

## INDUSTRY NEWS

The most significant recent developments in the minerals industry have been the announcements of changes in ownership at two of Ireland's three base metal mines. **Outokumpu-Tara Mines** have announced that, as part of a major restructuring, the Navan mine is to be purchased by **Boliden**, while **Ivernia West** have sold their 50% interest in the Lisheen Mine to their partner **Anglo American**. Production continues at all three mines, with **Arcon** announcing revised reserve figures for the R Zone at Galmoy. All three companies continue to explore in the immediate vicinity of their mines, but otherwise active exploration for base metals is very limited, a consequence of the depressed state of the zinc market. However, there is some activity for gold, with **Conroy Diamonds and Gold** and **Minco** both actively evaluating properties.

### Development

- **Galmoy (Arcon Mines)**

During the first six months of 2003, **Arcon Mines Ltd.** milled 331,933t of ore grading 11.52% Zn and 2.55% Pb at their underground zinc-lead mine at Galmoy, Co. Kilkenny. This yielded 61,687t of zinc concentrate (52.14% Zn). No lead concentrate was produced. Total production since mining commenced in 1997 amounts to 3.44Mt of ore at 10.69% Zn and 1.28% Pb. Reserves at end December 2002 were 4.95Mt at 14.5% Zn and 4.3% Pb, including 1.8Mt at 20.4% Zn and 7.9% Pb in the recently discovered R Zone.

In September Arcon announced that the R Zone contains 2.3Mt at 19.8% Zn, 6% Pb and 65g/t Ag, confirming it as one of the richest zones of massive sulphide mineralization found in Ireland. Planning and mining facility applications have been submitted to develop this zone. A capital expenditure programme in the mill to treat the higher grades has commenced, and this will result in increased production and will enable lead and silver by-product sales, according to the company. Arcon will continue with their near-mine exploration programme to evaluate previously identified gravity anomalies northeast of the R Zone. The gravity anomalies are similar to that which led to the R Zone discovery.

- **Lisheen (Anglo American)**

On September 29, 2003, **Ivernia West Inc.** (Ivernia) announced that it had completed the sale of the company's 50% participating interest in the Lisheen Mine in Co. Tipperary to **Anglo American plc** (Anglo). Anglo hold the other 50%. Pursuant to the sale, Anglo purchased all of the shares of Ivernia's subsidiary **Ivernia West Limited** and its other subsidiaries that hold Ivernia's interest in the Lisheen Mine, for a consideration consisting of an aggregate cash purchase price of US\$1.8 million and the assumption by Anglo of all Ivernia's existing debt obligations relating to the Lisheen Mine, including outstanding project loans, in the amount of US\$73.19 million. The agreement for the sale is the product of previously disclosed negotiations held between Ivernia and Anglo since the first quarter of 2003.

During the first six months of 2003, the Lisheen Mine produced 755,281t at 11.85% Zn and 2.12% Pb. Concentrate production during that period amounted to 149,261t of zinc concentrate (54.0% Zn) and 16,004t of lead concentrate (59.2% Pb). Total production since mining commenced in 1999 is 4.3Mt at 11.43% Zn and 2.47% Pb. Reserves at 31<sup>st</sup> December 2002 were 12.8Mt at 11.26% Zn and 1.96% Pb.

- **Navan (Outokumpo-Tara Mines)**

Production at the **Outokumpu-Tara Mines Ltd.** zinc-lead mine at Navan, Co. Meath during the first six months of 2003 amounted to some 1.26Mt (milled) at 7.17% Zn and 1.71% Pb. This yielded 148,919t of zinc concentrates (56.2% Zn) and 23,701t of lead concentrates (62.6% Pb).

Total production to end June 2003 since mining commenced in 1977 amounts to 56.41Mt grading 8.33% Zn and 2.05% Pb. At the end of 2002, Ore Reserves (AIMM JORC code) were 18.0Mt grading 9.3% Zn and 2.0% Pb (Proven and Probable). In addition, Mineral Resources (Measured, Indicated and Inferred) totalled 21.2Mt grading 7.3% Zn and 2.2% Pb.

On September 8<sup>th</sup> 2003, Outokumpu and Swedish company **Boliden** announced that they were negotiating a major restructuring of both companies. The process will see Outokumpu's zinc mining and smelting (and copper smelting and refining) operations transfer to Boliden, while Boliden's copper fabrication and technology sales business will be acquired by Outokumpu. The Outokumpu assets and businesses to be transferred to Boliden include the Tara Mines zinc mine at Navan. As a result of the transaction, **New Boliden** will become the fourth largest zinc mining company in the world, and Outokumpu will become a major shareholder (49%) in New Boliden. The transaction is subject to, among others, approval by regulatory authorities and by the Boards of both companies, as well as by Boliden shareholders. The transaction is to be completed by the end of 2003.

- **Knocknacran (Irish Gypsum)**

Gypsum has been continuously mined in Ireland since 1936. In 2002 Irish Gypsum produced some 400,000t of gypsum from its opencast mine at Knocknacran, County Monaghan. In July 2003 the company submitted a Planning Application to Monaghan County Council for a new underground gypsum mine at Drummond. The new mine would be adjacent to the Knocknacran mine, and is within the area of the company's current State Mining Lease. A request for further information was issued by the County Council in September

## **Exploration**

- **General**

The historically low price of zinc has resulted in the curtailment of most base metal exploration programmes throughout Ireland. However, concessions granted by the Department of Communications, Marine and Natural Resources in 2002 has meant that Prospecting Licence holders will not be penalised for not meeting expenditure requirements during 2002 or 2003. Accordingly, licensees have been able to retain their properties during this severe downturn in the sector, and the expectation is that these companies will be able to resume exploration without delay as soon as the exploration climate improves.

- **Company Activities**

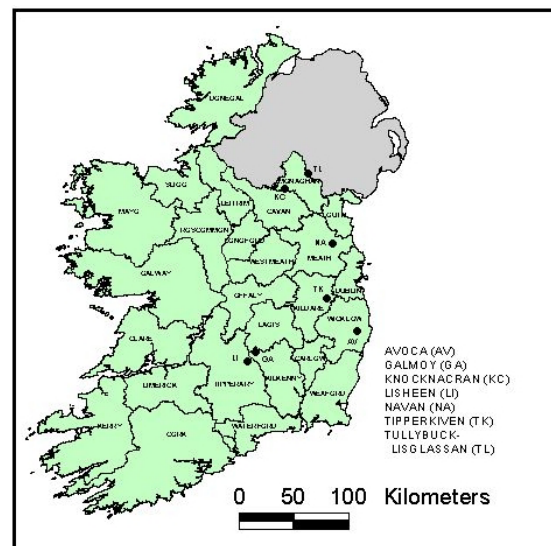
**Arcon International Resources (Arcon)** are carrying out exploration restricted to the immediate vicinity of the company's underground zinc-lead mine at Galmoy. The company recently raised €5.4 million by way of a placing, and this money will be used to continue the exploration programme, as well as funding additional capital expenditure to increase

production capacity, and for general working capital purposes. Exploration will be focused on previously identified gravity anomalies northeast of the R Zone, anomalies that are similar to that which led to the discovery of the R Zone.

**Conroy Diamonds and Gold Plc (Conroy)** have announced further results from their gold exploration programme in Co. Monaghan. In May, Conroy said that soil sampling at Corkaskea, 1km north of the Tullybuck-Lisglassan gold prospect, had outlined an ENE-trending gold anomaly some 400m long. Trenching on the central part of the anomaly intersected a zone of gold mineralization in bedrock, including 12m at 4.92g/t Au and, separately, 23m at 2.25g/t Au. The gold occurs in fault gouge and breccia with disseminated sulphides. Subsequent drilling confirmed that the gold is associated with a flat-lying NNW fault zone similar to those known to host the gold mineralization at Tullybuck-Lisglassan. Best drill intersection, at 6.5m depth, was 3.65m at 1.76g/t Au. In September, Conroy announced that a soil sampling programme in Ballygreany townland, 1km east of Tullybuck-Lisglassan, had revealed a well-defined gold anomaly (500m x 125m). Several values were over 500ppb Au, with background of 4ppb Au. Initial trenching at Ballygreany revealed two separate zones of gold in bedrock. The two zones are approximately 30m apart, and the mineralization appears to be associated with zones of quartz-ankerite veining within sheared arenites and argillites. Within the zones the gold is associated with pyrite. Diamond drilling and further trenching is planned for this prospect.

**Glencar Mining Plc** hold two prospecting licences in eastern Co. Laois. Drilling in 2001 has suggested that the property has a similarity to the setting of the Galmoy and Lisheen orebodies, although the main mineralised lithological horizon at Lisheen and Galmoy was not present in that drilling. Glencar are looking for a joint venture partner for this project.

In October, **Minco** announced that they had commenced exploration on their gold licences in Co. Kildare and in Co. Wicklow. In Kildare the target is the Tipperkiven prospect, where drilling will be carried out, while in Wicklow the exploration will be in the Goldmines River area, near Avoca. A drilling programme will be undertaken in 2004 on Minco's zinc properties in Limerick, where the company are in joint venture with **Noranda**.



**County Map of Ireland showing locations mentioned in the text.**

**Tara Mines Ltd** continues to explore in the immediate vicinity of the Navan orebody. The particular targets include the southwestern extension of the orebody (SWEX and SWEX-B), its northeastern extension (Nevinstown, formerly the Bula mineralization), and the northwestern margin (Liscarton, acquired recently from Glencar Mining).

- **Joint Venture Opportunities**

In March 2003, Exploration and Mining Division produced a leaflet entitled *Mineral Exploration in Ireland: Joint Venture Opportunities*. The leaflet contains information on 14 different properties where the licensees are looking for joint venture partners. Eight different companies are offering properties, and the minerals under offer include base metals, gold and diamonds. Copies of the leaflet are available free of charge from The Exploration and Mining Division (e-mail us at [EMDTechnical.info@dcmnr.gov.ie](mailto:EMDTechnical.info@dcmnr.gov.ie)) or from our website ([emd.ie](http://emd.ie)).

- **Prospecting Licence Information**

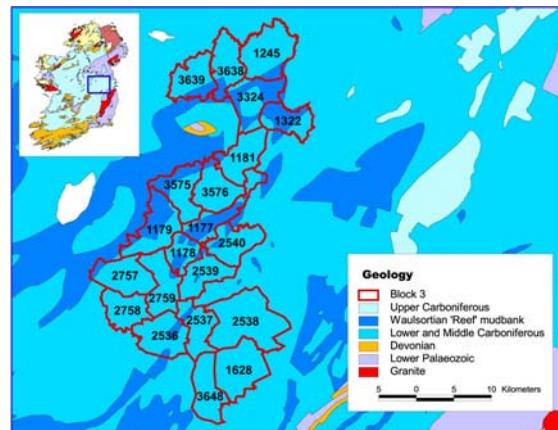
During the past six months 18 new Prospecting Licences were issued, while over the same period 53 licences were surrendered or expired; the number of licences held at 23<sup>rd</sup> October 2003 is 293.

Fifteen licences were issued to Canadian junior company **Tournigan Gold Corporation**; all are in Co. Donegal, and are for Base Metals, Silver and Gold. **Minco** were awarded three licences, two in Co. Wicklow and one in Co. Kildare. All licences are for Base Metals, Barytes, Silver and Gold.

## Exploration Assistance

The Exploration and Mining Division (EMD) has in place four significant complementary programmes to encourage exploration investment. The common theme is to provide, free of charge and in digital format, all non- confidential data that is available through the Division and to provide added value when the opportunity arises.

Under the **Airborne Data Release Programme**, geophysical surveys by BHP over a further seven areas have been released since May (see inside front cover). The **Exploration Data Release Programme** now has three themes. Firstly, the release of data over 6 years old from currently held PL areas. There has been a further release for 22 areas in Counties Galway, Roscommon, Westmeath and Offaly (see figure). Secondly, data from surrendered ground. In the past six months data from 53 areas has been made available. The third theme is the progressive provision of such data through the internet ([minex.gov.ie](http://minex.gov.ie)). To date data from 111 areas are available, including all the areas in the current Prospecting Licence Competition.



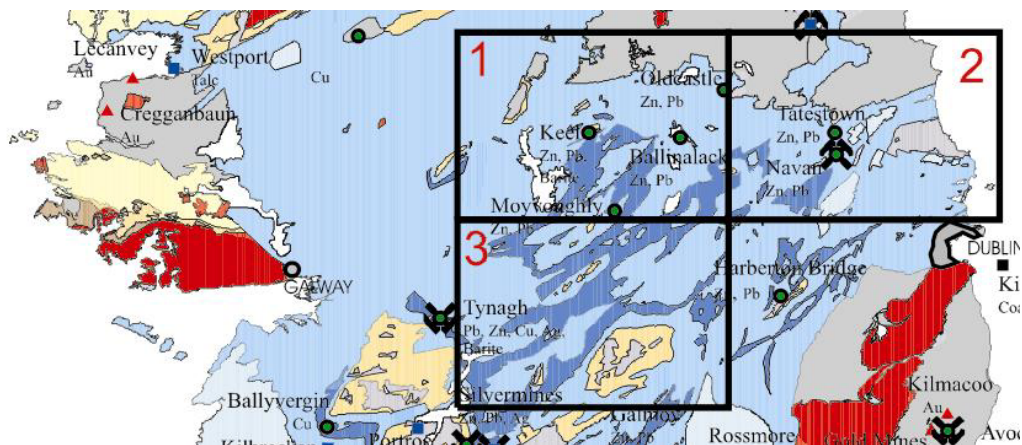
**Latest areas for which data over 6 years old has been released**

The third programme the **MAPS (Mineral Administration and Programme Support) Initiative**, is behind schedule. It is designed to provide all the needed information and available background data to assess ground and handle the business requirements of permitting

through the internet. The first phase, providing e-Business facilities for applying for Prospecting Licences, regulatory information and a range of GIS datasets, has been online (now through [minex.gov.ie](http://minex.gov.ie)) since March. The second phase will provide improved GIS facilities and full online services for all regulatory requirements during the 'life' of a Prospecting Licence. This phase is expected to be completed by April 2004.

The **Airborne Magnetic Interpretation Initiative**, in partnership with PGW Europe Ltd., is behind schedule. The first release is the Block 2 area (see figure), which will now be available on CD in December 2003. It will include a report and a number of maps at 1:100,000 scale (geophysical interpretation, processed magnetic, prospecting licence areas and mineral deposits). The other Blocks will be available by March 2004.

### Areas included within the Airborne Magnetism Interpretation Initiative



## **PDAC Convention 2004, Toronto**

The 72<sup>nd</sup> Annual Convention and Trade show of the Prospectors and Developers Association of Canada (PDAC) will be held in Toronto from 7<sup>th</sup> to 10<sup>th</sup> March 2004. The Exploration and Mining Division will again be represented at the Trade Show, where we will be joined by our colleagues from the Northern Ireland Department of Enterprise, Trade and Investment and the Geological Survey of Northern Ireland, in a combined **Ireland** exhibit.