
MAGMA
Ma'dan Arya

Magma Mine Company

Since 2001, Magma Mine Company, utilizing experienced and skilled personnel, as well as owning and managing several mines of Emery Bauxite in Iran, has been providing its services in production, processing, and supply of various types of minerals, for industrial firms in the forms aggregates and lumps.

Our activities in production and trade of minerals have made us active members of Iran-Oman, Iraq, Australia, France, and China Chambers of Commerce. Through all these years, we have been cooperating with our partners and expanding our business in different countries and this has put us amongst the top mining companies in the region.

We are interested in and open to negotiations regarding the supply and trading of minerals from Iran.

Emery Bauxite

Various grades of Emery Bauxite are available, with 45% - 52% Al2O3 content. These minerals are in different sizes. These minerals are provided and supplied in different sizes. We have two groups of Emery Bauxite, as listed below: 1.Corundum Rich 2. Amesite Rich

Group1 (Corundum Rich)

Code: Magma 104A

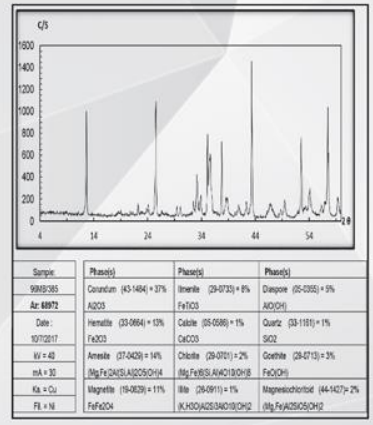
Geochemical Specifications (XRF Analysis) (Code: Magma 104 A)

Component	SiO_2	Al_2O_3	Fe total	FeO	Fe_2O_3	MnO	TiO_2	CaO	MgO	Na_2O	K_2O	P_2O_5	SO_3	L.O.I
Result (%)	4.45	52.55	22.51	9.97	21.04	0.02	5.11	2.04	0.53	0.07	0.01	0.008	<0.1	3.58

Lithological Specifications (Code: Magma 104 A)

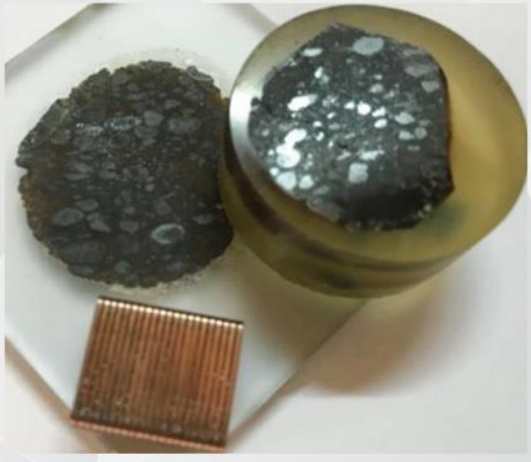
Lithology	*Meta-Bauxite*
Metamorphic Degree	*Medium (Green Schist)*
Age	*Upper Permian*
Color	*Black-Brownish to Red*
Type of Metamorphism	*Regional*
Protolith	*Bauxite + Laterite*
Density	3.717 g/cm3

XRD Analysis (Code: Magma 104 A)



Sample:	Phase(s)	Phase(s)	Phase(s)
99MB385	Corundum (43-1484) = 37%	Ilmenite (29-0733) = 8%	Diaspore (05-0355) = 5%
Az: 68972	Al2O3	FeTiO3	AlO(OH)
Date :	Hematite (33-0664) = 13%	Calcite (05-0586) = 1%	Quartz (33-1161) = 1%
10/7/2017	Fe2O3	CaCO3	SiO2
kV = 40	Annesite (37-0429) = 14%	Chlorite (29-0701) = 2%	Goethite (29-0713) = 3%
mA = 30	(Mg,Fe)2Al(Si,Al)2O5(OH)4	(Mg,Fe)6(Si,Al)4O10(OH)8	FeO(OH)
Ka = Cu	Magnetite (19-0629) = 11%	Illite (26-0911) = 1%	Magnesiochloritoid (44-1427)= 2%
Fil. = Ni	FeFe2O4	(K,H3O)(Al2Si3AlO10(OH)2	(Mg,Fe)Al2SiO5(OH)2

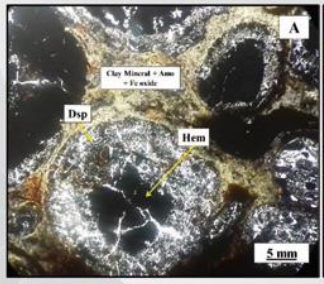
Microscopic thin and Polish Sections *(Code: Magma 104 A)*

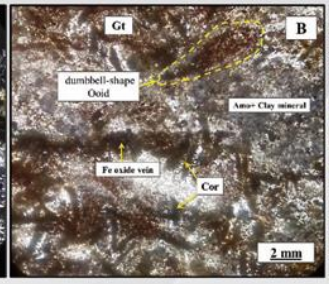


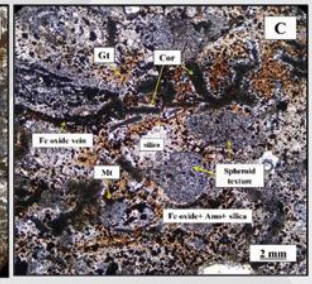
[Corundum (Al_2O_3, Cor)], [Goetite (FeO (OH), Gt)], [Diaspore (AlO(OH), Dsp)], [Magnetite (Fe_3O_4, Mt)], [Amesite ($(Mg,Fe)2Al(Si,Al)_2O_5$ $(OH)_4$), Amo)], [Silica (SiO_2, Qtz)], [Hematite (Fe_2O_3, Hem)], [Calcite ($CaCO_3$), Cal)] , [Bohemite (AlOOH, Boh)].

Microscopic Specifications (Code: Magma 104 A)

Thin section				
Main Minerals	**Texture**	**Minor Minerals**	**Matrix**	**Shape**
Cor + Gt + Dia + Hem	*Ooidic + Spheroidic + Pisoidic*	*Cal + Mt + Clay Mineral*	*Amo + Clay Mineral*	*Needle+ Columnar*







Group2 (Amesite Rich)

Code: Magma 104B

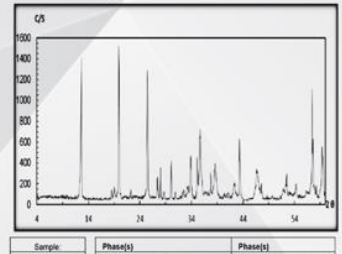
Geochemical Specifications (XRF Analysis) (Code: Magma 104 B)

Component	SiO_2	Al_2O_3	Fe total	FeO	Fe_2O_3	MnO	TiO_2	CaO	MgO	Na_2O	K_2O	P_2O_5	SO_3	L.O.I
Result (%)	18.76	48.01	15.24	15.80	4.14	0.04	5.05	1.56	1.1	0.12	0.02	0.11	<0.1	4.75

Lithological Specifications (Code: Magma 104 B)

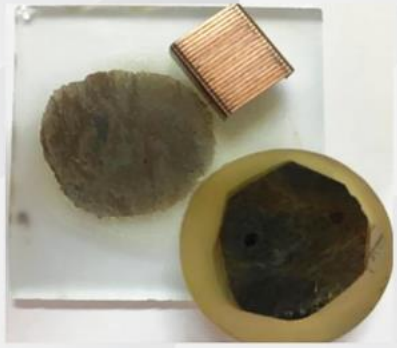
Lithology	*Meta-Laterite*
Metamorphic Degree	*Medium (Green Schist)*
Age	*Upper Permian*
Color	*Black-Brownish to Green*
Type of Metamorphism	*Regional*
Protolith	*Laterite*
Density	3.359 g/cm3

XRD Analysis (Code: Magma 104 B)



Sample:	Phase(s)	Phase(s)
96MB/384	Amesite (37-0429) = 36%	Margarite (18-0276) = 5%
Az: 68971	(Mg,Fe)2Al(Si,Al)2O5(OH)4	CaAl2(Si2Al2)O10(OH)2
Date : 10/7/2017	Magnesiochloritoid (44-1427) = 27%	Diaspore (05-0355) = 4%
kV = 40	(Mg,Fe)Al2SiO5(OH)2	AlO(OH)
mA = 30	Corundum (43-1484) = 16%	Ilmenite (29-0733) = 3%
Ka = Cu	Al2O3	FeTiO3
Fil. = Ni	Rutile (21-1276) = 3%	Goethite (29-0713) = 4%
	TiO2	FeO(OH)

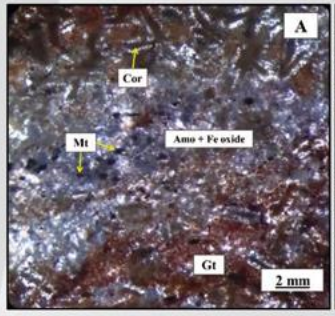
Microscopic thin and Polish Sections *(Code: Magma 104 B)*

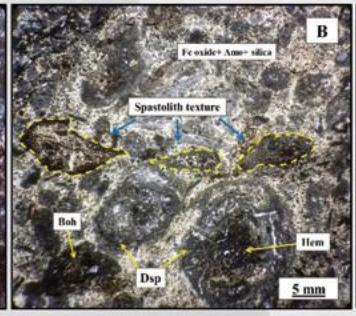


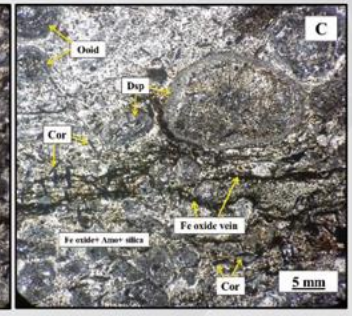
[Corundum (Al2O3, Cor)], [Goetite (FeO (OH), Gt)], [Diaspore (AlO (OH)), Dsp)], [Magnetite (Fe3O4, Mt)], [Amesite ((Mg,Fe)2Al(Si,Al)2O5 (OH)4), Amo)], [Silica (SiO2, Qtz)],[Hematite (Fe2O3, Hem)], [Calcite (CaCO3), Cal], [Bohemite (AlOOH,Boh) [MagnChld (Magnesichloritoid)]

Microscopic Specifications *(Code: Magma 104 B)*

Thin section				
Main Minerals	**Texture**	**Minor Minerals**	**Matrix**	**Shape**
Cor +Amo+ Dia + MagnChld	*Ooidic + Spheroidic + Pisoidic*	*Rut+Ilm*	*Amo + MagnChld*	*Needle+ Columnar*







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