

# 91% GOLD RECOVERY FROM GRAVITY & FLOTATION

## Highlights

- Excellent gold and silver metallurgical recovery results for mineralisation intersected by drill hole UGA-14 within the Sturec Gold Mine using gravity separation and flotation
- Flotation test work on the UGA-14 sample produced a final concentrate grading 31 g/t gold and 80 g/t silver, with a corresponding **gold and silver recovery of 91.0% and 88.4% respectively**
- Initial gravity recovery test work yielded good results with a gold recovery of 37.4%
- Strong gold recovery profile of mineralisation supports **potential for simple gravity separation and flotation processing strategy** which would significantly reduce CAPEX and allow Sturec to produce a gold concentrate for export out of Slovakia where it could be processed further using conventional processing for sulphide concentrates or sold

Commenting on network, MetalsTech Chairman, Russell Moran stated:

*“The sulphide ore at Sturec is the primary target ore type and it has demonstrated excellent gold recoveries from simple gravity separation and flotation. This opens up potential for a wide range of simple and low CAPEX processing opportunities for Sturec. The current test work will help support our scoping study which is already underway.”*

MetalsTech Limited (ASX: MTC) (the Company or MTC) is pleased to provide stakeholders with an update on its metallurgical testing program at the Company’s 100%-owned Sturec Gold Mine (Sturec). The objective of testing the mineralisation intersected in UGA-14 was to confirm:

1. the metallurgical characteristics of this newly discovered mineralisation compared to the rest of the Sturec Mineral Resource, which has been metallurgically tested multiple times during the history of the Sturec Gold Project;
2. that potentially economic levels of gold and silver recovery could be obtained using conventional gravity and flotation processes from the mineralisation intersected in MTC’s Phase 1 drill program, to produce gold and silver concentrates.

## Metallurgical Sampling

A composite sample from UGA-14 was taken from the coarse reject material (-2mm) that is surplus from the routine sample analysis for assay results. The coarse rejects samples have been securely stored at the ALS laboratory in Romania, since they were generated from our drill core samples during the routine sample preparation procedure, prior to Fire Assay and Multi-element ICP analysis. The selected samples were collected by ALS personnel and shipped securely, under strict quarantine protocols to ALS Metallurgy in Perth for metallurgical test work.

UGA-14 was chosen to provide a metallurgical sample because it is well situated at the southern extent of the new mineralisation area that was discovered during MTC’s Phase I drill program earlier this year (Figure 1), as well as the southern extent of the overall Sturec Mineral Resource.

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Obviously, the newly discovered mineralisation from UGA-14, which is now part of the Sturec Mineral Resource, has not been previously subjected to metallurgical test work. Therefore, it was necessary to complete further test work in order to understand if this material had similar metallurgical characteristics to the rest of the Sturec Mineral Resource, which has been metallurgically tested multiple times during the history of the Sturec Gold Project.

UGA-14 intersected multiple zones of quartz filled vein/stockwork/breccia structures, variably rich in fine to very fine grained sulphides (mainly pyrite/marcasite) and hosted within argillic altered andesite host rock from approximately 26m to 134m down hole (\*not true thickness). A continuous 95m long interval through the current Sturec Mineral Resource from UGA-14 was chosen. The sample interval was chosen from the routine assay results with the aim of providing of continuous interval of approximately 2.5g/t Au grade material at a 0.26g/t Au cut-off (same as Sturec Mineral Resource within an optimised open pit shell), as well as sufficient material for the test work (Table 2).

The drill hole collar details for UGA-14 is set out in Table 1 below.

Table 1: Drill Collar details

Drill hole name	Easting (m)	Northing (m)	RL (m)	Datum	Azi (°TN)	Dip (°)	EOH Depth (m)
UGA-14	-435,852	-1,230,204	656	S-JTSK/Krovak	195	-35	165.50

Table 2: Metallurgical composite weighted mean assay result from routine Fire Assay and Multi-Element ICP analysis

Drill Hole ID	Au (ppm)	Ag (ppm)	As (ppm)	Cu (ppm)	Fe (%)	Pb (ppm)	S (%)	Zn (ppm)
UGA-14	2.49	8.27	289	27	3.9	8.7	3.0	55

The routine assays from UGA-14 were announced in MTC announcement dated 1 June 2021 but are shown again in Table 3 below.

Table 3: Significant intersections in UGA-14

Hole	Width (m) (Down hole depth)		Au g/t	Ag g/t	From (m)	To (m)	Cut-off (%)	
					(Down hole depth)	(Down hole depth)		
UGA-14	108.00	@	2.22	7.6	26.00	134.00	0.2g/t Au cut-off and max. 7m continuous internal dilution	
	63.00	@	3.53	9.6	71.00	134.00	0.3g/t Au cut-off and 9m internal dilution	
	42.00	@	4.98	11.9	91.00	133.00	1g/t Au cut-off and max. 5m continuous internal dilution	
	including							
	10.00	@	16.98	26.4	95.00	105.00	2g/t Au cut-off and 2m internal dilution	

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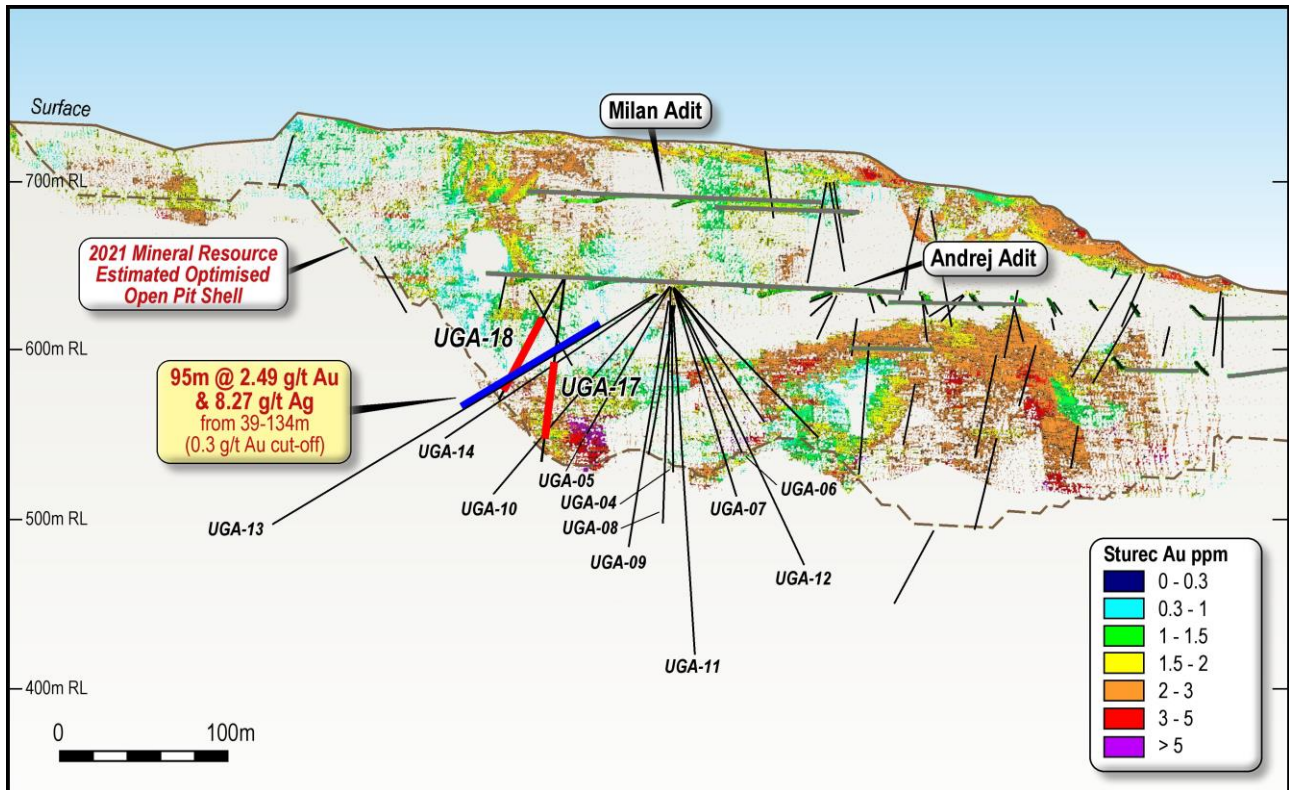


Figure 1: Long-section showing the traces of drill holes from the current drill program; shown relative to mineralisation within the existing Sturec Mineral Resource displayed as a 3D point cloud (grade scale shown with pseudocolor spectrum). This view is looking west. Highlighted in blue is the selected metallurgical sample interval and its estimated grade from the routine assay results.

## Metallurgical Testwork

The metallurgical test work program was designed to assess the achievable gold recovery utilising a flowsheet comprised of gravity recovery followed by conventional flotation circuit, with possible cyanidation leaching of the rougher flotation tailings to maximise gold recovery.

Key components of the scoping metallurgical test work program include:

- Comprehensive head analysis of each master composite sample
- Gravity recovery test work, to assess amenability of gold to recovery by gravity techniques
- Rougher flotation test work, with and without gravity pre-concentration, at a pre-determined primary grind size and with varying reagent suites, with the view to maximising achievable rougher gold recovery
- Cleaner flotation test work, with and without concentrate regrind, to assess final concentrate quality

## Metallurgical Testwork Results

### Head Assay

A multi-element ICP analysis was conducted on the UGA-14 sample composite to generate an understanding of the chemical composition. The gold and silver content of the sample was determined in duplicate, by fire assay and screen fire assay. The head analysis results are

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presented in Table 4 and are comparable with the assay results from the routine drill core analysis announced on 1 June 2021.

Table 4: Composite Sample Head Assay

Element	Unit	UGA-14
Ag	ppm	6.00
Al	%	4.52
As	ppm	300
Au_1	ppm	2.92
Au_2	ppm	2.68
Au_3	ppm	-
Au_4	ppm	-
<b>Average</b>	<b>ppm</b>	<b>2.80</b>
Ba	ppm	500
Be	ppm	<5
Bi	ppm	<10
C	%	0.66
C org	%	<0.03
Ca	ppm	7,000
Cd	ppm	<5
Co	ppm	15.0
Cr	ppm	50.0
Cu	ppm	38.0
Fe	%	3.42
Hg	ppm	0.60
K	%	3.55
Li	ppm	70.0
Mg	%	1.56
Mn	ppm	300
Mo	ppm	10.0
Na	ppm	700
Ni	ppm	10.0
P	ppm	1,100
Pb	ppm	10.0
S	%	2.90
S-2	%	2.80
Sb	ppm	17.5
SiO2	%	71.2
Sr	ppm	84.0
Te	ppm	0.40
Ti	ppm	2,200
V	ppm	84.0
Y	ppm	<100
Zn	ppm	48.0

### Gravity Recovery

The gravity amenability of the UGA-14 composite sample was assessed utilizing a 3" laboratory Knelson concentrator. A 1kg sample of the UGA-14 composite was ground in a laboratory ball mill, to a P80 of 75Qm, prior to being subjected to the gravity recovery stage. Concentrate from the Knelson concentrator was subjected to subsequent intensive cyanidation (ILR) or mercury amalgamation to assess the overall gravity recovery amenability. Gravity recovery test work data is summarised in Table 5.

The test work methodology applied to the UGA-14 composite sample provides an initial indication of the sample's amenability to utilising gravity techniques for gold recovery. The results achieved are considered the maximum gravity gold achievable and in practice recovery is likely to be ~28% for the UGA-14 composite, based upon the amalgam test work. De-rating the ILR gravity gold recovery, to account for mineralogy, scale-up and mass yield, indicates a gravity recovery range of ~25%, which aligns closely with the amalgam test work results.

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Table 5: Gravity Test Work Summary

Sample	Head Grade		Recovery (%)		Mass Yield (%)
	Au (g/t)	Ag (g/t)	Au	Ag	
UGA-14 ILR	2.45	8.2	41.5	10.8	7.4
UGA-14 Amalgam	2.56	8.1	28.7	5.2	7.4

### Baseline Rougher Flotation Test Work

Baseline (sighter) rougher flotation tests were conducted to assess the flotation response of the composite sample. The sample was ground in a ball mill, to achieve a flotation feed P80 of 75Qm, after which the pulp was diluted to achieve a flotation pulp density of 34% solids. A standard gold flotation scheme was adopted, and slurry conditioned with a PAX collector (35 g/t). Flotation was conducted at natural pH 7.5. Five rougher concentrates were recovered over a total flotation time of 20 minutes (Figure 2). Staged addition of A3477 (8 g/t; gold collector) and frother (W24) was utilised.

The sighter rougher flotation test series yielded very encouraging results with the UGA-14 sample achieving a gold recovery of 93.6% into a concentrate containing 9.8 g/t gold. Mass pull to concentrate was moderately low at 14.9%. Arsenic reporting to concentrate was moderately high, at 0.18%, and arsenic depression within the cleaner circuit will need to be considered, such that penalty limits are not exceeded. Results from the sighter rougher flotation test work, conducted on the UGA-14 composite sample, are summarised in Table 6.

Table 6: UGA-14 Composite Flotation Test Work Summary (75Qm)

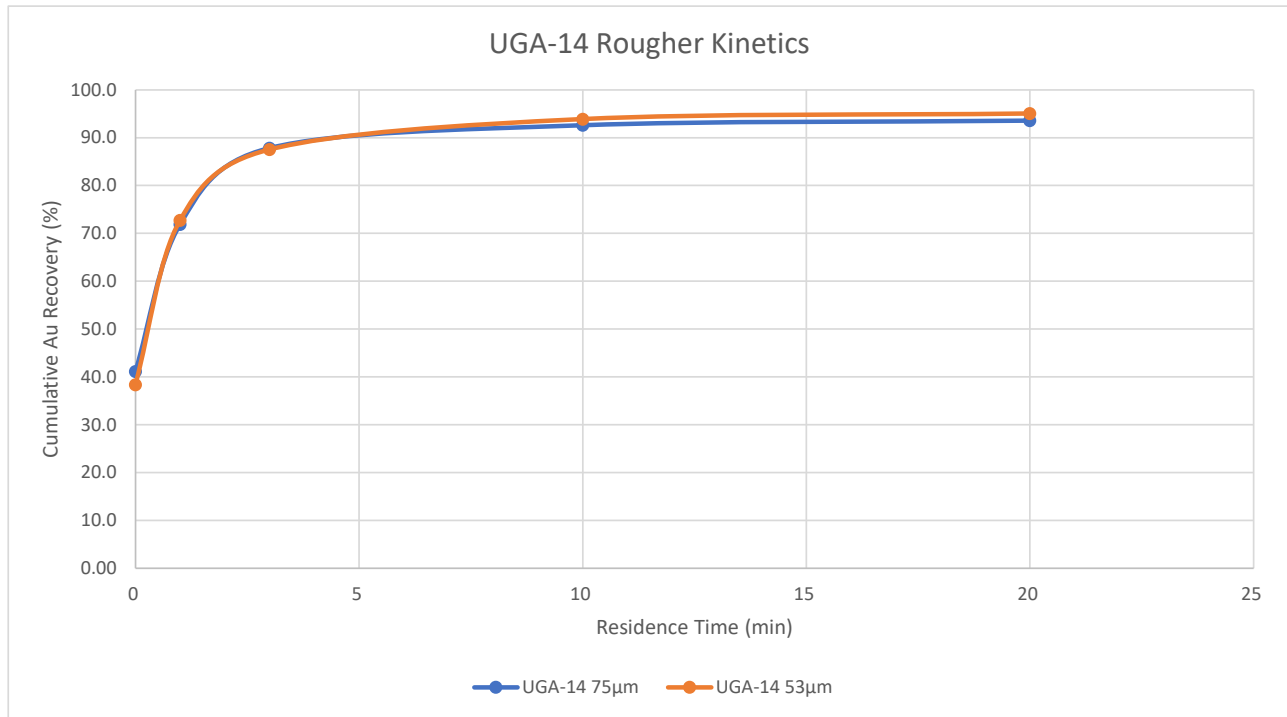
Sample	Assayed Grade			Recovery (%)			Mass Yield (%)
	Au (g/t)	Ag (g/t)	As (ppm)	Au	Ag	As	
Gravity Concentrate	-	-	-	41.1	11.0	-	-
Concentrate 1	23.3	76	3,425	30.8	33.7	43.5	3.67
Concentrate 2	12.1	49	2,530	15.9	21.6	32.0	3.66
Concentrate 3	2.72	18	770	4.77	10.6	13.0	4.87
Concentrate 4	0.99	8	280	0.96	2.61	2.62	2.70
Tails	0.21	2	30	6.43	20.5	8.84	85.1
<b>Cumulative Recovery</b>	<b>9.8</b>	<b>38</b>	<b>1,767</b>	<b>93.6</b>	<b>79.5</b>	<b>91.2</b>	<b>14.9</b>

The sighter rougher flotation test series indicated that UGA-14 composite rougher flotation kinetics was moderately fast (Figure 2) with greater than 88% recovery of the available gold achieved after 3 minutes of flotation and 93% recovered after 10 minutes of flotation.

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Figure 2: UGA-14 Rougher Kinetic Curve



### Rougher Flotation Reagent Optimisation

As part of the flotation test work program, alternate reagents suited were trialled, with the aim of enhancing gold recovery. The reagent optimisation test work was conducted at the selected optimum grind size of 53Qm, with a rougher flotation residence time of 15 minutes. The alternate reagents tested include:

- 3418A (gold collector);
- MAXGOLD® 900 (gold collector); and
- Copper Sulphate (activator).

The impact of excluding gravity recovery, prior to rougher flotation, was also tested. Results from the reagent optimisation test work, conducted on UGA-14, are presented in Table 7 and Figure 3.

Of the reagents tested, A3418A proved to be the most selective with a reduced mass yield and increased concentrate grade, with negligible impact on gold recovery to rougher concentrate. Also, excluding the preceding gravity recovery stage had a marked impact on circuit performance with higher gold and silver recovery and significantly improved concentrate grades.

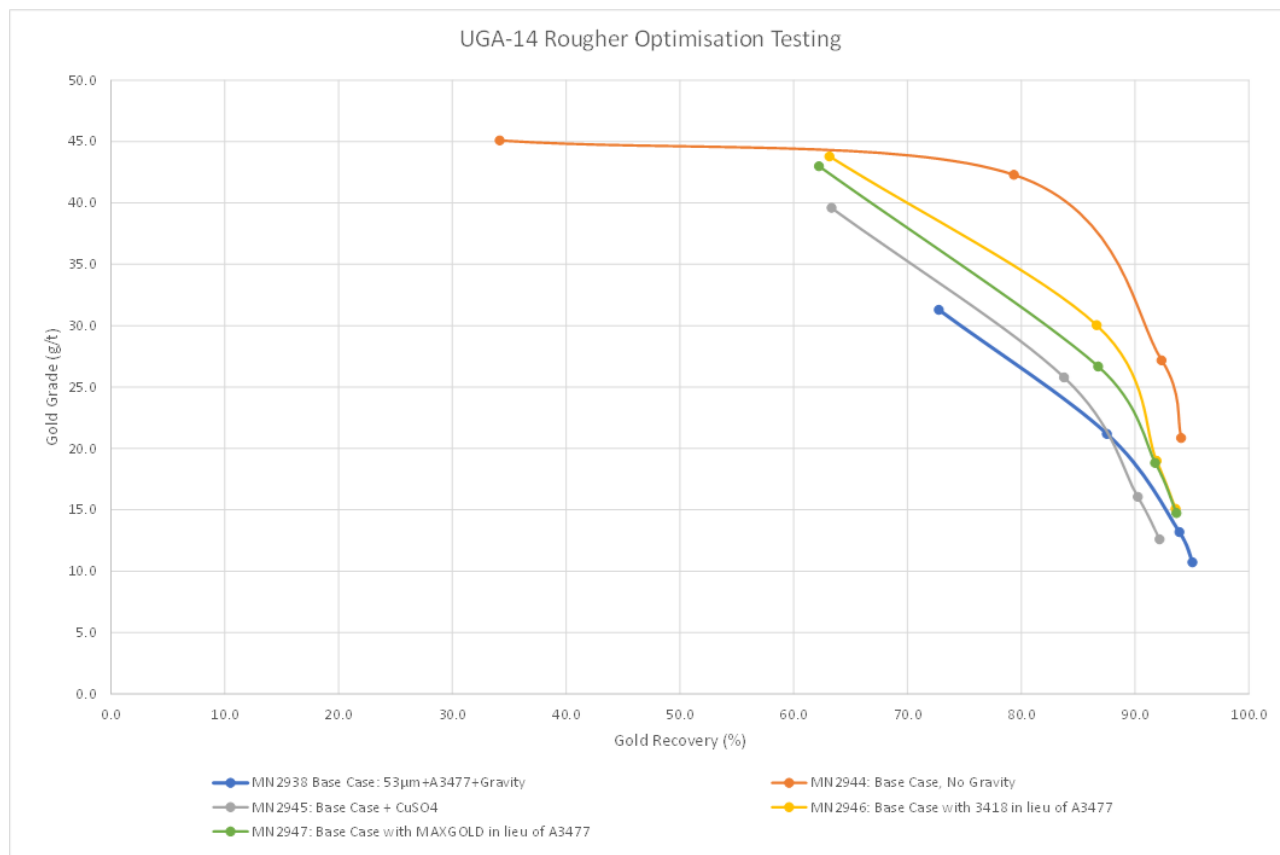
Table 7: UGA-14 Reagent Optimisation Test Work Summary

Test Number	Assayed Grade - Rougher				Recovery (%)				Mass Yield (%)
	Au (g/t)	Ag (g/t)	As (ppm)	Hg (ppm)	Au	Ag	As	Hg	
Base Case	10.7	41.8	1,912	3.7	95.0	88.4	91.1	85.6	13.8
MN2944 - No Gravity	20.9	54.2	2,051	4.2	94.1	94.0	89.4	85.7	12.6
MN2945 - Activator	12.6	44.9	1,896	4.0	92.1	93.0	90.4	75.0	13.0
MN2946 - 3418A	15.1	49.3	2,028	4.2	93.6	93.4	90.7	92.3	12.6
MN2947 - MAXGold	14.7	44.6	1,929	4.1	93.6	93.0	90.6	92.5	13.0

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Figure 3: UGA-14 Reagent Optimisation Grade Recovery Curve



### Cleaner Flotation Recovery

Cleaner flotation test work was conducted to assess the achievable concentrate gold and silver grade and determine the resultant gold and silver recovery. The initial cleaner flotation test work was conducted on an ‘as received’ sample, without any regrinding of the rougher concentrate. The rougher concentrate was diluted to achieve a flotation pulp density of approximately 20% solids. The slurry was conditioned with a PAX collector and flotation conducted at pH 7.5. Cleaner concentrates were recovered over a total flotation time of 30 minutes. Staged addition of A3418 (gold collector) and W24 (frother) was utilised. The cleaner flotation test work results are presented in Table 8.

Table 8: Cleaner Flotation Test Work Summary

Sample	Assayed Grade				Recovery (%)				Mass Yield (%)
	Au (g/t)	Ag (g/t)	As (ppm)	Hg (ppm)	Au	Ag	As	Hg	
UGA-14 3 <sup>rd</sup> Cleaner Concentrate	31.1	80.3	3,217	6.4	91.0	88.4	86.4	86.6	8.1

The cleaner flotation test work concluded that for UGA-14 a final concentrate grading 31 g/t gold and 80 g/t silver can be achieved, with a corresponding gold and silver recovery of 91.0% and 88.4% respectively.

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The grade of deleterious elements present in the cleaner concentrate is moderately high with an arsenic content of 0.32% and a mercury content of between 6 g/t. The arsenic content of the concentrate will incur penalty charges, whilst it is considered unlikely that the mercury content will incur penalty charges given it is below or equivalent to the nominal penalty threshold of 20 g/t.

### Cleaner Concentrate Regrind Size Effect

The impact of grind size, on concentrate grade and gold and silver recovery to concentrate, was also investigated. The Rougher concentrate was subjected to a regrind stage, with a target grind P80 of 15Qm. Cleaner flotation conditions were maintained as per the initial investigation above. Results of the cleaner flotation, concentrate regrind test work, are presented in Table 9.

Table 9: Cleaner Flotation Regrind Test Work Summary

Sample	Assayed Grade				Recovery (%)				Mass Yield (%)
	Au (g/t)	Ag (g/t)	As (ppm)	Hg (ppm)	Au	Ag	As	Hg	
UGA-14 3 <sup>rd</sup> Cleaner Concentrate	37.5	117.4	4,510	8.8	71.4	75.6	69.1	62.3	4.4

The regrind cleaner flotation test work concluded that a final concentrate grading 37.5 g/t gold and 117.4 g/t silver can be achieved, with a corresponding gold and silver recovery of 71.4% and 75.6% respectively. Although regrinding of the concentrate improved concentrate gold and silver grade, and reduced mass yield, there was a substantial reduction in gold and silver recovery, such that regrinding is not considered viable.

### Concentrate Quality

Using the typical sulphide concentrate payable parameters displayed in Table 10, the UGA-14 concentrate would achieve 96% payability for gold and 90% payability for silver.

Table 10: Sulphide Concentrate Typical Payable Elements

Element	Concentrate Grade	Minimum Deduction (%)	Payable Content (%)
Gold	>250 g/t	N. A	97.50%
	>200 - <250g/t	N. A	97.25%
	>150 - <200g/t	N. A	96.75%
	>100 - <150g/t	N. A	96.50%
	>10 - <100g/t	N. A	96.00%
	>5 - <10g/t	N. A	95.00%
	>3 - <5g/t	N. A	94.00%
Silver	>1 - <3g/t	N. A	90.00%
	>30 g/t	N. A	90.00%
	<30 g/t	N. A	0.00%

Test work indicates that the concentrates produced contain marginally elevated levels of penalty elements, specifically arsenic. Arsenic penalties are typically triggered at 0.1% and incur a \$5/t penalty for every 0.1% increment : so 0.32% As would incur a total penalty of \$15/t. Future test work will need to consider mitigation strategies to limit the recovery of arsenopyrite. Measures to be considered include depressants and flotation alkalinity – should these measures prove unsuccessful, and negatively impact on gold and silver recovery, alkaline sulphide leach (ASL) or the Toowong® process should be evaluated.

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## Further Metallurgical Testwork

The Company is continuing to conduct recovery testwork utilising a flowsheet comprised of gravity recovery followed by conventional flotation circuit. A composite sample from drill hole UGA-15 has also been subjected to the same test work program with the results to be announced once completed.

Further testwork recommended also included:

- Mineralogy – Bulk mineralogy via XRD and detailed mineralogy via QEMSCAN® to identify major and accessory minerals, associations, grain size, liberation as well as identify gangue minerals and deleterious elements including the deportment and association of gold with arsenopyrite;
- Detailed mineralogy on flotation circuit tails to assess nature and occurrence of metal losses;
- Comminution test work, specifically UCS test work, Crusher Work Index Determination, SMC test work and Bond test work to assess ore hardness, competency, and abrasion index;
- Ore sorting test work, to assess whether ore sorting would provide a means of rejecting barren material from gold bearing sulphide material, allowing for a lower mass, higher grade product to be processed;
- Gravity test work, specifically eGRG test work to assess maximum gravity recoverable gold and determine whether direct smelting of gravity concentrates, to doré, is viable process route with enhanced payable value, compared to concentrate sale only;
- Rougher flotation test work, to further enhance kinetics and reagent schemes whilst also assessing means of depressing deleterious elements early in the process, through slurry pH manipulation or other techniques;
- Cleaner flotation test work, to optimize the number of cleaner stages required, assess the impact of dilute cleaner flotation, optimize regrind size and optimize reagent regime and depression of deleterious elements;
- Locked cycle flotation test work, to establish overall circuit performance with due cognisance of the impact of circulating loads and water quality on metallurgical performance
- Other technologies such as the Toowong Process could be considered for arsenic removal from concentrates, should smelter penalties prove economically prohibitive;
- Full spectrum concentrate analysis to assess generate and understand of concentrate impurities and assess the impact on concentrate marketability;
- Auxiliary test work including slurry rheology, settling rate, filtration rate and transportable moisture limit (TML);
- Production composite test work, to assess predicted circuit performance as related to mine scheduling; and
- Variability test work, on discrete variability samples, to assess variability in metallurgical performance and predicted circuit recovery.

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## ENDS

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### Caution Regarding Forward-Looking Information

This document contains forward-looking statements concerning MetalsTech. Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward-looking statements as a result of a variety of risks, uncertainties and other factors. Forward-looking statements are inherently subject to business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause the Company's actual results to differ materially from those expressed or implied in any forward-looking information provided by the Company, or on behalf of, the Company. Such factors include, among other things, risks relating to additional funding requirements, metal prices, exploration, development and operating risks, competition, production risks, regulatory restrictions, including environmental regulation and liability and potential title disputes.

Forward looking statements in this document are based on the company's beliefs, opinions and estimates of MetalsTech as of the dates the forward-looking statements are made, and no obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

### Competent Persons Statement

The information in this announcement that relates to Exploration Results is based on information compiled by Dr Quinton Hills Ph.D., M.Sc., B.Sc. Dr Hills is the technical advisor of MetalsTech Limited and is a Member of the Australasian Institute of Mining and Metallurgy (No. 991225). Dr Hills has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Hills consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

The information in the report to which this statement is attached that relates to Mineral Resources for the Sturec Gold Deposit is based on information compiled by Mr Chris Grove, who is a Member of The Australasian Institute of Mining and Metallurgy (No. 310106). Mr Grove is a full-time employee of Measured Group Pty Ltd and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Grove consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in the report to which this statement is attached that relates to Metallurgy and metal recoveries for the Sturec Gold Deposit is based on information compiled by Mr Marius Phillips, who is a Chartered Professional (CP) Member of The Australasian Institute of Mining and Metallurgy (No. 227570). Mr Phillips is the Principal of Atrius Consulting Pty Ltd and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Phillips consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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## Background: Sturec Gold Mine

The Sturec Gold Mine is located in central Slovakia between the town of Kremnica and the village of Lučky, 17km west of central Slovakia's largest city, Banská Bystrica, and 150km northeast of the capital, Bratislava.

Sturec is a low sulphidation epithermal system and contains a total Mineral Resource of 38.5Mt @ 1.23 g/t Au and 8.8 g/t Ag (1.30g/t AuEq<sup>1</sup>), containing 1.522Moz of gold and 10.93Moz of silver (1.611Moz of gold equivalent) using a 0.26g/t Au cut-off within an optimised open pit shell; as well as 148kt @ 3.55 g/t Au and 12.6 g/t Ag (3.64g/t AuEq<sup>1</sup>), containing 17koz of gold and 60koz of silver (18koz of gold equivalent) outside the optimised open pit shell on an underground mining basis; reported in accordance with JORC (2012).

### Mineral Resource Estimate – Sturec Gold Project

Updated Sturec Mineral Resource Estimate							
Resource Estimate above 0.26 g/t Au cut-off and within an optimised open pit shell							
Resource Category	Tonnes (kt)	Au (g/t)	Ag (g/t)	AuEq (g/t) <sup>1</sup>	Au (koz)	Ag (koz)	AuEq (koz)
Measured	15,340	1.43	12.04	1.53	704	5,940	752
Indicated	18,438	1.20	6.74	1.25	709	3,995	742
Measured + Indicated	33,778	1.30	9.15	1.38	1413	9,935	1494
Inferred	4,717	0.72	6.56	0.77	109	995	117
<b>TOTAL</b>	<b>38,495</b>	<b>1.23</b>	<b>8.83</b>	<b>1.30</b>	<b>1,522</b>	<b>10,930</b>	<b>1,611</b>
Resource Estimate above 2 g/t Au cut-off: outside optimised open pit shell							
Resource Category	Tonnes (kt)	Au (g/t)	Ag (g/t)	AuEq (g/t) <sup>1</sup>	Au (koz)	Ag (koz)	AuEq (koz)
Measured	30	2.90	21.18	3.08	3	21	3
Indicated	114	3.75	10.5	3.81	14	38	14
Measured + Indicated	144	3.57	12.74	3.66	17	59	17
Inferred	4	2.73	8.0	2.80	0	1	1
<b>TOTAL</b>	<b>148</b>	<b>3.55</b>	<b>12.62</b>	<b>3.64</b>	<b>17</b>	<b>60</b>	<b>18</b>

<sup>1</sup> AuEq g/t = ((Au g/t grade\*Met. Rec.\*Au price/g) + (Ag g/t grade\*Met. Rec.\*Ag price/g)) / (Met. Rec.\*Au price/g)

Long term Forecast Gold and Silver Price (source: Bank of America): \$1,785 USD/oz and \$27 USD/oz respectively.

Gold And silver recovery from the 2014 Thiosulphate Metallurgical test work: 90.5% and 48.9% respectively.

It is the Company's opinion that both gold and silver have a reasonable potential to be recovered and sold from the Sturec ore using Thiosulphate Leaching/Electrowinning as per the recoveries indicated.

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## APPENDIX A: JORC CODE, 2012 EDITION – TABLE 1

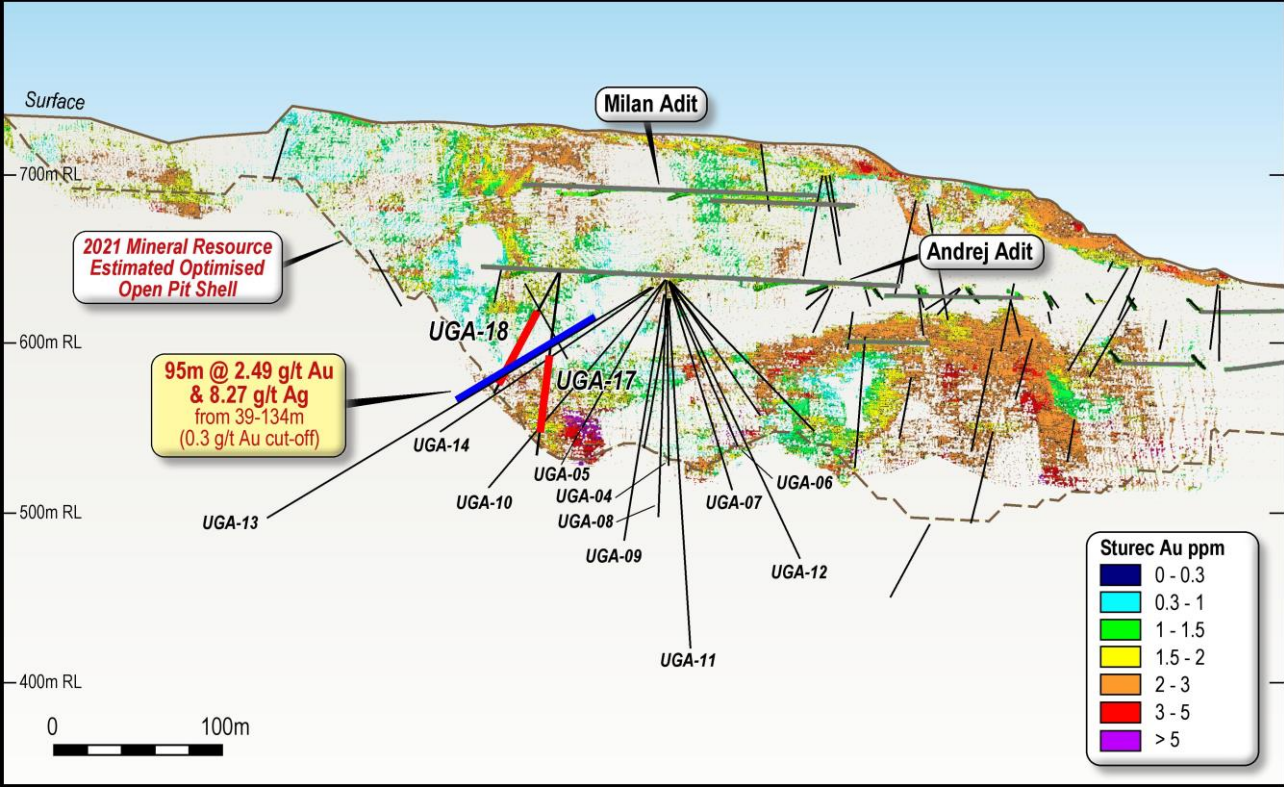
### Section 1 - Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code Explanation	Details
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Routine samples over prospective mineralised intervals from diamond drill core as determined by an experienced geologist are 1m half core; or quarter core for duplicates (routine ½ core sample sawn into two ¼ core samples).</li> <li>Entire sample sent to ALS laboratory in Romania for preparation and fire assay analysis, while the four-acid digest with ICPAES will be completed at the ALS laboratory in Ireland.</li> <li>90% of sample crushed to &lt;2mm. Sample is then dried and riffle split to produce a 1kg split. 1kg split then pulverised to 85% passing &lt;75µm to produce a 50g charge for fire assay for gold analysis and a 0.25g sample for four acid digestion (near-total) with an ICPAES (inductively coupled plasma atomic emission spectroscopy) finish for 33 elements including Ag, Cu, Co, Pb, Zn, etc.</li> <li>If coarse-grained gold is encountered then Au will also be analysed by screen fire assay. The remaining sample from the 90% of the original routine sample that was crushed to &lt;2mm and dried is then riffle split again to produce another 1kg split. This 1kg split is then dry screened to a nominal 106 micron. Duplicate 50g fire assays with AAS finish are then performed on the undersize, and fire assay with gravimetric finish is done on the entire oversize fraction. Then the total gold content is calculate and reported, using the individual assays and weight of the fractions.</li> <li>Metallurgical sample was a composite sample from UGA-14 was taken from the coarse reject material (-2mm) that is surplus from the routine sample analysis for assay results and sent to ALS Metallurgy in Perth for metallurgical test work. A continuous 95m long interval through the current Sturec Mineral Resource was chosen. The sample interval was chosen from the routine assay results with the aim of providing of continuous interval of approximately 2.5g/t Au grade material using a 0.26g/t Au cut-off (same as the Sturec Mineral Resource within an optimised open pit shell), as well as sufficient material for the test.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>The current program is utilising diamond drilling from underground locations within the Andrej Adit.</li> <li>None of the diamond core is being oriented.</li> <li>UGA-14 was drilled with NQ (47.6mm core diameter) to EOH (165.50m).</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>Core recovery is measured as the length of core recovered versus the depth of the drill hole. In detail, the length of each 'run' of core recovered (between 0-3m) is measured and its length compared to the length the drillers measured from the drill rod advance.</li> <li>The core recovery for all drill holes so far has been excellent, greater than 90%.</li> <li>Historic drill records indicate that core recovery at the Sturec Project was consistently good, where historic mining voids have not been encountered.</li> </ul>

Criteria	JORC Code Explanation	Details
		<ul style="list-style-type: none"> <li>No relationship between sample recovery and grade has been interpreted in assay results received so far as recovery is excellent.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>The metallurgical samples were qualitatively geologically logged to a level of detail to support appropriate metallurgical studies.</li> <li>The entire length of the selected interval from UGA-14 has been photographed.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>Routine samples over prospective mineralised intervals from diamond drill core as determined by an experienced geologist are sawn into 1m half core; or quarter core for duplicates.</li> <li>Same side of drill core sampled to ensure no selective sampling bias.</li> <li>The other half of the core was retained for geological reference and potential further sampling, such as metallurgical test work.</li> <li>Entire sample sent to ALS laboratory in Romania for preparation and fire assay analysis, while the four-acid digest with ICPAES is completed at the ALS laboratory in Ireland.</li> <li>90% of sample crushed to &lt;2mm. Sample then dried and riffle split. 1kg split then pulverised to 85% passing &lt;75µm to produce a 50g charge for fire assay for gold analysis and a 0.25g sample for four acid digestion (near-total) with an ICPAES (inductively coupled plasma atomic emission spectroscopy) finish for 33 elements including Ag, Cu, Co, Pb, Zn, etc.</li> <li>The remainder of the material is retained as a coarse split for metallurgical test work.</li> <li>Remaining pulps are retained for analyses such as second laboratory check assays.</li> <li>Duplicate samples (routine 1m ½ core sample sawn in half to produce two ¼ core samples) taken every 30 samples or at least one per hole if less than 30 samples taken.</li> <li>A Certified Reference Material (CRM or 'Standard') is inserted into the routine sample sequence approximately every 30 samples or at least one per hole if less than 30 samples taken.</li> <li>A blank (material with no concentrations of economic elements under consideration) is inserted into the routine sample sequence approximately every 30 samples or at least one per hole if less than 30 samples taken.</li> <li>Sample prep techniques utilised are industry standard for Carpathian epithermal-style gold mineralisation and are considered appropriate.</li> <li>Samples sizes are considered appropriate for the grain-size of the material being sampled.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument</li> </ul>	<ul style="list-style-type: none"> <li>Metallurgical testwork procedures utilised are industry standard for this type of low sulphidation epithermal vein type mineral deposit, where cyanide leaching is not possible.</li> <li>Metallurgical testwork was completed by independent metallurgical consultants, ALS Metallurgy at their metallurgical laboratory at: 6 Macadam Place, Balcatta WA 6021</li> <li>Metallurgical testwork program was developed and managed by highly regarded, independent metallurgical consultants, Altrius Consulting Pty Ltd. Altrius Consulting's representative, Marius Phillips is a MAusIMM (CP).</li> </ul>

Criteria	JORC Code Explanation	Details
	<p><i>make and model, reading times, calibrations factors applied and their derivation, etc.</i></p> <ul style="list-style-type: none"> <li>• <i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i></li> </ul>	
<b>Verification of sampling</b>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Metallurgical testwork sampling was completed by company personnel for the original routine drill core sampling and then by ALS Laboratory personnel (Romania Laboratory), who identified the individual coarse reject samples selected and organised for their secure freight to AL Metallurgy. ALS Metallurgy then verified the receipt of the individual samples and then proceeded to composite them into one large sample for test work.</li> <li>• The Head Grade assay for the composite sample completed by ALS Metallurgy in Perth, is comparable to the weighted mean assay result for the chosen interval of mineralisation completed by ALS Laboratories in Romania.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>• <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Location of UGA-14 was recorded using the Slovak National Datum: S-JTSK/Krovak Datum.</li> <li>• As the location of UGA-14 is within the Andrej Adit, which has been surveyed, its location is very accurately known.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• UGA-14 was chosen to provide a metallurgical sample because it is well situated at the southern extent of the new mineralisation area that was discovered during MTC's Phase I drill program earlier this year (Figure below), as well as the southern extent of the overall Sturec Mineral Resource. Obviously, the newly discovered mineralisation from UGA-14, which is now part of the Sturec Mineral Resource, has not been previously subjected to metallurgical test work.</li> </ul>

Criteria	JORC Code Explanation	Details
		 <ul style="list-style-type: none"> <li>The metallurgical sample was composited from individual coarse reject samples across a continuous, 95m interval that was estimated to have a grade of approximately 2.5g/t Au.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>The composite metallurgical sample was taken across the mineralised zone and are therefore, considered to be unbiased in relation to the orientation of the mineralisation zone.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were securely stored in company facilities prior to being completely sealed and internationally couriered to the routine analysis laboratory. Then the routine analysis laboratory personnel collected the selected coarse</li> </ul>

Criteria	JORC Code Explanation	Details
		reject samples and securely couriered them to the metallurgical laboratory. Once the samples arrived at the metallurgical laboratory they were checked, prior to the composite sample being created.
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No audits/reviews of the metallurgical sampling has been completed at this stage.</li> </ul>



## Section 2 - Reporting of Exploration Results

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

Criteria	JORC Code Explanation	Details																										
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>Sturec Gold Project consists of the Kremnica Mining Territory (9.47 km<sup>2</sup>) owned by Slovakian limited liability company Ortac SK, which is a wholly-owned subsidiary of Ortac UK (a private limited company registered in England and Wales).</li> <li><b>Kremnica Mining Territory' and Mining Licence details:</b></li> </ul>																										
		<p><b>'Kremnica Mining Territory'</b></p> <table border="1"> <tr> <td>Name:</td> <td>Mining Territory Kremnica Au-Ag</td> </tr> <tr> <td>Mining area No:</td> <td>MHD-D.P.- 12</td> </tr> <tr> <td>Date of Issuance:</td> <td>21 January 1961</td> </tr> <tr> <td>Metals</td> <td> <ul style="list-style-type: none"> <li>Gold and Silver</li> </ul> </td> </tr> <tr> <td>Duration:</td> <td>Indefinite</td> </tr> <tr> <td>Holder of the:</td> <td>Ortac, s.r.o</td> </tr> <tr> <td>Amendments:</td> <td> <ul style="list-style-type: none"> <li>No. 1037-1639/2009</li> </ul> </td> </tr> </table> <p><b>ORTAC,s.r.o. Mining Licence details</b></p> <table border="1"> <tr> <td>Name:</td> <td>Ortac,s.r.o.</td> </tr> <tr> <td>Mining License No:</td> <td>1830-3359/2008</td> </tr> <tr> <td>Date of Issuance:</td> <td>13 November 2008</td> </tr> <tr> <td>Subject:</td> <td> <ul style="list-style-type: none"> <li>Opening, preparation and exploitation of reserved mineral resource</li> <li>Installation, conservation and decommissioning of mining work</li> <li>Processing and refinement of mineral resources</li> <li>Installation and operation of unloading areas and dumps</li> <li>Opening the mining works to the public for museum purposes and related safety maintenance works</li> </ul> </td> </tr> <tr> <td>Duration:</td> <td>Indefinite</td> </tr> <tr> <td>Responsible Person:</td> <td>Ing. Peter Čorej</td> </tr> <tr> <td>Amendments:</td> <td> <ul style="list-style-type: none"> <li>No. 773-1398/2015 dated 11 May 2015 extending the subject of the Mining License</li> <li>No. 979-1401/2019 dated 11 June 2019 updating the information on statutory body</li> </ul> </td> </tr> </table> <ul style="list-style-type: none"> <li>The Kremnica Mining Licence is located in central Slovakia between the town of Kremnica and the village of Lučky, 17km west of central Slovakia's largest city, Banska Bystrica, and 150km northeast of the capital, Bratislava.</li> <li>Metals Tech owns 100% of the Sturec Gold Project by completing the acquisition of Ortac UK on 14 February 2020.</li> </ul>	Name:	Mining Territory Kremnica Au-Ag	Mining area No:	MHD-D.P.- 12	Date of Issuance:	21 January 1961	Metals	<ul style="list-style-type: none"> <li>Gold and Silver</li> </ul>	Duration:	Indefinite	Holder of the:	Ortac, s.r.o	Amendments:	<ul style="list-style-type: none"> <li>No. 1037-1639/2009</li> </ul>	Name:	Ortac,s.r.o.	Mining License No:	1830-3359/2008	Date of Issuance:	13 November 2008	Subject:	<ul style="list-style-type: none"> <li>Opening, preparation and exploitation of reserved mineral resource</li> <li>Installation, conservation and decommissioning of mining work</li> <li>Processing and refinement of mineral resources</li> <li>Installation and operation of unloading areas and dumps</li> <li>Opening the mining works to the public for museum purposes and related safety maintenance works</li> </ul>	Duration:	Indefinite	Responsible Person:	Ing. Peter Čorej
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Criteria	JORC Code Explanation	Details
		<ul style="list-style-type: none"> <li>• As a part of the acquisition, MetalsTech Limited must also pay Arc Minerals Limited another \$300,000 cash within 6 months of the acquisition; as well as grant Arc Minerals Limited a royalty equal to A\$2 per ounce of resource that is delineated at the project above an open cut JORC (2012) Indicated and Measured Resources that exceeds 1.5million ounces at a grade greater than 2.5g/t AuEq after 2 years from the date of execution of the Terms Sheet but before the date that is 5 years after the date of execution of the Terms Sheet capped at 7 million ounces.</li> <li>• In 2013, Arc Minerals (named Ortac Resources Limited at this time) submitted a small-scale underground mining application, which was awarded by the Central Mining Bureau in 2014. Trial underground mining commenced in June 2014 and a 40t bulk sample was extracted from Sturec for metallurgical test work.</li> <li>• In 2016, the Regional Court in Banská Bystrica ruled against the Central Mining Bureau concerning the underground mining permit issued to Arc Minerals Limited in 2014 and revoked the decision to issue the mining permit.</li> <li>• In May 2017, the Central Mining Bureau issued Ortac SK with an amended underground mining permit that allowed for small-scale mining activities to recommence.</li> <li>• In July 2017, Ortac SK (Arc Minerals Limited) re-commenced the trial underground mining activities at Sturec, fulfilling the condition required by Slovak regulations to preserve its right to exploit the ore deposit in the Kremnica Mining Licence Area for a minimum period of at least three years. 500t of ore was extracted and used for metallurgical test work relating to alternative processing technologies to the conventional cyanide leaching.</li> <li>• Since 2017 (before selling the project to MetalsTech), Arc Minerals Limited has continued working with the local community and stakeholders to facilitate the development of the project.</li> <li>• In October 2019, the Central Mining Bureau issued Ortac SK with an underground mining permit that allowed for small-scale mining activities to recommence: Decision No. 827-2373 / 2019. This decision was appealed soon after being received.</li> <li>• In February 2020, the appeals against Decision No. 827-2373 / 2019 were rejected by the State Mining Administration and the underground mining authorisation was upheld.</li> <li>• In April 2020, MetalsTech Limited re-commenced the underground mining activities at Sturec, in order to fulfill the condition required by Slovak regulations to preserve its right to exploit the ore deposit in the Kremnica Mining Licence Area for a minimum period of at least three years.</li> <li>• Although Ortac SK is officially registered as the holder of the Kremnica Mining Territory, the validity of the allocation of the Kremnica Mining Territory has been repeatedly disputed. Arguments challenging the validity of the allocation of the Kremnica Mining Territory have been raised by third parties in licensing proceedings in respect of particular mining activities within the Kremnica Mining Territory. So far, the merits of such arguments have not been assessed by the court, as the respective court decisions were issued on procedural grounds in the past. Despite the existence of reasonable legal arguments defending the validity of the allocation of the Kremnica Mining Territory, it cannot be ruled out that the challenges to its validity will eventually prevail before the court. Even if the validity of the allocation of the Kremnica Mining Territory is successfully defended in principle, there is a risk that Ortac SK's entitlement to the Kremnica Mining Territory could be held to be limited to underground operations only.</li> <li>• There are no environmental protected areas in the vicinity of the project resource area, except a protected lime tree situated close to the Leopold Shaft, adjacent to the monument commemorating the visit by Emperor Joseph II to Kremnica. Permission can be obtained to fell the tree if necessary, from the Provincial Environmental Office in Banska Bystrica.</li> <li>• It appears that a significant part of the Kremnica Mining Licence is covered by a heritage conservation area. This is not surprising given the extensive mining history throughout this area. The previous owners Arc Minerals Ltd used this fact to their advantage by establishing the Andrej Kremnica Mining Museum, whose two main attractions are the Ludavika Shaft Building and the Andrej Adit, which was established in 1982 by the State to access the main quartz vein mineralisation. As a result, various requirements under the applicable regulations in the area of heritage</li> </ul>

Criteria	JORC Code Explanation	Details
		<p>protection must be complied with. Further investigation needs to be completed to understand the effect this Heritage Protection will have on any proposed mining activities.</p> <ul style="list-style-type: none"> <li>• There is one registered environmental burden located in the Kremnica Mining Territory with registration number SK/EZ/ZH/2129. This environmental burden relates to the processing facilities including the historic waste dumps that are situated immediately next to the Arc Minerals operation office/Andrej Kremnica Mining Museum. It is categorized "only" as a potential (probable) environmental burden as no significant contamination/acid rock drainage (ARD) effects have been reported concerning these historic mining remnants.</li> <li>• There is risk concerning the further development of the Sturec Gold Project due to the historic social and environmental opposition to the development of a mining operation in this area. The opposition is believed to be the result of two main factors: previous development plans utilised cyanide ore processing; and previous development plans involved digging a large open pit in relatively proximity to the township of Kremnica. <ul style="list-style-type: none"> <li>○ To minimise the first risk, MetalsTech is investigating alternative gold processing methods, especially Thiosulphate Leaching, which has previously been used quite successfully on Sturec ore samples during metallurgical test work in 2014. Also, in 2014 the CSIRO successfully collaborated with Barrick Gold Corp. to implement Thiosulphate ore processing technology on the Goldstrike Mine in Nevada, USA, which now produces approximately 350,000 ounces of gold per annum for Barrick and Newmont Goldcorp Corp; proving that this technology can be utilised economically and at significant scale.</li> <li>○ To minimise the second risk, MetalsTech intends to put in place a comprehensive project stakeholder engagement programme to attempt to understand and mitigate their concerns about the development of a mining operation on the Sturec Gold Project. Also, the full suite of benefits to the country and local communities that will arise from the Sturec Gold Project (such as job creation, training, capital investment, revenue generation, procurement of goods and services locally, and community development initiatives) need to be properly communicated to project stakeholders, so that that they can use this to motivate/ justify the project in project-approval processes.</li> </ul> </li> </ul>
<p><b>Exploration done by other parties</b></p>	<p>• <i>Acknowledgment and appraisal of exploration by other parties.</i></p>	<ul style="list-style-type: none"> <li>• Many exploration companies have previously explored the Sturec Gold Project and the surrounding areas. The details of the exploration history are outlined below: <ul style="list-style-type: none"> <li>○ The Slovak Geological Survey carried out extensive exploration in the Sturec area from 1981 to 1987, including extensive adit and cross-cut development within the Sturec zone.</li> <li>○ Rudne Bane operated the open-pit mine at Sturec from 1987 to 1992 and produced 50,028t of ore averaging 1.54g/t Au. During this time, Rudne Bane conducted underground sampling of the larger mineralised portions of the Sturec deposit (40 channels for 3,149 individual samples) and 12 underground fan drill holes (for 425.3m) into the northern-most known limits of the deposit. A total of 266 sample intervals were assayed for gold and silver.</li> <li>○ Kremnica Banská Spolocnost (KBS), an investment company composed of former mine managers, obtained the title to the Kremnica Mining Lease (MHD-D.P. 12) from the Slovak government on 1 April 1995. In 1995, Argosy Mining Corporation (Argosy) of Vancouver formed a 100% owned Slovak Subsidiary, Argosy Slovakia s.r.o., which entered into a joint venture with KBS on 6 October 1995. Argosy Slovakia purchased KBS's share of the joint venture on 24 April 1997 to control 100% of the mining licence through its subsidiary, Kremnica Gold a.s. Argosy completed a core drilling programme in 1996 and a combined core and reverse-circulation (RC) drilling programme in 1997. This core/RC program totalled 79 holes for 12,306m; 9,382.4m of which was into the Sturec Deposit area.</li> <li>○ In July 2003, Tournigan Gold Corporation (Tournigan) acquired the rights to the Sturec Project by purchasing Kremnica Gold a.s. from Argosy. Tournigan then completed 104 diamond core and RC drill holes for</li> </ul> </li> </ul>

Criteria	JORC Code Explanation	Details
		<p>~14,000m over the period 2004 to 2008. The majority of these holes were into the Sturec Deposit, but adjacent areas were also explored. In the summer and autumn of 2005, Tournigan executed a 36-hole program of RC drilling as infill of Argosy's and Tournigan's earlier core drilling programs into the Sturec Deposit. Tournigan also drilled five additional holes as twins of Argosy's previous core holes. This drilling resulted in the deposit being drilled off on approximate 50-metre centres (earlier drilling had been on approximately 100 x 50 metre centres). The RC program results confirmed the geology and ore outlines that were previously established by core drilling (e.g., rock types and alteration, location of zones of oxidation, location of ore-bearing veins and stockworks, hanging walls, footwalls, thicknesses, strikes, dips, and grades). The holes and assay results were displayed on cross-sections and recorded on logs. Samples were collected at 1-meter intervals under the immediate supervision of a geologist, sealed in plastic bags, and submitted for analysis and check analyses according to the required formal protocols. The holes were logged on site by the drill geologists and again in the laboratory where qualitative samples were taken and inventoried as geological reference samples. The bulk rejects from these RC samples are stored at the operational offices at the Andrej Mining Museum. Tournigan also completed nine bench channel surveys incorporating a total of 317 sample intervals. In 2004, Tournigan also conducted an 11-hole diamond drilling programme north of Sturec at the Wolf prospect.</p> <ul style="list-style-type: none"> <li>○ Ortac Resources (now Arc Mineral Limited) acquired the project in 2009. Since 2009 till MetalsTech acquired the project from them in February 2020, Ortac has drilled 13 core holes for 2,771.7m within the Sturec Deposit area. They also completed 4 drill core holes at the Vratislav Prospect, immediately to the north of the Sturec Mineral Resource area and 3 drill core holes at the Wolf Prospect, immediately north of the Vratislav Prospect.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Sturec Gold Project is located in the Central Slovakia Volcanic Area in the Kremnica Mountains of the Western Carpathians. The Central Slovakia Volcanic Field hosts several Ag–Au epithermal vein-type deposits including Banská Štiavnica, Kremnica, Hodruša-Hámre, and Nová Bana, which were important sources of precious and base metals in the past. The area is characterised by Tertiary pyroxene-amphibole andesite flows and tuffs of the Zlata Studna Formation. The andesites are underlain by Mesozoic limestone. Deep-seated structures and faults within the pre-Tertiary basement interpreted to be extensional Horst and Graben in style, focussed sub-volcanic intrusions of gabbrodiorite, diorite, diorite porphyry, and minor quartz-diorite porphyry at depth and associated mesothermal mineralising events, which were then overprinted by the epithermal precious metal mineralisation. In the Kremnica area, the structure is controlled by a 6-7km long, N-S trending horst, known as the Kremnica Horst Structure, which is interpreted to be the result of the sub-volcanic intrusions of gabbrodiorite, diorite, diorite porphyry, and minor quartz-diorite porphyry at depth causing this zone to be uplifted relative to the two graben structures to either side.</li> <li>• The Sturec Gold Project mineralisation is classified as a low-sulphidation epithermal Ag-Au deposit type and is interpreted to have formed from low-salinity fluids composed of a mixture of meteoric and magmatic waters at temperatures mostly between ~270 to 190 °C. The mineralisation is hosted by quartz-dolomite veins also containing adularia, sericite, illite and chalcedony that cut through Neogene propylitised (low pressure/low to medium temperature hydrothermal alteration) andesites of the Kremnica stratovolcano. The hydrothermal alteration from the veins outwards consists of silicification and potassic-metasomatism (adularia), propylitization and argillisation. Vein styles include large banded to massive quartz veins, smaller quartz veins and sheeted veins, quartz stockwork veining and silicified hydrothermal breccias.</li> </ul>

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<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>Drill collar details of UGA-14:</li> </ul> <table border="1"> <thead> <tr> <th>Drill hole name</th> <th>Easting (m)</th> <th>Northing (m)</th> <th>RL (m)</th> <th>Datum</th> <th>Azi (°TN)</th> <th>Dip (°)</th> <th>EOH Depth (m)</th> </tr> </thead> <tbody> <tr> <td>UGA-14</td> <td>-435,852</td> <td>-1,230,204</td> <td>656</td> <td>S-JTSK/ Krovak</td> <td>195</td> <td>-35</td> <td>165.50</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>The metallurgical composite sample included ninety-five, 1 metre long, drill core samples from 39-134m downhole in UGA-14.</li> </ul>	Drill hole name	Easting (m)	Northing (m)	RL (m)	Datum	Azi (°TN)	Dip (°)	EOH Depth (m)	UGA-14	-435,852	-1,230,204	656	S-JTSK/ Krovak	195	-35	165.50
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<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>No data aggregation methods used to report Metallurgical Results.</li> <li>No metal equivalents reported.</li> </ul>																
<b>Relationship between mineralisation widths and intercept length</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul>	<ul style="list-style-type: none"> <li>Further drilling is necessary to better constrain the mineralised zone before a true thickness estimate can be made. The interpreted mineralisation envelope is quite irregularly shaped and therefore, true thickness estimates are quite difficult.</li> <li>Generally, the drilling from the Andrej Adit is at an angle to the strike of the mineralisation and therefore, the true thickness could be a small proportion of the intersection thickness. As the mineralisation zone strikes</li> </ul>																

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	<ul style="list-style-type: none"> <li>If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<p>approximately north-south, the closer the hole azimuth is to north or south, the smaller the true thickness will be compared of the intersection thickness.</p>
<p><b>Diagrams</b></p>	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	
<p><b>Balanced reporting</b></p>	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>All exploration results have been reported.</li> <li>Metallurgical program is continuing and so further metallurgical results to be announced as they are completed.</li> </ul>
<p><b>Other substantive exploration data</b></p>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results;</li> </ul>	<ul style="list-style-type: none"> <li>Several metallurgical test work programs have been completed at independent laboratories confirming that the Sturec ore is amenable to industry-standard cyanide leaching processing for gold and silver. However, the use of cyanide for ore processing was banned in Slovakia in 2014.</li> </ul>

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	<p><i>geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></p>	<ul style="list-style-type: none"> <li>• In response to the cyanide ban, several metallurgical test work programs assessing alternative processing methodologies have been completed on the ore from Sturec. The three most promising are: <ul style="list-style-type: none"> <li>○ Thiosulphate Leaching gold and silver extraction technology was investigated by the previous owners of the project (Arc Minerals Limited) between 2011-2014. The Thiosulphate Leaching test work results reported so far indicate that this alternate mineral processing methodology is generally applicable to the Sturec gold-silver ores. The most encouraging results came from the latest, Thiosulphate Leaching study completed in 2014 by CMC Chimie. In this study, Ammonium Thiosulphate leaching of the Sturec ore (10 batches of approximately 800kg each) produced a pregnant liquor that had a content of 3-8g/t Au and 10-25g/t Ag, which was then subjected to electrowinning and filtering/drying, producing a copper/gold/silver cement with an overall recovery of 90.5% for gold and 48.9% for silver. The resultant dry cement was approximately 1% gold-silver and about 50% copper. These results were used to justify the conclusion that Thiosulphate Leaching could be used as an alternative processing method to conventional cyanidation and that it was also more economically viable. These results are interpreted to indicate that a further, more detailed metallurgical test work investigation is warranted into this alternative processing method in order to underpin further economic analysis (scoping Study or PFS) of the Sturec Gold Project in light of Slovakia's ban on cyanidation mineral processing.</li> <li>○ In 2016-2017, Arc Minerals also investigated the Cycladex Process as another alternative to cyanidation. In this process a bromide-based solubilizing agent (lixiviant) leaches the ore creating potassium gold bromide (tetrabromoaurate: <math>\text{KAuBr}_4</math>). Then cyclodextrin, a commercially available corn-starch derivative, is added to the resultant pregnant liquor, which results in the spontaneous precipitation of crystals containing the gold. The gold is then released from the crystalline precipitate at high temperature using a furnace to yield solid gold metal. The Cycladex Process test work results reported indicate that this alternate mineral processing methodology is also generally applicable to the Sturec gold-silver ores and potentially cheaper than conventional cyanidation. These results are interpreted to indicate that further investigation is warranted into this alternative processing method and that a PFS-level metallurgical test work-study needs to be completed to underpin a revaluation of the 2013 PFS completed by SRK in light of Slovakia's ban on cyanidation mineral processing.</li> <li>○ As an alternative to onsite leaching, producing a gravity/flotation concentrate on site that could then be then further processed elsewhere (Austria/Belgium) has also been investigated. Gravity concentrate and flotation test work completed on 11 composite samples of Sturec ore found that gold recovery ranged from 64.1 to 93.9% and silver recovery ranged from 45.1 to 83.9%. This processing methodology is currently being used at Slovakia's only operating gold mine, which is of a very similar mineralisation style to Sturec; and so, there is a reasonable possibility it could also be used at Sturec. The main deterrents to this option are the cost of transporting this concentrate (obviously depending on the distance of the further processing facility) and the lower recovery of gold and silver (especially in fine ores). Further work needs to be done to better constrain the metallurgical recovery of this processing methodology across the entire orebody, as well as understand the economic factors involved before an assessment of its suitability can be fully determined.</li> </ul> </li> <li>• Groundwater and geotechnical investigations were completed in 2013. The groundwater monitoring results and geotechnical data were found to be adequate to interpret reasonable open pit slope angles for the various host rock types for the purposes of an open pit optimisation that was used as justification for a 'reasonable prospects of economic extraction' interpretation.</li> <li>• Concerning the groundwater, it has been interpreted that the most likely current situation is that the water table around the open pit area was drawn down due the dewatering through the 'Heritage Adits'; with the Main Heritage Adit being situated some 300m below and transporting the groundwater 15km away to where it eventually reaches the surface. It was interpreted that the dewatering had occurred to the level with or below the maximum depth of the proposed pit (~300m). However, the possibility that the dewatering was not as efficient as interpreted has also considered and it has been recommended that up to 6 permanent monitoring wells be installed on the western and</li> </ul>

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		<p>eastern sides of the pit to the full depth of the proposed pit. The primary purpose of these wells is to determine if there is any spatial and temporal variation in groundwater levels around the pit.</p> <ul style="list-style-type: none"> <li>• Geotechnical investigations found that the stability of the open pit was significantly controlled by the degree of argillic alteration of the predominantly andesite rock mass found at Sturec (host rock of the quartz veining). The modelling suggested that the pit slope needed to be as low as 43° in the highly argillic altered/clay rock type but that a 50° pit slope was adequate in the other rock types.</li> <li>• The groundwater and geotechnical investigation results have been used to model a recommended open pit design that achieved an adequate Factor of Safety (FoS) of greater than 2.0.</li> </ul>
<p><b>Further work</b></p>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Company is continuing to conduct recovery testwork utilising a flowsheet comprised of gravity recovery followed by conventional flotation circuit. A composite sample from drill hole UGA-15 has also been subjected to the same test work program with the results to be announced once completed.</li> <li>• Further testwork recommended also included: <ul style="list-style-type: none"> <li>➤ Mineralogy – Bulk mineralogy via XRD and detailed mineralogy via QEMSCAN® to identify major and accessory minerals, associations, grain size, liberation as well as identify gangue minerals and deleterious elements including the deportment and association of gold with arsenopyrite.</li> <li>➤ Detailed mineralogy on flotation circuit tails to assess nature and occurrence of metal losses.</li> <li>➤ Comminution test work, specifically UCS test work, Crusher Work Index Determination, SMC test work and Bond test work to assess ore hardness, competency, and abrasion index.</li> <li>➤ Ore sorting test work, to assess whether ore sorting would provide a means of rejecting barren material from gold bearing sulphide material, allowing for a lower mass, higher grade product to be processed.</li> <li>➤ Gravity test work, specifically eGRG test work to assess maximum gravity recoverable gold and determine whether direct smelting of gravity concentrates, to doré, is a viable process route with enhanced payable value, compared to concentrate sale only.</li> <li>➤ Rougher flotation test work, to further enhance kinetics and reagent schemes whilst also assessing means of depressing deleterious elements early in the process, through slurry pH manipulation or other techniques</li> <li>➤ Cleaner flotation test work, to optimize the number of cleaner stages required, assess the impact of dilute cleaner flotation, optimize regrind size and optimize reagent regime and depression of deleterious elements</li> <li>➤ Locked cycle flotation test work, to establish overall circuit performance with due cognisance of the impact of circulating loads and water quality on metallurgical performance</li> <li>➤ Other technologies such as the Toowong Process could be considered for arsenic removal from concentrates, should smelter penalties prove economically prohibitive.</li> <li>➤ Full spectrum concentrate analysis to assess generate and understand of concentrate impurities and assess the impact on concentrate marketability.</li> <li>➤ Auxiliary test work including slurry rheology, settling rate, filtration rate and transportable moisture limit (TML)</li> <li>➤ Production composite test work, to assess predicted circuit performance as related to mine scheduling and</li> <li>➤ Variability test work, on discrete variability samples, to assess variability in metallurgical performance and predicted circuit recovery.</li> </ul> </li> <li>• Further Metallurgical testwork needs to be completed to understand how representative these metallurgical results are across the entire Sturec Mineral Resource.</li> </ul>



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