

Current State of Chinese Standard

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Chinese Standard

Geological Assurance Classification and Type Degree of Economic Viability	Total Identified Mineral Resources			Undiscovered Resources
	Measured	Indicated	Inferred	Reconnaissance
Economic	Proved Extractable Reserve (111)			
	Basic Reserve (111b)			
	Probable Extractable Reserve (121)	Probable Extractable Reserve (122)		
	Basic Reserve (121b)	Basic Reserve (122b)		
Marginal Economic	Basic Reserve (2M11)			
	Basic Reserve (2M21)			
Sub-marginal Economic	Resources (2S11)			
	Resources (2S21)			
Intrinsic Economic	Resources (331)	Resources (332)	Resources (333)	Resources (334)?

Notes: Of the codes (111-334) used in the table above, the first digital number indicates the degree of economic viability: 1=economic, 2M=marginal economic, 2S=sub-marginal economic, 3=intrinsic economic, ?=economic interest undefined; the second digital number indicates phases of feasibility assessment: 1=feasibility study, 2=pre-feasibility study, 3=geological study; the third digital number indicates geological assurance: 1=measured, 2=indicated, 3=inferred, 4=reconnaissance, b=before the deduction of extractable quantities lost in the process of designing and mining.



Chinese Standard and UNFC

	UNFC	Chinese Standard	Remark
Economic viability	Normal economic	economic	No sub-categories for economic, in Chinese standard
	Exceptional economic		
	Marginal economic	Marginal economic	
	Sub-marginal economic	Sub-marginal economic	
	Intrinsic economic	Intrinsic economic	
Feasibility study	Mining report		Formal resources and reserves report doesn't include Mining report in Chinese Standard
	Feasibility study	Feasibility study	
	Pre-feasibility study	Pre-feasibility study	
	Geological study	Geological study	
Geological assurance	Chinese Standard has the same meaning and same requirements with UNFC on every stage of exploration actives.		

Extractable reserves

- At the beginning , use recovery rate as a parameter to get extractable reserves, (111), (121) and (122), from the basic reserves, (111b), (121b) and (122b).
- Recent years, in reserves reporting, only the basic reserves should be reported. Extractable reserves should be estimated according to the mining designs, would not be listed in the reporting.



Marginal reserves and Sub-marginal resources

- Resources estimators classify the jamb to the code begin with 2M and 2S. If the inventories can be extracted before mine closing, the code should begin with 2M; otherwise, the code should begin with 2S.
- A the jamb should be considered as design lost and mining lost. In design scope, the code of jamb would begin with 1, economic.
- 2M and 2S refer to the economic viability of the whole project, according to the feasibility study or prefeasibility study. 2M and 2S would not appear accompany with (111b), (121b) and (122b).



Chinese Standard and JORC

If we combine (121b) and (122b) into probable reserves, and remove categories of 2M and 2S, Chinese Standards is similar with JORC Code and CRIRSCO Template.

(111b)=proved reserves

(121b)+(122b)=probable reserves

(331)=measured resources

(332)=indicated resources

(333)=inferred resources

(334)?=reconnaissance

Thank you!

