

MINERAL INVENTORY DATABASE: WEB SERVER STATISTICS

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ABSTRACT

The primary mandate of the Mineral Inventory Project is to document geological and mineral-resource information on the Province's mineral occurrences and to make this information available to the public. Easy public access to quality data is a crucial part of increasing exploration efficiency, a fundamental element in a period of steadily increasing exploration costs with a steadily declining rate of discovery. A secondary responsibility is in land-use planning. Mineral Inventory personnel review all Provincial Government land-use applications and environmental assessment projects with the aim of minimizing the impact of land development on the Province's documented mineral resources and areas of high-mineral potential.

INTRODUCTION

The Mineral Inventory Database is the repository for geological information on the Province's mineral resources and is a two-part infobase consisting of the Mineral Occurrence Data System (MODS), and a collection of mineral occurrence maps (Stapleton *et al.*, 2000).

The MODS comprises summaries of data including geological descriptions, mineralogy, deposit type, work histories, resource and/or reserve statistics, analytical results and bibliography, on known mineral occurrences. It is an important mineral exploration and research tool that offers fast and easy access to mineral occurrence data covering all of Newfoundland and Labrador.

The database is used extensively and has a global audience as shown in Table 1. The main delivery point for the MODS data is the Geological Survey of Newfoundland and Labrador website (<http://www.nr.gov.nl.ca/nr/mines/Geoscience/index.html>). Clients are able to search the database using either the 'Mineral Deposit (MODS) Index Search Form' or 'Geoscience Atlas'. In 2014, a study of the Mineral Inventory Database web server statistics for 2013 was undertaken.

MODS USER STATISTICS

A study of the 2013 web server statistics for the Mineral Inventory Database was undertaken to discern how often the database was accessed, from where it was accessed and what data are being accessed. A hit on the database is logged when the user opens a Mineral Inventory Report. For the past nine years the database has been consistently used averaging 26 803 hits per year (Figure 1). In 2013, the data-

base was accessed 22 817 times by 8020 unique users who opened a total of 4382 unique Mineral Inventory Reports. As shown in Figure 2 and Table 1, the database has a global audience being accessed from one hundred countries, which represent approximately half of the countries of the world. It is accessed most frequently from Canada and the commodity of greatest interest is gold as evident in Figures 2 and 3, respectively. This correlates to an annual (2013) average price of gold at US\$1414.00 (tr.oz), which constitutes, somewhat counterintuitively, a period of declining gold prices.

This database provides users with a current, high-quality, online mineral deposit database that will help guide mineral exploration efforts in the Province. The data generated by the Mineral Inventory Project will contribute toward longer term benefits evidenced by increased investment in the provincial mineral exploration and mining industries (Stapleton *et al.*, 2014).

A study by MacKenzie (1989), of the various forms of government support to mineral exploration and mining, determined that geological database development provided the greatest return. In addition, unlike direct cash assistance to exploration and other forms of government assistance, it has the potential to benefit multiple companies and increase the number of new mineral deposit discoveries made (Duke, 2010 and references therein).

The importance and widespread use of the Mineral Occurrence Data System is evident in this report and the aforementioned study by Duke (2010). In addition, an ongoing reconnaissance study by the Prospectors and Developers Association of Canada (PDAC) of the quality of geological databases and the standards set by the various provinces for

Table 1. List of origins from which the MODS database was accessed in 2013

Point of Origin	# of Hits	Point of Origin	# of Hits	Point of Origin	# of Hits
Albania	1	Guatemala	5	Philippines	7
Antigua and Barbuda	1	Guyana	1	Poland	127
Argentina	70	Honduras	2	Portugal	2
Armenia	7	Hungary	23	Romania	13
ARPANET	8	Iceland	2	Russia	97
Australia	6	India	44	Samoa	1
Austria	1	Indonesia	42	Saudi Arabia	2
Azerbaijan	2	Iran	26	Singapore	4
Bangladesh	2	Ireland	2	Slovakia	15
Belarus	180	Israel	13	South Africa	5
Belgium	9	Italy	7	Spain	11
Bolivia	7	Japan	114	Sweden	3
Bosnia-Herzegovina	4	Jordan	10	Switzerland	9
Brazil	91	Kazakhstan	202	Taiwan	14
Brunei Darussalam	1	Kenya	1	Thailand	76
Bulgaria	15	Kyrgyzstan	1	Tonga	1
Cambodia	1	Latvia	1	Turkey	70
Canada	4709	Libya	9	Tuvalu	12
Cape Verde	2	Lithuania	5	Ukraine	498
Chile	21	Luxembourg	7	United Arab Emirates	6
China	5	Malaysia	4	United Kingdom	2
Colombia	19	Mexico	107	Uruguay	4
Croatia	9	Moldova	11	USA Higher Education	1
Czech Republic	37	Morocco	4	Uzbekistan	1
Dominican Republic	3	Mozambique	1	Venezuela	4
Ecuador	3	Nepal	1	Vietnam	33
Egypt	2	Netherlands	47	Yemem	5
Estonia	10	New Caledonia	1	Zambia	1
Finland	5	New Zealand	2	Zimbabwe	1
France	29	Norway	2	(.net)	7182
Georgia	13	Occupied Palestinian Territory	5	(.com)	3513
Germany	50	Pakistan	3	Unresolved	7794
Ghana	2	Paraguay	1		
Greece	17	Peru	4		

submitting data, discovered that Newfoundland and Labrador ranked highly for quality of data. This is based on the standards in place for submitting data, which are better than any other province across Canada (Vida Ramin, Director, Technical and Regulatory Affairs, PDAC, personal communication, 2014).

The database is continually growing and being updated by Mineral Inventory personnel who research the literature and input new data on our Province's mineral occurrences on a daily basis. Out of the 6833 individual reports in the system at the time this survey was conducted, a total of 4382 of the reports (64%) had been opened at least once in 2013 (Figure 4).

REFERENCES

- Duke, J.M.
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- Mackenzie B., Dilodeau, M. and Doggett, M.
1989: Economic potential of base metal and gold mining in Newfoundland: assessing the impact of regional development policy options. Queens University, Centre for Resource Studies, Technical Paper No. 10, 201 pages. [NFLD/1730]

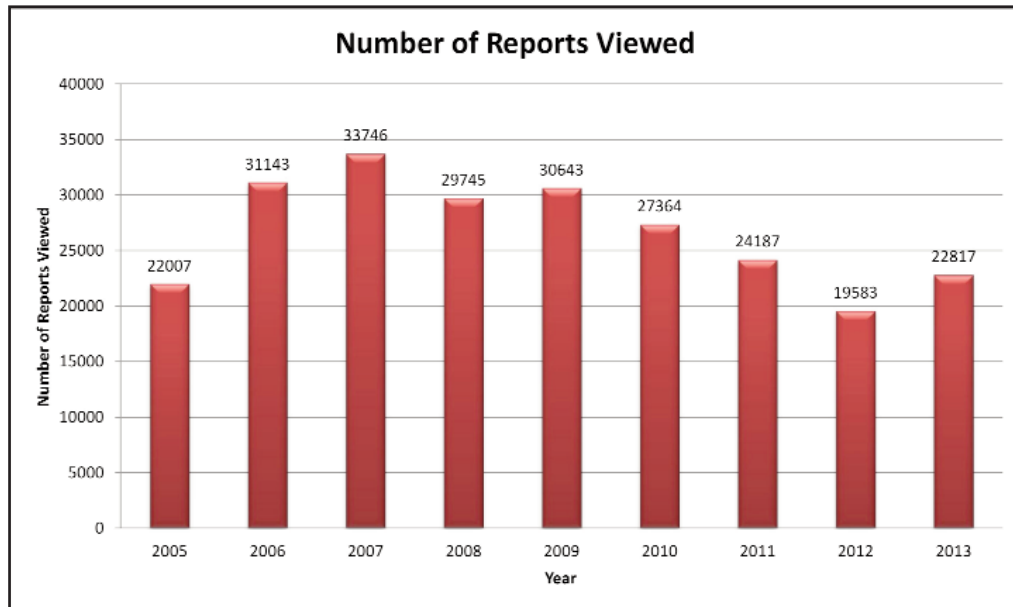


Figure 1. Number of reports viewed per year 2005–2013. Because there are approximately 7000 reports in the database, some reports were viewed more than once.

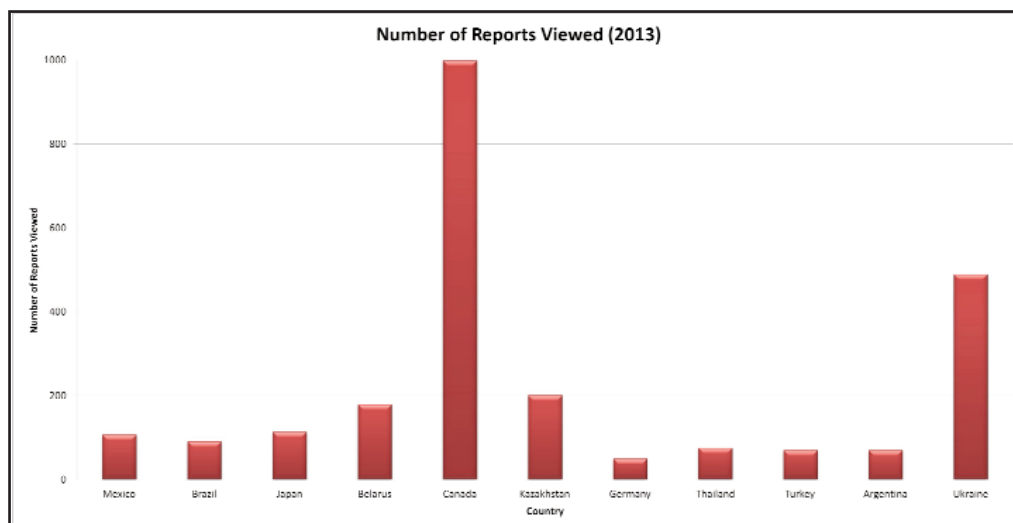


Figure 2. Number of reports viewed by country with a baseline of fifty or more views.

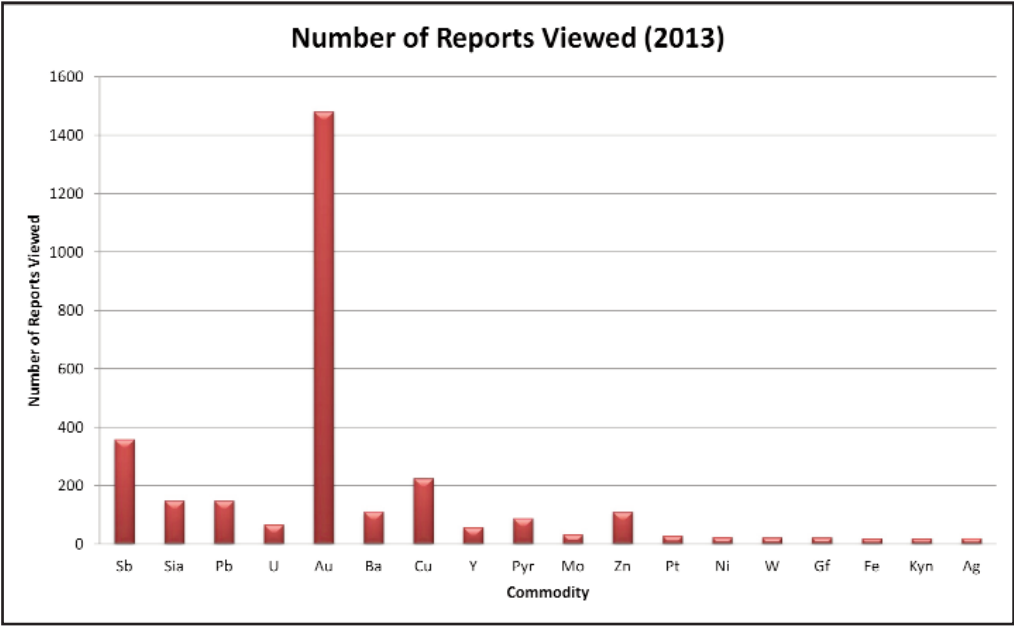


Figure 3. Number of reports viewed by commodity. This graph was constructed by listing all reports viewed at least twenty or more times and then sorting by major commodity and summing by major commodity.

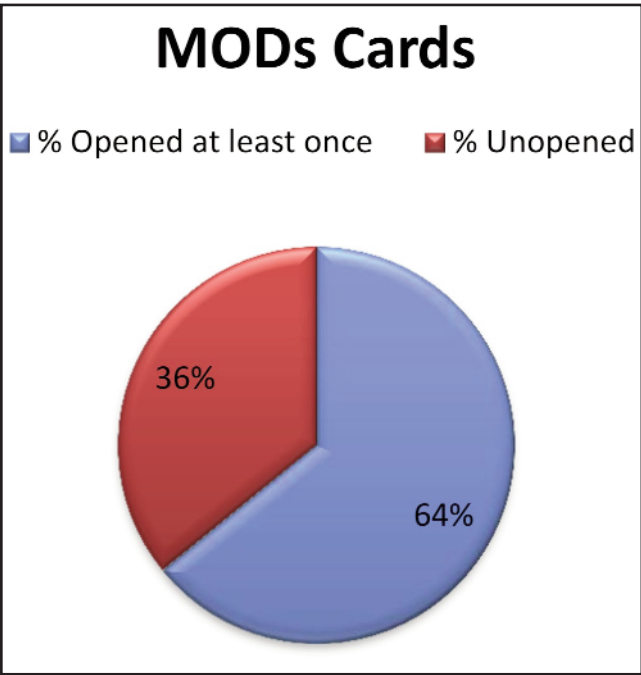


Figure 4. Percentage of MODS reports viewed at least once, compared to percentage of unopened MODS reports.

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