

STATE REVIEWS



Indian Minerals Yearbook 2020

(Part- I)

59th Edition

**STATE REVIEWS
(Bihar)**

(ADVANCE RELEASE)

**GOVERNMENT OF INDIA
MINISTRY OF MINES
INDIAN BUREAU OF MINES**

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BIHAR

Mineral Resources

Bihar is the principal holder of country's pyrite resources and possesses 94% of resources. The important mineral occurrences in Bihar are **coal** in Rajmahal coalfield; **limestone** in Kaimur (Bhabhua), Monghyr & Rohtas districts; **mica** in Nawada district; **quartz/silica sand** in Bhagalpur, Jamui, Monghyr & Nalanda districts; **quartzite** in Lakhisarai, Monghyr & Nalanda districts; and **talc/soapstone/steatite** in Monghyr district. Besides, occurrences of **bauxite** in Monghyr & Rohtas districts; **china clay** in Bhagalpur & Monghyr districts; **felspar** in Gaya, Jamui & Monghyr districts; **fireclay** in Bhagalpur & Purnea districts; **gold** in Jamui district; **granite** in Bhagalpur, Gaya, Jahanabad & Jamui districts; **iron ore (haematite)** in Bhagalpur district; **iron**

ore (magnetite) in Gaya & Jamui districts; **lead-zinc** in Banka & Rohtas districts; and **pyrites** in Rohtas district are reported (Tables - 1 & 2).

Exploration & Development

GSI carried out exploration for coal, REE, limestone and chromite in Bhagalpur, Kaimur, Rohtas and Gaya districts. Details of exploration activities conducted by GSI during 2019-20 are furnished in Table-3.

Production

Limestone is the only major mineral produced in Bihar. The value of minor mineral's production is estimated as ₹4,272 crore for the year 2019-20. There was a single reporting mine and that of limestone in Bihar in 2019-20.

Table – 1 : Reserves/Resources of Coal as on 1.4.2020 : Bihar

(In million tonnes)

Coalfield	Proved	Indicated	Inferred	Total
Total/Rajmahal	309.53	2431	11.30	2751

Source: Coal Directory of India, 2019-20

Table – 2 : Reserves/Resources of Mineral as on 1.4.2015 : Bihar

Mineral	Unit	Reserves				Remaining resources					Total resources (A+B)			
		Proved STD111	Probable		Total (A)	Feasibility STD211	Pre-feasibility		Measured STD331	Indicated STD332		Inferred STD333	Reconnaissance STD334	Total (B)
			STD121	STD122			STD221	STD222						
Bauxite	'000 tonnes	-	-	-	-	-	-	-	-	4114	-	4114	4114	
China clay [#]	'000 tonnes	-	-	-	-	-	-	104	39	1296	-	1438	1438	
Felspar [#]	tonne	-	-	-	-	35147	-	-	4195	4871499	-	4910841	4910841	
Fireclay [#]	' 000 tonnes	-	-	-	-	-	-	-	-	44	-	44	44	
Gold	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ore	-	-	-	-	-	-	-	-	-	-	-	-	-	
(primary)	tonne	-	-	-	-	-	-	-	-	128884860	94000000	222884860	222884860	
Metal	-	-	-	-	-	-	-	-	-	-	-	-	-	
(primary)	tonne	-	-	-	-	-	-	-	-	21.6	16	37.6	37.6	
Granite [#]	-	-	-	-	-	-	-	-	-	-	-	-	-	
(Dim. stone)	'000 cu m	-	-	-	-	-	-	179000	179000	698612	-	877612	877612	
Iron ore	-	-	-	-	-	-	-	-	-	-	-	-	-	
(Haematite)	'000 tonnes	-	-	-	-	-	-	-	-	55	-	55	55	
Iron ore	-	-	-	-	-	-	-	-	-	-	-	-	-	
(Magnetite)	'000 tonnes	-	-	-	-	-	-	-	-	2659	-	2659	2659	
Lead-zinc	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ore	'000 tonnes	-	-	-	-	-	-	-	435	11000	-	11435	11435	
Lead metal	'000 tonnes	-	-	-	-	-	-	-	-	24	-	24	24	
Zinc metal	'000 tonnes	-	-	-	-	-	-	-	14.75	24	-	38.75	38.75	
Limestone	'000 tonnes	12410	306	12715	3096	2558	1405	67926	38210	724118	10558	847872	860388	
Mica [#]	kg	-	-	-	-	-	-	-	-	13066667	7700	13074367	13074367	
Pyrite	'000 tonnes	-	-	-	13462	-	9680	-	51419	1500000	-	1574561	1574561	
Quartzite [#]	'000 tonnes	282	12260	12542	390	959	8090	5490	22822	227531	-	265282	277824	
Quartz-	-	-	-	-	-	-	-	-	-	-	-	-	-	
silica sand [#]	'000 tonnes	-	-	-	-	-	-	-	-	25755	-	25755	25755	
Talc-steatite-	-	-	-	-	-	-	-	-	-	-	-	-	-	
soapstone [#]	'000 tonnes	-	-	-	-	-	-	-	-	149	-	149	149	

Figures rounded off

Declared as Minor Mineral vide Gazette Notification dated 10.02.2015

Minor Mineral before Gazette Notification dated 10.02.2015.

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Table – 3 : Details of Exploration Activities in Bihar, 2019-20

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq. km)	No. of boreholes	Meterage		
GSI							
Iron Ore							
Jamui	Majos block	-	-	-	-	-	General exploration (G2) for Magnetite around this block was taken up by means of drilling following the success of G3-stage of work carried out in the block during FS 2016-18 that estimated, resource of 19.46 million tonnes with average grade of 36.48% Fe for about 2 km strike length. Regionally, the area is a part of the northern extremity of the Chhotanagpur Plateau and comprised rocks of unclassified metamorphics, Chhotanagpur Gneissic Complex and intrusives. Majority of the area in Majos block was found covered by alluvium. Limited outcrop of mica schist and Banded Magnetite Quartzite (BMQ) were observed to be restricted between Majos and Jalai village. Magnetite occurred mainly in BMQ as thinly bedded/laminated alternating with quartzite and as powdery ore. Boreholes were drilled maintaining the same strike spacing of 200 m and azimuth (25°) along the same section of previously drilled boreholes with targets to intersect ore bodies at 2 nd level (60 m vertical depth) and a few at 3 rd level (90 m vertical depth).
Chromite (Cr, Ni & PGE)							
Gaya	In and around Lakrahi and Ganjana villages	1:1000	2	-	-	-	Preliminary Exploration for Cr, Ni and PGE in and around this area detailed mapping covering an area of 2 sq km on 1:1000 scale was envisaged. Geologically, the exploration area lies in the northern part of Chhotanagpur Gneissic Complex (CGC). The variants of mafic-ultramafic rocks did not show any promising result as it indicated insignificant value of < 43 ppb of PGE. The Cr content showed a peak value of 3,200 ppm while that of Ni showed 700 ppm. SEM and EPMA studies were carried out for identification/characteriation of the PGM phases. However, no PGM phases were observed in any of the samples/rock types.

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Table – 3 (contd)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq. km)	No. of boreholes	Meterage		
Gold							
West Champaran	In the foothills of Siwalik Himalayas	-	100	-	-	-	Reconnaissance Survey (G4) for Placer Gold in the foothills of Siwalik Himalayas, has been carried out by large scale mapping of 100 sq km area, Panning of samples using donga and wooden pan have shown presence of fine gold flakes/grains (10-100 nos.) and gold dust in the pan concentrates of stream sediment, colluvial and pit samples. Analytical results of pan concentrates of orientation samples (20 nos.) for different size fraction viz., <2 mm to +60 mesh size, -60 to +80 mesh size, -80 to +100 mesh size and -100 mesh size showed Au value ranging from 0.07 to 2.41 ppm, 0.07 to 0.35 ppm, 0.13 to 1.83 ppm and 0.17 to 30 ppm respectively. Studies of gold grains/flakes collected from major river basins showed size variation ranging from 20 to 350µm, and were observed as flattened with extensive etching and gouging on surface with development of pits and grooves, which are also indicate considerable fluvial transport and reworking of the gold flakes along with sediment. Heavy mineral study of the pan concentrates showed presence of garnet, sillimanite, kyanite, magnetite, ilmenite, pyrite, rutile, tourmaline, zircon, apatite and monazite.
REE & RM							
Banka	In CGGC around Gobardaha Hathiyapur, Suiabatahan, Jeruapahari, Dhanauchi & Tindobha area	1:12500	100.0	-	-	-	Reconnaissance survey (G4) for REE and Rare Metals in this area has been carried out by LSM. Large-scale mapping on 1:12500 scale was carried out in an area of 100 sq km. Geologically, the study area is represented by OlderUnclassified Metamorphics / enclave suite, CGGC and Bihar Mica Belt. The Unclassified Metamorphic Group was seen comprised of granulites, amphibolite, sillimanite schist and mica schist which occur in the form of enclaves within CGGC and BMB. The REE - bearing minerals

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Table – 3 (contd)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq. km)	No. of boreholes	Meterage		
							were observed in the medium grained granites (allanite) intruded within the porphyritic gneiss around Village Tangeshwar and also the migmatite gneiss exposed around Amtua, Dhanauchi and Dhawana villages. In stream sediment samples the REE-bearing heavies were identified as allanite, monazite, apatite, xenotime and fluorite.
	Chandan block	1:2000	2	-	300.0	470	Preliminary exploration (G3) for REE and Rare Metals in Heth Chandan Block included detailed geological mapping of 2 sq km (1:2000 scale), auger drilling (300 m) and pitting/trenching (50 cu. m) Total 470 samples were generated from auger drilling, pits/trenches, petro-geochemical along with heavy mineral samples for chemical analysis. Besides, samples have also been collected for petrological, SEM-EDX and EPMA study. The majority of the area is covered by residual soil which has been divided into A, B, C-horizons. The A-horizon is present on top of the surface and consists of clay minerals, quartz, mica with few amounts of feldspar and magnetite. B-horizon consists of clay minerals, quartz, mica, feldspar with ferricrete and calcrete whereas C-horizon is weathered rock unit of migmatite/granite gneiss. Younger granite bands within granite gneiss are the most potential lithounits for REE mineralisation in the area Few pegmatite/quartz veins were observed to be injected within country rock i.e., granite gneiss. The heavy mineral studied under microscope reveals the presence of REE - bearing minerals like allanite, monazite and xenotime with other heavy minerals magnetite, ilmenite, zircon, tourmaline etc.
Banka	Dhawa block	1:2000	1.5	-	-	-	Preliminary exploration for REE and Rare Metals in Dhawa Block, Banka district, Bihar (G3): included Detailed geological mapping of 1.5 sq km on 1:2000

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Table – 3 (contd)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq. km)	No. of boreholes	Meterage		
							<p>scale, auger drilling (300 m) and pitting/trenching (50 cu m) was completed. A total of 485 geochemical samples were generated from auger drilling, pits/trenches, petro-geochemical and heavy mineral samples and submitted for chemical analysis. Besides, samples have also been collected for petrological, SEM-EDX and EPMA study. The heavy mineral study under microscope revealed the presence of REE - bearing minerals like allanite, monazite and xenotime with other heavy minerals viz.</p> <p>Reconnaissance Survey for REE and Rare Metals in and around Batesharthan, Kasri and Se of Pirpainti parts of Bhagalpur district, Bihar and Godda district, Jharkhand (G4): An area of 104 sq km was mapped on 1 :12500 scale of the study area in four blocks viz Block - I covering an area of 59 sq km, Block - II covering an area of 35 sq km, Block - III covering an area of 06 sq km and Block - IV covering an area of 04 sq km .The area exposed of granitic gneisses and granitoids of the Chhotanagpur Gneissic complex. The stream sediment samples were studied for heavy minerals which indicated the presence of magnetite, ilmenite, rutile, tourmaline, zircon, apatite, and biotite in 1st order streams. The mineralogical assemblages and morphology of heavy minerals did suggest acidic source. The analytical results of 57 bedrock samples showed that ÓREE ranged from 24.00 to 781 ppm in 21 granitic gneiss samples and ÓREE content in rocks of Dubrajpur Formation ranged from 92 ppm to 435 ppm in 18 samples.</p>
Nawada	Pichhli, Meghatari block	1:12500	-	-	-	-	<p>Reconnaissance Survey for Lithium and associated strategic minerals, REE, Rare Metal in Pichhli, Meghatari Area, Nawada district, Bihar and Koderma District, Jharkhand (G4):</p>

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Table - 3 (contd)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq. km)	No. of boreholes	Meterage		
							Geological mapping was carried out on 1:12500 scale, during which the previously demarcated rocks of Unclassified Metamorphics (Archean to Lower Proterozoic), Chottanagpur Gneissic Complex (Archean to Proterozoic), Bihar Mica Belt (Lower to Middle Proterozoic), younger granites and pegmatite group of rocks were observed. The pegmatites were observed to have emplaced along the joint and gneissosity planes of the granite gneiss of the Chottanagpur Gneissic Complex. The extension of the Pichhli pegmatite was targeted for by means of taking traverses followed by pitting and trenching. The pegmatite at Village Pichhli was seen to extend further south for about 300 m in length and 20 m width, trending N - S, dipping East, for which sampling was carried out. Apart from finding the extension of the pegmatite of Village Pichhli, 07 new pegmatite bodies were identified emplacing the granite gneiss and mica schist with length ranging from 100 to 300 m and width of 8 to 20 m of mappable scale, having the same trend as that of Pichhli pegmatite (N - S to NNE - SSW trending, dipping East.) The pegmatites were observed to contain economic minerals like mica, beryl, emerald, amazonite and lepidolite.
Munger	Barhulia-Thadi block	1:12500	100	-	-	-	Reconnaissance Survey for bauxite and associated strategic minerals (REE, Ga, Ge, Titanium) in Barhulia-Thadi Block, Munger District, Bihar (G4): An area of 100 sq km was covered by LSM (1:12500 scale) in the study area. The arenaceous as well as argillaceous metasediment of Munger Group were seen exposed in the area along with laterite, hard compact, sand, silt and clay of Jamui Formation and laterised sand and clay of Lalgarh

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Table – 3 (contd)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq. km)	No. of boreholes	Meterage		
							Formation. The development of laterite was observed in Khapra Pahar, Maira Pahar, Garhiya Pahra and Maira- Thadi area. The bauxitic or aluminous - rich laterites were observed in lateritic profile as small impertinence lenses or band and interestingly, more enrichment was observed at southern face. The extensive development of yellowish red soil with lateritic boulders and pinkish whitish clay around lateritic mounds was also observed. Out of 323, the analytical results of 65, of Pit and BRS samples were received. The analytical results showed that Value of TiO ₂ varied from 0.68 to 4.39%, SiO ₂ varied from 2.84 to 70.12%, Al ₂ O ₃ from 13.3 to 58.42%, Fe ₂ O ₃ from 1.34 to 27.64%, Ga values ranged from 9 to 82 ppm, values of Rb varied from 5 to 307 ppm, Sc from 9 to 36 ppm, Sr from 19 to 116 ppm and Y varied from 34 to 102 ppm respectively.
Rohtas	Pipradih- Bhurwa block	1:2000	1.5	-	-	-	Preliminary Exploration for Glauconitic Sandstone in Pipradih-Bhurwa Block, Rohtas District, Bihar (G3): Detailed mapping of 4 sq km area was carried out on 1:4000 scale. The area under investigation forms a part of the eastern extremity Upper Proterozoic Vindhyan sedimentary basin bounded by the Mahakoshal Group and Chhotanagpur Gneissic Complex in the south and Gangetic alluvium in the north and the east. The rocks observed within the area belonged to limestone of Fawn Limestone Formation and fine grained greenish grey sandstone intercalated with shale & quartz arenite of Glauconitic Sandstone Formation of Semri Group of Vindhyan Supergroup. A total of 700 m was drilled in 08 boreholes, out of which all 8 boreholes were drilled vertically up to 80±20 m depth. The glauconitic sandstone has been intersected in boreholes

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Table – 3 (contd)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq. km)	No. of boreholes	Meterage		
Bhagalpur	Lakshmipur North block	1:10000	7	-	-	-	BRPB-02, BRPB-04 & BRPB-08, while boreholes BRPB-03, BRPB-05 & BRPB-07 have intersected sea green/ khaki green shale in association with pinkish grey limestone. Analytical results of 25 bed rock samples indicated that K ₂ O% in 11 sandstone samples was >4% and in two samples K ₂ O% was >5% with maximum of 5.13%. Gondwana coal exploration under thick Gangetic alluvium in Lakshmipur North Block, northern extension of Hura Coalfield, Rajmahal Master Basin, Bhagalpur district, Bihar (G2): LSM (1:10000 scale) of 7 sq km has been completed and geophysical logging of 2,107.00 m has been carried out in four boreholes. A total of 3,714.50 m of drilling has been achieved in six boreholes (BRRBLN-1 to 6). The studied area was found entirely covered by thin layer of Gangetic Alluvium. The subsurface data acquired from the boreholes revealed occurrence of coal bearing Barakar Formation of appreciable thickness under the cover of younger Dubrajpur Formation, Rajmahal Formation and Alluvium in ascending order. The maximum intersected thickness of Alluvium, Rajmahal Formation, Dubrajpur Formation, Barakar Formation and Basement metamorphic as revealed from subsurface data were 101.90 m, 17.00 m, 28.80 m, 626.30 m and 8.30 m respectively. Four coal zones (Zone A to D in ascending order) were intersected between 97.70 m (BRRBLN-6) and 694.70 m (BRRBLN-3) depths within Barakar Formation. The thickness of individual seam zones ranged from 11.05 m (Zone-A, BRRBLN-6) to 136.70 m (Zone-B, BRRBLN- 2). Thickest coal seam section of 11.80 m (BRRBLN-4) was intersected at a roof depth of 638.60 m. The cumulative coal

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Table – 3 (contd)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq. km)	No. of boreholes	Meterage		
Bhagalpur	Hatmarwa block	1:10000	4.5	-	-	-	<p>thickness in individual boreholes varies from 40.60 m (BRRBLN-5) to 84.20 m (BRRBLN-1) with maximum 35 coal seam sections intersected in BRRBLN-1.</p> <p>General exploration for Gondwana coal under the cover of younger formation in Hatmarwa block, northern extension of Hura Coalfield, Rajmahal group of coalfields, Bhagalpur district, Bihar (G2): A total of 1,331 m of drilling were carried out in four boreholes (BRRBH-1A to 4). LSM (1:10000 scale) of 4.5 sq km was completed. The area was seen covered by thin layer of Gangetic Alluvium. The sub-surface data acquired from the boreholes revealed occurrence of coal-bearing Barakar Formation of appreciable thickness under the cover of younger Rajmahal Formation and Alluvium in ascending order. The maximum intersected thickness of Alluvium, Rajmahal Formation and Barakar Formation as revealed from sub-surface data was 47.50 m, 150.80 m and 815.10 m respectively. Four coal zones (Zone A to D in ascending order) were intersected between 256.00 m (BRRBH-4) and 875.95 m (BRRBH-1A) depths within Barakar Formation. The thickness of individual seam zones ranged from 41.40 m (Zone-A, BRRBH-1A) to 132.10 m (Zone-B, BRRBH-3). Thickest coal seam section of 16.00 m (BRRBH-4) was intersected at a roof depth of 733.25 m. The cumulative coal thickness in individual boreholes varied from 82.25 m (BRRBH-2A) to 105.90 m (BRRBH- 3).</p>
Coal Bhagalpur	Lakshmipur North block	1:10000	7.0	-	-	-	<p>In Bihar, a G2 level Gondwana coal exploration under thick Gangetic alluvium in Lakshmipur North block, northern extension of Hura Coalfield, Rajmahal Master Basin, Bhagalpur district was carried out. The investigation</p>

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Table – 3 (contd)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq. km)	No. of boreholes	Meterage		
							involved mapping of 7.0 sq km area on 1:10000 scale, geophysical logging of 2,107.00 m in four boreholes and a cumulative drilling of 3,714.50 m in six boreholes. The subsurface data acquired from the boreholes indicated occurrence of coal-bearing Barakar Formation of appreciable thickness. Four coal zones (Zone A to D in ascending order) were intersected between 97.70 m and 694.70 m depths within Barakar Formation. The thickness of individual seam zones ranged from 11.05 m (Zone-A) to 136.70 m (Zone-B). The thickest coal seam section of 11.80 m was intersected at a roof depth of 638.60 m in borehole BRRBLN-4. The cumulative coal thickness in individual Boreholes varied from 40.60 m to 84.20 m.
Bhagalpur	Hatmarwa North block	1:10000	4.5	-	-	-	During G2 level general exploration for Gondwana coal under the cover of younger formation in Hatmarwa block, northern extension of Hura Coalfield, Rajmahal group of coalfields, Bhagalpur district in Bihar, an area of 4.5 sq km was mapped on 1:10000 scale and a total of 1,331.0 m of drilling in four boreholes were completed. The sub-surface data of boreholes indicated occurrence of coal-bearing Barakar Formation of appreciable thickness under the cover of younger Rajmahal Formation and Alluvium. Four coal zones (Zone A to D in ascending order) were intersected between 256.00 m and 875.95 m depths within Barakar Formation. The thickness of individual seam zones ranged from 41.40 m (Zone-A) to 132.10 m (Zone-B). Thickest coal seam section of 16.00 m was intersected at a roof depth of 733.25 m in Borehole BRRBH-4. The cumulative coal thickness in individual boreholes varied from 82.25 m to 105.90 m.

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Table – 3 (concl'd)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq. km)	No. of boreholes	Meterage		
Bauxite							
Munger	Barhulia- Thadi block	1:12000	100.0	-	-	-	In Bihar, a G4 stage reconnaissance survey for bauxite and associated strategic minerals (REE, Ga, Ge, Titanium) in Barhulia - Thadi block, Munger district involved mapping of 100.0 sq km area on 1:12500 scale and 323 samples were collected. The development of laterite was noticed in Khapra Pahar, MairaPahar, GarhiyaPahra and Maira-Thadi area. The bauxitic aluminous-rich laterites were observed in lateritic profile and more enrichment observed at southern face. The analytical results of 65 Pit and bed rock samples showed that value of TiO_2 varied from 0.68 to 4.39%, SiO_2 from 2.84 to 70.12%, Al_2O_3 from 13.3 to 58.42%, Fe_2O_3 from 1.34 to 27.64%, Ga values ranged from 9 to 82 ppm, values of Rb varied from 5 to 307 ppm, Sc from 9 to 36 ppm, Sr from 19 to 116 ppm and Y varied from 34 to 102 ppm.
Potash/ Glaucinite							
Rohta	Pipradih Bhurwa block	1:4000	04	08	700	36	A G3 level preliminary exploration for glauconitic sandstone was carried out in the study area. All 8 boreholes were drilled vertically up to depth of 80 ± 20 m. The glauconitic sandstone was intersected in boreholes in three boreholes, while sea green/ khaki green shale in association with pinkish grey limestone was intersected in other 3 boreholes. Analytical results of 25 bed rock samples indicated K_2O >4% in 11 sandstone samples and in other two samples K_2O reported >5% with maximum of 5.13%.

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**Table – 4 : Mineral Production in Bihar, 2017-18 to 2019-20
(Excluding Atomic Minerals)**

(Value in ₹'000)

Mineral	Unit	2017-18			2018-19			2019-20 (P)		
		No. of mines	Quantity	Value	No. of mines	Quantity	Value	No. of mines	Quantity	Value
All Minerals		1		42744817	1		42858662	1		42985609
Limestone	'000t	1	43	24886	1	240	138931	1	556	265678
Sulphur [#]	t	-	7330	-	-	7050	-	-	6843	-
Minor Minerals [@]		-	-	42719931	-	-	42719931	-	-	42719931

*Note : The number of mines excludes minor minerals.**# Recovered as by-product from oil refinery.**@ Figures for earlier years have been repeated as estimates.***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 with their total installed capacities are furnished in Table - 5.

Table – 5 : Principal Mineral-based Industries

Industry/plant	Capacity ('000 tpy)
Cement	
Eco cement Durgawati Bhabhua	1000
Kalyanpur Cements Ltd, Banjari, Dist. Rohtas.	1000
Kanodia Cement Bhabhua Bangar Cement	1200
Shree Cement Ltd, Jasoia Aurangabad Grinding Unit, Aurangabad.	3600
Shree Cement Ltd, New Bihar Cement plant,Aurangabad	2000
UltraTech Cement plant, Patliputra	1900
Petroleum Refinery	
Indian Oil Corporation, Barauni.	6000

Note: Data, for fertilizer industries, is taken from Indian Fertilizer Scenario, FAI Statistics,.