

NEWSLETTER PA MICA

077^{ème} promotion

Novembre 2015

- **Ecological impacts of large-scale disposal of mining waste in the deep sea** BOUCHAYER Coline p. 2
- **Exxaro likely to move more coal in FY2015; cuts expansion capex.** LEFEBVRE Victoria p. 2
- **Establishing a sustainable mining operation: an overview** MATHEY Camie p. 3
- **Goldcorp and Teck complete combination of El Morro and Relincho projects in Chile** KIEFFER Marie p. 4
- **Brazil mine accident puts tailings ponds safety back in the hot spot** VIEY-CHEVALIER Alyzée p. 4
- **Situation du platine en 2014** MADON Baptiste p. 5
- **Platinum, palladium prices break fall** CEDOU Mathieu p. 5
- **Letseng's Unique Diamond Proposition** GUILLEVIC Floriane p. 6
- **Gold exploration in Brittany** DUVERNOIS Alban p. 6
- **The tungsten "brain trust" on the Almonty Los Santos mine tour** BEQUET Frédéric p. 7
- **Rio Tinto go ahead with \$1.9 billion bauxite project in Australia** RABIN Ségolène p. 7
- **Les sols et altérites comme ressources minérales** GALTIER Alyssa p. 8
- **Influence of ore deposits on river sediment compositions in Dan River drainage, China** GUERIN Benjamin p. 8
- **Mapping deep-sea hydrothermal deposits with an in-loop transient electromagnetic method: Insights from 1D forward and inverse modeling** HUGUET Julien p. 9
- **Stratégie relative à l'exploration et à l'exploitation minière des grands fonds marins en France** BOUAROUK Emma p. 10
- **Distribution, mineralogy and geochemistry of silica-iron exhalites and related rocks from the Tyrone Igneous Complex: Implications for VMS mineralization in Northern Ireland** THOLLON Maude p. 11
- **Is there hidden treasure in the mining industry? Low equity prices may offer important M&A opportunities for the mining industry.** CLEMENT Gaëtan p. 12
- **Diamonds vs. precious metals: what shines brightest in your investment portfolio** DE MERCEY Valentine p. 13
- **Obama boosts asteroid mining, signs law granting rights to own space riches** LE LAIT Gaëtan p. 13

Ecological impacts of large-scale disposal of mining waste in the deep sea

Lihir and Misima are two islands near the Papua New Guinea. Those two are really close to deep sea which is a problem for marine communities. The Deep-sea Tailings Placement (DSTP) is the disposal of tailings in relatively deep waters (>100 m) through a submerged pipe below the euphotic zone, at the edge of a drop-off. The tailings create a gravity flow that deposits the material on the deep seafloor below 1000 m depth. This survey explain the huge impact of the metal traces for seabed biota. This study is realized thanks to a lot of sample of the seabed, picture and analysis of the benthic population. The results show that use the DSTP reduce considerably the negative impact on the infaunal abundance. Nevertheless the impact of the material depends on the type of it and the depth. The topography of the seabed influences a lot for the stockage of those material and their re-suspension. Even after the end of tailing discharge the trace of metal have still a contaminant effect.

BOUCHAYER Coline

Reference: Hughes, D. J. *et al.* Ecological impacts of large-scale disposal of mining waste in the deep sea. *Sci. Rep.* 5, 9985; doi: 10.1038/srep09985 (2015).

Available on: <http://www.nature.com/articles/srep09985>

Exxaro likely to move more coal in FY2015; cuts expansion capex.

This article discusses the economic context of the minerals miner Exxaro. This company exploits coal.

Price of coal in international markets continued to decrease. The average prices of the coal decrease of 20% since the beginning of January. This reflected the global oversupply of commodities, the cheap Chinese exports and a weak demand.

Exxaro planned to reduce its expansion capital expenditure by 13% over the next five years. Furthermore, the company chooses to allocate capital and takes into account the expected investment rate of return, net present value, cost curve position, payback period, risk and mitigation balance, as well as overall impact on shareholder returns.

But Exxaro went to look ahead. His strategic priorities in the next year included integration and optimizing ECC assets, developing Exxaro's future black economic empowerment shareholding strategy, evaluating its current shareholding in key investments and growing investor confidence in Exxaro's prospects for the coal business.

LEFEBVRE Victoria

Reference: Natalie Greve, 20TH November 2015

Establishing a sustainable mining operation: an overview

The aim of this paper is **to provide mine operators with guidance** on improving the sustainability of their sites. It begins with a review of the literature on sustainable development in the mining industry. It then presents the results of investigations into nonsustainable mines typified by their premature or unplanned closure in the last 30 years.

Two questions are exposed:

- What does sustainability or sustainable development mean to mine managers and other senior personnel who are engaged by their board to run a successful business?
- What are the characteristics of truly sustainable mining operations?

This paper argues that operators can improve the sustainability of their mine sites by ensuring that leading practices are implemented in five areas:

- Safety
- Economic
- Resource Efficiency
- Environment
- Community

The results of investigations into 1000 nonsustainable mines over the past 30 years found that the **economic and efficiency dimensions** were causal factors in the **75%** of mines that closed prematurely. Although there is no evidence that the implementation of sustainable mining practices would have prevented all the mine closures, **it is suggested that many would have benefited from both an extended life and less severe legacy impacts to both the environment and the community.**

MATHEY Camie

Reference: Laurence, D., 2011. Establishing a sustainable mining operation: an overview. Journal of Cleaner Production 19, 278-284.

Available on: http://ac.els-cdn.com/S0959652610003471/1-s2.0-S0959652610003471-main.pdf?_tid=fd64fe36-95be-11e5-aef3-00000aacb35d&acdnat=1448708503_338ab0536d17d2ce8c593689fcc7efa9

Goldcorp and Teck complete combination of El Morro and Relincho projects in Chile

Goldcorp Inc. and Teck Resources Limited announced on the 24th of November, 2015, that they had completed the 50/50 joint venture announced this summer. It regroups two projects which are located in the Atacama region (Chile) under the name of “Project Corridor”. The Mineral Reserves and Mineral Resources of the two projects have been estimated in accordance with the CIM Definition Standards, as stated in the previous article published on the 27th of August. These estimations are based on the information at December 31st 2014. The substances involved in El Morro project (Goldcorp Inc.) are gold and copper and the ones involved in Relincho project (Teck) are copper and molybdenum.

As Goldcorp is a leading gold producer, Teck is known to be a diversified resource company focused on copper, zinc, steelmaking coal and energy. This joint venture is expected to provide several benefits for both Canadian companies, such as reducing the environmental footprint, lowering the costs or optimizing mine plan. The beginning of Pre-Feasibility Study is planned for the third quarter of 2016, and is supposed to be completed by the end of 2017.

KIEFFER Marie

Reference: Goldcorp Inc.

To view the full article (2015/11/24): <http://www.goldcorp.com/English/Investor-Resources/News/News-Details/2015/Goldcorp-and-Teck-Complete-Combination-of-El-Morro-and-Relincho-Projects-in-Chile/default.aspx>

To access the 2015/08/27 article: <http://www.goldcorp.com/English/Investor-Resources/News/News-Details/2015/Goldcorp-and-Teck-combine-El-Morro-and-Relincho-projects-in-Chile/default.aspx>

Brazil mine accident puts tailings ponds safety back in the hot spot

On November 5th, two tailings ponds dams collapsed in Minas Gerais, southeast of Brazil, flowing red mud over the town of Mariana. The sludge is now spreading through the Rio Doce River and has reached the Atlantic Ocean. It contains toxic waste mine from a iron ore mine exploited by Samarco a joint-venture between Vale (Brazil) and BHP Billiton (Australia). This dam accident will cost hundreds of millions of dollars to the operating company. After this environmental disaster, the question of tailing ponds safety is back in the spotlight. Even if this storage technique is less expensive than others, it is still profitable for companies knowing the cost of a potential dam burst and environmental disaster? A Canadian company, CEC Mining Systems, has developed a tailings dewatering technology. The dry-stacking of mine waste limits water consumption and prevents flooding from a dam burst. CEC Mining Systems has developed a vacuum process in order to eliminate water from tailings. The main problem of the technology lies on its high capital cost. Moreover, it is not feasible in some cases, like in heavy rainfalls areas.

VIEY-CHEVALIER Alyzée

Available on: <http://www.mining.com/web/brazil-mine-accident-puts-tailings-ponds-safety-back-in-the-hot-spot/>

Situation du platine en 2014

Le platine a connu une année 2014 difficile caractérisée par un fléchissement de l'offre, de la demande mondiale et une chute des prix du platine. L'offre du platine a globalement chuté de 20%, chute en grande partie due à la situation des mines Sud-africaine dont la production a chuté de 30% en 2014. C'est la bonne situation des mines aux Canada, et notamment de la mine de Totten du groupe Vale qui a permis de modérer la carence de l'offre. D'un autre côté le recyclage du platine augmente d'environ 3% essentiellement en Europe. La demande et les investissements pour le platine sont en baisses par rapport à l'année 2013. Plus important, le prix du platine connaît une baisse de 12% depuis juillet 2014 qui s'est accentuée en 2015, avec une once moins cher que l'or (1 083 US\$/oz le 15 juin 2015). Selon les analyses, l'offre globale pour 2015 devrait retourner à son niveau de 2013 avec le retour à la normale de la production Sud-africaine.

Mots clefs : Platine, offre et demande, situation en 2014

MADON Baptiste

Référence : article de Maïté Le Gleuher

URL: <http://www.mineralinfo.fr/ecomine/platine-moins-cher-lor-malgre-fondamentaux-solides>

Platinum, palladium prices break fall

The November 25th, the price of both palladium and platinum felt. The price of the platinum had declined by 15% over a month, hitting the lowest since 2008. The price of palladium also felt. The price of palladium in September was above 900\$. Now it's around 500\$. The platinum is produced at 70% in South Africa and Russia dominating palladium production. The gold price has also suffered. The platinum's main application is in vehicle's autocatalysts. The main application of palladium (70%) is vehicles too. The causes of this fall in prices are the trading of the element by the bargains hunters, the Volkswagen scandal and the slowdown of China, the world's largest car market. The pull out of 14 tons from palladium ETFs and 18 tons from palladium funds since august cause the fall of price too. A report has been written by the World Platinum Investment Council. The market will be balanced in 2016 after a shortfall of 8.5 tons in 2015. A 7% decline in recycled platinum owing to lower jewelry in China and weaker price will not be enough. However, the South African's production will augment and permit the global output to rise by 6% in 2015. The platinum annual deficit in 2015 will be of 20.3 tons and palladium will present a 13.3tons shortfall. The South African's production will rise by 20% in 2015.s

CEDOU Mathieu

Reference : Frik Esl, 25/11/2015. Platinum, palladium prices break fall.
Available on: Mining.com

Letseng's Unique Diamond Proposition

Depuis quelques années l'intérêt pour les larges diamants s'est vu ravivé et encore plus dernièrement avec la découverte au Botswana du plus gros diamant depuis un siècle (1 111 carats). Des mines comme celle de Letseng-la-Terae ont ainsi acquis un regain d'intérêt pour les compagnies minières. Cette mine de Letseng-la-Terae située au Lesotho, petit pays au centre de l'Afrique du Sud est une mine unique puisqu'elle a produit une partie des plus gros diamants du monde au cours des dernières décennies. Ces diamants de très forte valeur marchande sont extraits d'un volume relativement faible de kimberlite. Dirigé par de Beers pendant la fin de années 70 et le début des années 80, la mine ne possédait pas un niveau économiquement viable en raison de l'éloignement géographique et de la faible teneur en diamant du minerai qui rendait les coûts de production très élevés. Depuis 2000, l'augmentation brutale des prix pour les diamants de grosse taille a permis à la mine de rouvrir grâce à la joint-venture entre Gem Diamonds Ltd d'Afrique du Sud et le gouvernement du Lesotho. Dans le but d'améliorer la récupération des diamants de grosse taille, les propriétaires de la mine de Letseng ont mis en place de nouveaux procédés technologiques visant à une meilleure identification des cristaux avant de commencer le traitement de la kimberlite et du concassage de celle-ci. Ces nouveaux procédés ont permis de réduire le risque d'une potentielle fracture des diamants lors du traitement et particulièrement sur ceux de plus de 50 carats. De nombreux diamants ont été vendus ces dernières années au bijoutier londonien de luxe Laurence Graff.

GUILLEVIC Floriane

Référence : Gems & Gemology (Fall 2015)

<http://www.gia.edu/gems-gemology/fall-2015-letseng-unique-diamond-proposition>

Gold exploration in Brittany

Variscan® is an australian company which have, since 2011, get the authorisation to explore the ground in Brittany, France. Then six licenses have been established. The one of this abstract is the *Saint Pierre* area given in February 2014. *Saint Pierre* was exploited from 1906 to 1952 for gold and silver located in a shear zone. For now Variscan® is looking at the old reports from BRGM (*Bureau de Recherches Géologiques et Minières*) and some sampling. There are 5 areas of interest with the main one, *La Bellière* with an average of 18.8g/t gold. *La Belliere* was the main mine with 170 meters below surface, it is characterised by a hydrothermal alteration and Variscan® think it has a big potential. Some sampling has been made on four other areas of interest show rock chips with Au (gold) grade between 21.5 g/t (*Belleville*) to 159 g/t (*Autriche*). Two zones are described by Variscan, *Belleville* and *Bégrolle* located in West and South of the area with an average of 100 ppb gold anomaly. These news regions are considerate really interesting thanks to their high grade in the shear zone. Variscan® might create a joint venture for further work.

DUVERNOIS Alban

Link: <http://www.variscan.com.au/index.php/projects/europe/stpierre-france>

The tungsten “brain trust” on the Almonty Los Santos mine tour

Almonty Industries specializes in acquiring distressed and underperforming operations and assets in tungsten markets. These then benefit from the company’s in-house operating experience and unrivalled expertise.

The company acquired the Los Santos project in September 2011 and has been focused on utilizing its expertise in order to improve operations, reduce costs and raise the tungsten recovery rate. The company owns several industrial sites in Korean Australia and Portugal. The article offers a complete description of Los Santos mine. The various interactions between the local population and the mine are put forward, most of the workers with their families living in the nearby village.

Mine's history begins in 1979. Different phases of exploitation in open pit it succeeded. The ore is processed directly on site in a specially designed plant for processing tungsten ore. The company interest to re treatment of mining still contents of WO₃ economically recoverable. Los Santos mine is the most important mine for Almonty Industries. This time they do not want to sell but rather to establish a long-term production and the creation of a diversified multi- actor geographically mines on the tungsten market.

Keys words: Tungsten mine, Los Santos mine, Almonty Industries, open pit

BEQUET Frédéric

Reference: Posted on November 18, 2015 by Christopher Ecclestone at <http://investorintel.com/technology-metals-intel/almontys-los-santos-leading-spanish-mining-renaissance/>

Rio Tinto go ahead with \$1.9 billion bauxite project in Australia

The price of Bauxite jumped in recent years because of the deterioration of the China’s supply. In consequence, the world’s second largest mining group (Rio Tinto) has approved the \$1.9 billion project located on Cape York Peninsula of Queensland state. The mine will be known as Amrun and will extend Rio’s Cape York bauxite operation by 40 years with a production of 22.8 million metric tons per year. This will provide 1100 jobs during the construction phase starting in 2017 and 1400 permanent jobs at the opening of the mine in 2019.

RABIN Ségolène

Read more: <http://www.mining.com/rio-tinto-to-go-ahead-with-1-9-billion-bauxite-project-in-australia/>

Les sols et altérites comme ressources minérales

Les processus latéritiques sont à l'origine de la formation de nombreuses ressources minérales tels que les matériaux argileux ou siliceux, des minerais (fer, aluminium, nickel), des métaux (uranium, niobium, or, platinoïdes), et des terres rares. Ces profils d'altération sont obtenus par le lessivage des éléments plus solubles et la concentration des éléments chimiques restants pour former de nouvelles phases minérales. Les profils évoluent de manière progressive en raison du lessivage, qui est principalement provoqué par la dissolution et l'hydrolyse des minéraux primaires dues aux agents atmosphériques et à l'influence des composés organiques. Ainsi, les profils latéritiques d'âge plus ou moins ancien sont exploités depuis la préhistoire pour leur richesse facilement exploitables. L'étude des nombreux paramètres concernant la mobilité des éléments chimiques, les mécanismes d'enrichissement, ou le rôle du (micro)bios et de la matière organique du sol dans les réactions chimiques permettrait d'optimiser les étapes d'exploration et d'exploitation des gisements et d'obtenir une vision à long terme de la disponibilité de ce type de ressources.

GALTIER Alyssa

Référence : Les sols et altérites comme ressources minérales – MAURIZOT, P., SEVIN, B., QUESNEL, F., WYNS, R. *Geosciences*(BRGM)

Influence of ore deposits on river sediment compositions in Dan River drainage, China

Trace metals in sediments can represent a potential source reservoir of metals as well as a risk of contamination if they are released into water. The South to North Transfer Project in China needs investigation of the sediments in the Dan River drainage to evaluate the contamination by heavy metals. The study of the spatial distribution of heavy metals shows that the distribution is associated with metal ore deposits and mining activities. In this way, distributions of the elements Al, Ba, Cu, Fe, Mg, Mn, Pb, Sn, Ti, V and Zn are controlled by natural sources when Co and Cr by a combination of geological and human factors. The spatial distribution of As, Cd, Ni, Sb and Pb are mostly due to human activities. The sediment contamination should not be overlooked. The ecological risk of contamination by heavy metals in the Dan River drainage was rated as moderate and requires attention.

GUERIN Benjamin

Reference: Qingpeng Meng, Jing Zhang, Zhaoyu Zhang, Tairan Wu. Available on: <http://www.sciencedirect.com/science/article/pii/S0375674215300431>

Mapping deep-sea hydrothermal deposits with an in-loop transient electromagnetic method: Insights from 1D forward and inverse modeling

This study is about using the transient electromagnetic method (TEM) in order to find Seafloor Massive Sulfide (SMS). These kinds of deposit are formed near volcanic arc, mid-ocean ridge, back-arc spreading system. Active SMS deposit are easy to detect but it is not the same matter for the inactive SMS deposit. These inactive deposits may be difficult survey targets to find because they have no detectable emissions. The magnetic field response generated by the in-loop source showed difference between step-off response with and without hydrothermal deposit. The survey's results show that vertical loop system is more sensitive than horizontal loop system because the target's answer is larger and is received earlier. Nonetheless horizontal loop system can be advantageous in terms of measurement stability because vertical field is less sensitive to the change of dip angle of the loop system. Furthermore horizontal loop system might be easier to attach on a ROV.

HUGUET Julien

Reference: HANGILRO J., HEE JOON K., 2015. Mapping deep-sea hydrothermal deposits with an in-loop transient electromagnetic method: Insights from 1D forward and inverse modeling. Journal of applied geophysics. n° 123. p. 170-176.

Available on : http://ac.els-cdn.com/S0926985115300379/1-s2.0-S0926985115300379-main.pdf?_tid=9778a546-96ae-11e5-bc5f-0000aacb35e&acdnat=1448811411_b322704e83e97e02d516473c94ff9999

Stratégie relative à l'exploration et à l'exploitation minière des grands fonds marins en France

Depuis les années soixante-dix, la France montre un fort intérêt pour les ressources minérales marines profondes. Or, face aux enjeux de raréfaction des gisements miniers continentaux et à l'augmentation des tensions sur l'approvisionnement en matières minérales, la France commence enfin à déployer ses armes stratégiques pour explorer et exploiter les ressources minérales minières marines profondes.

En effet, le 22 octobre 2015, lors d'une réunion du Conseil Interministériel à la Mer, le pays a décidé d'adopter une stratégie nationale relative à l'exploration et à l'exploitation minières des grands fonds marins fixant les principaux objectifs à atteindre. Cette stratégie consiste à développer une filière industrielle spécifique à l'exploitation en ultra-profond (Eramet), des technologies capables d'explorer et d'exploiter en grande profondeur et de créer des emplois, en prenant en compte les aspects environnementaux et sociétaux pouvant freiner le développement de tels projets, et tout ceci en association avec des partenaires internationaux.

Ainsi, La France et l'Allemagne ont convenu, dans une lettre d'intention, d'une coopération franco-allemande pour permettre l'avancée et le développement des technologies d'exploration et d'exploitation. De plus, a vu fleurir en juin 2014 un rapport d'expertise scientifique du CRNS et de l'Ifremer qui synthétise les impacts environnementaux de l'exploitation des ressources minérales marines profondes. Début octobre 2015, la France a augmenté l'étendue de son territoire marin profond (sol et sous-sol uniquement) de 579 000 km² au large de ses îles d'Outre-mer, suite aux recommandations de la Commission des limites du plateau continental (CLPC) affiliée à l'ONU. Des demandes sont en cours pour atteindre un million de km² d'étendue.

BOUAROUK Emma

Références :

<http://www.mineralinfo.fr/actualites/exploitation-ressources-minerales-marines-profondes-cooperation-franco-allemande-en>

<http://www.cnrs.fr/fr/pdf/inee/SyntheseESCo/pubData/source/SyntheseESCo.pdf>

http://www.francetvinfo.fr/france/la-france-etend-de-plus-de-500-000-km2-son-territoire-sous-les-oceans_1121533.html

Distribution, mineralogy and geochemistry of silica-iron exhalites and related rocks from the Tyrone Igneous Complex: Implications for VMS mineralization in Northern Ireland

The different metalliferous chemical sedimentary rocks such as iron formation or hematitic cherts, can be important stratigraphic markers horizons. Indeed they are formed during episodes of regional hydrothermal activity with a number of volcanogenic massive sulfide (VMS).

A correlation has been made between the Buchans-Robert's Arm arc system of the Newfoundland Appalachians which is rich in VMS and the studied Tyrone Igneous Complex of Northern Ireland. The latter represents a structurally dissected arc-ophiolite complex which was accreted during the Grampian orogeny to the composite margin of Laurentia.

Few rocks rich in silica and iron are found in different levels in the Tyrone Igneous Complex and are sometimes associated with rift-related basalts and zones of locally intense hydrothermal alteration. These rocks are characterized by massive blood-red jaspers, hematitic siltstones and mudstones, and intensely silica-hematite altered tuffs and flows. The geochemical characteristics of these rocks, compared to chemical sedimentary rocks associated with VMS deposits worldwide are most similar to silica-iron exhalites of the Mount Windsor Subprovince (SE Australia) and jaspers of Central Arizona, Bald Mountain (Northern Maine), the Urals, Iberian Pyrite Belt and Løkken ophiolite (Norway).

This study has allowed to bring out the presence and the VMS prospectivity of the Tyrone Igneous Complex but also to have a lot of geochemical information about the region for mineral exploration.

THOLLON Maude

Reference: Distribution, mineralogy and geochemistry of silica-iron exhalites and related rocks from the Tyrone Igneous Complex: Implications for VMS mineralization in Northern Ireland. Authors: Steven P. Hollis, Mark R. Cooper, Richard J. Herrington, Stephen Roberts, Garth Earls, Alicia Verbeeten, Stephen J. Piercey, Sandy M. Archibald.

Is there hidden treasure in the mining industry? Low equity prices may offer important M&A opportunities for the mining industry.

Since the 2011 peaks, commodity prices are going down and the mining industry's stock market valuation has followed. This paper tries to show how the low equity prices may offer important M&A opportunities for the mining industry. Indeed, in many commodities, the decline of ore quality and limited accessibility of new deposit will squeeze supply in coming years and potentially driving a commodity-price rebound as global demand continues to rise. With the current low equity prices, this growth could represent an important opportunity for mining leaders. This paper tries to build a picture of the industry's prospects. It explains why equity prices are down and shows that the commodity market prices affect equity prices. This correlation is significantly higher for mining companies than for similarly capital-intensive industries, such as oil and gas. But, even if the slowdown in the growth rate in China has pulled prices down, the global demand and production continue to grow, causing prices to rebound. To find out where the industry is really headed, Michael Birshan has developed a new model approach combining drivers of supply and demand, mining cost and capital expenditure inflation, and pricing regimes and price premiums. The model shows that after a 6 percent per year decline between 2011 and 2014, industry-wide mining revenues could grow at around 4 to 6 percent over the next decade. The outlook for different commodities clearly varies significantly, but applying this modeling approach to 11 important metals and minerals suggests that several of them are well positioned to achieve attractive returns again. After build a picture of the industry's prospects, this paper explain how to build an action plan. This action plan has three points to consider: weigh the merits of diversification, consider nonoperating stakes and act while factors are aligned.

CLEMENT Gaëtan

Reference: Michael Birshan, Guillaume Decaix, Nelson Ferreira, Harry Robinson, 2015. Is there hidden treasure in the mining industry ? McKinsey&Compagny [on line]. Date of consultation: 29/11/2015. Available on :

http://www.mckinsey.com/insights/energy_resources_materials/is_there_hidden_treasure_in_the_mining_industry

Diamonds vs. precious metals: what shines brightest in your investment portfolio

This article has been written as an advice for investors' wealth. It shows the comparison between precious minerals and diamonds investments by using different mathematics and statistics calculations. This includes four precious metals: gold, silver, palladium and platinum ; and two aspects of the diamonds are shown, the diamond indices and the physical diamond. With the results of their study, they can say that the volatility of precious metals show smaller magnitudes of oscillation compared to diamonds. Then, that precious metals are a safe haven in most circumstances, and that precious metals are a better choice for investors attempting to protect their investment portfolios from loss and finally that precious metals provide better protection in times of global financial distress. This way, the article explain that precious metals have a better performance than the diamonds. And for the diamonds, it is said that physical diamond is more interesting than diamonds indices (because this last one's trend is not stable enough). The physical diamonds provide satisfactory performance and then only when markets are most volatile. There is also a geographical analysis, indeed the precious metals are shown to be more effective hedges and safe havens in Europe, in the Americas, and in Australia. To conclude, precious metal is a better option in the high volatile market conditions, however physical diamonds can be a diversification to an investment portfolio.

DE MERCEY Valentine

Reference: Rand Kwong Yew Low, Yiran Yao, Robert Faff. International Review of Financial Analysis (November 2015). Available on : ScienceDirect

Obama boosts asteroid mining, signs law granting rights to own space riches

Dans un article tiré de infomine.com daté du 26/11/2015, Cecilia Jamasmie parle des ressources minérales extraterrestres à travers une récente loi adoptée par les Etats-Unis d'Amérique. Le congrès américain a en effet récemment voté une loi inédite permettant à n'importe quel citoyen américain d'exploiter et de revendre des ressources minérales trouvées sur n'importe quel objet extraterrestre.

Cette législation novatrice a pour but de poser les bases d'une économie des ressources minérales des corps extraterrestres, notamment les astéroïdes. Les Etats-Unis souhaitent ainsi ouvrir la voie au début d'une économie spatiale en accord avec le « Outer Space Treaty », traité signé par plusieurs nations stipulant qu'aucune nation ne peut s'approprier un territoire extraterrestre. La nouvelle est donc très intéressante d'un point de vue des perspectives économiques et des possibles créations d'emplois mais aussi pour les géologues avides de nouvelles découvertes puisque ce marché est estimé à plusieurs billions d'euros.

LE LAIT Gaëtan

Références : Cecilia Jamasmie – 26/11/2015. Infomine.com