DESCRIPTIVE MODEL OF KARST TYPE BAUXITE DEPOSITS

By Sam H. Patterson

APPROXIMATE SYNONYM Aluminum ore (Bardossy, 1982).

DESCRIPTION Weathered residual and transported materials.

GENERAL REFERENCE Bardossy (1982).

GEOLOGICAL ENVIRONMENT

Rock Types Residual and transported material on carbonate rocks. Transported material may be felsic volcanic ash from a distant source or any aluminous sediments washed into the basin of deposition.

Textures Pisolitic, nodular, massive, earthy.

Age Range Paleozoic to Cenozoic.

Depositional Environment Surficial weathering mainly in wet tropical area.

Tectonic Setting(s) Stable land areas allowing time for weathering and protected from erosion.

Associated Deposit Types Limestone, dolomite, and shale; some are associated with minor coal and are low in Fe due to organic completing and removal of Fe during formation.

DEPOSIT DESCRIPTION

Mineralogy Mainly gibbsite in Quaternary deposits in tropical areas. Gibbsite and boehmite mixed in older Cenozoic deposits, boehmite in Mesozoic deposits and in Paleozoic deposits; gangue minerals hematite, goethite, anatase, kaolin minerals, minor quartz.

Texture/Structure Pisolitic, massive, nodular.

Alteration Formation of bauxite is itself a form of alteration of aluminous sediments.

Ore Controls Deposits tend to be concentrated in depressions on karst surfaces.

Weathering Intense weathering required to form bauxite. Bauxite continues to form in the present weathering environment in most deposits.

Geochemical Signature Al, Ga.

EXAMPLE European and Jamaican examples are reviewed in Bardossy (1982).

GRADE AND TONNAGE MODEL OF KARST TYPE BAUXITE DEPOSITS

By Dan L. Mosier

COMMENTS See figs. 193, 194.

DEPOSITS

Name	Country	Name	Country
Abruzzi	ITLY	Camarasa-Oliana	SPAN
Aceitillar	DMRP	Campania	ITLY
Adana-Saimbeyli	TRKY	Clarendon Plateau	JMCA
Akeski	TRKY	Drnis-Obrovac	YUGO
Beceite-Fuendesplada	SPAN	Fenyoto	HUNG
Bulbula	IRAN	Gant	HUNG
		Halimba	HUNG

Imotski-Mostar	YUGO
Islahiye	TRKY
Iszkaszentgyorgy	HUNG
Jajce	YUGO
LangSen	VTNM
Maggotty	JMCA
Manchester Plat.	JMCA
Megara-Eleusis	GREC
Muzaffarabad	PKTN
Nagyegyhaza	HUNG
N.C. Puerto Rico	PTRC
N.E. Alabama	USAL
Niksicka Zupa	YUGO
N.W. Georgia	USGA
Nyirad	HUNG
Padurea Craiului	RMNA
Parnassus-Helikon	GREC
Payas	TRKY
Punch	INDA
Rochelois Plat.	HATI
San Giovanni Rotondo	ITLY
Seydisehr	TRKY
Sohodol-Cimpeni	RMNA
Spinazzola	ITLY
St. Ann Plateau	JMCA
Unterlaussa	ASTR
Vlasenica	YUGO
Zonguldak	TRKY

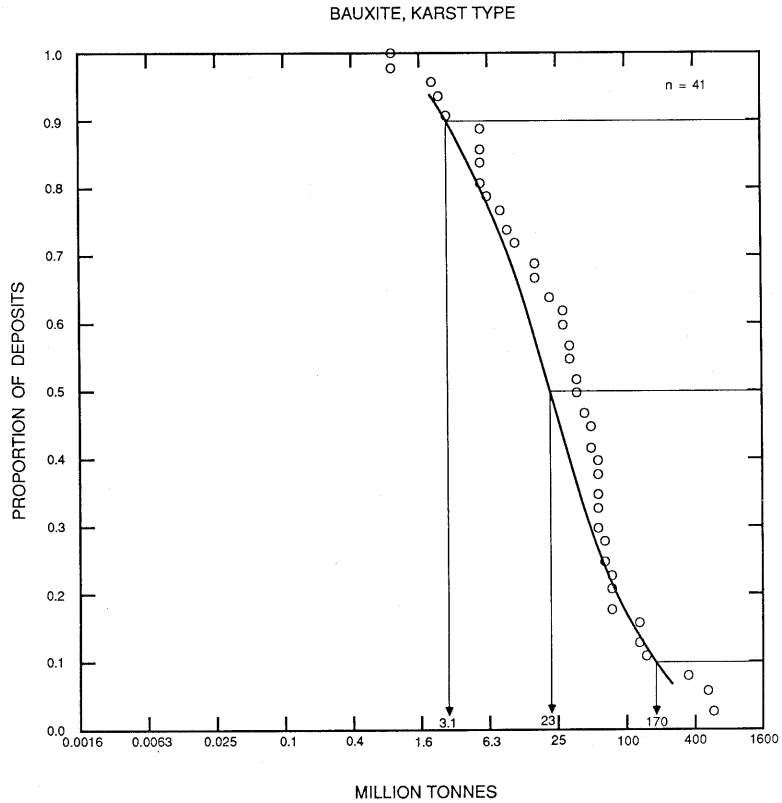

Figure 193. Tonnages of karst-type bauxite deposits.

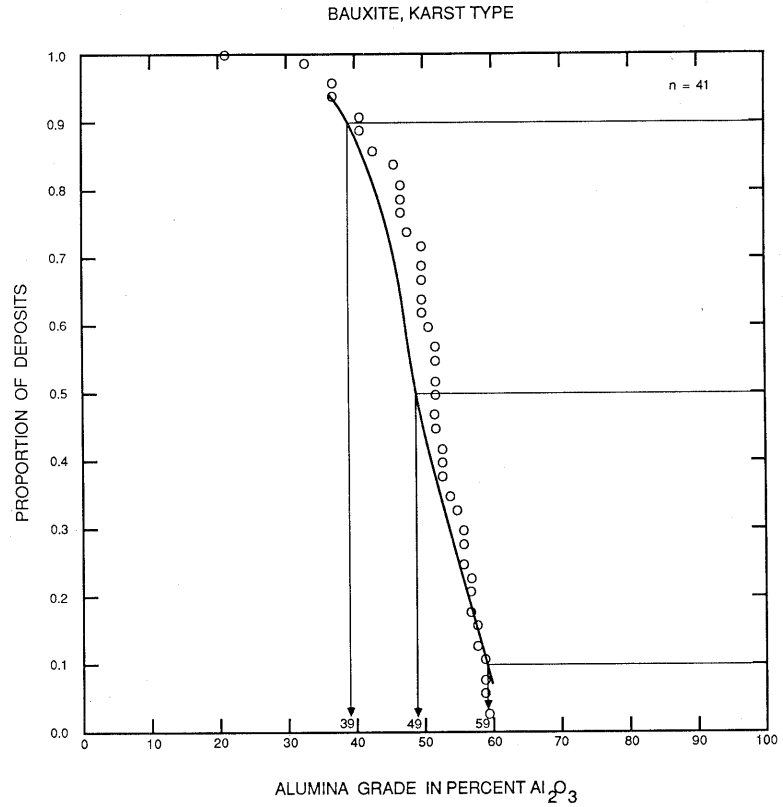

Figure 194. Alumina grades of karst-type bauxite deposits.