ENCOURAGING SUBSOIL INVESTMENT:
GEOLOGICAL EXPLORATION AND MINE DEVELOPMENT IN RUSSIA

OCTOBER 2014

KINROSS

FIA

KINROSS GOLD CORPORATION: STUDIES AND RECOMMENDATIONS ON IMPROVING INVESTMENT REGULATIONS IN THE RUSSIAN MINING SECTOR

1. "Fostering Foreign Investment in Mineral Exploration and Development in Russia", October 2011
2. "The Impact of Foreign Direct Investment on the Socio-Economic Development of the Far East of Russia", October 2013
3. "Encouraging Subsoil Investment: Geological Exploration and Mine Development in Russia", October 2014

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INTRODUCTORY LETTER FROM KINROSS GOLD CORPORATION CEO J. PAUL ROLLINSON

Dear Mr. Dmitry Anatolevich Medvedev, Prime Minister of the Russian Federation,

I am writing to you in response to a request made by President Vladimir Putin during the St. Petersburg International Economic Forum on May 23rd 2014, at a meeting with global chief executive officers of companies active in the Russian Federation. During that meeting, I had the honour of addressing the President with three concrete proposals intended to improve the regulatory environment in Russia for investment in hard rock mining. The President requested that Kinross elaborate on these remarks in a written proposal for the consideration of your Government. The result is this document, which provides both a comprehensive analysis of the regulatory issues in question, and a more detailed description of the proposals I initially made in St. Petersburg.

Kinross Gold Corporation has been an active investor in the Russian Federation for almost 20 years. During this time, the Company has invested more than $3 billion in the acquisition and operation of four gold mines in the Magadan Oblast and in the Chukotka Autonomous Okrug. Currently, Kinross owns and operates the Kupol and Dvoinoye gold and silver mines in Chukotka. We employ more than 2,200 people in Chukotka and Magadan, with more than 97% of employees drawn from the Russian Federation. In 2010, Kinross became a member of your Foreign Investment Advisory Council (FIAC), and we have played an active role in the Council ever since.

We believe that Russia offers considerable opportunities for investment in mineral exploration and development. Our experience has been overwhelmingly positive, and we are convinced that the operating environment compares favourably to the other major mining jurisdictions where we currently operate. However, despite the compelling evidence of our Company's long history of success in Russia, some negative perceptions exist in the mining community regarding the challenges of working in Russia. To date, Kinross is the only major international mining company to make significant investments in hard rock mining in Russia.

To help address this situation, in 2011, Kinross Gold Corporation, under the auspices of FIAC, prepared a study entitled "Fostering Foreign Investment in Mineral Exploration and Development in Russia." The study attempted to demonstrate how Russia could attract more foreign investment in the mining sector by making changes to the legal and regulatory framework governing the use of subsoil resources, and offered proposals for 15 areas of reform. The study was very well received by the relevant Russian natural resource ministries and agencies and several of the proposed reforms have been addressed with varying degrees of success.

In 2013, Kinross sponsored another study by the New Economic School in Moscow exploring the current and potential effects of foreign investment in the development of the Russian Far East. This study included a survey of local officials whose positive assessment of the value of foreign investment to date in the region underscores the potential benefits that additional foreign investment could bring, particularly when combined with the Government's special initiatives for the region. It is our belief that changes to the investment and subsoil regulatory frameworks could attract additional investment in geological exploration in the Far East, with comparatively little Federal Government financial expenditure.

Kinross has undertaken these studies with a sincere desire to promote constructive reforms to Russian regulations that will help attract more investment in mineral exploration and development, and in turn, leverage Russia's mineral endowment for the economic and social benefit of the country. Increasingly, both Government officials and other participants in the Russian mining industry understand that these reforms are a non-competitive issue and that changes are necessary for the common good.

At the St. Petersburg meeting on May 23rd, I proposed to President Putin three specific reforms, which we believe would provide a clear and unambiguous signal to both the domestic and global mining industry that the Russian Government is serious about attracting new subsoil investment. In brief, these proposals are as follows:

1. Revise the scope and implementation of the claim-staking procedures to include registered reserves at P1 and P2 levels. While the mining industry was initially encouraged by the Government's decision to expand the claim-staking procedures, on closer review, the restrictions placed on claim-staking make the decree unattractive and are not likely to result in an increase in exploration activity. The approach to claim-staking in other leading mining jurisdictions illustrates how a more liberal regulatory regime provides the required incentive for exploration companies to assume the financial and other risks associated with exploration investment. As these risks are assumed by the companies involved, there is little risk assumed by the Government in expanding the territory made available for claim-staking.

2. Remove the restriction described in Article 6 of the Russian Federation subsoil law requiring the complete geological study of a deposit of strategic importance prior to the granting of permission to commence mining. Under this provision, companies are required to complete exploration on their entire licence area – which may cover hundreds of square kilometres and require years of work – before they can begin mining and generating the revenue they need to cover the investments already made in exploration and development. This restriction is a significant disincentive to investment and does not exist in other major mining jurisdictions. Removing it will give miners the flexibility to begin mining – and generating local employment, tax revenue and other economic benefits – as soon as an economically viable deposit has been identified. There is little risk for the Government in removing this impediment and relying on the rational business decisions of the investor / miner to determine when mining can commence so that employment can start and profit taxes and royalties can begin flowing.

3. Review and amend the concept of "strategic" thresholds for foreign investment in Russian precious and other minerals. The 50-tonne threshold for strategic gold deposits has been a major reason why Russia has experienced a drastic drop in exploration for gold deposits. This in turn threatens the country's ability to discover deposits essential to maintaining recent record levels of gold production. A comparison with practices in other leading mining jurisdictions reveals how the absence of such restrictions helps to encourage exploration, while at the same time preserving the Government's ultimate right to regulate foreign investment.

In the following study we provide a summary of the three issues listed above, and a brief analysis of how regulatory practices in Canada, Australia, Chile and Brazil compare to those of Russia in the context of these issues. It should be acknowledged that in certain areas, such as taxation, Russia compares quite favourably with some of these countries. However, as regards the issues covered in this paper, Russian regulations act as a deterrent to new investment from both foreign and domestic investors. The statistical analyses and appendices in this study provide additional evidence to support the contention that more open and clearer guidance to investors and mining companies (including junior miners) can lead to more extensive exploration, greater investment and faster mine development. New mining projects currently take up to 15 years to reach production (as

assessed by mining consultants SRK). As shown in Appendix I, declining discoveries in Russia (indeed, across the world) could make it difficult to satisfy demand from growth markets internationally and potentially lead to prolonged stagnation in the industry.

We believe that the reforms proposed in this study will benefit economic development in Russia, particularly in the Far East. The relevant agencies, such as the Ministry of Natural Resources and Rosnedra, have recently made significant efforts to reform the subsoil regime, but the pace of change could be increased. In order to assist in this process, our paper also provides legal analysis and proposed regulations, decrees and laws that govern the three issues we have raised. These can be found on pages 16–23 of this paper.

Kinross is grateful for the contributions made by SRK Exploration and to the legal firm Norton Rose Fulbright in the preparation of this paper.

As we have done in the past five years, Kinross is ready and willing to work closely with officials of the Russian Government, together with organizations such as the Gold Producers' Union, the Mining Advisory Council and the Foreign Investment Advisory Council (FIAC), to devise the most appropriate and effective revisions of regulations and legislation covering these and other important issues. We believe that the future health of Russian mineral exploration and mining depends on timely decision making and we therefore urge you to consider these proposals.

Yours sincerely,

J. Paul Rollinson

Chief Executive Officer

Kinross Gold Corporation

Toronto, Canada

I. COMPARATIVE ANALYSIS OF KEY ISSUES WITH PRACTICES IN CANADA, AUSTRALIA, CHILE AND BRAZIL

This section will review and compare the various approaches to mining regulation in Russia, Australia, Brazil, Canada and Chile in relation to the following issues:

i. Geological and mining claim-staking;

ii. Requirements to obtain permission for mining, specifically the completion of geological study over an entire licence area prior to commencing mining operations;

iii. Any mineral volume thresholds that may trigger a review and/or approval of foreign investments in gold mining.

The objective is to demonstrate how Russian regulations and practices compare to these other major mining jurisdictions and how investors respond to the investment regimes in each of these countries.

i. Claim-Staking Procedures

In general, most major mining jurisdictions operate their claim-staking procedures on a "first-come, first-served" basis, which capitalises on the competition that this generates. Moreover, some of these jurisdictions also provide financial and other incentives to encourage maximum geological exploration activity, as detailed below.

Russia has recently extended a new claim-staking procedure (Government Order No. 61 of 27 January 2014) that allows claim-staking across the country, something that has never been in place previously. The new regime is intended to improve on the auction system that has been ineffective in allocating exploration and mining licences (as demonstrated by the statistics provided by Rosnedra in Appendix II). This is a welcome decision, but as described on pages 16–23 of this report, there are significant opportunities to improve the new regime so that it can be more attractive for exploration and investment.

Canada

Licensing and mineral legislation is coordinated by provincial / territorial governments. Each provincial / territorial government has its own mining, environmental and occupational health legislation that applies to exploration and mining properties within their jurisdictions.

In most cases, mineral tenures are granted on a "first-come, first-served" basis. Time priority is the basis upon which tenures are obtained. Alberta, Nova Scotia and Prince Edward Island have adopted the "Crown discretion" mining system. This provides more requirements for consultation with landowners and communities prior to granting claims and can prevent exploration in areas that have been "withdrawn" from lands available for staking by indigenous groups and communities.

Obtaining a mineral claim is very quick if done online. Application timeframes are clearly stated on websites. There are clear instructions on the staking and mineral claim application process. Tenure information and geological information are comprehensive and easily found in a number of digital formats on provincial websites.

There are three types of mineral claims: a "prospecting permit", a "mining claim" (exploration licence), and a "mining lease" (mining licence). A prospecting permit must be obtained in order to stake mineral claims. A mining claim gives the claim owner the right to explore for sub-surface minerals but does not provide land use rights or ownership. There must be no large-scale excavation (other than agreed amounts of pitting or trenching) such as overburden removal, trial mining, bulk sampling over a given volume or creation of shafts. All other activities such as drilling, trenching and pitting are permitted as long as they meet environmental constraints. A mining claim grants a claim holder mineral rights to all naturally occurring metallic and non-metallic minerals, including

coal, salt, quarry and pit material, gold, silver and all rare and precious minerals and metals within the claim area but does not include sand, gravel, peat, gas or oil. There are expenditure obligations regarding prospecting/exploration activities. These are in the range of $5–$20/ha/year and increase during the licence period. Summary reports of exploration activities are required regularly. Mining claims are easily transferable to third parties. Transferal of mining leases requires consent.

The duration of mining claims is variable in length depending on the province. Most provinces offer a one- to two-year duration and the possibility to renew as long as expenditure commitments are met. Alberta offers a 14-year exploration licence that is non-renewable.

Mineral claim owners have the exclusive right to convert to a mining lease. Environmental assessments and strategies need to be comprehensive to prevent damage to environment, fisheries, migratory birds and aboriginal lands/communities, etc.

Legislation does not restrict the ownership or development of mineral rights based on citizenship or residency.

Some small tax incentives for exploration stage projects are available, depending on the province. Manitoba, for example, offers assistance of up to $200,000 per year per exploration company in order to help stimulate exploration in the province.

Brazil

Licensing and mineral legislation is coordinated by the National Department of Mining Production (DNPM), the federal agency in charge of implementing exploration and mining, fostering the mining industry, granting and managing exploration and mining titles, and monitoring the activities of exploration and mining companies. Mineral tenures are granted on a "first-come, first-served" basis. Licences cover all minerals.

Applications for exploration licences can be made online. If, after a period of exploration, the licence holder does not apply for the mining concession, the area becomes available for tender. The DNPM selects the bid it considers as having the most favourable conditions for meeting the interests of the mineral sector. If no offers are submitted within the stipulated 60-day period, the area is considered to be available for future applications for exploration licences under the priority rights system.

There are three types of licences in Brazil – prospecting licences, exploration licences and mining licences. A prospecting licence allows the holder to explore for minerals in the area of the licence but not to conduct commercial mining. Licence application for the geological survey of a territory can be submitted through the Internet. A prospecting licence may cover a maximum area of 50 hectares and remains in force for up to five years. The holder may apply for a renewal of the prospecting licence. This is subject to approval by the DNPM. The period of renewal may be up to a further five years.

The area of an exploration licence may vary from 50 to 10,000 hectares and is granted for a period of one to three years. The term can be renewed once, at the discretion of the DNPM, upon review of an interim report from the licence holder detailing exploration to date and justifying further exploration work. The application should include an exploration plan and budget, with maps and geographic coordinates signed off by a qualified Brazilian geologist or mining engineer. If, after conducting geological exploration, the licence holder fails to submit an application for a mining licence, the area will be put out to tender. From the applications filed, DNPM will select one which it considers is best suited to the interests of the development of the mining sector. If the application is not received within the statutory 60-day period, the area can accept new proposals using the priority selection system. Exploration licences may be transferred (in whole or in part) to Brazilian individuals and legal entities incorporated in Brazil. Transfer is subject to approval from and registration by the DNPM.

A company is required to apply for a mining licence no later than a year from the date of DNPM approval of the exploration report. The exploration report must include detailed information about the studies and evidence of the economic and technical feasibility of mining the deposit. Mining licences are valid up to the depletion of the mineral deposit. A mining concession is granted on the basis of a ruling from the Ministry of Mines and Energy.

There is also a short-term prospecting permit. This is granted by the DNPM to a mining company to perform a geological reconnaissance, using airborne aerial survey methods, to obtain useful regional preliminary information for preparation of an application for an exploration

licence. The area is restricted to a maximum of 12,000 square kilometres. A prospecting permit is valid for a maximum period of 90 days and the mining company is given priority to apply for exploration authorization in the permitted area up until the final date of the permission's validity.

Legislation in Brazil does not restrict the ownership or development of mineral rights based on citizenship or residency and there is no distinction made between Brazilian and foreign-owned companies in law although the entity must be a Brazilian national or a company incorporated under Brazilian law.

The Public Tax Incentive Policy accords special treatment to the geographic area and economic sector in which the investment is planned. As a result, companies are able to secure tax benefits, credits, funding and access to state support programs. All Brazilian states have special investment incentive programs in place.

Chile

Licences are granted based on the "first-come, first-served" principle. Applications are submitted to the Civil Court. This procedure removes the possibility of arbitrary administrative decisions. In effect, concession holders will have private rights, which will be transferable and transmittable, liable to mortgage and other real property rights, and in general, be subject to the same civil laws applying to real property. Licences cover all minerals except lithium, gaseous and liquid hydrocarbons, uranium, thorium, guano and coal, which are more restricted by the state. Exploration licence applications are lodged at a civil court in the region in which the exploration licence is located. If approved by the local court, the signed application must be submitted to the Ministry of Mines for registration. Should the application be successful at this level, it may take over two months for a report to be written by the Ministry before being returned to the applicant.

There are two types of mineral licences in the country – exploration and mining. An exploration licence is valid for two years, and may be renewed once for a further two-year term upon surrender of 50% of the licence area. The legislation states that a single exploration licence may be no greater than 5,000 hectares (ha) in size but there is no limit on the number of licences an entity may hold. Exploration licence holders have the right to convert to a mining licence without competition. However, they must satisfy more court and ministry conditions than for the exploration licence application. The process may take a few months.

The Mining Code of Chile makes no distinction between national and international persons or companies in application for concessions. Annual licence fees to keep the permit in good standing are low, ranging from USD 0.34/ha for licences covering less than 300 ha, to USD 2.76/ha for licences greater than 3,000 ha.

Australia

Minerals-related activities in the six states and the Northern Territory (NT) of Australia are normally administered by the Department of Mines, Minerals and Energy, or the equivalent, in each jurisdiction. While all states and the NT have their own laws governing mineral activities, in content and administration, they are very similar. Mineral tenures are granted on the basis of a "first-come, first-served" principle with simultaneous applications being resolved by ballot. The applicant is required to lodge a statement of the technical and financial resources available to meet the minimum annual expenditure commitment for the licence.

There are three types of mineral licences in the country – prospecting, exploration and mining licences. A prospecting licence is granted for four years and is limited to an area of 200 ha or 400 ha maximum. It allows the extraction or disturbance of up to 500 tonnes of material and the Minister may approve extraction of larger tonnages. The licence may be extended once for four years.

An exploration licence is granted for five years with an option to extend. At the end of both the third and fourth years of its term, the licensee is required to surrender 50% of the licence. For a licence applied for and granted after February 10, 2006, the surrender requirement is 40% at the end of the fifth year. The exploration licence holder is allowed to move or disturb up to 1,000 tonnes of material from the ground and the minister may approve the extraction of larger tonnages.

A mining licence is granted for 21 years and may be renewed. In the NT, a maximum area for a mining tenement applies. In Victoria, mining licences over 260 ha are sub-

ject to consent by the relevant minister. In Western Australia, the maximum area for a mining lease applied for before February 10, 2006 is 1,000 ha. After that, the size applied for is to relate to an identified ore body as well as an area for infrastructure requirements. There is no size limitation for a mining lease in Southern Australia. An application for a mining lease must be accompanied by either a mining proposal or a statement and a mineralisation report that has been prepared by a qualified person.

There is no limit on the number of licences a person or company may hold but a security (or bond) is required in respect of each licence (Western Australia).

Legislation in Australia does not restrict the ownership or development of mineral rights based on citizenship or residency.

ii. Geological Study Requirements to Obtain Permission for Mining

As part of Russian reforms of subsoil regulations begun in the early 2000s and completed in 2008, the government sought to protect the state's interest with respect to deposits of "federal" (strategic) interest that might be acquired by foreign investors. According to Part Two, Article 6 of Russian Federal Law №2395-I of February 21, 1992 "On Subsoil" (as amended on December 28, 2013; with changes dated July 23, 2014), a deposit of federal significance must be fully geologically studied before the mining company (foreign investor) can apply for a mining licence on the property. This requirement has proven to be a barrier to investment as it removes the freedom of the investor to determine on the strict basis of economic feasibility when it would be viable to commence mining.

Such restrictions do not exist in other jurisdictions, as a review of the practices in other selected countries shows.

Country	Details
Canada	There is no obligation to have attained a certain level of project development prior to conversion to a mining lease (i.e. resource estimate), though provisions made in provincial mining codes will generally expect a feasibility study or similar level of evidence showing project development to be presented prior to application. Applications will be reviewed and approved/declined by the director of the provincial authority concerned with granting of mineral licences.
Brazil	No completion of geological studies over the whole deposit is required. However, a report containing a mineral resource estimate needs to be prepared. To obtain a mining concession, a person or company must perform certain steps including: exploring an area, identifying a resource, obtaining approval of the exploration report by the mining authority (DNPM), submitting an application for a mining concession, obtaining environmental approval or an installation licence and getting approval for the Environmental Control Plan.
Chile	No completion of geological studies over the whole deposit is required. A report containing a mineral resource estimate must be prepared.
Australia	No completion of geological studies over the whole deposit is required. A report containing a mineral resource estimate must be prepared.

More information on gold exploration and mining in selected countries can be found in Appendix I.
Detailed information on Russia is contained in Appendix II.

iii. Threshold for Strategic Gold Deposits

Russia has set a threshold of 50 tonnes over which a deposit is classified to be of strategic importance. This threshold is very low. If applied globally, it would cover approximately three-quarters of active global gold projects (see Table 16 in Appendix III). As can be seen from the brief overview of practices in the four major mining jurisdictions below, Russia is unique in setting any kind of barrier or threshold for unencumbered investment by foreign entities in their respective gold mining sectors. In each of these countries, however, national legislation on foreign investment gives the right to the sovereign state to restrict any foreign investment that is deemed not in the national interest. The low threshold for triggering government approval of foreign investment in a strategic gold resource discourages foreign investment in gold exploration activity and ultimately in the development of new deposits.

Canada

There is no threshold for gold deposits of strategic importance in Canada. The restrictions related to mining are extended to:

- Areas prohibited for mining such as national parks and protected areas;
- Uranium properties, in which mining is generally limited to companies with no more than 49% non-resident ownership, unless given provincial and federal approval. Exemptions to the policy may be granted, subject to federal government approval, in cases where it can be demonstrated clearly that (i) the project remains Canadian-controlled or (ii) Canadian partners cannot be found. The current Canadian government has stated its intention to increase foreign ownership limits for uranium mines.

Brazil

There is no threshold for gold deposits of strategic importance in Brazil.

Chile

There is no threshold for gold deposits of strategic importance in Chile. The only restrictions are related to liquid or gaseous hydrocarbons, lithium and deposits in maritime waters under national jurisdiction or located in areas classified as important to national security. Such areas or deposits are excluded from mining concessions.

Australia

There is no threshold for gold deposits of strategic importance in Australia. The only restrictions are related to investment policy (including the mining sector). The Foreign Investment Review Board must be notified in case of:

- Acquisition of assets by a foreign company over A$231 million (A$ 1 billion by a US company);
- Investment in a prescribed sensitive sector, such as extraction of (or the holding of rights to extract) uranium or plutonium.

In both cases, a proposal for acquisition/investment must be submitted to the Foreign Investment Review Board, which has the power to block proposals if they are determined to be ‘contrary to the national interest’.

iv. Conclusion

As Section II of this paper demonstrates, a balanced approach to mining regulation and policy is integral to attracting investment in mining exploration and mine development. Avoiding or removing regulatory barriers to investment has been a key factor in the success of mature mining jurisdictions such as Canada, Brazil, Chile, and Australia.

The preceding analysis demonstrates that in the three areas of potential concern to mining investors under consideration in this study – claim-staking procedures, geological study requirements to obtain permission for mining, and strategic gold deposit thresholds – all four of these successful jurisdictions have established regulatory frameworks which are considerably less restrictive than those currently in place in the Russian Federation. The table below summarizes this comparative analysis.

By enacting the proposed reforms which are detailed and summarized in Section III of this study, we believe that the Russian Federation has an opportunity to make its policies and regulations more consistent with these competing mining jurisdictions, thereby making Russia a more attractive destination in the global competition for investment in mining exploration and development.

Summary Comparison of Policies Amongst Leading Resource Countries

Country	Claim-Staking	Commencement of Mining	Strategic Threshold
Russian Federation	Limited to deposits with inferred resources; auction of licences where some reserves already booked	In deposits of federal significance, no mining can commence before full geological study of entire licence area	In gold, 50 tonnes or more requires special government approval for foreign investment above 20%
Canada	First-come, first-served	No restrictions – investor decides	No restrictions or special reviews of foreign investment related to size of deposits
Brazil	First-come, first-served	No restrictions – investor decides	No restrictions or special reviews of foreign investment related to size of deposits
Chile	First-come, first-served	No restrictions – investor decides	No restrictions or special reviews of foreign investment related to size of deposits
Australia	First-come, first-served	No restrictions – investor decides	No restrictions or special reviews of foreign investment related to size of deposits

II. STATISTICAL ANALYSIS OF GOVERNMENT POLICY IMPACT IN CANADA, AUSTRALIA, CHILE AND BRAZIL

This section reviews statistics drawn from the SNL database, which is considered to be one of the most comprehensive databases of mining and exploration projects globally. The data is compiled from public reports and updated whenever there is news. The database is comprehensive and tracks activity, resource and reserve estimates, production, transactions, costs (when published) and other news. The data gleaned from this resource is compelling in demonstrating how investors and mining companies behave in various jurisdictions. It provides financial and other numerical evidence to validate the thesis that investment flows to those jurisdictions that place a premium on reducing regulatory and licensing barriers while relying on the rational decisions of qualified mining companies and the capital market.

i. Government policy, incentives and taxation

The mining sector in all countries is sensitive to commodity prices and the health of the global economy. However, in each mining jurisdiction, the volume of exploration activity and investment in the mining sector is also directly linked to government policies, incentives and taxation. This correlation is consistent with the descriptions provided in the main section of this report.

Quantitative data presented in the following pages that details exploration expenditure globally and by country has been collected and compiled by SNL Metal Economics Group (MEG) and published in annual Corporate Exploration Strategies (CES) reports. The data obtained for this report from MEG covers a 10-year time period, starting from a 12-year low in exploration expenditure in 2002, and extending to the present.

The grassroots budget is used as a comparison tool as it provides a quantitative measure of how much is spent on the investigation and possible discovery of new deposits each year. All exploration activities from licence acquisition and local company set-up, through to geological mapping, geophysical investigation, sampling, drilling and definition of a mineral resource are covered under grassroots budgets. For each country, we looked at the national yearly percentage change of exploration expenditure compared with the global yearly percentage change to determine if there was any significant variation from the global average trend. Where there were any noticeable differences, we attempted to identify the reasons for the anomalies, including changes in the mining legislation, or other factors that may have contributed to an increase or decrease in exploration expenditure. Qualitative assessments of mining legislation and its possible effect on investment summarised in tables have been sourced from third-party publications such as The Fraser Institute's Annual Survey of Mining Companies, Behre Dolbear's 2012 Ranking of Countries for Mining Investment, IntierraRMG's 2013 State of the Market: Mining and Finance Report, and various reports by PricewaterhouseCoopers.

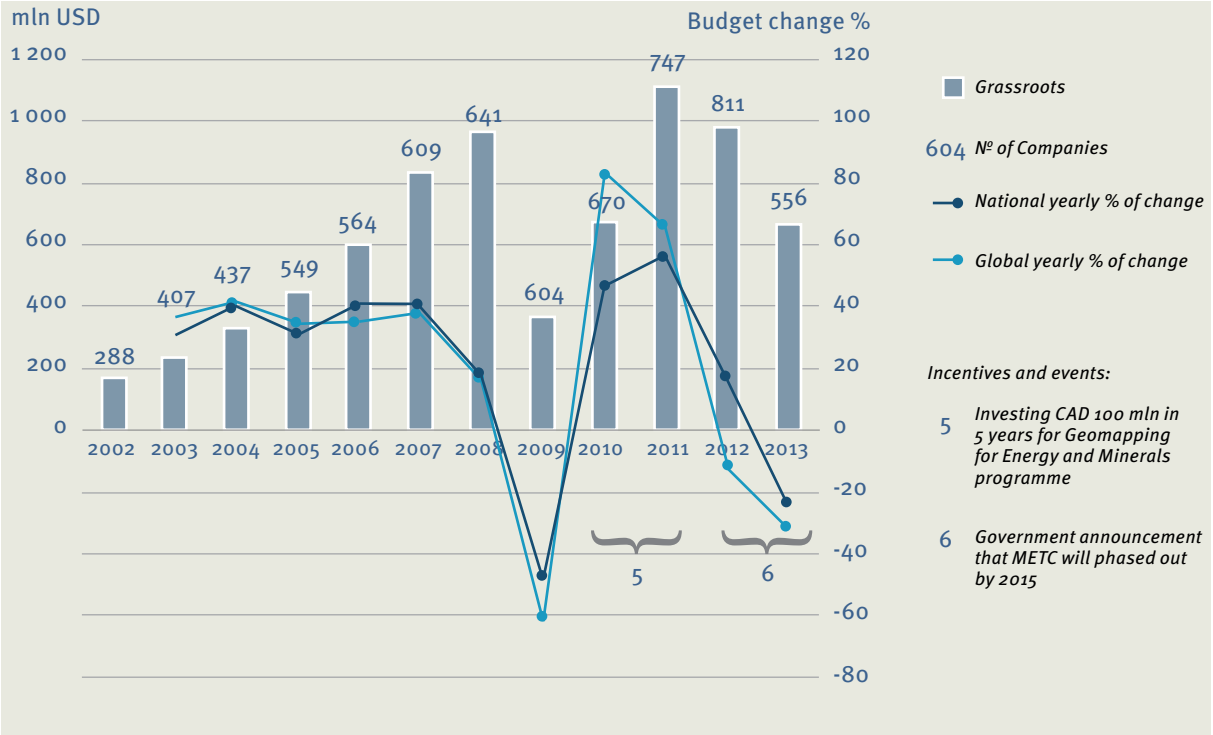
Canada

Table 1 and Figure 1 demonstrate Canadian government actions and their possible influence on exploration activities and investment in the mineral sector.

Table 1. Canadian government actions and possible influence on exploration activities and investment in the mineral sector

Date	Government action	Consequence
1983	Mining Exploration Depletion Allowance (MEDA)	The budget of junior exploration companies increased in relation to the total exploration budget (junior + senior companies) from 10-15% in 1980-1983 to: 24% in 1984 51% in 1987 50% in 1988
1989-1990	Canadian Exploration Incentive Programme (CEIP)	The consequences were overlapped by inflation
2000	Introduction of non-refundable Federal Investment Tax Credit for Exploration (ITCE) and related provincial tax credits	Recovery in junior companies' spending in relation to total spending (junior + senior) from 36% in 2002 to 44% in 2003 53% in 2004 60% in 2005 64% in 2006
2000-2015	Mineral Exploration Tax Credit (METC)	
2009	Several new initiatives from the Federal Minister of Natural Resources to promote mining in Canada	Investing CAD 100 mln in five years for Geomapping for Energy and Minerals programme
2012	Government announcement that METC will phased out by 2015	Possible fall in grassroots budget in 2015

Figure 1. Grassroots exploration budget trends in Canada



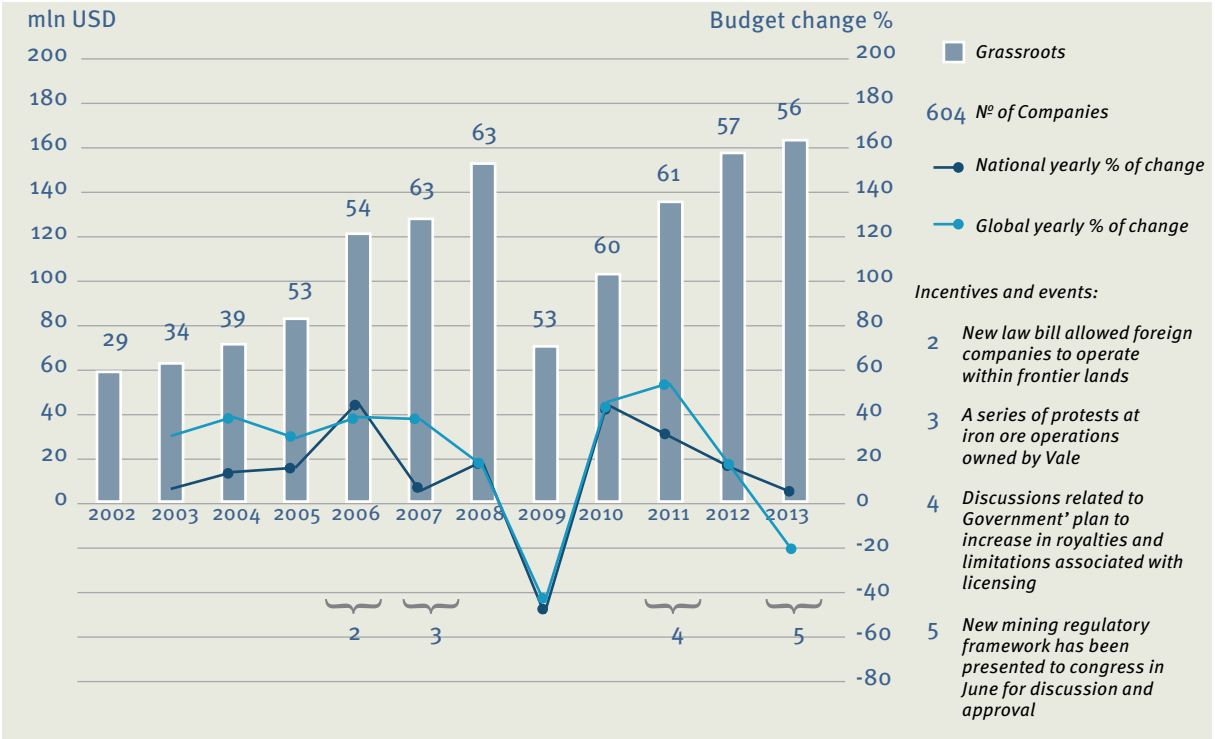
Brazil

Table 2 and Figure 2 demonstrate Brazilian government actions and their possible influence on exploration activities and investment in the mineral sector.

Table 2. Brazilian government actions and possible influence on exploration activities and investment in the mineral sector

Date	Government action/country event	Consequence
1997-2013	Various tax incentives depending on geographic location and economy of the area where investment is planned. All Brazilian states have special investment incentive programmes in place.	Companies are able to secure tax benefits, credits, funding and access to state support programmes
2006	New law allowed foreign companies to operate within frontier lands	Increase in exploration expenditures in 2006
2006-2007	A series of protests at iron ore operations owned by Vale	Decrease in exploration budget growth in 2007
2009	Discussions related to government plan to reform the mining code including increase in royalties, limitations associated with licensing, etc.	Possible reduction in exploration activity, decrease in exploration budget growth in 2011
2013	A new regulatory framework for mining was presented to Congress in June for discussion and approval. The concept of "strategic" deposits has been introduced, which might impinge on the unencumbered ability for foreigners to invest in significant sized deposits.	No immediate negative effect as the code is still under debate.

Figure 2. Grassroots exploration budget trends in Brazil



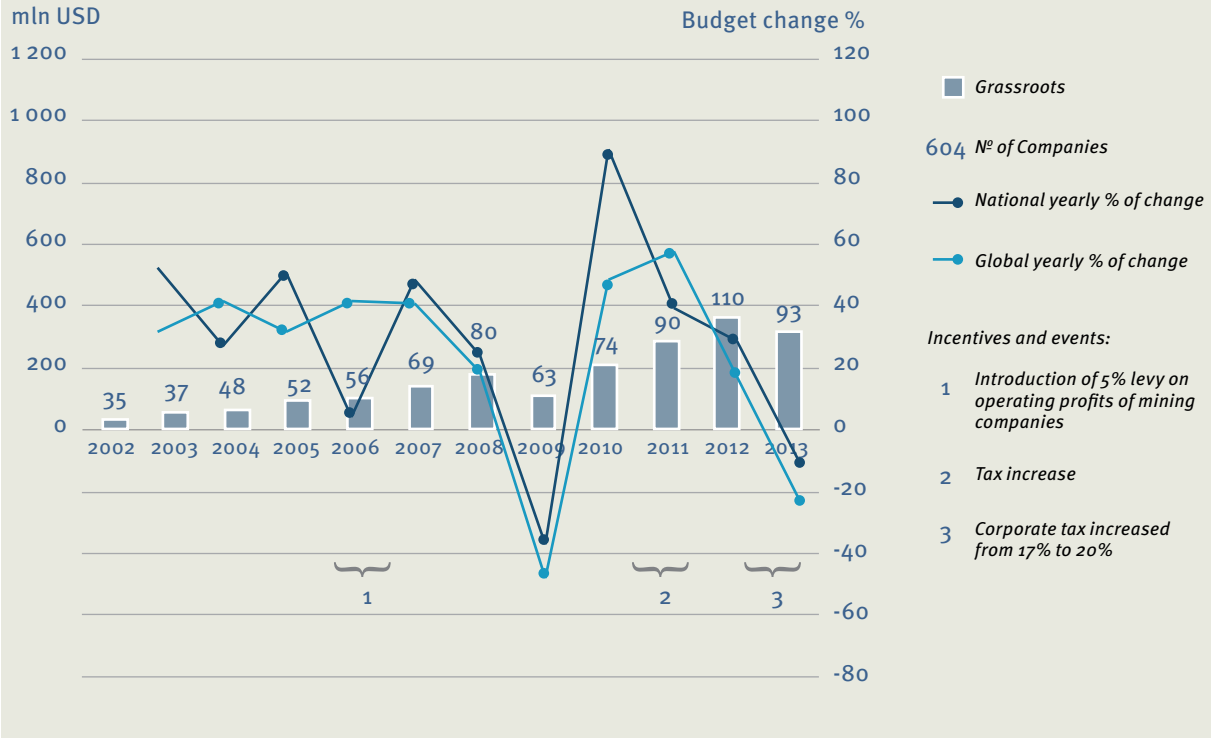
Chile

Table 3 and Figure 3 demonstrate Chilean government actions and their possible influence on exploration activities and investment in the mineral sector.

Table 3. Chilean government actions and possible influence on exploration activities and investment in the mineral sector

Date	Government action	Consequence
2005	Introduction of 5% levy on operating profits of mining companies with sales equivalent to ›5,000 mt of refined copper	Possible slowdown in the growth of grassroots exploration activity in 2006
2010	Tax increase	Possible slowdown in the growth of grassroots exploration activity in 2011
2012	Corporate tax increased from 17% to 20%	Overlapped by market recession
2014	Additional tax increases	In process

Figure 3. Grassroots exploration budget trends in Chile



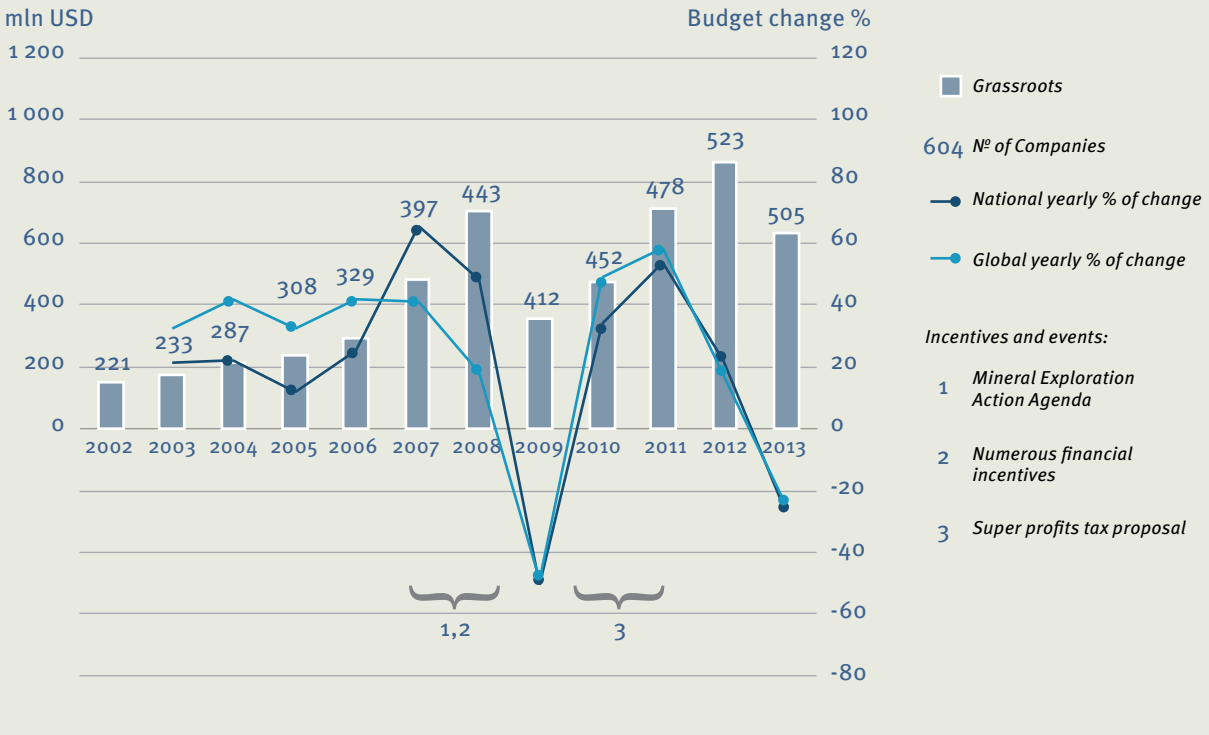
Australia

Table 4 and Figure 4 demonstrate Australian government actions and their possible influence on exploration activities and investment in the mineral sector.

Table 4. Australian government actions and possible influence on exploration/ mining activities

Date	Government action	Consequence
2004-present	Mineral Exploration Action Agenda	Government annual investment of A$20 mln for five years in geoscience, research and development; annual investment of A$25 mln for 10 years into geological survey to achieve complete national coverage by 2014
2008-present	Numerous financial incentives	Government subsidies/grants to encourage greenfield exploration: refund 50% of direct drilling cost (up to A$150,000 in case of multiple holes and up to A$200,000 in case of single deep hole). Prospector grants of up to A$30,000. Other incentives.
2010	Super profits tax proposal (increase corporate mining taxes to 40% on 'excess profits') in 2012	Possible lower-than-average growth in grassroots exploration
2012	Mineral resource rent tax	No effect

Figure 4. Grassroots exploration budget trends in Australia



III. LEGAL ANALYSIS AND RECOMMENDATIONS

The following legal analysis of existing laws, regulations and government orders is intended to highlight some of the inconsistencies and contradictions that have contributed to the reluctance of foreign and domestic investors to undertake geological exploration and mine development in Russia. It also recommends specific amendments to existing legislation to help bring Russia into closer alignment with other leading mining jurisdictions and thereby make it more attractive to potential investors. While some of the analysis and suggestions are not new, in the context of this paper, they are intended to complement the preceding statistical and economic analysis of the Russian regime relative to the other four leading mining jurisdictions.

i. Increase of availability of mineral resources for claim-staking

The Government of the Russian Federation has set as a priority the efficient replacement of the mineral reserve base in Russia based on an inflow of private investments, including foreign investment. The creation of a favourable legal framework regulating the granting of mineral exploration licences is a key component of this objective.

A number of steps have already been taken to improve the subsoil exploration licensing system. In particular, early in 2014, certain amendments were introduced in the procedure for consideration of applications for obtaining a geological exploration licence other than on subsoil plots of federal significance (refer to Order of the MNR of Russia No. 61 of March 15, 2005, as amended on January 27, 2014), hereinafter "the Procedure".

The essence of the amendments is to provide an opportunity to obtain, by way of exception from the general rule, a geological exploration licence under the first favourably considered application, without going through the tender or auction procedure applicable under the general rule, when two or more applications for participation in the auction are filed. This new opportunity is only available for plots for which there is no data regarding mineral reserves and probable resources of P1 and P2 types, and for those deposits that were not included in the programmes or lists of deposits previously offered for auction. Under the new rules, claims staked and approved for geological exploration, including the search and assessment of deposits of solid minerals, must be undertaken at the expense of the subsoil users. Moreover, these claims are to be affected using the simplified procedure without including such subsoil plots in the existing auction lists (described in detail in Chapter 6 of the Procedure).

While these amendments represent a positive step, they are not likely to encourage new exploration investment. As is generally known, P3 probable resources under the Russian classification system generally refer to a low probability of yielding prospective reserves. P3 resources are "…estimated only as a potentiality of discovery of a mineral deposit relying on a favourable geological and paleogeographic environment identified in the estimated region in the course of medium and small-scale geologic-geophysical surveys, satellite image interpretations, and also based on data from geophysical and geochemical surveys" (as described in item 20 of "Classification of reserves and probable resources of solid minerals" approved by Order of the MNR No. 278 of December 11, 2006). Such resources cannot be defined as resources containing mineral occurrences, and are even outside the scope of the restrictions established by other restrictive regulations such as the legislation on subsoil areas of federal significance. Evidence to date indicates that limiting claim-staking to deposits not classified higher than P3 has not stimulated additional exploration activity. In 2014, the approved list of eligible areas for exploration activity shows only three areas with P3 resources (approved by Order of the MNR No. 42 of January 29, 2014).

As concerns resources that are not included either in the lists or auction programmes, there is very little official guidance for potential exploration companies who might be interested in staking claims. Parties effectively have no data with which to submit proposals for the use of sub-

soil, as required under item 6.1.6 of the Procedure. First of all, there may not be any information about which mineral(s) may be referred to in the application forms. Chapter 2 of the Procedure suggests that one option for obtaining information about an area of potential interest is to file an application for the right to carry out geological exploration at public expense. However, the additional time and dependence on government expenditures under this option are unlikely to appeal to private investors.

The restriction of claim-staking for geological exploration licences only for areas indicating P3 resources considerably narrows the scope of application of the new initiative and accordingly diminishes the positive effect for market players considering a possible investment in geological exploration. Moreover, the new claim-staking procedures compare unfavourably to other leading mining jurisdictions that allow claims to be staked on a first-come, first-served basis, without any restrictions as to whatever reserves (if any) might have been previously registered in a particular area.

In view of the foregoing, a practical recommendation is that the Russian Government consider lifting the restrictions established by the Procedure to allow areas that contain probable resources of P1 and P2 levels to be considered for possible claim-staking. It would be logical and consistent with international practice that any first applicant meeting the eligibility criteria established by the Procedure be allowed to stake a claim for geological exploration without any additional encumbrances or restrictions such as the mere existence of a prospective area in any lists previously compiled. It is likely that these changes, if implemented in the new Procedure, would also have a favourable effect on other aspects of the subsoil legislation.

In addition and related to this issue, under current Russian regulations, the matter of modification of the boundaries of a subsoil plot for the purpose of extending its area remains unclear. Pursuant to item (d) of art. 11 of the Regulations on establishment and modification of the boundaries of subsoil plots granted for use (approved by Decision of the Government of the Russian Federation No. 429 of May 3, 2012) (hereinafter - "Decision 429"), modification of the boundaries of a subsoil plot for the purpose of expanding thereof shall be made, under general rule, on the basis of a report on State appraisal of reserves of commercial minerals entered into the State reserve balance. Moreover, this decision requires that the boundaries of the subsoil plot shall be modified so as to include all the volume of the mineral reserves entered into the balance located outside the subsoil plot, provided that such reserves form a part of the mineral deposit located on the subsoil plot.

This provision of Decision 429 has been repeatedly criticised by market participants, as the availability of reserves entered into the balance within unallocated reserve fund areas bordering on the allocated reserve fund areas is an exception rather than the rule. Chapter 6 of the Procedure creates the possibility to resolve the situation: the holder of the rights to the neighbouring plot can file an application for obtaining a geological exploration licence for the adjacent plot without the risk of going through a tender. However, the availability of resources of P1 and P2 types on the adjacent plot does create such a risk and blocks the activity of the subsoil user to a considerable extent. A deadlock situation arises which effectively blocks the opportunity of expanding the area. This can happen because there are no reserves entered in the state reserves register on the basis of which it would be possible to modify the boundaries of the licence area. At the same time, the investor risks expanding into an area where probable resources of P1 and/or P2 type(s) can exist, thus requiring him to go through a tender. Consequently, this possibility materially increases the risks associated with accretion of the adjacent area. In other words, instead of expansion under Decision 429, the subsoil user will inevitably have to go through a more cost-intensive and uncertain tendering procedure.

However, if it were possible to obtain a geological exploration licence in the newly proposed filing procedure, the subsoil user could, at a certain stage of work on his existing licence area, obtain well in advance a geological exploration licence for the neighbouring areas into which the existing or potential deposit might extend. In such a case, the subsoil user would have two options depending on the reserves on the neighbouring plot identified as a result of search and assessment. If the identified reserves meet the requirements of Decision 429 - to add the area to the existing plot after approbation of the reserves. Otherwise the subsoil user would have an opportunity to convert the geological exploration licence for the adjacent area to a production licence.

ii. Remove the requirement to complete geological study of the entire area of a "strategic" deposit before commencing mining operations

Part Two of The Law of the Russian Federation No. 2395-I of February 21, 1992 "On Subsoil" states that subsoil areas may be granted for use concurrently for geological exploration, detailed prospecting and production of minerals. Detailed prospecting and production of minerals, except for detailed prospecting and production of minerals on a subsoil plot of federal significance, can be carried out both in the course of geological exploration of the subsoil and after completion thereof. The Government has on the one hand allowed detailed prospecting and production of minerals on a subsoil plot of federal significance. At the same time, however, it requires that all geological exploration (study) on said subsoil plot to be completed prior to commencement of mining. This contradiction produces various points of contention.

First, a search and assessment of the entire plot does not guarantee the exhaustive completeness of information about the plot. In practice, a large mass of new reserves (considerably exceeding the reserves discovered at the search and assessment stage) is often identified in the process of detailed prospecting and production. Therefore, this requirement is unlikely to achieve the lawmaker's intent of ensuring the completeness of geological data before adopting a decision regarding detailed prospecting and production of minerals on the relevant subsoil plot.

Second, the scheme under Article 6 ignores the fundamental principles of rational and efficient use of subsoil. It is well-known that comprehensive geological exploration and rational comprehensive use and conservation of subsoil (Article 23 of the law "On Subsoil") are attained through an optimised combination of various stages of the use of subsoil. If, within a licence area, a commercial reserve is identified which is sufficient for approbation of reserves and preparation of a development project, then the most rational approach would be to proceed to the stage of detailed prospecting and commercial development of the deposit. Currently, however, the investor must complete initial prospecting and geological study of the entire plot before commencing detailed prospecting and production.

Third, the subsoil use model described in Article 6 virtually contravenes the subsoil user's right to perform geological works at all stages of the project.

Fourth, this norm, designed to control what plots are explored and brought into production, is essentially dormant, as the Government has never exercised its right to withdraw a plot in the past six years.

We consider that the deletion of this norm from Article Six of the law "On Subsoil" would be in the best interests of the State and subsoil users. It could be amended by bringing the existing mechanism of compensation in case of a withdrawal of a subsoil plot of federal significance (Decision of the Government No. 206) in compliance with the principle of equivalent compensation in Article 35 of the Constitution of the Russian Federation. Moreover the Government should also consider other market principles of compensation pursuant to international treaties signed by the Russian Federation.

iii. Increase the threshold for gold deposits of federal significance from 50 to 250 tonnes

This question has been repeatedly discussed within the Government of the Russian Federation and relevant federal agencies of the Russian Federation. In 2012, a draft federal law (hereinafter – "the Draft") "On Amendments to Article 2.1 of the Law of the Russian Federation On Subsoil" was prepared by the Ministry of Natural Resources of the Russian Federation (hereinafter – "the MNR") which, inter alia, provided for increasing the threshold value for vein gold reserves to 250 tonnes.

The explanatory note to the Draft stated that the level of gold reserves stipulated by Article 2.1 of the operative Law of the Russian Federation "On Subsoil" (vein gold reserves of 50 tonnes and up) referred to medium size and small deposits, and that such deposits have no material influence on national security interests. This point becomes even more apparent when such reserves are considered in light of ore grade, availability of infrastructure, remoteness of the region of mineral occurrence, mining and geological conditions and other material indicators for assessing the significance of a deposit.

The MNR argument is that, notwithstanding the relatively high grades of ore in most available deposits, most remain uneconomic to develop. In fact, there are relatively few undeveloped / easily discoverable deposits open to development. With the low threshold for gold, many available deposits are located in outlying regions with severe climatic, geological and complex mining conditions that account for the low level of interest amongst investors. This helps to explain the lack of interest in the majority of the tenders held and a substantial reduction of investment in geological exploration and mine development. Russia's extremely low threshold in global terms for foreign investment in gold deposits has clearly acted as a deterrent to significant investments and is treated by investors as an additional material burden that further reduces interest in searching and assessing gold deposits in Russia.

Regrettably, in their conclusion regarding the Regulatory Impact Assessment in respect of the Draft, the Ministry of Economic Development of the Russian Federation (hereinafter — "the MED") stated that the Draft had not provided any calculations and/or estimates of practical expenses of subsoil users or losses of the government as a result of the current regulatory model. Because of the increased tonnage threshold, the current list of subsoil plots would be reduced, and a number of potentially interesting deposits would become more attractive to exploration companies and investors.

The comments of the MED appear to focus on the wrong issues. The expenses of subsoil users and the government referred to in the MED's conclusion are generally evident, and are significantly lower than the economic risks assumed by foreign investors who receive no certainty about whether or not they will be allowed to mine or sell a deposit of "federal significance" that might be discovered. Any investor will be deterred by the theoretical risk of a licence withdrawal by the State, even if a modest level of compensation is offered, as stipulated in the current regulations.

By establishing the threshold value for hard-rock gold deposits at 250 tonnes and higher, the State could provide a strong signal that in addition to improvements in the claim-staking procedure, the Government is sensitive to the concerns of investors, and understands the close correlation of risk and reward in mining investment. When speaking about the need to "tune-up" the institution of subsoil plots of federal significance in his report delivered to the Council of Federation (April 28, 2014), the Minister of Natural Resources S.E. Donskoy aptly noted: "Macroeconomic risks are mostly beyond our control, while industrial and regulatory risk management is our direct duty."

We understand that revising the criteria of attribution of subsoil plots to plots of federal significance still remains on the agenda of the MNR and other federal agencies for 2014 (please refer to Decision of the Government of the Russian Federation dated April 15, 2014 No. 322 "On Approval of the Government Programme of the Russian Federation "Rehabilitation and Use of Natural Resources").

In view of the foregoing, we strongly recommend reintroducing into the current draft law "On Amendments to Article 2.1 of the Law of the Russian Federation On Subsoil" the provision establishing the threshold value for hard-rock gold reserves of 250 tonnes and up. For the purpose of unimpeded implementation of this amendment in respect of, inter alia, the existing deposits included in the list of subsoil plots of federal significance, it is also considered necessary to amend Parts Two and Four of Article 2.1 of the law "On Subsoil". It will allow the exclusion from the list those subsoil plots which, by virtue of the revised statutory criteria for inclusion of subsoil plots to the list of subsoil plots of federal significance. Also, a decrease of the level of the reserves below the threshold value, will cease to meet the requirements established by Article 2.1 of the Law "On Subsoil".

There is no doubt that the gold producing community would warmly welcome the increase of Russia's gold reserves threshold up to 250 tonnes. Collectively, the proposed amendments would contribute to implementation of the concept of long-term social and economic development as stipulated by the Programme, as well as one of its priority tasks: "priority development of precious metals raw material bases in new prospective areas, including those associated with non-conventional deposits in Russia".

The suggested changes to the draft law are listed on page 20.

DRAFT
RUSSIAN FEDERATION FEDERAL LAW ON AMENDING ARTICLE 2.1 OF THE LAW OF THE RUSSIAN FEDERATION "ON SUBSOIL"

Article 1.

The following amendments shall be made in Article 2.1 of Law of the Russian Federation No. 2395-I of February 21, 1992 "On Subsoil" (in the wording of Federal Law No. 27-FZ of March 3, 1995) (Vedomosti Syezda Narodnikh Deputatov Rossiyskoy Federatsii i Verkhovnogo Soveta Rossiyskoy Federatsii, 1992, No. 16, Article 834; Sobranie Zakonodatelstva Rossiyskoy Federatsii, 2008, No. 18, Article 1941):

1) Part Two shall be set forth in the following wording:
"A list of subsoil plots of federal significance shall be officially published by the federal body in charge of managing the state mineral reserves. The procedure for keeping the list of subsoil plots of federal significance shall be established by the Government of the Russian Federation."

2) Item 2 of Part Three shall be set forth in the following wording:
"2) those located in the territory of a constituent entity of the Russian Federation or in the territories of constituent entities of the Russian Federation and containing, on the basis of data of the State balance sheet of minerals, starting from January 1, 2006:

- recoverable oil reserves starting from 70 million tonnes;
- natural gas reserves starting from 50 billion cubic metres;
- vein gold reserves starting from 250 tonnes;
- copper reserves starting from 500,000 tonnes;".

3) Part Four shall be deleted.

LIST OF FEDERAL LAWS TO BE ENACTED, AMENDED, SUSPENDED OR DECLARED TO BE NO LONGER IN FORCE IN VIEW OF THIS DRAFT LAW

The adoption of the proposed draft of the Federal law will not require any federal laws to be enacted, amended, suspended or declared to be no longer in force.

LIST OF REGULATORY LEGAL ACTS REQUIRED FOR IMPLEMENTATION OF THE RELEVANT FEDERAL LAW

The implementation of the draft of the Federal Law On Amendments to Article 2.1 of the Law of the Russian Federation "On Subsoil" will not require any acts to be issued by the President of the Russian Federation.

The implementation of the draft law will require the adoption of a new Decision of the Government of the Russian Federation establishing the procedure for keeping the list of subsoil plots of federal significance.

LIST OF ACTS TO BE ADOPTED, AMENDED, SUSPENDED OR DECLARED TO BE NO LONGER IN FORCE IN VIEW OF THIS DRAFT LAW

The introduction of the proposed amendments to the Procedure will not require any other regulations to be enacted, amended, suspended or declared to be no longer in force.

IV. Summary Table

PROPOSED AMENDMENTS AND ADDITIONS TO THE LAW OF THE RUSSIAN FEDERATION No. 2395-I OF FEBRUARY 21, 1992 "ON SUBSOIL" and Order of MNR No. 61 of March 15, 2005

	Article and clause of the operative law of the Russian Federation No. 2395-I of February 21, 1992 "On Subsoil"	Issues and solutions (description of practical problems or issues giving rise to concern and recommendations to eliminate or mitigate concerns)	Draft amendments / proposed new wordings of legislative provisions
1.	The Procedure for consideration of applications for obtaining a mineral licence for geological exploration of subsoil (except for subsoil on subsoil plots of federal significance) (please refer to Order of the MNR of Russia No. 61 of March 15, 2005 (as amended on January 27, 2014)), hereinafter "the Procedure".	Chapter 6 of the Procedure provides the opportunity for issuing a geological licence to the first applicant only in plots for which there is no data regarding mineral reserves and probable resources of P1 and P2 types and which were not included in the programmes or lists of objects proposed to be granted for use. The restriction of this opportunity to P3 resources only considerably narrows the scope of application of the innovation, and, accordingly, diminishes the positive effect for market players considering a potential exploration investment. It would be reasonable to lift the restrictions established by the Procedure pertaining to probable resources of P1 and P2 types. Any first applicant meeting the eligibility criteria established by the Procedure must have the right to get the claimed area for the purpose of geological exploration without any additional encumbrances and procedures (for example, such as presence or absence of the claimed area in/from a programme or a list)[1].	Introduce appropriate amendments in the Procedure so that Chapter 6 of the Procedure covers probable resources of P1 and P2 types.
2.	Part Two of the Law of the Russian Federation No. 2395-I of February 21, 1992 "On Subsoil". Subsoil areas may be granted for use concurrently for geological exploration, detailed prospecting and production of minerals. However, detailed prospecting and production of minerals, on a subsoil plot of federal significance, can only be carried out on the basis of a separate decision of the Government.	Exclude the requirement for completion of geological study of a subsoil plot of federal significance prior to commencement of detailed exploration and production. First, a search and assessment of the entire plot does not guarantee the exhaustive completeness of information about the plot. In practice, a large mass of new reserves (considerably exceeding the reserves discovered at the search and assessment stage) is often identified in the process of detailed prospecting and production. Therefore, this requirement is unlikely to achieve the lawmaker's intent of ensuring the completeness	Article 1 Part Two of Article 6 of the Law of the Russian Federation No. 2395-I of February 21, 1992 "On Subsoil" (in the wording of Federal Law No. 27-FZ of March 3, 1995) (Vedomosti Syezda Narodnikh Deputatov Rossiyskoy Federatsii i Verkhovnogo Soveta Rossiyskoy Federatsii, 1992, No. 16, Article 834; Sobranie Zakonodatelstva Rossiyskoy Federatsii, 2008, No. 18, Article 1941) shall be set forth in the following wording: "Subsoil areas may be granted for use concurrently for geological exploration, detailed prospecting and production of min-

		of geological data before adopting a decision regarding detailed prospecting and production of minerals on the relevant subsoil plot. Second, the scheme under Article 6 ignores the fundamental principles of rational and efficient use of subsoil. It is well-known that comprehensive geological exploration, rational comprehensive use and conservation of subsoil (Article 23 of the law "On Subsoil") is attained through an optimised combination of various stages of the use of subsoil. If within a licence area a commercial reserve is identified which is sufficient for approbation of reserves and preparation of a development project, then the most rational approach shall be to proceed to the next stage of detailed prospecting and commercial development of the identified deposit, rather than continuing with geological study and prospecting of the entire plot before commencing detailed prospecting and production. Third, the subsoil use model described in Article six essentially contravenes the subsoil user's right to perform geological works at all stages of the project. Fourth, this norm, designed to control what plots are explored and brought into production, is essentially dormant, as the Government has never exercised its right to withdraw a plot under Article Six in the past six years. We consider that the deletion of this norm from Article 6 of the law "On Subsoil" would be in the best interests of the State and subsoil users. It should be amended by bringing the existing mechanism of compensation in case of a withdrawal of a subsoil plot of federal significance (Decision of the Government No. 206) in compliance with the principle of equivalent compensation (Article 35 of the Constitution of the Russian Federation) and other market principles of compensation pursuant to international treaties of the Russian Federation.	erals. Detailed prospecting and production of minerals can be affected both in the process of a geological exploration of the subsoil and after completion thereof. Detailed prospecting and production of minerals on a subsoil plot of federal significance can be carried out based on the decision of the Government of the Russian Federation determining the subsoil user's ability to carry out detailed prospecting and production of minerals on such a subsoil plot."

3.	Article 2. 1. Subsoil plots of federal significance The following subsoil plots shall pertain to subsoil plots of federal significance: 2) those located in the territory of a constituent entity of the Russian Federation or in the territories of constituent entities of the Russian Federation and containing, on the basis of data of the state balance sheet of minerals, starting from January 1, 2006: • recoverable oil reserves starting from 70 million tonnes; • natural gas reserves starting from 50 billion cubic metres; • vein gold reserves starting from 50 tonnes; • copper reserves starting from 500,000 tonnes; Subsoil plots of federal significance, a list of which is officially published in compliance with Part Two of this article, shall preserve the status of subsoil plots of federal significance regardless of a change in the requirements established by this article.	Arguably the most serious regulatory barrier to subsoil investment in Russia is the very low threshold value for attribution of gold ore deposits to subsoil plots of federal significance. These assets, which are subject to withdrawal by the state, are not sufficiently attractive enough to offset the risk for investors (including foreign ones). The applicable principles of compensation in case of such withdrawal are not based on a market-driven approach. Amending the established threshold value for vein gold reserves to 250 tonnes would ensure an additional inflow of investment in geological exploration and gold extraction in the country. It is recommended to reintroduce into the draft law On Amendments to Article 2.1 of the Law of the Russian Federation "On Subsoil" the provision establishing a threshold value for vein gold reserves of 250 tonnes and up. For the purpose of unimpeded implementation of this amendment in respect of, inter alia, the existing functional deposits included in the list of subsoil plots of federal significance, it is also considered necessary to amend Parts Two and Four of Article 2.1 of the law "On Subsoil". This will allow exclusion from the list of those subsoil plots which, by virtue of the revised statutory criteria of attribution of subsoil plots to subsoil plots of federal significance and/or a persistent decrease of the level of reserves below the threshold value, will cease to meet the requirements established by Article 2.1 of the Law "On Subsoil".	The following amendments shall be made in Article 2.1 of the Law of the Russian Federation No. 2395-I of February 21, 1992 "On Subsoil" (in the wording of Federal Law No. 27-FZ of March 3, 1995) (Vedomosti Syezda Narodnikh Deputatov Rossiyskoy Federatsii i Verkhovnogo Soveta Rossiyskoy Federatsii, 1992, No. 16, Article 834; Sobranie Zakonodatelstva Rossiyskoy Federatsii, 2008, No. 18, Article 1941): 1) Part Two shall be set forth in the following wording: "A list of subsoil plots of federal significance shall be officially published by the federal body in charge of managing state mineral reserves. The procedure for keeping the list of subsoil plots of federal significance shall be established by the Government of the Russian Federation." 2) Item 2 of Part Three shall be set forth in the following wording: "2) those located in the territory of a constituent entity of the Russian Federation or in the territories of constituent entities of the Russian Federation and containing, on the basis of data of the state balance sheet of minerals, starting from January 1, 2006: • recoverable oil reserves starting from 70 million tonnes; • natural gas reserves starting from 50 billion cubic metres; • vein gold reserves starting from 250 tonnes; • copper reserves starting from 500,000 tonnes." 3) Part Four shall be deleted.

Theoretically, it would also be reasonable to lift restrictions in respect of identified minerals for which there is no reference in the geological exploration licence. However, it could only be done by introducing relevant amendments to the law "On Subsoil", this not being a subject matter of these comments and proposals.

APPENDIX I: COMPARATIVE STATISTICS ON GOLD EXPLORATION AND MINING IN KEY JURISDICTIONS

We reviewed data for projects where gold is the primary commodity to provide some benchmark data about exploration and mining activity globally and in specific countries including Russia. Tables and Figures 5 and 6 clearly show that Russia lags behind most of the other leading gold mining jurisdictions in terms of the early-stage exploration activities that are essential to discover and define prospective investment targets.

Stage of development

Table 5. Distribution of stage of development by region: Number of Projects

	Global**	Canada	Chile	Brazil	Australia	Russia
Exploration*	1,352	284	15	22	95	12
Target Outline*	1,654	422	27	40	148	19
Reserves Development	1,848	389	14	24	299	121
Feasibility	293	26	9	7	48	7
Preproduction	105	9	1	2	8	6
Production	1,265	101	20	37	175	79
Total	6,517	1,231	86	132	773	244

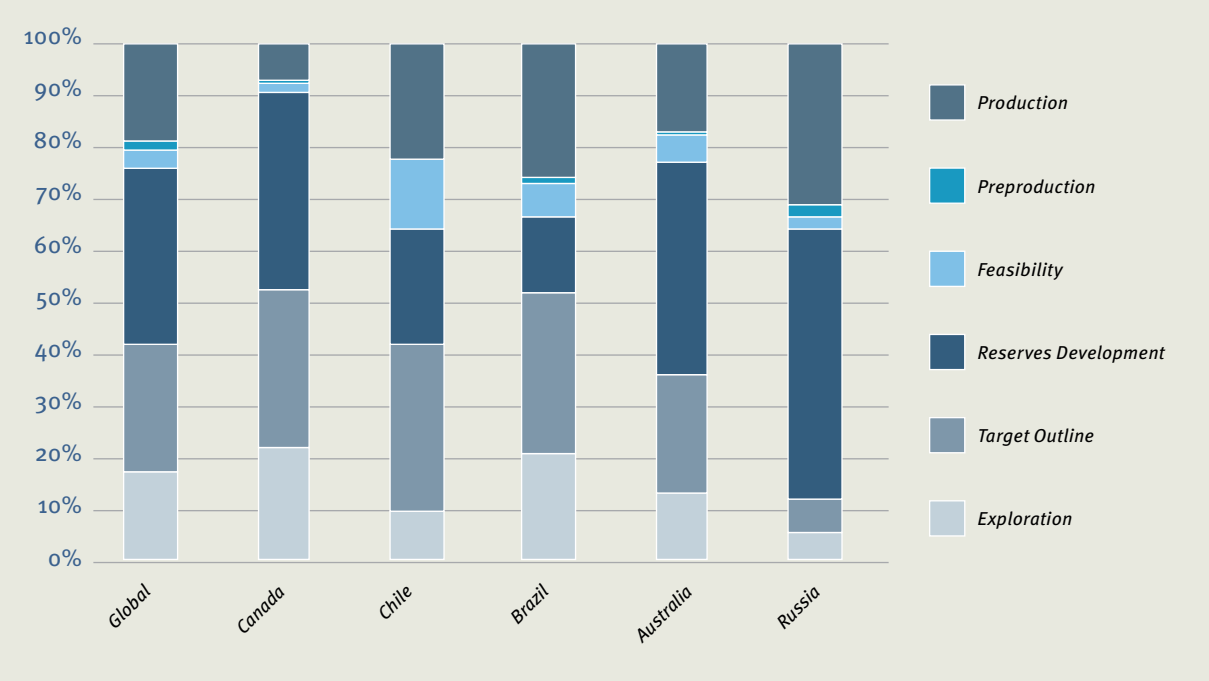
* Exploration and target outline projects correspond to early stage or grassroots projects

** Includes all countries

Table 6. Distribution of stage of development by region

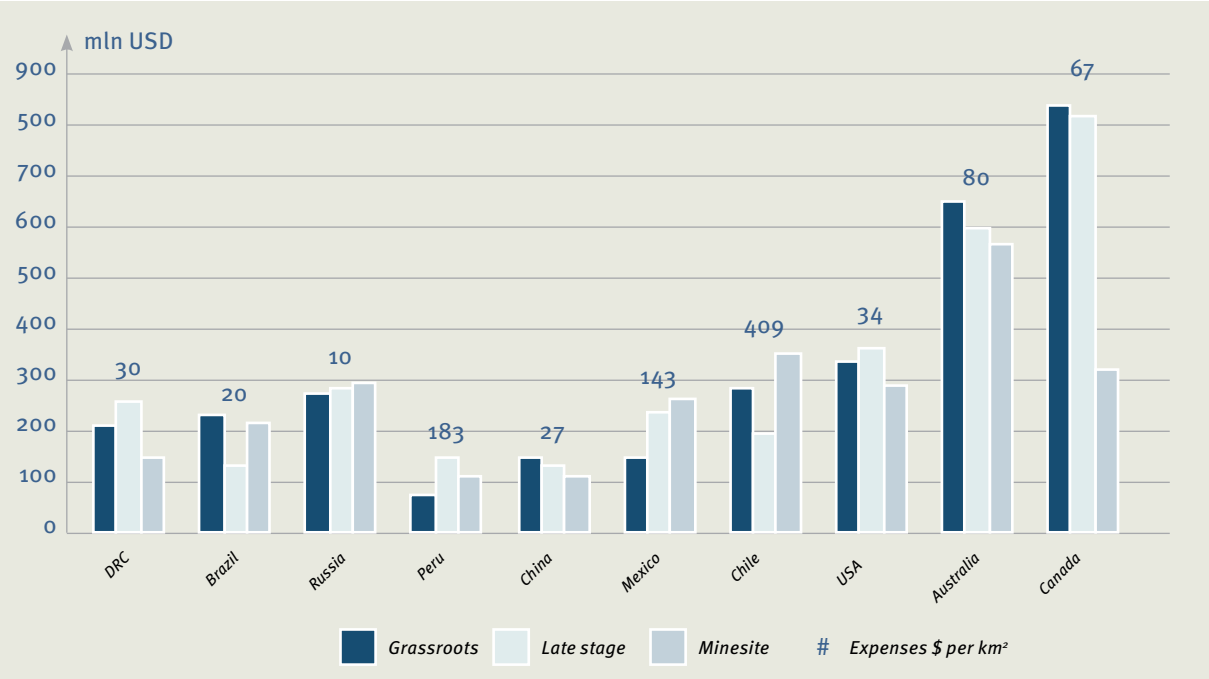
	Global	Canada	Chile	Brazil	Australia	Russia
Exploration	21%	23%	17%	17%	12%	5%
Target Outline	25%	34%	31%	30%	19%	8%
Reserves Development	28%	32%	16%	18%	39%	50%
Feasibility	4%	2%	10%	5%	6%	3%
Preproduction	2%	1%	1%	2%	1%	2%
Production	19%	8%	23%	28%	23%	32%

Figure 5. Distribution of stage of development by region



Note: Exploration and target outline correspond to early stage or grassroots projects

Figure 6. Exploration budget in 2013 for top 10 mining jurisdictions with grassroots expenses per km2



It can be seen from Table 7 that exploration in Russia is mainly carried out by major mining companies, while in other countries most exploration is undertaken by junior companies.

Table 7. Number and types of mining-related companies in top 10 mining jurisdictions

	Major	Intermediate	Junior	Other	Government
Australia	29	40	412	14	10
Canada	33	22	482	13	6
Brazil	12	3	39	1	1
Chile	25	9	43	11	5
Russia	12	6	9	1	2
USA	26	12	190	6	2
Mexico	16	19	102	2	2
Peru	26	10	59	7	3
China	12	16	13	5	16
DRC	9	4	18	3	1

Figure 7. Exploration budget summary for gold and base metals by company type, 2013

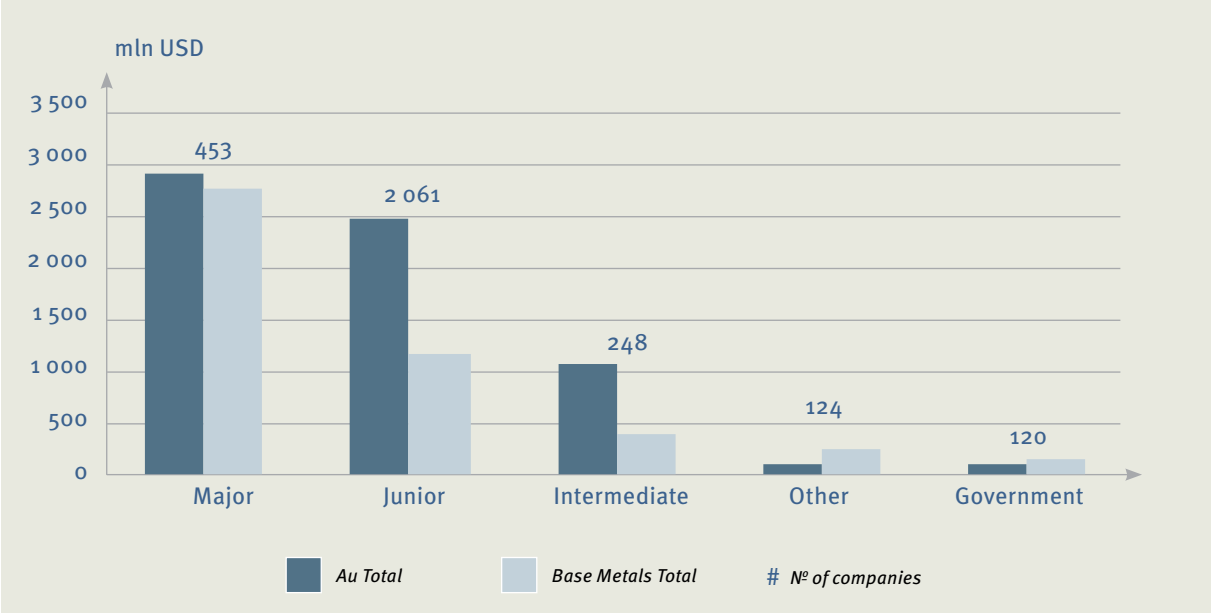


Figure 7 shows that the combined budget for junior companies for gold exploration approximately matches the budget of major mining companies, while for copper exploration, major mining companies spend the most due to the costs of exploration and project evaluation associated with the scale and infrastructure requirements for copper projects.

Figure 8. Exploration budget summary for development stages by company type

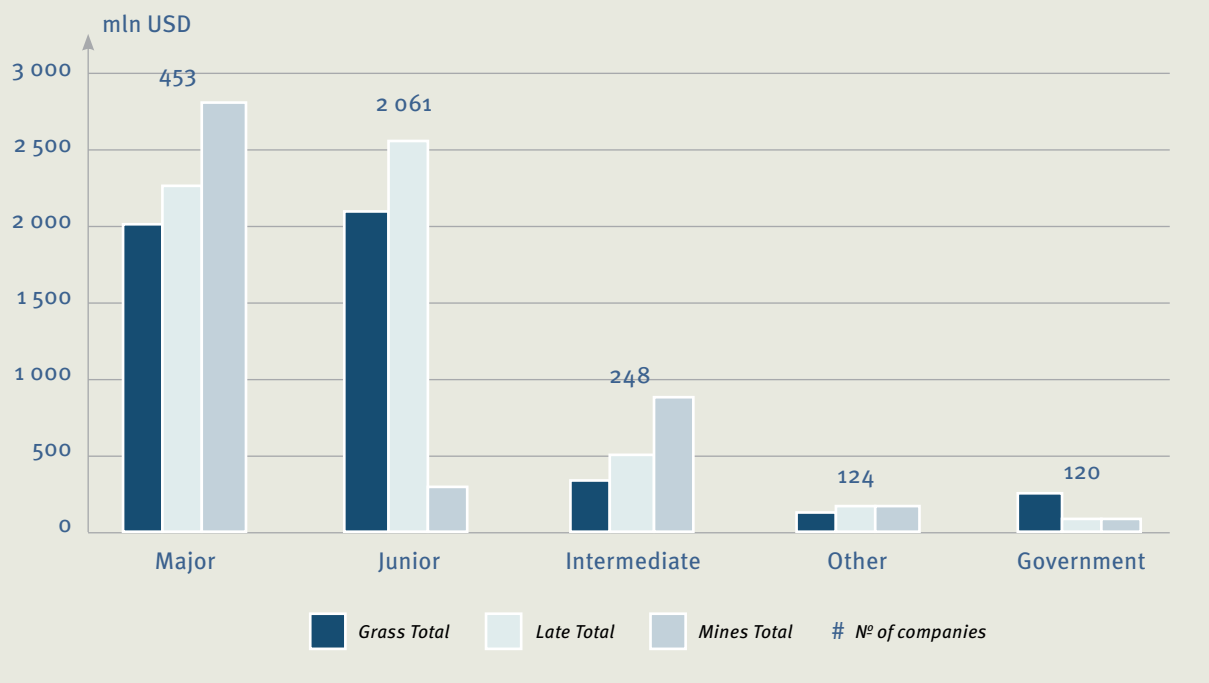


Figure 8 shows that globally both junior and major companies are responsible for the majority of investment in grassroots and late stage exploration, with intermediate and major mining companies responsible for the expenditure in mining. This is because intermediate and major mining companies buy advanced projects from the juniors.

APPENDIX II: INFORMATION ON RUSSIA: STATISTICS ON LICENSING*

In order to better compare Russia and the other selected jurisdictions, the main stages of the licensing process for a grassroots area via auction and their minimal duration are included in Tables 8 and 9. Statistical data has been taken from the official website of the Federal Subsoil Resources Management Agency (Rosnedra). When an exploration company selects a new area, the initial application stage to include this area for auction may last more than 12 months. Under existing practises, the entire process from initial application to obtaining a licence normally takes 18-24 months and the applicant may be unsuccessful in the end.

The excessive number of state approvals and state agencies involved in the licensing process in Russia also poses a significant barrier to subsoil investment. Reserve approval, expert examination of planning documentation, approval of extraction losses, expert appraisal of industrial safety, state environmental appraisal and approval of the annual mining development plan can, taken together, take more than two years to be approved.

The auction system in Russia has proven unsuccessful in increasing the number of mineral exploration projects and attracting the necessary investment and development activity by domestic and foreign investors. The following statistics bear out this conclusion and support calls for a revision of the licence-granting system.

Table 8. Main steps for obtaining an exploration licence through auction in the Russian Federation

Stage	Minimal duration, months	Comments
Initial application to include the area in an auction	6	The timeframe is not limited in legislation and may take more than 12 months
Application for auction, approval of participation from Rosnedra	2.4*	Most time is required to approve bidders
Granting a licence to a successful bidder (more than one bidder) or	3.2*	Auction is successful
Granting a licence to the only bidder	4.8*	Auction is unsuccessful

*Note: * Timeframes are taken from Rosnedra's administrative regulations.*

There is no data available on the number of successful auctions initiated by Rosnedra for exploration licences (no mining permit) for the period 2005-2012. However, it may be concluded from Table 9 (below) that between 43% and 100% of auctions received only one bid and can therefore be classified as unsuccessful. For the auctions conducted in 2013, it may be concluded that only one auction of the 29 announced was successful.

Table 9. Statistics on exploration licences (no mining permit) for period 2005-2013 for solid commercial minerals (Rosnedra, 2014)

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013
Announced auctions	243	285	198	5	103	162	157	49	29
Received one bid (unsuccessful)	143	174	86	5	46	113	111	27	18
Received one bid (unsuccessful), % of announced	59%	61%	43%	100%	45%	70%	71%	55%	62%
Received no bids (unsuccessful)	*	*	*	*	*	*	*	*	10
Received two or more bids (successful)	*	*	*	*	*	*	*	*	1

*Note: * No statistics available.*

*Note: *Presented by SRK Exploration.*

There is no data available on the number of successful auctions initiated by Rosnedra for combined exploration and mining licences for 2005–2012. However, according to Rosnedra's information, between one-third and more than half of auctions received no bids and were therefore unsuccessful (Table 10).

Table 10. Statistics on combined licences (exploration and mining) for the period 2006-2013 for solid commercial minerals (Rosnedra, 2014)

Year*	2006	2007	2008	2009	2010	2011	2012	2013
Announced auctions	610	644	287	81	622	585	574	517
Including hard rock gold licences	107	48	77	88	101	9	20	91
Resources Au C1+C2, tonnes	0.2	0	69.2	14.3	17.6	0	0	25.1
Resources Au P1, tonnes	8.5	6	51.2	36.2	239	0	0	270
Resources Au P2, tonnes	547	28	157	442	1,145	113	100.8	884
Resources Au P3, tonnes	953	337	215	1,278	1,413	158.5	420.5	1,830
Unsuccessful auctions (no bids)	>33%	>33%	>50%	>50%	>50%	>50%	>50%	39%

Note: No combined licence statistics are available for 2005.

It can be concluded from Table 10 that more than 50% of auctions in 2008-2012 and more than 30% in 2006-2007 and in 2013 failed. Moreover, of those licences successfully auctioned, the revenues raised by the government are very low, especially given the known deposits (there are no statistics that separate hydrocarbon deposits from hard-rock deposits).

Table 11 shows data on the discovery of new oil fields in Russia for the period 2005-2013, which includes the entire range of all solid minerals and minefields of federal significance. As can be seen from the table the number of new fields is extremely small, which, in our opinion, is due to the lack of investment attractiveness in Russia.

Table 11. Discoveries of deposits of solid commercial minerals (including deposits of strategic importance) following the issue of a mining licence for the period 2005-2013 (Rosnedra, 2014)

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013
Licences	3	21	19	4	11	13	15	18	12

Table 12. Initial payment for licences (all commodities, including hydrocarbons), bln RUB (Rosnedra, 2014)

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013
Planned	26.8	41.6	36.2	29.0	40.4	39.6	58.7	43.5	156.3
Actual	46.0	62.6	48.1	94.7	41.2	22.8	50.9	47.2	159.6

Table 13. Increase of resources in state booking as a result of state exploration for the period 2005-2012 for selected commodities (Rosnedra, 2014)

	Mineral resources		Predicted resources		
	Thousands of tonnes				
Metal	C1	C2	P1	P2	P3
Copper	-	-	940.8	11,699.1	3,100.0
Nickel	-	-	80.0	2,924.0	4,200.0
Lead	-	94.3	311.2	762.5	-
Zinc	-	189.4	592.2	1,418.7	1,500.0
Gold, tonnes	12.5	1,792.6	3,267.1	12,192.4	4,623.0
Silver	0.1	5.8	15.7	24.1	-
PGE	-	1.0	10.2	380.0	-

Table 14 shows historical data on the thirteen gold deposits in Russia, including the year of discovery, the year the reserves are officially registered, and the year mining commenced. The time between discovery and exploitation varies from 12 to 51 years and is 25 years on average, while, according to SRK that world average is 15 years.

Table 14. Period from discovery to mining for some gold deposits in Russia

Deposit	Region	Year of discovery	Year of initial re-source estimate	Mining started	Duration (yrs)
Karamken	Magadan	1964	1975	1976	12
Blagodatnoe	Krasnoyarsk	1968	2005	2010	42
Olimpiada	Krasnoyarsk	1975	1987	1989	14
Kubaka*	Magadan	1979	1992	1997	18
Julietta*	Magadan	1989	1996	2001	12
Kupol*	Chukotka	1996	2006	2008	12
Maiskoe	Chukotka	1972	1981	2013	41
Nezhdaninskoe	Yakutia	1951	1975	2002	51
Shkolnoe	Magadan	1981	1995	1996	15
Ametistovoe	Chukotka	1967	1995	2014**	47
Golets Vyso-chaishy	Krasnoyarsk	1980	1986	2002	22
Titimukhta	Krasnoyarsk	1990	2007	2008	18
Karalveem	Chukotka	1957	1987	1995	38

Note: Deposits were discovered during regional prospecting 1:25,000 (1, 8), geological survey 1:50,000 (2, 4-7, 10, 13) and regional survey 1:200,000 (3).

*Deposits developed by Bema Gold and Kinross Gold (Canada). The companies were granted mining licences based on auctions. The time for developing these three deposits from detailed exploration through to the beginning of mining varied from 4 to 7 years.

**The Ametistovoe Au-Ag deposit is scheduled to start operation at the end of 2014.

APPENDIX III: RUSSIAN AND GLOBAL PROJECTS WITH RESOURCES OR RESERVES IN EXCESS OF THE 50-TONNE THRESHOLD

Russian projects with resources or reserves in excess of 50 tonnes are listed in Table 15. Global projects containing cumulatively 50% of the worlds' gold resources are shown in Table 16. While the SNL database includes reported reserves and resources, we note that there is no consistency as to whether resources are inclusive of or additional to reserves. Also, we note that some Russian deposits are reported as containing reserves as per the international definitions when it is likely they refer to resources according to the GKZ system. Also, it is not clear how the GKZ reporting categories (A, B, C1, P1, etc.) are converted to Measured & Indicated or Inferred Resources. Therefore we chose the larger of the total resource or the total reserve to rank the deposits by size. We note from Table 16 that half of the global gold resources in deposits classified primarily as gold deposits are contained in deposits with at least 140 tonnes of gold. The 50-tonne threshold used in Russia would cover approximately three-quarters of active global gold projects. It can also be concluded that out of the 47 gold deposits in Russia whose mineral resources were updated in the last ten years, 20 deposits (or 42.5%) have resources of more than 50 tonnes.

This fact highlights the contention that the 50-tonne threshold is artificially low and that exploration companies (juniors) and senior mining companies alike see the low threshold as another disincentive to exploring for new gold deposits in Russia given the necessity to obtain additional approval if a discovery is above the 50-tonne threshold.

Table 15. Russian projects with resources in excess of 50 tonnes

Project Name	Development Stage	Activity Status	Mine Type	Owner Name	R&R (oz)	R&R (t)
Sukhoi Log	Reserve Development	Active	Open Pit	Government Of Russia	61,729,000	1,919.8
Natalka	Preproduction	Active	Open Pit	Polyus Gold International Limited	32,092,185	998.1
Olimpiada	Production	Active	Open Pit	Polyus Gold International Limited	30,010,000	933.3
Blagodatnoye	Production	Expansion	Open Pit	Polyus Gold International Limited	9,180,000	285.5
Kuchus	Reserve Development	Active	Open Pit	Federal Subsurface Resources Management Agency	6,243,400	194.2
Elnichny	Reserve Development	On Hold Awaiting Higher Prices	Open Pit	Private interest	6,167,000	191.8
Poputninskoye	Feasibility	Active	-	Polyus Gold International Limited	5,820,000	181.0
Pogrebennaya	Production	Expansion	Placer	OJSC GV Gold	5,754,000	178.9
Verninskoye	Production	Active	Open Pit	Polyus Gold International Limited	5,494,876	170.9

Project Name	Development Stage	Activity Status	Mine Type	Owner Name	R&R (oz)	R&R (t)
Taseevskoye	Feasibility	Active	Open Pit	Highland Gold Mining Limited	5,088,353	158.2
Kamchatka	Reserve Development	Active	-	Kamchatka Resources	4,970,000	154.6
Snezhinka	Reserve Development	Active	-	Gold Standard Mining Corp	4,200,000	130.6
Malomir	Production	Active	Open Pit	Petropavlovsk PLC	4,050,000	126.0
Gross	Preproduction	Active	Open Pit	Nord Gold N.V.	3,600,878	112.0
Degdekan	Reserve Development	Active	-	Polyus Gold International Limited	3,500,000	108.9
Pavlik	Preproduction	Active	-	Arlan Group	3,215,000	100.0
Troitsky	Reserve Development	-	Open Pit	Irgiredmet	3,135,000	97.5
Berezovsky	Production	Active	Underground	Uralelectromed	3,113,000	96.8
Stadukino	Reserve Development	Active	Open Pit	Highland Gold Mining Limited	2,891,767	89.9
Vesyoly	Production	Expansion	Open Pit	Sibir Mining Co	2,833,000	88.1
Kuranakh	Production	Active	Open Pit	Polyus Gold International Limited	2,700,000	84.0
Solovyevskiy	Reserve Development	Active	-	Petropavlovsk PLC	2,628,000	81.7
Chudnoye	Reserve Development	Active	-	Unnamed Owner	2,582,000	80.3
Lobash	Target Outline	-	-	Promnedra	2,446,000	76.1
Gerfed	Reserve Development	Active	Open Pit	Vasilyevsky Rudnik Zao	2,425,000	75.4
Svetlinskoye	Production	Limited Production	Open Pit	Uzhuralzoloto OJSC	2,409,000	74.9
Vasilyevskoye	Production	Active	Open Pit	Vasilyevsky Rudnik Zao	2,377,000	73.9
Noni	Reserve Development	-	Open Pit	American CuMo Mining Corporation	2,367,000	73.6
Chertovo Koryto	Reserve Development	Active	Open Pit	Polyus Gold International Limited	2,360,000	73.4
Pioneer	Production	Active	Open Pit	Petropavlovsk PLC	2,193,455	68.2
Kupol	Production	Active	Open Pit	Kinross Gold Corporation	2,081,000	64.7
Mayskoye	Production	Active	Underground	Polymetal International Plc	2,013,000	62.6
Vysokoye	Reserve Development	Active	-	Polymetal International Plc	2,013,000	62.6
Eldorado	Production	-	Open Pit	Sovrudnik Ltd	1,934,000	60.1
Sagan-Golsky	Reserve Development	-	-	OAO Severstal	1,929,000	60.0

Project Name	Development Stage	Activity Status	Mine Type	Owner Name	R&R (oz)	R&R (t)
Tamunier	Reserve Development	Active	-	Polymetal International Plc	1,903,642	59.2
Khioninsky	Reserve Development	-	-	Federal Subsurface Resources Management Agency	1,809,000	56.3
Ametistovoye	Preproduction	Active	Underground	Koryakgeoldobycha	1,689,000	52.5

Table 16. Global projects with 50% gold resources

Project Name	Development Stage	Activity Status	Mine Type	Owner Name	Country Name	R&R (t)	Cum. %
Potchefstroom Goldfield	Reserve Development	Active	Underground	Witwatersrand Consolidated Gold Resources Limited	South Africa	2,368.2	3%
Sukhoi Log	Reserve Development	Active	Open Pit	Government Of Russia	Russia	1,919.8	5%
Muruntau Open Pit	Production	Active	Open Pit	Navoi Mining and Metallurgical Combine	Uzbekistan	1,499.8	6%
Donlin Gold	Feasibility	Active	Open Pit	Barrick Gold Corporation	USA	1,399.5	8%
Klerksdorp	Reserve Development	Active	Underground	Witwatersrand Consolidated Gold Resources Limited	South Africa	1,233.8	9%
ERPM Extension	Reserve Development	Active	Underground	DRDGold Limited	South Africa	1,216.4	10%
South Deep	Production	Expansion	Underground	Gold Fields Limited	South Africa	1,188.8	12%
KSM	Reserve Development	Active	Open Pit	Seabridge Gold Inc.	Canada	1,188.0	13%
Snowfield	Reserve Development	Active	Open Pit	Pretium Resources Incorporated	Canada	1,091.5	14%
Natalka	Preproduction	Active	Open Pit	Polyus Gold International Limited	Russia	998.1	15%
Olimpiada	Production	Active	Open Pit	Polyus Gold International Limited	Russia	933.3	16%
Lihir Island	Production	Active	Open Pit	Newcrest Mining Limited	Papua New Guinea	901.9	17%
Nevada Operations	Production	Active	Open Pit	Newmont Mining Corporation	USA	879.2	18%
La Colosa	Reserve Development	Active	Open Pit	AngloGold Ashanti Limited	Colombia	872.4	19%

Project Name	Development Stage	Activity Status	Mine Type	Owner Name	Country Name	R&R (t)	Cum. %
Caspiche	Reserve Development	Active	Open Pit	Exeter Resource Corporation	Chile	780.3	20%
Cadia East	Production	Active	Underground	Newcrest Mining Limited	Australia	777.5	21%
Cerro Casale	Feasibility	Active	Open Pit	Barrick Gold Corporation	Chile	722.9	21%
Kloof/ Driefontein Complex	Production	Active	Underground	Sibanye Gold Limited	South Africa	625.9	22%
Far Southeast	Reserve Development	Active	Underground	Far Southeast Gold Resources, Incorporated	Philippines	615.8	23%
Elang-Dodo	Reserve Development	Active	Open Pit	Newmont Mining Corporation	Indonesia	613.0	23%
Barlevsky	Reserve Development	Active	Placer	Supatcha Resources Inc.	Ukraine	612.7	24%
Metates	Feasibility	Active	Open Pit	Chesapeake Gold Corp.	Mexico	573.8	25%
Jeanette	Reserve Development	Active		Taung Gold Holdings Ltd	South Africa	567.3	25%
Pueblo Viejo	Production	Active	Open Pit	Barrick Gold Corporation	Dominican Republic	502.3	26%
Detour Lake	Production	Active	Open Pit	Detour Gold Corporation	Canada	483.6	26%
Goldrush	Reserve Development	Active		Barrick Gold Corporation	USA	482.5	27%
Marmato	Production	Limited Production	Open Pit	Gran Colombia Gold Corporation	Colombia	467.5	27%
Mponeng	Production	Active	Underground	AngloGold Ashanti Limited	South Africa	452.8	28%
Columbus	Production	Limited Production	Dredging	Ireland Inc.	USA	427.4	28%
Boddington	Production	Active	Open Pit	Newmont Mining Corporation	Australia	422.0	29%
Wafi-Golpu	Reserve Development	Active	Underground	Harmony Gold Mining Company Limited	Papua New Guinea	387.0	29%
Kibali	Production	Active	Open Pit	AngloGold Ashanti Limited	Dem. Rep. Congo	373.2	30%
Penasquito	Production	Active	Open Pit	Goldcorp Incorporated	Mexico	359.4	30%
New Prosperity	Feasibility	Active	Open Pit	Taseko Mines Limited	Canada	343.7	30%
Cortez	Production	Active	Open Pit	Barrick Gold Corporation	USA	342.8	31%

Project Name	Development Stage	Activity Status	Mine Type	Owner Name	Country Name	R&R (t)	Cum. %
Goldstrike	Production	Expansion	Open Pit	Barrick Gold Corporation	USA	333.0	31%
Titiribi	Reserve Development	Active		Sunward Resources Limited	Colombia	329.8	31%
Hycroft	Production	Expansion	Open Pit	Allied Nevada Gold Corporation	USA	328.3	32%
Paracatu	Production	Active	Open Pit	Kinross Gold Corporation	Brazil	323.5	32%
Ahafo	Production	Expansion	Open Pit	Newmont Mining Corporation	Ghana	314.7	32%
Zarmitan	Reserve Development	Active	Open Pit	Navoi Mining and Metallurgical Combine	Uzbekistan	313.6	33%
Livengood	Feasibility	Active	Open Pit	International Tower Hill Mines Ltd.	USA	313.4	33%
Orisyvo	Reserve Development	Active	Open Pit	Fresnillo Plc	Mexico	309.2	33%
Sari Gunay	Reserve Development	Active	Open Pit	Zar Kuh Mining Co	Iran	300.0	34%
Tasiast	Production	Active	Open Pit	Kinross Gold Corporation	Mauritania	299.9	34%
Volcan	Feasibility	Active	Open Pit	Hochschild Mining Plc	Chile	297.1	34%
Kisladag	Production	Active	Open Pit	Eldorado Gold Corporation	Turkey	296.9	35%
Bulyanhulu	Production	Expansion	Underground	African Barrick Gold Plc	Tanzania	291.9	35%
Canadian Malartic	Production	Active	Open Pit	Agnico Eagle Mines Limited	Canada	291.4	35%
Blagodatnoye	Production	Expansion	Open Pit	Polyus Gold International Limited	Russia	285.5	36%
Argonaut Deeps	Reserve Development	Active	Underground	DRDGold Limited	South Africa	276.3	36%
Angren	Production	Expansion	Underground	Almalyk Mining and Metals Combine	Uzbekistan	270.2	36%
Cote Gold	Reserve Development	Active	Open Pit	IAMGOLD Corporation	Canada	269.0	37%
Kumtor	Production	Active	Open Pit	Centerra Gold Inc.	Kyrgyzstan	264.0	37%
Southern Free State Goldfield	Feasibility	Active	Underground	Witwatersrand Consolidated Gold Resources Limited	South Africa	263.8	37%
Condor	Reserve Development	Active	Underground	Ecuador Gold and Copper Corp	Ecuador	263.3	37%

Project Name	Development Stage	Activity Status	Mine Type	Owner Name	Country Name	R&R (t)	Cum. %
Sukari	Production	Active	Open Pit	Centamin Plc	Egypt	256.0	38%
Blackwater	Feasibility	Active	Open Pit	New Gold Inc.	Canada	254.1	38%
Obuasi	Production	Active	Underground	AngloGold Ashanti Limited	Ghana	253.3	38%
Evander	Production	Active	Underground	Pan African Resources Plc	South Africa	249.4	38%
Hardrock	Feasibility	Active	Open Pit	Premier Gold Mines Limited	Canada	248.6	39%
Los Filos	Production	Active	Open Pit	Goldcorp Incorporated	Mexico	248.3	39%
Evander 6 Shaft	Feasibility	Active	-	Taung Gold International Limited	South Africa	238.6	39%
Loulo	Production	Active	Open Pit	Randgold Resources Limited	Mali	236.4	40%
Rovina Valley	Reserve Development	Active	Open Pit	Carpathian Gold Inc.	Romania	233.4	40%
Brucejack	Feasibility	Active	Underground	Pretium Resources Incorporated	Canada	233.3	40%
Kalgoorlie Consolidated	Production	Active	Open Pit	Newmont Mining Corporation	Australia	231.4	40%
Vasilkovskoje	Production	Active	Open Pit	Glencore Plc	Kazakhstan	226.8	41%
Tarkwa	Production	Active	Open Pit	Gold Fields Limited	Ghana	226.2	41%
Golden Meadows	Reserve Development	Active	Open Pit	Midas Gold Corporation	USA	224.4	41%
Akyem	Production	Active	Open Pit	Newmont Mining Corporation	Ghana	223.3	41%
Hammond Reef	Feasibility	Active	Open Pit	Agnico Eagle Mines Limited	Canada	222.5	41%
Spanish Mountain	Reserve Development	Active	Open Pit	Spanish Mountain Gold Ltd.	Canada	217.7	42%
Buritica	Reserve Development	Active	Underground	Continental Gold Limited	Colombia	217.4	42%
Kusasalethu	Production	Active	Underground	Harmony Gold Mining Company Limited	South Africa	216.1	42%
Vaal River Surface	Production	Expansion	Tailings	AngloGold Ashanti Limited	South Africa	214.3	42%
Shuiyintong	Production	Expansion	Underground	Zijin Mining Group Company Limited	China	211.0	43%
Turquoise Ridge JV	Production	Limited Production	Underground	Barrick Gold Corporation	USA	210.2	43%
Kyzyl	Reserve Development	Active	Underground		Kazakhstan	208.4	43%

Project Name	Development Stage	Activity Status	Mine Type	Owner Name	Country Name	R&R (t)	Cum. %
Taldybulak Talas	Reserve Development	Active	Open Pit	Gold Fields Limited	Kyrgyzstan	204.4	43%
Golden Summit	Reserve Development	Active	Open Pit	Freegold Ventures Limited	USA	204.0	44%
Qingchengzi	Reserve Development	Active	-	People's Republic of China	China	202.2	44%
Courageous Lake	Reserve Development	Active	Open Pit	Seabridge Gold Inc.	Canada	200.4	44%
Telfer	Production	Active	Underground	Newcrest Mining Limited	Australia	199.0	44%
Yaoure	Reserve Development	Active	Open Pit	Amara Mining Plc	Cote d'Ivoire	195.9	44%
Kyutchus	Reserve Development	Active	Open Pit	Federal Subsurface Resources Management Agency	Russia	194.2	45%
Moab Khotsong	Production	Active	Underground	AngloGold Ashanti Limited	South Africa	190.6	45%
Gramalote	Reserve Development	Active	Open Pit	AngloGold Ashanti Limited	Colombia	189.1	45%
Chucapaca	Reserve Development	Active	Underground	Gold Fields Limited	Peru	188.8	45%
Lobo-Marte	Feasibility	Active	Open Pit	Kinross Gold Corporation	Chile	187.5	45%
Mt Pleasant	Production	Satellite	Underground	Norton Gold Fields Limited	Australia	187.0	46%
Mt Todd	Feasibility	Active	Open Pit	Vista Gold Corporation	Australia	183.5	46%
Twin Peaks	Reserve Development	Active	Open Pit	USCorp	USA	181.7	46%
Poputninskoye	Feasibility	Active	-	Polyus Gold International Limited	Russia	181.0	46%
Yanacocha	Production	Expansion	Open Pit	Newmont Mining Corporation	Peru	179.1	46%
Pogrebennaya	Production	Expansion	Placer	OJSC GV Gold	Russia	178.9	47%
Cerro Negro	Production	Active	Underground	Goldcorp Incorporated	Argentina	178.3	47%
Skaergaard	Reserve Development	Active	Open Pit	Platina Resources Limited	Greenland	177.1	47%
Verninskoye	Production	Active	Open Pit	Polyus Gold International Limited	Russia	170.9	47%
Angostura	Reserve Development	Active	Underground	Eco Oro Minerals Corporation	Colombia	170.6	47%

Project Name	Development Stage	Activity Status	Mine Type	Owner Name	Country Name	R&R (t)	Cum. %
Free State	Production	Active	Underground	Harmony Gold Mining Company Limited	South Africa	168.4	47%
Sleeper	Reserve Development	Active	Open Pit	Paramount Gold and Silver Corporation	USA	168.3	48%
Chaarat	Feasibility	Active	Underground	Chaarat Gold Holdings Limited	Kyrgyzstan	164.4	48%
Bombore	Feasibility	Active	Open Pit	Orezone Gold Corporation	Burkina Faso	164.4	48%
Fekola	Feasibility	Active	Open Pit	Papillon Resources Limited	Mali	160.0	48%
Bayankol	Reserve Development	Active	Placer	Spectral Capital Corp.	Kazakhstan	159.9	48%
Veladero	Production	Active	Open Pit	Barrick Gold Corporation	Argentina	159.1	49%
Springpole	Reserve Development	Active	Underground	Gold Canyon Resources Inc.	Canada	158.5	49%
Taseevskoye	Feasibility	Active	Open Pit	Highland Gold Mining Limited	Russia	158.2	49%
Kamchatka	Reserve Development	Active	-	Kamchatka Resources	Russia	154.6	49%
Pogo	Production	Active	Underground	Sumitomo Metal Mining Company Limited	USA	154.1	49%
Herradura	Production	Active	Open Pit	Fresnillo Plc	Mexico	154.1	49%
Hishikari	Production	Active	Underground	Sumitomo Metal Mining Company Limited	Japan	150.0	50%
Carlin Underground	Production	Satellite	Underground	Newmont Mining Corporation	USA	148.8	50%
Kittila	Production	Active	Underground	Agnico Eagle Mines Limited	Finland	146.6	50%
Cripple Creek and Victor	Production	Active	Open Pit	AngloGold Ashanti Limited	USA	146.5	50%
Yubileinoye	Production	Active	Underground	SUN Gold	Kazakhstan	144.6	50%
Hope Bay	Reserve Development	Active	Open Pit	TMAC Resources Inc	Canada	142.3	50%
Essakaneb	Production	Active	Open Pit	IAMGOLD Corporation	Burkina Faso	142.2	50%
Borborema	Feasibility	Active	Open Pit	Crusader Resources Limited	Brazil	50.0	76%