

15 April 2013

The Directors,
Ark Mines Limited,
Level 11, 137 Bligh Street,
Sydney, NSW 2000

Dear Sirs,

STATUS REPORT ON DATA REVIEW MT PORTER AND FRANCES CREEK

INTRODUCTION

Ark Mines Limited ("Ark") has entered into a joint venture agreement with Arafura Resources Limited ("Arafura"), previously Arafura Resources NL, on the Mt Porter and Frances Creek gold deposits, in the Pine Creek Mineral Field of the Northern Territory.

Purpose of the Report

Mr Roger Jackson (Managing Director, Ark Mines Limited) instructed the Principal of Gemell Mining Engineers, S G Gemell to conduct a desk-top review of the provided data on the two projects and to comment on issues concerning the economic viability of developing the known mineralisation.

This report is therefore for the use of directors and officers of Ark to assess the desirability of further investigating the project, and should not be relied on for any other purpose. As the provided information permitted only a high-level assessment, and as we understand that the report is only intended for internal purposes, we have not prepared this document to the reporting standards specified in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code) and the Code for Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Reports (The VALMIN Code). Consequently, this report is not available for public release or dissemination to parties other than as specified above.

Conduct of the Report

The provided data was reviewed and formed the subject of a Gemell report dated 21 February 2013. Subsequently, Ark commissioned Australian Mine Design and Development Pty Ltd ("AMDAD") to undertake a pit optimisation exercise on the Mt Porter resource, using the pit design criteria recommended by Gemell. Gemell then prepared an indicative cash flow model to determine whether the project warrants more detailed investigation. A report outlining these findings and incorporating the content of the earlier report was delivered on 20 March 2013. As no further work has been done since that date, the content of this report remains essentially unchanged from that of 20 March.

No site visit has been undertaken, nor has any review of tenure been conducted.

Data

The relevant initial data provided to Gemell includes:

General

Maclean, D and Holdsworth, HK. Independent Geologist's Report on the Mineral Property Interests in Australia for Global Mineral Resources Limited (Ravensgate Mineral Industry Consultants, 7 June 2011)

Mt Porter

Arafura Resources NL. Press Release: "Arafura Increases Mt Porter Gold Resource" (1 April 2004)

An Excel workbook entitled "Mt Porter March 2004 Resource Tables", file dated 20 March 2004

An Excel worksheet entitled "Bench Summary", undated

An Excel workbook entitled "Mt Porter Nov2007 Optimisation Runs", dated 5 December 2007

Capps, PG et al. Metallurgical Testing of Mt Porter Samples, Part 1 (Amdel Ltd, Report G764800G/94, 28 February 1994)

Ison, J. Mt Porter Metallurgical Report (Battery Limits Pty Ltd, 2 November 2006)

Patrick, G. Amdel Testwork Review (Battery Limits Pty Ltd, Memorandum to S Mackowski, 1 June 2006)

Payne, P. Mineral Resource Estimate for the Mount Porter Gold Deposit, 10400 Zone, Pine Creek Mineral Field, Northern Territory (Resource Evaluations Pty Ltd, March 2004)

Deed for Proposed Grant of Mineral Lease 23839, between Arafura Resources NL, P Huddleston et al, and Northern Land Council, (signed and dated 6 December 2007)

Frances Creek

Lindsay-Park, K and Goulevitch, J. (Report EPL-05/159) Technical Report on 2004 RC Drilling, AN389 Frances Creek, Northern Territory (Exploremin Pty Ltd, 7 February 2005)

The results for the Mt Porter pit optimisation were reported by AMDAD in an Excel workbook with the file name "1702AMD20130212_results_v02".

MT PORTER

Mineral Resources

The published cross-section at 10450mN indicates that mineralisation is irregular

The current Mt Porter resource estimate was prepared in 2004 and is reported as follows:

Table 1: Mt Porter – 10400 Zone Mineral Resource

Cut Off Grade (g/t Au)	Mineral Resource Classification	Tonnes (t)	Grade (g/t Au)
1.7	Indicated	300,000	3.1
	Inferred	55,000	2.6
	Total	355,000	3.0
1.0	Indicated	547,900	2.28
	Inferred	132,700	1.86
	Total	680,600	2.20
0.5	Indicated	694,000	2.0
	Inferred	184,000	1.6
	Total	878,000	1.9

The mineral resources at cut-off grades of 1.7 g/t Au and 0.5 g/t Au are sourced from an Arafura Resources NL press release dated 1 April 2004, which attributes the estimates to Paul Payne. The mineral resource at 1.0 g/t Au cut-off grade is sourced directly from Paul Payne's report.

Of the resource at a 1.0 g/t Au cut-off grade, approximately 77,000 tonnes is classified as oxide, with the remainder classified as fresh.

Previous Mining Inventory

An earlier pit optimisation exercise was conducted in 2007, which from the above resource indicated that, at a gold price of \$850 per ounce, approximately 533,000 tonnes at 2.21 g/t was mineable at a waste:ore ratio of about 4.7:1. For this exercise, a mining recovery factor of 95% and a dilution factor of 5% were applied. The results at various metallurgical recovery factors are shown below.

Table 2: Mt Porter – Mining Inventory 2007

Metallurgical Recovery	Tonnes (t)	Grade (g/t Au)	Waste:Ore Ratio	Surplus (\$m)
93%	506,000	2.25	4.7	7.9
90%	495,000	2.28	4.8	7.3

This exercise is now outdated, and Gemell believes that some of the inputs applied at the time are not appropriate for the mining scenario envisaged by Ark. Following discussion with Gemell, Ark commissioned Australian Mine Design and Development Pty Ltd ("AMDAD") to complete a pit optimisation exercise using Gemell inputs.

The following issues were considered in selection of the inputs for the AMDAD model.

Mining

No data is available concerning geotechnical conditions. However, the ore is hard, so for the mining scenario an overall slope of **45 degrees**, including allowance for the ramp, was selected. Future work may show this estimate to be overly optimistic, but Gemell would expect change to be minimal.

In order to maintain mining recovery above 90%, a realistic mining dilution allowance is required. Gemell's "best guess" of an appropriate dilution adjustment, taking into account the irregularity of the ore zones and the dimensions of the resource blocks, is **5% at zero grade**, the same as employed by Arafura. However, this is based upon review of the

published 10450mN cross-section which, probably being the most mineralised section in the orebody, is likely to be providing an optimistic impression of achievable dilution. Mining recovery has been set at **95%**, a typical value for metalliferous open pits.

For the purpose of conducting a first-pass pit optimisation Gemell selected a mining cost input of **\$5 per tonne for ore, and \$4 per tonne of waste**. Future refinement to this estimate can be undertaken following discussion with potential contractors, which should indicate more appropriate values. The differential ore and waste mining costs result from the ore mining cost including an allowance for supervision and technical services (grade control and survey).

Ore Transport

A limited number of gold processing plants in the Arnhem Land region of the Northern Territory are operating or are on care-and-maintenance. These include Union Reefs (2.4 million tonnes per year throughput, operating) and Tom's Gully (240,000 tonnes per year throughput, reportedly undergoing refurbishment). The Union Reefs plant is 12 kilometres from Mt Porter.

Loading and transporting ore from Mt Porter to, say, the Union Reefs plant should cost in the order of **\$5 per dry tonne**, including loading and road maintenance. Capital will be required for the haul route upgrade.

Metallurgy

Metallurgical testwork indicates high gold recovery from the oxide component of the resource, but substantially less recovery from primary mineralisation. Although not definitive, investigations indicate that the refractory component is mostly caused by gold being locked up within arsenopyrite and other sulphides.

No operating processing facility within reasonable trucking distance of the deposit has a circuit designed for the recovery of refractory gold. The Battery Limits November 2006 report refers to a planned Union Reefs bacterial oxide circuit, but the detailed plant description on the owner's website does not indicate that any refractory gold circuit has been installed. Consequently, the only gold recovery information that Ark can currently use for cash flow projections is the direct leaching information provided in the Amdel 1994 and Battery Limits November 2006 reports. For the purpose of conducting a first-pass pit optimisation Gemell adopted a processing recovery of **93% for oxide ore**. As instructed by Ark, the optimisation exercise was conducted for three primary ore metallurgical recovery values: 60%, 65% and 70%. A detailed review of metallurgy is required before a more definitive estimate can be undertaken. Note that the recoveries assigned to fresh ore are higher than that estimated by Battery Limits.

For the purpose of the optimisation exercise, an ore production rate of 360,000 tonnes per year was selected. This equates to dry-season mining capability, and not to the proposed custom milling plant capacity. It is anticipated that the ore will be treated in batches, or purchased at an agreed rate.

Custom milling costs will be the sum of the process plant operating cost, an amortisation allocation, and the mill owner's risk/profit margin. The mill operating cost will be relatively high because of the high work index (above 20 kWh/t) of the ore, anticipated slow dissolution and the projected high sodium cyanide consumption rates. The negotiation of an appropriate custom milling rate also will depend on time-specific circumstances relating to

the mill owner's business. For the purpose of conducting a first-pass pit optimisation Gemell applied a processing cost input of **\$30 per tonne for oxide ore** and **\$35 per tonne for primary ore**. These values can be refined when discussion with the potential custom miller indicates more appropriate estimates.

Site Administration and Realisation Costs

Site administration costs should be very low, considering the nature and scale of operations to be conducted on site. An allowance of **\$1 per tonne of ore mined** has been applied.

No allowance has been made for rehabilitation costs.

Gemell set a refining charge of **\$5 per ounce of gold recovered**. No allowance has been made for bullion transport and insurance.

Native Title Agreements

The principal fiscal impact of the native title agreements in place are:

- 1) the annual payment of a royalty equivalent to 3.5% of net profit; and
- 2) the payment at final close-out of an additional royalty equivalent to 1.5% of the amount by which life-of-mine net profit exceeds \$5 million.

As these payments are profit-driven, they will not form inputs into the optimisation exercise. However, these costs do need to be deducted from project cash flow projections.

Optimisation Results

AMDAD has stated the following outcomes from the optimisation exercise.

Table 3: Mt Porter – Pit Optimisation February 2013

Sulphide Gold Recovery	Mill Feed ('000t)	Grade (g/t Au)	Waste /Ore	Revenue (\$ million)	Op Surplus (\$ million)
60%	309,000	2.73	4.4	28.4	9.1
65%	349,000	2.61	4.3	32.6	11.0
70%	405,000	2.49	4.1	38.0	13.1

Indicative cut off grades are 0.8 g/t Au (oxide), 1.4 g/t Au (sulphide at 60% metallurgical recovery), 1.3 g/t Au (sulphide at 65% metallurgical recovery) and 1.2 g/t Au (sulphide at 70% metallurgical recovery.)

Based on classifications provided in the existing resource model, approximately 80,000 to 90,000 tonnes (depending on the sulphide gold recovery model selected) of 1.83 to 1.74 g/t Au of the mining inventory is oxide ore, the remainder being sulphide. Only 10,000 to 15,000 tonnes of the mining inventory is inferred, the balanced being classified as indicated.

No allowance (in terms of changes to mining inventory and waste-to-ore ratio) has been incorporated for future conversion of the optimised pit to an actual pit design.

Indicative Cash Flow

Gemell prepared an indicative cash flow of a potential open pit operation, as it would appear at a gold price of A\$1,600 per ounce. As the site has not been visited and many of the physical and fiscal inputs remain unconfirmed, this exercise can only be considered as an aide in determining whether to investigate this option in more detail. The cash flows are based on the premise that the designed pit can be completely mined in one dry season, which means that site preparation would need to commence as early as practicable in the calendar year.

Cash flow details for three scenarios (sulphide gold recoveries of 60%, 65% and 70%) were provided to Ark in an Excel workbook entitled "Mt Porter 01p" on 7 March 2013. The summarised results for the scenario reflecting 60% sulphide gold recovery are provided in the table below.

Table 4: Mt Porter – Indicative Joint Venture Cash Flow

Cash Flow Classification	Category Detail	60% Rec (A\$m)	65% Rec (A\$m)	70% Rec (A\$m)
Revenue		28.38	32.63	38.04
Operating Costs	Mining	6.69	7.34	8.23
	Processing	12.58	14.23	16.57
	Selling	0.09	0.10	0.12
Operating Surplus		9.02	10.96	13.12
Initial Capital Costs		4.05	4.05	4.05
Closure Costs		1.22	1.22	1.22
Royalty	Native Title	0.16	0.23	0.34
	Northern Territory	0.65	0.98	1.35
Net Cash Flow		2.95	4.48	6.16

Note: Figures are rounded

The level of accuracy of these estimates is typical of a desk-top study and is below that of a scoping study, and will therefore be in the order of +/-45-50%. The reporting of figures in 1/100ths of a million dollars is provided to enable comparison between the three reported cases, and does not reflect the level of accuracy of the estimate.

For the purpose of this exercise, "Operating Surplus" is the difference between revenue and operating costs as applied by AMDAD for the calculation of the optimal pit, and match the "Maximum DCF (Worst Case)" model operating surplus reported in their workbook. The "worst case" model will more closely reflect actual mining sequence than any other model in this case because of the short mine life and the unlikelihood of being able to stage the pit. In the AMDAD report, ore transport and site administration are included in the processing costs, and the refining charge is specified as the selling cost.

Although Ark's ASX release of 13 March 2013 intimates that a private royalty of 5% is payable to another party, lack of information concerning the nature of this royalty has prevented its inclusion in this exercise. The cash flows reported herein are therefore those of the joint venture, not those of Ark.

Conclusion

In our view, the optimisation exercise provides an approximation of the best mining scenario that is available to Ark. The operating surplus and other estimates are indicative only as they are reliant on a number of untested assumptions. These include initial capital costs

(permitting, road upgrade, initial mine plan, mining contract preparation, mining contractor's mobilisation, site establishment, fencing, clearing and grubbing, topsoil removal, light vehicles, project insurance, owner's costs etc), Northern Territory royalty, native title agreement payments, and mine closure costs. Dewatering costs although not included in this exercise will also need to be considered if the mine life extends through a wet season or if the lower benches of the pit make water.

The results of the pit optimisation exercise indicate that a potential mining operation may be viable, and the project therefore warrants further attention.

FRANCES CREEK

The Frances Creek gold prospects include Golden Amigo, Golden Austerion, Golden Honcho, Golden Gulf, Golden Senorita and Golden Slips.

Photographs of Golden Honcho (Lindsay-Park and Goulevitch, 2005, Appendix 1) indicate hilly topography.

Mineral Resources

No mineral resource estimate has been provided for the Frances Creek deposits.

Mineralisation intercepts are generally very narrow, with the best intercepts having true-width of 3 metres or less.

Metallurgy

No metallurgical testwork relating to these areas has been provided.

Native Title Agreements

A native title agreement is in place for exploration, but a production agreement is yet to be negotiated. Ark should assume that terms will be similar to Mt Porter until additional information is available.

Conclusions

- 1) Despite comments in the exploration reports that supergene enrichment is not an issue, the average surface rock chip assay is significantly higher than the average drill-hole assay.
- 2) Based on the drill intercept information, the wider (greater than 2-metres true width) higher-grade zones grades may prove of economic interest. They will need to have sufficient strike length to permit the "end cones" of any potential open pit not to materially increase the waste-to-ore ratio, and also prove to yield high gold recoveries from a simple metallurgical process.
- 3) To date the Golden Honcho mineralisation appears to be of economic interest on sections 93610mN and 93670mN. Mineralised zones in the intermediate and outlying

sections appear narrow and will have unattractive grades when diluted for conversion to an ore reserve.

- 4) The hilly topography at Golden Honcho will adversely affect economic extraction, and is likely to cause pit floors to be higher in elevation than otherwise would be expected.
- 5) No production plans should be prepared until Ark undertakes sufficient mineralogical review and/or metallurgical testwork to determine the proportions of refractory and free-milling gold.

PROJECT CONCLUSION

In our view, further investigation by Ark is certainly warranted. Of particular importance with respect to determining potential economics of the project will be the more accurate assessment of metallurgical recovery, indicative contract mining rates and custom milling terms, along with a clarification of the private royalty terms.

Please do not hesitate to contact us should you require further elucidation on the contents of this report.

Yours sincerely,

GEMELL MINING ENGINEERS

A handwritten signature in black ink, appearing to read 'Steve Gemell', written in a cursive style.

Steve Gemell
Principal