

MCDR INSPECTION REPORT

1	Name of Inspecting officer:	Madhavrao Sabre
2	Designation	Senior Mining Geologist
3	Accompanying mine official with Designation	Dilip R Dekate (Mines Manger), Shri Nikhil Kale (Geologist)
4	Date of Inspection	07-12-2023
5	Previous Inspection date	02-03-2021

Part-I: General

S.No	Particulars	Details
1	Name of the Mine	Palaspani Manganese Ore Mine
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	Total Lease Area - 54.129 Ha Non Forest Area - 54.129 Ha Forest Area - 00.00 Ha
3	Mine code	40MPR08001
4	IBM Registration Number under rule 45 of MCDR,1988	IBM/5270/2011
5	Name of the lessee, Address, Phone, email and fax number	Name - Krishnaping Alloys Ltd. Address -Pinnacle Corporate Park, A-402, Next to Trade Center, BKC , Bandra East, Mumbai, 400051 Phone - 9821030609 Email -krishnapinggroup@rediffmail.com
6	Village	Palaspani
7	Taluka/Mandal	Sausar
8	District	Chhindwara
9	Pin code	480106
10	State	Madhya Pradesh
11	Post Office	Rampeth
12	Nearest Police Station	Sausar
13	Nearest Railway Station	Ramakona
14	Date of opening of Mine	16/05/1996
15	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Name - Rajendra Gulabchand Rajput Address- B-22,Flat No-404, Saraf Choudhary Nagar, Thakur complex, Kandhawali East, Mumbai, Suburban, MH, 4000101 Phone - 9920230609 Email- rajedrarajput@gmail.com Date of Appoitment- 17/07/2023
16	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Name - Rajendra Gulabchand Rajput Address- B-22,Flat No-404, Saraf Choudhary Nagar, Thakur complex, Kandhawali East, Mumbai, Suburban, MH, 4000101 Phone - 9920230609 Email- rajedrarajput@gmail.com Date of Appoitment- 17/07/2023
17	Name of the Mine Manager with Address, phone, email, fax number and date of appointment in mines	Name - Dilip Ramkrishna Dekate Address- Plot No-16 Royal Residency Flat No -201 Maske Layout Shanti Society Narendra nagar Dist- Nagpur 440015 Phone -9145202342 Email - minesmanager@krishnaping.in Date of Appoitment- 01/09/2022

18	Name of the Mining Engineer, Qualification and total experience with address, phone, email, fax number and date of appointment in the mine	Name –Aashutosh Bhakne Address- At post-Rampeth, Tah-sausar, Dist-Chhindwara Phone-7566516685 Email- ashutoshbhakne@gmail.com Date of Appointment-01/07/2023
19	Whether Geologist (with details of appointment) and Mining Engineer appointment in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Name -Nikhil Kale Address-At. Post-Bhidi, Tah-Deoli, Dist-Wardha Phone - 9096966925 Email - Nikhil.k2692@gmail.com Date of Appointment- 05/06/2023
20	Date of Approval of Mine Plan/Modified Mine Plan with five-year period and specific condition in approval letter, if any.	Date -22/10/2021 Period 5 Year From-01/04/2021 To 31/03/2026
21	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five- year period and specific condition in approval letter, if any.	Date 22/03/2013 Period 5 year From-01/04/2011 To 31/03/2016
22	Mineral(s) granted in lease and approved for Mining	Manganese Ore
23	Method of Mining (Opencast, Underground)	Opencast & Underground
24	Category (Fully Mechanized, Others or Manual)	A-Mechanized
25	Captive/Non-Captive	Non-Captive

Details about Mining Plan/ Review of Mining Plan etc

a) Letter No. and date of approval of mining plan	:	MP/CNW/Mn/MPLN/MOD-15/2021-22/6144 Dated- 22/10/2021
b) Letter No. and date of approval of review of mining plan	:	MP/CNW/Mn/MPLN/MOD-15/2021-22/6144 Dated- 22/10/2021
c) Condition while approving the MP/ RMP/ modification	:	Attached &
d) Period of mining plan/ mining scheme in force :	:	01/04/2021 To 31/03/2026

PART III-MCDR Report details.

1. **Scientific Mining:** Compliance of proposals of approved mining plan/scheme of mining. (Duplication of information in existing TMIS data sheets and draft write up has been avoided.)

Exploration

S.N.	Item	Proposals	Actual Work	Remarks
1a	Backlog of previous year (before 2022-23)	00	02	
1b	Exploration over lease area for Geological axis 1 or 2 (for 2022-23)	15	04	
1c	Exploration Agency & Expenditure in Lakh Rupees during the year (for 2022-23)	D. M. Exploration 62.50 Lakhs	D. M. Exploration 07.43 Lakhs	
1d	Balance area to be explored to bring the Geological axis in 1 or 2. (for 2022-23)	26.839 Ha.	07.664 Ha.	
1e	Balance reserves as on 01.04.2023		Reserves(111, 121,122) : 9766069 T Resources (221, 222) : 314039 T after recent re estimation for Modification in Mining Plan	
1f	General remarks of Inspecting officer on geology, exploration etc.	The geological succession in and around the lease area is indicated below: Pegmatite and quartz intrusive Mica schist with quartzite bands Manganese ore Quartz / Gondite Dolomite Unconformity Base not known Pegmatite and quartz intrusive, manganese ore bands and mica schist and dolomite are exposed within the lease area. These litho units are		

		described below: Pegmatite and quartz intrusive: The host rock mica schist is intruded by pegmatite and quartz intrusives. Pegmatite is pinkish in colour, coarse grained. The pink colour is due the presence of orthoclase feldspar and quartz is white in color. Pegmatite is exposed in central part of the lease in north direction. Mica Schist with quartz bands: Mica schist is composed of fine-grained flakes of white mica known as sericite along with black mica called biotite and chloritic material. It is exposed in the southern part of the lease area. Few quartz bands occurs within mica schist. Manganese Ore: Manganese ore is dark grey / black in colour. It is hard and compact in nature. It occurs as four distinct bands within the lease area. These bands are separated by partings of mica schist. The manganese ore body having width of around 8 meters and approximate length of 1300 meters. The manganese ore bands strikes in E-W direction and dips steeply toward south with the amount of dip varying from 65 to 85 degrees. The manganese ore is high grade with Mn content varying from 23.00 to 51.26 per cent. Dolomite (minor mineral): Dolomite is double carbonate of calcium and magnesium is exposed in the northern part of the lease area. It is light grey in colour and occurs as small lenses / elliptical bodies. Lessee has taken up exploration, and this year exploration from underground is also going on.
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2. Development (FY 2022-23)

S.N.	Item	Proposals	Actual Work	Remarks
2a	Location of Development w.r.t. lease area	21°43'22.24" to 21°43'22.93" & 78°41'19.48" to 78°47'21.68"	21°43'22.24" to 21°43'22.93" & 78°41'19.48" to 78°47'21.68"	At some places pit developed outside the lease area. Violation pointed.
2b	Separate benches in topsoil overburden and mineral (Rule 15)	Not Proposed	Not Proposed	
2c	Stripping ratio or ore to OB ratio	Not Proposed	Not Proposed	
2d	Quantity of topsoil generation in m3	Not Proposed	Not Proposed	
2e	Quantity of overburden generation in m3	5476.00 Tons.	1738.00 Tons.	
2f	General remarks of Inspecting officer on development of pit w.r.t type of deposit etc.	At present development work is done for underground mining.		

3. Exploitation FY 2022-23

S. N.	Item	Proposals	Actual Work	Remarks
3a	Number of pits proposed for production	Not Proposed	Not Proposed	
3b	Quantity of ROM mineral production proposed	1428.00 Tons.	1505.00 Tons.	From U/G
3c	Recovery of Salable/usable minerals from ROM production	1428.00 Tons	1368.00 Tons	
3d	Quantity of mineral reject generation	00.00 Tons	137.00 Tons	
3e	Grade of mineral reject generation and threshold value declared	As per threshold value	Below threshold value of Mn ore.	
3f	Quantity of sub-grade mineral generation	Not Proposed	Not Proposed	

3g	Grade of sub-grade mineral generation	Not Proposed	Not Proposed	
3h	Manual/Mechanized method adopted for segregation from ROM	Manual	Manual	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Not Proposed	Not Proposed in reporting year.	
3j	Provision of drilling & blasting in mineral benches	Not Proposed	Not Proposed in reporting year.	It is an underground Mine, Drilling for roof bolt and cable bolting is done regularly.
3k	Provision of mining machineries in mineral benches	Not Proposed	Not Proposed in reporting year.	It is an underground Mine
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Not Proposed	Not Proposed	It is an underground Mine
3m	Total area covered under excavation /pits (Ha.)	Not Proposed	28.05 Ha.	
3n	Ore to OB ratio for the pit/mine during the year	Not Proposed	Not Proposed	It is an underground Mine
3o	Total area put in use under different heads at the end of year	42.795 Ha.	42.710 Ha.	
3p	Production of ROM mineral during last five-years period, as Applicable	2018-19 - 74145 2019-20 - 67905 2020-21 - 96344 2021-22 - 0 2022-23 - 1428	2018-19 - 2875 2019-20 - 7120 2020-21 - 3897 2021-22 - 00 2022-23 - 1505	2018-19 to 2020-21(From Opencast) & 2021-22 to 2022-23 (From Underground)
3q	General remarks of inspecting officer on method of mining etc.	Presently production is done from U/G mining and dump mining only. It was proposed to produce 39960 T of Mn ore from dump working but only 19022.265 T of Mn ore was produced, for which Violation issued.		

4. Solid Waste Management-Dumping (FY2022-23)

S.N.	Item	Proposals	Actual Work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32,33)	Not Proposed	Not Proposed	It is an underground Mine
4b	Location of topsoil, OB & mineral reject dumps	21°43'17.50"N_78°46'49.30"E 21°43'30.70"N_78°47'06.50"E 21°43'22.80"N_78°47'24.00"E	21°43'17.50"N_78°46'49.30"E 21°43'30.70"N_78°47'06.50"E 21°43'22.80"N_78°47'24.00"E	
4c	Number of Dumps within lease area and outside lease area	-	Not proposed in reporting year.	
4d	Location of Dumps w.r.t. ultimate pit limit (Rule 16)	N/A	N/A	
4e	Number of Active & Alive dumps	Old Mineral Dump	Old Mineral Dump	
4f	Number of dead dumps	Dump No.01 Dump No. 02 Dump No. 03	Dump No.01 Dump No. 02 Dump No. 03	
4g	Number of dumps established	Waste Dump No.01	Waste Dump No.01	

4h	Whether Retaining wall or garland drain all along dumps are there	Retaining wall- 100 Garland drain- 100	Retaining wall- 138 Garland drain- 100	
4i	Length of Retaining wall or garland drain all along dump	Retaining wall- 100 Garland drain- 100	Retaining wall- 138 Garland drain- 100	
4j	Number of settling ponds	Not Proposed	01 Nos. settling tank constructed during the reporting year.	
4k	Specific comments of inspecting officer on waste dump management	At some places dumping is done outside the lease area. For which violation issued.		

5. Solid Waste Management-Backfilling (FY 2022-23)

S.N.	Item	Proposals	Actual Work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Not Proposed	Not Proposed	
5b	Area under backfilling of mined out area	Not Proposed	0.5 Ha area	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Not Proposed	Not Proposed	
5d	Total area fully reclaimed & rehabilitated (Ha)	Not Proposed	Not Proposed	
5e	General remarks of inspecting officer on backfilling, reclamation etc	Backfilling of open pit is done by backfilling 0.5 Ha area.		

6. Progressive Mine Closure Plan(FY 2022-23)

S.N.	Item	Proposals	Actual Work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly-Rule 23E (2). Details should be given in the format as given in Annexure-20	Yes	Submitted on time.	
6b	Area available for rehabilitation (Ha)	Not Proposed	Not Proposed	
6c	Afforestation done (ha)	0.01 Ha.	0.01 Ha.	
6d	No. of saplings planted during the year	200 Nos.	250 Nos.	
6e	Cumulative no. of plants	5150 Nos.	5150 Nos.	
6f	Any other specific method of rehabilitation	Not Proposed	Not Proposed	
6g	Cost incurred on watch & care during the year	Rs 1500000/-	Rs 1585447/-	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L X B X D).	Backfilling (L x B x D) (147m x 147m x 8.60m)	Backfilling (L x B x D) (65m x65m x 8.37m)	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Void filled by waste/tailings.	186450.00 M3	35363.00 M3	
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on the backfilled area.	Not Proposed	Not Proposed	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir.	Not Proposed	Not Proposed	

6l	Compliance on reclamation and rehabilitation by backfilling (v) Any other specific means	Not Proposed	Not Proposed	
6m	Compliance of Rehabilitation of waste land within lease (i) Afforestation	Not Proposed	Not Proposed	
6n	Compliance of Rehabilitation of waste land within lease (ii) Area rehabilitated (ha) Method of rehabilitation	Not Proposed	Not Proposed	
6o	Compliance of Rehabilitation of waste land within lease (iii) Method of rehabilitation	Not Proposed	Not Proposed	
6p	Compliance of Environment monitoring (core zone & buffer zone)	Measuring on Quarterly basis.	Measuring on Quarterly basis.	
6q	General remarks of inspecting officer on PMCP compliance & progressive closer operations	In the reporting year backfilling is done in 35363.00 M3 area.		

7. Mineral Conservation(FY 2022-23)

S.N.	Item	Proposals	Actual Work	Remarks
7a	ROM mineral dispatch or grade wise sorting within lease area	Below 25% Mn 25% to below 35% Mn 35% to below 46% Mn 46% and above Mn	Below 25% Mn 25% to below 35% Mn 35% to below 46% Mn 46% and above Mn	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Manual	Manual	
7c	Different grade of mineral sort out at mine	Below 25% Mn 25% to below 35% Mn 35% to below 46% Mn 46% and above Mn	Below 25% Mn 25% to below 35% Mn 35% to below 46% Mn 46% and above Mn	
7d	Any beneficiation process at mines	beneficiation process with Mineral Recovery Plant	The feed material after washed from scrubber is passed on to the vibrating screen having provision of 5 different sizes and drawn through conveyors. Then the course materials are subjected to manual sorting for beneficiation and fine materials of size 3mm to 12 mm are sent to gravity separator by jiggling.	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Beneficiation plant is there in Mine. Sorting is done by manual means.		

8. Environment(FY 2022-23)

S.N.	Item	Proposals	Actual Work	Remarks
8a	Separate removal and utilization of topsoil (Rule32)	Not Proposed	Not Proposed	
8b	Concurrent use or storage of topsoil	Not Proposed	Not Proposed	
8c	Separate dumps for overburden waste rock, rejects and fines (Rule 33)	Not Proposed	Not Proposed	
8d	Use of overburden, waste rock, rejects and fines dump for restoring the land to its	2.16 Ha.	0.43 Ha.	

	original use			
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not Proposed	Not Proposed	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Yes done	Yes done.	
8g	Survival rate	80 %	70 %	
8h	Water sprinkling on roads to control airborne dust	Yes	Yes done regularly.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mine area	During the reporting year 2022-23, 250 saplings have been planted.		

9. Compliance of Rule 45 (2022-23)

S.N.	Item	Comments	Remarks																																																				
9a	Status of submission of monthly and Annual returns	submitted monthly and Annual returns regularly on time.																																																					
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	(i) Graduate Mining Engineer 2 (ii) Diploma Mining Engineer 5 (iii) Geologist 1 (iv) Surveyor 1 (v) Other administrative and technical supervisory staff 78 = Total: 87																																																					
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Mining – 28.0500 Mineral Storage – 3.000 Mineral Beneficiation plant – 0.6000 Roads – 1.2000 Infrastructure (Workshop, administrative building etc.) – 2.000 OB/waste dump – 6.860 Others – 0.650 Total area put to use – 42.710 Excavated area reclaimed – 1.59																																																					
9d	Scrutiny of Annual return on afforestation	Description Within lease area i) Number of trees planted during the year 250 ii) Survival rate in percentage 90 % iii) Total no. of trees at the end of the year 225																																																					
9e	Scrutiny of Annual return on mineral reject generation (Grade & Quantity)	Nil																																																					
9f	Scrutiny of Annual return on ROM stock and/or grade ore	2. Production and Stocks of ROM ore at Mine-head <table border="1"> <thead> <tr> <th>Category</th> <th>Opening stock</th> <th>Production</th> <th>Closing stock</th> </tr> </thead> <tbody> <tr> <td>(a) Open Cast workings</td> <td>8921.000</td> <td>0.000</td> <td>0.000</td> </tr> <tr> <td>(b) Underground Workings</td> <td>0.000</td> <td>1505.000</td> <td>0.000</td> </tr> <tr> <td>(c) Dump workings</td> <td>460100.000</td> <td>0000</td> <td>362900.000</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Grades**</th> <th>Opening stock at mine-head</th> <th>Production</th> <th>Despatches</th> <th>Closing stock</th> <th>EMP(₹-Tonne)</th> </tr> </thead> <tbody> <tr> <td>(i) Ore</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(a) Below 25% Mn</td> <td>4504.009</td> <td>19581.000</td> <td>7202.185</td> <td>16882.824</td> <td>3931.51</td> </tr> <tr> <td>(b) 25% to below 35% Mn</td> <td>5221.860</td> <td>15718.000</td> <td>8950.820</td> <td>11989.040</td> <td>6067.41</td> </tr> <tr> <td>(c) 35% to below 46% Mn</td> <td>5197.325</td> <td>970.000</td> <td>2194.000</td> <td>3973.325</td> <td>15067.18</td> </tr> <tr> <td>(d) 46% and above Mn</td> <td>8918.085</td> <td>398.000</td> <td>675.260</td> <td>8640.825</td> <td>21073.31</td> </tr> </tbody> </table>	Category	Opening stock	Production	Closing stock	(a) Open Cast workings	8921.000	0.000	0.000	(b) Underground Workings	0.000	1505.000	0.000	(c) Dump workings	460100.000	0000	362900.000	Grades**	Opening stock at mine-head	Production	Despatches	Closing stock	EMP(₹-Tonne)	(i) Ore						(a) Below 25% Mn	4504.009	19581.000	7202.185	16882.824	3931.51	(b) 25% to below 35% Mn	5221.860	15718.000	8950.820	11989.040	6067.41	(c) 35% to below 46% Mn	5197.325	970.000	2194.000	3973.325	15067.18	(d) 46% and above Mn	8918.085	398.000	675.260	8640.825	21073.31	
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9g	Scrutiny of Annual return on sale value, Ex. Mine price & production costs	Sl. No. Item Cost per tonne (₹) (i) Direct Cost 2794.25 (a) Exploration 28.43 (b) Mining 2765.82 (c) Beneficiation(Mechanical Only)0.00 (ii) Over-head cost 297.80 (iii) Depreciation 485.59 (iv) Interest 376.91 (v) Royalty 177.36 (vi) Payments made to DMF 53.18 (vii) Payments made to NMET 3.55																																																					

		(viii) Taxes 173.30 (ix) Dead Rent 0.00 (x) Others (specify) 0.00 Total 4361.94	
9i	Scrutiny of Annual return on Fixed assets	Value of Fixed Assets* (₹ 156420687)	
9k	Scrutiny of Annual return on mining Machinerics	TIPPER - 3 TIPPER - 2 TIPPER - 1 WATER TANKER - 1 PUMPS (ELEC.) - 3 PUMPS (ELEC.) - 2 PUMPS (ELEC.) - 1 GENERATOR (DIESEL) -1 GENERATOR (DIESEL) - 1 VENTILATION FAN - 1 FRONT END LOADER -2 FRONT END LOADER - 1 SHOVEL (HYDRAULIC) - 1 SHOVEL (HYDRAULIC) - 1 BACK HOE - 1 AIR COMPRESSOR - 2 AIR COMPRESSOR - 1	