

# NEWS RELEASES

## SEARCH MINERALS ANNOUNCES ENHANCED ECONOMICS IN UPDATED PRELIMINARY ECONOMIC ASSESSMENT OF FOXTROT REE PROJECT

February 16th, 2016

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VANCOUVER, Feb. 16, 2016 /CNW/ - **Search Minerals Inc.** ("Search" or the "Company") (TSX Venture: SMY) is pleased to announce the results of an updated Preliminary Economic Assessment ("PEA") on its Foxtrot Rare Earth Element Project ("Foxtrot Project") located in SE Labrador. This PEA evaluates an open pit-underground scenario with lower capital costs, a lower mining rate and higher grade processing facility feed. The revised PEA was prepared by Roscoe Postle Associates Inc. ("RPA") and the results are being disclosed in accordance with National Instrument 43-101 ("NI 43-101"). It reconfirms the Foxtrot Project has robust economics and the potential to become a profitable producer of Rare Earth Elements ("REE"), particularly Dy, Nd, Pr and Tb. The PEA's objective was to incorporate the Mineral Processing Engineering Study ("Study") prepared by SNC-Lavalin for the Company in June 2015. (*See the Company's News Release dated June 16, 2015 - Search Minerals Receives Independent Engineering Study For Processing Facility In SE Labrador*).

As previously disclosed the Study reports the estimated construction and operating costs for a REE mineralization treatment facility in SE Labrador which applies Search's proprietary process for treatment of REE mineralization from the Company's Foxtrot Deposit. The proprietary process is a direct leach on crushed material, thereby, eliminating grinding, flotation, gravity and magnetic separation, and as a result produces waste which is a dry stackable inert residue, thereby eliminating the need for wet tailing ponds.

### **Highlights of the PEA Include: (all amounts in Canadian Dollars)**

#### **ECONOMIC AND FINANCIAL:**

- \$152 million initial capital cost – includes \$33 million contingency)
- \$57 million underground mining capital (Year 8);
- \$23 million sustaining and closure capital;
- \$1.713 billion total net revenue

	Pre-tax	After-tax
Net Present Value (NPV) (10% discount rate)	\$93M	\$ 48M
Internal Rate of Return (IRR)	22.2%	16.7%
Payback period	3.5 years	4.4 years
Undiscounted Cash flow	\$327M	\$226M

*Note: The PEA is preliminary in nature. It includes inferred mineral resources, which are considered too speculative geologically to have the economic considerations applied to them that would enable their categorization as Mineral Reserves. There is no certainty that the PEA forecast will be realized. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.*

## **OPERATIONAL:**

- 1,000 tonnes per day processing rate
- Mine life: 14 years: 8 years open pit, 6 years underground
- \$353 per tonne processing facility average unit revenue, net of pay factors and third party separation charges
- \$238 per tonne processing facility average unit operating cost
- Feed grade-weighted average REE recovery of 76.8%;
- Total Life-of-Mine production of 44,129 tonnes of TREO, or 3,300 tonnes per year at peak production;
- Life-of-Mine production includes 7.095 million kg of neodymium oxide ( $\text{Nd}_2\text{O}_3$ ), and 0.836 million kg of dysprosium oxide ( $\text{Dy}_2\text{O}_3$ ).
- Revenue is recognized at the time of production
- Metallurgical process produces a dry stackable residue, for ease of disposal and eliminates risk associated with wet tailings pond.

Greg Andrews, President and CEO of Search Minerals, stated: “Search continues to advance the Foxtrot project with this updated PEA. The Mineral Processing Engineering Study from SNC-

Lavalin (June 2015) along with the updated Foxtrot Mineral Resource (December 2015) was the basis of the PEA to ensure Search's proprietary metallurgy process would lead to significant cost savings in capital and operating costs. Search has been able to reduce the initial capital costs as a smaller, yet profitable, scale operation. The Foxtrot project supports low initial capital costs, a good IRR, a short payback period, and is scalable. A feature of the Foxtrot deposit geology allows Search to commence mining in mineralized material for early cash flow. The Processing Facility for this PEA would be located at the proposed Foxtrot mine site, however, further development in the District may determine that an alternative location may be more beneficial. Advancement in separation technology continues which could provide the same or lower separation pricing as current proven solvent extraction pricing. The PEA outlines our current business model as Search continues to seek potential strategic and off take partners”

RPA updated the Mineral Resource estimate using the same drill hole database, and some new surface channel samples. Table 1 summarizes the estimated mineral resources potentially mineable by open pit and underground methods. **Indicated Mineral Resources total 7.4 Mt, at a grade of 1.09% TREO, and Inferred Mineral Resources total 2.0 Mt, at a grade of 1.17% TREO.** Although the underlying data set is similar, Mineral Resources are generally lower tonnage and higher grade than previously reported, due to increased cut-off grades and a tighter geological interpretation.

### **Comparison to the 2012 Mineral Resource Estimate**

The previous Mineral Resource estimate on the Foxtrot Project in 2012 included 9.3 million tonnes classified as Indicated at an average TREO grade of 1.06% and 5.2 million tonnes classified as Inferred at an average TREO grade of 0.93%. The increase in TREO grade and the decrease in tonnage for the Foxtrot Mineral Resource are partly due to reinterpretation of wireframes models. The use of block cut-off NSR values of \$165/t for open pit and \$260/t for underground mining methods also contributed to the increase in grade and decrease in tonnage, as does the constraint of Mineral Resources within a design pit shell.

### **TABLE 1 – ESTIMATED MINERAL RESOURCES**

#### **Foxtrot Project as of December 31, 2015**

Classification	Cut-off \$NSR	Tonnage 000s	Pr ppm	Nd ppm	Dy ppm	LREE %	HREE %	TREE %
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Open Pit								
	Indicated	\$165	4,129	372	1,393 177	0.69	0.17	0.86
	Inferred	\$165	228	368	1,378 179	0.68	0.17	0.85
Underground								
	Indicated	\$260	3,263	429	1,602 209	0.78	0.19	0.97
	Inferred	\$260	1,730	430	1,602 201	0.80	0.19	0.99
<b>Total Indicated</b>		<b>7,392</b>	<b>397</b>	<b>1,485 191</b>	<b>0.73</b>	<b>0.18</b>	<b>0.91</b>	
<b>Total Inferred</b>		<b>1,958</b>	<b>423</b>	<b>1,576 199</b>	<b>0.79</b>	<b>0.18</b>	<b>0.97</b>	
<b>Classification</b>								
		Cut-off	Tonnage	Pr <sub>6</sub> O <sub>11</sub>	Nd <sub>2</sub> O <sub>3</sub>	Dy <sub>2</sub> O <sub>3</sub>	LREO	HREO
		\$NSR	000s	ppm	ppm	ppm	%	%

  

Open Pit								
	Indicated	\$165	4,129	449	1,625 203	0.83	0.20	1.03
	Inferred	\$165	228	445	1,607 206	0.82	0.20	1.02
Underground								
	Indicated	\$260	3,263	518	1,868 240	0.94	0.23	1.17
	Inferred	\$260	1,730	520	1,868 231	0.96	0.23	1.19
<b>Total Indicated</b>		<b>7,392</b>	<b>480</b>	<b>1,732 219</b>	<b>0.88</b>	<b>0.21</b>	<b>1.09</b>	
<b>Total Inferred</b>		<b>1,958</b>	<b>511</b>	<b>1,838 228</b>	<b>0.94</b>	<b>0.22</b>	<b>1.17</b>	

Notes:

1. CIM definitions were followed for Mineral Resources.
2. Open Pit Resources were reported inside the design pit at a pit discard NSR cut-off of \$165/t. Underground Resources were reported as material outside the design pit at a break-even NSR cut-off of \$260/t.
3. NSR values were assigned to blocks using metal prices and metallurgical recoveries for each of the individual elements and accounting for separation and transportation charges and royalties for the mixed REO product.
4. A minimum mining width of approximately 2.0 m was used for both open pit and underground.
5. Heavy Rare Earth Elements (HREE) = Eu+Gd+Tb+Dy+Ho+Er+Tm+Yb+Lu+Y
6. Light Rare Earth Elements (LREE) = La+Ce+Pr+Nd+Sm
7. Total Rare Earth Elements (TREE) = sum of HREE and LREE

8. HREO, LREO refer to oxides of heavy and light rare earth elements respectively, and TREO is the sum of HREO and LREO.
9. The estimate is of Mineral Resources only and, because these do not constitute Mineral Reserves, they do not have demonstrated economic viability.
10. Totals may not add or multiply accurately due to rounding.

## **CAPITAL AND OPERATING COST ESTIMATES**

### ***CAPITAL COSTS***

The mine, mill, and site infrastructure costs are summarized in Table 2

**TABLE 2 CAPITAL COST SUMMARY**

<b>Area</b>	<b>Capital</b>
	<b>(\$M)</b>
OP & Surface Infrastructure	19.5
Processing	72.0
Indirects/Owners	28.1
Contingency	32.7
<b>Total Initial Capital</b>	<b>152.2</b>
Sustaining Capital	8.8
Underground Capital (Year 8)	56.7
Reclamation and Closure	14.0
<b>Total Capital Cost</b>	<b>231.7</b>

### ***OPERATING COSTS***

Mine life average operating unit costs for the Project are shown in Table 3.

**TABLE 3 UNIT OPERATING COSTS SUMMARY**

<b>Area</b>	<b>Unit</b>	<b>OP</b>	<b>UG</b>
OP Mining by Contractor	\$/t processed	55.11	
UG Mining by Owner	\$/t processed		87.91

Crushing	\$/t processed	5.00	5.00
Processing – Concentration	\$/t processed	141.35	141.35
G&A	\$/t processed	19.52	25.02
<b>Total Operating Costs</b>	<b>\$/t processed</b>	<b>220.98</b>	<b>259.28</b>

Note: OP mining by contractor based on \$5.50/t moved and \$4.50/t moved for ore and waste, respectively.

#### **Qualified Person:**

Dr. Randy Miller, Ph.D., P.Geo, is the Company's Vice President, Exploration, and is the Qualified Person (as defined by National Instrument 43-101) who has supervised the preparation of and approved the technical information reported herein. The Company will endeavour to meet high standards of integrity, transparency, and consistency in reporting technical content, including geological and assay (e.g., REE) data.

This News Release describes a PEA study based upon geological, engineering, technical, and cost inputs developed by RPA. A National Instrument 43-101 PEA technical report will be filed on SEDAR and made available on the Company's website within 45 days. Ian Weir, P.Eng. Senior Mining Engineer of RPA, Katharine Masun, P.Geo., Senior Geologist of RPA, and John Goode, P.Eng., Associate Principal Metallurgist of RPA are the Qualified Persons under National Instrument 43-101. Ian Weir, Katharine Masun, and John Goode have supervised, approved, and read the scientific and technical information that forms the basis for the disclosure contained in this news release.

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility of the adequacy or accuracy of this release.

#### **About Search Minerals**

Search is a TSX Venture Exchange listed company focused on creating value through finding and developing “critical rare earth element (“CREE”)” mineral assets in Labrador. CREEs (Nd, Eu, Tb, Dy, Y) have growing demand, constrained or restricted supply and are commonly used in innovative technologies.

Search is the discoverer of the Port Hope Simpson CREE District, a highly prospective CREE belt located in southeast Labrador, where the Company controls a belt 70 km long and up to 8 km wide. Search owns 100% of the advanced CREE resource called the Foxtrot Project (“**Foxtrot**”), and a recently announced Foxtrot-like prospect called “Deepwater Fox”. In addition, the Company has identified more than 20 other Foxtrot-like prospects in the District. The primary focus of Search is to continue to advance the Foxtrot resource, while evaluating other Foxtrot-like prospects. Several of the Foxtrot-like prospects require exploration drilling programs and may provide additional resources to a central processing facility that would be situated within the District.

In addition, Search holds a number of other CREE mineral prospects in Labrador in its portfolio, including claims in the Red Wine Complex and in the Henley Harbour area.

Search is led by a management team and board of directors with proven track records in the mining industry. The Company also has experienced geological and metallurgical teams led by Dr. Randy Miller and Dr. David Dreisinger, respectively.

All material information on the Company may be found on its website at [www.searchminerals.ca](http://www.searchminerals.ca) and on SEDAR at [www.sedar.com](http://www.sedar.com).

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### **Cautionary Statements**

This news release contains forward-looking statements that are not historical facts, including future plans and objectives of the Company, potential mineralization, reserve and resource determination, price assumptions, cash flow forecasts, projected capital and operating costs, metal or mineral recoveries, mine life and production rates, and other assumptions used in preliminary economic assessments. The preliminary economic assessment study was prepared to broadly quantify the Foxtrot Project's capital and operating cost parameters and to provide guidance on the type and scale of future project engineering and development work that will be needed to ultimately define the project's likelihood of a positive feasibility determination and optimal production rate. It was not prepared to be used as a valuation of the Foxtrot Project nor should it be considered to be a final feasibility study on which a commercial production decision could be made. The capital and operating cost estimates which were used have been developed only to an approximate order of magnitude based on generally understood capital cost to production level relationships, and although they are based on engineering studies, these are preliminary so the ultimate costs may vary widely from the amounts set out in the preliminary economic assessment. This could materially adversely impact the projected economics of the Foxtrot Project. As is normal at this stage of a project, data in some areas was incomplete and estimates were developed based solely on the expertise of the Company's employees and consultants. At this level of engineering, the criteria, methods and estimates are preliminary and result in a high level of subjective judgment being employed. There can be no assurance that the potential results contained in the preliminary economic assessment will be realized. Forward-looking statements involve risks, uncertainties and other factors that could cause actual results, performance, prospects, and opportunities to differ materially from those expressed or implied by such forward-looking statements. Factors that could cause actual results to differ materially from these forward-looking statements include those risks set out in Search's public documents filed on SEDAR at [www.sedar.com](http://www.sedar.com). Although Search believes that the assumptions and factors used in preparing the forward-looking statements are reasonable, undue reliance should not be placed on these statements, which only apply as of the date of this news release, and no assurance can be given that such events will occur in the disclosed time frames or at all. Except where required by law, Search disclaims any intention or obligation to update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

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