

Search Minerals announces resource estimates for Foxtrot Rare Earth Element Project

VANCOUVER, Dec. 20, 2011 /CNW/ - Search Minerals Inc. ("SMY" on the TSX Venture Exchange) is pleased to announce the first mineral resource estimates for its Foxtrot Project in the Port Hope Simpson Rare Earth Element (REE) District in southeastern Labrador.

HIGHLIGHTS

- 3,410,000 tonnes of Indicated Mineral Resources with a grade of 0.18% heavy rare earth elements (HREE+Y), equivalent to 0.21% heavy rare earth oxides (HREO+Y), and 0.89% total rare earth elements (TREE+Y), equivalent to 1.07% total rare earth oxides (TREO+Y), including 189 ppm dysprosium (218 ppm Dy₂O₃) and 1,442 ppm neodymium (1,687 Nd₂O₃).
- 5,850,000 tonnes of Inferred Mineral Resources with a grade of 0.17% HREE+Y (0.21% HREO+Y) and 0.80% TREE+Y (0.96% TREO+Y), including 181 ppm Dy (208 ppm Dy₂O₃) and 1,277 ppm Nd (1,494 Nd₂O₃).
- A continuous band of higher-grade mineralization, amenable to small-scale underground mining, containing 80% of the Indicated resources and 70% of the Inferred resources.
- A broader zone with larger tonnages of mineralization slightly lower in grade, and amenable to open pit mining.
- The deposit remains open at depth along more than 500m of strike length.
- Preliminary economic assessment study underway.

MINERAL RESOURCE ESTIMATES

A preliminary economic assessment (PEA) for the Foxtrot Prospect is currently being conducted by Roscoe Postle Associates Inc. (RPA). The first phase of this study, the estimation of mineral resources, is now complete. Table 1 provides a summary of the mineral resource inventory from the block model, using a reporting cutoff of 130 ppm Dy (150 ppm Dy₂O₃), the heavy rare earth element with the greatest in situ value at Foxtrot. This summary also reports the grade of neodymium, the light rare earth with the greatest in situ value.

The focus of 2010-2011 exploration has been a steeply dipping tabular zone that has a true width of 60m to 100m. This zone consists of inter-layered bands of mafic and felsic volcanics, with the felsic bands hosting the economic mineralization. As shown in Figure 1, the first phase of drilling in 2010 established strong REE mineralization over a near-surface strike length of more than 2,000 meters, and identified a Central Area with high economic potential. In 2011, drill holes and channel samples have established that the Central Area has a strike length of 500m, and a depth of at least 150m. The first two phases of drilling have also identified resources in horizontal extensions of the Central Area, primarily to the west. The felsic zones in these extensions are generally thinner; the HREE grades are similar to those in the Central Area, and the LREE grades are generally lower. All of the Indicated resources lie in the well-drilled heart of the Central Area; Inferred resources lie at depth in the Central Area, and in the eastern and western extensions.

Table 1. Estimated mineral resources for the Foxtrot Project, at a Dy cutoff of 130 ppm (equivalent to a Dy₂O₃ cutoff of 150 ppm), as of September 30th, 2011.

Classification	Zone	Tonnage (in tonnes)	Dy (in ppm)	Nd (in ppm)	Y (in ppm)	HREE+Y (in %)	TREE+Y (in %)
Indicated	Central	3,410,000	189	1,442	1,059	0.18	0.89
Indicated	Extensions	–	–	–	–	–	–
INDICATED TOTAL		3,410,000	189	1,442	1,059	0.18	0.89

Inferred	Central	3,000,000	187	1,418	1,043	0.17	0.87
Inferred	Extensions	2,850,000	175	1,129	988	0.16	0.72
INFERRED TOTAL		5,850,000	181	1,277	1,016	0.17	0.80

Classification	Zone	Tonnage (in tonnes)	Dy ₂ O ₃ (in ppm)	Nd ₂ O ₃ (in ppm)	Y ₂ O ₃ (in ppm)	HREO+Y (in %)	TREO+Y (in %)
Indicated	Central	3,410,000	218	1,687	1,345	0.21	1.07
Indicated	Extensions	–	–	–	–	–	–
INDICATED TOTAL		3,410,000	218	1,687	1,345	0.21	1.07

Inferred	Central	3,000,000	215	1,659	1,324	0.21	1.05
Inferred	Extensions	2,850,000	201	1,321	1,255	0.20	0.86
INFERRED TOTAL		5,850,000	208	1,494	1,290	0.21	0.96

- 1) The elements that contribute to the HREE+Y total, and whose oxides contribute to the HREO+Y total, are: Y, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb and Lu.
- 2) Numbers are rounded to reflect the precision of the estimated tonnages and grades.
- 3) Estimated mineral resources are not mineral reserves and do not have demonstrated economic viability.
- 4) An average dry bulk density of 2.71 tonnes per cubic meter (t/m³) was used for felsic rocks and 2.88 t/m³ for mafic rocks.
- 5) Grades were interpolated using ordinary kriging.
- 6) Resources have been classified using the Definition Standards of the Canadian Institute of Mining, Metallurgy and Petroleum (CIM); details of the classification procedures are provided in the text below.
- 7) The decision to base the reporting cutoff on dysprosium is based on its current and recent market value and on its grade, the combination of which makes it the project's predominant heavy rare earth element in terms of in situ value. It is possible that, in the future, the project's reporting cutoff will incorporate other rare earth elements.
- 8) There are no known legal, political, environmental, or other risks that could materially affect the potential development of the mineral resources.

A complete tabulation of the grades of the entire suite of elements, and their oxides, are given at the end of this news release in Table 3.

ADDITIONAL RESOURCE POTENTIAL

On every section through the Central Area, the deepest holes show strong mineralization, including the two sections on which the holes reached a depth of 200m. A third phase of drilling, currently underway, is testing the down-dip extension of the Central Area. When assays from the Phase III drilling are available, likely in the Spring of 2012, there is potential for a significant increase in resources at depth in the Central Area, where the deposit remains open at depth along the entire 500m.

The eastern and western extensions have been tested to a depth of only 50-100m, and their down-dip extensions remain targets for future drilling. In the west, where several sections show a consistent band of high-grade mineralization that remains open at depth, future drilling may add to the current resources.

Figure 1 - Map of drill holes at Foxtrot, showing the sections designated as the Central Area.

http://files.newswire.ca/90/Search_Minerals_Figure_1.pdf

HIGH-GRADE CENTRAL BAND

The PEA indicates that material at 130 ppm Dy has a net smelter return (NSR) above the marginal cost of mining and processing. Since the project's economic viability will depend on the details of metal prices and metallurgical recovery factors, the project's mineral resources may, in future, be reported at lower or higher cutoffs. Table 2 shows the sensitivity of tonnage and grade to the reporting cutoff, using a range of Dy cutoffs within ± 25 ppm of the cutoff chosen for this first report of the project's resources. The Indicated resources are less sensitive to the reporting cutoff, fluctuating by approximately $\pm 20\%$ as the cutoff grade changes by ± 25 ppm Dy. The Inferred resources fluctuate by approximately $\pm 35\%$ over the same range of cutoff grades.

Table 2 shows that there is a sizeable resource at higher cutoff grades, with 80% of the Indicated tonnage and 70% of the Inferred tonnage being above a 155 ppm Dy cutoff (178 ppm Dy_2O_3). At this cutoff, the average dysprosium grade reaches 200 ppm. The vast majority of these high-grade resources lie along three continuous bands of felsic material that lie close to the footwall of the broader felsic zone. With widths of 5-20m, and with near-vertical dips, these bands are amenable to small-scale underground mining. Outside these higher-grade bands, the broader zone, with slightly lower grades, may be amenable to open-pit mining.

Table 2. Sensitivity of the project's total mineral resources to changes in the Dy cutoff grade.

	Dy Cutoff Grade	Tonnage	Dy	Nd	Y	HREE+Y	TREE+Y
Classification	(in ppm)	(in tonnes)	(in ppm)	(in ppm)	(in ppm)	(in %)	(in %)
Indicated	105	4,020,000	179	1,368	1,000	0.17	0.84
	130	3,410,000	189	1,442	1,059	0.18	0.89
	155	2,720,000	201	1,537	1,123	0.19	0.94
Inferred	105	8,100,000	163	1,135	917	0.15	0.71
	130	5,850,000	181	1,277	1,016	0.17	0.80
	155	3,980,000	200	1,437	1,117	0.19	0.89

	Dy₂O₃ Cutoff Grade	Tonnage	Dy₂O₃	Nd₂O₃	Y₂O₃	HREE+Y	TREO+Y
Classification	(in ppm)	(in tonnes)	(in ppm)	(in ppm)	(in ppm)	(in %)	(in %)
Indicated	121	4,020,000	205	1,595	1,270	0.20	1.01
	150	3,410,000	218	1,687	1,345	0.21	1.07
	178	2,720,000	231	1,793	1,426	0.23	1.13
Inferred	121	8,100,000	188	1,323	1,164	0.19	0.86
	150	5,850,000	208	1,494	1,290	0.21	0.96
	178	3,980,000	230	1,676	1,419	0.23	1.07

TANGIBLE BENEFITS OF INVESTMENT

Jim Clucas, President and CEO of Search Minerals, stated, "It is very encouraging to see the tangible benefits of our investment in two major drilling campaigns on the Foxtrot Project. The resource block model now establishes a sizeable, high quality resource with significant grades in the heavy rare earths that currently, and for the foreseeable future, are valuable in a variety of industries that depend on new technologies. Search is delighted that the Foxtrot Project is moving forward in such a positive manner, and looks forward to announcing the results of the preliminary economic assessment."

Mr. Clucas also noted that, "As we advance the Foxtrot Project with another phase of development and definition drilling, Search is continuing its exploration programs on the other discoveries we've made on the large land package we control in Labrador."

MINERAL RESOURCE ESTIMATION AND CLASSIFICATION PROCEDURES

The mineral resource estimates are based on assay results obtained from channel samples and from two drilling campaigns. The Phase I drilling campaign was completed in 2010/2011 and consisted of 23 diamond drill holes totaling 3,955m. The Phase II drilling program was completed in the summer of 2011 and consisted of 20 diamond drill holes totaling 4,083m. The channel sampling program was completed in 2011 and consisted of 269m of samples taken from ten channel cuts across the full width of the mineralized zone exposed at surface. No assay data were used from the Phase III drilling campaign currently underway.

Mineral resources were estimated by ordinary kriging, a geostatistical estimation method that uses information on the spatial continuity of grades. A search ellipse with a radius of 140m (along strike) by 70m (down dip) by 5m (across the mineralized zone) was used. The search ellipse was sub-divided into octants (eight sectors) and within each octant the assay data from a maximum of three sample intervals were used for grade estimation. The variogram model used for ordinary kriging had ranges of correlation equal to the radiuses of the search ellipse and its orientation was aligned with the search ellipse. With the rare earth elements all being strongly correlated with each other, the same variogram model was used for the estimation of all rare earth grades.

Within 10x5x10m blocks, the tonnage of felsic material was estimated using the nearby samples, and the grades of the complete rare earth element suite were estimated using the assays from the nearby felsic samples.

Mineral resources were classified as Indicated if the block estimate was based on samples in all eight octants, which restricts the Indicated resources to the well-drilled heart of the felsic zone. Blocks were classified as Inferred if their estimate was based on assays from at least two different drill holes within the range of correlation as defined by the variogram. In the down-dip direction, Inferred resources were required to be within 50m of the base of current drilling.

Two ISO-certified commercial laboratories have been used for the assays used in these resource estimates. The primary lab is the Activation Laboratories Ltd. (ActLabs) facility in Ancaster, Ontario; the secondary lab, used for check purposes, is the SGS facility in Toronto, Ontario. The reliability of the assay information was established through two quality assurance and quality control (QA/QC) programs, one conducted and monitored by Search Minerals and its consultants and the other conducted and monitored internally by ActLabs. Both QA/QC programs use certified reference materials and blanks to check the accuracy and precision of the assay information provided by the laboratory; the internal program of ActLabs also uses pulp duplicates to monitor the reliability of the data.

Mohan Srivastava (P.Geo), an independent consultant, is the Qualified Person (QP) responsible for the calculation and classification of the mineral resource estimate; Mr. Srivastava has also reviewed and approved the technical disclosure in this news release. A National Instrument 43-101 Technical Report will be filed by Search Minerals on SEDAR within 45 days of the date of this news release.

Table 3. Element and oxide grades for Indicated and Inferred mineral resources, at a Dy cutoff grade of 130 ppm (equivalent to a Dy₂O₃ cutoff of 150 ppm), as of September 30th, 2011.

	INDICATED			INFERRED		
	Central	Extensions	TOTAL	Central	Extensions	TOTAL
Tonnage (t)	3,410,000	–	3,410,00	3,000,000	2,850,000	5,850,000
Element Units						
Y ppm	1,059	–	1,059	1,043	988	1,016
La ppm	1,663	–	1,663	1,648	1,277	1,467
Ce ppm	3,364	–	3,364	3,314	2,616	2,974
Pr ppm	385	–	385	380	302	342
Nd ppm	1,442	–	1,442	1,418	1,129	1,277
Sm ppm	257	–	257	253	207	231
Eu ppm	13	–	13	13	10	11
Gd ppm	204	–	204	202	173	188
Tb ppm	33	–	33	32	29	31
Dy ppm	189	–	189	187	175	181
Ho ppm	36	–	36	36	34	35
Er ppm	102	–	102	100	100	100
Tm ppm	15	–	15	14	15	15
Yb ppm	91	–	91	90	96	93
Lu ppm	13	–	13	13	15	14
Zr ppm	9,640	–	9,640	9,679	10,710	10,182
Nb ppm	698	–	698	698	561	631
LREE %	0.71	–	0.71	0.70	0.55	0.63
HREE %	0.18	–	0.18	0.17	0.16	0.17
TREE %	0.89	–	0.89	0.87	0.72	0.80
Oxide Units						
Y ₂ O ₃ ppm	1,345	–	1,345	1,324	1,255	1,290
La ₂ O ₃ ppm	1,946	–	1,946	1,928	1,494	1,716
CeO ₂ ppm	4,138	–	4,138	4,076	3,218	3,657
Pr ₆ O ₁₁ ppm	466	–	466	460	365	414
Nd ₂ O ₃ ppm	1,687	–	1,687	1,659	1,321	1,494
Sm ₂ O ₃ ppm	298	–	298	294	240	268
Eu ₂ O ₃ ppm	15	–	15	15	11	13
Gd ₂ O ₃ ppm	234	–	234	232	200	216
Tb ₄ O ₇ ppm	39	–	39	38	35	36
Dy ₂ O ₃ ppm	218	–	218	215	201	208
Ho ₂ O ₃ ppm	42	–	42	41	40	40
Er ₂ O ₃ ppm	116	–	116	114	114	114
Tm ₂ O ₃ ppm	17	–	17	16	17	17
Yb ₂ O ₃ ppm	103	–	103	102	109	106
Lu ₂ O ₃ ppm	15	–	15	15	17	16
ZrO ₂ ppm	13,014	–	13,014	13,067	14,458	13,746
Nb ₂ O ₅ ppm	879	–	879	880	707	796
LREO %	0.85	–	0.85	0.84	0.66	0.75
HREO %	0.21	–	0.21	0.21	0.20	0.21
TREO %	1.07	–	1.07	1.05	0.86	0.96

ABOUT SEARCH MINERALS

Search Minerals Inc. (TSXV:SMY) is a TSX Venture Exchange listed company, headquartered in Vancouver, B.C. Search is the discoverer of the Port Hope Simpson REE District, a highly prospective light and heavy REE belt located in southeast Labrador where the company controls a dominant land position in a belt 135km long and up to 12km wide. In addition, Search has a number of other mineral prospects in its portfolio located in Newfoundland and Labrador, including a number of claims in the Strange Lake Complex, where Quest Rare Minerals has an earn-in agreement with the Company; and at the Red Wine Complex, where Great Western Minerals Group is in a joint-venture with the Company.

Furthermore, Search Minerals is the owner of patents relating to the Starved Acid Leaching Technology ("SALT"), a process with the potential to aid in the recovery of certain metals.

Search Minerals is lead by a management team and board with a proven track record in the mining industry. The Company has a team with deep geological and metallurgical expertise lead by Dr. Randy Miller and Dr. David Dreisinger.

All material information on the Company may be found on its website at www.searchminerals.ca and on SEDAR at sedar.com.

Cautionary Statements

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.

The resource estimates contained in this release are "forward-looking statements" within the meaning of Canadian securities law requirements. Such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to differ materially from the anticipated results, performance or achievements expressed or implied by such forward-looking statements. Search Minerals Inc. disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

PDF with caption: "Map of drill holes at Foxtrot, showing the sections designated as the Central Area". PDF available at:
http://stream1.newswire.ca/media/2011/12/20/20111220_C8410_DOC_EN_8431.pdf

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