

North Australian Diamonds

Buy NAD around 4.8 cents

Record diamond sale price achieved

[Fat Mining 49](#), 08 Nov, 2006
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SYMBOL DEFINITIONS

 DIAMONDS	 HIGH RISK	
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North Australian Diamonds is an emerging diamond producer that we recently introduced to Members. The company has what we consider a comprehensive plan for phased diamond production from its Merlin Field in the Northern Territory. It believes it has learnt from past mistakes committed by previous owners of the field and that modern techniques can significantly boost diamond recoveries and enhance project economics. Encouragingly, the company recently achieved a record sale price for one of its diamonds, underlining the potential robustness of the Merlin diamond operation.

"We believe the company is progressing well down the road to developing a commercial diamond mine at Merlin."

Fat Prophets initially recommended buying NAD around 5 cents in September (Fat Mining 44).

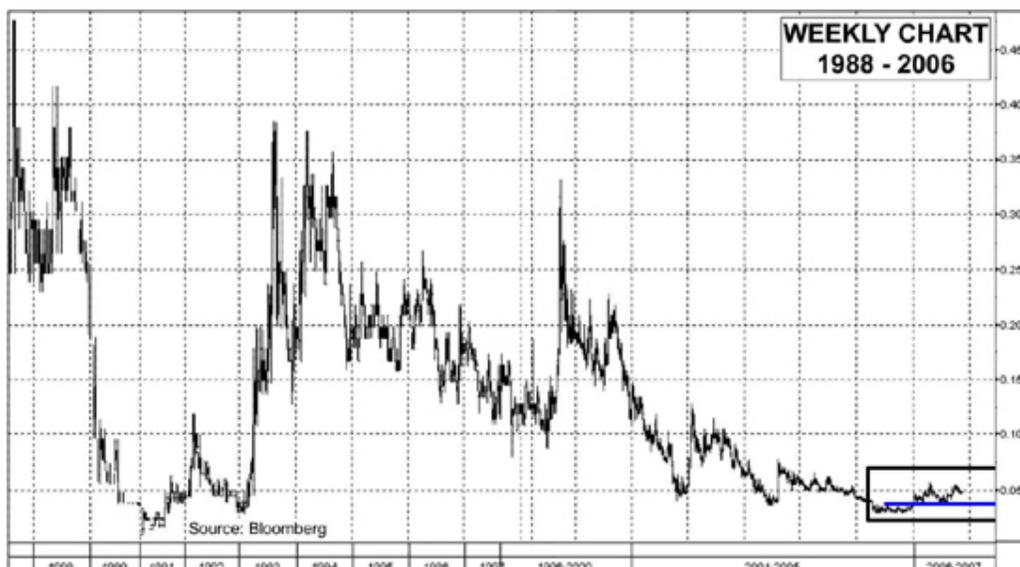


Buoyant investor support saw NAD rally almost 50% between June and September. Following such rapid gains, it is common for the upward trend of any stock to pause for consolidation. NAD is no exception.

In the near term, we anticipate further consolidation for NAD. Initial support is nearby at 4.7 cents with the June low of 3.7 cents underpinning the shares, in our opinion.

An extension of the rally above the September high of 5.5 cents will initially target a retest of the April high of 5.7 cents. As can be seen on the weekly chart, a break above 5.7 cents

would signal a revival of the upward trend. We believe that such a move would target substantially higher levels in time.



The company announced a \$1.57 million share placement in late October at a share price of 4.3 cents each, which would have contributed to a temporary softening in NAD's share price.

As we highlighted in our initial recommendation, North Australian Diamonds is part of an extremely rare species known as an Australian diamond producer. By our count, Rio Tinto's Argyle operation and Kimberley Diamonds' Ellendale operation, both in Western Australia, are the country's only two commercially significant producers of diamonds.

There have been a number of false dawns and an unfortunate lack of success on the part of diamond exploration companies in Australia, which has typically caused heartache for hopeful investors. The dearth of diamond producers in this country highlights how difficult a job it is to identify and successfully develop a commercial diamond operation.

What attracted us to NAD, however, is the company's strategic and well-constructed plan to reactivate commercial diamond production from the Merlin diamond field in the Northern Territory. We caution however that the pre-feasibility/feasibility work that NAD is undertaking requires patience on the part of Members looking to invest, but with very large potential longer-term payoffs.

The Merlin Diamond Project comprises the former Merlin diamond mining operations and the surrounding exploration tenements, which in total encompass an area of around 3,000 sq km. This effectively encompasses the current total known extent of the Merlin Kimberlite Field, building on the Merlin Orbit exploration tenements previously acquired from Rio Tinto.

Merlin lies 75km south-southeast by road from McArthur River and 720km southeast of Darwin, in the Gulf Region of the Northern Territory. The Merlin Mining Lease encompasses 11 of the 13 known kimberlite pipes (of which 9 were subject to open-pit operations), which produced approximately 500,000 carats of diamonds at an average value of US\$108 per carat for its former owner, Ashton Mining. It is interesting to note that the largest diamond ever recovered in Australia came from the Merlin field. It weighed 104.73 carats and was valued at around US\$525,000 at the time.

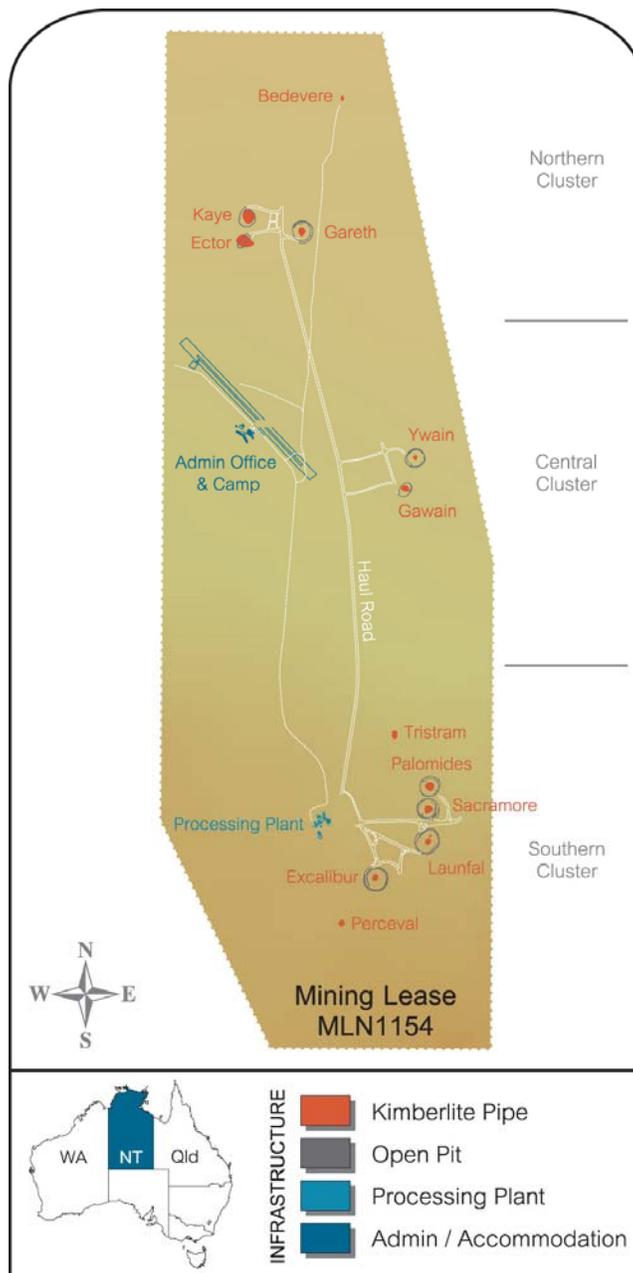


Figure 2: Merlin Mining Lease and location of kimberlites

Source: NAD

Merlin hosts a current combined Indicated & Inferred Resource of 19.45 million tonnes of kimberlite grading 18 carats per 100 tonnes, for 3.5 million carats of contained diamonds.

It is fair to say that Merlin was a diamond operation that never quite hit its operational straps, in our view due to a combination of weak diamond prices and less than favourable diamond recoveries.

Merlin however believed that it could improve the economics of production at Merlin and accordingly commissioned AMC Consultants to undertake a Scoping Study to evaluate the economics of open-pit and underground mining on several of the Merlin kimberlite pipes. AMC's brief was to identify a potential mining project and to estimate the cost of appropriate mining techniques.

Based on geotechnical analysis, AMC examined a range of practical underground methods for their suitability for economic extraction of diamond-bearing ore from the pipes. The Study incorporates new information gained from a recently completed drilling program, as well as significant diamond price increases experienced since the closure of the mine in 2003. The Scoping Study also incorporates grades based on the expectation of improved liberation and recovery of the diamonds.

One of NAD's major tasks has been investigating the recovery efficiency of the previous mining operation at Merlin. One of the difficulties that Ashton identified was an often-significant discrepancy between the recovered mine grades and higher forecast grade expectations from early bulk sampling.

Recent sampling work of sorthouse and other tailings at Merlin reported significantly improved diamond recoveries compared to those obtained during previous mining operations conducted by Ashton Mining. NAD tested various mine tailings, including the x-ray sorthouse, for commercial diamonds, with the aim of identifying and if possible quantifying any diamond losses.

Testing confirmed the presence of significant numbers of non-fluorescent octahedral-shaped diamonds that would not have been recovered using standard x-ray sorting techniques. An examination of waste material left behind shows significant diamond losses took place across a whole range of diamond sizes. Work to date indicates these losses may have exceeded 25%. NAD recovered diamonds of substantial size from the waste material, including diamonds of 14 carats, 11 carats and 10 carats in size.

Encouragingly, the AMC Scoping Study indicates there is the potential for an economic mining operation, based on the expectation of improved recoveries due to better liberation of the diamonds and improved diamond recovery techniques. Accordingly, NAD has implemented a phased, multi-stage evaluation and development plan at Merlin and is undertaking a pre-feasibility study as part of this process.

Stage 1 of project development involved the processing of 2,900 tonnes of diamondiferous ore that recovered 13,360 carats worth of diamonds. Most importantly, the testwork confirmed the procedures for improved liberation and recovery of diamonds from the kimberlite.

During Stage 2, NAD will source ore from tailings stockpiles, previously mined pits and revised pit designs. Stage 2 resources comprise around 502,000 tonnes containing an estimated 197,000 carats of recovered diamonds. NAD will source the diamonds from four pipes, Ywain, Gawain, Gareth and Kaye. A Heavy Media Separation (HMS) plant is in now in production and is capable of processing up to 400,000 tonnes per annum (tpa) of ore.

AMC's study anticipates that, based on diamond value of US\$140 per carat and a US\$/A\$ exchange rate of \$0.78, the Stage 2 project could produce a surplus cash flow of \$8.1 million over a two-year project life.

Under a possible third stage, NAD will investigate the feasibility of undertaking a large cutback on the PalSac pipe, along with other pits. Based on current anticipated diamond values and exchange rates, 1.7 million tonnes of kimberlite containing around 380,000 carats is possible from the PalSac pit alone. This would also necessitate the upgrading of the processing plant to 1 million tpa capacity to achieve economies of scale.

Finally, a possible fourth stage operation would involve an underground operation that could provide a further 10.1 million tonnes of diamond-bearing ore containing 2.36 million carats over a 10-year mine life.

	Indicated	Inferred	Total	Grade	Carats
Southern Cluster					
PalSac	4,015,000t	2,713,000t	6,728,000t	@ 20cpht	1,345,600
Launfal	730,000t	510,000t	1,240,000t	@ 22cpht	272,800
Excalibur	464,000t	309,000t	773,000t	@ 34cpht	262,800
Tristam		740,000t	740,000t	@ 6cpht	44,400
			9,481,000t	@ 20.3cpht	1,925,600cts
Central Cluster					
Gawain	868,000t	1,252,000t	2,120,000t	@ 35cpht	742,000
Ywain	80,000t	95,000t	175,000t	@ 81cpht	141,700
			2,295,000t	@ 38.6cpht	883,700cts
Northern Cluster					
Gareth	125,000t	143,000t	268,000t	@ 22cpht	58,900
Kaye	1,498,000t	1,335,000t	2,833,000t	@ 12cpht	339,900
Ector	2,357,000t	2,221,000t	4,578,000t	@ 7cpht	320,400
			7,679,000t	@ 9.4cpht	719,200cts
Total			19,450,000t	18cpht	3,527,900cts

Inferred and indicated resource grades are based on a bottom slotted screen size of 1.0mm.

Grades reflect the variation of grade due to increases in rock density with depth.

Source: NAD

What all of this demonstrates to us is that NAD has a mature, methodical and very achievable approach to recommissioning the Merlin Diamond Field.

The recent September quarter production report was a very encouraging one in our view. The operation processed 7,661 tonnes of kimberlite material for the recovery of 4,175 carats worth of diamonds, with more than 7,000 carats produced for the year to date. The company is deriving the majority of the primary kimberlite material from the Ywain and Gawain kimberlite pipes, with dewatering of other selected pipes to allow access to more material in 2007.

Ongoing improvements to the process flow sheet are continuing to have a positive impact on diamond recoveries, as evidenced by a 105% improvement in the recovery of diamonds from 54 carats per hundred tonnes in the previous quarter.

With respect to sales, at the close of the September quarter the company dispatched a 5,142-carat parcel of diamonds to Antwerp for sale, recently announcing total revenue of \$934,000 from the sale. In addition, the company sold a 12.62-carat selection of high quality diamonds, representing four individual diamonds, for a total of just under US\$30,000, representing an average carat value of US\$2,369 per carat.

Most recently in November, NAD reported achieving a record price of US\$153,170 from the sale of a 10.6-carat diamond from the Gawain kimberlite pipe. This equates to a price of US\$14,450 per carat and is the highest value diamond sold by NAD since it began trial mining at the Ywain and Gawain pipes earlier this year. The company also sold a further selection of special stones weighing 15.27 carats for US\$40,598, equating to a price of US\$2,658 per carat. The overall average sale price achieved for the sale of all these diamonds is US\$144.27 per carat.

Encouragingly, production from trial mining at Ywain and Gawain continues to recover diamonds of the size and frequency expected, as evidenced by the recently recovery of a 14.58-carat white octahedral diamond. The company is currently preparing a further parcel for

sale, including the 14.58-carat stone. This will help establish 'Run of Mine' values for use in cash flow models and the current pre-feasibility study on the potential Gawain and Ywain underground development.

Subsequent to the end of the September quarter, NAD undertook a \$1.57 million placement that boosted its cash reserves to \$2.5 million.

What is tremendously important from our perspective is the quality of NAD's board, which incorporates tremendous diamond industry experience, predominantly sourced from the old Ashton Mining. Managing Director Alan Campbell has 20 years diamond industry experience, predominantly with De Beers, while other key directors Bill Duchatel, Tom Reddcliffe and Glenister Lamont, were all key executives with Ashton Mining. Other directors John Hopkins and Ian Tregonning each have more than 30 years' business experience.

Besides Merlin, the company boasts an extensive Arnhem Land tenement portfolio. This includes a farm-in agreement with De Beers Exploration Australia to earn a 100% stake in tenements covering a total area of 13,500 sq km. The Arnhem Land tenements that now encompass an area of more than 21,000 sq km are located 400km north of the Merlin Kimberlite Field. These tenements have potential for other minerals, as well as diamonds.

We believe NAD, with a market cap of just \$45 million represents a relatively cheap exposure to what could be a quite lucrative diamond development at Merlin. Importantly, the company appears to have a well thought out development strategy to commercialise Merlin, and a high quality board to execute its plans. The upside is quite exciting, we believe for Members.

North Australian Diamonds will remain Held within the Fat Prophets Mining & Resources portfolio, but for Members with no current exposure we recommend it as a Buy around 4.8 cents.

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