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RESOURCE BULLETIN by Gavin Wendt

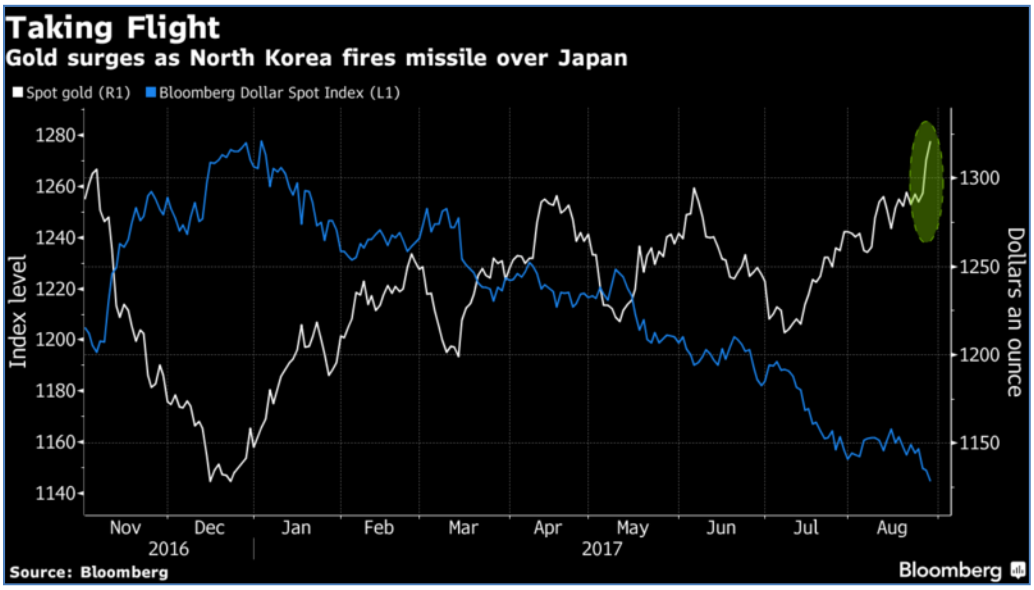
Wednesday 30th August, 2017

Gold Passes $1,300/oz – What Next?

My apologies for the lack of notes for the past two days – I've been suffering from the dreaded lurgy – and am only back on deck today, so I've got a bit to cover in today's note.

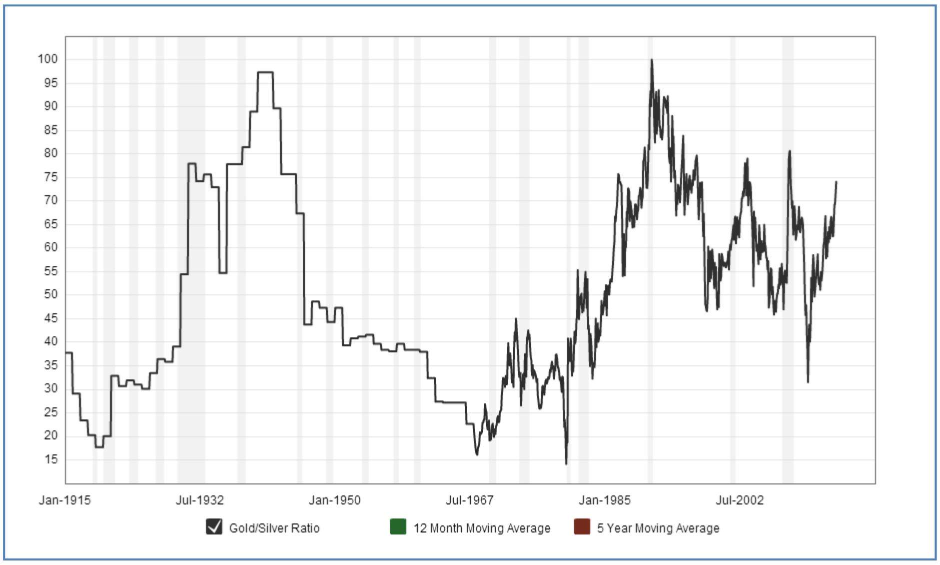
What's most significant from my perspective is the continued upward movement in the gold price. I've been a gold bull for some time and for good reason. In the US, both the Fed and Donald Trump are seemingly doing their best to drive gold higher with their inactivity, resulting in continued weakness in the US dollar (which is great news for gold). The graphic below highlights the corresponding performances of gold v the US dollar over the past 12 months.

The price has just broken through the US$1,300/oz level, whilst the US dollar index has fallen to a 2.5-year low. Assuming the breakout holds, the next upside target is $1,375/oz, the high point for 2016.



Silver is also benefiting. Although the silver market has not yet hit a new high for the year, prices advanced nearly 2.5% Monday to close above the 200-day moving average. The gold-silver ratio currently stands at about 75:1, with gold trading at a high price historically relative to silver.

The ratio can move rapidly to the downside when silver prices are surging, as was the case from late 2010 to early 2011, when the ratio dropped from the high 60s to the low 30s.

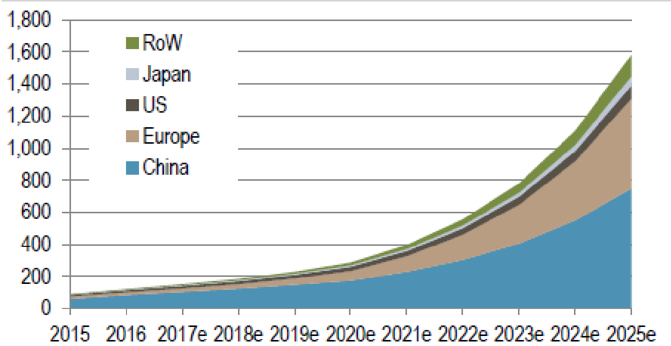


Copper – the Next 'New-Age' Metal?

Last week I provided an overview of vanadium and the opportunity that presents itself, along with three ASX-listed vanadium equities at various levels of maturity. The article was largely in response to the high-profile that lithium has assumed over recent times as a result of the growing interest in electric vehicles (EVs). Lithium isn't by any means the only commodity that will benefit – and one base metal that is greater usage than any other is set to benefit from the EV revolution - and that is copper.

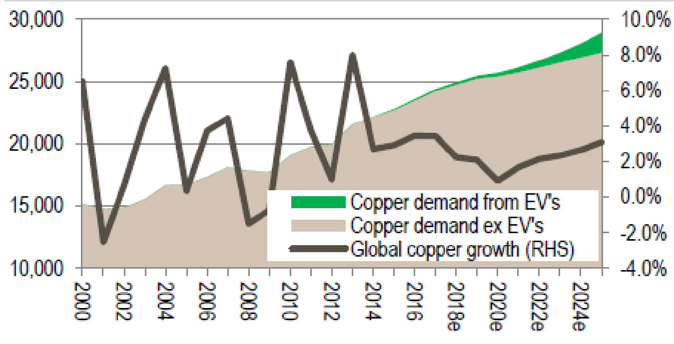
In a study published just today titled *Copper: Electric Vehicles & Charging Infrastructure to Accelerate Demand,* UBS states that in their view, "copper has sound fundamentals that are set to be enhanced by electric vehicle take-up. We estimate EVs will start to drive acceleration in demand growth in the early 2020s. Meanwhile, supply growth remains an ongoing concern in copper more so than many other mined commodities due to declining grades."

Figure 1: Copper demand for Electric Vehicles (ktpa)



Source: UBS Research.

Figure 2: Overall copper demand (ktpa) **& growth** (%)



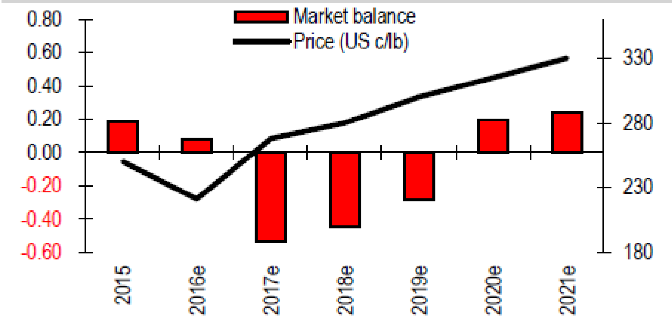
Source: AME, WBMS, UBS.

UBS has incorporated estimates with respect to four factors – EV sales over time, copper intensity in vehicles, copper in the charging stations/infrastructure and new copper required in the electricity grid.

Interestingly, the biggest opportunity for copper appears to be in the vehicles themselves which represents ~90kg of copper in an EV compared to ~20kg for traditional combustion-engine vehicles. Charging stations it is believed will be predominately installed in the home will incorporate ~1-5kg of copper, in a more or less 1:1 or 1:2 ratio with car sales. They believe the grid will be able to handle the charging task overnight, but more transformer capacity may be required locally in streets with high penetration.

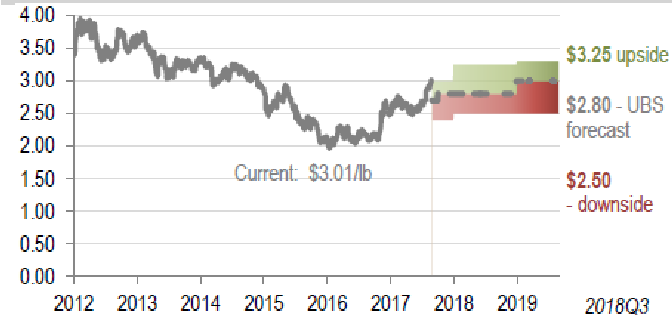
They estimate that by 2025, global EV sales will be ~15m and will drive ~1.6Mt of copper demand, or 1.2Mt incrementally including lower combustion vehicle sales. This represents about 5% of annual copper demand in that year. Whilst that might sound modest, it implies an acceleration of demand growth sustainably above 3% p.a. v the long term average of 2.5-3% CAGR (compound annual growth rate). In 2025, UBS estimates that EVs could drive ~50% of copper demand growth. The supply growth task will be much harder in the face of declining grades around the world at the biggest mines. Interestingly, they also state that lithium, graphite, nickel & cobalt in their view offer more near-term leverage.

Figure 3: Copper Demand & Supply (ktpa)



Source: Bloomberg, UBS Research.

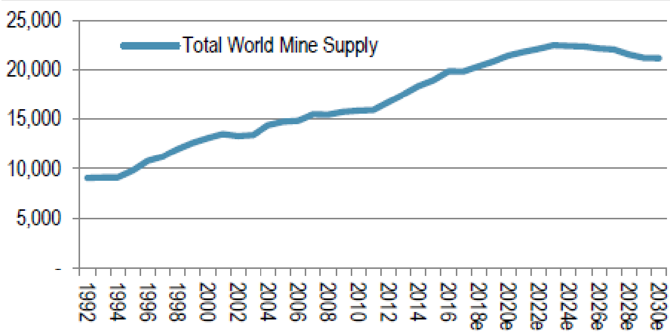
Figure 4: Price forecasts & Upside/Downside (US$/lb)



Source: UBS & Bloomberg.

Their forecasts assume the current suite of visible mine supply and projects in development will see copper supply peak during the early 2020s. After that time, it is estimated that grade decline drive a 1-2% fall annually in mine supply, with many new copper projects needed to fill this gap.

Figure 9: Mine Supply based on visible projects (ktpa)



Source: AME, WBMS, UBS.

Figure 10: An incentive price of ~US$3/lb needed

	Capex (US$/lb of capacity)				
	6.30	6.70	7.09	7.49	7.88
IRR (%)	-20%	-15%	-10%	-5%	0%
20.0%	3.04	3.16	3.28	3.40	3.52
17.5%	2.81	2.92	3.02	3.13	3.23
15.0%	2.59	2.68	2.77	2.86	**2.95**
12.5%	2.36	2.44	2.52	2.59	2.67
10.0%	2.14	2.20	2.26	2.33	2.39

Source: UBS Research. Sensitising Jan-14 Incentive price work on capex & IRR. Based on public filings of 35 copper projects at the time.

In today's bulletin I also want to put an equity opportunity on your radar screens, which we're also adding to our coverage universe. The stock is Middle Island Resources (ASX: MDI).

Targeting Gold Production – New Portfolio Stock (coverage initiated @ $0.021 in August 2017)

Middle Island Resources (ASX: MDI, Share Price: $0.021, Market Cap: $12m) is a new addition to our coverage universe, based on the company's advanced WA gold resource position. Its strategy involves extending and enhancing the proposed gold production profile at its historic Sandstone project, with the aim of recommissioning its processing plant and achieving production status at the earliest opportunity.

MDI has this week kicked off three significant drilling programs at its Two Mile Hill and Wirraminna gold deposits, within and immediately adjacent to its 100%-owned Sandstone gold project. Previous hits at Two Mile Hill include 415.2m at 1.34g/t Au and 66.9m at 3.27g/t Au and 16m at 14.6g/t Au at Wirraminna.

Market Significance

The rationale for initiating coverage now is two-fold: firstly, both the A$ and US$ gold prices are performing strongly - in turn benefitting domestic gold equities; and secondly, MDI has just kicked off what I consider to be a very significant series of drilling programs to follow-up areas in which high-grade/wide intercept gold mineralisation was detected in previous drilling. The opportunity for further hits of extensive mineralisation to be realised, in my opinion presents a compelling near-term speculative opportunity.

What's also interesting is that market interest is beginning to build, with MDI's share price up 10% to a close of $0.021 in today's trading, so I'm not the only one who's aware of the significance of this program. You will also notice the steep price decline in late 2017/early 2017, where MDI disappointed the market when attempting to move quickly to production status. Success in the current drilling program will go a long way to restoring confidence - and a potential price rebound, perhaps to former levels.

Catalyst – Resource Drilling

Three significant drilling programs are underway at MDI's Two Mile Hill and Wirraminna deposits, situated within and immediately adjacent to its 100%-owned Sandstone project.

1. At Two Mile Hill, the final 500 metres of diamond coring is underway on what is known as the tonalite deeps target, where hole MSDD156 is being extended to a target depth of at least 850 metres and potentially to 1,000 metres depth.

Technical Significance

The existing cored portion of hole MSDD156 was mineralised from start to finish and intersected a massive 415.2m at 1.34g/t Au. Just as significantly, the hole ended in strong mineralisation comprising 66.9m at 3.27g/t Au to the end of the hole at 498.9 metres depth.

The planned extension of MSDD156 is designed to determine if the increasing gold tenor persists with depth, particularly as the projected position of the Shillington Thrust is approached.

2. At Two Mile Hill, a second drilling program comprising a two-tier RC pre-collared diamond drilling program is underway to test the up-dip extensions of high-grade gold intercepts associated with pyrite replacement mineralisation within the upper unit of the Shillington banded iron formation (BIF), intruded by the Two Mile Hill tonalite.

Technical Significance

Previous drilling has returned strongly mineralised true-width intercepts of 8.5 metres at 49g/t, 13.7 metres at 26g/t, 4.5 metres at 25g/t, 3.4 metres at 30g/t & 3.5 metres at 20g/t Au - while recent re-sampling intervals have returned 22 metres at 23.8g/t, 8 metres at 56g/t & 5 metres at 26.5g/t Au. Significantly, all intercepts remain open and untested in the up-dip direction.

Any extensions to the existing Two Mile Hill BIF deposit will significantly enhance the economics of a proposed underground development via a decline from the planned Two Mile Hill open pit cut-back.

3. Maiden RC and RC pre-collared diamond drilling is also underway at the recently-optioned Wirraminna project, which lies immediately adjacent to the company's Sandstone project and within 1km of the 600ktpa gold processing plant.

Technical Significance

The Wirraminna Project includes an Inferred Resource (JORC 2004) of 106,300t at 2.07g/t Au (10,674oz gold) - including better intercepts of 11 metres at 23.8g/t, 16 metres at 14.6g/t & 19 metres at 4.85g/t Au. Mineralisation is associated with a steeply northeast-dipping and northwest-trending, high-grade quartz lode that remains open at depth and to a lesser extent along strike.

The RC and diamond drilling program is variously designed to verify, infill and extend the existing Wirraminna gold deposit prior to upgrading the resource estimate to JORC 2012 compliance and completing pit optimisation studies. The Wirraminna deposit has the potential to enhance the proposed Sandstone gold production schedule, ahead of a recommissioning decision on the Sandstone processing plant.

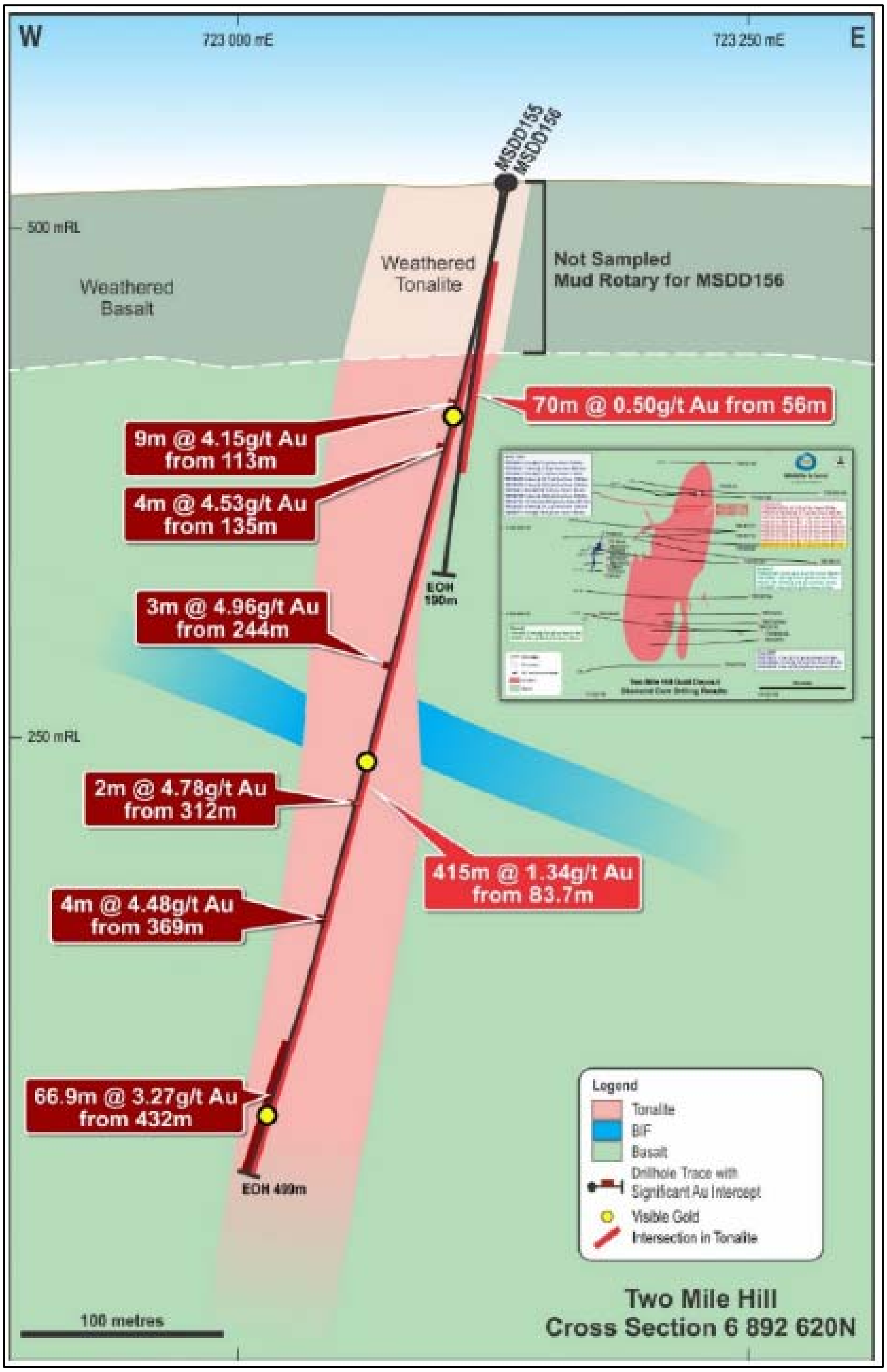
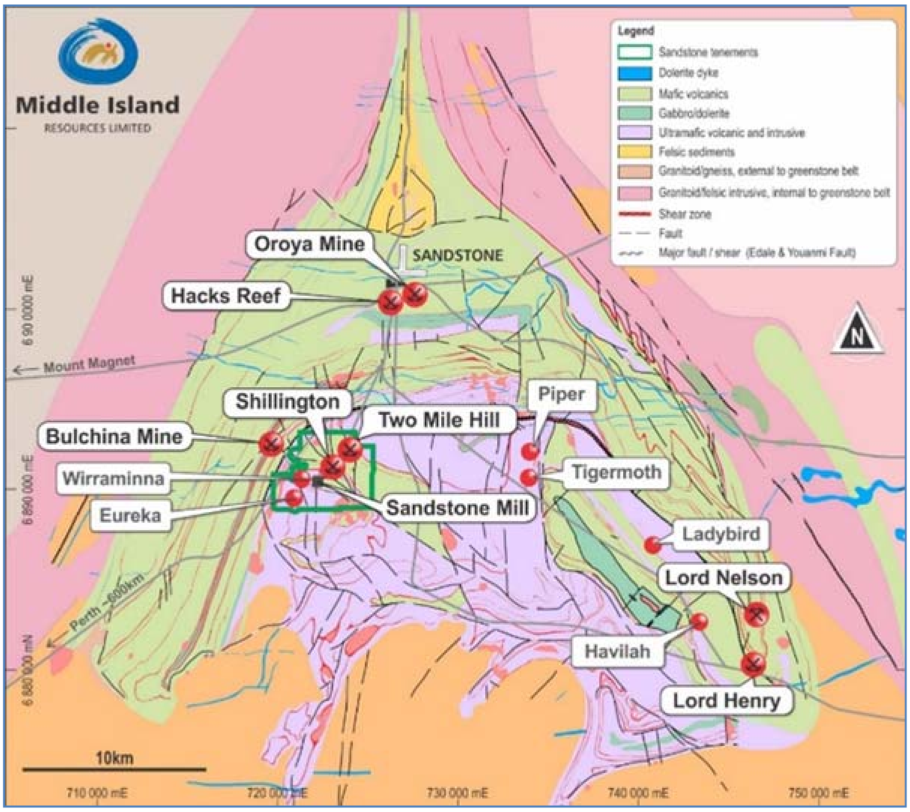


Figure 1: Two Mile Hill diamond drill-section 6,892,620N showing MSDD156

Projects Overview

With its 100%-owned Sandstone gold project, MDI has a potential short-term gold start-up project in WA's world-class mining jurisdiction. Sandstone is differentiated by being on granted mining leases and having a 600,000tpa CIP treatment plant and associated infrastructure on site that could be refurbished relatively quickly and for the modest sum of under $10 million.

Although the project currently has insufficient resources to justify a re-start of operations, there are a number of options to bring potential mill feed up to the required level. Exploration work has highlighted the opportunity to discover and define new resources, there are acquisition opportunities in the district (as evidenced by the recent Wirraminna acquisition) and there is also potential to enter into toll-treatment opportunities with third parties who hold stranded assets within trucking distance of Sandstone.

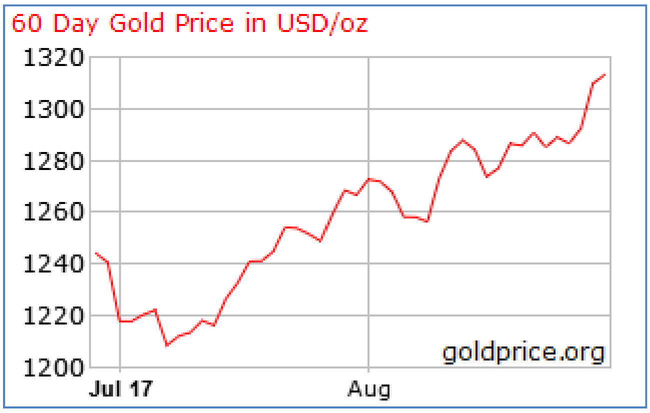


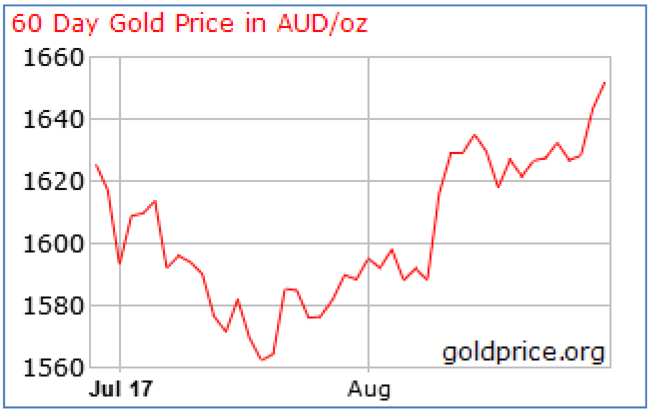
__Summary__

We've initiated coverage of Middle Island Resources at a price around $0.021.

Owning the Sandstone plant and key infrastructure is a key strength, although having been under care and maintenance for seven years it is estimated that the plant and other infrastructure can be brought back into commission for a relatively modest ~$10 million. This also includes a contract crushing plant that will be able to treat all potential ore types and deliver a finer product to the mill than that in previous operations. Sandstone is prospective for additional gold mineralisation, with this borne out by the results of exploration to date, as well as the growing understanding of the controls on mineralisation.

The current drilling programs will be closely watched for their potential to enhance and expand the resource base, in turn potentially heralding moves to restart production.





In terms of the US and Australian dollar gold price performance, timing could not be better, as evidenced by the graphics above.

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