

Indian Minerals Yearbook 2020

(Part-I)

59th Edition

STATE REVIEWS (Himachal Pradesh)

(ADVANCE RELEASE)

GOVERNMENT OF INDIA MINISTRY OF MINES INDIAN BUREAU OF MINES

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HIMACHAL PRADESH

Mineral Resources

The State is the sole holder of country's antimony ore and rock salt resources. Limestone and shale are the important minerals produced in the State. **Barytes** occurs in Sirmaur district; **limestone** in Bilaspur, Chamba, Kangra, Kulu, Mandi, Shimla, Sirmaur & Solan districts; and **rock salt** in Mandi district. Other minerals that occur in the State are **antimony** in Lahaul & Spiti districts; **gypsum** in Chamba, Sirmaur and Solan districts; **magnesite** in Chamba district; **pyrite** in Shimla district; and **quartz**, **quartzite** & **silica sand** in Una district Table - 1.

Exploration & Development

No mineral exploration activites was reported by any State Government agency during 2019-20. However, GSI carried out exploration activity for base metal & phosphate in Kullu & Sirmaur districts. Details are furnished in Table-2.

Production

Limestone and Salt (rock) were the principal minerals reporting production in the State. The value of minor mineral's production is estimated as ₹ 70 crore for the year 2019-20. There were 24 reporting mines in Himachal Pradesh in 2019-20 (Table-3).

Mineral-based Industry

The present status of each mineral-based industry is not readily available. However, the principal mineral-based industries in the Organised Sector in the State are furnished in Table - 4.

-1abic = 2, Details of Exploration Activities in Hilliachar Francos, $2017-20$	Table – 2 : Deta	ils of Exploratio	n Activities in Hima	ichal Pradesh, 2019-20
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Agency/	Location	Map	ping	Dri	lling	~	N 1		
Mineral/ District	Area/ Block	Scale	Area (sq. km)	No. of boreholes	Meterage	Sampling (No.)	Remarks Reserves/Resources estimated		
GSI Tin Kinnaur	-	1:12500	65	-	-	210	Reconnaissance survey (G4) for Tin, Tungsten, Molybdenum, RM and REE in Nako granite, Kinnaur district involved large- scale mapping of 65.0 sq km area on 1:12500 scale and collection of 150 BRS, 10 XRD and 50 PS samples. Available analytical results showed highest value of total REE (REE) was yielded in biotite schist of Morang Formation as 498.42 ppm whereas the lowest value of REE was yielded by pegmatite i.e. 3.29 ppm. Quartzite yielded maximum REE value of 437.38 ppm and minimum value of 14.90 ppm. Calc silicate rock yielded maximum REE value of 209.61 ppm and minimum value		

(contd)

Table-2 (Contd)

Agency/	Location	Map	oping	Dri	lling		
Mineral/ District	Area/ Block	Scale	Area (sq. km)	No. of boreholes	Meterage	Sampling (No.)	Remarks Reserves/Resources estimated
							of 28.95 ppm. Leucocratic Granite of Nako Formation yielded maximum REE value of 196.61 ppm and minimum value of 6.08 ppm. Pegmatite yielded maximum REE value of 124.27 ppm and minimum value of 3.29 ppm. The maximum and minimum concentration of tin (Sn) were 89.4 ppm and 0.16 ppm from pegmatite and calc silicate rock, respectively. In calc silicate rock, respectively. In calc silicate rock, and granite, the maximum and minimum concentration of Tungsten (W) were 66.64 ppm and 0.5 ppm, respectively. In granite rocks, the maximum and minimum concentration of Lithium (Li) were 442.2 ppm and 8.13 ppm, respectively. In biotite schist and quartzite, the maximum and minimum concentration of Caesium (Cs) were 76.47 ppm and 2.00 ppm, respectively. In biotite schist and granite, the maximum and minimum concentration of Molybdenum (Mo) were 5.99 ppm and 0.5 ppm, respectively.
Gypsum Kinnaur	Shalkar block	1:4000	3.0	-	-	-	Reconnaissance survey (G3) for Gypsum was carried out in the investigation area. The gypsum (alabaster, selenite variety) at upper stratigraphic level was designated as Zone-A and gypsum at lower stratigraphic level was designated as Zone-B. Gypsum band at upper stratigraphic level (Zone-A) was found to have a strike length of 450 m and average thickness of 65 m. At lower stratigraphic level (Zone- B) gypsum occurred as a pocket
							(contd)

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Agency/	Location	Mag	oping	Dri	lling	Somalia	Remarks	
District	Block	Scale	Area (sq km)	No. of boreholes	Meterage	(No.)	Reserves/Resources estimated	
							with strike length of 115 m and average thickness of 70 m. A total of fifteen channel lines were put across the strike of the Gypsum/Gypsite /limestone bands in Shalkar block. In gypsum band of Zone-A, three channel lines in gypsum of upper stratigraphic level were reported with weighted with average of gypsum as 68.02%, 94.47%, and 73.59%, respectively. Channel line in gypsum pocket of Zone- B showed weighted with average of 85.66%.	
Lahaul and Spiti	Hurling-Giu	1:4000	2.2	-		-	Reconnaissance survey (G4) for gypsum was taken up in the study area. Detailed mapping was carried out in two blocks, i.e., Giu block (2.2 sq km) and Hurling block (0.8 sq km). In Giu block, Zone-I, the weighted with average of gypsum was 91.24 %, with average thickness of 69.47 m. In Zone-II, the weighted with average was 87.65%, with average thickness of 23.03 m. In Zone-III, the weighted with average thickness of 23.03 m. In Zone-III, the weighted with average of gypsum was 88.88%, with average thickness of 43.93 m. In Hurling block, two pockets (A and B) of alabaster variety of gypsum intercalated with limestone were delineated with cumulative strike length of mineralised zone of about ~485 m. In Hurling block, the weighted with average of gypsum was 89.87%, with average thickness of 73.36 m. The weighted with average of gypsum (overlying selenite variety) in Hurling area was 64.79% with average	

			Reserve	s				Rem	aining Resourc	es			Ē	
Mineral	Unit	Proved	Probał	ole	Total	Feasibility	Pre-fea	sibility	Measured	Indicated	Inferred	Reconnaissance To	tal resour	rces
		111/115	STD121	STD122	(Y)	117018	STD221	STD222	10010	510332	510555	1) 455U15	5) (A+	(P)
Antimony														
Ore	tonne			ı	ı	ı	ı			ı	10588	- 1058	88 1058	88
Metal	tonne			ı	ı	ı	ı			ı	174	- 13	4 17	74
$Barytes^{\#}$	tonne			ı	ı	27288	12846	12645	48904	12370	3000	- 11705	3 11705	53
$Gypsum^{\#}$	'000 tonnes		•	ı	ı		ı	1365		ı	3081	- 44	16 444	46
Limestone	'000 tonnes	555180	0 209851	69908	834938	191300	327757	40840	1530937	26121	3234938	37339 538923	1 622416	69
Magnesite	'000 tonnes	,			'	ı	ı				298	- 25	8 29	98
Pyrite	'000 tonnes		,	1	ı	ı	ı			ı	2560	- 25(50 256	50
Quartzite [#]	'000 tonnes	25	-	16	41	16	ı	ı					6 5	57
Quartz-														
Silica sand [#]	'000 tonnes	1	I	7	8	66		ı	ı		2928	- 302	1 303	35
Rock salt	'000 tonnes		•	'	'	10035	ı	5990			'	- 1602	1602	25
Figures rot	inded off.													

Table - 1: Reserves/Resources of Minerals as on 1.4.2015: Himachal Pradesh

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Declared as Minor Minerals vide Gazette notification dated 10.02.2015.

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Table – 3 : Mineral Production in Himachal Pradesh, 2017-18 to 2019-20 (Excluding Atomic Minerals)

(Value in ₹'000)

			2017-	18		201	8-19		2019-2	0 (P)
Mineral	Unit	No. of mines	Quantit	y Value	No. of mines	Quan	tity Value	No. of mines	Quantity	Value
All Minerals		21		3453441	25		3224807	24		3458479
Limestone	'000t	20	11504	2466113	24	12034	2519275	23	12528	2751663
Salt (rock)	t	1	47	421	1	17	160	1	130	1444
Minor Min	erals @	-	-	986907	-	-	705372	-	-	705372

Note : The number of mines excludes Minor minerals.

@ Figures for earlier years have been repeated as estimates because of non-receipt of data for 2019-20.

Table – 4 : Principal Mineral-based Industries

Table-4 (concld)

Industry/plant	Capacity
	('000 tpy)
Cement	
ACC Ltd, Gagal (Gaggal I & II),	4400
Distt Bilaspur 2870) (Clincker)
Ambuja Cement, Suli, P.O. Darlaghat, Distt Solan	1600
Ambuja Cement, Nalagarh, Distt Solan	1500
Asian Concretes and Cements Pvt Ltd,	1300
Bir Palsi, Disti Solan	(contd)

Industry/plant	Capacity ('000 tpy)
CCI Ltd, Rajban, Distt Sirmaur	250
Ultratech Cement Ltd, Bagga, Distt Solan	2540
UltraTech Cement Ltd, (Blending & Grinding), Bagheri Solan	2000
Note: Data not readily available for came	nt industrias on

Note: Data, not readily available for cement industries on respective websites, is taken from Survey of Cement Industry & Directory