

STARFIELD RESOURCES INC. (Tier 1)

PRESS RELEASE

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Ferguson Lake Nickel-Copper-Cobalt-Platinum-Palladium Project, Nunavut, Canada

STARFIELD RESOURCES ACHIEVES POSITIVE RECOVERIES FROM THE HYDROMETALLURGICAL TEST PROCESSING OF FERGUSON LAKE MASSIVE SULPHIDES

VANCOUVER, December 19, 2006 -- Starfield Resources Inc. (TSX.V: SRU and OTC BB: SRFDF) ("Starfield" or "the Company") today announced the successful hydrometallurgical bench-scale test extraction of base metals from the Ferguson Lake Cu+Ni+Co+ Platinum Group Metal (PGM) -bearing massive sulphide mineralization and the subsequent production of high purity nickel and copper metal from the process solutions.

Under the direction of Dr. Bryn Harris (metallurgical process consultant) the Company continues to test its own newly-developed, chloride-based, metallurgical treatment process. **The 2006 program has resulted in laboratory recoveries ranging from 98% to 99.8% for copper and nickel and 60% to 70% for cobalt from sulphide core samples. During the two-stage treatment process, the PGMs remain in the residue (10% of original mass of sample) as a precious metal concentrate with a grade of between 30 to 50 grams per tonne of palladium plus platinum. Separate electrolytic nickel and copper (99.99% purity) metal coupons (wafers) have been produced from the hydrometallurgical treatment solutions.**

Glen Indra, President of Starfield, said "We are delighted with this year's progress on the hydrometallurgical testing of Ferguson Lake massive sulphides and look forward to the production of more metal from the continuous, second-stage, demonstration miniplant during the first quarter of 2007." Mr. Indra further added "Our process appears to be metallurgically and energy efficient as well as being environmentally friendly because the valuable products recovered using this method are base metals and PGMs plus by-products iron and sulphur. This process is carried out at atmospheric pressures thus eliminating the need for an autoclave and pressure leaching system."

Dr. Bryn Harris, the company's Qualified Person under NI 43-101, has prepared the information contained in this Press Release and is in the process of preparing reports for the Company.

SUMMARY of TESTWORK

Sample Preparation:

Starfield provided, HQ-sized core samples of massive sulphide mineralization (from holes drilled on the west side of Ferguson Lake in the potential "pit area") which were crushed and ground to 100% passing through 100-mesh screens. Initial work utilized bench-scale sized batches. A large scale sample (450 kilogram) was prepared this Fall for a scaled-up, first-stage, leaching program at COREM (certified mineral processing research services facilities) in Quebec City.

Hydrometallurgical First Stage Leaching:

In the first stage, chloride-based, leaching process, the sulphide mineral pyrrhotite and some pyrite are extracted into solution effectively removing 90% of the iron and 80% of the sulphur from the sample. The first stage unleached residue (concentrate) contains the base metal sulphides of copper (chalcopyrite), nickel (pentlandite), some pyrite, gangue and precious metals (PGM). The leach solution is processed for acid recovery and lixiviant regeneration and recycled back into the primary leach circuit.

The first stage leaching is an "environmentally friendly" process. It produces iron in the by-product form of hematite and/or magnetite (environmentally safe for on site disposal). Secondly, the liberated gas can be used to produce

by-product energy and elemental sulphur, again an environmentally safe product for on site disposal. The first stage of the process serves to significantly reduce the disposal problems normally associated with the traditional flotation treatment of iron sulphide minerals.

Hydrometallurgical Second Stage Leaching:

The 4 to 6 hour second stage, chloride-based leach process treats the upgraded concentrate residue produced in the first stage, pyrrhotite-specific, leaching process. The copper, nickel and cobalt metals are extracted into the second stage leach solution while the precious metals, most of the pyrite and gangue remain as a final residue (solid). Ion-exchange processing recovers the base metals from the second-stage leach solution, with copper and cobalt separated first followed by nickel separation. To demonstrate the potential to recover high value, high purity, metal at the mine site, the ion exchange strip solutions were treated using conventional electrowinning technology to produce separate specimens of high purity nickel and copper metal. Laboratory recoveries ranging from 98% to 99.8% for copper and nickel and 60% to 70% for cobalt have been achieved in the lab-scale program. Additional research is scheduled to develop physical concentration and/or chemical treatment of the precious metals-PGM at the mine site.

Ongoing Program

The large scale, first stage, leach program of 450 kilograms of massive sulphide mineralization is nearing completion and about 90 kilograms of residue (concentrate) has been produced. This product will be feed material for a continuous second stage demonstration miniplant which is currently being assembled for leach treatment and ion exchange processing.

Mr. Bruce Ballantyne, Project and Business Development Manager, stated "In 2007, the company's progress will continue with confirmation of the established flow sheet, metallurgical and energy balance performance studies and engineering cost estimates. We are committed to the concept that hydrometallurgical processing of sulphide ores is an achievable objective for a long-life project such as Ferguson Lake and fits well with sustainable development in Nunavut."

About Starfield

Starfield Resources Inc. is an advanced exploration and development company focused on its Ferguson Lake Copper-Nickel-Cobalt-Palladium-Platinum property located in Nunavut, Canada. The Ferguson Lake property covers more than 1.3 million acres and is 100% owned by the Company. Since 1999, Starfield has completed 131,000 metres of diamond drilling in 359 holes. A NI 43-101 technical report dated May 15, 2006 by N.C. Carter PhD., P.Eng. was filed on SEDAR and on the Starfield website on May 25, 2006. A developing feature of this mineral district is the significant discovery of high grade platinum and palladium mineralization found in the footwall to the massive sulphide deposit. Starfield's Ferguson Lake Project is unfolding as Nunavut's largest ongoing base and precious metal project.

On behalf of the Board of Directors,

"Glen C. Macdonald"

Glen C. Macdonald, P.Geo., Director

Caution concerning forward-looking statements

This communication to shareholders and the public contains certain forward-looking statements. Actual results may differ materially from those indicated by such statements. All statements, other than statements of historical fact, included herein, including, without limitations statements regarding future production, are forward looking statements that involve various risks and uncertainties. There can be no assurance that such statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements. The TSX Venture Exchange has not reviewed and does not accept responsibility for the adequacy or accuracy of this release.

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