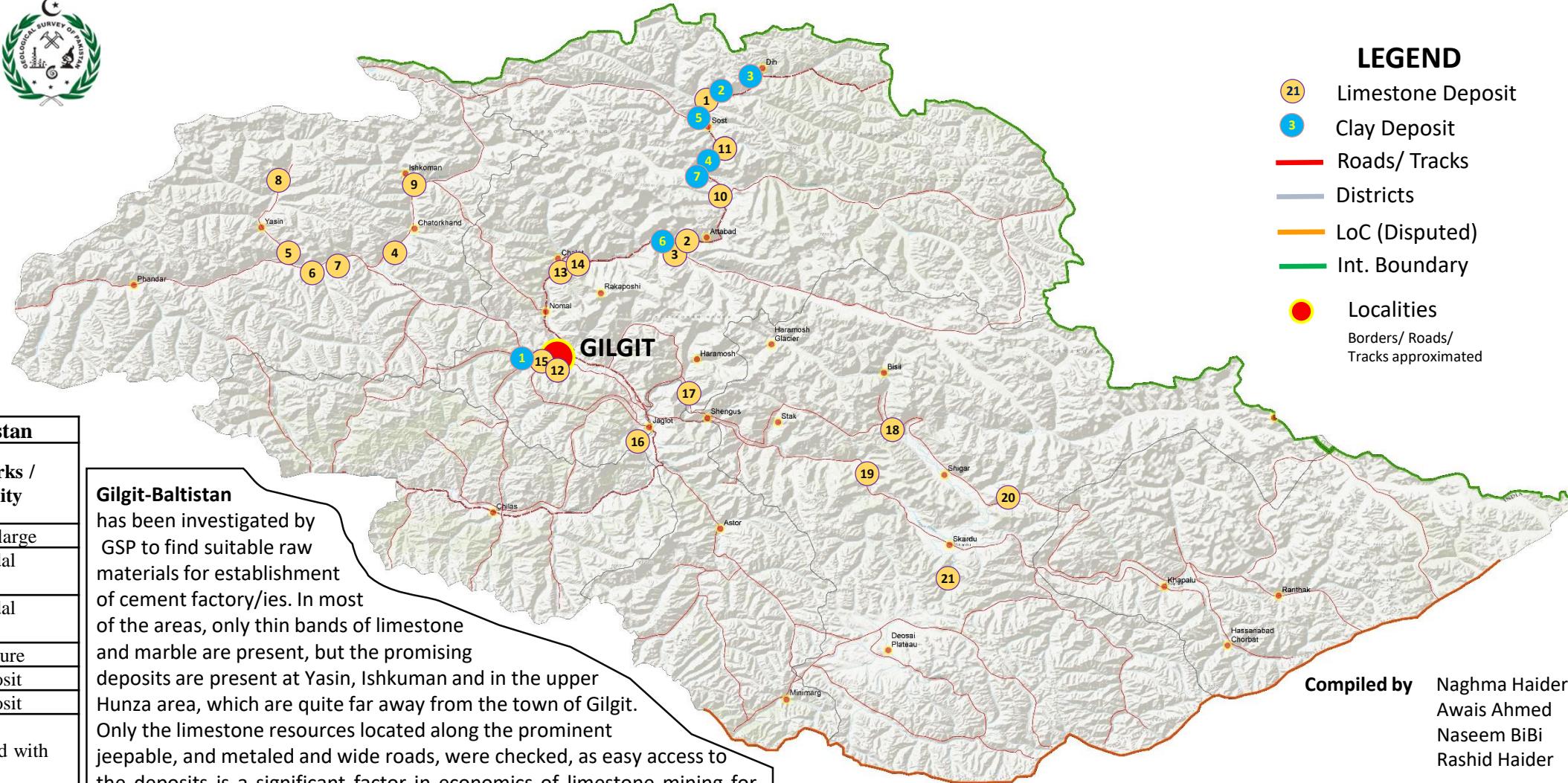


CEMENT MANUFACTURING POTENTIAL IN GILGIT-BALTISTAN

Government of Pakistan
Ministry of Energy (Petroleum Division)
Geological Survey of Pakistan



LEGEND

- 21 Limestone Deposit
 - 3 Clay Deposit
 - Roads/ Tracks
 - Districts
 - LoC (Disputed)
 - Int. Boundary
 - Localities
- Borders/ Roads/ Tracks approximated

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Maps developed at the request of Planning Commission of Pakistan

Clay Deposits of Gilgit-Baltistan

Sr	Locality of Deposits	Reserves
1	Gilgit Town & Kar Gah	3.6 million tons
2	Shakachtar	156,000
3	Dih	
4	Khaibar-Morkhun	67,000
5	Khudabad-Bili	16,000
6	Ganesh	16,000
7	Batura	10,700
8	Chilas-Skardu-Shigar	Need investigations

Limestone/marble Deposits of Gilgit-Baltistan

Sr	Locality	Reserves (Million tons per 30m depth)	Remarks / Quality
1	Billi	14.25	Pure fairy large
2	Muhammadabad	>0.5	Saccharoidal marble
3	Kharmbat	2.3	Saccharoidal marble
4	Hasis	7.5	Impure nature
5	Gupis (Hilter)	1.5	Small deposit
6	Roshan	0.2	Small deposit
7	Thamushki	6.8	marble interlayered with slate
8	Barkulti	1.2	Small deposit
9	Ishkuman village	V. small	Impure nature
10	Pasu-Morkhun	-	Highly dolomitic/ not suitable
11	Morkhun-Gircha	-	Highly dolomitic/ not suitable
12	Gilgit-Kar Gah	0.3	Need further work
13	Chalt	-	Highly siliceous/ not suitable
14	Sikandarabad	-	Highly dolomitic/ not suitable
15	Shinghai Gah	Need further work	Marble with minor impurities
16	Thelichi	750	Large size deposit marble
17	Sassi	6.0	Medium deposit, marble.
18	Tissar-Tormic Nala	6500	Extensive marble deposit.
19	Tungas	600	Saccharoidal, friable marble.
20	Shigar	-	Small scattered marble deposit
21	Satpara Nala	Medium size	semi crystalline limestone/ marble

Gilgit-Baltistan

has been investigated by GSP to find suitable raw materials for establishment of cement factory/ies. In most of the areas, only thin bands of limestone and marble are present, but the promising deposits are present at Yasin, Ishkuman and in the upper Hunza area, which are quite far away from the town of Gilgit. Only the limestone resources located along the prominent jeepable, and metaled and wide roads, were checked, as easy access to the deposits is a significant factor in economics of limestone mining for manufacture of cement. On the basis of quality and quantity, the deposits/ areas considered most suitable for the manufacturing of cement in order of preference are: (a) Bili area (upper Hunza), (b) Muhammadabad-Kharm Bat area (Baltit), (c) Hasis village area near Chatorkhand (Ishkuman), (d) Thamushki -Roshan area (Gupis), and (e) Barkulti area (Yasiri). Further investigations are required for assessment of these resources in Chilas-Bunji-Skardu and Shigar areas.

The deposits near Bill and Baltit area found to be suitable for the manufacture of cement. However the crystalline limestone of Baltit area has not been recommended, because of its economic significance a being the host rock for spinel ruby. Therefore, only the Bili area seems to be the most suitable for the purpose. This limestone belt extends for about 50 kilometers and the reserves of limestone at Bill area are estimated to be about 14.25 million tons per 30 meters length. The proposed site of Bill area (upper Hunza) is well connected with Gilgit through the all-weather Karakoram Highway, which extends further upto the Chinese border. Good quality water in sufficient quantity is easily available throughout the area. The limestone of the Hasis, Barkulti and Gupis areas, though chemically suitable, are not recommended because of poor communication System and non-availability of clay in the near vicinity. Gypsum required in small amounts (about 4%) will have to be transported from the upper Punjab or Kohat area. Water and labor in almost all the suitable areas are in abundance.

Average Chemical analysis of Limestones in Gilgit-Baltistan (%)

Sr. No.	Area	SiO ₂	Fe ₂ O ₃	Al ₂ O ₃	CaO	MgO	LoI	Total
1	Barkulti	0.97	1.06	0.72	44.82	12.82	43.97	99.58
2	Hilter	3.54	1.53	0.07	52.15	0.4	41.8	99.49
3	Thamushki	25.84	3.82	6.44	34.92	5.37	22.85	99.25
4	Roshan	2.11	0.89	0.38	52.79	0.60	42.81	99.37
5	Ishkuman	1.27	0.76	1.06	36.12	15.23	44.81	99.24
6	Hasis	1.40	0.46	1.59	52.52	1.79	42.73	99.88
7	Sikandarabad	13.95	0.99	2.31	29.59	14.18	38.35	99.38
8	Muhammad	15.30	1.29	0.79	44.32	1.19	36.60	99.50
9	Kharm Bat	11.96	0.96	0.39	47.33	0.59	38.46	99.69
10	Pasu-Morkhun	0.88	0.41	0.47	31.63	19.39	46.53	99.31
11	Gircha	0.94	0.15	0.96	45.97	7.41	43.89	99.35
12	Bili	15.42	0.88	0.87	43.13	2.62	37.28	99.62
13	Sassi	4.85	0.35	0.85	44.25	9.95	39.70	99.95
14	Chalt	57.39	3.32	2.46	18.32	2.28	15.49	99.25

Average Chemical analysis of Clays in Gilgit-Baltistan (%)

Sr.	Area	SiO ₂	Fe ₂ O ₃	Al ₂ O ₃	CaO	MgO	LoI	TiO ₂	Total
1	Batura	42.64	12.36	8.95	11.21	8.97	15.1	0.75	99.98
2	Khaibar-Morkhun	20.60	4.98	10.17	26.92	7.85	28.77	0.50	99.54
3	Khudabad-Bili	55.88	8.77	11.04	6.95	5.95	10.00	0.89	99.48
4	Ganesh	47.84	6.38	15.27	10.76	7.22	11.2	0.75	99.42
5	Kar Gah	49.2	12.8	13.2	6.73	7.74	8.5	<0.05	98.22
6	Gilgit	48.8	12	14	8.97	5.48	9.32	<0.05	98.62