

INDUSTRY NEWS

Most of the exploration activity in the last six months has been in the vicinity of the three underground Zn-Pb mines at Navan, Galmoy and Lisheen. However, there has also been a noticeable, if small, increase in drilling activity focused on several base metal prospects, undoubtedly related to the improvement in the price of zinc. There has also been some exploration for gold in the Longford-Down Massif. The decline in Prospecting Licences has been arrested, with a significant increase in the number of Prospecting Licence applications, and we are pleased to welcome two new entrants to the exploration scene in **Aurum Mineral Resources** and **John Gannon**.

The three base metal mines continue to account for much of the production of zinc and lead in Western Europe, with Tara Mines Ltd. starting major production in two new areas in 2004. A new State Mining Facility has been issued to **Eurostone Ltd.** for dolomite.

Development

- **Navan (New Boliden)**

Production at the **New Boliden-Tara Mines** underground zinc-lead mine at Navan Co. Meath during the first six months of 2004 amounted to 1.2Mt of ore grading 9.34% Zn and 1.90% Pb. The mine produced 187,000t of zinc concentrate (55.6 % Zn) and 26,000t of lead concentrate (61.5% Pb). Total production to date (1977- June 2004) is 58.9Mt grading 8.36% Zn and 2.04% Pb.

At end 2003, Tara's JORC classified Ore Reserves for the entire orebody amounted to 16.9Mt at 9.3% Zn, 2.0% Pb and an additional 20.7Mt of Mineral Resources grading 7.3% Zn and 2.1% Pb.

Tara Mines received planning permission to mine the Nevinstown part of the Navan orebody in early 2004 having purchased this area in 2001. Revised Ore Reserves for Nevinstown at end 2003 amounted to 7.3Mt at 9.3% Zn, 1.8% Pb reflecting more than a 1Mt increase since 2002, a result of successful exploration and delineation. Production commenced in early 2004 enabling the higher-grade material from Nevinstown to be incorporated into Tara's mill feed.

In the South West Extension (SWEX), commissioning of the No 5 crusher system in 2003 and completion of the main development phase was followed in 2004 by production from the high-grade areas. A State Mining Licence and planning permission were granted during 2004 for some areas outside Tara's State Mining Lease. Outstanding work, namely boring of two ~650m ventilation raises and development and delineation of the SWEX-B orebody (lying further west of SWEX), will commence in early 2005.

Tara continues to explore for further extensions to the Navan orebody, particularly northwest of the Nevinstown orebody and around the margins of the SWEX. During 2004, a new phase of exploration commenced to examine the area lying beyond the SWEX-B zone. Preliminary results indicate that mineralisation is present, particularly within the U Lens. The area is structurally complex and a considerable amount of work remains to be done over the next few years to find economically viable extensions to the orebody. Approximately 12,000m of exploration and delineation drilling will be completed during 2004.

- **Lisheen (Anglo American)**

During the first six months of 2004, **Anglo American** mined 755,000t of ore grading 11.69% Zn and 1.90 % Pb from its underground zinc-lead mine at Lisheen, Co. Tipperary. This yielded 151,000 of zinc concentrate (53.2 % Zn), and 15,000t of lead concentrate (63.9% Pb). Total production to date

(1999-June 2004) is 5.85Mt. Reserves at end June 2004 were 9.12Mt grading 12.47% Zn and 2.17% Pb, with additional Resources of 0.89Mt grading 12.25% Zn and 1.12% Pb.

It is expected that the company will make a planning application shortly to work minerals in the Bog Zone, to the east of current underground workings. These minerals lie within the existing State Mining Lease area.

The company recently completed and commissioned a new 'leading edge' paste backfill plant, at a cost of some €11M. They have also continued with their deposit-related exploration programme aimed at discovering satellite ore bodies that could be accessed from the current underground workings.

- **Galmoy (Arcon Mines)**

During the first half of 2004, **Arcon Mines Ltd.** milled 330,000t of ore grading 12.74% Zn and 5.85% Pb at their underground zinc-lead mine at Galmoy, Co. Kilkenny.

This produced 66,000t of zinc concentrate (51.24% Zn) and 6,300t of lead concentrate (53.68% Pb). Total production from 1997 to end of June 2004 was 4.1Mt grading 10.87% Zn and 1.77% Pb. Reserves at the end of March 2004 were 4.18Mt at 14.2% Zn and 4.4% Pb.

In December 2003, Kilkenny Co. Council announced their intention to grant planning permission for development of the R Zone. Arcon appealed the terms of the permission. In June 2004 An Bord Pleanála (The Planning Appeals Board) granted planning permission for the development.



County map of Ireland showing locations mentioned in the text. Galmoy (G), Knocknacran (K), Lisheen (L), Navan (N), Newcastle West (NW), Pallas Green (PG) Subulter (S) and Tullybuck- Lisglassan (TL)

- **Knocknacran (Irish Gypsum Ltd.)**

On 15th June 2004, Monaghan County Council announced its decision to grant Planning Permission to **Irish Gypsum** for a new underground gypsum mine at Drummond. The decision was not appealed. The new mine will be located within the area of the company's current State Mining Lease, and will be adjacent to the opencast Knocknacran mine where the company produced some 400,000t of gypsum in 2003. Preparatory work for the development of the Drummond mine is now underway.

- **Subulter (Eurostone Ltd.)**

On 1st June 2004, a State Mining Lease was issued to **Eurostone Ltd.** for the working of dolomite and dolomitic limestone at Subulter, near Mallow, Co. Cork. The Lease is for four years only. Planning permission had been obtained for the development.

Exploration

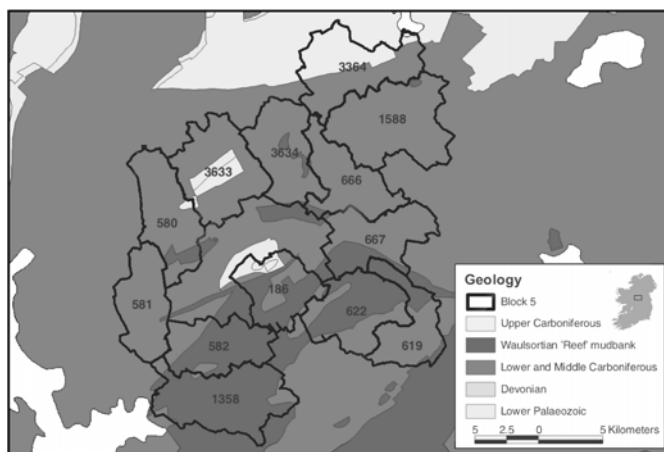
- **Company Activities**

The 2004 field programme of **Conroy Diamonds and Gold Plc** has concentrated on further investigation of the Glenish prospect, in Co. Monaghan, some 7km southwest of the Company's Tullybuck-Lisglassan prospect. The Glenish prospect lies in an area of structural complexity, where the Orlock Bridge Fault is offset by the Glenish Fault. Initial exploration of the area by Conroy concentrated on soil geochemistry around the intersection of the two Faults. This geochemical programme resulted in the recognition of a large (approximately 1.3 km²), +10 ppb Au soil anomaly. Follow-up deep overburden sampling was carried out, and outlined a NW-SE trending anomaly with gold values of up to 1,393 ppb and 834 ppb. *In-situ* bedrock sampling in a stream close by the anomaly returned a significant one metre channel sample grading 9.40g/t Au and grab samples which assayed up to 2.45g/t Au. The mineralization appears to be fault-controlled, and is hosted by intensely sheared argillite, with quartz/carbonate veining and pyrite. This is a style of mineralisation similar to that seen at other localities in the Armagh-Monaghan area.

In September, Conroy received a commissioned report from SRK Consulting (UK) on Conroy's gold prospects and their exploration potential, which recommending focusing on three target areas within the Conroy ground-holding.

Minco, together with their joint venture partner **Noranda**, have undertaken limited drilling and TEM geophysical surveys on the extensive block of joint venture licences at Pallas Green, Co. Limerick.

Ovoca Resources have announced a joint venture agreement with **Aurum Mineral Resources** on Ovoca's three licences in West Limerick. Aurum will spend up to €100,000 to earn a 25% interest in the base metal (zinc) prospect at Newcastle West. Earlier this year, **Tara Mines** completed a detailed gravity survey over part of these licences as well as over some of Tara's adjacent ground. Results of this survey are being made available to Ovoca for interpretation.



Prospecting Licence areas over parts of Cos Longford and Westmeath for which data over 6 years old has been released since May 2004.

As in the previous six months, **Arcon Exploration**, the subsidiary of **Arcon International Resources** responsible for exploration, continued to concentrate most of its efforts in the vicinity of the company's underground zinc-lead mine at Galmoy, Co. Kilkenny. The company is currently drill-testing geophysical targets generated by a variety of methods including gravity surveying combined with Schlumberger array resistivity depth soundings.

Tara Mines Ltd. holds exploration ground in Meath, Longford, Galway, Limerick and Wexford. Due to the restricted funding available to exploration, work has been mainly confined to the Meath and Limerick areas, with the other projects being largely dormant during the year. In Limerick, over 2,000 metres of exploration drilling has been completed, most notably in the Bulgaden area, where base of Waulsortian style Zn-Pb mineralisation has been intersected, which included 5.3m grading 9.6% Zn, 2.1% Pb and 4.5m grading 12.3% Zn, 1.6% Pb at a depth of approximately 300m. Additional drilling is planned for this area in 2005.

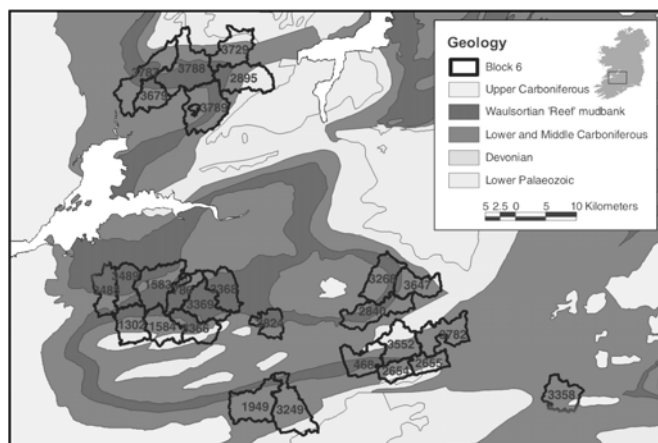
• Prospecting Licence Information

On the 11th October 2004, a total of twenty-seven active companies held 273 Prospecting Licences, primarily for base metals. During the past six months, twenty-six licences were issued. **Aurum Mineral Resources** were issued with ten licences in East Co. Limerick - West Co. Tipperary, all of which include gold; in addition, four of the licences cover base metals, barytes and silver. Aurum Mineral Resources were also granted a block of eight licences on the Co. Galway – Co. Mayo border, all for gold and silver. **Tara Mines** and Aurum Mineral Resources (jointly) were given a block of six licences in Co. Longford and Co. Leitrim, all for base metals, barytes, silver and gold. Tara Mines were issued with a licence in North Limerick for base metals, barytes, silver and gold, while **John Gannon** was granted a licence in Northeast Co. Galway for base metals, barytes, silver and gold. Twenty-three licences have been surrendered during the past six months.

Exploration Support

During the past six months work has continued by the Exploration and Mining Division on their four complementary programmes to encourage exploration.

The **MAPS** (Minerals Administration Programme Support) **Programme**, designed to provide online clients with all the available background data to assess ground and undertake permitting and eBusiness, is well behind schedule due to contractor problems. However, new content has been added continually to the current site at **minex.ie**, such as GIS data and exploration company reports. Part of the second phase, providing much increased content and improved GIS functionality and additional spatial datasets, is due to be available before the end of the year.



Under the **Airborne Data Release Programme**, a magnetic survey over the North Co. Cork area has been released (see product listings inside front cover).

Prospecting Licence areas over parts of Cos Clare, Limerick and Tipperary for which data over 6 years old has been released since May 2004.

Various themes under the **Data Release Programme** have advanced considerably, resulting in data now available online for a third of all Prospecting Licence areas (see Figure). Data more than six years old from currently held prospecting licences (*Historical Data Release*) has been released for 40 more areas (see Figures). Company data from 23 surrendered areas has also been made publicly available (*Surrendered Data Release* theme). The third theme of this programme is the *Online Availability* of company data. All data relating to Licences surrendered since 1st January 2000, and all historic company data (see above) are being made progressively available through **minex.ie**. Additional data from currently held areas where joint ventures are being sought has also been uploaded for 30 areas to date. This data is provided by companies under the 2002-2004 expenditure moratorium, and consists of major reviews of the work done to date. Data relating to a further 85 areas have been uploaded since 1st May, with the result that data for over 450 areas are now online, including data on areas available in the 1st November Competition as an aid to rapid evaluation of

this ground. This compares to 111 areas in October 2003. The remaining backlog will be cleared by end 2004. The fourth theme (*Digital Licence Maps*) is the provision of digital versions of the Prospecting Licence map and ground status, on CD-ROM in shapefile format, for use with the ESRI suite of GIS products. A free map viewer is provided, and updates can be downloaded from the minex.ie website.

The **Airborne Magnetic Interpretation Programme**, in partnership with PGW Europe Ltd., continues to be delayed. Focussed on three blocks covering part the Central Basin area, the digital products for the first of the blocks to be available have been completed and are being prepared for release.



**Map showing Prospecting Licence areas
or which online data is available at
www.minex.ie**

Silvermines Historic Mining District

Following a series of animal deaths in 2000 the then Department of Marine and Natural Resources undertook to provide costed management/remediation plans for all mining related sites in the Silvermines district. The plans were prepared by consultants to the Department and presented to the public in May 2002.

Under the terms of a State Mining Lease held by Mogul of Ireland Ltd. the Company is obliged to remediate several of the sites, representing approximately 50% of the entire area requiring remediation. The Department is engaged in discussions with Mogul and is currently awaiting final detailed remediation proposals for the areas which are the responsibility of the company.

PDAC Convention 2005, Toronto

The 73rd Annual Convention and Trade show of the Prospectors and Developers Association of Canada (PDAC) will be held in Toronto from 6th to 9th March 2005. 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. The PDAC meeting is the largest of its kind in the world. In March 2004, there were more than 9,000 attendees from 85 countries at the Convention, and over 700 exhibitors at the Trade Show and Investors Exchange.

Exploration and Mining Expenditure for 2003

The 2003 expenditure on mineral exploration and development, determined on the basis of data supplied by Prospecting Licence and State Mining Facility holders, is provided below in summary form. The expenditure on exploration totalled €8.04 million, a 21% increase over the previous year (€6.55 million), but still well down on earlier years. The increase was reflected in both Prospecting Licence areas and within State Mining Facilities. Gold exploration expenditure was substantially higher at €0.29 million, the third successive annual increase. The development costs at €13.8 million (€15 million in 2002) were again essentially related to base metal operations.

Prospecting Licence Areas	Base Metals	Gold	Other Minerals	Total
Geology	266,520	71,528	0	338,048
Geochemistry	158,396	51,596	0	209,992
Geophysics	261,508	20,000	0	281,508
Airborne Surveys	187,475	0	0	187,475
Drilling	1,645,060	44,623	0	1,689,683
Trenching	0	11,402	0	11,402
Environmental Studies	1,500	0	0	1,500
Feasibility Studies	0	0	0	0
Other Field Related Costs*	285,816	68,242	0	354,058
Other Specific Costs**	24,000	28,125	0	52,125
Total Expenditure PL Areas	2,830,275	295,516	0	3,125,791

State Mining Facilities (SMF)

Exploration Costs:

Drilling	4,555,586
All other costs, excluding Irish office overheads	356,448

Total Development Costs:

Total Expenditure SMF Areas	13,865,211	18,777,245
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Irish Office Overheads

1,456,633

Total Overall Expenditure

23,359,669

* Includes accommodation, travel salaries during field work, cartography, report writing but excluding Irish office overheads.

** Includes consultancies, data acquisition.