/007/	014/2004	992	Mazaruni	24NE	28/04/2024
Mining Permit	A-4/MP/008/	015/2004	1,145	Mazaruni	24NE	28/04/2024
Mining Permit	A-4/MP/009/	016/2004	893	Mazaruni	24NE	28/04/2024
Mining Permit	A-182/MP/000	161/2014	291	Mazaruni	24NE	20/06/2024
Mining Permit	A-194/MP/000	609/2014	1,199	Mazaruni	24NE	4/08/2024
Mining Permit	A-195/MP/000	610/2014	955	Mazaruni	24NE	4/08/2024
Mining Permit	A-196/MP/000	611/2014	1,119	Mazaruni	24NE	4/08/2024
Mining Permit	A-95/MP/000	313/2013	1,000	Mazaruni	24NE	3/09/2023
Mining Permit	A-111/MP/000	415/2013	1,026	Mazaruni	24NE	10/10/2023
Mining Permit	A-116/MP/000	419/2013	449	Mazaruni	24SE	10/10/2023
Mining Permit	A-117/MP/000	420/2013	686	Mazaruni	24SE	10/10/2023
Mining Permit	A-40/MP/000	253/2010	1,158	Mazaruni	24SE	29/11/2025
Mining Permit	A-89/MP/000	410/2013	1,132	Mazaruni	24SE/24NE	15/11/2023
Mining Permit	A-1022/MP/000	171/2017	1,200	Mazaruni	24SE	27/12/2022
		Total	20,389	_		_



The permits listed in the table below are subject to the Godette Agreement and are held in trust for the exclusive benefit of ETK until such time that the GGMC and the Minister of Mining of Guyana convert such permits to large scale mining licenses and issue the same in the name of ETK.

Permit Type		MP Number	Area (Acres)	Location	Map Number	5th Year Renewal Date
Mining Permit	G-6/MP/000	007/2003	1,190	Toroparu	24NE	14/08/2024
Mining Permit	G-6/MP/001	008/2003	1,118	Toroparu	24NE	14/08/2024
Mining Permit	G-6/MP/002	009/2003	962	Toroparu	24NE	14/08/2024
Mining Permit	G-23/MP/000	278/2010	747	Toroparu	24NE	20/12/2015
		Total	4,017			

The permits listed in the table below are subject to the A&R Joint Venture Agreement and are held in trust for the exclusive benefit of ETK until such time that the GGMC and the Minister of Mining of Guyana convert such permits to large scale mining licenses and issue the same in the name of ETK.

Permit Type	GS8Number	PPMS Number	Area (Acres)	Location	Map Number	Annual Renewal Date
Prospecting Permit	A-184/002/0396/99	0266/2001	1,134	Ikuk River	24NE	11-Mar
Prospecting Permit	A-185/015/0423/99	0335/2001	1,200	Ikuk River	24NE	6-Mar
Prospecting Permit	A-185/016/0424/99	0336/2001	637	Ikuk River	24NE	6-Mar
Prospecting Permit	A-185/024/0432/99	0344/2001	1,125	Ikuk River	24NE	7-Mar
Prospecting Permit	A-185/025/0433/99	0345/2001	1,200	Ikuk River	24NE	8-Mar
Prospecting Permit	A140/023/270/97	0091/2000	1,120	Puruni River	24NE/24SE	10-Feb
Prospecting Permit	A-140/024/271/97	0092/2000	1,120	Puruni River	24SE	10-Feb
Prospecting Permit	A-140/025/272/95	0093/2000	1,120	Puruni River	24SE	10-Feb
Prospecting Permit	A-140/026/273/97	0094/2000	1,120	Puruni River	24SE	10-Feb
Prospecting Permit	A-140/027/274/97	0095/2000	734	Puruni River	24SE	10-Feb
Prospecting Permit	A-140/028/0275/97	0195/2001	1,120	Puruni River	24SE	13-Mar
Prospecting Permit	A-184/000/0394/99	0264/2001	941	Puruni River	24NE	11-Mar
Prospecting Permit	A-185/003/0411/99	0227/2001	795	Puruni River	24NE	7-Mar
Prospecting Permit	A-185/035/0443/99	0354/2001	1,066	Puruni River	24NE	8-Mar
Prospecting Permit	A-106/014/500/95	164/2000	846	Puruni River	25NW	6-Jun
Prospecting Permit	A-106/015/501/95	165/2000	1,051	Puruni River	25NW	6-Jun
Prospecting Permit	A-106/016/502/95	166/2000	936	Puruni River	25NW	6-Jun
Prospecting Permit	A-106/017/503/95	167/2000	963	Puruni River	24NE/25NW	6-Jun
Prospecting Permit	A-106/018/504/95	168/2000	953	Puruni River	24NE/25NW	6-Jun



Prospecting Permit A-199/000/2000 630/2001 1,016 Puruni River 25NW 19-Sep Prospecting Permit A-199/021/2000 630/2001 1,011 Puruni River 24NE 20-Sep Prospecting Permit A-199/022/2000 640/2001 955 Puruni River 24NE 20-Sep Prospecting Permit A-199/024/2000 642/2001 958 Puruni River 24NE 20-Sep Prospecting Permit A-199/025/2000 643/2001 1,024 Puruni River 24NE 20-Sep Prospecting Permit A-302/001 0671/2003 356 Puruni River 24SE 5-Nov Prospecting Permit A-185/028/0436/99 0346/2001 700 Putareng 24NE 7-Mar Prospecting Permit A-185/030/0438/99 0347/2001 1,139 Putareng 24NE 7-Mar Prospecting Permit A-185/030/0438/99 0351/2001 1,001 Putareng 24NE 8-Mar Prospecting Permit A-185/032/0440/99 0351/2001 1,200 Putareng </th <th></th> <th>_</th> <th></th> <th></th> <th>_</th> <th>_</th> <th>_</th>		_			_	_	_
Prospecting Permit A-199/022/2000 640/2001 995 Puruni River 24NE 20-Sep Prospecting Permit A-199/024/2000 641/2001 955 Puruni River 24NE 20-Sep Prospecting Permit A-199/025/2000 643/2001 1,024 Puruni River 24NE 20-Sep Prospecting Permit A-302/001 0672/2003 389 Puruni River 24SE 5-Nov Prospecting Permit A-302/002 0671/2003 356 Puruni River 24SE 5-Nov Prospecting Permit A-185/028/0436/99 0346/2001 700 Putareng 24NE 3-Mar Prospecting Permit A-185/028/0437/99 0344/2001 1,150 Putareng 24NE 7-Mar Prospecting Permit A-185/033/0438/99 0350/2001 1,035 Putareng 24NE 8-Mar Prospecting Permit A-185/033/0438/99 0351/2001 1,200 Putareng 24NE 6-Mar Prospecting Permit A-185/032/04040/99 0351/2001 1,200 Putareng	Prospecting Permit	A-199/000/2000	620/2001	1,016	Puruni River	25NW	19-Sep
Prospecting Permit A-199/023/2000 641/2001 965 Puruni River 24NE 20-Sep Prospecting Permit A-199/025/2000 642/2001 958 Puruni River 24NE 20-Sep Prospecting Permit A-199/025/2000 663/2001 1,024 Puruni River 24NE 20-Sep Prospecting Permit A-302/002 0671/2003 556 Puruni River 24SE 5-Nov Prospecting Permit A-185/026/0426/99 0346/2001 7.00 Putareng 24NE 8-Mar Prospecting Permit A-185/028/0436/99 0347/2001 1,150 Putareng 24NE 7-Mar Prospecting Permit A-185/030/0438/99 0349/2001 1,133 Putareng 24NE 8-Mar Prospecting Permit A-185/031/0439/99 0350/2001 1,000 Putareng 24NE 8-Mar Prospecting Permit A-185/033-0441/99 0352/2001 1,200 Putareng 24NE 6-Mar Prospecting Permit A-140/011/268/97 0523/2001 1,200 Putareng <td>Prospecting Permit</td> <td>A-199/021/2000</td> <td>639/2001</td> <td>1,011</td> <td>Puruni River</td> <td>24NE</td> <td>20-Sep</td>	Prospecting Permit	A-199/021/2000	639/2001	1,011	Puruni River	24NE	20-Sep
Prospecting Permit A-199/024/2000 642/2001 958 Puruni River 24NE 20-Sep Prospecting Permit A-199/025/2000 643/2001 1,024 Puruni River 24NE 20-Sep Prospecting Permit A-302/001 0672/2003 389 Puruni River 24SE 5-Nov Prospecting Permit A-185/026/0426/99 0346/2001 700 Putareng 24NE 7-Mar Prospecting Permit A-185/028/0436/99 0347/2001 1,150 Putareng 24NE 7-Mar Prospecting Permit A-185/033/0438/99 0349/2001 1,035 Putareng 24NE 7-Mar Prospecting Permit A-185/031/0439/99 0350/2001 1,035 Putareng 24NE 8-Mar Prospecting Permit A-185/033/0441/99 0350/2001 1,200 Putareng 24NE 6-Mar Prospecting Permit A-185/033-0441/99 0352/2001 1,200 Putareng 24NE 6-Mar Prospecting Permit A-140/021/268/97 0563/2002 1,120 Tamakay	Prospecting Permit	A-199/022/2000	640/2001	995	Puruni River	24NE	20-Sep
Prospecting Permit A-199/025/2000 643/2001 1,024 Puruni River 24NE 20-Sep Prospecting Permit A-302/001 0672/2003 389 Puruni River 24SE 5-Nov Prospecting Permit A-302/002 0671/2003 556 Puruni River 24NE 5-Nov Prospecting Permit A-185/028/0436/99 0346/2001 7,00 Putareng 24NE 7-Mar Prospecting Permit A-185/028/0437/99 0347/2001 1,150 Putareng 24NE 7-Mar Prospecting Permit A-185/030/0438/99 0349/2001 1,139 Putareng 24NE 8-Mar Prospecting Permit A-185/031/0439/99 0350/2001 1,00 Putareng 24NE 8-Mar Prospecting Permit A-185/033-0441/99 0352/2001 1,200 Putareng 24NE 6-Mar Prospecting Permit A-140/011/268/97 0523/2001 1,200 Putareng 24NE 6-Mar Prospecting Permit A-140/018/97 0663/2002 1,120 Tamakay <	Prospecting Permit	A-199/023/2000	641/2001	965	Puruni River	24NE	20-Sep
Prospecting Permit A-302/001 0672/2003 389 Puruni River 24SE 5-Nov Prospecting Permit A-302/002 0671/2003 556 Puruni River 24SE 5-Nov Prospecting Permit A-185/026/0426/99 0346/2001 700 Putareng 24NE 7-Mar Prospecting Permit A-185/029/0437/99 0348/2001 1,130 Putareng 24NE 7-Mar Prospecting Permit A-185/030/0438/99 0349/2001 1,035 Putareng 24NE 8-Mar Prospecting Permit A-185/032/04040/99 0351/2001 1,200 Putareng 24NE 8-Mar Prospecting Permit A-185/032/03-04041/99 0351/2001 1,200 Putareng 24NE 6-Mar Prospecting Permit A-140/018/97 0632/2002 1,120 Putareng 24NE 6-Ot Prospecting Permit A-140/018/97 0632/2002 1,120 Tamakay 24NE 6-Oct Prospecting Permit A-140/019/97 0664/2002 1,120 Tamakay 24NE	Prospecting Permit	A-199/024/2000	642/2001	958	Puruni River	24NE	20-Sep
Prospecting Permit A-302/002 0671/2003 556 Puruni River 24SE 5-Nov Prospecting Permit A-185/026/0426/99 0346/2001 700 Putareng 24NE 8-Mar Prospecting Permit A-185/028/0436/99 0347/2001 1,150 Putareng 24NE 7-Mar Prospecting Permit A-185/029/0437/99 0348/2001 1,139 Putareng 24NE 7-Mar Prospecting Permit A-185/030/0438/99 0349/2001 1,035 Putareng 24NE 8-Mar Prospecting Permit A-185/032/0440/99 0351/2001 1,200 Putareng 24NE 8-Mar Prospecting Permit A-185/032/0440/99 0352/2001 1,200 Putareng 24NE 6-Mar Prospecting Permit A-186/0320/201 0523/2001 1,200 Putareng 24NE 6-Mar Prospecting Permit A-140/012/368/97 0523/2001 1,20 Putareng 24NE 6-Mar Prospecting Permit A-140/012/378 0652/2002 1,120 Tamakay	Prospecting Permit	A-199/025/2000	643/2001	1,024	Puruni River	24NE	20-Sep
Prospecting Permit A-185/026/0426/99 0346/2001 700 Putareng 24NE 8-Mar Prospecting Permit A-185/028/0436/99 0347/2001 1,150 Putareng 24NE 7-Mar Prospecting Permit A-185/030/0438/99 0348/2001 1,139 Putareng 24NE 7-Mar Prospecting Permit A-185/030/0438/99 0350/2001 1,035 Putareng 24NE 8-Mar Prospecting Permit A-185/032/0440/99 0351/2001 1,200 Putareng 24NE 6-Mar Prospecting Permit A-185/033-0441/99 0351/2001 1,200 Putareng 24NE 6-Mar Prospecting Permit A-186/033-0441/99 0352/2001 1,200 Putareng 24NE 6-Mar Prospecting Permit A-140/018/97 0663/2002 1,120 Tamakay 24NE 6-Oct Prospecting Permit A-140/018/97 0667/2002 1,120 Tamakay 24NE 7-Oct Prospecting Permit A-140/033/2000 0644/2002 998 Tamakay <	Prospecting Permit	A-302/001	0672/2003	389	Puruni River	24SE	5-Nov
Prospecting Permit A-185/028/0436/99 0347/2001 1,150 Putareng 24NE 7-Mar Prospecting Permit A-185/029/0437/99 0348/2001 1,139 Putareng 24NE 7-Mar Prospecting Permit A-185/030/0438/99 0349/2001 1,035 Putareng 24NE 8-Mar Prospecting Permit A-185/031/0440/99 0350/2001 1,081 Putareng 24NE 8-Mar Prospecting Permit A-185/033-0441/99 0352/2001 1,200 Putareng 24NE 6-Mar Prospecting Permit A-140/018/97 0563/2002 1,120 Putareng 24NE 6-Mar Prospecting Permit A-140/018/97 0563/2002 1,120 Tamakay 24NE 6-Oct Prospecting Permit A-140/019/97 0664/2002 1,120 Tamakay 24NE 6-Oct Prospecting Permit A-140/019/97 0667/2002 1,120 Tamakay 24NE 7-Oct Prospecting Permit A-140/01/258/97 0667/2002 1,120 Tamakay 24N	Prospecting Permit	A-302/002	0671/2003	556	Puruni River	24SE	5-Nov
Prospecting Permit A-185/029/0437/99 0348/2001 1,139 Putareng 24NE 7-Mar Prospecting Permit A-185/030/0438/99 0349/2001 1,035 Putareng 24NE 8-Mar Prospecting Permit A-185/031/0439/99 0350/2001 1,081 Putareng 24NE 8-Mar Prospecting Permit A-185/033-0441/99 0351/2001 1,200 Putareng 24NE 6-Mar Prospecting Permit A-1840/021/268/97 0523/2001 1,200 Putareng 24NE 6-Mar Prospecting Permit A-140/018/97 0663/2002 1,120 Tamakay 24NE/24SE 27-Aug Prospecting Permit A-140/018/97 0664/2002 1,120 Tamakay 24NE 6-Oct Prospecting Permit A-140/030/97 0667/2002 1,120 Tamakay 24NE 6-Oct Prospecting Permit A-199/033/2000 0644/2002 998 Tamakay 24NE 7-Oct Prospecting Permit A-199/035/2000 0646/2002 721 Tamakay 2	Prospecting Permit	A-185/026/0426/99	0346/2001	700	Putareng	24NE	8-Mar
Prospecting Permit A-185/030/0438/99 0349/2001 1,035 Putareng 24NE 8-Mar Prospecting Permit A-185/031/0439/99 0350/2001 1,081 Putareng 24NE 8-Mar Prospecting Permit A-185/032/0440/99 0351/2001 1,200 Putareng 24NE 6-Mar Prospecting Permit A-186/033-0441/99 0352/2001 1,200 Putareng 24NE 6-Mar Prospecting Permit A-140/018/97 0663/2002 1,120 Tamakay 24NE 6-Oct Prospecting Permit A-140/019/97 0664/2002 1,120 Tamakay 24NE 6-Oct Prospecting Permit A-140/030/97 0667/2002 1,120 Tamakay 24NE 6-Oct Prospecting Permit A-140/033/97 0667/2002 1,120 Tamakay 24NE 7-Oct Prospecting Permit A-199/035/2000 0646/2002 721 Tamakay 24NE 7-Oct Prospecting Permit A-140/011/258/97 0909/2000 1,180 Upper Mazaruni 24	Prospecting Permit	A-185/028/0436/99	0347/2001	1,150	Putareng	24NE	7-Mar
Prospecting Permit A-185/031/0439/99 0350/2001 1,081 Putareng 24NE 8-Mar Prospecting Permit A-185/032/0440/99 0351/2001 1,200 Putareng 24NE 6-Mar Prospecting Permit A-185/033-0441/99 0352/2001 1,200 Putareng 24NE 6-Mar Prospecting Permit A-140/021/268/97 0523/2001 948 Tamakay 24NE 6-Oct Prospecting Permit A-140/018/97 0663/2002 1,120 Tamakay 24NE 6-Oct Prospecting Permit A-140/019/97 0664/2002 1,120 Tamakay 24NE 6-Oct Prospecting Permit A-140/030/97 0667/2002 1,120 Tamakay 24NE 7-Oct Prospecting Permit A-199/033/2000 0646/2002 721 Tamakay 24NE 7-Oct Prospecting Permit A-199/035/2000 0646/2002 721 Tamakay 24NE 7-Oct Prospecting Permit A-140/011/258/97 0090/2000 1,180 Upper Mazaruni 24NE </td <td>Prospecting Permit</td> <td>A-185/029/0437/99</td> <td>0348/2001</td> <td>1,139</td> <td>Putareng</td> <td>24NE</td> <td>7-Mar</td>	Prospecting Permit	A-185/029/0437/99	0348/2001	1,139	Putareng	24NE	7-Mar
Prospecting Permit A-185/032/0440/99 0351/2001 1,200 Putareng 24NE 6-Mar Prospecting Permit A-185/033-0441/99 0352/2001 1,200 Putareng 24NE 6-Mar Prospecting Permit A-140/021/268/97 0523/2001 948 Tamakay 24NE/24SE 27-Aug Prospecting Permit A-140/018/97 0663/2002 1,120 Tamakay 24NE 6-Oct Prospecting Permit A-140/018/97 0664/2002 1,120 Tamakay 24NE 6-Oct Prospecting Permit A-140/030/97 0667/2002 1,120 Tamakay 24NE 6-Oct Prospecting Permit A-199/033/2000 0644/2002 998 Tamakay 24NE 7-Oct Prospecting Permit A-199/035/2000 0646/2002 721 Tamakay 24NE 7-Oct Prospecting Permit A-199/035/2000 0646/2002 721 Tamakay 24NE 7-Oct Prospecting Permit A-128/001/2001 0678/2002 421 Tamakay 24NE	Prospecting Permit	A-185/030/0438/99	0349/2001	1,035	Putareng	24NE	8-Mar
Prospecting Permit A-185/033-0441/99 0352/2001 1,200 Putareng 24NE 6-Mar Prospecting Permit A-140/021/268/97 0523/2001 948 Tamakay 24NE/24SE 27-Aug Prospecting Permit A-140/018/97 0663/2002 1,120 Tamakay 24NE 6-Oct Prospecting Permit A-140/030/97 0664/2002 1,120 Tamakay 24NE 6-Oct Prospecting Permit A-140/030/97 0667/2002 1,120 Tamakay 24NE/24SE 6-Oct Prospecting Permit A-199/033/2000 0644/2002 998 Tamakay 24NE 7-Oct Prospecting Permit A-199/035/2000 0646/2002 721 Tamakay 24NE 7-Oct Prospecting Permit A-218/001/2001 0678/2002 421 Tamakay 24NE 15-Oct Prospecting Permit A-140/011/258/97 0090/2000 1,180 Upper Mazaruni 24NE 15-Oct Prospecting Permit A-185/001/015/99 0330/2001 1,200 Upper Puruni	Prospecting Permit	A-185/031/0439/99	0350/2001	1,081	Putareng	24NE	8-Mar
Prospecting Permit A-140/021/268/97 0523/2001 948 Tamakay 24NE/24SE 27-Aug Prospecting Permit A-140/018/97 0663/2002 1,120 Tamakay 24NE 6-Oct Prospecting Permit A-140/019/97 0664/2002 1,120 Tamakay 24NE 6-Oct Prospecting Permit A-140/030/97 0667/2002 1,120 Tamakay 24NE 6-Oct Prospecting Permit A-199/033/2000 0644/2002 998 Tamakay 24NE 7-Oct Prospecting Permit A-199/035/2000 0646/2002 721 Tamakay 24NE 7-Oct Prospecting Permit A-218/001/2001 0678/2002 421 Tamakay 24NE 15-Oct Prospecting Permit A-140/011/258/97 0090/2000 1,180 Upper Mazaruni 24NE 15-Oct Prospecting Permit A-185/007/0415/99 0330/2001 1,200 Upper Mazaruni 24NE 6-Mar Prospecting Permit A-185/03/0421/99 0331/2001 1,100 Upper Puruni	Prospecting Permit	A-185/032/0440/99	0351/2001	1,200	Putareng	24NE	6-Mar
Prospecting Permit A-140/018/97 0663/2002 1,120 Tamakay 24NE 6-Oct Prospecting Permit A-140/019/97 0664/2002 1,120 Tamakay 24NE 6-Oct Prospecting Permit A-140/030/97 0667/2002 1,120 Tamakay 24NE 6-Oct Prospecting Permit A-199/033/2000 0644/2002 998 Tamakay 24NE 7-Oct Prospecting Permit A-199/035/2000 0646/2002 721 Tamakay 24NE 7-Oct Prospecting Permit A-218/001/2001 0678/2002 421 Tamakay 24NE 7-Oct Prospecting Permit A-140/011/258/97 0090/2000 1,180 Upper Mazaruni 24NE 10-Feb Prospecting Permit A-140/012/97 0467/2002 1,120 Upper Mazaruni 24NE 6-Mar Prospecting Permit A-185/007/0415/99 0330/2001 1,200 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/030/0415/99 0331/2001 1,190 Upper Puruni <t< td=""><td>Prospecting Permit</td><td>A-185/033-0441/99</td><td>0352/2001</td><td>1,200</td><td>Putareng</td><td>24NE</td><td>6-Mar</td></t<>	Prospecting Permit	A-185/033-0441/99	0352/2001	1,200	Putareng	24NE	6-Mar
Prospecting Permit A-140/019/97 0664/2002 1,120 Tamakay 24NE 6-Oct Prospecting Permit A-140/030/97 0667/2002 1,120 Tamakay 24NE/24SE 6-Oct Prospecting Permit A-199/033/2000 0644/2002 998 Tamakay 24NE 7-Oct Prospecting Permit A-199/035/2000 0646/2002 721 Tamakay 24NE 7-Oct Prospecting Permit A-218/001/2001 0678/2002 421 Tamakay 24SE 15-Oct Prospecting Permit A-140/011/258/97 0090/2000 1,180 Upper Mazaruni 24NE 7-Jul Prospecting Permit A-140/012/97 0467/2002 1,120 Upper Mazaruni 24NE 7-Jul Prospecting Permit A-185/007/0415/99 0330/2001 1,200 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/003/0421/99 0331/2001 1,190 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/014/0422/99 0334/2001 1,136 Upper Puruni<	Prospecting Permit	A-140/021/268/97	0523/2001	948	Tamakay	24NE/24SE	27-Aug
Prospecting Permit A-140/030/97 0667/2002 1,120 Tamakay 24NE/24SE 6-Oct Prospecting Permit A-199/033/2000 0644/2002 998 Tamakay 24NE 7-Oct Prospecting Permit A-199/035/2000 0646/2002 721 Tamakay 24NE 7-Oct Prospecting Permit A-218/001/2001 0678/2002 421 Tamakay 24NE 15-Oct Prospecting Permit A-140/011/258/97 0090/2000 1,180 Upper Mazaruni 24NE 10-Feb Prospecting Permit A-140/012/97 0467/2002 1,120 Upper Mazaruni 24NE 7-Jul Prospecting Permit A-185/007/0415/99 0330/2001 1,200 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/008/0416/99 0331/2001 1,190 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/013/0421/99 0334/2001 1,087 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/014/0422/99 0334/2001 1,136 Up	Prospecting Permit	A-140/018/97	0663/2002	1,120	Tamakay	24NE	6-Oct
Prospecting Permit A-199/033/2000 0644/2002 998 Tamakay 24NE 7-Oct Prospecting Permit A-199/035/2000 0646/2002 721 Tamakay 24NE 7-Oct Prospecting Permit A-218/001/2001 0678/2002 421 Tamakay 24SE 15-Oct Prospecting Permit A-140/011/258/97 0090/2000 1,180 Upper Mazaruni 24NE 7-Jul Prospecting Permit A-140/012/97 0467/2002 1,120 Upper Mazaruni 24NE 7-Jul Prospecting Permit A-185/007/0415/99 0330/2001 1,200 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/008/0416/99 0331/2001 1,190 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/013/0421/99 0333/2001 1,087 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/014/0422/99 0334/2001 1,136 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/020/0428/99 0340/2001 679	Prospecting Permit	A-140/019/97	0664/2002	1,120	Tamakay	24NE	6-Oct
Prospecting Permit A-199/033/2000 0644/2002 998 Tamakay 24NE 7-Oct Prospecting Permit A-199/035/2000 0646/2002 721 Tamakay 24NE 7-Oct Prospecting Permit A-218/001/2001 0678/2002 421 Tamakay 24SE 15-Oct Prospecting Permit A-140/011/258/97 0090/2000 1,180 Upper Mazaruni 24NE 7-Jul Prospecting Permit A-140/012/97 0467/2002 1,120 Upper Mazaruni 24NE 7-Jul Prospecting Permit A-185/007/0415/99 0330/2001 1,200 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/013/0421/99 0331/2001 1,190 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/013/04221/99 0333/2001 1,087 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/014/0422/99 0334/2001 1,136 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/012/0428/99 0340/2001 679 <td< td=""><td>Prospecting Permit</td><td>A-140/030/97</td><td>0667/2002</td><td>1,120</td><td>Tamakay</td><td>24NE/24SE</td><td>6-Oct</td></td<>	Prospecting Permit	A-140/030/97	0667/2002	1,120	Tamakay	24NE/24SE	6-Oct
Prospecting Permit A-218/001/2001 0678/2002 421 Tamakay 24SE 15-Oct Prospecting Permit A-140/011/258/97 0090/2000 1,180 Upper Mazaruni 24NE 10-Feb Prospecting Permit A-140/012/97 0467/2002 1,120 Upper Mazaruni 24NE 7-Jul Prospecting Permit A-185/007/0415/99 0330/2001 1,200 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/008/0416/99 0331/2001 1,190 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/013/0421/99 0333/2001 1,087 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/019/0427/99 0334/2001 1,136 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/020/0428/99 0340/2001 679 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/021/0429/99 0341/2001 637 Upper Puruni 24NE 27-May Prospecting Permit A-184/000/99 0579/2002 804	Prospecting Permit	A-199/033/2000	0644/2002		Tamakay	24NE	7-Oct
Prospecting Permit A-140/011/258/97 0090/2000 1,180 Upper Mazaruni 24NE 10-Feb Prospecting Permit A-140/012/97 0467/2002 1,120 Upper Mazaruni 24NE 7-Jul Prospecting Permit A-185/007/0415/99 0330/2001 1,200 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/008/0416/99 0331/2001 1,190 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/013/0421/99 0333/2001 1,087 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/014/0422/99 0334/2001 1,136 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/019/0427/99 0339/2001 607 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/020/0428/99 0340/2001 679 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/021/0429/99 0341/2001 637 Upper Puruni 24NE 27-May Prospecting Permit A-185/009/0417/99 0579/2002	Prospecting Permit	A-199/035/2000	0646/2002	721	Tamakay	24NE	7-Oct
Prospecting Permit A-140/012/97 0467/2002 1,120 Upper Mazaruni 24NE 7-Jul Prospecting Permit A-185/007/0415/99 0330/2001 1,200 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/008/0416/99 0331/2001 1,190 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/013/0421/99 0333/2001 1,087 Upper Puruni 24NE 7-Mar Prospecting Permit A-185/014/0422/99 0334/2001 1,136 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/019/0427/99 0339/2001 607 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/020/0428/99 0340/2001 679 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/021/0429/99 0341/2001 637 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/009/9417/99 0579/2002 804 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/010/99 0580/2002 780 </td <td>Prospecting Permit</td> <td>A-218/001/2001</td> <td>0678/2002</td> <td>421</td> <td>Tamakay</td> <td>24SE</td> <td>15-Oct</td>	Prospecting Permit	A-218/001/2001	0678/2002	421	Tamakay	24SE	15-Oct
Prospecting Permit A-185/007/0415/99 0330/2001 1,200 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/008/0416/99 0331/2001 1,190 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/013/0421/99 0333/2001 1,087 Upper Puruni 24NE 7-Mar Prospecting Permit A-185/014/0422/99 0334/2001 1,136 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/019/0427/99 0339/2001 607 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/020/0428/99 0340/2001 679 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/021/0429/99 0341/2001 637 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/002/0429/99 0579/2002 804 Upper Puruni 24NE 27-May Prospecting Permit A-184/010/99 0580/2002 780 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/013/99 0583/2002 1058 <td>Prospecting Permit</td> <td>A-140/011/258/97</td> <td>0090/2000</td> <td>1,180</td> <td>Upper Mazaruni</td> <td>24NE</td> <td>10-Feb</td>	Prospecting Permit	A-140/011/258/97	0090/2000	1,180	Upper Mazaruni	24NE	10-Feb
Prospecting Permit A-185/008/0416/99 0331/2001 1,190 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/013/0421/99 0333/2001 1,087 Upper Puruni 24NE 7-Mar Prospecting Permit A-185/014/0422/99 0334/2001 1,136 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/019/0427/99 0339/2001 607 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/020/0428/99 0340/2001 679 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/021/0429/99 0341/2001 637 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/009/0417/99 0424/2001 1,190 Upper Puruni 24NE 27-May Prospecting Permit A-184/009/99 0579/2002 804 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/011/99 0580/2002 780 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/013/99 0583/2002 1058	Prospecting Permit	A-140/012/97	0467/2002	1,120	Upper Mazaruni	24NE	7-Jul
Prospecting Permit A-185/013/0421/99 0333/2001 1,087 Upper Puruni 24NE 7-Mar Prospecting Permit A-185/014/0422/99 0334/2001 1,136 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/019/0427/99 0339/2001 607 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/020/0428/99 0340/2001 679 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/021/0429/99 0341/2001 637 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/009/0417/99 0424/2001 1,190 Upper Puruni 24NE 27-May Prospecting Permit A-184/009/99 0579/2002 804 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/011/99 0580/2002 780 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/013/99 0583/2002 1058 Upper Puruni 24NE 15-Aug Prospecting Permit A-185/001/99 0577/2002 795	Prospecting Permit	A-185/007/0415/99	0330/2001	1,200	Upper Puruni	24NE	6-Mar
Prospecting Permit A-185/014/0422/99 0334/2001 1,136 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/019/0427/99 0339/2001 607 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/020/0428/99 0340/2001 679 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/021/0429/99 0341/2001 637 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/009/0417/99 0424/2001 1,190 Upper Puruni 24NE 27-May Prospecting Permit A-184/009/99 0579/2002 804 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/010/99 0581/2002 780 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/012/99 0582/2002 1058 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/013/99 0577/2002 795 Upper Puruni 24NE 15-Aug Prospecting Permit A-185/002/99 0578/2002 1,143	Prospecting Permit	A-185/008/0416/99	0331/2001	1,190	Upper Puruni	24NE	6-Mar
Prospecting Permit A-185/019/0427/99 0339/2001 607 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/020/0428/99 0340/2001 679 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/021/0429/99 0341/2001 637 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/009/0417/99 0424/2001 1,190 Upper Puruni 24NE 27-May Prospecting Permit A-184/009/99 0579/2002 804 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/010/99 0580/2002 780 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/011/99 0581/2002 780 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/013/99 0582/2002 1058 Upper Puruni 24NE 15-Aug Prospecting Permit A-185/001/99 0577/2002 795 Upper Puruni 24NE 15-Aug Prospecting Permit A-185/002/99 0578/2002 1,143 Upper	Prospecting Permit	A-185/013/0421/99	0333/2001	1,087	Upper Puruni	24NE	7-Mar
Prospecting Permit A-185/020/0428/99 0340/2001 679 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/021/0429/99 0341/2001 637 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/009/0417/99 0424/2001 1,190 Upper Puruni 24NE 27-May Prospecting Permit A-184/009/99 0579/2002 804 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/010/99 0580/2002 780 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/011/99 0581/2002 780 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/013/99 0582/2002 1058 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/013/99 0583/2002 1170 Upper Puruni 24NE 15-Aug Prospecting Permit A-185/001/99 0577/2002 795 Upper Puruni 24NE 15-Aug Prospecting Permit A-185/002/99 0578/2002 1,143 Upper Pur	Prospecting Permit	A-185/014/0422/99	0334/2001	1,136	Upper Puruni	24NE	6-Mar
Prospecting Permit A-185/021/0429/99 0341/2001 637 Upper Puruni 24NE 6-Mar Prospecting Permit A-185/009/0417/99 0424/2001 1,190 Upper Puruni 24NE 27-May Prospecting Permit A-184/009/99 0579/2002 804 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/010/99 0580/2002 780 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/011/99 0581/2002 780 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/012/99 0582/2002 1058 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/013/99 0583/2002 1170 Upper Puruni 24NE 15-Aug Prospecting Permit A-185/001/99 0577/2002 795 Upper Puruni 24NE 15-Aug Prospecting Permit A-185/002/99 0578/2002 1,143 Upper Puruni 24NE 14-Aug Prospecting Permit A-140/013/97 0659/2002 1,120 Upper Purun	Prospecting Permit	A-185/019/0427/99	0339/2001	607	Upper Puruni	24NE	6-Mar
Prospecting Permit A-185/009/0417/99 0424/2001 1,190 Upper Puruni 24NE 27-May Prospecting Permit A-184/009/99 0579/2002 804 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/010/99 0580/2002 780 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/011/99 0581/2002 780 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/012/99 0582/2002 1058 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/013/99 0583/2002 1170 Upper Puruni 24NE 15-Aug Prospecting Permit A-185/001/99 0577/2002 795 Upper Puruni 24NE 15-Aug Prospecting Permit A-185/002/99 0578/2002 1,143 Upper Puruni 24NE 14-Aug Prospecting Permit A-140/013/97 0659/2002 1,120 Upper Puruni 24NE 6-Oct	Prospecting Permit	A-185/020/0428/99	0340/2001	679	Upper Puruni	24NE	6-Mar
Prospecting Permit A-184/009/99 0579/2002 804 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/010/99 0580/2002 780 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/011/99 0581/2002 780 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/012/99 0582/2002 1058 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/013/99 0583/2002 1170 Upper Puruni 24NE 15-Aug Prospecting Permit A-185/001/99 0577/2002 795 Upper Puruni 24NE 15-Aug Prospecting Permit A-185/002/99 0578/2002 1,143 Upper Puruni 24NE 14-Aug Prospecting Permit A-140/013/97 0659/2002 1,120 Upper Puruni 24NE 6-Oct	Prospecting Permit	A-185/021/0429/99	0341/2001	637	Upper Puruni	24NE	6-Mar
Prospecting Permit A-184/010/99 0580/2002 780 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/011/99 0581/2002 780 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/012/99 0582/2002 1058 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/013/99 0583/2002 1170 Upper Puruni 24NE 15-Aug Prospecting Permit A-185/001/99 0577/2002 795 Upper Puruni 24NE 15-Aug Prospecting Permit A-185/002/99 0578/2002 1,143 Upper Puruni 24NE 14-Aug Prospecting Permit A-140/013/97 0659/2002 1,120 Upper Puruni 24NE 6-Oct	Prospecting Permit	A-185/009/0417/99	0424/2001	1,190	Upper Puruni	24NE	27-May
Prospecting Permit A-184/011/99 0581/2002 780 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/012/99 0582/2002 1058 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/013/99 0583/2002 1170 Upper Puruni 24NE 15-Aug Prospecting Permit A-185/001/99 0577/2002 795 Upper Puruni 24NE 15-Aug Prospecting Permit A-185/002/99 0578/2002 1,143 Upper Puruni 24NE 14-Aug Prospecting Permit A-140/013/97 0659/2002 1,120 Upper Puruni 24NE 6-Oct	Prospecting Permit	A-184/009/99	0579/2002	804	Upper Puruni	24NE	15-Aug
Prospecting Permit A-184/012/99 0582/2002 1058 Upper Puruni 24NE 15-Aug Prospecting Permit A-184/013/99 0583/2002 1170 Upper Puruni 24NE 15-Aug Prospecting Permit A-185/001/99 0577/2002 795 Upper Puruni 24NE 15-Aug Prospecting Permit A-185/002/99 0578/2002 1,143 Upper Puruni 24NE 14-Aug Prospecting Permit A-140/013/97 0659/2002 1,120 Upper Puruni 24NE 6-Oct	Prospecting Permit	A-184/010/99	0580/2002	780	Upper Puruni	24NE	15-Aug
Prospecting Permit A-184/013/99 0583/2002 1170 Upper Puruni 24NE 15-Aug Prospecting Permit A-185/001/99 0577/2002 795 Upper Puruni 24NE 15-Aug Prospecting Permit A-185/002/99 0578/2002 1,143 Upper Puruni 24NE 14-Aug Prospecting Permit A-140/013/97 0659/2002 1,120 Upper Puruni 24NE 6-Oct	Prospecting Permit	A-184/011/99	0581/2002	780	Upper Puruni	24NE	15-Aug
Prospecting Permit A-185/001/99 0577/2002 795 Upper Puruni 24NE 15-Aug Prospecting Permit A-185/002/99 0578/2002 1,143 Upper Puruni 24NE 14-Aug Prospecting Permit A-140/013/97 0659/2002 1,120 Upper Puruni 24NE 6-Oct	Prospecting Permit	A-184/012/99	0582/2002	1058	Upper Puruni	24NE	15-Aug
Prospecting Permit A-185/002/99 0578/2002 1,143 Upper Puruni 24NE 14-Aug Prospecting Permit A-140/013/97 0659/2002 1,120 Upper Puruni 24NE 6-Oct	Prospecting Permit	A-184/013/99	0583/2002	1170	Upper Puruni	24NE	15-Aug
Prospecting Permit A-140/013/97 0659/2002 1,120 Upper Puruni 24NE 6-Oct	Prospecting Permit	A-185/001/99	0577/2002	795	Upper Puruni	24NE	15-Aug
	Prospecting Permit	A-185/002/99	0578/2002	1,143	Upper Puruni	24NE	14-Aug
Prospecting Permit A-140/014/97 0660/2002 1,120 Upper Puruni 24NE 6-Oct	Prospecting Permit	A-140/013/97	0659/2002	1,120	Upper Puruni	24NE	6-Oct
	Prospecting Permit	A-140/014/97	0660/2002	1,120	Upper Puruni	24NE	6-Oct



Prospecting Permit	A-140/020/97	0665/2002	1,120	Upper Puruni	24NE	6-Oct
Prospecting Permit	A-185/027/99	0697/2002	675	Upper Puruni	24NE	16-Oct
Prospecting Permit	A-199/038/00	0649/2002	1,140	Upper Puruni	25NW	8-Oct
Prospecting Permit	A-199/039/00	0686/2002	912	Upper Puruni	25NW	8-Oct
Prospecting Permit	A-199/040/00	0687/2002	1,072	Upper Puruni	25NW	8-Oct
		Total	63,763			

The permits listed in the table below are subject to the A&R Joint Venture Agreement and are held in trust for the exclusive benefit of ETK until such time that the GGMC and the Minister of Mining of Guyana convert such permits to large scale mining licenses and issue the same in the name of ETK.

Permit Type	HO Number	Claim Name	Area (acres)	Location	Map Number	Annual Renewal Date
Small Claim	31/1994/501	JOY #1	27	Toroparu	24NE	1-Mar
Small Claim	31/1994/502	JOY #2	27	Toroparu	24NE	1-Mar
Small Claim	31/1994/503	JOY #3	27	Toroparu	24NE	1-Mar
Small Claim	31/1994/504	JOY #4	27	Toroparu	24NE	1-Mar
Small Claim	31/1994/505	PAM #1	27	Toroparu	24NE	1-Mar
Small Claim	31/1994/506	PAM #2	27	Toroparu	24NE	1-Mar
Small Claim	31/1994/507	PAM #3	27	Toroparu	24NE	1-Mar
	_	Total	189			

Permit Type	GS8 Number	PL Number	Area (Acres)	Location	Map Number	Annual Renewal Date
Prospecting License Application	GS14:E-26	32/2013	9,570	Wynamu	16SE	21-Feb
Prospecting License Application	GS14:E-27	33/2013	7,254	Wynamu East	16SE/17SW	21-Feb
		Total	16,824			