

# NICKEL IN SCANDINAVIA

## DRAKE'S VISION FOR NICKEL

Drake first became active as an explorer in the resource-rich province of Scandinavia in 2006, where the company was aware of the potential for the discovery of significant copper, gold and zinc-lead-silver ore bodies. An alliance with Zinifex Limited led to Drake establishing a base at the historic copper mining centre of Falun, followed by a new joint venture with Royal Falcon Mining three years later. The focus on Scandinavia increased in 2010, when Drake commenced five joint ventures with Panoramic Resources in Norway and Finland.

In early 2012, Drake began exploration of two areas of 100% owned permits at Sala and Hedemora in central Sweden, including drill testing of an exceptional VTEM target in the Tullsta permit near Sala. This led to the very promising discovery of nickel-copper sulphides, steering Drake to reassess Scandinavia's nickel potential.

A strategic acquisition of all nickel prospective land within 100 kilometres of the discovery soon followed, and due to the lack of nickel exploration in the area for several decades, Drake was able to secure the majority of its targeted areas. At the same time, the company learnt that nickel resources were being abandoned by a junior company in Norway due to cash flow difficulties stemming from the Global Financial Crisis, and soon acquired a number of other advanced prospects.

By this stage, the nickel rush of the mid 2000s and Anglo American's major Sakati discovery had intensified Finland's already competitive nickel landscape, leading Drake to focus on the opportunities in Sweden and Norway, and the considerable potential both countries hold for nickel.

Two key projects, the Granmuren Prospect in Sweden and the Espedalen Project in Norway, have now been secured by Drake, giving the company the strong foundations for a potential nickel business in Scandinavia. Extensive work is planned at both projects including drilling, metallurgical testing and mapping and sampling.

## KEY NICKEL PROVINCES

Scandinavia is one of the major nickel mining regions of the world, with past production and existing reserves totalling 15 million tonnes of nickel metal, compared to Australia, where just 11 million tonnes of nickel have been produced or are in resources.

Nickel occurs in three key provinces in Scandinavia, extending from North America through to northwest Russia in association with ultramafic to mafic intrusions, which are known to have potential for nickel-containing ore bodies.

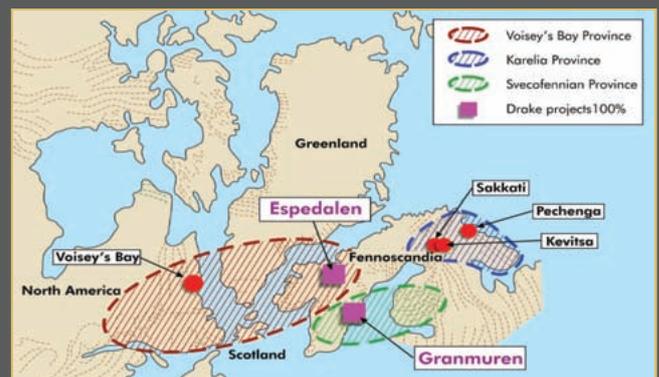
If we take a journey back millions of years when North America and Scandinavia were together as one land, they shared the same geology. The lands have now separated by the Atlantic Ocean, but as they were once joined, we find that the giant Voisey's Bay Province (1300 Ma) now stretches from Canada through to Scandinavia, where Drake's Espedalen project is located.

The Karelian Province (2000 Ma), stretching from Scandinavia through to northwest Russia, is home to the well-publicised major new Anglo-American discovery at Sakati in northern Scandinavia and further east, we find the giant Russian Pechenga nickel-copper deposit.

The third Svecofennian Province (1900 Ma) is host to Drake's new Granmuren discovery which covers an area through southern Scandinavia.

Although these three provinces differ in age from early to mid-Proterozoic, they are all equally highly renowned for nickel-copper mineralisation. The deposits within these provinces tend to be bulk tonnage-type deposits with relatively modest grades from 0.25 to 1.0 per cent nickel, so are mined by both open pit (Voisey's Bay, Kevitsa and parts of Pechenga), and underground methods.

**Drake has strong foundations for potential Scandinavian nickel business**



# GRANMUREN PROSPECT

## Bergslagen, Sweden

*First significant nickel-copper discovery in more than 50 years*

Drake made an exciting discovery of widespread nickel-copper mineralisation at its 100 per cent owned Granmuren deposit in the Tullsta permit in April 2012. Granmuren lies immediately west of the historic Sala silver mine in the Bergslagen District, Sweden. This was a wholly greenfields discovery and mineralisation starts immediately below the glacial cover material.

In Bergslagen, mining and metallurgical industry have been important since the Middle Ages and as consequence has over time built up exceptional infrastructure, with rail within seven kilometres, power two kilometres and road only three kilometres away from the Granmuren deposit, as well as nickel smelters within the Scandinavian rail network.

### Nickel-copper sulphide mineralisation confirmed at prospect

In October 2012, Drake identified a large-sized geophysical target at Granmuren following the completion of an initial ground gravity survey. Drake processed and interpreted the gravity data and modelled the airborne magnetics data available for the area. The 556-metre drilling programme in March 2012 indicated the presence of near-surface mineralisation and that the prospect is open along strike.

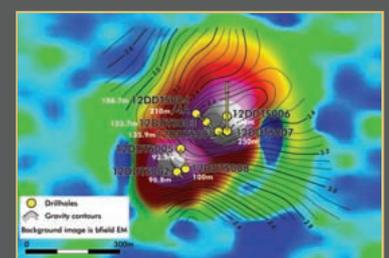
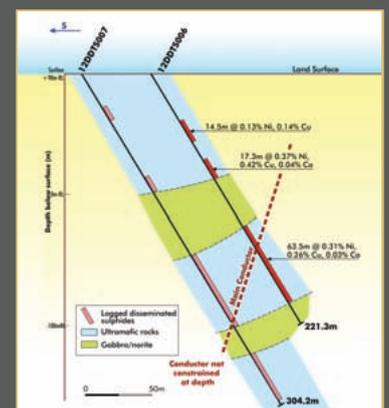
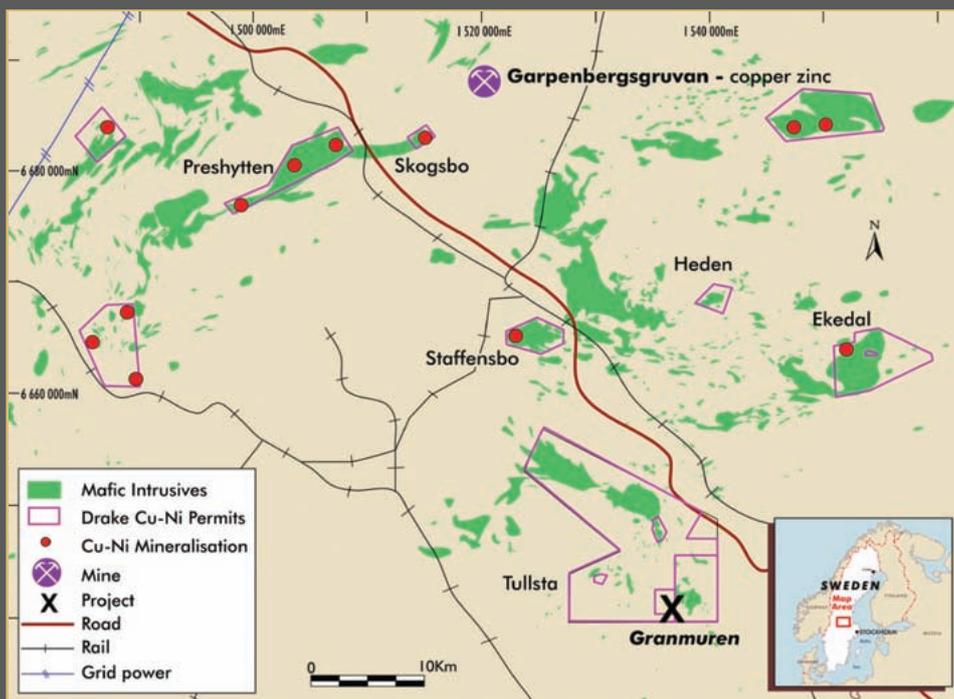
Surface electromagnetic (EM) and down hole surveys confirmed the existence of a very strong conductor adjacent to previously drilled nickel mineralisation at the prospect. A drill rig was immediately mobilised at the site, intersecting close to 250 metres of disseminated sulphides and confirming the Granmuren mineralisation is thicker and more extensive than originally modelled.

Assays received in January 2013 confirmed the presence of expanded copper-nickel sulphide mineralisation in Hole TS006, north of previous drilling.

- Short massive sulphide intervals up to 1.88% nickel
- 5.65m @ 0.73% nickel, 0.40 % copper and 0.06% cobalt within a broad mineralised interval of 63.5m @ 0.30% nickel
- 63.5m @ 1.0% copper equivalent
- 95 cumulative metres of nickel mineralisation

The region has received no systematic nickel exploration for approximately 70 years. The last drilling programme that took place was during the Second World War, when Boliden drilled a number of outcropping mineral occurrences.

The Granmuren discovery, plus several other nickel occurrences in the region, indicate that the nickel potential of central Bergslagen has been completely neglected. With the knowledge of its discovery Drake promptly secured all of the vacant prospective areas for nickel. These included nickel prospects and locations where Drake and Swedish government officials' reconnaissance sampling have already identified numerous, anomalous nickel and copper values.



# ESPEDALEN, NORWAY

*11 million tonnes of open-pitabile nickel-copper deposits*

In August 2012, Drake was granted 12 exploration claims covering 119 square kilometres in the highly prospective nickel-copper mining district of Espedalen in Norway.

## Nickel-copper drill targets identified

The project is located approximately 50 kilometres north-west of Lillehammer in southern Norway. It is close to rail links to ports, the Norilsk nickel smelter in Finland and is approximately 350 kilometres north of Xstrata's Kristiansand nickel refinery.

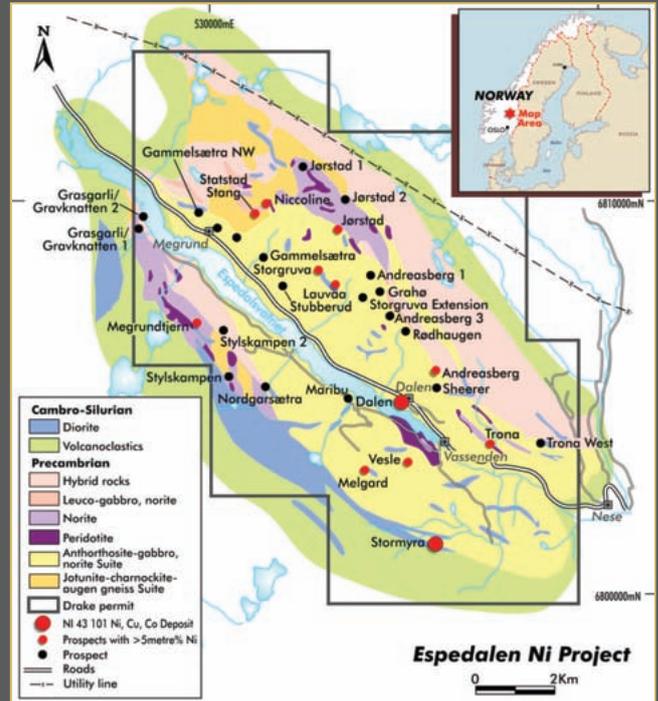
Drake's main target at Espedalen is high grade, Voisey's Bay-type nickel-copper. The Espedalen geology and mineralisation is of similar type and age as found at Voisey's Bay and forms part of this exceptional nickel-copper province stretching from Canada through to Scandinavia. The deposits at Espedalen may represent the second largest deposit (behind Voisey's Bay) of this type in the province. In addition, the extensive, lower grade nickel-copper mineralisation already identified may constitute a target in its own right.

Nickel-copper mining was carried out in the Espedalen district in the 1800s. Systematic exploration commenced in the 1970s, when Falconbridge (later Xstrata) carried out a major programme over several field seasons. The district was revisited by Falconbridge in the early 2000s, and then was the subject of a joint venture/purchase agreement with the TSX-listed company Blackstone Ventures. Exploration ceased during the Global Financial Crisis, and ultimately Blackstone relinquished their permits.

Early exploration also established the Megrund Prospect as a significant mineralised zone and additional prospects with intersections including 51m @ 0.74% Ni and 117m @ 0.31% Ni that have open pit potential.

Drake has completed a comprehensive review of available reports on its 12 exploration licences over the Espedalen district and defined a substantial work programme including a number of drill ready targets.

Drake has established that there are 10 additional prospects in which there are drill intercepts of greater than five metres per cent nickel using a 0.1 per cent nickel cut off (for example five metres at one per cent nickel or 10 metres at 0.5 per cent nickel), in addition to the two deposits at Dalen and Stormyra.



*Drake claims relative to geology and mine/prospect locations*

- Four prospects at Stormyra, Dalen, Megrundtjern and Trona have significant ongoing exploration potential and programmes and budgets are proposed.
- Appraisal of data on other prospects evaluated by Falconbridge in the 1970s and Falconbridge/Blackstone in the early 2000s has resolved that the Melgard, Melgard West, and Lauvaa prospects appear to have significant untested potential and warrant drilling.
- The Grasgarli, Stubberud, Nordgardsaeter AEM anomalies remain untested with drilling and warrant Fixed Loop EM (FLEM) and follow up drilling.
- Five old mine prospects at Andreasberg, Storgruva, Jorstad, Stang Niccoline and Vesle while having localised significant mineralisation have limited potential, most of which resides in depth. Jorstad is probably the most significant of these. At this stage no further work is proposed.





## THE FACTS ABOUT NICKEL (Ni)

- High melting point of 1453°C
- Resists corrosion and oxidation
- Very ductile
- Biggest use is alloying to produce stainless and heat-resistant materials
- 65% used for stainless steel manufacturing
- Magnetic at room temperature
- Can be deposited by electroplating
- Has catalytic properties
- Found in most fruits, vegetables and nuts
- The use of nickel (as a natural meteoric nickel-iron alloy) has been traced as far back as 3500 BC

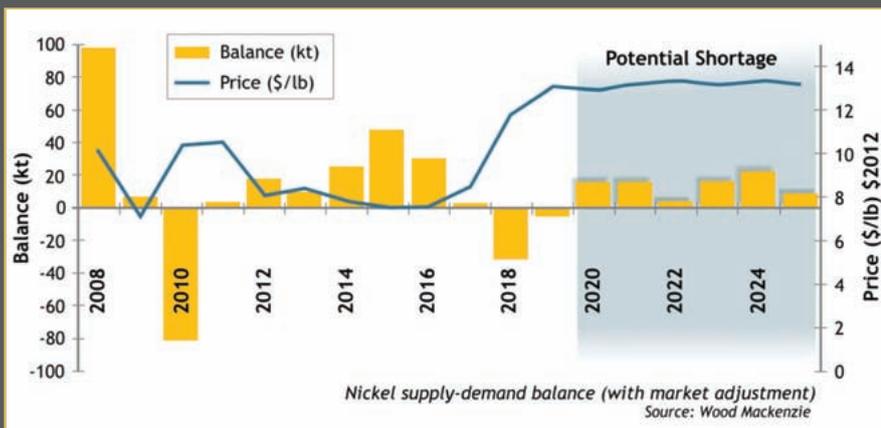
## NICKEL FORECAST TO RALLY

Nickel is widely used around the world in over 300,000 products for consumer, industrial, military, transport, aerospace, marine and architectural applications. Ores are mined in over 23 countries and are smelted or refined in 25 countries. About 1.4 million tonnes of new or primary nickel are produced and used annually in the world, compared with over 10 million tonnes of copper and nearly 800 million tonnes of steel.

### Analysts buoyant for nickel in 2013

2012 was tough for nickel, with prices down seven per cent and warehouse stocks at their highest level. But analysts are buoyant for the commodity in 2013, and have predicted that the surplus of mined nickel forecast may have been overblown.

As a result of this assumption, along with other factors including low stainless steel inventories in Europe and China, Citi Research expects nickel to rally to \$21,000/tonne in the first quarter of this year — a 19 per cent increase over the current LME price of \$17,540/tonne. The research group predicts nickel will average \$21,770/tonne in 2013 and rise to \$24,400/tonne in 2014.



Commodity broker Natixis expects nickel demand to grow by three per cent in 2013, with a likely improvement in demand from India if tariffs on nickel imports remain in place and the country continues to encourage its domestic stainless steel industry.

Senior nickel analyst Sean Mulshaw from Wood Mackenzie recently projected that the world needs 500,000 tonnes of nickel, the equivalent of 10 Koniambo deposits, the massive nickel ore body located in New Caledonia, to meet future demand.

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