Indian Minerals Yearbook 2022

(Part- I)

61st Edition

STATE REVIEWS (Maharashtra)

(ADVANCE RELEASE)

GOVERNMENT OF INDIA
MINISTRY OF MINES
INDIAN BUREAU OF MINES

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MAHARASHTRA

Mineral Resources

Maharashtra is the sole producer of fluorite (graded) and the principal producer of bauxite, kyanite, manganese ore, quartzite and sand (others). The principal mineral-bearing belts in Maharashtra are Vidarbha area in the east and Konkan area in the west. Important mineral occurrences are: **bauxite** in Kolhapur, Raigad, Ratnagiri, Satara, Sindhudurg & Thane districts; **china clay** in Amravati, Bhandara, Chandrapur, Nagpur, Sindhudurg & Thane districts; **chromite** in Bhandara, Chandrapur, Nagpur & Sindhudurg districts; **coal** in Nagpur, Chandrapur & Yavatmal districts; **dolomite** in Chandrapur, Nagpur & Yavatmal districts; **fireclay** in Amravati, Chandrapur, Nagpur & Ratnagiri districts; **fluorite** & **Shale** in Chandrapur district; **iron ore (haematite)** in Chandrapur, Gadchiroli & Sindhudurg districts; **iron ore (magnetite)** in Gondia district; **kyanite** in Bhandara & Nagpur districts; **laterite** in Kolhapur district; **limestone** in Ahmednagar, Chandrapur, Dhule, Gadchiroli, Nagpur, Nanded, Pune, Sangli & Yavatmal districts; **manganese ore** in Bhandara, Nagpur & Ratnagiri districts; **corundum & pyrophyllite** in Bhandara district; **quartz & silica sand** in Bhandara, Chandrapur, Gadchiroli, Gondia, Kolhapur, Nagpur, Ratnagiri & Sindhudurg districts; **quartzite** in Gondia & Nagpur districts; and **sillimanite** in Chandrapur district.

Other minerals that occur in the State are: **barytes** in Chandrapur & Gadchiroli districts; **copper** in Bhandara, Chandrapur, Gadchiroli & Nagpur districts; **felspar** in Sindhudurg district; **gold** in Bhandara & Nagpur districts; **granite** in Bhandara, Chandrapur, Dhule, Gadchiroli, Nagpur, Nanded, Nashik, Sindhudurg & Thane districts; **graphite & mica** in Sindhudurg district; **lead-zinc & tungsten** in Nagpur district; **marble** in Bhandara & Nagpur districts; **ochre** in Chandrapur & Nagpur districts; **silver** & **vanadium** in Bhandara district; **steatite** in Bhandara, Ratnagiri & Sindhudurg districts; and **titanium minerals** in Gondia & Ratnagiri districts (Table-1). As per the AMD of the Department of Atomic Energy India, Maharashtra state accounted for 5.50 million tonnes of ilmenite resources and 0.01 million tonnes of rutile resources. The coal reserves and resources along with the various coalfields located in the State are shown in Table - 2.

Exploration & Development

The details of exploration activities conducted by GSI during 2021-22 are furnished in Table - 3

Production

Maharashtra was the sole producer of Fluorite and Kyanite. Apart from Coal, Bauxite, Iron Ore, Manganese Ore, Sillimanite and Limestone are the principle minerals produced in Maharashtra State. The value of minor minerals' production is estimated as ₹ 5,475 crores for the year 2021-22. There were 73 reporting mines in 2021-22 in case of MCDR of minerals.

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 given in Table-5.

Table – 2 : Reserves/Resources of Coal as on 1.4.2023 : Maharashtra

(In million tonnes)

Coalfield	Proved	Indicated	Inferred	Total
Total	**8065**	**3425**	**1847**	**13336**
Wardha Valley	5009	1891	1441	8340
Kamptee	2046	938	107	3091
Umrer Makardhokra	308	–	161	469
Nand Bander	691	596	118	1405
Bokhara	10	–	20	30

Source: *Coal Directory of India, 2022-23.*

Table –1: Reserves/Resources of Minerals as on 1.4.2020: Maharashtra

Mineral	Unit	Reserves				Remaining Resources								Total resources (A+B)
		Proved STD 111	Probable		Total (A)	Feasibility STD211	Pre-feasibility		Measured STD331	Indicated STD332	Inferred STD333	Reconnaissance STD334	Total (B)	
			STD121	STD122			STD221	STD222						
Bauxite	'000 tonnes	18833	3573	16065	38472	15794	1981	21023	38931	32875	83354	-	193958	232430
Chromite	'000 tonnes	5	-	-	5	5	-	-	43	67	418	-	533	538
Copper														
Ore	'000 tonnes	-	-	-	-	-	-	-	-	5831	11774	150	17755	17755
Metal	'000 tonnes	-	-	-	-	-	-	-	-	58.36	99.18	0.54	158.08	158.08
Fluorite	tonne	222282	163860	-	386142	-	-	-	-	-	100000	-	100000	486142
Gold														
Ore (Primary)	tonne	-	-	-	-	-	-	-	-	-	1627000	-	1627000	1627000
Metal (Primary)	tonne	-	-	-	-	-	-	-	-	-	3.64	-	3.64	3.64
Graphite	tonne	-	-	-	-	-	-	-	-	-	1160000	-	1160000	1160000
Iron ore (Haematite)	'000 tonne	9464	2124	3653	15241	1672	6632	9191	81116	95545	59673	32474	286304	301544
Iron ore (Magnetite)	'000 tonne	481	65	32	578	329	24	267	-	-	590	-	1210	1788
Kyanite	tonne	210075	-	122314	332389	69621	4317	1210436	-	45000	1734241	-	3063615	3396004
Lead-zinc														
Ore	'000 tonnes	-	-	-	-	-	-	-	1967	6305	1000	-	9272	9272
Zinc metal	'000 tonnes	-	-	-	-	-	-	-	133.56	428.11	28.00	-	589.67	589.67
Limestone	'000 tonne	528636	137773	34940	701349	765567	235543	126780	69286	681879	1220928	7060	3107044	3808392
Manganese ore	'000 tonne	16537	835	361	17733	1891	15354	16304	-	5055	2585	113	41303	59036
Rare Earth Elements	tonne	-	-	-	-	-	-	-	-	-	2090	-	2090	2090

(contd)

Table - 1 (concld)

Mineral	Unit	Reserves				Remaining Resources								Total resources (A+B)
		Proved STD 111	Probable		Total (A)	Feasibility STD211	Pre-feasibility		Measured STD331	Indicated STD332	Inferred STD333	Reconnaissance STD334	Total (B)	
			STD121	STD122			STD221	STD222						
Sillimanite	tonne	174474	3655	3619	181748	15000	-	-	15000	64	516	-	30580	212328
Silver														
Ore	tonne	-	-	-	-	-	-	-	-	-	235000	-	235000	235000
Metal	tonne	-	-	-	-	-	-	-	-	-	0.23	-	0.23	0.23
Titanium	tonne	219623	64860	19068	303551	24172	-	-	1172214	846000	1938400	-	3980786	4284337
Tungsten														
Ore	tonne	-	-	-	-	-	-	-	4275000	5461250	386000	-	10122250	10122250
Contained WO_3	tonne	-	-	-	-	-	-	-	11287.8	7117.92	185	-	18590.72	18590.72
Vanadium														
Ore	tonne	-	-	-	-	276530	-	108100	-	-	-	-	384630	384630
Contained V_2O_5	tonne	-	-	-	-	1106.12	-	432.4	-	-	-	-	1538.52	1538.52

Figures rounded off

Table –3 : Details of Exploration Activities in Maharashtra, 2021-22

Agency/ Mineral/ District	Location Area/ Block	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq. km.)	No. of boreholes	Meterage		
GSI							
Platinum Group of Elements (PGE)							
Raigad	Khopoli area	1:12500	100	-	-	202	Reconnaissance survey in parts of toposheet 47F/5 was carried out with an objective to assess the PGE mineralisation in the picritic basalts and dykes present in the area. An area of 100 sq. km was mapped on 1:12,500 scale. The mapped area is a part of the Deccan Volcanic Province and comprises flow units belonging to Lower Ratangarh Formation, Upper Ratangarh Formation, Indrayani Formation and Karla Formation. Two generations of intrusives are present within the basalt wherein olivine gabbro is the oldest and the basaltic dykes are the younger ones. Out of the 101 BRS, 50 BRS showed Cu/Zr ratios of <1. The Cu/Zr ratios of these samples vary from 0.503 to 0.990. The MgO% in these 50 BRS varies from 3.39 to 26.08 with an average MgO content of 13.67%. The samples yielding high MgO values (greater than 12 %) and having Cu/Zr ratio less than 1 were targeted for channel cum chip sampling as well as for Pt-Pd analysis. Out of the 51 CS, 45 showed Cu/Zr ratios of <1. The Cu/Zr ratios of these samples vary from 0.592 to 0.953. The MgO% in these 45 CS vary from 6.12 to 25.56 with an average MgO content of 20.46%. To assess the PGE mineralisation in the area, 50 samples were analysed for Pt-Pd. The concentration of Pt varies from 7.6 ppb to 50 ppb while that of Pd varies from 5.0 ppb to 15.6 ppb. Eight samples show anomalous values of Pt, the highest being 50 ppb which is found in olivine gabbro. On the basis of Pt and Pd values in BRS and CS, a clustering of positive values is observed in Vadaval area. Hence an area of 2.36 sq. km. (2.15 km x 1.10 km) in Vadaval, comprising of olivine basalt is demarcated as a potential area for PGE mineralisation.

(contd)

Table – 3 (contd)

Agency/ Mineral/ District	Location Area/ Block	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq. km.)	No. of boreholes	Meterage		
Copper and associated base metal							
Gadchiroli	Chamorshi, Kurul, Bhiwapur area	1:12500	100	-	-	-	Large scale geological mapping of 100 sq. km area was completed on 1:12,500 scale along with geochemical and petrological samples collection. The investigation area is located in the southwestern part of Bastar Craton (BC). A NNW-SSE trending mineralised quartz reef located about 2 km north of Chamorshi town is approximately 1 km long and 30 to 50 m wide with a dip of 60° to 65° towards west. Mineralisation is visible in the form of pyrite, chalcopyrite and bornite along with secondary ores of malachite and azurite. The chemical analysis results of BRS from the Chamorshi quartz reef (n=45) indicated copper concentration ranging from 50 to 3700 ppm (Avg.= 655 ppm). Channel samples show copper values are ranging from 410 to 3100 ppm (Avg.= 1204 ppm). Overall analytical results indicate a higher concentration of copper in bed rock samples. Owing to the encouraging results of the bed rocks samples, the Chamorshi quartz reef with strike length of 1 km length and 30 to 50 m width is most potential mineralised reef in the area.
Chandrapur	Tambegadi – Pathari area	-	1.5	2	285	-	The Copper investigation (G3-stage) was carried out around Tambegadi and Pathari areas, Chandrapur District, Maharashtra with an objective to establish the copper and associated mineralisation. During FS 2021-22, detailed geological mapping of 1.5 sq. km. was covered around Tambegadi and Pathari blocks. The Bengpal gneiss in the area is feebly mineralised intermittently in the form of pyrite, galena and minor chalcopyrite. Two boreholes (MHCT-1, 2) with cumulative drilling of 285 m were completed in Tambegadi block. All the boreholes were planned at

(contd)

Table – 3 (contd)

Agency/ Mineral/ District	Location Area/ Block	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq. km.)	No. of boreholes	Meterage		
							60 m vertical depth of intersection and 200 m strike spacing. Boreholes MHCT-1, 2 have not intersected any significant mineralisation. Mineralisation is confined to 250 m x 120 m zone in the Tambegadi block within the ferruginised basement granite gneiss. Mineralisation intermittently occurs with diminishing nature in lateral and also depth extent within this zone. However, it has been observed from drill core analysis that the mineralisation is purely confined to the upper oxidative surficial level of not more than 40 m in both the borehole cores. Mineralisation in the subsurface is insignificant to almost non-existent. This has been confirmed by chemical analytical results of borehole core samples. Demarcation of clear zones was not possible in this case due to lack of proper concentration and lateral continuity along the strike.
Rare Earth Elements (REE) and Rare Metals (RM)							
Nagpur	Ghotitola-Warghat area	-	-	-	-	-	The lithounits mapped in the Ghotitola Warghat area includes basement gneiss (Tirodi biotite gneiss) overlained by rocks of Sausar Group i.e. Calc silicates and marble of Mansar Formation, Mica schist of Mansar Formation, Marble of Bichua Formation and foliated granite, pegmatite and quartz veins as intrusive. Number of simple pegmatite and a few complex zoned pegmatite veins has been mapped in the area. In the North West of Kharpada village complex zone pegmatite has been observed which shows different zones within pegmatite containing quartz with beryl crystal of 1 cm in diameter and 3 cm in length at the core and intermediate zone with pocket of mica books and wall zone with small grains mica and quartz. In the North of Warghat village small pegmatite vein (1 X 30 m

(contd)

Table – 3 (contd)

Agency/ Mineral/ District	Location Area/ Block	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq. km.)	No. of boreholes	Meterage		
							dimension) having quartz, K feldspar, muscovite books and big crystals of magnetite (up to 3 X 6 cm dimension) is observed in the contact with foliated granite. Petrological study of rock samples from this area has revealed the presence of allanite, apatite, monazite and zircon which may have contributed towards the relative high concentration of total REE in the rock. The Stream sediment samples collected from 1st order stream were panned and heavy minerals have been segregated from it. SEM studies have confirmed the presence of REE minerals such as monazite, Zircon, etc. Signatures of fluid migration are seen both in field and thin section study. The chemical analytical results of 35 numbers of bed rock samples are showing SREE ranging from 3.68 to 390.08 ppm. The chemical analytical results of 27 stream sediment samples out of 50 samples submitted are showing SREE ranging from 529.33 to 46644.99 ppm. Highest concentration of SREE in the stream sediment sample is observed at the North of Pauni village.
Bauxite							
Sindhudurg	Math Budruk area	1:12500	-	-	-	150	A G-4 stage investigation was carried out with an objective to assess the potentiality of bauxite occurrences. The work includes large scale mapping (LSM) on 1:12500 scale with collection of 100 nos. of bed rock samples and 50 nos. of pit samples. The area exposes small patches of metasedimentary rocks (hornblende schist) of Dharwar Supergroup as inlier, sediments of Kaladgi Supergroup (ortho-quartzite, sandstone and shale), basalts of Deccan Trap, laterite and/or aluminous laterite and bauxite. The Al_2O_3 content in BRS varies from 17.91% to 56.57 %

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Table – 3 (contd)

Agency/ Mineral/ District	Location Area/ Block	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq. km.)	No. of boreholes	Meterage		
							and correspondingly SiO_2 content varies from 1.3% to 22.81%. Gallium values range from 31 ppm to 76 ppm. The Al_2O_3 content in pit samples range from 19.67 % to 59.23% and SiO_2values range from 1.72% to 33.50%. Based on the Al_2O_3, SiO_2 and Fe_2O_3 value of bedrock and pit samples, laterite has been classified into ferruginous laterite, aluminous laterite and bauxite. Cumulative area of 10.36 sq. km and 34.68 sq. km have been delineated as potential for bauxite and aluminous laterite respectively. Bauxite is present as pockets as well as lenses in laterite. XRD and ore microscopic studies of representative samples collected from bauxite show that gibbsite is the dominant ore mineral with minor mineral like anatase, haematite and goethite.
	Kudopi block	1:4000	10	31	514	300	A collaborative work between GSI, Pune and DGM, Maharashtra was carried out in Kudopi block by detailed mapping (DM) of 10 sq. km. of lateritic terrain on 1:4000 scale and 514 m of drilling. Total 31 boreholes were drilled (by DGM, Maharashtra) on 400 x 400 m grid interval and 300 nos. of core samples were collected. The DM area exposes laterite/ aluminous laterite and at places bauxite. Laterite is present in the form of capping and most of which lie over the Deccan basalts which are mainly exposed in nala sections. Kaladgi sediments exposed in nala/road cutting sections and comprise quartz arenite/sandstone and shale. Analytical result of CS shows Al_2O_3 content from 19.93% to 55.67%. The analytical results of core samples indicate that zone/s of bauxite is intersected in 10 no. of boreholes out of 31 bore holes. The resource estimation for bauxite and aluminous laterite is under progress. The resource of aluminous laterite is calculated as

(contd)

Table – 3 (contd)

Agency/ Mineral/ District	Location Area/ Block	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq. km.)	No. of boreholes	Meterage		
							7.32 MT with an average grade of 33.79% Al_2O_3 and an average thickness of 2.27m. Besides, total 40.47 MT resources of aluminous laterite with an average grade of 29.03% Al_2O_3 and average thickness as 5.04m is also calculated separately by considering threshold value with minimum 20% Al_2O_3.
Coal							
Yavatmal	Lathi-Kesurli area Wardha Valley Coalfield	1:25000	80	-	1717.91	-	Large-scale mapping (1:25000) of 80 sq. km. area revealed that the area is covered by Motur Formation overlain by alluvium, river borne material and soil. The regional attitude of the bedding plane of sandstones varies from 110° to 130° with the dip varying between 7° to 10° towards SW. Four boreholes viz, WLK 1, WLK 2B, WLK 3A and WLK 4 have been drilled in the Lathi – Kesurli area, and including borehole geophysical logging of 1717.91 m in three boreholes. The Motur Formation is encountered in all boreholes, represented by greenish grey to variegated argillaceous dominant unit (mudstone) with interlayered sequence of an interbanded sandstone, heterolith (sand/mud dominated), grey shale and carbonaceous shale. The Barakar Formation is represented by fine to coarse grained, white to dark grey sandstone with interlayered sequence of mudstone, sand/mud dominated heterolith, grey shale, carbonaceous shale and coal. The contact between Motur Formation and Barakar Formation is gradational and considered at last appearance of chocolate brown to brownish grey coloured lithounit. The Regional Barakar coal seam is intersected in borehole number WLK-1 at a depth from 680.67 to 701.33 m with cumulative thickness of 20.66 m, in WLK-2B at a depth from 806.21 m to 826.78 m with cumulative thickness of 20.70 m

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Table – 3 (concld)

Agency/ Mineral/ District	Location Area/ Block	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq. km.)	No. of boreholes	Meterage		
							and in WLK-3A at a depth from 813.48 m to 831.85 m with a cumulative thickness of 18.37 m respectively. As the borehole WLK-4 is located within, the depo-center i.e. zone of -50 m gal as indicated by the Bouguer gravity anomaly, coal seam has not been encountered in this borehole up to final depth of 900 m. Quality wise the coal seam is non-coking ranging grade from G4 to G14. Total 617.02 million tons of inferred coal resources for "Thick seam and thin seam" has been estimated under reconnaissance category with in a depth range of 600 m – 1200 m.

Table – 4 : Mineral Production in Maharashtra, 2019-20 to 2021-22 (Excluding Atomic Minerals)

(Value in ₹ '000)

Mineral	Unit	2019-20			2020-2021			2021-22 (P)		
		No. of mines	Quantity	Value[$]	No. of mines	Quantity	Value[$]	No. of mines	Quantity	Value[$]
All Minerals		**73**		**82465290**	**72**		**74869659**	**73**		**73947908**
Coal	'000t	-	54746	-	-	47435	-	-	56528	-
Bauxite	t	15	595562	401196	12	471068	332108	12	640345	390285
Iron Ore	'000t	13	1131	1340244	11	1249	1732866	11	1958	6471874
Manganese Ore	t	20	720518	6096443	27	646513	6485961	26	731730	8445151
Fluorite (graded)	t	1	1315	8844	1	1052	8018	1	1237	8831
Kyanite	t	4	3098	11848	3	1145	1854	3	1458	3077
Sillimanite	t	2	13221	37903	1	11110	13987	-	3432	7973
Limestone	'000t	18	14614	3475512	17	13943	3476065	20	15757	3869717
Sulphur[#]	t	-	55659	-	-	41375	-	-	53165	-
Minor Minerals		-	-	71093300	-	-	62818800	-	-	54751000

Note : *The number of mines excludes Fuel and Minor minerals.*

$ Excludes the value Fuel minerals.

 # Recovered as by-product from oil refinery.

Table – 5 : Principal Mineral-based Industries

Industry/plant	Capacity ('000 tpy)
Abrasives	
Grindwell Norton Ltd, Mora, Uraon, Raigad	NA
Aluminium Products	
Hindalco, Recycling Plant, Taloja	50
Hindalco, Mouda, Distt. Nagpur	30 (rolling mill) 14 (conductor rod)
Asbestos Products	
Everest Building Products Ltd, Mulund	NA
Hyderabad Industries Ltd, Musarane	60.0
Newkem Products Corp, Mumbai	9.9
Swastik Industries, Pune	NA
Cement	
ACC Ltd, Ghugus, Distt. Chandrapur	3800
Ambuja Cement Ltd, (Maratha Cement Works), Upparwahi, Chandrapur	4750
India Cement, Vaijnath, Parli, Distt Beed (G)	1100
JSW Cement, Dolvi, Distt. Raigad	1000 (slag cement)
Manikgarh Cement, (I) Korpana, Distt. Chandrapur	2000
Manikgarh Cement, (II) Korpana, Distt. Chandrapur	4000
Murli Industries Ltd, Naranda, Distt. Chandrapur.	3000
Orient Cement, Jalgaon (G)	2000
Birla Corpn. Ltd, Butibori, Distt. Nagpur (G)	500
UltraTech Cement, Hotgi, Distt. Solapur (G)	4000
UltraTech Cement Ltd, Awarpur, Distt. Chandrapur	6000 4500 (Clinker)
UltraTech Cement Ltd, Ratnagiri Works (G), Distt. Ratnagiri	480
UltraTech Cement Ltd, Nagpur	2000
Zuari Cement, Solapur	1200
Ceramics	
H & R Johnson (India) Ltd, Pen	154.8
Joglekar Refractory & Ceramics Pvt. Ltd, Rabale, Distt. Thane.	364.8
Jyoti Ceramic Industries Pvt. Ltd, Satpur	0.16 (Ref. coating) 1.0 (Ceramic Product)
NITCO Tiles Ltd, Raigad	66 lakh (sq. m)
Chemicals	
Borax Morarji Ltd, Ambarnath	25 (borax) 8 (boric acid)
Century Rayon, Shahad, Distt. Thane	25 (rayon yarn) 20 (caustic soda)

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Table - 5 (contd)

Industry/plant	Capacity ('000 tpy)
Foseco India Ltd, Sanswadi	15 (foundry chemicals)
Gargi Huttenes Albertus Pvt.Ltd, Kukshet,Navi Mumbai	12 (Foundary Chemical)
National Peroxide Ltd, Kalyan, Distt Thane.	1.4 (sodium per borate)
Star Earth Minerals Pvt. Ltd, Tanjola, Panvel	0.6 (zirconium basic carbonet)
Sudarshan Chemical Ind. Ltd, Roha, Distt Raigad	5.2 (pigments)
Tecil Chemical & Hydro Power Ltd, Mumbai.	30 (calcium carbide)
Zirconium Chemicals Pvt. Ltd, Taloja, Distt. Raigad	0.3 (zirconium salt)
Copper Wire Rods	
HCL, Copper project, Taloja	60
Electrode	
GEE Ltd, Thane.	4.02 (Mill. m)
Weldfast Electrode Pvt. Ltd, Nagpur	15.9
Weldstrong Electrode Pvt. Ltd,	0.90
Butibori, Hingna Nagpur	0.15 (Welding flux)
Electrolytic Manganese Dioxide	
MOIL, Dongri Buzurg, Distt. Bhandara	1
Fertilizers	
Balaji Fertilisers Pvt. Ltd, Nanded	20 (SSP)
Basant Agro Tech (India) Ltd, Barshi Takli, Akola	120 (SSP)
Basant Agro Tech (India) Ltd, Jalgaon.	132 (SSP)
BEC Fertilizer (Unit of Bhilai Engg. Corpn. Ltd,), Gunjakheda, Wardha	66 (SSP)
Bharat Agri Fert & Realty Ltd, Kharivali, Thane	132 (SSP)
Coromandel International Ltd, (Formerly, Liberty Phosphate Ltd,), Pali, Raigad	66 (SSP)
Deepak Fertilizers & Petrochemical Corporation Ltd, Taloja	230 (ANP)
Rama Krishi Rasayan (A division of Rama Phosphates Ltd), Loni Kalbhor, Pune	132 (SSP)
Shiva Global Agro Industries Ltd, (Formerly, Shiva Fertilizers Ltd), Nanded	120 (SSP)
Shri Bhavani Mishra Fertilizers Pvt. Ltd, Vazirabad, Nanded	30 (SSP)
Shree Pushkar Chems & Fertiliser Ltd, Lote Porshuram, Khed, Ratnagiri	100 (SSP)
Zuari Fertilizers and Chemicals Ltd, Mahad, Distt. Raigad	216 (SSP)

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Table - 5 (contd)

Industry/plant	Capacity ('000 tpy)
RCF, Trombay	330 (Urea) 690 (Complex)
RCF, Thal, Distt. Raigad	2000 (Urea)
Pesticides	
Hindustan Insecticides Ltd, Rasaini, Distt. Raigad	13.2
Paint	
Jespco, Irechwara, Miraj	8 (Zircon Paint)
Glass	
Ace Glass Containers Ltd, Pimpri, Distt. Nashik	NA
Empire Industries Ltd, (Vitrum Glass), Vikroli, Mumbai	37.5
Hindustan National Glass & Industries Ltd, Nashik	320 TPD
Iron & Steel	
JSW Ispat Steel Ltd, Dolvi, Raigad	5400 (Sinter) 1600 (Sponge iron) 5040 (Crude/Liquid steel) 3500 (pig iron)
Lloyds Steel Ltd, Wardha	600 (HRC) 350 (CRC) 250 (GPC)
Indian Seamless Steel & Alloys Ltd, Jejuri, Distt. Pune	450 (seamless tubes) 350 (alloy & carbon steel)
Sunflag Iron & Steel Co. Ltd, Warrthy, Mohadi	262 (sponge iron) 250 (Pig iron) 250 (sinter) 505 (Finished steel)
Uttam Galva Metallics Ltd, Bhugaon,Wardha	886.95 (Sinter) 525 (pig iron)
Lime	
Hetendra Lime Products, Rajur, Wani	5.5
Swastic Lime Factory, Rajur, Wani	5.5
Swastic Mineral & Lime Industries, Rajur,Wani	5.5
Pellet	
Amba River Coke Ltd, Dolvi, Pen	4000
Pig Iron	
Ispat Metallics India Ltd, Dolvi, Raigad.	2000
Lint Export Pvt. Ltd, Chincholi, Mohol	0.25

(contd)

Table - 5 (concld)

Industry/plant	Capacity ('000 tpy)
Tata Metaliks Ltd, (Usha Ispat Ltd, Redi), Distt Sindhudurg.	300
Sona Alloys Pvt. Ltd, Satara.	314
Usha Ispat Ltd, Redi.	300
Uttam Galva Metallics Ltd, Bhugaon, Wardha	225 389.95 (Sinter)
Gopani Iron Ore Ltd, Chandrapur.	144 75 (Semi-Finished Steel)
Lloyds Metals & Engineers, Ghugus, Chandrapur.	300
JSW Steel Salav Ltd, Welspun Max Steel Ltd, (formerly Vikram Ispat), Distt. Raigad	900
Ferroalloys	
Chandrapur Ferro Alloys Plant (SAIL), (formerly Maharashtra Elektrosmelt Ltd,), Chandrapur.	100
Minex Metallurgical Co. Ltd, Nimji, Kalmeshwar	0.250 (Fe-Ti)
Natural Sugar & Allied Industries Ltd,	16.5 (Si-Mn)
Sai Nagar, Ranjani, Distt. Osmanabad	16.5 (H. C.Si-Mn)
SRC Chemical Pvt. Ltd, Borieandi, Daund, Pune	6.0
Welspun Maxsteel Ltd, Salav, Raigad.	90
Refractory	
ACE Refractories, Nagpur.	60
NECO Ceramics	NA
Ceraflux India Pvt. Ltd,	2.7 (Ref. Die releasing Agent)
Gokul Shirgaon, Kolhapur	2.7 (Ref. Coating)
Calderys India Refractories Limited Nagpur Refractory Works, Ruikhairi Butibori, Nagpur	58 (castable)
Joglekar Refractories Pvt. Ltd,	4.8 (Ramming Mass)
Rabale, Navi Mumbai	0.54 (Chrome Ore +60) 0.15 (Chrome Ore -60) 0.15 (DBM Magnetite)
Petroleum Refinery	
BPCL, Mumbai.	12000
HPCL, Mumbai.	7500

(G) : *Grinding units.*

Note: *Data, for fertilizer and cement industries besides their respective websites, have been taken from Indian Fertilizer Scenario, FAI Statistics and Survey of Cement Industry & Directory, respectively.*