

29th January 2019

Dobsina Metallurgical Testing Achieves 90.9% Cobalt and 83.1%Nickel Recoveries

- Initial rougher and cleaner floatation test work from Joremeny sulphide mineralisation bulk sample returns peak recoveries of up to 90.9% for Cobalt and 83.1% for Nickel
- Composite bulk sample sourced from four sections of mineralisation from Joremeny Adit reported head grade of 1.05% Co, 0.98% Ni and produced a peak flotation concentrate grading 7.7% Co and 7.2% Ni
- Second phase of metallurgical test work underway to investigate a hydrometallurgical pathway in order to produce cobalt and nickel sulphate



Figure 1: Cobalt-Nickel Rougher Floatation Test

European Cobalt Ltd ("**EUC**" or "the Company", ASX: EUC) is pleased to announce the results of the initial metallurgical test work completed on bulk samples from Joremeny Adit. The test work has indicated particularly high recoveries of cobalt and nickel from conventional flotation methods to produce a mixed concentrate grading 7.7% Co and 7.2% Ni. The test work was supervised by Strategic Metallurgy.

Managing Director of European Cobalt, Mr Rob Jewson commented "The initial metallurgical test work completed has confirmed that a mixed flotation concentrate of cobalt and nickel can be produced from the mineralisation within Joremeny Adit. The next phase of metallurgical test work will focus on the ability to further refine the flotation concentrate in a hydrometallurgical process to produce a cobalt sulphate and nickel sulphate product whilst stabilising the arsenic into a suitable precipitate."

METALLURGICAL TEST WORK SUMMARY

Composite Sample

Five composite samples of discrete styles of mineralisation observed within the Joremeny Adit were provided to Strategic Metallurgy.

Table 1: Individual Composite Samples

Sample	Cu%	Ni%	\$%	Co%	Fe%	SiO2%	Al2O3%	CaO%	As%
A1	0.012	2.86	4.6	3.42	11.9	29.6	5.60	6.92	12.04
A2	0.006	0.63	1.63	0.94	14.7	30.5	12.1	7.87	3.40
B1	0.047	2.09	2.87	1.96	15.9	38.0	5.78	1.82	7.73
B2	0.017	0.44	0.81	0.43	17.8	37.8	8.05	1.81	1.76
Bulk C	0.038	4.5	4.48	3.4	16.0	13.3	1.70	10.1	15.07

QEM scan test work is underway to further understand the mineral species associated with the cobalt and nickel mineralisation.

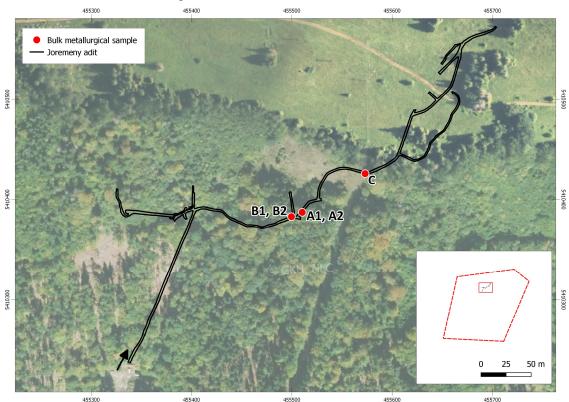


Figure 2: Metallurgical Sampling Locations- Joremeny Adit

A single 30kg composite sample (EC-1) was generated from these individual composite samples to be utilised for further test work.

Table 2: Mass of Samples Used for Test Work Composite EC-1

Sample	Mass (kg)
A1	1.00
A2	14.8
B1	1.01
B2	11.5
Bulk C	1.68
Total	30



Table 3: Individual Composite Samples

Sample	Cu%	Ni%	\$%	Co%	Fe%	SiO2%	Al2O3%	CaO%	As%
EC-1	0.019	0.976	1.65	1.05	16.0	33.3	9.59	5.33	5.32

Floatation Testing

A total of 5 rougher and four cleaner floatation tests were conducted. The intent of the flotation testing was to produce a high grade mixed cobalt nickel concentrate, focussing on recovery of cobalt. Given the small number of tests completed, optimisation testing was limited and several potential areas for improvement remain for future test work development.

The additional aim of the floatation test work was to recover as much of the arsenic as possible into the flotation concentrate in order for it to be further treated in order to precipitate as a stable compound or to be potentially refined further and sold. Arsenic trioxide is produced from Bou Azzer Cobalt Mine in Morocco from a similar style of mineralisation.

Table 4: Typical Floatation Test Parameters

Sample	рН	Collector	Depressant/Activator
EC-1	8.52	Potassium amyl xanthate	Copper sulphate
		(PAX)	(CuSO ₄) and sodium
			hydrosulfide (NaHS)

Rougher Floatation

Charges of EC-1 were diluted to 50wt% with Perth tap water and milled in a laboratory rod mill to a target grind size of P_{80} =106 μ m. The milled material was subjected to rougher flotation testing in a batch floatation cell. Concentrate samples were retrieved at timed intervals and sub-samples were submitted for assaying to determine the grade-recovery profile for each of the tests.



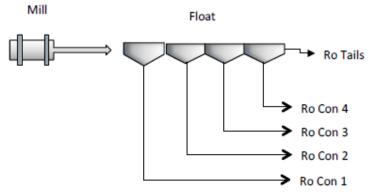


Figure 3: Rougher Flotation Schematic

Cleaner Floatation

A total of four cleaner flotation tests were conducted. Rougher flotation concentrates were collected and transferred in to a batch floatation cell for cleaner flotation. Concentrate samples were retrieved at timed intervals and sub-samples were submitted for analysis to determine the grade recovery profile of each test. The optimum results from the sequence of testing was obtained in test JR16A, the results of this are included below.

Table 5: Cleaner Flotation Test Results

Sample	Test	Co%	Co Recovery %	Ni%	Ni Recovery%	As%	As Recovery%
EC-1	JR16A	7.7	90.9	7.2	83.1	30.5	92.0

ABOUT STRATEGIC METALLURGY

Startegic Metallurgy is a metallurgical consultancy, based in Perth, with a proven track record of providing outstanding metallurgical and process solutions to the base-metals industry. Their services include an in-house metallurgical laboratory that allows for rapid project development as well as process engineering capabilities for flowsheet design.





DISCLAIMER

Forward-looking statements are statements that are not historical facts. Words such as "expect(s)", "feel(s)", "believe(s)", "will", "may", "anticipate(s)" and similar expressions are intended to identify forward-looking statements. These statements include, but are not limited to statements regarding future production, resources or reserves and exploration results. All of such statements are subject to certain risks and uncertainties, many of which are difficult to predict and generally beyond the control of the Company, that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. These risks and uncertainties include, but are not limited to: (i) those relating to the interpretation of drill results, the geology, grade and continuity of mineral deposits and conclusions of economic evaluations, (ii) risks relating to possible variations in reserves, grade, planned mining dilution and ore loss, or recovery rates and changes in project parameters as plans continue to be refined, (iii) the potential for delays in exploration or development activities or the completion of feasibility studies, (iv) risks related to commodity price and foreign exchange rate fluctuations, (v) risks related to failure to obtain adequate financing on a timely basis and on acceptable terms or delays in obtaining governmental approvals or in the completion of development or construction activities, and (vi) other risks and uncertainties related to the Company's prospects, properties and business strategy. Our audience is cautioned not to place undue reliance on these forward-looking statements that speak only as of the date hereof, and we do not undertake any obligation to revise and disseminate forward-looking statements to reflect events or circumstances after the date hereof, or to reflect the occurrence of or non-occurrence of any events.

COMPETENT PERSONS STATEMENT

The information in this announcement that relates to the Exploration Results for Dobsina Project is based on information compiled and fairly represented by Mr Robert Jewson, who is a Member of the Australian Institute of Geoscientists and Managing Director of European Cobalt Ltd. Mr Jewson has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he has undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Jewson consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.



BULK SAMPLE LOCATIONS

Sample	Easting	Northing	Elevation
A1	455,510	5,410,387	816.7
A2	455,510	5,410,387	816.7
B1	455,500	5,410,383	815.7
B2	455,500	5,410,383	815.7
Bulk C	455,573	5,410,426	819.2



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	Comments
	· Nature and quality of sampling (eg 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.	Selective bulk composite samples of discrete styles of mineralisation were taken from exposed material within the Joremeny Adit.
Sampling techniques	 Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 	The composite samples obtained from the Joremeny Adit were targeted to be representative of the styles of mineralisation observed based on visual logging.
	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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.	A total of five composite samples were taken along the strike length of the mineralisation observed within the Joremeny Adit. The samples weighted a minimum of 20kg. Individual samples from each of the five composite samples were submitted for analysis to determine the head grade of the composites. These samples were crushed to -3.3mm and a sub-sample retrieved for analysis by riffle splitting. Each sub-sample was pulverised and submitted separately for assay
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).	No drilling reported
	 Method of recording and assessing core and chip sample recoveries and results assessed. 	No drilling reported
Drill sample recovery	 Measures taken to maximise sample recovery and ensure representative nature of the samples. 	
	· 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.	No drilling reported



Criteria	JORC Code explanation	Comments
Logging	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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relocated interceptions leaged.	The composite samples were logged in terms of lithology, mineralogy, alteration, veining, structure, mineralisation and weathering. Data is initially captured in field logging sheets, entered into Excel thence imported into an access database for validation. Further validation is completed through importing this data into Micromine. The sampling completed is purely for the purposes of initial metallurgical test work studies. Logging of rock chip samples is both qualitative and quantitative.
	relevant intersections logged. If core, whether cut or sawn and	No drilling reported
	whether quarter, half or all core taken.	140 dillilling reported
	 If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. 	No sub sampling methods conducted to composite samples. All samples collected were dry.
Sub-sampling techniques and	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Sample preparation was completed in accordance with ALS Laboratories standard operating procedure inclusive of crush and pulverise sample to 95% passing <106µm.
sample preparation	 Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 	Standard preparation procedure inclusive of internal laboratory internal crushing and pulverising QC tests were applied by ALS Laboratories.
	 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. 	The sampling completed was representative of the discrete styles of mineralisation observed within the Joremeny Adit for the purposes of metallurgical test work.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample sizes taken are appropriate for the styles of initial metallurgical test work being undertaken.
Quality of assay	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	All samples were submitted to Nagrom Analytical laboratory for analysis by XRF. Analytical standards and duplicates samples were analysed by Nagrom as part of their quality control procedures.
data and laboratory tests	 For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. 	No geophysical tools were used.



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Criteria	JORC Code explanation	Comments
	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	Internal laboratory standards and checks were utilised for the purposes of quality control.
	 The verification of significant intersections by either independent or alternative company personnel. 	Results were reviewed by Strategic Metallurgy independently of the Company.
Verification of	· The use of twinned holes.	No drilling reported
sampling and assaying	 Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. 	Information is initially recorded on field logging sheets. Information is validated and subsequently stored in an access database. Further validation is conducted through the importation and validation in Micromine.
	· Discuss any adjustment to assay data.	No adjustments completed.
Location of data	· 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.	Sample sites were measured based on detailed underground pickups.
pomis	· Specification of the grid system used.	UTM-WGS84- zone 34N
	· Quality and adequacy of topographic control.	Elevation data is derived underground survey pick up.
	 Data spacing for reporting of Exploration Results. 	Composite samples were taken at irregular intervals and aimed to test discrete styles of mineralisation within the Joremeny Adit.
Data spacing	· Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	The sampling undertaken is purely for the purposes of initial metallurgical test work.
and distribution	Whether sample compositing has been applied.	Five discrete composite samples of the discrete styles of mineralisation observed within the Joremeny Adit were taken. In addition a single composite sample was derived from the five composite samples. The description of the five individual composite samples and of the single composite sample generated from the five individual composite samples is included in the body of this release.
Orientation of	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 	The sampling completed was selective and aimed to target discrete styles of mineralisation. A such the orientation of sampling was not optimised to obtain a true width of the mineralisation.
data in relation to geological structure	 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. 	No drilling reported
Sample security	The measures taken to ensure sample security.	Sampling was completed by EUC staff in collaboration with contractors. Samples were transported by EUC staff to a secure sample storage facility prior to be transported by courier to Strategic Metallurgy Laboratory.



Criteria	JORC Code explanation	Comments
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	None conducted

SECTION 2 REPORTING OF EXPLORATION RESULTS

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	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.	Dobsina consists of a granted Licence (License number 2466/2017-5.3) covering a land area of 6.97km², held by CE Metals s.r.o, a 100% wholly owned subsidiary of NiCo Minerals Pty Ltd, a 100% wholly owned subsidiary of European Cobalt Ltd. Further conditional payment consideration includes: - 73,333,334 Performance Shares (subject to ASX approval per Listing Rule 6.1) on the following terms and conditions being: - 36,666,667 Class A Performance Shares for the achievement of an Inferred Mineral Resource in accordance with the JORC 2012 Edition Guidelines of not less than 500,000 tonnes at a minimum grade of 0.5% Cobalt equivalence within the Dobsina Licence or the sale/processing of a minimum of 50,000t of ore sold/processed at a minimum grade of 0.5% Cobalt equivalence (Performance Shares Milestone 1) - 36,666,667 Class B Performance Shares for the achievement of an Inferred Mineral Resource in accordance with the JORC 2012 Edition Guidelines of not less than 1,000,000 tonnes at a minimum grade of 0.5% Cobalt equivalence within the Dobsina Licence or the sale/processing of a minimum of 100,000 tonnes at a minimum grade of 0.5% Cobalt equivalence within the Dobsina Licence or the sale/processing of a minimum of 100,000 to of ore sold/processed at a minimum grade of 0.5% Cobalt equivalence (Performance Shares Milestone 1) - Payment of a 2% Net Smelter Royalty ("NSR") on the production of any minerals from the Dobsina Licence
	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.	No known impediments exist with respect to the exploration or development of Dobsina Project.
Exploration done by other parties	 Acknowledgment and appraisal of exploration by other parties. 	At present the information utilised within this release is sourced from "Geologicky prieskump s.p., Spisska Nova Ves Geologica oblast Roznava, Zaverecna sprava Dobsina- Ni-Co- VP nickel Kobalt" 1992 and "Bankse Mestro Dobsina" a publication prepared by the Slovak Ministry of Interior, published in Kosice 2013 (ISBN 978-80-97005-7-8).

Criteria	JORC Code explanation	Commentary
Geology	Deposit type, geological setting and style of mineralisation.	The Dobsina Project lies at a major thrust contact between two regional tectonostratigraphic units called Veporicum and Gemericum. Mineralisation at Dobsina is characterised by the following styles: - Siderite hydrothermal veins (siderite-ankerite, quartz sulphide) - Metasomatic Fe-Carbonate replacement - Stratiform sediment hosted Ag-Au - Stratiform sediment hosted magnetite-hematite Siderite hydrothermal veins prospective for Co-Ni veins are located in two main east-west tectonic zones along a fault contact between geniss-amphibole and underlying phyllite green schist.
Drill hole Information	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: o easting and northing of the drill hole collar o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth o hole length.	No drilling completed.
	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.	All available information has been released.
	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.	No data aggregation methods applied
Data aggregation methods	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.	No data aggregation methods applied



Criteria	JORC Code explanation	Commentary
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	 The assumptions used for any reporting of metal equivalent values should be clearly stated. 	No metal equivalence are reported.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	No drilling reported
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Maps and plans have been included in body of the announcement.
Balanced reporting	reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All results including those with no significant results have been reported.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Metallurgical test work Five individual composite samples of the discrete styles of mineralisation observed within the Joremeny Adit were submitted to Strategic Metallurgy for the purposes of completing initial metallurgical test work. The individual composite sample grades and the combined composite grade of this sample is included in the body of this report. A total of five rougher and four cleaner flotation tests were conducted. The intent of the flotation testing was to produce a high grade mixed cobalt-nickel concentrate, focussing on maximum cobalt recovery. In terms of rougher flotation, 1kg charges of the individual composite sample EC-1 was diluted to 50wt% with Perth tap water and milled in a laboratory rod ill to the target grind size of P80=106µm. The milled material was subjected to rougher flotation testing in a 2.2L flotation cell. Concentrate samples were retrieved at timed intervals and sub-samples were submitted for assay to determine the grade-recovery profile for each test. Potassium amyl xanthate (PAX) was used as the collector in all tests. Copper sulphate was used as a sulphide mineral activator in the majority of the tests. A total of four cleaner flotation tests were conducted. Rougher flotation concentrates were collected and

Criteria	JORC Code explanation	Commentary
		transferred to a 1.1L flotation cell for cleaner floto Concentrate samples were retrieved at timed into and sub-samples were submitted for assay to deter the grade-recovery profile for each test.
		QEM Scan mineralogical test work is underway to funderstand the species of mineralisation.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	A substantial program inclusive of: - Extensive underground drilling - Bulk sampling - Further metallurgical optimisation of flottest work and initial hydrometallurgical work Is planned to be undertaken.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Diagrams illustrating location of the composite san taken have been included in the body of the relea