

# **Mining Technique Study on Low Grade Uranium at Eko-Remaja Sector, Kalan West Kalimantan**

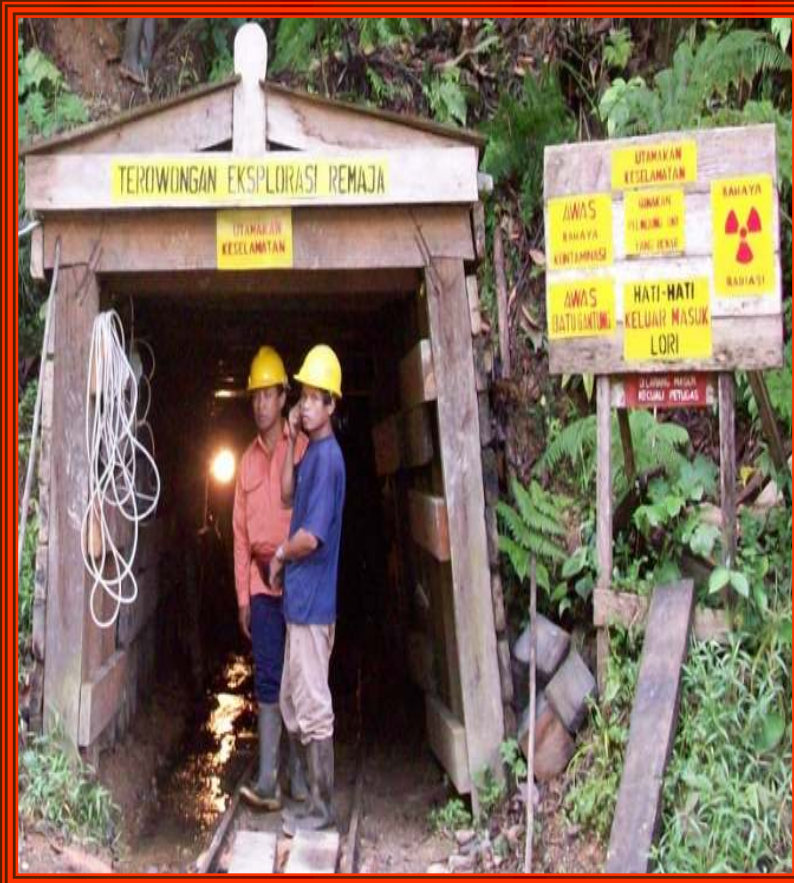
**Delivered on the occasion of Technical Meeting on Low  
Grade Uranium Ore at the IAEA's Headquarters in Vienna**

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**Center for Development of Nuclear Geology  
National Nuclear Energy Agency (BATAN)**

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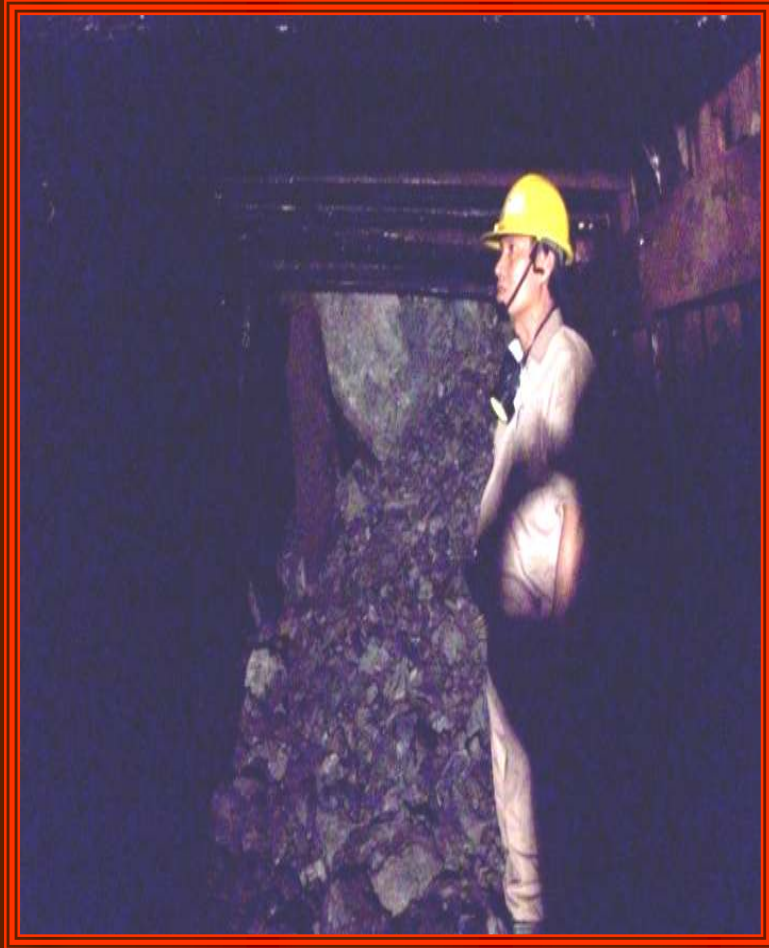
## 1. Uranium Deposit Exploration in Indonesia :

- Drilling
- Verification of drilling results



## **2. Data Uranium deposit Indonesia :**

- **Uranium Deposit Eko-Remaja Sector, Kalan, West Kalimantan**
- **Mineralization, slope, direction etc.**



### 3. Problems and solutions

#### **Problems:**

Determination levels of grade classification (graphs 1), and type of mineralization.

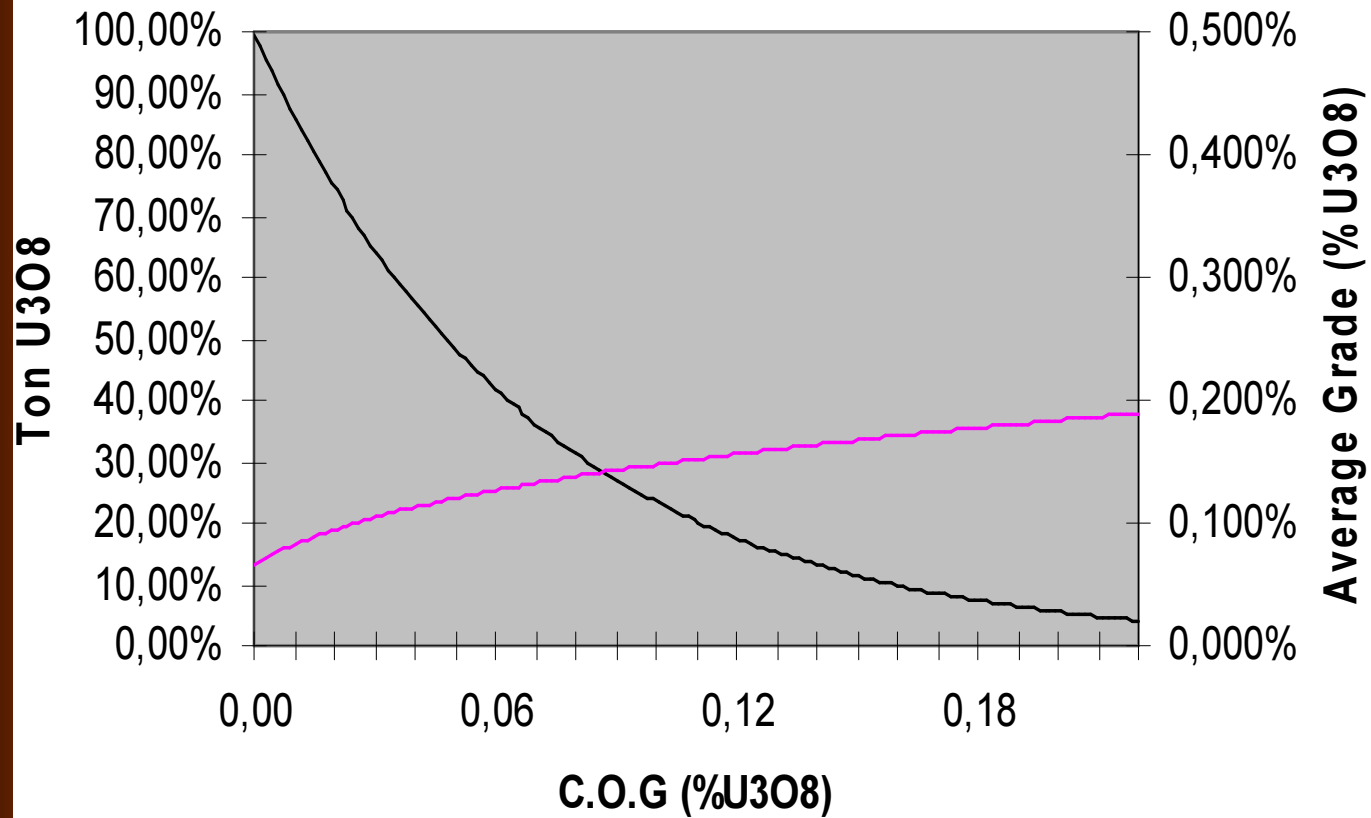
#### **Solutions:**

Mining test

**Table 1.****Mineral inventory data**

<b>C.O.G</b>	<b>Amount</b>	<b>Number of Block Size</b>	<b>Total Volume</b>	<b>Total Ore</b>	<b>Total U<sub>3</sub>O<sub>8</sub></b>		<b>Average of Grade</b>
(%U <sub>3</sub> O <sub>8</sub> )		( m2 )	(m3)	(ton)	(ton)	(%)	(%U <sub>3</sub> O <sub>8</sub> )
0,000	18	1.512.534	1.645.420	4.444.304	3.723,2	100,00%	0,084%
0,030	17	1.420.445	1.510.049	4.078.803	3.617,2	91,77%	0,089%
0,050	15	1.265.863	1.345.384	3.630.537	3.406,1	81,77%	0,094%
0,060	13	1.088.655	1.161.436	3.133.877	3.134,6	70,59%	0,100%
0,070	12	1.010.809	1.130.297	3.049.803	3.084,2	68,69%	0,101%
0,080	7	617.198	611.189	1.650.211	2.128,1	37,14%	0,129%
0,090	4	324.437	341.239	921.346	1.501,4	20,74%	0,163%
0,100	3	233.663	233.218	629.690	1.224,3	14,17%	0,194%
0,200	1	63.974	60.136	162.366	384,8	3,65%	0,237%

**Graphic 1. Mineral Inventory Eko-Remaja Sector,  
Kalan, West Kalimantan**



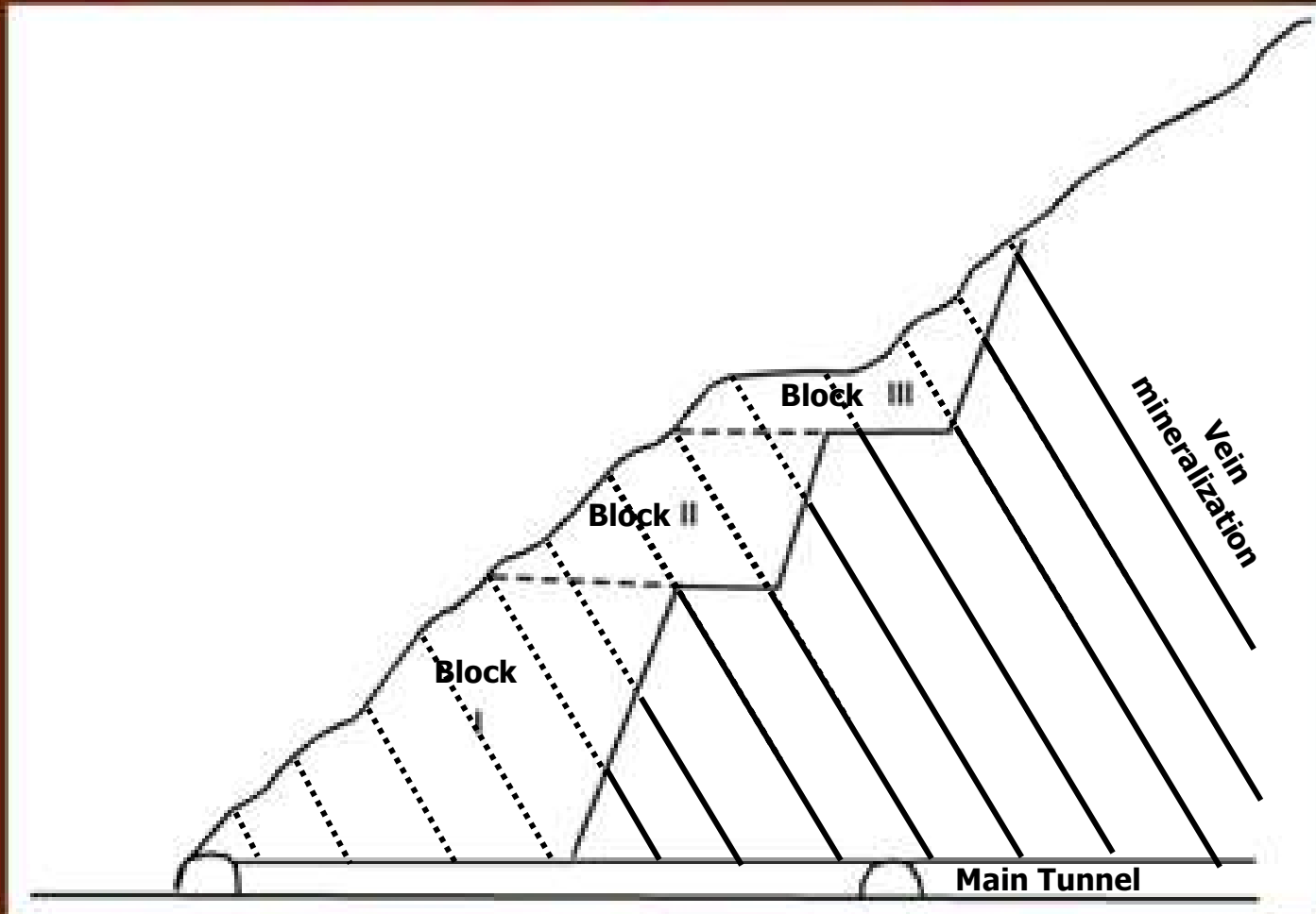


Figure 1. Blocks mining method

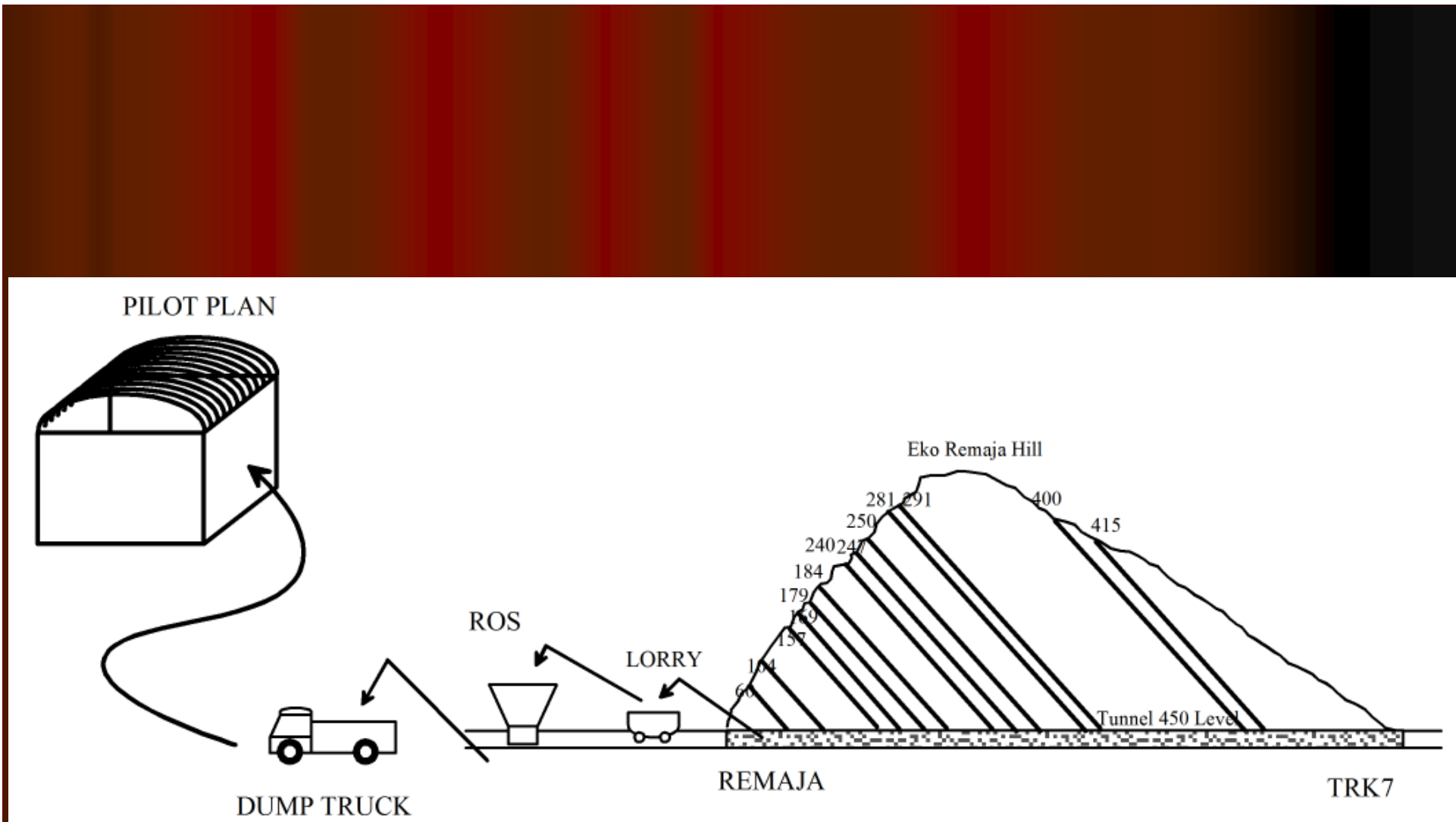


Figure 2. Mining Test

# CONCLUSION

- **In the future we plan to do Mining Test.**
- **Mining is done by dropping the large blocks, then sorted, separated between ore with waste.**
- **Separation is done by ROS (radiometric Ore Sorting) before the ore transported to the processing.**

**That's all, sorry if I was not able to provide information about how to manage a low-grade uranium, and on this occasion I expect feedback from the ladies and gentlemen who are present here.**

**At the end this paper still expect for any suggestion that can be implemented into our mining exploration activity**

**Thank you (terima kasih)**