

CURRENT STATUS OF EXPLORATION SUPPORT INITIATIVES UNDERTAKEN BY THE EXPLORATION AND MINING DIVISION

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The Exploration and Mining Division (EMD) of the Department of Communications, Marine and Natural Resources (DCMNR) is charged with the promotion, regulation and policy development of mineral exploration and extraction. As part of this role, EMD is currently involved in a number of significant complementary initiatives to stimulate exploration in Ireland and more efficiently fulfil its regulatory responsibilities. This article briefly reviews these initiatives and reports on the progress made on them during the year 2003.

THE MAPS INITIATIVE (www.minex.ie)

The MAPS (Minerals Administration Programme Support) Initiative is a major e-Government project undertaken by the Department to encourage and facilitate exploration and mining in Ireland in a globally competitive environment (Cox et al. 2002). Work started in December 2001, and when completed, the MAPS system will deliver a number of substantial benefits to industry including:

- An online permitting facility that allows clients to assess the status of licences, register statements of interest, apply, renew and surrender Prospecting Licence Areas (PL), make e-payments and upload documents in support of applications.
- More timely issue/renewal of Prospecting Licences
- FREE online access to all publicly available information held by EMD including GIS data, exploration company reports and other archival material.
- An up-to-date, industry focused website providing clients with industry news, the latest company and Ministerial press releases, reviews, EMD publications, etc.
- Improved efficiency of service to customers, through e-Enabled and g-Enabled user-friendly systems.

The first elements of the MAPS system went live in February 2003. This provided limited e-Business facilities (PL applications and payment), regulatory information and also allowed clients to download a steadily increasing amount of news and ground assessment data. This currently

includes over 50 EMD publications, all the latest company press releases and in excess of 500 exploration reports relating to some 111 prospecting licences. All current PL Area boundaries are also available for download in ESRI shapefile format, from the MAPS website.

Customers can also use "GEMS" (EMD's web-based GIS mapping tool), to visualize and query a variety of GIS layers pertinent to mineral exploration including base maps, PL areas, geology, environmental constraint areas, forestry coverage, mines and mineral deposits, airborne geophysics survey areas and boreholes. The GEMS map viewer also provides users with access to a significant repository of other documents that are of additional benefit in assessing exploration ground (e.g. borehole logs, mineral deposit summaries, environmental synopses of constraint areas).

Although somewhat delayed, the remaining elements of MAPS, incorporating the fully functional e-permitting facility and a more intuitive, faster GIS map viewer will be rolled-out in early 2004. The look and feel of the website is also being progressively upgraded and new content added continuously (e.g. additional GIS data and company reports). Suggestions for improvement would be welcomed (please email: EMDTechnical.info@dcmnr.gov.ie)

DATA RELEASE PROGRAMMES

Historic Company Exploration Data Release

Until 2002, the only available company exploration data was from exploration ground that had been surrendered. Under this Initiative, all data (reports, maps and drill-hole logs) over six years old from currently held Prospecting Licence Areas are also now being made available, in digital format. To date, company reports relating to over 60 PL areas in three discrete licence area blocks (Fig. 1) have been released on CD-ROM. A fourth data release, incorporating currently held licences in Counties Kildare and Meath, will be available in December 2003. EMD clients can obtain free copies of any previous data release by emailing EMDTechnical.info@dcmnr.gov.ie.

Online Availability of Company Data

As an aid to the rapid evaluation of newly available PL areas, all relevant data for these are also now online, starting with those in the 1st November 2003 competition. Furthermore, data relating to licences surrendered since 1st January 2000 and all historic company reports (see above) are also being made progressively available through the internet. The exploration ground for which company data has been published online (as of November 2003) is shown in Fig. 2.

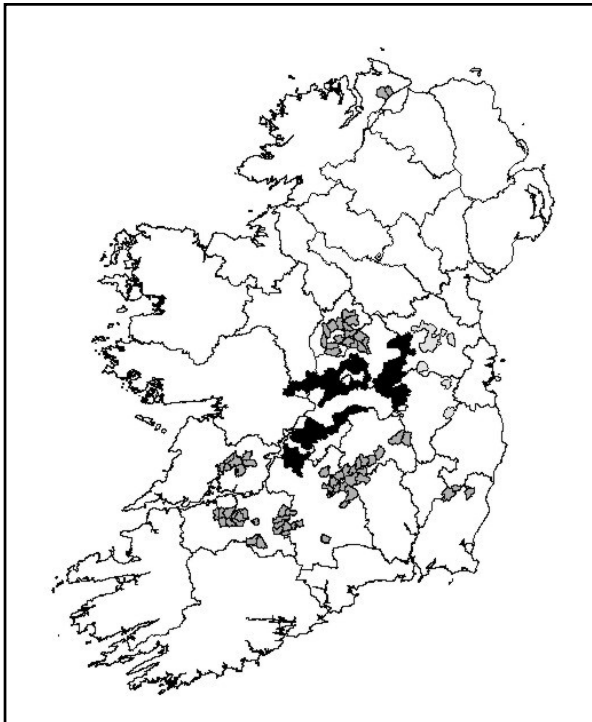


Fig. 1: PL Areas with historic company data to be released, as at February 2001. Areas for which data has previously been released shown in black; Pale grey areas (Cos. Meath & Kildare) are those PLs due for release in December 2003; Areas being released in 2004 are shown in medium grey.

Airborne Geophysics Data Release

Since 1995, exploration companies have been flying low-level, high-resolution airborne geophysics surveys under an “open skies” policy implemented by EMD. To date, 58 discrete survey areas have been flown, primarily across the prospective Lower Carboniferous terrain of the Irish Midlands. Under the Airborne Data Release Initiative, non-confidential data (older than 4 years and consisting of raw and processed digital data, grids, maps and reports) are progressively being made publicly available. All the released data can be ordered free on CD-ROM from Orla Dardis (orla.dardis@dcmnr.ie).

To the end of 2002, some 57% of all submitted airborne data, covering approximately 30% of the country had been released by EMD (Dardis 2002). In 2003, data from a further 9 survey areas have been released in three blocks (see 2003 publications list below).

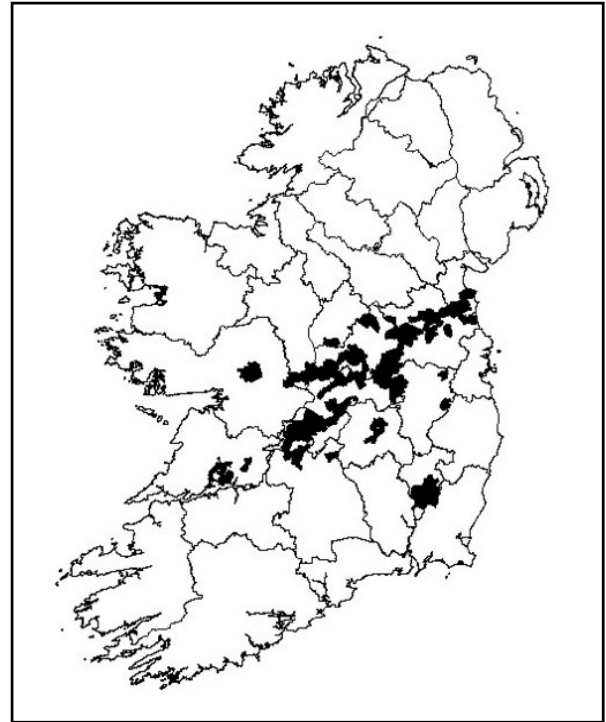


Fig. 2: PL Areas with online company data available to date.

Following these 2003 releases, a total of 92,287 line kilometres (equating to an area of 19,480 Km²) have now been released (70% of all geophysics data). Additional details on forthcoming airborne releases can be obtained from the EMD website (www.minex.ie).

Digital Prospecting Licence Map Initiative

In February of this year, a digital version of the Prospecting Licence Map was also made available for the first time. Updated versions are now provided free on request (email EMDTechnical.info@dcmnr.gov.ie). All licence data are provided on CD-ROM in shapefile format, for use with the ESRI suite of GIS products. A free map viewer “ArcExplorer,” is bundled with the licence data. This enables clients without access to standard GIS desktop applications to display the licence data and perform simple query operations (e.g. interrogate the status of PL Areas).

AIRBORNE MAGNETIC INTERPRETATION INITIATIVE

Initiated in late 2002, as part of a Public-Private Participation Programme, EMD and PGW Europe Ltd have collaborated to re-process and interpret newly released, high-resolution airborne magnetic data. The collaboration will initially focus on three contiguous blocks located in the highly prospective Central Basin area of Ireland (Dardis 2002). The overall objective of the project is to stimulate the identification of new exploration targets. For each of the three blocks, the following digital products will be available free of charge from EMD:

- A report that describes the magnetic datasets, processing techniques, basement structures and lithology and an assessment of known mineralization.
- A suite of 1:100,000 scale maps including:
 - Pole reduced total field magnetics
 - Geophysical interpretation: structure and lithology
 - Geophysical interpretation: regional basement terranes
 - Mineral deposit map with exploration permit areas.

A number of additional digital products will also be available from PGW Europe Ltd. These include the original processed products, linked/levelled total magnetic field, individual/composite grids and enhanced images for interpretation (e.g. IVD, RTP, AS, Euler).

The first block release is now scheduled to be available at the end of the year.

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- Dardis, O. 2002. Airborne geophysical surveying in Ireland – The current status. *In: Irish Association For Economic Geology Annual Review 2002*, p64-68.

DIGITAL PRODUCTS PRODUCED ON CD-ROM BY EMD IN 2003 UNDER THE EXPLORATION SUPPORT INITIATIVES

Cox, W., Tinnelly, S., Breen, R. & Loughlin, B. Exploration data release (to 2002) over parts of Cos. Galway, Roscommon, Westmeath and Offaly. Minerals Publication MP 02/03

Cox, W., Tinnelly, S., Breen, R., Bergin, J & Loughlin, B. Exploration data release (1972 to 2001) over parts of Cos. Meath, Westmeath and Offaly. Minerals Publication MP 19/03

Cox, W., Tinnelly, S., Breen, R., & Loughlin, B. Exploration data release (1970 to 2003) over parts of Cos. Meath and Kildare [Available in late December 2003]

Dardis, O. The BHP airborne TEM and magnetic survey (1998) over the Fermoy East, Fermoy West, Ballinalack, Carrickmacross East, Clare, Lough Sheelin and Mohill areas. Minerals Publication MP 14/03

Dardis O. The Noranda/Billiton airborne TEM and magnetic survey (1998) over the Moate area Minerals Publication MP 15/03

Dardis O. The Navan Resources airborne magnetic survey (1998) over the Tynagh area. Minerals Publication MP 16/03

Loughlin B. and Cox, W. Exploration permit areas and status (as of February 2003).