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Fundamental Research Corp.
Investment Analysis for Intelligent Investors

January 20, 2017

Rogue Resources Inc. (TSXV: RRS) – Signs LOIs for Potential Off-Take Agreements

Sector/Industry: Junior Mining/Exploration **www.rogueresources.ca**

Market Data (as of January 20, 2017)

Current Price	**C$0.60**
Fair Value	**C$3.00**
Rating*	**BUY**
Risk*	**5 (Highly Spec)**
52 Week Range	C$0.32 - C$1.50
Shares O/S	9,533,002
Market Cap	C$5.72 mm
Current Yield	N/A
P/E (forward)	N/A
P/B	0.4x
YoY Return	-25.0%
YoY TSXV	67.9%

*see back of report for rating and risk definitions

Highlights

- Rogue Resources Inc. (“company”, “Rogue”) recently announced that they entered into non-binding Letter of Intents (LOIs) with two entities currently building silicon plants in Iceland. The first plant is expected to commence operations in early 2018, which implies that Rogue could potentially start receiving orders for their quartzite in late 2017.
- A recent overburden depth survey indicated a potential 36% reduction in overburden from previous estimates, which we believe is likely to drive down Silicon Ridge’s operating and capital costs as reported in the Preliminary Economic Assessment (“PEA”) released in September 2016.
- Rogue has commenced the permitting process with the assistance of SNC-Lavalin.
- The September 2016 PEA had indicated an after-tax Net Present Value @ 10% of $23.8 million, and an after-tax Internal Rate of Return (“IRR”) of 33.9%. The after-tax payback period is just 3.1 years.
- The company held an update call last week and outlined various potential optimizations.
- A detailed plan for 2017 is expected to be announced in February.
- Several upcoming catalysts are potentially on the horizon related to: project financing, permitting, additional off-take agreements, and additional project optimization.
- We are maintaining our BUY rating and fair value estimate at $3.00 per share.

Key Financial Data (FYE - Apr 30) (C$)	2016	2017 (6M)
Cash	$883,259	$1,088,329
Working Capital	$690,051	$1,166,367
Mineral Assets	$16,197,273	$16,403,839
Total Assets	$17,158,064	$17,935,948
Net Income (Loss)	-$3,826,922	$33,487
EPS	-$0.06	$0.00

LOIs with Potential Buyers

In December 2016, the company announced that they entered into non-binding LOIs pertaining to offtake agreements with two potential metallurgical grade silicon (MgSi) producers; namely, PCC BakkiSilicon hf ("PCC") and Thorsil ehf ("Thorsil"). PCC and Thorsil have silicon plant projects in Iceland.

The following is a brief overview of the two companies:

- **PCC** is a subsidiary of PCC SE, a German investment company with operations in 17 countries and investments in a wide range of sectors ranging from chemicals, energy, to logistics. They are currently building a silicon metal plant in Húsavík, in northern Iceland. **The facility, which is expected to start in early 2018, is expected to produce up to 32,000 tonnes per year of MgSi.** PCC expects to source the raw materials from their own producing quartzite project in Poland and third-party sources such as Rogue.

- **Thorsil** is a privately held company based out of Reykjavik, Iceland, with plans to build and operate a silicon plant at Helguvik, Iceland. The facility, which is likely to start operations in 2019, is expected to produce up to 54,000 tonnes per year of Mg-Si. Thorsil has stated that they expect to import raw materials for the silicon metal production, and export the silicon metal output to manufacturing, chemical and metal-oriented manufacturing companies.

Based on the assumption that one tonne of MgSi requires 2.8 to 3.0 tonnes of high quality silica, we estimate PCC’s facility will need up to 95,000 tonnes of high quality silica. Thorsil will require up to 160,000 tonnes. **As PCC’s facility is expected to be operational in early 2018, and we expect them to start importing the feed in late 2017 from Rogue if the entities enter into a definitive agreement.**

Rogue’s management has stated that they continue to have discussions with several other potential buyers in North America and Europe. In addition to MgSi, we believe that Rogue is marketing to ferrosilicon (“FeSi”) producers, which require a similar ratio of high quality silica for production.

Another key target segment for Rogue are the counter-top manufacturers in the U.S. For example, the neighbouring Sitec mine, located approximately 4km southwest of the Silicon Ridge property, ships their quartzite (after crushing, screening and sorting) to Cambria Quartz Stone Surfaces in Minnesota, for quartz filler and engineered stone countertops. We speculate that Rogue may be targeting other top countertop manufacturers, namely Caesarstone and Cosentino.

Project Optimization - Overburden

One of the main recommendations of the recently completed PEA was to complete an overburden depth survey over the proposed pit, and estimate the volume of overburden to be stockpiled during the quarry operation.

In November 2016, the company completed a Ground Penetrating Radar survey (GPR) to test the thickness of the overburden. The results of the survey were very encouraging as they indicated a potential 36% reduction (from 624K m^3 to 402K m^3) in the overburden from previous estimates. **This is very positive as it will potentially reduce the project's operating and capital costs, and the overall footprint.**

Commenced Permitting Process

Rogue has commenced the permitting process with the assistance of SNC-Lavalin. A mining operation on the property will require either a "Mining Lease" (BM) or a "Lease to Mine Surface Mineral Substances" (BEX). We believe the permitting process will be relatively straightforward as silica is classified as a non-metallic material, and falls under quarry guidelines. In addition, no environmentally harmful chemicals / reagents are required during the recovery / production process on site. **Management expects to receive the required permits by the summer of this year.**

September 2016 PEA Results

We were extremely pleased with the PEA results announced on September 14, 2016. Our after-tax NPV estimate (as of our initiating report dated September 2, 2016) was $23.9 million. We had used a lower CAPEX ($10 million), and a higher discount rate (13.5%).

The PEA indicated an after-tax NPV @ 10% of $23.8 million, and an after-tax IRR of 33.9%. The after-tax payback period is just 3.1 years. The initial CAPEX estimate is $10.5 million, plus $2.6 million in contingency. Note that these estimates do not account for the recent developments pertaining to project optimization, mentioned above.

The following tables summarize the PEA results.

	Pre-Tax	After-Tax
NPV @ 10%	$36.5.M	$23.8M
Internal Rate of Return	40.2%	33.9%
Payback	2.6 years	3.1 years

DCF Valuation	PEA
Tonnes per year	200,000
Average Product Price ($/t)	$88.8
Operating costs ($/t)	$45.6
Operating Profit ($/t)	$43.21
Mine Life (years)	20
Capital Cost ($, M)	$13.1
Discount rate	10.0%
Net Asset Value (C$, M)	**$23.80**

Although the project's June 2016 Resource estimate indicated a potential mine life of 50 years, the PEA took a conservative approach and used a 20-year mine life.

The following table shows the initial resource estimate on the property, calculated by

Met-Chem Canada, announced in June 2016.

	Measured	Indicated	Measured + Indicated	Inferred
Tonnes (Mt) - all zones	3.2	6.5	9.7	4.6
SiO2 (%)	98.61	98.60	98.60	98.64
TiO2 (%)	0.06	0.06	0.06	0.06
Al2O3 (%)	0.56	0.56	0.56	0.53
Fe2O3 (%)	0.10	0.12	0.12	0.13

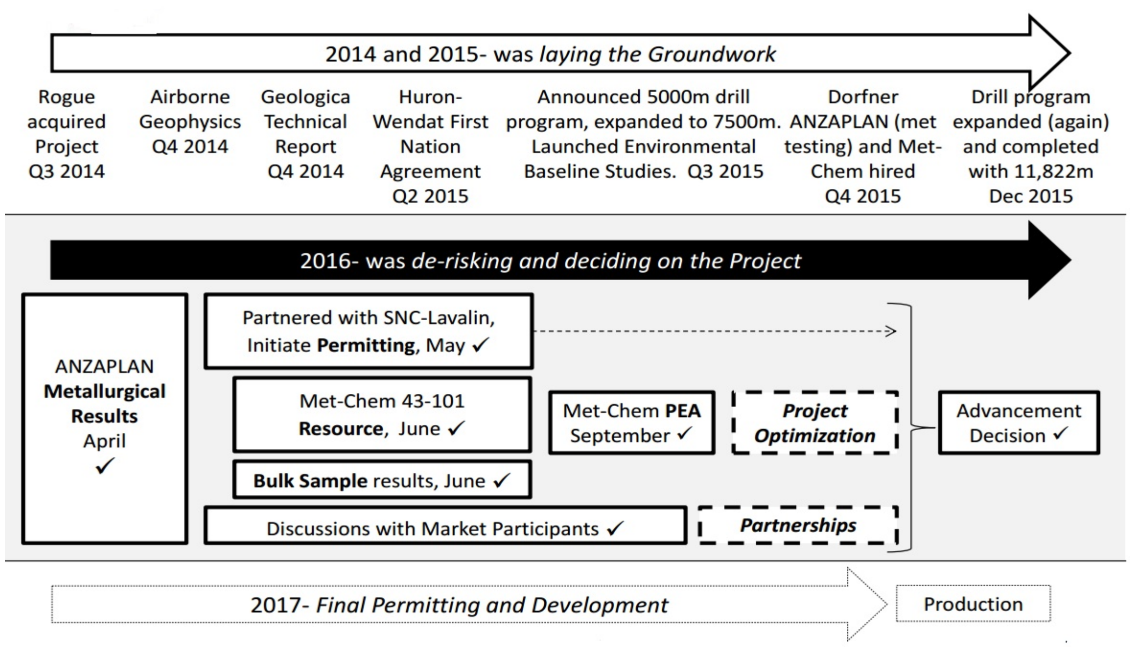
Project Optimization - Potential DSO

Considering the simplicity and low CAPEX nature of the project, management intends to directly advance the project to production without pursuing a prefeasibility or feasibility study.

In addition, we believe that the silica grade required for FeSi, and potentially also MgSi, roughly matches the cut-off grade used in Rogue's June 2016 resource study. There is the possibility that Silicon Ridge could initiate production without a secondary crushing circuit, focusing on a direct-ship business targeting FeSi and MgSi. **If Rogue can initiate a direct ship ore business ("DSO"), we believe it would be a very positive development as it could result in a shorter path to cash flow with less than half the start-up spending.**

Key Upcoming Catalysts

The company is currently seeking project financing options, with a focus on non-dilutive options such as debt, joint venture (JV) partnerships and off-take financing. The following chart outlines management's development plan for Silicon Ridge.



Source: Company

We consider the following as the key potential catalysts for Rogue's shares this year:

- Additional off-take agreements
- Convert the existing LOIs to definitive agreements
- Further development on project optimization
- Permitting announcements
- Project financing announcements
- Commencement of sales in the second half of 2017

Rogue is expected to release a detailed 2017 plan in February.

Financials

At the end of Q2-2017 (ended October 31, 2016), the company had cash and working capital of $1.09 million and $1.17 million, respectively. We estimate the company had a burn rate (cash spent on operating and investing activities) of $0.13 million per month in Q2-2017. The following table summarizes the company's liquidity position:

(in C$)	2016	2017 (6M)
Cash	$883,259	$1,088,329
Working Capital	$690,051	$1,166,367
Current Ratio	4.02	4.37
LT Debt / Assets	-	-
Monthly Burn Rate (incl. investing activities)	(323,105)	(132,020)
Cash from Financing	$3,233,588	$844,006

Subsequent to the quarter-end, the company **completed a $0.33 million private placement** by issuing 0.66 million units at $0.50 per unit. Each unit consisted of a common share and a share purchase warrant (exercise price of $1.00; expiring in December 2018). The majority of the private placement was subscribed by insiders and their families.

Rogue currently has approximately $1million in cash.

Stock Options and Warrants

We estimate the company currently has 0.55 million options outstanding (weighted average exercise price of $0.92) and 4.57 million warrants outstanding (weighted average exercise price of $1.18). At this time, 0.29 million options are in-the-money.

Valuation and Rating

We are maintaining our BUY rating and fair value estimate at $3.00 per share. Details of our valuation models and assumptions were presented in the initiating report.

Risks

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

- The value of the company is dependent on silicon related product prices.
- The company does not currently have any operating mines.
- Ability to attract financing partners and off-takers.
- Development risks.
- Access to capital and share dilution.

As with most junior exploration / development companies, we rate Rogue's shares a risk of 5 (Highly Speculative).

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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