

STATE REVIEWS



# Indian Minerals Yearbook 2021

(Part- I)

60<sup>th</sup> Edition

STATE REVIEWS  
(Punjab)

(ADVANCE RELEASE)

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**PUNJAB****Mineral Resources**

Minerals reported to occur in the State are **quartz** and **silica sand** in Hoshiarpur district; and **quartzite** in Hoshiarpur & Ropar (Rupnagar) districts (Table - 1).

**Exploration & Development**

Exploration activities carried out for Potash during the year 2020-21 are furnished in Table-2.

**Production**

The State reported production of only minor minerals. The value of minor minerals' production was estimated at ₹ 287 lakh for the year 2020-21.

**Mineral-based Industry**

The present status of each Mineral-based Industry is not readily available. However, the important Mineral-based Industries in the Organised Sector in the State are furnished in Table - 3.

**Table – 1: Reserves/Resources of Minerals as on 1.4.2015 : Punjab**

Mineral	Unit	Reserves		Remaining Resources		Total resources (A+B)
		Total (A)	Indicated STD 332	Inferred STD 333	Total (B)	
Quartz/silica sand <sup>#</sup>	'000 tonnes	-	-	3927	3927	3927
Quartzite <sup>#</sup>	'000 tonnes	-	116	81796	81912	81912

Figures rounded off

<sup>#</sup> Declared as Minor Mineral vide Gazette Notification dated 10.02.2015

**Table – 2 : Details of Exploration Activities in Punjab, 2020-21**

Agency/ Mineral/ District	Location Area/ Block	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq km)	No. of boreholes	Meterage		
<b>GSI</b> <b>Potash</b> Fazilka & Sri Muktsar Sahib and Sri Ganganagar *(Rajasthan)	Satluj basin	-	-	1	-	182	Reconnaissance survey (G4) was carried out for reappraisal of potash in this area. Exploration for potash was carried out in parts of Fazilka district of Punjab. Geologically, the study area falls in the Satluj basin which is a part of Indo-Gangetic Alluvial Plain. The entire area extending in Punjab is covered with thick blanket of Quaternary sediments. They comprise older alluvium and aeolian sediments of Middle Pleistocene to Holocene age. In the sub-surface, the area comprises geological formations from the Neoproterozoic through Early Cambrian and continues through Tertiary to Quaternary sequences. The Evaporite Group comprises cyclic deposits of halite (most dominant constituent) containing polyhalite, alternating

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Table – 2 (contd)

Agency/ Mineral/ District	Location Area/ Block	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq km)	No. of boreholes	Meterage		
							and separated by a sequence with anhydrite, clay and dolomite. Total 1600m +10% drilling was planned in south-western part of Punjab to evaluate the potential of potash in part of Fazilka District, Punjab. During the period, one borehole (PFSBH-02) was successfully drilled up to 886m by the outsourced drilling. The Geophysical logging of the borehole (PFSBH-02) was carried out up to 860m by Geophysical team, GSI, NR, Lucknow. In borehole PFSBH-02, cumulative thickness of potash zone is 16 m, with average grade of 3.02% K at 2% K cut-off and total cumulative thickness of halite (NaCl) is 123.3m with average grade of 92.31% at 90% cut-off. Further, total cumulative thickness of halite (NaCl) is 282.6m with average grade of 88.80% at 80% cut-off. Further subsurface exploration can possibly lead to delineation of a depocentre of potash/halite and calculation of resource potential of the partially explored Punjab basin.

Table – 3: Principal Mineral-based Industries

Industry/plant	Capacity (’000 tpy)
<b>Alloy Steel</b>	
Antarctic Industries Ltd, Ludhiana	120
<b>Cement</b>	
Ambuja Cement, Ropar (Rupnagar) (G)	2500
Asian FCPL, Patiala	1500
Ambuja Cement, Bathinda (G)	1200
UltraTech Cement, Bathinda (G)	1750
<b>Chemical</b>	
Siel Chemical Complex, Charatrapur	74.3 (NaOH) 65.8 (Cl) 18 (bleaching powder) 66.0 (HCl)

(contd)

Table - 3 (concl'd)

Industry/plant	Capacity (’000 tpy)
VTPL (Vardhaman Industries Ltd), Distt Patiala	60
<b>Fertilizer</b>	
NFL, Nangal, Distt. Ropar (Rupnagar)	478.5 (Urea) 22 (methanol)
NFL, Sibir Road, Distt. Bathinda	511.5 (Urea) 8.7 (S)
<b>Petroleum Refinery</b>	
HPCL Mittal energy Ltd, Bathinda	9000
<b>Sponge Iron</b>	
Vallabh Steels Ltd, Sahnewal, Ludhiana	120

*(G): Grinding units.*

*Note: Data, not readily available for Fertilizer and Cement Industries on their respective websites is taken from Indian Fertilizer Scenario, FAI Statistics and Survey of Cement Industry & Directory, respectively.*