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Luanda, 13th May 2011

TO  
BOUREVESTNIK INK  
ST. PETERSBURG – RÚSSIA

Subject: Reference on the operation of X-ray luminescent sorters produced by Bourevestnik, Inc. and operated by CATOCA Mining Society, Lda. concentration plant (Angola)

Dear Sirs,

Catoca Mining Society, joint venture with the participation of joint Russian-Angolan-Brazilian-Israeli capitals, was founded in early 90's on the kimberlitic deposit of Catoca pipe. This project was the first diamond project of Russia abroad developed with modern technology and high-quality equipment that are X-ray luminescent sorters of Bourevestnik, Inc. produced by highly skilled Russian specialists.

The original technology applied in the process of diamond separating based on use of luminescent sorters resulted easily adaptable to complex and extremely heterogeneous Catoca pipe ores.

Catoca Mining Society specialists together with their colleagues of Bourevestnik, Inc. achieved to adjust the sorters for functioning in the present conditions and obtaining high indices of diamond recovering.

The principle parameters of luminescent sorters functioning are the following:

1. Working at maximum capacity mode they provide quality in recovering that means keeping of selectivity (good concentrate quality).
2. Stability of the main technical parameters during the exploration period (more than 2000 hours) in functioning without damages of the electronic blocks of the main unities and other components.
3. Compatibility with the technological rates in the classes of the treated material.
4. Advantage of the unified electronic system and of the control block that is compatible with all the types of sorters.





5. Use of optical module of diamond detection in absorption mode, which secures the elevated rate of the extraction of crystals with weak luminescence and good selectivity in the process of separation.

The Russian sorters because of their technical parameters exceed the similar ones of the rival companies.

Bourestnik, Inc. Aspires to provide:

- Quality service, resisting quickly the requests of spare parts, using all the means of quick supply of the components necessary for sorters mending.
- Joint analysis (specialists of Bourestnik, Inc. and of the Catoca Mining Society) of faults detected in the process and the their overcoming.
- Training of specialists.

The results obtained during process of functioning of Bourestnik sorters are excellent .

At present, there are 60 sorters produced by the manufacturer above in operation in two processing plants (30 in each plant), which are distributed according to the chart below:

No.	Type (model)	Process stage	Quantity
1	LS-20-04-3N	Concentrate treatment (Finishing)	8
2	LS-20-05N	Primary concentration	18
3	LS-20-05-2N	Idem	5
4	LS-D4-03N	Idem	13
5	LS-OD-50-03N	Concentrate retreatment	2
6	LS-D4-04N	Concentrate treatment	4
7	LS-OD-4-04N	Concentrate retreatment	7
8	LS-OD-6	Concentrate retreatment	1
9	UOK	Analysis of kinetic characteristics of diamond luminescence	2
TOTAL for the period 2002 - 2011			60



Bourevestnik, Inc. always works with the manufacturing companies and suppliers of the products with high reputation to complete the separators, lifting up their quality and number of hours of operation. It is important also to mention that Bourevestnik, Inc. directs a lot of efforts and resources to increase the qualitative rates of the sorters that are already time ago in the operation. **During the last years there were mounted the blocks of digital processing of signs in such separators that improved the reduction of the material.**

The highest point of the collaboration between the specialists of Catoca Mining Society, Lda and of Bourevestnik, Inc., from 2004 to 2006 happened in the period, when was prosecuted the inclusion of the sorters in the system of automation of the processing plants, so that the technological staff received the possibility to obtain complete information in the automated aspect, through the computers net about the separators in operation and to control the main parameters of them.

The basic group of sorters consisting of 42 units was supplied betwee2004 –and 2006. Bourevestnik, Inc. continuously cooperates with manufacturers and suppliers of major component parts for the sorters in order to improve their quality and lifespan. Furthermore, an important aspect is that Bourevestnik, Inc. strives to and succeeds in improving qualitative indicators of the sorters already in operation. In recent years, digital signal processing units have been incorporated into sorters to improve reduction of the yield material.

A prospective trend of interaction between professionals of Catoca Mining Society and Bourevestnik, Inc. is their joint work carried out in 2004 – 2006 on introducing the sorters into the preparation plant's automation system and enabling the operating personnel to automatically obtain complete information on running sorters and control their basic parameters via computer networks.

Yours faithfully,

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**SOCIEDADE MINEIRA DE CATOCA, LDA.**  
**JOSÉ MANUEL A. GANGA JÚNIOR**  
**DIRECTOR GERAL**