

## Newsfeed

## NRL's approach to reporting of drill results

In accordance with the intent of the JORC Code, Nagambie Resources Limited (NRL) reports **economically mineable intersections** (or potential 'stopes', when mining of drillhole intercepts is considered) when reporting drill results. NRL does this not just because it is within the intent of the JORC Code, but because it is best practice when reporting exploration results for narrow vein deposits and because we believe it gives investors the best indication of the economic potential of the mineralisation being explored.

In contrast to NRL's approach to reporting drillhole results, it is a common practice in the exploration industry to just report (1) the concentration (or 'grade' in grams per tonne, g/t) of the targeted mineral/s in a drill core intercept (e.g. gold and antimony), and (2) the length of the drill core intercept through the mineralisation. The diagram below illustrates what is typically reported.

Although useful information, the reporting of drillhole intercept grades and downhole intercept lengths do not inform the reader/investor about the economic mineability of the mineralised rock that is the subject of a company's exploration efforts. This is because drillhole intercept grades (the grade of mineral in the drill core) and downhole intercept lengths do not account for the amount of **waste material** that would be mixed with the mineralised material if the intercepted mineralised system was to be mined. It is the grade of the ore that would be processed (should mining occur) that is critical to determining whether the mineralised rock identified through exploration drilling is likely to be economical to mine.

The economic mineability of a drill core intercept can be indicated by calculating the waste diluted grade of the intercept and comparing it to a mineable cutoff grade.

Waste diluted grades are calculated by applying a realistic mining scenario to the drillhole data. Consideration is given to factors such as the bulk density of targeted minerals in the intercept, the shape and orientation of the mineralised rock body (i.e. in the case of NRL, the estimated horizontal thickness, or EHT, of narrow vein systems is important), and the mining method utilised. NRL's orientated diamond drilling allows an estimate of the horizontal thickness of an encountered vein system to be calculated. Furthermore, modern mining equipment used to mine narrow vein deposits dictates a minimum width of 1.2m horizontally. Therefore, if the estimated horizontal thickness of the vein system is less than 1.2 m, waste rock must be extracted along with the mineralised rock. This is also illustrated in the below diagram.

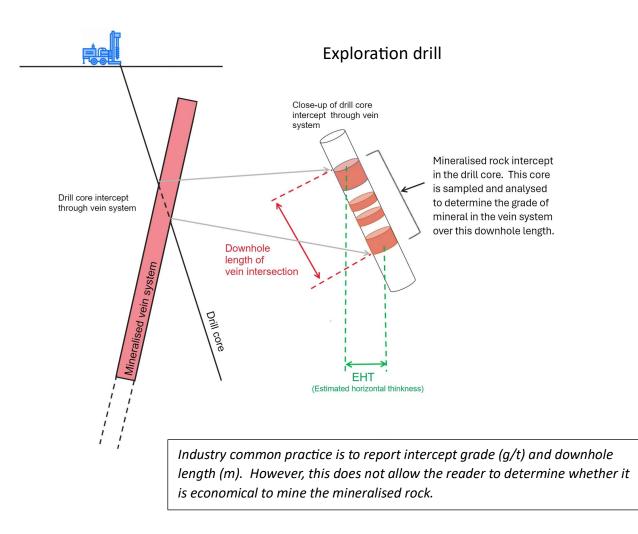
The mineable cut-off grade is the minimum grade of ore that can be economically mined and processed. It depends on the costs of mining and processing, as well as the price of the mineral.

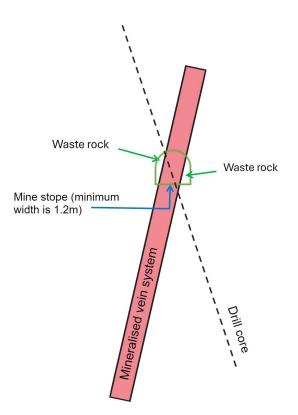
NRL considers that the mineralised systems at its 100% owned Nagambie Antimony-Gold Project are similar to those mined at the Costerfield Mine (100% owned by Mandalay Resources Inc.), located approximately 45 km the west. As such, the economics of mining and mining methods used at the Costerfield Mine would likely be used at the Nagambie Antimony-Gold Project. It is reported that the economically mineable cutoff grade at the Costerfield Mine is 3.0g/t gold equivalent\*, and this cutoff grade is adopted by NRL.

NRL's approach to reporting drill results often means the reported grades are lower (due to waste dilution) than the grades in the samples of rock analysed by the laboratory. However, **providing an indication as to whether the encountered mineralisation is economic to mine is considered by NRL** 

## to be more important in terms of creating long term value for our shareholders than simply reporting the higher intercept grades and their downhole lengths.

Sustainable value is created when minerals are extracted from the ground. To date, NRL has identified 40 economically mineable intercepts (or potential stopes) in the upper 250m of the vein systems encountered at the Nagambie Antimony Gold Project, from the initial drilling program of around 11,000 m. The average grade of the economically minable intercepts are 4.7 g/t gold and 5.4% antimony (or 14.5 g/t gold equivalent) being nearly five times the economical cutoff grade.





Exploration drill results in the context of ore extraction

When the ore body is extracted, a minimum stope width of 1.2m is mined. If the high-grade vein system has an EHT of less than 1.2m, then waste rock is also extracted, which dilutes the grade of the rock that is processed.

The diluted grade is the grade that should be used when determining the potential for economic mineability of the mineralised system being explored.

\*Appendix 1 of NRL's official drilling results announcements to the ASX contains a detailed explanation of NRL's reporting methodology.