Alkane Resources

Kaiser a winner

Boda-Kaiser PEA

Metals and mining

Since our last update note on 20 May, Alkane has announced 1) the results of its scoping study on the Boda-Kaiser project, 2) FY24 production of 57,217oz Au at an all-in sustaining cost (AISC) guidance of A$2,150–2,350/oz, 3) an updated five-year mining plan at Tomingley and 4) regional exploration results from the Northern Molong Porphyry Project (NMPP). This note updates our valuation of the company for each of these developments, of which the most important are the results of the Boda-Kaiser scoping study.

Year end	Revenue (A$m)	PBT* (A$m)	EPS* (c)	DPS (c)	P/E (x)	Yield (%)
06/22	165.0	52.1	3.68	0.00	14.7	N/A
06/23	190.5	60.6	7.10	0.00	7.6	N/A
06/24e	175.8	29.9	3.58	0.00	15.3	N/A
06/25e	251.7	0.4	0.04	0.00	N/A	N/A

Note: *PBT and EPS are normalised, excluding amortisation of acquired intangibles and exceptional items.

Boda-Kaiser cementing valuation at A$0.43/share

Alkane's Boda-Kaiser scoping study posited a 20Mtpa processing operation producing an average of 225koz gold equivalent (AuE) for 17 years at an AISC of US$1,268/oz and a capital cost of US$1,337m to generate a pre-tax $NPV_{7\%}$ of US$1,206m and a pre-tax internal rate of return (IRR) of 24.0%. Assuming mining tax at 30%, we estimate that a pre-tax $NPV_{7\%}$ of US$1,206m translates into a post-tax $NPV_{7\%}$ of US$697m, or US$1.16/share or A$1.72/share on an un-risked basis. Adjusting to reflect the early-stage nature of the scoping study, sovereign risk, the overall risk of commerciality and the fact that we estimate production in seven years' time, we calculate a risk-adjusted valuation for the Boda-Kaiser project currently of US$0.29/share, or A$0.43/share (equivalent to just US$21.04 per resource ounce of gold currently).

Valuation: Numbers bedding down nicely

We have lowered our EPS estimates for FY24 to reflect actual Q424 production. Otherwise, our valuation of Tomingley has reduced to A$0.30/share to reflect the updated Tomingley five-year plan, albeit this continues to underpin 56% of Alkane's share price, while the value of Boda-Kaiser has held steady at A$0.43/share (cf A$0.45/share previously) to reflect the detail supplied in its scoping study relative to our earlier 'paper' mine. As such, Boda-Kaiser has now become Alkane's largest asset. Moreover, its value can now be stated with considerably greater confidence. This takes the total for Alkane's portfolio of 'existing' or 'core' assets to A$0.73/share within a range of A$0.70–0.80/share. Contingent assets could add a further A$1.01/share to this valuation in the form of A$0.51/share for future exploration success (mostly at the NMPP) and A$0.50/share to reflect the current gold price being significantly above our long-term (real) price of US$1,794/oz. In the meantime, Alkane is a profitable, cash-generating company with the potential from near dilution-free development that investors can buy on a multiple of just US$17.03 per resource ounce (ie approximately the same as a junior explorer).

24 July 2024

Price	**A$0.54**
Market cap	**A$326m**
	A$1.4939/US$
Net cash (A$m) at end December 2023	46.4
Shares in issue	603.4m
Free float	68%
Code	ALK
Primary exchange	ASX
Secondary exchange	OTCQX

Share price performance

%	1m	3m	12m
Abs	(11.4)	(21.1)	(35.3)
Rel (local)	(13.2)	(23.7)	(40.6)
52-week high/low		A$0.78	A$0.48

Business description

Alkane Resources has two main assets in Central West New South Wales: the Tomingley gold mine, where exploration to date increased the mine life by at least eight years from FY23 to FY31, and its Northern Molong project, which is developing into a tier 1 alkalic porphyry district.

Next events

Q424 quarterly activities report	July/August 2024
FY24 results	August/September 2024
100koz annual production	FY26
Potential for dividend	FY26

Analyst

Lord Ashbourne +44 (0)20 3077 5700

mining@edisongroup.com

Edison profile page

Alkane Resources is a research client of Edison Investment Research Limited

Developing on all fronts

Since our last update note on 20 May, Alkane has announced:

- A preliminary economic assessment (PEA) or scoping study on the Boda-Kaiser portion of the NMPP, on 10 July.
- Production results of 57,217oz for FY24 from Tomingley at an AISC in the range A$2,150–2,350/oz, on 4 July.
- An updated Tomingley five-year mining plan, on 24 June.
- A regional exploration update at its NMPP, including new drill results demonstrating the potential for new gold-copper porphyry deposits, on 21 June.

This note updates our valuation of the company for each of these announcements.

Boda-Kaiser scoping study

Alkane announced the results of its scoping study on Boda-Kaiser on 10 July. It considered three mining scenarios, namely a 20Mtpa operation, a 10Mtpa operation and a 5Mtpa operation. Given that the highest value to Alkane is derived from the largest development scenario, for the purposes of this note, we have focused on the results of the 20Mtpa operation and compared it with our earlier assessment of the project based on a 15Mtpa throughput rate. Highlights of Alkane's 20Mtpa study are as follows:

- The operation will mine and process 323Mt of ore at grades of 0.26g/t gold and 0.15% copper over 17 years. Of the total, 319Mt will be derived from open cut mining and 4Mt from underground. The considered underground mining option uses a long hole open stoping (LHOS) mining method, consistent with Alkane's experience at its Tomingley mine. However, future studies will also evaluate the potential for sub-level caving or a similar bulk tonnage underground method. Of the total mined ore, c 85% is from the indicated category of resources and 15% is from the inferred category.
- The 20Mtpa operation produces an average 159,300oz Au and 35,600t Cu per annum for the first five years of operation.
- Costs were estimated at A$630/oz (with a copper by-product credit) over the 17-year life in real terms (2024 dollars).
- At prices of A$15,000/t for copper and A$3,500/oz for gold, the life of mine, undiscounted free cash flow was estimated at A$5.7bn.
- A forecast capital cost of A$1,783m with an additional A$223m of development and sustaining capital over the project's remaining 17-year life.
- An estimated pre-tax net present value ($NPV_{7\%}$) of A$1,808m and an estimated pre-tax IRR of 24.0%.

A comparison of the outcomes of all three scenarios relative to Edison's prior estimates and assumptions regarding a 'paper' mine at Boda-Kaiser is as follows:

Exhibit 1: Boda-Kaiser scoping study results (real 2024 dollars)

	Units	5Mtpa	10Mtpa	Prior Edison 15Mtpa	20Mtpa	Updated Edison* 20Mtpa	Updated Edison** 20Mtpa
Economic assumptions							
Gold price	A$/oz	3,500	3,500		3,500		
	US$/oz	2,333	2,333	1,794	2,333	2,333	1,794
Copper price	A$/t	15,000	15,000		15,000		
	US$/t	10,000	10,000	6,410	10,000	10,000	10,000
	US$/lb	4.54	4.54	2.91	4.54	4.54	4.54
Operating parameters							
Throughput	Mtpa	5	10	15	20	20	20
Initial project life of mine	Years	30	26	20	17	17	17
Total ore processed	Mt	150	251	300	324	322	322
Average Au grade	g/t	0.32	0.28	0.49	0.26	0.25	0.25
Average Cu grade	%	0.20	0.17	0.17	0.15	0.15	0.15
Average Au recovery	%	76.4	76.5	77.4	76.3	80.0	80.0
Average Cu recovery	%	83.7	83.7	85.0	83.5	81.6	81.6
Production							
Total gold produced	koz	1,185	1,727	3,637	2,058	2,126	2,126
Total AuE produced	koz AuE	2,261	3,217	5,150	3,831	3,832	4,345
Annual AuE production LOM average	koz	75	124	258	225	225	256
Annual gold production (years 1–5)	koz	61	95	182	159	165	165
Total copper produced	kt	251	348	426	414	397	397
Capex							
Pre-production	A$m	856.8	1,262.8		1,782.5		
	US$m			1,080.0		1,188.3	1,188.3
Post-production	A$m	206.1	232.3		223.2		
	US$m			808.4		148.8	148.8
Total	A$m	1,062.9	1,495.1		2,005.7		
US$m				***2,428.4		1,337.1	1,337.1
Operating costs							
AISC (AuE)	A$/oz	2,074	1,984		1,902		
	US$/oz	1,383	1,323	983	1,268	1,313	1,183
AISC (by-product basis)	A$/oz	891	783		630		
	US$/oz	594	522	677	420	578	627
Total opex costs per tonne milled	A$/t	28.80	23.40		20.60		
	US$/t	19.20	15.60	12.02	13.70	****13.83	****13.97
Processing and G&A	A$/t milled	16.60	12.80		10.60		
	US$/t milled	11.10	8.50	8.92	7.00	7.07	7.07
Open pit mining cost	A$/t mined	9.60	9.20		9.00		
	US$/t mined	6.40	6.10		6.00	6.01	6.01
Underground mining cost	A$/t mined	80.00	80.00		80.00		
	US$/t mined	53.30	53.30		53.33	53.33	53.33
Financials							
Pre-tax $NPV_{7\%}$	A$m	473.2	1,034.7		1,808.5		
	US$m	315.5	689.8	612.7	1,205.7	1,137.4	*****286.4
Pre-tax IRR	%	13.1	16.9	13.9	24.0	24.7	11.3
Pre-tax NPV/Start-up capital		0.6	0.8	0.6	1.0	1.0	0.24
Capital payback period	Years	7.0	6.0	7.0	4.0	5.0	6.0
Average annual free cashflow	A$m	92.9	166.0		324.1		
LOM operating cashflow	A$m	2,993.3	4,549.1		5,733.7		
First 10yrs free cashflow (excl capex in Yr0)	A$m	1,220.6	2,274.5		4,290.7		
Average annual free cashflow	US$m	61.9	110.7	136.4	216.1	169.7	119.0
LOM operating cashflow	US$m	1,995.5	3,032.7	4,077.1	3,822.5	3,033.6	2,172.6
First 10yr free cashflow (excl capex in Yr0)	US$m	813.7	1,516.3	1,634.8	2,860.5	2,513.1	1,781.7

Source: Alkane Resources, Edison Investment Research. Note: Alkane US$0.67/US$ cf Edison A$1.4869/US$. *Edison model with Alkane input assumptions. **Edison model with Edison input assumptions. ***Includes US$540m for later development of underground mine. ****Excludes off-site costs. *****Discounted to the start of capex, which is two years earlier than alternative scenarios owing to assumed phasing of capex over three years.

In general, the main differences between Alkane's PEA and Edison's previously assumed 15Mtpa operation centred on the actual open pit mining schedule (tonnes and grade), which had previously been assumed to be flat by Edison and the timing and scale of the development of an underground mine. Whereas Edison had previously assumed that the underground mine would represent a material investment to extend the life of operations of the open pit, in Alkane's PEA, it is of a much smaller scale, developed much earlier to complement the open pit. Otherwise, it may be seen that Edison's previously assumed mined grade for its notional 15Mtpa operation was too high, with the result that gold production was also too high. However, this was balanced by copper production that was too low, capex that was too high (including a material investment for the underground mine) and opex assumptions that were broadly in line with, or higher than, the actual outcome in Alkane's PEA. As a result, Edison's financial outcomes tended towards the 10Mtpa Alkane scenario outcome rather than the 20Mtpa one. Nevertheless, in our most recent note (see Kaiser takes on the World, published on 20 May 2024), Edison put a value on Boda-Kaiser as an operational mine of US$183.6m (or A$0.45/share) as at the start of July 2025 at our somewhat conservative long-term metals prices, on the basis of the discounted value of maximum potential future dividends to shareholders discounted at a rate of 10% per year.

In updating our financial model, we have brought our mining schedule and unit costs into line with Alkane's estimates (see Boda-Kaiser Scoping Study announced on 10 July 2024). We have also quite materially reduced the proportion of gold recovered to doré and treatment costs from US$79.00/dmt to US$50.00/dmt of concentrate. However, we have also retained port handling charges and ocean freight charges in our model, as well as separate tailings storage facility (TSF) costs and surface infrastructure costs (albeit these are not material). Importantly, we have phased initial capex over three years (starting in FY29), with first production in FY32, and assumed depreciation of initial capex over 10 years. To date, potential working capital effects on cash flow have been ignored. The results of these changes and variations are shown in the right-hand column of Exhibit 1. In interpreting these results, readers are cautioned that the apparent decline in $NPV_{7\%}$ between Edison's updated scenario and the results of Alkane's scoping study derive largely from the assumption of capex being phased over three years (Edison), rather than it all being incurred in Year 0. In the equivalent year (ie 2031), Edison's comparable $NPV_{7\%}$ is actually higher than Alkane's at US$1,345.8m (cf US$1,205.7m).

Boda-Kaiser valuation considerations

Unrisked project valuation

Alkane's scoping study calculated a pre-tax IRR on the project of 24.0% (in US dollar terms) and a pre-tax $NPV_{7\%}$ of US$1,205.7m. Inasmuch as we are able to reconstruct Alkane's valuation (the 'Updated Edison 20Mtpa' column in Exhibit 1, above), we estimate that the equivalent post-tax $NPV_{7\%}$ is US$697.0m. With 603.4m Alkane shares in issue, this post-tax NPV estimate equates to US$1.16 (or A$1.72) per share.

Project valuation risked for two factors

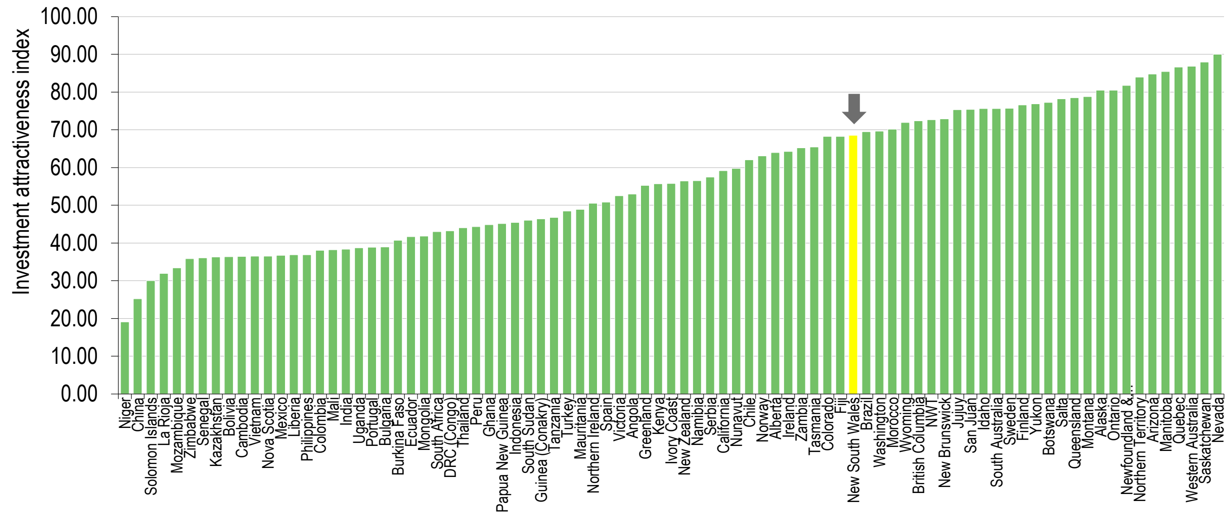
Risk associated with the Boda-Kaiser project may be assumed to comprise sovereign risk, geological risk, metallurgical risk, engineering risk, management risk (possibly also including funding risk) and an overall risk of 'commerciality'. Two of these risks – sovereign risk and overall 'commerciality risk' – may immediately be adjusted for.

Sovereign risk

In our report Gold stars and black holes, published in January 2019, we calculated that companies with completed scoping studies commanded valuations between -4.8% and 50.7% of attributable project NPV, with an average of 11.7% (see Exhibit 166 on page 82 of the report).

According to the Fraser Institute, New South Wales ranks almost at the top of the jurisdictions most attractive to mining investment – on a par with Brazil and only slightly below British Columbia and Idaho, but above Colorado, Ireland, Norway and Chile.

Exhibit 2: Fraser Institute survey of mining investment attractiveness, by jurisdiction (2023)



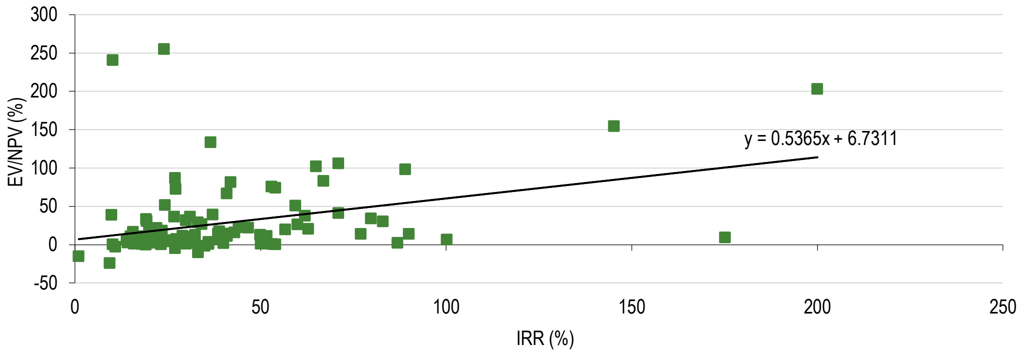
Source: Fraser Institute

The mean Fraser Institute investment attractiveness score for all jurisdictions is 56.56, which is between the scores for Serbia and California. If this is deemed to attract an average valuation of 11.7% of attributable NPV, and the top and bottom halves of the sample are presumed to attract valuations with respect to the average and pro rata to their scores, then a company with an average project in New South Wales may be expected to attract a valuation of 24.4% of attributable project NPV. For Alkane, this would imply a valuation of US$0.28/share (A$0.42/share) for Boda-Kaiser alone and excluding any contribution from its other assets and operations.

Project valuation risked for overall commerciality

In the same analysis (Gold stars and black holes), we calculated a statistically significant relationship between the valuation of a company and its IRR, which is demonstrated in the graph below.

Exhibit 3: Company enterprise value as percent of attributable project NPV (%) versus project IRR (%)



Source: Edison Investment Research

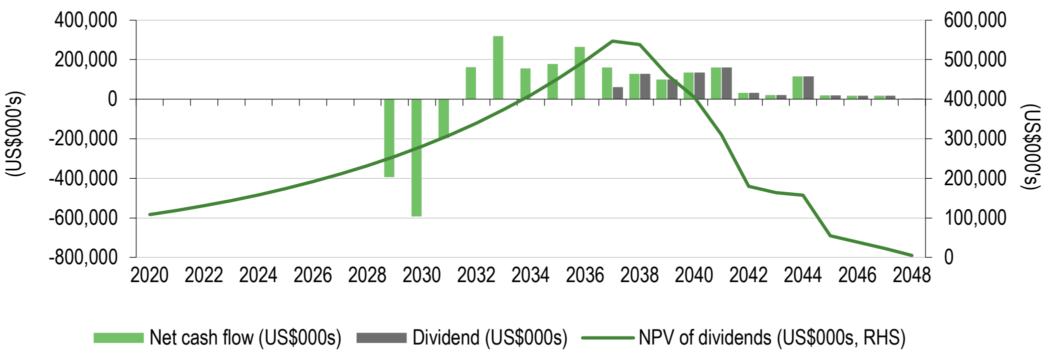
On the basis of the Boda-Kaiser project's scoping study pre-tax IRR of 24.0%, therefore, Alkane could be expected to command a valuation equivalent to 19.6% of its NPV, or US$0.23/share (A$0.34/share).

Alternatively, if a multiple regression analysis between IRR and Fraser Institute Investment Attractiveness scores and a company's enterprise value/NPV ratio is performed and the resulting equation applied to Boda-Kaiser, a 22.5% enterprise value/NPV ratio is predicted. This implies a valuation of US$0.26/share (ie between the other two risk-adjusted valuations of US$0.28/share and US$0.23/share), or A$0.39/share.

Project valuation based on Edison assumptions

In contrast to the Boda-Kaiser project's official NPV based on its July 2024 scoping study, if we apply Edison's somewhat more conservative timing, cost and metal price assumptions, we calculate a value for the project of US$174.3m as at 1 July 2024 (ie just 14.5% of headline $NPV_{7\%}$ of US$1,205.7m), or US$0.29/share (A$0.43/share), based on the net present value of future dividends potentially payable to investors at our customary 10% discount rate:

Exhibit 4: Boda-Kaiser cash flow, dividend and dividend NPV, FY20–48e (US$/share)



Source: Edison Investment Research

Note that this valuation of US$174.3m equates to just US$21.04 per resource ounce of gold (excluding by-product credits) at the current time. From this level of US$0.29/share (A$0.43/share) at the start of FY25 however, we would expect the valuation of Boda-Kaiser to more than treble before peaking at US$0.91/share (A$1.35/share) on the cusp of the project's first potential dividend to shareholders in FY37 (at Edison's relatively conservative long-term (real) gold price of US$1,794/oz (in 2024 dollars)). At the currently prevailing gold price, of US$2,358/oz, our estimate of the current value of the project increases to US$0.62/share (A$0.92/share), while our peak value of the project increases to US$1.76/share (A$2.61/share) in FY36.

Boda-Kaiser valuation summary

Exhibit 5, below, summarises our valuation of Boda-Kaiser on the basis of the five scenarios set out above:

Exhibit 5: Boda-Kaiser valuation summary

Scenario	Valuation (US$/share)	Valuation (A$/share)
Un-risked estimated post-tax $NPV_{7\%}$	1.16	1.72
Ditto adjusted for:		
■ Sovereign risk	0.28	0.42
■ IRR	0.23	0.34
■ Sovereign risk and IRR	0.26	0.39
Discounted dividend valuation*	0.29	0.43

Source: Edison Investment Research. *Using Edison gold prices and a 10% discount rate.

While each of these valuation methods have their merits, we believe that the most appropriate of the five considered above is the discounted dividend valuation (applying a 10% discount rate) as this puts a present value on estimated future income (and costs) associated with the project, as opposed to a calculated or observed EV/NPV ratio. Nevertheless, we also believe that the four alternate methodologies provide important corroborating support for the valuation, given that they fall within a surprisingly narrow range of A$0.38/share ±A$0.04/share.

Valuation modifying factors

Edison's valuations of Boda-Kaiser are adjusted for those parameters that may be readily quantified. From a qualitative perspective however, there is reason to believe that the project could attract a higher valuation, based upon its physical characteristics, which are briefly discussed below:

- **Geology.** The nature of the Boda-Kaiser ore body is essentially 'massive' in the sense that it pertains to high volumes of rock. This feature is corroborated by the wide intercepts encountered in individual drill hole results, which could exceed 1,000m in some cases. This style of mineralisation is implicitly suited towards high-volume mining (eg 20Mtpa) and reduces the risk of unanticipated grade variability, as attested to by the success of Newmont's Cadia operation 110km to the south (see 'Northern Molong Porphyry Project background' on page 9, below).
- **Metallurgy.** The considered processing scenarios all utilise the same simple and conventional flowsheet comprising crushing, grinding, stage flotation with regrind, concentrate dewatering and cleaner tail leaching to doré. In addition, overall metallurgical recoveries are calculated using a simple feed grade to recovery relationship developed from the metallurgical test-work programme. This relationship shows that recovery is dependent on the mineralogy of the deposit, represented by a simple formula based on the copper to sulphur ratio. The usual relationship of increased feed grade resulting in increased recovery is also observed when processing both Boda and Kaiser ore. The combination of a simple process flowsheet plus an orebody with simple metallurgical characteristics therefore also mitigates against metallurgical risk.
- **Engineering.** Alkane's underground mining option considered an LHOS mining method, consistent with Alkane's experience at Tomingley at a cost of US$53.33/t ore mined. Given that a high throughput is beneficial to the project economics, future studies will evaluate the potential for sub-level caving or a similar bulk tonnage underground method that has the potential to reduce underground mining costs by an order of magnitude (see our note Coming

to fruition, published on 7 July 2022). Given that the 20Mtpa scenario mines only 2.1Moz Au and 0.4Mt Cu out of a total 8.3Moz Au and 1.5Mt Cu (ie only c 26% of the in-situ resource) and that significant resources remain below the considered open cut depths, this, in itself, could unlock significant additional underground resources to potential future development.

Logistics, power and water

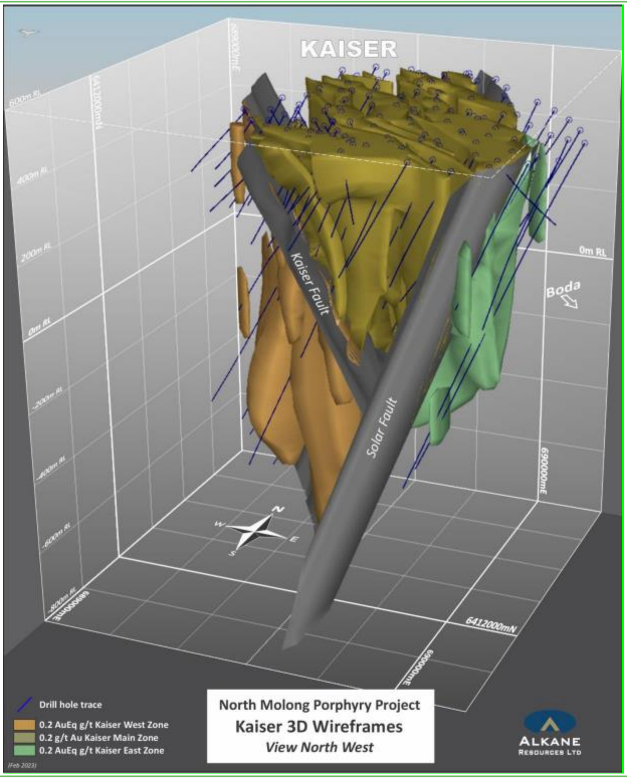
From an infrastructure perspective, the Boda-Kaiser Project is well served, being located close to the Mitchell Highway, which connects the major regional NSW cities of Dubbo and Orange. The project area is connected to the nearby town of Wellington by c 20km of mostly sealed road. Alkane anticipates some sections of the road will need to be upgraded or sealed to provide all-weather site access that minimises the impact on the local community. However, the road (and potentially rail) networks will be available for use for reagent delivery and concentrate transport.

In the meantime, installed plant and mine power requirements are estimated to be c 80MW for the 20Mtpa processing rate, which Alkane intends to meet from the NSW grid, with a new 132kV transmission line to be run to site. Finally, water requirements for the site are estimated to be c 7Gl per year for the 20Mtpa processing rate, which could be supplied via water access licences in the Macquarie-Cudgegong System, the Lachlan Fold Belt fractured rock aquifer and/or saline water sources to the east of the project area. To maximise water use efficiency, the residue storage facility preliminary designs will also seek to maximise water recycling. To this end, an allowance has been made for bores and water pipelines in the capital estimate, based on Alkane's experience of the installation of water supply pipelines in NSW.

Ongoing exploration and Boda-Kaiser exploration upside

Between FY20 and FY23, Alkane invested at least A$20m pa in exploration – a figure that will now fall materially as it returns to greenfields exploration and cheaper RC drilling. Nevertheless, during the mineral resource exploration programme at Kaiser, in particular, two significant reverse faults were located, which dislocated the main zone of mineralisation. As such, there is potential for further extensions to higher-grade mineralisation on the down thrust at the Kaiser west zone of mineralisation, south-west of the Kaiser fault, and east of the Solar fault, where mineralisation is statistically said to be 'nuggety'. Exploration upside in these areas is supported by the results of earlier holes, including hole KAI090 (which intersected a bornite-chalcopyrite crackle breccia, including 122.4m at grades of 0.40% Cu and 0.42g/t Au from 576.6m and 28m at 0.84% Cu and 0.92g/t Au from 646m) and extra drilling will aid in improving the confidence of these domains to convert remaining resources from the inferred to the indicated category.

Exhibit 6: Three-dimensional model of Kaiser mineralisation showing faulting



Source: Alkane Resources

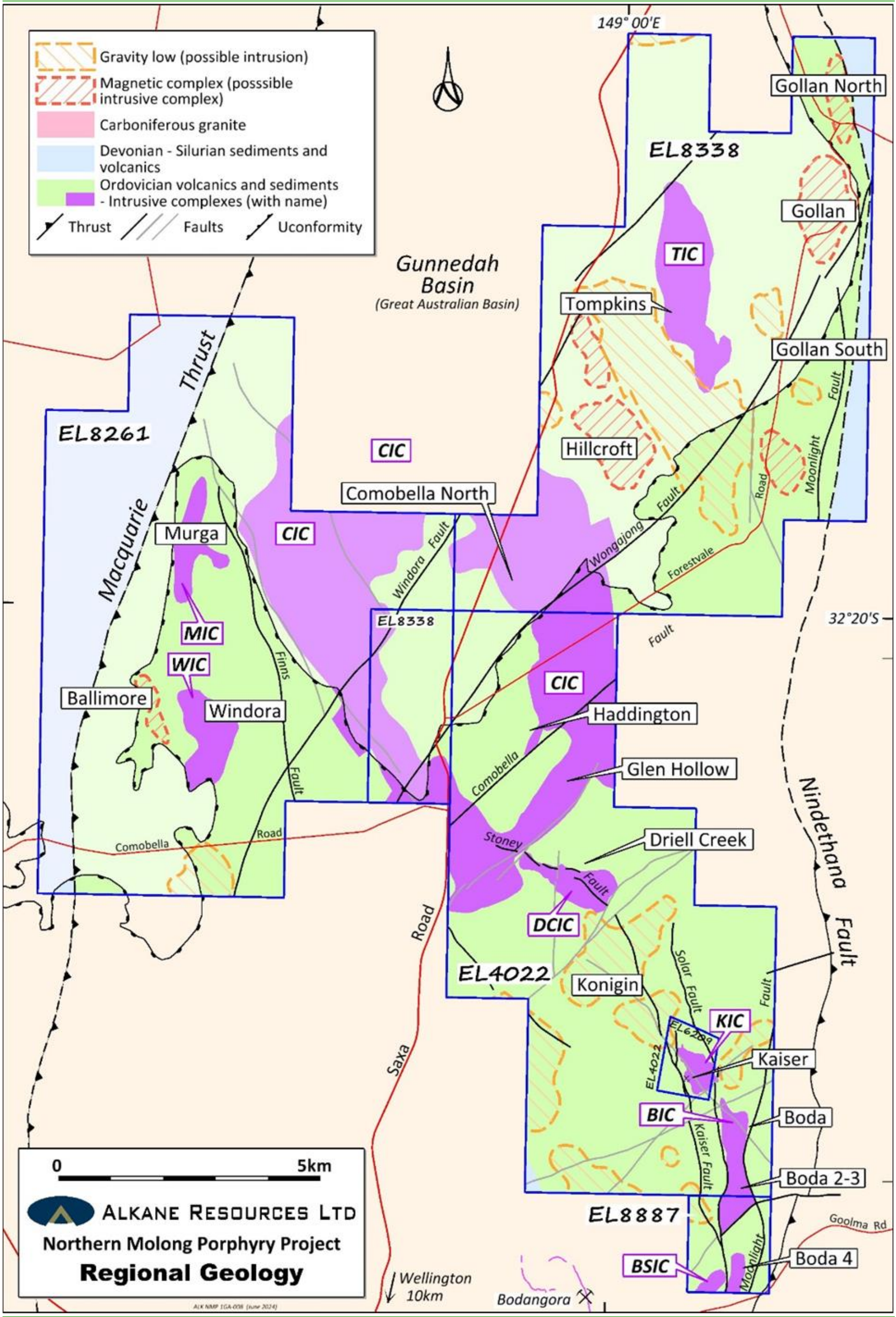
Northern Molong Porphyry Project background

The NMPP is 100% owned by Alkane, covers c 115km^2 of the northern Molong Volcanic Belt and is around 80km to the north-east of its Tomingley Gold Mine, in Central West New South Wales.

The Kaiser geology and mineralisation style is almost identical to Boda and possibly represents a deeper part of the system thrust over the shallower-level Boda deposit. In addition, Alkane's drill results at Boda-Kaiser have shown a similar stratigraphic sequence and style of alteration and mineralisation to Newmont's Cadia Province mines 110km to the south. The Cadia complex hosts a mineral resource of 35.2Moz Au at a grade of 0.34g/t Au (including stockpiles and open pit resources – source: Newmont) plus copper, silver and molybdenum, and produced 597koz of gold in Newcrest's FY23 at an AISC of US$45/oz Au (net of by-product credits) to generate US$1,897m in total revenue and US$1,306m in EBITDA.

The NMPP now comprises five exploration licences: Bodangora, Boda South, Kaiser, Finns Crossing and Comobella (from Sandfire), covering 180km^2, within which Alkane has defined five magnetic anomalies interpreted to be intrusive complexes, denoted Kaiser, Boda, Comobella, Driell Creek and Finns Crossing, all within a 15km north-west to south-east trending corridor (Exhibit 7) and all close to road, rail, gas and water infrastructure. Significantly, the Boda anomaly correlates with a historical induced polarisation (IP) survey completed by CRA Exploration (now Rio Tinto) over the Boda Intrusive Complex (BIC). This survey showed a strong, high-chargeable anomaly along the northern edge of the survey area coincident with a magnetic anomaly. As a result, Alkane completed a 70-line kilometre IP survey over the 6km strike extensions of the BIC to generate drilling targets. In late 2023, an airborne gravity survey was also flown over the entire NMPP. Subsequent 3D inversion modelling and interpretation of the data confirmed a 35km^2 intrusive complex, termed the Comobella Intrusive Complex (CIC). Peripheral to the CIC, there are also several smaller intrusive complexes, each of which also have the potential to be significantly mineralised. Six of these targets – namely Kaiser, Boda, Comobella, Glen Hollow, Murga and Konigin – have now also been drill tested.

Exhibit 7: Northern Molong Porphyry Project regional geology

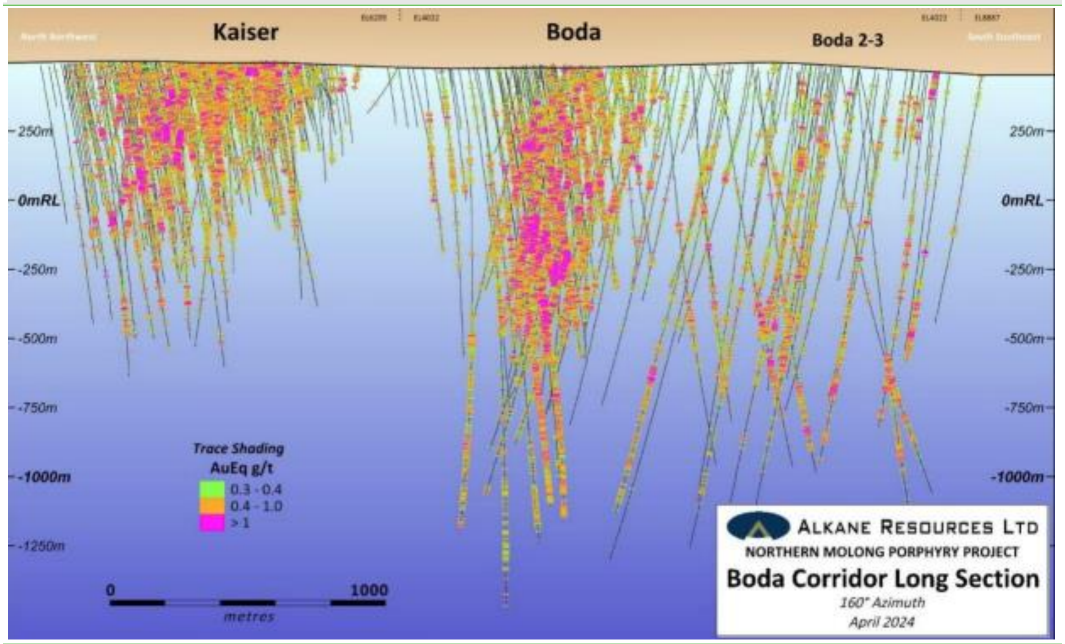


Source: Alkane Resources

To date, exploration has identified the margins of major monzonite intrusive complexes that provide the primary control for porphyry and epithermal mineralisation, with significant intersections reported along the western margin of both the Kaiser Intrusive Complex and the BIC. Within these, gold mineralisation has been discovered at all six targets (see below), with recent drilling identifying multiple phases of monzonite to monzogabbro intrusion that are plumbing a north-west structural corridor hosting extensive (calc-)potassic alteration and significant gold-copper mineralisation.

Exploration around the Boda-Kaiser area within the NMPP has defined a 3.5km corridor of extensive calc-potassic alteration associated with gold-copper porphyry mineralisation. The corridor trends north from Boda Three to Boda for approximately 1km, where it rotates to the north-west from Boda to Kaiser for a further 2.5km.

Exhibit 8: Boda-Kaiser prospect drilling cross-section



Source: Alkane Resources

Within this, the Kaiser porphyry system manifests itself in a series of near-vertical, north-west striking, intrusive related breccias hosted within a thick sequence of andesite lavas. Magmatic-hydrothermal breccias appear to be the focus for the calc-potassic alteration and gold-copper mineralisation at Kaiser, where the highest gold and copper grades are related to the transition from intrusive breccias to hydrothermal breccias. The majority of brecciation is found as 'crackle breccia', which can either have a hydrothermal matrix typically composed of calcite + actinolite + pyrite + magnetite + chalcopyrite + bornite or an igneous matrix. Copper mineralisation is also observed throughout the prospect outside the magmatic hydrothermal breccias within calcite + quartz + epidote dominant veins and as disseminations and patches, often intergrown with epidote. Locally, copper has been identified along the Kaiser fault zone in thicknesses up to 10m wide. As shown in Exhibit 6, two significant reverse faults bound and dislocate the main zone of mineralisation at Kaiser, where the west-dipping Solar fault thrusts the Kaiser main zone over the Kaiser east zone. Located immediately north-west of Boda, the east Kaiser zone comprises potassic to inner propylitic alteration with up to 10% pyrite by volume, which can be found to hold gold grades over tens of metres and can average 0.2–0.3g/t in grade with occasional thin intervals of >10g/t Au.

Boda Two, Three and Four

The Boda deposit remains open at depth and along strike to the south and drilling continues to define the overall system, with extensions being tested to the south and at depth at Boda Two and Three, and north-west towards Kaiser. Exploration at Boda Two and Three continues to demonstrate many similarities to Boda, including an extensive zone of low-grade gold-copper porphyry mineralisation with breccias that zone to higher grades. However, it is dislocated by a series of imbricated thrust faults, resulting in deep distal propylitic altered volcanics with minor gold-copper mineralisation in the west being thrust over a central block of broadly calc-potassic altered volcanics with extensive gold-copper mineralisation. These blocks are further thrust over the preserved upper level of the Boda Two and Three porphyry system in the east. Exploration potential remains to target high-grade mineralisation within these blocks (that can be dislocated by up to 500m) and recent drill hole results confirm that mineralisation continues for many metres to the south of Boda and possibly much further. They also demonstrate an extensive zone of low-grade gold-copper porphyry mineralisation with breccias that zone to higher grades. These breccias are in the process of being targeted. For example, at Boda 2–3, the high-grade hydrothermal breccia intersected by drill hole BOD094 was recently tested along strike by two diamond core holes. A chalcopyrite cemented breccia was intersected 40m north and along strike of BOD094 by BOD159 and a more distal hydrothermal breccia was intersected 120m north along strike by BOD158. Results included:

- BOD159 106m grading 0.43g/t AuEq (0.25g/t Au, 0.13% Cu) from 1028m,
    - including 5m grading 1.59g/t AuEq (1.09g/t Au, 0.37% Cu) from 1066m,
  - and 65.5m grading 1.78g/t AuEq (1.22g/t Au, 0.41% Cu) from 1154.5m,
    - including 15.6m grading 6.16g/t AuEq (4.37g/t Au, 1.31% Cu) from 1199.4m,
    - including 4.5m grading 11.0g/t AuEq (7.92g/t Au, 2.28% Cu) from 1200.2m,
    - and also 2.6m grading 15.1g/t AuEq (10.9g/t Au, 3.06% Cu) from 1211m.
- BOD158 452.6m grading 0.40g/t AuEq (0.21g/t Au, 0.14% Cu) from 852m,
    - including 30m grading 0.89g/t AuEq (0.41g/t Au, 0.35% Cu) from 1066m,
  - and 8.3m grading 0.81g/t AuEq (0.43g/t Au, 0.28% Cu) from 1413.6m.

At the same time, Alkane is continuing exploration at the Boda Four prospect. Composed of two linear magnetic highs approximately 800m long and up to 200m wide, this prospect is located 1km south and along strike to the BIC and is named the Boda South Intrusive Complex (BSIC). A total of 912m across three RC drill holes have been completed at the northern and central section of the BSIC at the Boda Four prospect, which intersected low-grade copper-gold mineralisation. More recently, assay results were received for one rock chip sample taken from an outcropping hydrothermal epidote-calcite breccia with chalcocite and secondary copper (malachite) mineralisation showing propylitic alteration assemblages very close to the collar of hole BOD134. The sample returned elevated and anomalous grades of:

- RK0000093 grading 1.20% Cu, 12.2g/t Ag and 0.07g/t Au.

Given narrower intersections encountered to date, our estimate of the total mineral inventory at Boda 2-4 is currently 2,779koz, of which we estimate 1,935koz is already included in the existing Boda resource (see Exhibit 9, below). However, if intersections in this area ultimately increase to those implied by the deposit's apparent 1,100m x 500m coincident gold-copper soil and magnetic high footprint with separate conductive IP anomalies, we calculate that a resource of 9,959koz is possible (ie on a par with the existing Kaiser and Boda resource). In this case, we would value the additional mineralisation at Boda 2-4 at an incremental A$0.476/share to Alkane. As before, readers are cautioned that such estimates are very far from being JORC code-compliant and experience would suggest they have an accuracy of approximately ±80%.

Exhibit 9: Size of Boda Two, Three and Four mineralisation estimates, cf Boda and Kaiser actuals

Source of underlying data	Edison current estimate	Alkane	Actuals		
Characteristic (units)		Alkane estimated dimensions	Kaiser	Boda	Kaiser plus Boda
Strike (m)	1,144	1,100			
Average estimated true width (m)	134	500			
estimated surface area (m^2)	0.15	0.55			
Average estimated true depth (m)	674	674			
Estimated volume (m^3)	103.4	370.6			
Estimated density (t/m^3)	3	3			
Estimated tonnage (Mt)	**310.2**	**1,111.7**	**213**	**583**	**796**
Estimated average gold grade (g/t)	0.28	0.28	0.28	0.34	0.33
Estimated average copper grade (%)	0.15	0.15	0.2	0.18	0.18
Estimated average AuE grade (g/t)	0.48	0.48	0.55	0.58	0.58
Estimated contained gold (koz)	**2,779**	**9,959**	**1,900**	**6,380**	**8,280**
Estimated contained copper (kt)	**464**	**1,665**	**420**	**1,030**	**1,460**
Estimated contained AuE (koz)	**4,745**	**17,004**	**3,740**	**10,872**	**14,700**

Source: Edison Investment Research, Alkane Resources. Note: Gold equivalent resources and grades calculated at US$2,000/oz Au and US$8,464/t Cu.

Further surface and near surface exploration is planned at Boda 4, including detailed soil sampling and air-core drilling with bottom of hole litho-geochemistry focusing on the west and north-west flanks of the BSIC. In addition, high-definition ground gravity is planned, also extending over the Boda 2–3 and Boda deposits.

Additional regional exploration

Recent regional exploration has targeted the Driell Creek, Konigin and Murga prospects, all positioned within the same (inferred) 15km north-west trending intrusive corridor. Results from nine RC and one diamond core drill holes at Driell Creek, located north-west of Boda-Kaiser, identified porphyry style alteration and mineralisation, including:

- DRC004 130m grading 0.25g/t Au, 0.11% Cu from 174m to end of hole.
- DRC010 47.7m grading 0.12g/t Au, 0.15% Cu from 279.3m,
    - including 7m grading 0.34g/t Au, 0.26% Cu from 320m.
- DRC002 9m grading 0.61g/t Au from 255m (gold only zone).
- DRC007 30m grading 0.13g/t Au, 0.10% Cu from 78m,
    - and 6m grading 0.26g/t Au, 0.15% Cu from 96m.

Drilling also occurred at the Konigin and Murga prospects. Results indicated that the geology there is favourable for porphyry type environments. However, individual drill results showed weak mineralisation and further drilling at these targets is now considered a lower priority than at Driell Creek. Edison's summary of the drilling completed to date by Alkane at each of its NMPP prospects illustrates the point:

Exhibit 10: NMPP amalgamated drill hole result summary						
	Number of holes	From (m)	To (m)	Average aggregate intercept (m)	Average gold grade (g/t)	Average Cu grade (%)
Boda	116	0.0	2,064.4	465.6	0.28	0.13
Kaiser	201	0.0	1,177.0	171.1	0.26	0.18
Glen Hollow	2	42.0	267.0	45.0	0.15	0.18
Murga	6	129.0	195.0	3.3	0.14	0.07
Boda 2-3	52	0.0	1,806.8	261.3	0.28	0.15
Korridor	12	3.0	1,111.0	60.2	0.28	0.10
Comobella	1	336.0	342.0	6.0	0.00	0.22
Konigin	2	153.0	652.0	10.9	0.16	0.05
Boda 4	2	15.0	234.0	6.0	0.04	0.15
Driell Creek	10	54.0	335.0	21.1	0.23	0.09

Source: Edison Investment Research (underlying data: Alkane Resources). Note: Multiple intersections amalgamated and grades averaged according to the width of the individual intersections.

With the exception of Boda 2–4, given the apparent thinning of the mineralisation (sometimes also at lower grades), we believe that the potential resources contained within Alkane's other regional prospects – as implied by its drilling results – is, at the moment, fairly negligible. However, given the paucity of drill data, this could change substantially on the basis of even a single new drill hole and we will keep Alkane's drilling results under review in this respect.

In the meantime, planned regional exploration in the NMPP for the next 12 months will focus on further drill testing of Driell Creek. Other exploration will comprise target generation work composed of mapping, soil sampling, IP, ground gravity and air-core drilling using bottom-of-hole litho-geochemistry, focusing on the Haddington, Windora, Ballimore, Comobella North and Boda 4 prospects and forming part of Alkane's c A$6m exploration budget for FY25.

Q424 operational results and FY24 guidance

On 4 July, Alkane announced that Tomingley had produced 17,319oz Au in the June quarter of FY24 to make a total of 57,217oz Au for the year (cf updated guidance of 55–58koz Au) at a preliminary AISC estimate within the expected guidance range of A$2,150–2,350/oz). At the same time, it declared an unaudited cash, bullion and listed investments position at 30 June 2024 A$54.5m. As a result, we have updated our Q424 and FY24 operational expectations to those shown below:

Exhibit 11: Tomingley quarterly operating results, Q223–Q424e										
	Q223	Q323	Q423	Q124	Q224	Q324	Q424e (prior)	Q424e (current)	FY24e (current)	FY24e (prior)
Ore milled (t)	239,078	277,225	282,410	276,645	287,550	296,644	300,000	300,000	1,160,839	1,160,839
Head grade (g/t)	2.56	2.26	2.14	2.09	1.84	1.69	2.44	2.10	1.93	2.02
Contained gold (g/t)	19,678	20,144	19,431	18,589	17,011	16,118	23,511	20,256	71,975	75,229
Recovery (%)	84.6	84.6	80.5	82.1	77.9	67.6	85.5	85.5	79.5	79.8
Gold poured (oz)	18,301	16,641	15,822	15,855	13,182	10,861	20,102	*17,319	*57,217	60,000
Gold sold (oz)	17,855	19,163	15,136	16,090	14,507	10,385	20,102	17,319	58,301	61,084
Gold price (US$/oz)	1,698	1,891	1,976	1,926	1,977	2,071	2,386	2,338	2,078	2,090
Forex (A$/US$)	1.5223	1.4636	1.4968	1.5287	1.5362	1.5204	1.5175	1.5174	1.5257	1.5257
Average realised price (A$/oz)	2,618	2,787	2,884	2,897	2,926	2,933	**3,620	**3,548	**3,076	**3,094
C1 site cash costs (A$/oz)	1,103	990	1,356	1,322	1,464	1,953	1,349	1,566	1,542	1,472
AISC (A$/oz)	1,323	1,805	2,174	2,156	2,200	2,454	1,801	2,073	2,195	2,100

Source: Alkane Resources, Edison Investment Research. Note: *Actual; **Excludes forward sales.

While production was less than our prior forecast as a consequence of a slower-than-expected ramp-up at Roswell, Alkane's revised cost guidance suggests that C1 unit costs were unchanged relative to our prior expectations in dollar per tonne terms at A$90.40/t. In addition, Alkane's earlier estimate of the amount of gold mined in Q424 suggests that the grade of material mined could have been as high as 2.54g/t – significantly above both the grade of material processed and our prior estimate (auguring well for the future).

As a consequence of this outcome for the year, we have adjusted our financial forecasts for FY24 to those shown below in Exhibit 12.

Exhibit 12: Alkane income statement,* H222–H224e (A$m, unless otherwise indicated)

	H222	H123	H223	H124	H224e (prior)	H224 (current)	FY24e (current)	FY24e (prior)
Revenue	88.099	93.465	97.062	89.060	97.125	86.768	175.828	186.185
Cash cost of sales	(32.104)	(34.789)	(48.707)	(53.814)	(51.920)	(51.619)	(105.433)	(105.734)
Gross profit before depreciation	55.995	58.676	48.355	35.246	45.205	35.148	70.394	80.451
Other net income	0.628	0.216	0.214	0.324			0.324	0.324
Administration expenses	(4.481)	(6.589)	(5.518)	(4.970)	(4.970)	(4.970)	(9.940)	(9.940)
Exploration and evaluation expenditure expensed		0.000	0.000				0.000	0.000
Exceptional item	0.000	0.000	0.000				0.000	0.000
Gain/(loss) on disposal	(13.909)	0.000	0.000				0.000	0.000
Share of profit/(loss) of associates		0.000	0.000				0.000	0.000
Depreciation	(20.942)	(17.715)	(18.393)	(14.597)	(15.403)	(15.403)	(30.000)	(30.000)
EBIT/(LBIT)	17.291	34.588	24.658	16.003	24.832	14.775	30.778	40.835
Interest income/(cost)	(0.344)	0.236	1.105	0.868	(1.700)	(1.700)	(0.832)	(0.832)
Loss after tax from discontinued operations	0.000		0.000				0.000	0.000
PBT/(LBT)	16.947	34.824	25.763	16.871	23.132	13.075	29.946	40.003
Income tax	4.927	10.131	8.006	4.446	6.940	3.923	8.369	11.386
Effective tax rate (%)	29.1	29.1	31.1	26.4	30.0	30.0	27.9	28.5
Profit/(loss) for the year	12.020	24.693	17.757	12.425	16.193	9.153	21.578	28.618
Adj. profit/(loss) for the year attributable to shareholders	12.020	24.693	17.757	12.425	16.193	9.153	21.578	28.618
Basic adjusted EPS (A$/share)	0.0202	0.0412	0.0297	0.0206	0.0268	0.0152	0.0358	0.0474

Source: Alkane Resources, Edison Investment Research. Note: *Excluding exceptional items.

At the same time, Alkane observed that the value of its shareholding in Calidus Resources had declined to zero since receivers and administrators were appointed to the latter on 29 June. This change in value for Calidus shares will be reflected in Alkane's full year FY24 non-cash financials, although it has been excluded from our forecasts (above and in Exhibit 18) on account of its 'exceptional' nature.

Tomingley five-year plan

On 24 June, Alkane announced its five-year plan for Tomingley, reflecting ostensibly the first update to the life of mine (LOM) plan originally announced in June 2021. The major features of the updated five-year plan are as follows:

- Expansion of the existing processing plant to a nominal 1.5Mtpa rate to occur throughout 2025.
- Planned production of 455–505koz Au over the next five financial years (simple average 96koz pa), sourced from underground and open cut mining.
- AISC over the five-year period to average A$1,900–2,100/oz, with costs to reduce over time as the development capital requirement decreases.

Notwithstanding the 'five-year' title of the announcement, readers should note that resources at Tomingley extend beyond this five-year plan and remain open at depth and along strike at the Caloma, Caloma Two, Roswell and San Antonio deposits and that underground resources at Caloma and Roswell and a cutback at San Antonio will almost certainly extend mining to at least 2032 (the current limit of statutory mining approvals, subject to future extensions).

Production and AISC

In general, Alkane's outlook reflects lower, earlier production than Edison's prior forecasts, but higher, later production, albeit at higher overall costs. Exhibit 13, below, shows the variance in Alkane's updated guidance relative to Edison's prior assumptions:

Exhibit 13: Tomingley five-year mine plan cf prior Edison forecasts

	FY25e	FY26e	FY27–29e
Alkane plan			
Production range (koz)	70–80	85–95	100–110
Expected AISC (A$/oz)	2,400–2,600	1,800–2,000	1,900–2,100
Prior Edison forecast			
Production range (koz)	80	105.7	60–107.5
Expected AISC (A$/oz)	1,756	1,629	1,575
Difference (%)			
Production range	u/c	-14.8	+25.4
Expected AISC	+42.4	+16.6	+27.0

Source: Edison Investment Research (underlying data: Alkane Resources). Note: Where a range is shown, the mid-point of the range is used for the 'change' calculation with the exception of production in FY25.

Note that the relatively high cost in the first financial year of the five-year plan reflects the fact that the original plan anticipated mining just 40% of ore from underground sources in the early years of its execution, whereas the updated plan assumes 100% of ore from underground sources until at least FY27. Consequently, the sustaining capital required for decline development in the early years is now included in the estimate of AISC.

Capex

Since the approval of the exploration drive to Roswell in mid-2020 Alkane has:

- purchased the land across the mining leases,
- conducted extensive resource drilling,
- constructed a c 2.5km exploration drive, including two vent rises,
- constructed a new residue storage facility,
- obtained project approvals for the expansion including the relocation of the Newell Highway,
- established underground mining and facilities at Roswell,
- replaced much of its underground mining fleet with new equipment,
- purchased the culverts required to move the Newell Highway,
- commenced construction of a paste plant above Roswell,
- commenced construction of a flotation and regrind upgrade to the existing process plant, and
- upgraded the site's incoming high-voltage power system.

These upgrades were needed to 1) continue the existing operation, 2) commence mining at Roswell and 3) prepare to increase total mine production in the future. Completion of the programme will also allow seamless transition to steady-state production at Roswell underground.

Upcoming capital programme

In order to commence open cut mining at San Antonio, the Newell Highway will be relocated c 1km to the west of its existing corridor. This is a substantial body of work that has been through several design iterations over a number of years to receive full approval from Transport for NSW. The ore from the open cut operations will be added to the underground mine production at Roswell to provide sufficient ore to expand the processing plant capacity with a throughput upgrade to c 1.5Mtpa (from the existing c 1.1Mtpa). Expansion will be facilitated by the installation of an additional mill, thickener and electrowinning circuit. The analysis of the tenders for the relocation of the Newell Highway are nearing completion with the intention of making a recommendation to award a contract by the end of this month (July). At the same time, the next stage of engineering for the plant upgrade is commencing, with the majority of work on these two projects anticipated to last until the end of CY25, after which open cut mining at San Antonio will start in H1 CY26.

Capex changes

Prior to the submission of the Environmental Impact Statement for approval, Alkane prepared an LOM plan incorporating the Roswell and San Antonio resources, which considered the development of an underground mine at Roswell and simultaneous open cut mining at Roswell and San Antonio. At a high level, these plans remain unchanged. However, several minor changes to this plan have been made over the last three years in response to numerous factors that include the gold price, cost changes since the pandemic, approval requirements and grade control.

The most notable scope changes are the inclusion of a wet paste plant in the capital plan rather than the hire of a dry one and the installation of a flotation and fine grind circuit in the processing plant to improve gold recoveries. Simultaneously, the intervening period has seen significant cost inflation in both mining and broader industry, which has particularly affected the road construction estimate. These changes – including cost escalation – are summarised in the table below, which shows the capital programme to completion (by end of FY26).

Exhibit 14: Tomingley gold extension plan incremental capital estimates and analysis

	2021 estimate (A$m)	Completion (%)	Remaining estimate (A$m)	Implied total cost (A$m)	Variance* (A$m)	Variance* (factor)	Implied spent to date (A$m)
Environmental, application fees etc	7	50	3	6	-1	0.86	3
Infrastructure, relocations, power & water	17	25	12	16	-1	0.94	4
Newell Highway diversion	26	0	50	50	24	1.92	0
Kyalite road works	9	0	7	7	-2	0.78	0
Geotechnical, mobilisation & establishment	3	25	2	3	0	0.89	1
Process plant upgrades (throughput expansion)	15	0	30	30	15	2.00	0
Residue storage facility (RSF2)	10	100	0	10	0	1.00	10
Process plant upgrades (recovery improvements)	0	50	20	40	40	N/A	20
Paste plant	0	50	8	16	16	N/A	8
Total	**87**	****26**	**132**	**178**	**91**	**2.04**	**46**

Source: Edison Investment Research, Alkane Resources. Note: *Variance cf 2021 estimate. **Edison estimate.

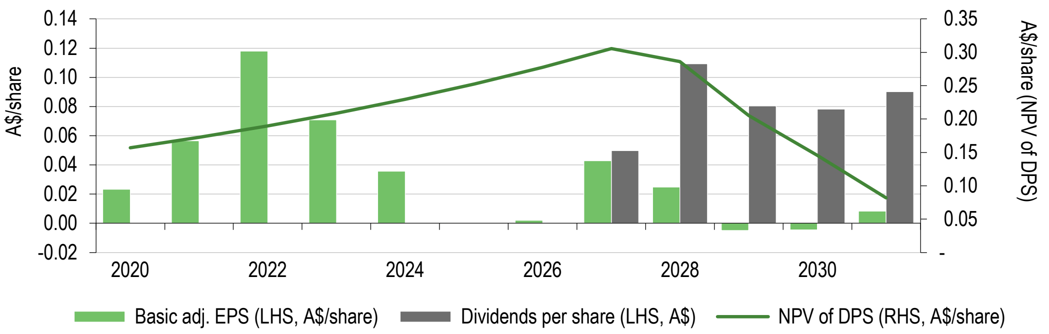
Of the A$91m in additional capital expenditure therefore (Edison estimate), it is notable that the majority is accounted for by items that were not included in the original scope of work – namely the process plant upgrades relating to metallurgical recoveries and the paste plant – while the majority of the balance is accounted for by the cost of the Newell Highway diversion. All of the other items of capital expenditure actually appear to have come in at or below 2021's budget.

Alkane/TGEP valuation

As in previous reports, our valuation of Alkane is based on the present value of our forecast life of operations dividend stream to investors in Alkane as a result of the execution of the Tomingley mine plan (including Roswell and San Antonio) discounted back to present value at a (real) rate of 10% per year, excluding exploration expenditure. In the wake of H124 financial results, H224 operational results and after adjusting for the updated Tomingley five-year plan, our valuation of the dividend stream potentially available to Alkane shareholders from its immediate mining operations is now A$0.253/share (cf A$0.555/share previously). This increases to A$0.305/share once the value of residual resources, which we now estimate at 870koz (cf 734koz previously) with a current value of US$20.9m (A$30.7m), or A$0.052/share, is included.

A graph of our updated expectations for Alkane's EPS and (maximum potential) DPS stream and valuation from the present to the end of FY31 is shown in Exhibit 15, below.

Exhibit 15: Alkane life of operations forecast EPS and (maximum potential) DPS (A$/share)

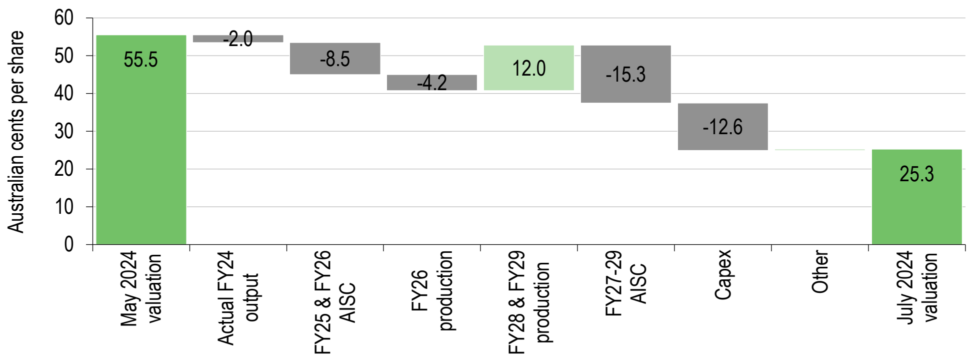


Source: Edison Investment Research

Note that, in this case, the DPS columns in Exhibit 15 represent theoretical, maximum potential dividends that we believe could be paid by the company, rather than actual dividends forecast, and are used solely for valuation purposes. In reality, and given the likely capital requirements of the NMPP, we would expect the majority of any cash flows that could be used for dividends to instead be reinvested into the business, in the form of either exploration or capital expenditure.

In the meantime, an analysis of the change in our Alkane/Tomingley gold extension plan (TGEP) valuation, according to component is provided in the chart below:

Exhibit 16: Underlying Alkane/TGEP valuation change by component (A$/share)



Source: Edison Investment Research

Notwithstanding the decline in our headline valuation of Alkane/TGEP, it is worth noting that this is conducted at an ostensibly conservative long-term (real) gold price of US$1,794/oz. At the current gold price of US$2,358/oz, it increases by more than 100%, to 56.2 Australian cents per share.

Alkane group valuation

A summary of our updated valuation of Alkane in the light of the announcement of H124 financial results, H224 operational results, the updated Tomingley five-year plan and the Boda-Kaiser PEA is as follows:

Exhibit 17: Alkane Resources valuation summary (Australian cents per share)

	Previous			Current/updated		
Asset	**Existing assets' valuation**	**Contingent assets' valuation**	**Potential total**	**Existing assets' valuation**	**Contingent assets' valuation**	**Potential total**
Tomingley plus cash	60		60	30		30
Roswell underground extension		12	12	*	*	*
El Paso and ongoing Tomingley extension exploration		3	3		3	3
Listed investments	1		1	0		0
Kaiser & Boda	40-50	45	50	40–50	43	50
Boda Two, Three & Four exploration		38	38		48	48
Sub-total	**101–111**	**98**	**164**	**70–80**	**94**	**131**
Spot metals' prices cf long-term forecasts		131	131		50	50
Total	**101–111**	**229**	**295**	**70–80**	**144**	**181**

Source: Edison Investment Research. Note: *Now included in 'Tomingley plus cash'. Totals may not add up owing to rounding.

A number of features of the valuation are noteworthy:

- For these purposes, we have included the in-situ valuation range of the combined resource at Boda and Kaiser as an 'existing asset'. We have included the discounted dividend flow valuation as a 'contingent asset' – although we note the convergence of the two, which confers confidence in the valuation and acts to cement it. In due course, however, while we would expect the Boda and Kaiser in-situ valuation to remain relatively constant – all other things being equal – the discounted dividend flow valuation of the two will inevitably rise with the passage of time and the attainment of the various milestones inherent in bringing such a deposit to account.
- Alkane's current share price of A$0.54 could be interpreted as being at least 129.6% covered by the value of 'existing assets', with no value whatsoever being afforded to it by investors for its 'contingent assets'. Alternatively, Alkane's share price could be thought of as being at an at least 22.9% discount to the value of its 'existing assets' with no value being afforded to it for its 'contingent assets'.

Financials

Alkane had A$46.4m in net cash on its balance sheet at end H124, comprising A$57.3m in cash and A$10.9m in external borrowings. According to its 4 July production update, it had A$45.5m in cash plus A$8.7m of gold bullion on hand and A$0.3m in listed investments as at end Q424. In addition, it reported that it had drawn A$42.8m of its A$60m project loan facility provided to it by Macquarie Bank for the TGEP.

In H124, Alkane generated A$31.1m in cash from operating activities, before investing A$63.0m into tangible and intangible mining assets, as it continued to fund exploration at its Kaiser and Boda deposits to increase the size and accuracy of their resource estimates and develop the TGEP. In addition, the company generated a net A$11.8m from the sale of investments (in particular its remaining shares in Genesis Minerals).

The first phase of major capex spending on the TGEP will conclude in Q3 CY24 (ie Q125). The second phase to divert the Newell Highway and increase the plant's throughput will now commence and is expected to conclude late in CY25. Simultaneously, exploration expenditure, which has been running at c A$20m pa, should reduce as work reverts from detailed resource delineation to greenfields in nature and drilling reverts to the cheaper RC type (cf diamond). At the same time, however, free cash flow from operations will contribute meaningfully to capex to the tune of c A$47–72m pa as higher-grade production from Roswell is ramped up. During this period, Alkane's revenue will also be protected via 94,100oz Au sold forward at an average price of A$2,833/oz to June 2027 and put options to sell 140,799oz Au at a price of A$3,000/oz also out to June 2027. Together, these will allow for more accurate planning of marginal ounces and continue to leave the upside open to any future gold price rises (note that the intrinsic value of these derivatives has been incorporated into the revenue estimates of our financial models with reference to our gold price forecasts, but that the time value and the balance sheet value of the hedge book have not).

Exhibit 18: Financial summary

A$000s	2018	2019	2020	2021	2022	2023	2024e	2025e
Year end 30 June	IFRS	IFRS	IFRS	IFRS	IFRS	IFRS	IFRS	IFRS
INCOME STATEMENT								
Revenue	129,973.6	93,994.9	72,549.0	127,833.0	165,010.0	190,527.0	175,827.9	251,738.7
Cost of Sales	(51,080.9)	(53,656.4)	(32,868.0)	(45,313.0)	(67,527.0)	(83,496.0)	(105,433.5)	(198,411.5)
Gross Profit	78,892.7	40,338.5	39,681.0	82,520.0	97,483.0	107,031.0	70,394.4	53,327.2
EBITDA	70,378.7	32,971.7	29,412.0	70,527.0	87,498.0	94,924.0	60,454.4	43,387.2
Normalised operating profit	31,658.3	25,808.8	20,171.0	49,940.0	53,821.0	59,246.0	30,778.4	1,567.2
Amortisation of acquired intangibles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Share-based payments	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reported operating profit	31,658.3	25,808.8	20,171.0	49,940.0	53,821.0	59,246.0	30,778.4	1,567.2
Net Interest	(579.0)	(418.8)	389.0	(2,741.0)	(1,662.0)	1,341.0	(832.0)	(1,209.8)
Joint ventures & associates (post tax)	0.0	0.0	0.0	(870.0)	(20.0)	0.0	0.0	0.0
Exceptionals	0.0	0.0	(646.0)	1,741.0	48,334.0	0.0	0.0	0.0
Profit before tax (norm)	31,079.3	25,390.0	20,560.0	46,329.0	52,139.0	60,587.0	29,946.4	357.5
Profit before tax (reported)	31,079.3	25,390.0	19,914.0	48,070.0	100,473.0	60,587.0	29,946.4	357.5
Reported tax	(6,919.9)	(2,266.1)	(6,569.0)	(14,503.0)	(30,222.0)	(18,137.0)	(8,368.6)	(107.2)
Profit after tax (norm)	24,159.4	23,123.9	13,991.0	31,826.0	21,917.0	42,450.0	21,577.8	250.2
Profit after tax (reported)	24,159.4	23,123.9	13,345.0	33,567.0	70,251.0	42,450.0	21,577.8	250.2
Minority interests	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Discontinued operations	0.0	0.0	(583.0)	0.0	0.0	0.0	0.0	0.0
Net income (normalised)	24,159.4	23,123.9	13,991.0	31,826.0	21,917.0	42,450.0	21,577.8	250.2
Net income (reported)	24,159.4	23,123.9	12,762.0	33,567.0	70,251.0	42,450.0	21,577.8	250.2
Basic average number of shares outstanding (m)	506	506	547	595	596	598	603	603
EPS - basic normalised (A$)	0.05	0.05	0.03	0.05	0.04	0.07	0.04	0.00
EPS - diluted normalised (A$)	0.05	0.04	0.02	0.05	0.04	0.07	0.04	0.00
EPS - basic reported (A$)	0.05	0.05	0.02	0.06	0.12	0.07	0.04	0.00
Dividend (A$)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Revenue growth (%)	10.3	(-27.7)	(-22.8)	76.2	29.1	15.5	(-7.7)	43.2
Gross margin (%)	60.7	42.9	54.7	64.6	59.1	56.2	40.0	21.2
EBITDA margin (%)	54.1	35.1	40.5	55.2	53.0	49.8	34.4	17.2
Normalised operating margin (%)	24.4	27.5	27.8	39.1	32.6	31.1	17.5	0.6
BALANCE SHEET								
Fixed assets	138,275.0	172,196.0	129,077.0	203,161.0	257,497.0	304,826.0	401,773.9	454,637.9
Intangible assets	93,136.0	103,894.0	32,745.0	57,794.0	98,498.0	161,310.0	200,932.0	210,932.0
Tangible assets	36,266.0	51,038.0	62,322.0	99,411.0	107,386.0	111,104.0	172,572.9	215,436.9
Investments & other	8,873.0	17,264.0	34,010.0	45,956.0	51,613.0	32,412.0	28,269.0	28,269.0
Current assets	93,306.0	76,501.0	59,096.0	33,054.0	98,190.0	107,364.0	72,228.2	30,730.0
Stocks	19,153.0	4,816.0	7,647.0	11,648.0	17,952.0	21,906.0	22,544.5	9,655.7
Debtors	2,030.0	1,998.0	2,940.0	1,894.0	2,344.0	5,167.0	4,335.5	6,207.3
Cash & cash equivalents	72,003.0	69,582.0	48,337.0	18,991.0	77,894.0	80,291.0	45,348.2	14,867.0
Other	120.0	105.0	172.0	521.0	0.0	0.0	0.0	0.0
Current liabilities	(27,430.0)	(21,762.0)	(14,238.0)	(18,179.0)	(25,297.0)	(43,701.0)	(41,135.3)	(36,500.8)
Creditors	(9,299.0)	(8,007.0)	(9,425.0)	(11,082.0)	(13,708.0)	(23,508.0)	(20,942.3)	(16,307.8)
Tax and social security	(6,929.0)	(9,317.0)	0.0	0.0	(1,001.0)	(7,283.0)	(7,283.0)	(7,283.0)
Short-term borrowings	0.0	0.0	(2,090.0)	(3,294.0)	(5,930.0)	(7,371.0)	(7,371.0)	(7,371.0)
Other	(11,202.0)	(4,438.0)	(2,723.0)	(3,803.0)	(4,658.0)	(5,539.0)	(5,539.0)	(5,539.0)
Long-term liabilities	(13,647.0)	(13,059.0)	(19,522.0)	(26,471.0)	(61,516.0)	(68,492.0)	(111,292.0)	(127,042.0)
Long-term borrowings	0.0	0.0	(4,515.0)	(5,922.0)	(9,116.0)	(6,175.0)	(48,975.0)	(64,725.0)
Other long-term liabilities	(13,647.0)	(13,059.0)	(15,007.0)	(20,549.0)	(52,400.0)	(62,317.0)	(62,317.0)	(62,317.0)
Net assets	190,504.0	213,876.0	154,413.0	191,565.0	268,874.0	299,997.0	321,574.8	321,825.0
Minority interests	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shareholders' equity	190,504.0	213,876.0	154,413.0	191,565.0	268,874.0	299,997.0	321,574.8	321,825.0
CASH FLOW								
Operating cash flow before WC and tax	69,941.3	33,135.8	28,173.0	72,065.0	137,248.0	95,354.0	60,778.4	43,711.2
Working capital	(9,498.0)	(5,172.0)	(3,481.0)	(2,840.0)	(776.0)	(3,948.0)	(2,372.7)	6,382.5
Exceptional & other	1,277.0	1,454.0	3,704.0	4,632.0	(48,334.0)	3,500.0	0.0	0.0
Tax	(6,919.9)	7,047.9	(249.0)	0.0	0.0	(701.0)	(8,368.6)	(107.2)
Net operating cash flow	54,800.5	36,465.7	28,147.0	73,857.0	88,138.0	94,205.0	50,037.1	49,986.5
Capex	(9,224.0)	(19,621.0)	(46,122.0)	(59,477.0)	(42,581.0)	(33,695.0)	(91,468.9)	(85,008.0)
Acquisitions/disposals	0.0	4.0	(20,068.0)	1,522.0	619.0	4.0	0.0	0.0
Net interest	(579.0)	(418.8)	389.0	(2,741.0)	(1,662.0)	1,341.0	(832.0)	(1,209.8)
Equity financing	(5.0)	0.0	39,442.0	(31.0)	(4.0)	(20.0)	0.0	0.0
Exploration and Evaluation	(10,969.0)	(11,578.0)	(20,132.0)	(26,642.0)	(40,935.0)	(58,105.0)	(39,622.0)	(10,000.0)
Other	(4,317.0)	(7,442.0)	(9,522.0)	(18,129.0)	49,659.0	368.0	4,143.0	0.0
Net cash flow	29,706.4	(2,590.1)	(27,866.0)	(31,641.0)	53,234.0	4,098.0	(77,742.8)	(46,231.2)
Opening net debt/(cash)	(41,969.0)	(72,003.0)	(69,582.0)	(41,732.0)	(9,775.0)	(62,848.0)	(66,745.0)	10,997.8
FX	311.6	169.1	0.0	0.0	0.0	0.0	0.0	0.0
Other non-cash movements	16.0	0.0	16.0	(316.0)	(161.0)	(201.0)	0.0	0.0
Closing net debt/(cash)	(72,003.0)	(69,582.0)	(41,732.0)	(9,775.0)	(62,848.0)	(66,745.0)	10,997.8	57,229.0

Source: Alkane Resources accounts, Edison Investment Research

General disclaimer and copyright

This report has been commissioned by Alkane Resources and prepared and issued by Edison, in consideration of a fee payable by Alkane Resources. Edison Investment Research standard fees are £60,000 pa for the production and broad dissemination of a detailed note (Outlook) following by regular (typically quarterly) update notes. Fees are paid upfront in cash without recourse. Edison may seek additional fees for the provision of roadshows and related IR services for the client but does not get remunerated for any investment banking services. We never take payment in stock, options or warrants for any of our services.

Accuracy of content: All information used in the publication of this report has been compiled from publicly available sources that are believed to be reliable, however we do not guarantee the accuracy or completeness of this report and have not sought for this information to be independently verified. Opinions contained in this report represent those of the research department of Edison at the time of publication. Forward-looking information or statements in this report contain information that is based on assumptions, forecasts of future results, estimates of amounts not yet determinable, and therefore involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of their subject matter to be materially different from current expectations.

Exclusion of Liability: To the fullest extent allowed by law, Edison shall not be liable for any direct, indirect or consequential losses, loss of profits, damages, costs or expenses incurred or suffered by you arising out or in connection with the access to, use of or reliance on any information contained on this note.

No personalised advice: The information that we provide should not be construed in any manner whatsoever as, personalised advice. Also, the information provided by us should not be construed by any subscriber or prospective subscriber as Edison's solicitation to effect, or attempt to effect, any transaction in a security. The securities described in the report may not be eligible for sale in all jurisdictions or to certain categories of investors.

Investment in securities mentioned: Edison has a restrictive policy relating to personal dealing and conflicts of interest. Edison Group does not conduct any investment business and, accordingly, does not itself hold any positions in the securities mentioned in this report. However, the respective directors, officers, employees and contractors of Edison may have a position in any or related securities mentioned in this report, subject to Edison's policies on personal dealing and conflicts of interest.

Australia

Edison Investment Research Pty Ltd (Edison AU) is the Australian subsidiary of Edison. Edison AU is a Corporate Authorised Representative (1252501) of Crown Wealth Group Pty Ltd who holds an Australian Financial Services Licence (Number: 494274). This research is issued in Australia by Edison AU and any access to it, is intended only for "wholesale clients" within the meaning of the Corporations Act 2001 of Australia. Any advice given by Edison AU is general advice only and does not take into account your personal circumstances, needs or objectives. You should, before acting on this advice, consider the appropriateness of the advice, having regard to your objectives, financial situation and needs. If our advice relates to the acquisition, or possible acquisition, of a particular financial product you should read any relevant Product Disclosure Statement or like instrument.

New Zealand

The research in this document is intended for New Zealand resident professional financial advisers or brokers (for use in their roles as financial advisers or brokers) and habitual investors who are "wholesale clients" for the purpose of the Financial Advisers Act 2008 (FAA) (as described in sections 5(c) (1)(a), (b) and (c) of the FAA). This is not a solicitation or inducement to buy, sell, subscribe, or underwrite any securities mentioned or in the topic of this document. For the purpose of the FAA, the content of this report is of a general nature, is intended as a source of general information only and is not intended to constitute a recommendation or opinion in relation to acquiring or disposing (including refraining from acquiring or disposing) of securities. The distribution of this document is not a "personalised service" and, to the extent that it contains any financial advice, is intended only as a "class service" provided by Edison within the meaning of the FAA (i.e. without taking into account the particular financial situation or goals of any person). As such, it should not be relied upon in making an investment decision.

United Kingdom

This document is prepared and provided by Edison for information purposes only and should not be construed as an offer or solicitation for investment in any securities mentioned or in the topic of this document. A marketing communication under FCA Rules, this document has not been prepared in accordance with the legal requirements designed to promote the independence of investment research and is not subject to any prohibition on dealing ahead of the dissemination of investment research.

This Communication is being distributed in the United Kingdom and is directed only at (i) persons having professional experience in matters relating to investments, i.e. investment professionals within the meaning of Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the "FPO") (ii) high net-worth companies, unincorporated associations or other bodies within the meaning of Article 49 of the FPO and (iii) persons to whom it is otherwise lawful to distribute it. The investment or investment activity to which this document relates is available only to such persons. It is not intended that this document be distributed or passed on, directly or indirectly, to any other class of persons and in any event and under no circumstances should persons of any other description rely on or act upon the contents of this document.

This Communication is being supplied to you solely for your information and may not be reproduced by, further distributed to or published in whole or in part by, any other person.

United States

Edison relies upon the "publishers' exclusion" from the definition of investment adviser under Section 202(a)(11) of the Investment Advisers Act of 1940 and corresponding state securities laws. This report is a bona fide publication of general and regular circulation offering impersonal investment-related advice, not tailored to a specific investment portfolio or the needs of current and/or prospective subscribers. As such, Edison does not offer or provide personal advice and the research provided is for informational purposes only. No mention of a particular security in this report constitutes a recommendation to buy, sell or hold that or any security, or that any particular security, portfolio of securities, transaction or investment strategy is suitable for any specific person.