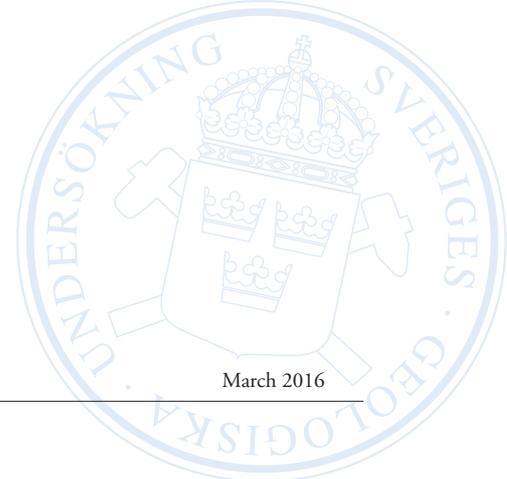


What's up in Sweden

EXPLORATION NEWSLETTER

March 2016



EXPLORATION NEWS

Dragon Mining Ltd announced on December 31 the completion of the maiden Mineral Resource estimate for the higher grade zone of gold mineralisation on the Fäboliden Gold Project. The estimate totals 6.9 Mt grading 3.3 g/t gold for 743,000 ounces and incorporates all results from the diamond core drilling campaign completed in 2015. The Mineral Resource estimate was prepared by independent consultants Runge Pincock Minarco Ltd and has been reported in accordance with the JORC Code.

On February 11, **Boliden** announced an update on exploration. Aitik has worked on a new grade model, open-pit optimisation and design, resulting in a mineral reserve of 1,227 Mt (1,126). The average grade of the reserve has increased to 0.23% copper and the reserve life with full production is estimated to 27 years. Surveys near the decommissioned Nautanen mine, 15 km north west of Aitik, have resulted in an inferred and indicated mineral resource of 16 Mt with grades of 1.4% copper and 0.65 g/t gold. Mineral reserves and mineral resources at Garpenberg have increased to 39.8 Mt (37.6) and 82.7 Mt (73.3), respectively. The reserves increased due to the identification of a deposit at Kvarnberget, but the new deposit has lower grades and the reserves' total grades have consequently fallen to 3.9% (4.3) for zinc and 113 g/t (120) for silver. The reserve life is estimated to 15 years with full production. Several years of exploration work at Kristineberg have resulted in an inferred mineral resource – Rävliiden – of 5.9 Mt. In addition to Rävliiden, mineral resources also increased at Renström and Kankberg. The Boliden Area's mineral reserve now totals 14.8 Mt (15.1) and the reserve life is estimated to 9 years with full production.

On October 12, **Avalon Minerals Ltd** announced the commencement of the Environmental and Social Impact Assessment (ESIA) with the appointment of consulting groups **ERM** and **Hifab** to manage and undertake baseline studies, impact assessments and permitting activities for the Viscaria copper project. On November 30, **Avalon** presented a new D zone copper Mineral Resource Estimate of 11.14 Mt at 1.23% Cu for 137,200 t of contained copper with 93% of the Mineral Resource Estimate in the Indicated classification. **Avalon** released on December 14, a Scoping Study determining that the Viscaria Project demonstrates robust project fundamentals with low technical risk. The scoping study sees Viscaria positioned as a low capital intensity copper-only development scenario. Sufficient mining inventory has been defined that will justify a decision to mine in 2017 should the project metrics remain constant through feasibility study stages.

Tasman Metals Ltd announced on December 2, the completion of a beneficiation pilot plant test on mineralized rock from the Norra Kärr heavy rare earth element project. The pilot plant was run at **GTK**, with the cost borne by the

EURARE project. A 6.5 t sample of representative Norra Kärr mineralized rock was collected via drilling during 2014. From this sample 5.6 t was crushed, ground and magnetically separated as per **Tasman's** pre-feasibility study flow sheet. Although the optimal magnetic separation equipment selected by **Tasman's** previous bench scale work was not available at **GTK**, the pilot plant performed well. The magnetic separation pilot plant was run continuously for 6 hours on each of 3 days, and 79% yttrium recovery was achieved in a mass of 34.8%. The full set of REE analytical data is not yet available. The pilot plant has produced approximately 1.9 t of eudialyte/REE enriched mineral concentrate. This mineral concentrate is available for scaled up hydrometallurgical testwork. In addition to the REE enriched concentrate, some 3.7 t of nepheline and feldspar by-product was also produced. **Tasman's** previous test work on the nepheline/feldspar by-product from Norra Kärr has shown it to have key characteristics similar to material being used industrially across Europe. This material is now being prepared for product and market development activities to progress commercialization. On February 23, **Tasman** announced the notification of a decision by the Supreme Administrative Court (SAC) to cancel the Norra Kärr Mining Lease (ML). On the basis of a review of the process of granting of the ML, the SAC has determined that the decision by the Swedish Mining Inspectorate was incorrect, as the decision to grant the ML was not adequately supported by environmental studies into a future mining operation. As a result, the Norra Kärr ML is no longer granted. The SAC decision to cancel the ML cannot be appealed. Environmental studies into a future mining operation were publically released as part of the 2015 Pre-Feasibility Study. The Norra Kärr project now reverts to an Exploration Licence. **Tasman** is now reviewing the findings of the SAC. **Tasman** remains free to reapply for a new Mining Lease at any time. The cancellation of the ML does not change **Tasman's** view of the potential of the Norra Kärr project or the work required to begin a mining project. The ML provided no rights for mining or ground disturbance of any type, and a full Environmental Impact Statement was always required to be prepared and submitted as part of an Environmental/Operating Permit. **Tasman** can satisfy the interpretation of the Mining Act by the SAC with the data collected and publically reported during the Pre-Feasibility Study completed on the Norra Kärr project in 2015.

Tertiary Minerals plc announced on February 18 that the exploitation permit for the Storuman fluorspar project has been approved by the Swedish Mining Inspectorate.

Hannans Reward Ltd advised on November 24 that joint venture partner, **Lovisagruvan AB** has formally notified **Hannans** of its decision to proceed to Stage 2 of the Pahtohavare Joint Venture. As part of their Stage

2 commitment **Lovisagruvan** will prepare and lodge an exploitation concession application for the Central deposit within approximately 12 months.

Copperstone Resources announced on February 10, that exploration has been carried out at Granliden South. This was followed up with core drilling and sampling of four boreholes in Nov-Dec 2015. A number of high grade Cu-Ag mineralization intervals are found across a 50-60 m wide zone of altered bimodal volcanic units. The Granliden South Cu-Ag Exploration Target forms an integral part of the extensive Copperstone Mineral Exploration project in southern Norrbotten.

S2 Resources announced in an exploration update on November 30 that a transient electromagnetic (VTEM) survey of S2's ground in the central part of the Skellefte belt has identified a number of strong EM conductors. This is the first ever VTEM survey in the Skellefte belt. A total of 68 EM anomalies have been identified in this survey, with 15 of these ranked as very high quality conductors. Initial field checking of the higher ranked conductors indicates that they are located in areas with no outcrop that are concealed by a thin veneer of glacial till. A three dimensional induced polarisation survey at the Brannas Cu-Au-PGM prospect has identified a significant anomaly beneath the previously announced outcropping mineralization (averaging 1.6% copper, 0.5g/t gold and 0.4g/t Pt+Pd), which comprises disseminated chalcopyrite in a pyroxenitic gabbro intrusion.

MINING NEWS

In the Q4 Interim and Year-end Report, **Boliden** announced that Aitik's production of copper and gold in concentrate increased slightly in comparison with the previous quarter. Mining took place in areas where the ore has lower levels of grindability, which limited production, and the milled volume totaled 9.4 Mt. The milled volume for the year as a whole fell to 36 (39) Mt due to unfavourable ore quality during the second quarter and the low availability of crushers in the autumn. Higher copper grades failed to compensate for the lower milled volumes. The Boliden Area saw stable production of high grade ores but was unable to compensate in full for the loss in volumes from Maurliden, which suffered water problems. Lower milled volumes notwithstanding, production of gold, silver and lead in concentrate increased, quarter on quarter, due to an improvement in the ore mix. The milled volume for 2015 was 1,879 (1,862) Kt. Higher grades and recovery levels resulted in an increase in production of zinc, lead and silver in concentrate, but production of copper and gold in concentrate fell due to lower grades and recovery levels. The ramping up of production at Garpenberg continued according to plan and by the end of the quarter, the annual production rate in milled volume

totaled 2.5 Mt. Higher milled volume, coupled with higher grade and recovery level, resulted in a quarter on quarter increase in the production of zinc in concentrate. Production of silver in concentrate fell, however, due to lower grade and recovery level. The milled volume for the year increased to 2,367 (2,224) Kt. Production of zinc and silver in concentrate increased by 8 and 32%, respectively, due to higher milled volume and improved recovery levels. Silver grade also improved.

In the year-end report **LKAB's** President and CEO, Jan Moström comments: "LKAB's production volume for the quarter was 6.7 (6.7) Mt and deliveries amounted to 6.8 (6.7) Mt. The proportion of pellets was 82 (83) percent. Production and delivery volumes returned to normal following an extensive maintenance shutdown involving mantle ring replacement at the KK4 pelletizing plant in Kiruna in the third quarter. The operating loss for the quarter was -351 (205) Mt. By the end of the year the previously announced savings target of MSEK 700 for 2015 had been achieved. Total savings amounted to MSEK 800 for 2015. Personnel reductions equivalent to 400 positions are continuing according to plan and will be completed during the first quarter of 2016."

In the Q4 and year-end report, **Lundin Mining Ltd** reported that zinc and lead production reached record levels in the quarter, and full year zinc production was a new record high. Both the annual total mine ore production and plant throughput reached record highs. Zinc production of 83,451 t and lead production of 34,120 t for the full year were 7% and 5% higher, respectively, than 2014 levels. Copper production for the year met expectations, but was lower than 2014 copper production as the copper plant shifted its focus to processing zinc ore.

Mandalay Resources Corp announced on January 13 production results for the fourth quarter and full year of 2015. Production at Björkdal was 10,465 oz Au, versus 11,458 oz Au produced in the fourth quarter of 2014. Production in the first full year of ownership of Björkdal was 44,039 oz Au.

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