

www.tertiaryminerals.com
("Tertiary" or "the Company")

16 May 2011

#### POSITIVE SAMPLING RESULTS - LASSEDALEN FLUORSPAR PROJECT

Tertiary Minerals plc, a diversified mineral explorer and developer building on its significant strategic position in the fluorspar sector, is pleased to announce positive results from sampling of archived drill core from its Lassedalen project in south-west Norway. The core is from holes drilled in the 1970s by Norwegian company Norsk Hydro A/S ("Norsk Hydro").

The Company is also pleased to report that it has obtained from Norsk Hydro an extensive archive of data which reveals that evaluation of the project progressed further at that time than public records suggested, Norsk Hydro's activity included pilot scale testwork demonstrating the feasibility of production of acid grade fluorspar and included design of a mine, process plant and infrastructure.

### **Key Points**

- Resampling assay results includes 8.75m intersection grading 59.5% fluorspar from 125m deep in hole BH4 and 10.4m grading 44.1% fluorspar from 196m in BH8 (see table).
- Tertiary assay results show good correlation with archived assay data.
- Metallurgical reports from the 1970s show that acid-grade fluorspar was produced in pilot plant trials and recoveries of fluorspar in excess of 80% were projected (a good recovery in the fluorspar industry today).
- SRK Consulting (UK) Ltd commissioned to review exploration data and make recommendations for Mineral Resource estimation.

Significant assay results from the sampling programme are presented in the attached table.

Commenting on today's news, Patrick Cheetham, Executive Chairman, said: "These are highly encouraging results – it has been an important step to confirm historical assay results and the archive data will certainly help us to fast-track further evaluation of the Lassedalen fluorspar project at a time when fluorspar spot prices are rising strongly."

#### **ENQUIRIES:**

**Tertiary Minerals plc** 

Patrick Cheetham, Executive Chairman

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# **Detailed Information**

## **Drill Hole Sampling**

The Company's Lassedalen Project is located 80km south-west of Oslo and 5km south-west of the historic silver mining town of Kongsberg in southern Norway. The deposit is less than 1km from highway E134 and approximately 40km from the nearest Norwegian port.

The project is well placed for European export markets as well as an important established market within southern Norway where fluorspar is used to manufacture aluminium fluoride for use in the large hydro-powered aluminium smelting and refining industry.

Fluorspar mineralisation at Lassedalen occurs in a 70-80° dipping vein system that can be traced for several kilometers. The richest 560m long part of the vein system (The Main Zone) was explored from a 60m deep underground horizontal development drive during the 2<sup>nd</sup> World War. These workings were dewatered by Norsk Hydro in the 1970s and it was found that the Main Zone fluorspar vein was wider than the drive and that, in places, the drive deviated into the footwall or hanging wall of the vein and so in order to evaluate the full width of the vein Norsk Hydro drilled 60 underground percussion holes into the walls of the drive. over its full length, to test the width and grade of the vein.

Tertiary has carried out a comprehensive logging, sampling and assaying programme on archived drill core from the 1970s surface drilling. Significant results for the main areas of interest are presented in the attached table.

Six of the Norsk Hydro drill holes (BH's 4, 8, 9, 10, 11 & 12) tested Main Zone and all holes intersected significant mineralisation. Significant results from three additional, adjacent, holes (BH7, 19 and 20) over a 220m strike length suggest a second fluorspar mineralised zone, whilst hole BH25 may indicate a third fluorspar zone 360m further east again.

A map illustrating the above features will shortly be available on the Company's website at <a href="http://www.tertiaryminerals.com/lassedalen-4.html">http://www.tertiaryminerals.com/lassedalen-4.html</a>

### **Norsk Hydro Archive**

The Company has recently been given access to Norsk Hydro's exploration archive for their 1970s work at Lassedalen. This includes detailed assay data for their surface diamond drilling as well as detailed data from underground drill sampling where previously only composite data was available. The surface drill assays have been checked against Tertiary's re-sampling results with good correlation and so Norsk Hydro's historic assay results from underground may also be considered reliable.

It is now clear that Norsk Hydro carried out more work at Lassedalen than public records suggest. The archive reveals that Norsk Hydro carried out a significant programme of metallurgical development. This culminated in pilot plant testing during which acid-grade fluorspar was produced and test reports projected that 80% + fluorspar recovery should be achievable in commercial practice. This represents a good commercial fluorspar today.

Norsk Hydro also carried out mine, process plant and infrastructure design but the project was not developed at that time when market conditions for fluorspar were less favourable.

The availability of archive data is expected to result in significant cost and time savings for the Company as it progresses the project towards a preliminary economic evaluation.

The Company has now commission SRK Consulting (UK) Ltd to evaluate all of the historical exploration data and recent resampling data with a view to making recommendations for Minerals Resource estimation for the project.

#### Footnotes;

**Qualified Person:** The information in this release has been compiled and reviewed by Mr. Patrick Cheetham (MIMMM, MAusIMM) who is a qualified person for the purposes of the AIM Note for Mining and Oil & Gas Companies dated June 2009. Mr Cheetham is a Member of the Institute of Materials, Minerals & Mining and also a member of the Australasian Institute of Mining & Metallurgy.

Sampling Quality Analysis and Quality Control: The selection of drill core for re-sampling was made by independent consultant Kjell Nilsen after re-logging and photographing of available drill cores. Archived surface diamond drill core comprised half-core which was cut into quarters by the Norwegian Geological Survey and delivered direct to Labtium Oy in Finland for analysis. Quarter-core samples were crushed and a split of the crushed sample pulverised and analysed for fluorine by a pressed powder XRF method. The QA/QC procedures that were followed include adding certified and other standard and blank samples and duplicate pulp samples to the sample sequence. Labtium is accredited to ISO 17025:2005. Fluorspar contents are being reported on the basis that all of the fluorine in the sample is present as fluorspar (rather than any other fluorine being mineral species). Mineralogical data available to the Company to date suggests this is a valid assumption.

#### **NOTES TO EDITORS**

## **Background to the Company**

Tertiary Minerals plc is an AIM-quoted mineral exploration and development company building a significant strategic position in the fluorspar sector. Fluorspar is an essential raw material in the chemical, steel and aluminium industries and Tertiary controls an estimated four million tonnes of fluorspar across its two Scandinavian projects (Storuman in Sweden and Lassedalen in Norway).

A European Commission report recently named fluorspar as one of its 14 'critical mineral raw materials' for which a possible supply shortage would represent a substantial economic threat. Fluorspar prices have been rising rapidly on the back of long term structural shortages of supply from China.

In mid-2010 the Company completed an economic scoping study for development of its Storuman fluorspar project in Sweden that demonstrated attractive project returns at an export (FOB) China price equivalent to just US\$287/tonne. On 6th May 2011 the spot price for fluorspar was reported by Industrial Minerals Magazine to have risen to around US\$500/tonne ex-port (FOB) China.

Recently the Company published its maiden open-pit mine constrained Minerals Resource for Storuman of 28 million tonnes grading 10.2% fluorspar containing 2.8 million tonnes of fluorspar mineral.

The Company also has interests in exploration and development of Gold, Iron, Tantalum, Niobium and Rare-earths in Finland and Saudi Arabia. Shares in the Company trade on AIM and also on PLUS Markets (ticker symbol 'TYM').

For further information: www.tertiaryminerals.com

Table of Significant Drilling Results - 16 May 2011

Hole	Intersection	% Fluorspar	[rom /m)	To/m)
No.	thickness (m)	(CaF <sub>2</sub> )	From (m)	To(m)
MAIN ZONE				
BH4	8.75m	59.5%	125.00m	132.75m
	0.75111	33.370	120.00111	
BH8	10.40m	44.1%	158.00m	168.40m
and	0.80m	38.6%	176.45m	177.25m
ВН9	3.70m	21.3%	206.60m	210.30m
BH10	13.00m	18.0%	196.00m	209.00m
inc.	6.60m	23.1%	196.00m	202.60m
and inc.	2.20m	28.7%	206.80m	209.00m
BH11	6.20m	19.8%	77.30m	84.00m
inc.	1.25m	53.1%	80.35m	81.75m
				407.00
BH12	4.50m	19.5%	122.50m	127.00m
inc.	1.85m	26.9%	124.15m	126.00m
OTHER ZONES		OF 20/	00.55	80.00m
BH7	19.45m	25.3% 22.5%	60.55m	73.00m
inc.	12.45m	32.5%	60.55m	73.00111
BH19	3.00m	15.4%	88.00m	91.00m
Bills	3.00111	13.470	00.00111	
BH20	3.45m	27.6%	54.75m	58.20m
	J	,0	3 3	
BH25	2.80m	15.1%	42.00m	44.80m
and	3.20m	12.7%	65.00m	68.20m

# Notes to Table

- 1. Significant = Grade (%) x thickness (m) greater than 30m%.
- 2. Drill Hole collars dip variably 54-82° suggesting true widths approximate 83-45% of intersection widths (assuming no dip deviation down hole).