

Investment Analysis for Intelligent Investors

April 19, 2018

Kerr Mines Inc. (TSX: KER / OTC: KERMF / FRA: 7AZ1) – Completes PFS / Commencing a 15,000 m Drill Program

Sector/Industry: Junior Resource

www.kerrmines.com

Market Data (as of April 19, 2018)

Current Price	C\$0.23
Fair Value	C\$0.49
Rating*	BUY
Risk*	4 (Speculative)
52 Week Range	C\$0.17 - C\$0.41
Shares O/S	255,785,168
Market Cap	C\$58.83 M
Current Yield	N/A
P/E (forward)	N/A
P/B	5.0x
YoY Return	21.1%
YoY TSX	-0.7%

^{*}see back of report for rating and risk definitions.

^{*} All figures in C\$ unless otherwise specified.



Highlights

- ➤ Kerr Mines Inc. ("company", "Kerr") announced a Pre-Feasibility Study ("PFS") on its fully permitted Copperstone project in Western Arizona, U.S.
- > The PFS showed robust economics with an after-tax Internal Rate of Return ("IRR") of 40.1%, at a gold price of US\$1,250 per oz. The study was based on an annual production rate of 38,347 oz for 4.4 years, with a high recovery rate estimate of 95%.
- At an average grade of 7.36 gpt (across the resource categories), the Copperstone project is of significantly higher grade than most of the deposits in the western U.S.
- > The Net Present Value ("NPV"), and the updated reserve estimate, were softer than expected. At a gold price of US\$1,250 per oz, the PFS showed an after-tax NPV of US\$18 million. The updated measured and indicated resource is 0.28 Moz at 7.63 gpt gold, and inferred resource is 0.15 Moz at 6.81 gpt gold.
- > We believe the PFS was very conservative as it only accounted for 63% of the measured and indicated resource. Also, we believe the current resource and NPV estimates do not account for any upside potential from the ongoing exploration. A newly discovered Footwall zone has potential to be of the same dimensions as the main Copperstone zone. The company is preparing for a 15,000 m infill and step-out drill program for 2018.

Key Financial Data (FYE - June 30)				
(C\$)	2015	2016	2017	2018 (6M)
Cash	\$476,136	\$412,662	\$5,065,452	\$4,447,985
Working Capital	-\$18,408,191	-\$16,529,873	\$2,784,073	\$5,216,742
PPE / Mineral Assets	\$18,356,147	\$18,294,458	\$18,156,653	\$17,421,124
Total Assets	\$21,015,826	\$25,267,868	\$25,662,990	\$24,729,262
Net Income (Loss)	-\$25,285,468	\$1,874,882	-\$1,336,137	-\$7,875,551
EPS	-\$0.22	\$0.01	-\$0.01	-\$0.03



Updated Resource / Reserve On April 10, 2018, Kerr announced results of an updated PFS prepared by Hard Rock Consulting, LLC (HRC).

Based on a cut-off grade of 3.43 gpt (capped at 69 gpt), the study estimated **proved and probable reserves of 0.18 Moz at 6.79 gpt gold**, measured and indicated resources of 0.28 Moz at 7.63 gpt gold, and an inferred resource of 0.15 Moz at 6.81 gpt gold. The estimate was based on 716 drill holes that intersected mineralization, including a 8,100 m infill and step-out program completed by Kerr in 2017.

2018 Estimate

Category	Tonnes	Grade (gpt)	Contained Ounces
Measured	478,100	8.3	128,000
Indicated	646,700	7.1	148,000
M & I	1,124,800	7.63	276,000
Inferred	666,000	6.81	145,700
Proven & Probable	802,048	6.79	175,093

- Reserve estimates are inclusive of the resource estimates.
 - Grade is expressed as grams per tonne.

Source: 2018 PFS

The updated resource estimate has a higher tonnage in the resource categories, but lower grade and contained ounces, relative to the previous estimate calculated in 2010, which was based on a higher cut-off grade of 5.1 gpt, and a much higher cap of 172 gpt. The contained ounces in the reserve categories were down 32%. However, the contained ounces in the resource categories (measured, indicated and inferred) were only down 5%.

2010 Estimate

	ZOTO Estim	a c c	
Category	Tonnes	Grade (gpt)	Contained Ounces
Measured	933,493	10.4	311,083
Indicated	8,165	8.0	2,101
M & I	941,658	10.4	313,184
Inferred	334,751	12.3	132,000
Proven	903,739	8.8	255,253
Probable	5,818	6.3	1,178
Proven & Probable	909,557	8.8	256,431

- Reserve estimates are inclusive of the resource estimates.
 - Grade is expressed as grams per tonne. Source: 2010 Technical Report



Based on the details provided in the April 10, 2018 press release, we speculate that the 2010 estimates were aggressive and probably overstated. We believe that the significantly higher cap-grade used in 2010 resulted in the inclusion of very high-grade material that influenced the global average grade of the resource.

On a positive note, HRC's new estimate confirms the presence of significant high-grade mineralization that can be extracted economically. The PFS showed robust economics with an after-tax IRR of 40.1%.

PFS Results

The PFS used a crush-grind-whole ore leach process at 544 tpd, with an average recovery rate of 95%, for a mine life of 4.4 years. We were pleased with the high recovery rate as we had used a rate of 90% in our previous models. The high recovery rate is because, unlike most epithermal deposits where gold is held in veins and stockwork zones adjacent to the veins, Copperstone's gold mineralization consists of free gold within faults and open spaces. This allows for significantly high gold recovery rates versus the conventional oxide deposits in Nevada (approximately 80%).

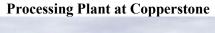
The operating cost was estimated at US\$128.55 per ton versus the 2010 FS' estimate of US\$95.64 / ton. A summary of the key inputs is shown below:

2018 PFS	
Gold Price (US\$/oz)	\$1,250
Througput (tpd)	544
Mine Life (years)	4.4
Recovery	95%
Annual Gold Production (oz)	38,347
Cash Operating Cost (US\$/oz)	\$684
AISC (US\$/oz)	\$875
Initial CAPEX (US\$, M)	\$22.7
Operating Profit (LOM) - US\$, M	\$89.1
After- Tax IRR	40.1%
After-Tax Payback	2.3
After Tax NPV @ 10% - US\$, M	\$17.91

Source: 2018 PFS

The CAPEX estimate remains attractive at just US\$22.7 million, which includes US\$3.83 million in contingencies (or 17% of the total). Copperstone's historic producer status is a major advantage, as it allows Kerr to re-commence production at a relatively short time frame and low CAPEX. Historic production totaled 514,000 oz of gold from 5.60 Mt at an average grade of 0.089 opt (2.78 gpt).







Aerial View of the Open Pit



Source: Company

The study gave an after-tax Net Present Value (NPV) at 10% of US\$18 million, with a highly attractive after-tax Internal Rate of Return (IRR) of 40.1%. Note that approximately 100 Koz of measured and indicated resources were not included in the reserve estimate, which we believe would have added another 2 to 3 years to the mine life, and potentially



\$50 million in additional operating profit.

The following tables shows the NPV's sensitivity to gold prices.

Gold Price\$/oz	Net Cash Flow	NPV 10% \$M	IRR %	Payback
	\$M			years
1,100	\$14.25	\$3.27	15.34	3.3
1,150	\$22.24	\$8.51	23.9	3
1,200	\$29.51	\$13.37	32.11	2.6
1,250	\$36.28	\$17.91	40.12	2.3
1,300	\$43.19	\$22.53	48.42	2
1,350	\$49.98	\$27.07	56.88	1.8
1,400	\$56.65	\$31.50	65.24	1.6

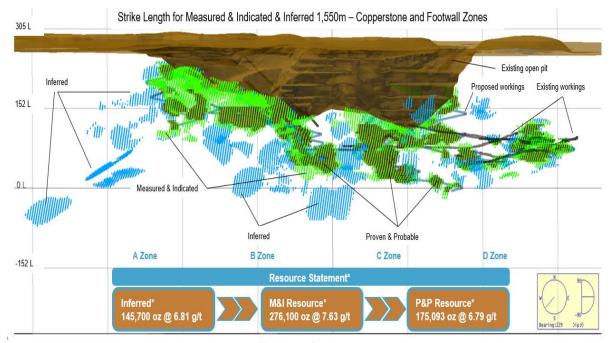
Source: 2018 PFS

There were no comparable figures in the 2010 FS report as it had not presented NPV estimates at 10%.

Management is currently focused on evaluating non-dilutive financing options to make a production decision.

Resource Upside Potential

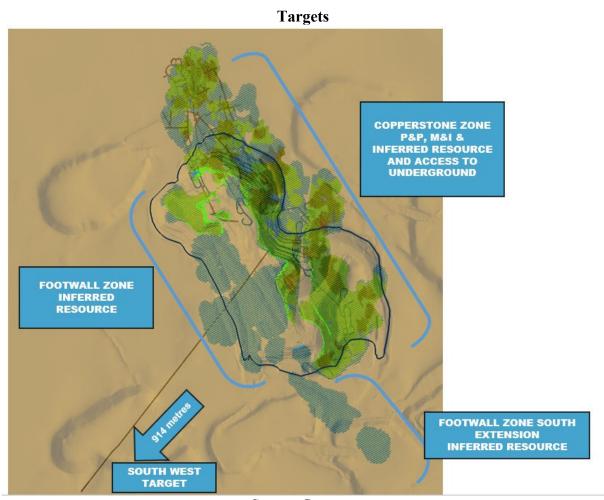
The Copperstone zone is estimated to have dimensions of approximately 1,550 m by 500 m. The average mining width is estimated at 7 m.



Source: Company



Kerr's 2017 Phase I program (85 holes / 8,159 m), which included both surface and underground drill holes, was encouraging as it confirmed the down-dip extension of the Copperstone zone, and discovered a new parallel Footwall zone, where mineralization has been identified just 150 m from the Copperstone zone. Approximately 4,854 m of the program was focused on the Footwall zone. The Footwall zone is now estimated to be of 375 m in strike and 350 m in depth. From our discussions with management, the new resource estimate includes approximately 62 Koz from the Footwall zone in the inferred category. Management believes that this zone has potential to be very similar in dimensions to the Copperstone zone.



Source: Company

The company is preparing for a 15,000 m infill and step-out drill program for 2018. The key objectives are to expand the known resource at Copperstone and the Footwall zones.

The following table shows our speculative resource estimate, assuming the Footwall mineralization has a strike of 775 m, or 50% of the currently known Copperstone strike of 1,550 m.



	Strike (m)	Width (m)	Depth (m)	Tonnes
Copperstone	1,550	1	400	1,612,000
Footwall	775	1	350	705,250
Total				2,317,250

Source: FRC

Copperstone continues to be of significantly higher grade than most of the deposits in the western U.S. As shown, the average grade of 0.65 gpt is significantly lower than Copperstone's grade of 7.36 gpt.

Gold Projects in the Western U.S.

	Gold Projects in the Western U.S.							
	Project	Company	Location	Au grade (g/t, global)	Total Au equiv. oz	Annual Gold Production (est.)	Stage	
1	Sleeper Gold	Paramount Gold Nevada	Nevada	0.34	6,573,452	83,500	PEA	
2	North Bullfrog + Mother Lode	Corvus Gold	Nevada	0.26	2,730,155	150,000	PEA	
3	Grassy Mountain	Paramount Gold Nevada	Oregon	0.82	1,904,087	53,000	PEA	
4	Talapoosa	Timberline Resources	Nevada	1.01	1,684,150	55,000	PEA	
5	Florida Canyon Mine	Rye Patch Gold	Nevada	0.56	1,522,700	75,000	PEA	
6	Relief Canyon	Pershing Gold Corp.	Nevada	0.61	1,444,745	88,500	PFS	
7	Gold Springs	TriMetals Mining Inc.	Nevada	0.54	768,000	48,000	PEA	
8	Gold Bar Project	McEwen Mining	Nevada	0.94	722,000	65,000	FS	
9	Moss Gold-Silver Mine	Northern Vertex Mining	Arizona	0.73	478,000	42,000	FS	
10	Bruner Gold Project	Canamex Resources Corp	Nevada	0.66	353,737	36,000	PEA	
11	Copperstone	Kerr Mines Inc.	Arizona	7.36	421,700	38,347	PFS	
	Average (excluding Copperstone)		0.65	1,818,102	69,600		

Source: FRC

Financials

At the end of Q2-FY2018 (ended December 31, 2017), the company had cash and working capital of \$4.45 million and \$5.22 million, respectively. We estimate the company had a burn rate (cash spent on operating and investing activities) of \$1.04 million per month in the first six months of FY2018. The following table summarizes the company's liquidity position:



Financial Summary

(in C\$)	2015	2016	2017	2018 (6M)
Cash	\$476,136	\$412,662	\$5,065,452	\$4,447,985
Working Capital	-\$18,408,191	-\$16,529,873	\$2,784,073	\$5,216,742
Current Ratio	0.06	0.24	1.88	10.05
LT Debt	\$1,286,127	\$953,916	\$9,905,401	\$9,977,161
LT Debt / Assets	6.1%	3.8%	38.6%	40.3%
Working Capital - LT Debt	-\$19,694,318	-\$17,483,789	-\$7,121,328	-\$4,760,419
Total Debt	\$10,257,649	\$11,916,900	\$10,126,772	\$9,977,161
Monthly Burn Rate (incl. investing activities)	\$582,594	\$369,151	\$475,318	\$1,043,243
Cash from Financing Activities	\$7,062,679	\$925,291	\$2,491,523	\$7,197,834

The total debt was \$9.98 million at the end of Q2-2018; all of which were held by the Chairman and the CEO. Note that these two individuals also own 81 million shares, or 32% of the total outstanding.

Outstanding Debt as of December 31, 2017

	Amount	Maturity	Interest
Long-Term Promissory Note	\$2,053,480		8% p.a.
Long-Term Convertible Promissory Note	\$4,217,394	Mar-19	8% p.a.
Long-Term Loan Payable	\$3,706,287	Aug-19	8% p.a.
Total	\$9,977,161		

We estimate the company currently has 7.88 million options outstanding (weighted average exercise price of \$0.20 per share) and 22.22 million warrants (weighted average exercise price of \$0.27 per share) outstanding. All of the options and nil warrants are in the money, indicating the company can raise up to \$1.58 million if exercised.

Valuation & Rating

Our revised Discounted Cash Flow valuation is \$0.49 per share versus our previous estimate of \$0.69 per share. The valuation dropped primarily because we lowered the average grade from 8.8 gpt to 7.4 gpt in our models. We have maintained most of our other key inputs / assumptions.



DCF Valuation	
Operating Life (years)	10
Throughput (tons per day)	750
Tonnage - Mt	2.32
Recovery	95%
Total Gold Produced (Moz)	0.52
Average Annual Production (Au equiv. oz)	55,565
Average Price of Au (US\$/oz)	\$1,300
LT avg. exchange rate (US\$:C\$)	1.10
Operating Cost (LOM) in US\$/tonne	\$141.70
Initial Capital Cost (US\$)	\$27,500,000
Discount Rate	10%
Tax	21%
After-Tax Net Asset Value (C\$)	\$131,133,123
Working Capital - Debt (C\$)	(\$4,760,419)
Fair Value of KER (C\$)	\$126,372,704
No. of Shares *	256,812,994
Fair Value per Share (C\$)	\$0.49

^{*} calculated based on the treasury stock method

Source: FRC

The following table shows our valuation's sensitivity to key inputs. Notice the high sensitivity to grades.



			Gold Price (US\$ / oz)					
		\$900	\$1,100	\$1,300	\$1,500	\$1,700		
\$1.00 Exchange Rate \$1.10 (US\$:C\$) \$1.20	\$1.00	\$0.09	\$0.27	\$0.45	\$0.63	\$0.80		
	\$1.05	\$0.09	\$0.28	\$0.47	\$0.66	\$0.85		
	\$1.10	\$0.10	\$0.29	\$0.49	\$0.69	\$0.89		
	\$1.20	\$0.11	\$0.32	\$0.54	\$0.75	\$0.97		
	\$1.30	\$0.12	\$0.35	\$0.58	\$0.82	\$1.05		

	US\$:C\$ - 1.1		Average Grade				
			6.00	7.00	7.36	8.00	9.00
		5.0%	\$0.36	\$0.59	\$0.67	\$0.81	\$1.04
	Discount Rate	7.5%	\$0.30	\$0.50	\$0.57	\$0.70	\$0.90
		10.0%	\$0.26	\$0.43	\$0.49	\$0.60	\$0.78
		12.5%	\$0.21	\$0.37	\$0.43	\$0.52	\$0.68
		15.0%	\$0.18	\$0.32	\$0.37	\$0.46	\$0.60

Source: FRC

We maintain our BUY rating and adjust our fair value estimate to \$0.49 per share.

We believe the company is exposed to the following key risks (not exhaustive):

- The value of the company is highly dependent on gold prices.
- > Exploration and development risks.
- > The company may not be able to delineate the resource we used in our valuation models.
- Access to capital and potential share dilution.

We rate Kerr's shares a risk of 4 (Speculative).

Risks



Fundamental Research Corp. Equity Rating Scale:

Buy – Annual expected rate of return exceeds 12% or the expected return is commensurate with risk

Hold – Annual expected rate of return is between 5% and 12%

Sell – Annual expected rate of return is below 5% or the expected return is not commensurate with risk

Suspended or Rating N/A—Coverage and ratings suspended until more information can be obtained from the company regarding recent events.

Fundamental Research Corp. Risk Rating Scale:

- 1 (Low Risk) The company operates in an industry where it has a strong position (for example a monopoly, high market share etc.) or operates in a regulated industry. The future outlook is stable or positive for the industry. The company generates positive free cash flow and has a history of profitability. The capital structure is conservative with little or no debt.
- 2 (Below Average Risk) The company operates in an industry where the fundamentals and outlook are positive. The industry and company are relatively less sensitive to systematic risk than companies with a Risk Rating of 3. The company has a history of profitability and has demonstrated its ability to generate positive free cash flows (though current free cash flow may be negative due to capital investment). The company's capital structure is conservative with little to modest use of debt.
- 3 (Average Risk) The company operates in an industry that has average sensitivity to systematic risk. The industry may be cyclical. Profits and cash flow are sensitive to economic factors although the company has demonstrated its ability to generate positive earnings and cash flow. Debt use is in line with industry averages, and coverage ratios are sufficient.
- 4 (Speculative) The company has little or no history of generating earnings or cash flow. Debt use is higher. These companies may be in start-up mode or in a turnaround situation. These companies should be considered speculative.
- 5 (Highly Speculative) The company has no history of generating earnings or cash flow. They may operate in a new industry with new, and unproven products. Products may be at the development stage, testing, or seeking regulatory approval. These companies may run into liquidity issues, and may rely on external funding. These stocks are considered highly speculative.

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