THE MINING/METALLURGICAL INDUSTRY IN GREECE. STATISTICAL REVIEW 2008-2009

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SUMMARY

Production data and best available estimates for various mineral commodities produced in Greece in the years 2008 and 2009 are listed in the following table.

Reported values relating to mineral production are combined data from a) the statistics kept by the Mineral Resources Policy Directorate of the Ministry of Environment, Energy and Climate Change (YPEKA) and b) the annual statistics kept by the Mining Enterprises Association (SME).

For the first time after a long period of positive economic growth which stimulated increased output, in 2009 the minerals industry experienced a significant decline in production and sales. This decline followed the sharp fall in demand of raw materials in the fields of steel, construction, cement and concrete. Production levels of mineral commodities in Greece during 2009, have been reduced, varying from 20-30% and sometimes more than 50%, below the 2008 numbers.

More specifically, there was a drop by 23% in aggregate production output due to shrinkage of domestic building and construction activity. The industrial minerals sector, which is mainly an export industry, experienced a corresponding reduction compared to 2008 and previous years: 15% drop in perlite production, more than 30% drop in production of bentonite, 55% drop in the production of pumice, 27% drop in production of gypsum including anhydrite, 21% drop in pozzolan production, 45-55% drop in production of amphibolites, olivine, huntite/ hydromagnesite, while there was zero kaolin and asbestos production.

Also, in 2009 there was a significant decrease, ranging between 20-50%, in production of magnesium compounds (crude magnesite, dead-burned and caustic-calcined magnesia, refractories) and between 15-30% in the raw material and enrichment products of mixed sulfide Pb-Zn ores (lead, zinc and iron concentrates).

However, production levels for attapoulgite clay increased significantly and it was also encouraging to see the increasing drive in the use of calcium carbonate processed products, feldspar, and pozzolans with specific properties, used as construction materials (mortars, fillers etc.) and in the development of innovative environmental technologies.

The domestic production of energy minerals ("lignite") remained at 2008 levels (with slight decrease of 3-4%). Also, there was a significant increase in crude petroleum production (by 25%) mainly because of the new drilling in the deposit of the North Prinos, which started in July 2009.

During 2009, basic metal production of primary non-ferrous metals (alumina/aluminum and ferronickel/ nickel) decreased by 18% for Al and 50% for Ni respectively, leading to a reduction of domestic production of bauxite (by 10%) and nickeliferous laterite ore (by 38%). Especially for nickel (Ni), production decline reached a record low level of 8.269 tn (50.3% decrease compared with 2008), mainly due to a decreasing demand in stainless steel and the sealing of certain electric furnaces in autumn 2009.

Finally, the production of marble products (and byproducts) was reduced by 20-30% compared with 2008 as a result of the limiting demand on both domestic and international marble markets.

For 2010, despite the recession, prospects for recovery are already appearing in the industry internationally because of the escalating rise (20-30% in medium term) in demand for raw materials, which will undoubtedly have a positive impact on the domestic market.

Recession can be seen as a development challenge and

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an opportunity for the Greek mining/metallurgical industry, provided that it redefines its strategy and tactics within the framework of the "road map" of the European Raw Materials Initiative (RMI). We need a clear, structured National Minerals Policy based on a balanced approach that conserves the environment, while equally recognising the need for minerals.

Sustainable management, quality, eco-efficiency, re-use and recycling, safety and environmental responsibility, constitute the most significant challenges and also the most pressing needs of the mining era – deeply influencing not only the development of the sector, but also its traditional character of many centuries and finally, its very existence.

GREECE : PRODUCTION OF MINERAL COMMODITIES
METALS, INDUSTRIAL MINERALS, MINERAL FUELS AND RELATED MATERIALS

COMMODITY PRODUCTION	Quantity in Metric tons unless otherwise specified	
	2008	**2009**
Bauxite	2.174.000	1.935.000
Aluminium, primary (Foundry Line)	162.339[1]	134.737[1]
Alumina, calcined (Al2O3)	771.769	718.797
Alumina, hydrated (Al2O3)	897.500	795.500
Mixed sulphide ore	264.299	225.054
Galena, PbS (metric tons of concentrates)	23.314	17.027[2]
Zinc blend , ZnS (metric tons of concentrates)	46.532	34.255[3]
FeS2 (metric tons of concentrates)	176.335	116.706
Nickeliferrous ores (laterites)	2.261.637	1.400.000
Ferronickel:		
Gross weight	87.664	42423[4]
Ni content of ferronickel	16.640	8.269
Slag by-product (coarse)	85.345	62.022
Slag by-product (fine, -5mm)	90.180	52.696
Magnesite, crude	455.069	250.234
Dead-burned magnesia	48.719	22.370
Caustic-calcined magnesia	70.545	55.545
Basic monolithic refractories	35.617	31.634
Asbestos fibres	0	0
Bentonite, crude	1.500.000	844.804[5]
Attapulgite clay[6]	28584[6]	81382[6]
Huntite, crude	19.600	10.652
Pozzolan, Santorin earth	1.059.000	830.000
Pozzolan, specific use (not cement industry)	NA	21.532[7]
Kaolin, crude	4.360	0
Perlite, crude	1.000.000	862.935[8]
Perlite, treated	600.000	398.451[8]
Pumice	828.000	381.000
Silica (SiO2)	64.521	37.905
Gypsum and anhydrite, crude	1000000[9]	730.000 [10]
Olivine	37.150	48.050
Amphibolite	57.500	25.902
Calcium Carbonate (CaCO3), processed all sources	126.352 [11]	580.000[12]
Feldspar	62.000[13]	28.617[13]
Quartz	16.201	10.909
CO2 [liquid]	12.200	8.000
Talc and steatite, crude	NA	NA
Lignite	64.521.000	61.800.000
Crude oil, in barrels	477.679	628.278
Natural gas , in NM3[14]	14.058.056	11.123.714
Salt, sea salt	220.000*	189.000*
Mineral Aggregates (sand, gravel, crushed stones etc.)	85.000.000*	65.000.000*
Marble, rough blocks in cubic meters	347.526[15]	255.516[15]
Marble, rough shapeless blocks	451.503	254.491
Marble chips	1.218.056	761.933

NA: not available, **: estimated* *(source: MinEnv, SME)*

[1] electrolysis line 163.934 tn (for 2008) και 129.774 tn (for 2009) [2] Metal content: Pb: 11.479 tn, Ag: 26.988 Kg, Au: 27,92 Kg

[3] Metal content: Zn: 16.815 tn, Ag: 3.189 Kg, Fe: 3.726 tn, As:353,8 tn [4] 19,49%Ni Larco GMMSA

[5] Bentonite: S&B Industrial Minerals S.A., BENTOMINE S.A., Sud Chemie Hellas, Greek Mining Ltd., Mavroyiannis.

[6] attapulgitis/palygorskite plus smectite/saponite clay [7] Pozzolan for specific use: contruction pozzolanic mortars, fillers, e.g.

[8] Perlite: S&B Industrial Minerals S.A., EEKOM SA, Aegean Perlites S.A., MILOPAN S.A. [9] S&B Industrial Minerals S.A.

[10] Gypsum: Interbeton Construction Materials SA., Lava Mining and Quarrying Co, BPB HELLAS SA (BPB group), Knauf Gypsopoiia SA [11] only amorphous CaCO3 included, IONIAN KALK S.A

[12] Calcium Carbonate (CaCO3) products: both amorphous and crystalic: construction mortars, fillers, marble powder, adhesive and sealant, marmoline, alfamix, iokal e.g. [13] feldspar: MEVIOR SA., PHILKERAM JOHNSON S.A (2008), MEVIOR SA (2009)

[14] Normal cubic meter (Nm3) is the Cubic meter measured at standard conditions (0 °C and 1 atm. pressure)

[15] squared rough blocks plus slate stones