

# **Technical Report on South Kal Operations Kalgoorlie, Western Australia**

**National Instrument Form 43-101F1 –  
Canadian Securities Administrators**

## **Dioro Exploration NL**

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## Executive Summary

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**Property Description:** South Kalgoorlie Operations (“SKO”) are located in an area of Western Australia with an established mining industry and a long history of gold production. SKO currently comprise active open-pit gold mining operations feeding gold bearing ore into a single gold recovery facility which produces gold doré bars for sale to AGR Matthey (“AGRM”), based in Perth Australia, which is the only London Bullion Market Association (“LBMA”) accredited refiner in Australia. In addition to the operations, exploration activities are ongoing over the significant tenement holding.

Gold was first discovered in the immediate area in 1919 and a short-lived gold rush ensued. Intermittent exploration for gold and nickel was again undertaken by a variety of companies in the 1960s and 1970s. The rising gold price further rekindled interest in the area in 1980, and open-pit mining recommenced in 1986. In recent times, over 43 open-pits and three underground projects have been mined from the tenements and freehold lands which are now housed in and managed by SKO.

SKO re-started open-pit mining in fiscal 2006 with exploitation of the recently discovered Shirl deposit (after 18 months of only underground mining). However, the main ore source to the current life of mine plan is the HBJ open-pit, which was previously worked as two open-pits either side of a common lease boundary. Pre stripping of the HBJ cut-back commenced in October 2006.

**Location:** SKO are located 32km south of Kalgoorlie-Boulder (Latitude 30°45’S Longitude 121°28’E), adjacent to the Kalgoorlie-Kambalda highway in Western Australia.

**Ownership:** SKO are currently owned by Harmony Gold (Australia) Pty Ltd (“HGA”) via its wholly-owned subsidiary companies, South Kal Mines Pty Ltd (“SKM”), New Hampton Goldfields Ltd (“NHGL”) and Aurora Gold (WA) Pty Ltd (“Aurora”). SKO, via this ownership structure, holds various government mining tenements issued by the Department of Industry and Resources (“DoIR”) under the *Mining Act 1978 (WA)*. In addition, NHGL is the freehold and or leaseholder owner (via its wholly-owned subsidiary Hampton Gold Mining Areas Ltd (“HGMAL”) of the HGMAL Lands, an area which is not subject to the *Mining Act 1978* and in which the government has waived its entitlement to royalties on gold production.

SKO conducts mining operations on the HGMAL Lands in accordance with the Hampton Regulations. The freehold land status has been retained as a result of early interest in the area and dates back to the *Land Act 1882* which offered inducements to explorers and pastoralists to take up land in the interior of Western Australia. As a result of these historical inducements, approximately half of SKO’s tenements remain on freehold land with attached mining rights unlike most of the Western Australian mines, which are on government awarded temporary leases.

SRK understands that a sale agreement is conditionally in place between SKM, NHGL and Aurora (the Vendors) and Dioro for the purchase by Dioro of all of the assets of SKO, which includes the vendors interests in, licences for and information on, the mining tenements and all mine infrastructure located on the tenements, including equipment, spares and stocks held by the vendors for the purposes of continued operations.

**Geology and Mineralisation:** The orebodies within the SKO tenements are spread across a number of geological domains including the Kalgoorlie-Kambalda belt, the Boulder-Lefroy Structure, the Zuleika Shear, the Coolgardie Belt and Yilgarn-Roe Structures.

Three major fault systems, or crustal structures transect the SKO tenement packages, are considered to be major gold-bearing structural conduits. These include the Boulder-Lefroy Fault, which is thought to be the main structure controlling fluid flow to the Kalgoorlie goldfield. The geology primarily consists of Archaean greenstone stratigraphy of basalts and komatiites with intercalated sediments, tuffs, volcanoclastics and later felsic intrusives. Quartz filled lode and

shear hosted bodies are the most dominant among many mineralisation styles. Large-scale stockwork bodies hosted in felsic volcanics are an important contributor to bulk tonnage of relatively low-grade deposits.

**Development and Operations:** All mined ore is now treated at the Jubilee Metallurgical Plant (JMP). Ore is hauled from the open-pits and low-grade stockpiles to the treatment plant by conventional road trains. Actual throughputs vary based upon the blend of oxide and sulphide ores in the feed. At a desirable 70:30 ratio of hard to soft, the plant throughput can be sustained at 1.2Mdmtpa.

Employees and contract personnel typically reside within driving distance of the mine. During fiscal 2006 the safety record at SKO, in terms of lost time frequency rate and fatality frequency rates, was equal to the respective averages for open-pit mines in Australia. Safety standards are being applied throughout SKO and receive constant and high-level attention.

SKO spent approximately AUD3.67 million of capital on plant and equipment during fiscal 2007. In addition approximately AUD3.9 million was spent on exploration and resource development. SKO has budgeted approximately AUD2.5 million of capital for fiscal 2008, principally for the JMP and some ancillary equipment (non-earthmoving) for the open-pit operations. In addition, approximately AUD4.32 million has been provisioned for exploration and resource development.

The primary challenge facing SKO is to identify adequate sources of existing low-grade stockpiles or new open-pit resources to replace the ore from the depleted Mount Marion underground mine beyond fiscal 2007. To maintain or increase productivity materially above current levels, SKO will need to access additional ore sources through new development, exploration based discovery and/or acquisition.

SRK's recommendation is that proposals to treat Frog's Leg ore are advanced, to address this source of ore for processing at JMP.

**Exploration Concept:** Targets for the Penfold's area are of three major mineralisation styles. The "Zuleika" style, comprising shear-hosted targets adjacent to the major regional Zuleika Shear, are for narrow-vein, high grade deposits similar to the Frog's Leg, Raleigh and Kundana deposits. Whilst these are difficult exploration targets, they are of high value, as the deposits are of a significant size, in the order of 500Koz – 1Moz, and have not been targeted in the Penfold's area. The Binduli style is related to shear-related fracturing of competent host rocks in the felsic volcanic sequences. Typically these are larger volumetrically, and lower grade deposits, therefore forming a reasonable exploration target footprint, especially if prospective areas can be identified through application of advanced geochemical and spectral techniques to assist in generating the targets. The third style is for deposits similar to Ghost Crab/Mt Marion, along the shear zones on the western margin of the Penfold's tenements.

The identification of targets and exploration opportunities in the eastern area is also possible. The current geochemical compilation certainly indicates potential to develop new exploration targets providing additional sampling is undertaken. Dioro is now acquiring the necessary personnel and skills to support the required level of exploration work, which should be further enhanced following the acquisition of SKO. Limited modern exploration has been undertaken.

**Status of Exploration:** Dioro has undertaken only preliminary initial exploration since acquiring the Penfold's tenements. The early identification of mineralisation in the Binduli trend (particularly at Colnago) and the Zuleika trend suggest that additional economic mineralisation is likely to be discovered in this area, and a number of targets are currently being worked up to enable drill testing to commence.

The tenement package comprising SKO is very extensive, and attracts significant minimum exploration expenditure. However, the land holding includes the Hampton Locations, on which there is no minimum expenditure requirement regulated by the WA government.

SKO's policy over recent years was to maintain expenditure at the minimum required to hold the tenements in good standing. Given that a significant part of the tenement holding was in the Hampton Locations, which require no exploration expenditure commitment, then it follows that to successfully explore the entire tenement package SKO was under spending against minimum expected outcomes. The trend of exploration expenditure and discovery of Reserves highlights that exploration expenditure much below AUD5 million (in the ground) per year will be insufficient to find and develop sufficient additional resources to keep the mill operating at full potential.

As a result of Dioro acquiring all of the SKO assets and successfully raising the required capital, there is a company commitment to a total of AUD8 million for exploration across the combined Penfold's and remaining SKO gold tenements. This amount includes about AUD2 million for resource definition drilling, leaving the required AUD6 million to undertake an effective exploration program.

**Mineral Resources and Ore Reserves:** The Mineral Resources and Ore Reserves as estimated by SKO 1 July 2007 are reproduced in Table 0-1. SRK considers that the resource estimates presented are materially consistent with the JORC Code and are accordingly classified and reported in line with definitions and standards required for NI 43-101 Technical Report disclosures.

SRK conclude that of the 1.55Moz of Measured and Indicated Mineral Resources to be acquired by Dioro, only 17% (0.27Moz) was deemed to be economically viable for modification to Ore Reserves in October 2007, at the time the Ore Reserve estimates were revised. In the opinion of SRK, for the balance of the current inventory to be considered for future depletion a further increase in the gold price would need to occur. The gold price used for the Ore Reserves was AUD780/oz and in SKO's cash flow model a future projection of AUD780/oz has been assumed.

SRK observes that the current forward-curve (derivative based) for gold over the next three years sees an increase in the price for hedged production to over USD900/oz. SRK therefore considers there may be further potential to modify/exploit additional ounces from the current Mineral Resource inventory and this will be re-evaluated on an annual basis as part of the normal planning cycle.

At gold prices below AUD750/oz SRK considers it is unlikely that significant further exploitation of the remaining mineral inventory will be economic using the current mine infrastructure. Therefore at prices below AUD750/oz the future production would be more reliant on new discoveries within economic haulage distance of the plant, or a portion of the plant capacity being allocated for toll treatment from external sources. This later concept is being considered by Dioro with the potential treatment of production from their stake in the Frog's Leg deposit, situated some 50km to the northwest of JMP.

**Table 0-1: SKO: Summary Mineral Resources and Ore Reserves – July 2007**

MINERAL RESOURCES	Tonnes	Av. Grade	Gold	MINERAL RESERVES	Tonnes	Av. Grade	Gold
	(Mdmt)	(g/dmt)	(koz)		(Mdmt)	(g/dmt)	(koz)
<b>OPEN PITS AND STOCK PILES</b>							
<b>Measured + Indicated</b>				<b>Proved and Probable</b>			
- Optimised for Reserves	22.65	1.6	1,150	- Optimised for Reserves	4.81	1.7	267
- Not Currently Viable	3.53	2.1	241				
Sub-total Measured + Indicated	26.19	1.7	1,391	Sub-total Proved and Probable	4.81	1.7	267
Sub-total Inferred	5.18	1.6	259		4.81	1.7	267
<b>UNDERGROUND</b>							
<b>Measured + Indicated</b>				<b>Proved and Probable</b>			
- Optimised for Reserves	0.00	0.0	0	- Optimised for Reserves	0	0.0	0
- Not Currently Viable	1.02	4.7	155				
Sub-total Measured+ Indicated	1.02	4.7	155	Sub-total Proved and Probable	0	0.0	0
Sub-total Inferred	0.68	3.3	73				
<b>Total Measured + Indicated</b>	<b>27.20</b>	<b>1.8</b>	<b>1,546</b>	<b>Total Proved and Probable</b>	<b>4.81</b>	<b>1.7</b>	<b>267</b>
<b>Total Inferred</b>	<b>5.86</b>	<b>1.8</b>	<b>332</b>				

SRK confirms that the Ore Reserve estimates as presented are materially consistent with the JORC Code and are accordingly classified and reported in line with definitions and standards required for NI 43-101 Technical Report disclosures, and accordingly no reconciliation from the JORC Code categories as contemplated by part 7.1 of NI43-101 is necessary under the circumstances.

SRK has verified that the Mineral Reserves presented in Table 0-1 are contained within the extent of the property boundaries and to the best of SRK's knowledge there were no known environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant issues that would materially impact on the planned extraction of the Ore Reserves and that appropriate technical and economic studies do, in SRK's opinion, support modification to Ore Reserves and adequately demonstrate technical and economic viability.

**Economic Analysis:** Figure 0-1 presents the gold production profile showing the planned depletion and projected gold recovered to Dore as derived from Ore Reserves.

Table 0-2 summarises the cash flow model from July 2007 which depletes the Ore Reserves. This analysis assumes that the AUD and USD are at parity over the period. The cash flow is presented in real money terms as at 1 July 2007 and reflects the technical and economic projections in support of the Ore Reserve viability. As the table represents SKO cash flow, royalty ounces are excluded. It is not a financial model and/or a true reflection of the financial projections of either HGA or Dioro and as such should not be used to reflect a net asset value of the SKO.