## **MCDR INSPECTION REPORT 2022-23**

## **General:**

SI .No.	Particulars	Details		
1	Name of the Mine	Kachche Aridongri Iron Ore Mines		
2	Date of Inspection:	20.09.2023		
3	Name of Inspecting Officer	Shri Dayanand Upadhyay, Deputy Controller of Mines  Mr Ganga Ram Vorma, Agent(Mines)		
4	Name of official accompanying inspection	Mr Ganga Ram Verma, Agent(Mines)		
5	Last date of Inspection & Officer	Date: 06.06.2023 Inspecting Officer: Shri Prem Prakash, Regional Controller of Mines		
6	Total Lease Area (Ha) with breakup of Non-forest and forest land	Total Lease Area: 138.96 Ha (Forest = 127.40 Ha, Non Forest = 11.56 Ha)		
7	Mine code	30CHG08008		
8	IBM Registration Number under rule 45 of MCDR, 1988/2017	IBM/4342/2011		
9	Name of the Lease, Address, Phone, email and fax number	Kachche Aridongri Iron Ores Mines Village: Kachche, Taluka: Bhanupratappur, District: Kanker State: Chhattisgarh Fax: 0771-4082709, 4082765 Email id: vinod.pillai@hiragroup.com		
10	Village	Kachche		
11	Taluka/Mandal	Bhanupratappur		
12	District	Uttar Baster, Kanker		
13	Pin code	494635		
14	State	Chhattisgarh		
15	Post Office	Kachche		
16	Nearest Police Station	Kachche		
17	Nearest Railway Station	Gudum		
18	Date of Grant of Mining Lease	30.09.2008		
19	Date of Execution - 106.60 ha Lease - 32.36 ha Lease - Amalgamated ML (138.96 ha) - Supplementary Lease Deed	30.09.2008 03.09.2015 03.09.2015 06.08.2015 with validity from 30.09.2008 to 29.09.2058		
20	Weekly day of rest	Monday		
21	Date of opening of Mine	16.01.2009		
22	Date of First Renewal, if applicable and its period & expiry	Lease is valid upto 29.09.2058		
23	Date of Second Renewal, if applicable and its period & expiry	Not Applicable. Lease is valid upto 29.09.2058		

SI	Particulars	Details
.No.	Date of submission of renewal application if Mining	Not Applicable Large is unlist unto
24	Date of submission of renewal application if Mining Operations are continuing under deemed extension	Not Applicable. Lease is valid upto 29.09.2058
25	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Mr Vinod Pillai B-7 Sahni Vihar, Raipur
		Phone -0771-4082706, fax - 0771-4057601
		Email id vinod.pillai@hiragroup.com Appointment date 28.07.2009
26	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Mr Ganga Ram Verma H.NO. – 168, Capital City Phase 1
		Saddu Raipur Phone No 07714082765/7004502568 Email id
		gangaram.verma@hiragroup.com
		Date of Appointment : 11.09.2019
27	Name of the Mine Manager with Address, phone,	Mr Shailendra Suryavanshi
	email, fax number and date of appointment in mines	Kachche Aridongri Iron Ore Mine Village- Kachche, Tehsil-
		Bhanupratappur,
		Dist. Kanker (C.G.)
		Mobile No : 9685090602
		Date of Appointment : 01.08.2023
28	Name of the Mining Engineer, Qualification and	Mr Shailendra Suryavanshi
	total experience with address, phone, email, fax number and date of appointment in the mine	Kachche Aridongri Iron Ore Mine Village- Kachche, Tehsil-
	number and date of appointment in the mine	Bhanupratappur,
		Dist. Kanker (C.G.)
		Mobile No : 9685090602
		Date of Appointment : 08.09.2015
29	Whether Geologist and Mining Engineer	Mr. Roop Sai Taigore (Geologist)
	appointment in mines satisfy the rule 42 & carrying	Mr Shailendra Suryavanshi (Mining
	out their duties as per rule 43 & 44.	Engineer)
		Yes they are carrying out their duties as per rule 43 & 44
30	Date of Approval of Mine Plan/Modified Mine Plan	Review of Mining Pan
	with five- year period and specific condition in approval letter, if any.	Plan Period : 2020-21 to 2024-25 No specific Conditions have been
31	Date of Approval of Scheme of Mining/Modified	mentioned
	Scheme of Mining with five- year period and	Review of Mining Plan approval date
22	specific condition in approval letter, if any.	09.01.2020
32	Mineral(s) granted in lease and approved for Mining	Iron ore
33	Method of Mining (Opencast, Underground)	Opencast
34	Category (Fully Mechanized, Others or Manual)	Fully mechanized
35	Captive/Non-Captive	Captive
36	Present EC Status	EC Granted by MoEF&CC for ROM

SI .No.	Particulars	Details			
		Production of 2.35 Million Tonnes Per Annum, 2.0 MTPA dolerite Crushing & Screening Plant, 250 TPH Capacity Screening Plant with Magnetic Separator and 0.6 MTPA BMQ beneficiation Plant			
37	Status of Financial Assurance	Financial Assurance of Rs. 6,13,83,500 for an area of 122.767 ha area has been deposited in the form of BG. BG is valid upto FY 2024-25.			

## Scientific Mining: Compliance of proposals of approved Mining Plan/Review of Mining Plan:

## 1.0 Exploration:

S.N.	Item	Proposals (2022-23)	Actual Work (2022-23)	Remarks	
1a	Backlog of previous year Proposals	17nos. boreholes	Total of 48 boreholes covering 7952.05 m of core drilling	A total of 48 boreholes covering 7952.05 m of core drilling has been done for proving the lateral & vertical continuity of ore and also for proving the area non mineralized.	
1b	Exploration over lease area for Geological axis 1 or 2.	G1 level of exploration	G1 level of exploration	G1 level of exploration	
1c	Exploration Agency & Expenditure in Lakh Rupees during the year	Not specified.	Exploration Agency: M/s Kartikay Exploration & Mining Services (P) Limited Expenditure: Rs. 540.9 Lakh	Exploration Agency: M/s Kartikay Exploration & Mining Services (P) Limited Expenditure: Rs. 540.9 Lakh	
1d	Balance area to be explored to bring Geological axis in 1 or 2.	Not specified.	Entire Potentially mineralized area is explored under G1 level of exploration.	Entire Potentially mineralized area is explored under G1 level of exploration.	
1e	Balance reserves as on 01.04.2023	Balance reserves as on 01.04.2023 Reserve: 79.72 Million Tonnes Resource: 31.11 Million Tonnes .			
1f	General remarks of Inspecting officer on geology, exploration etc.	Entire Potentially exploration.	mineralized area is exp	olored under G1 level of	

## 2.0 <u>Development:</u>

S.N	ltem	Proposals	Actual Work	Remarks
		(2022-23)	(2022-23)	
2a	Location of Development w.r.t.	506501.726E to	506510.319E to	Development is
	lease area	507035.329E &	507095.7743E &	carried out within
		2256275N to	2256212.795N to	approved proposal.
		2257263.881N	2257191.968N	
2b	Separate benches in topsoil	Separate	Separate benches	Separate benches in
	overburden and mineral (Rule 15)	benches in OB &	in OB & Ore are	OB & Ore are
		Ore	maintained	maintained
2c	Stripping ratio or ore to OB ratio	1.06:1	0.99 : 1	Ore: OB On tonne
				to Cu.m basis
2d	Quantity of topsoil generation in	Not Proposed	Nil	Nil
	m <sup>3</sup>			
2e	Quantity of overburden	2203573 cu.m	2367821.504cu.m	Due to encounter
	generation in m <sup>3</sup>			of intercalated
				waste, OB slightly
				varies.
2f	General remarks of Inspecting			
	officer on development of pit	Development is ca	arried out within app	roved proposal.
	w.r.t type of deposit etc.			

#### 3.0 Exploitation:

S.N	ltem	Proposals (2022-23)	Actual Work (2022-23)	Remarks
3a	Number of pits proposed for production	1	1	01 Pit
3b	Quantity of ROM mineral production proposed	2346410 t	2333489.900 t	ROM production is consumed to its own plant.
3c	Recovery of Salable/usable mineral from ROM production	90%	90%	ROM production is consumed to its own plant.
3d	Quantity of mineral reject generation	587684 t	593558.52 t	Due to encounter of intercalated waste, MR slightly varies.
3e	Grade of mineral reject generation	Grade of	Grade of mineral	Grade of mineral
	and threshold value declared	mineral reject :	_	reject : 51.50-
		51.50% Fe	53.34% Fe	53.34% Fe
		Threshold value declared: 15%	Threshold value declared: 15%	Threshold value declared: 15%
3f	Quantity of sub-grade mineral generation		Nil	Nil
3g	Grade of sub-grade mineral	Not Proposed	Nil	Nil

S.N	ltem	Proposals (2022-23)	Actual Work (2022-23)	Remarks
	generation			
3h	Manual/Mechanized method adopted for segregation from ROM	Mechanised	Mechanised	Mechanised
3i	Any analysis or beneficiation study proposed & carried out for subgrade mineral and reject	Crushing, screening & beneficiation of ore was proposed	Only crushing & screening ore is being carried out. Beneficiation Plant is under Construction at Site.	study and pilot scale beneficiation test of low grade iron ore has been carried out
3j	Provision of drilling & blasting in mineral benches	Deep hole Drilling and blasting is proposed,	Deep hole Drilling and blasting is carried out as per proposal.	Deep hole drilling by 115 mm dia Drill at 1.5 to 2.0 m burden & 2 to 2.5 m spacing, 83 mm cartridge slurry explosives for blasting For 150 mm drill, burden is 2.5-3 m & Spacing is 3-3.5 m, 125 mm dia cartridge slurry explosive is being used. Decking of PVC Pipes of 1.5 m length in 150 mm dia holes
3k	Provision of mining machineries in mineral benches	Shovel and dumper combination	Shovel and dumper combination	Excavators: 1.8 – 3.1 cu. M, Tippers: 25t/31t, Drill: 115 mm/150 mm, Dozer, Grader, Water Tankers, Rock breakers, wheel loaders etc.
31	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes	Bench height is suitably matched with the excavator.
3m	Total area covered under excavation /pits	40.277 Ha	37.063 Ha upto 2022-23	37.063 Ha upto 2022- 23
3n	Ore to OB ratio for the pit/mine during the year	1.06:1	0.99:1	Ore: OB On tonne to Cu.m basis

S.N	Item		roposals 2022-23)		ctual Work (2022-23)	Remarks	Remarks		
30	Total area put in use under different heads at the end of year	Type of land use		Type of land		as p	put to use er Approved Period	Existing Area put into use as on 31.03.2023	
		(a)	(a)						
		Min	ing	40.2	77	37.063			
			eral age	3.183	1	3.582			
			eral eficiation nt	3.083	3	8.342			
		Tow	nship area	0.000	)	0.000			
		Tail	ing pond	0.000	)	0.000			
		Rail	ways	0.000	ס	0.000			
		Roa	ds	5.687	7	5.307			
		Infrastructure (Office, Rest shelter & pumping station)		0.738		1.831			
		Ove dun	rburden np	69.246 0.555		63.401			
			rage for -soil			0.000			
		Oth	ers	0.000		0.000			
		Tota to U	al Area Put Jse	122.767		119.527			
3р	Production of ROM mineral during				ROM Produc	tion. Tonnes	1		
	last five-years period, as Applicable		Year		Proposal	Actual	1		
	(tonne)		2018-19		1399890	1182025	1		
		2019-20 2020-21 2021-22			1399900	1347258.84			
					1400159	1399971.09			
					2351697	2104823.91			
			2022-23		2346410	2333489.900			
3q	General remarks of inspecting officer on method of mining etc	pecu dolei	liar with st	eep g multi	gradient and ple sets of joi	developed. Depo intrusions of grants in irregular pa	anite,		

#### 4.0 Solid Waste Management-Dumping:

S.N.	Item	Proposals (2022-23)	Actual Work (2022-23)	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32,33)	Separate dumps for OB, mineral reject and fines.	Separate dumps for OB, Subgrade mineral and fines have been maintained.	OB, Low grade materials, etc. are being stacked separately
4b	Location of topsoil, OB & mineral reject dumps	WD1 proposed between 506218E to 506850E & 2256836N to 2257622N in the Northern part of the lease, Waste Dump WD2 Between 506223E to 506566E & 2256055N to 2256336N and waste dump WD3 Between 506672E to 506806E & 256209N to 2256293N. WD4 : Between 507001E to 507140E & 2256325N	Separate dumps for OB, Subgrade mineral and fines have been maintained. OB dumping has been carried out in waste dump WD1 & WD2. In the western side of the lease along the western ML boundary the dumping has been carried out against the approved proposal. The waste dump in the western part of the lease has also been collapse. In this regard the violation of rule 11(1) was issued to the lessee on 12/07/2023 and further show cause notice dated 06/09/2023. After that in case of non-compliance the waste dumping operation has been suspended vide this office letter no. CHG/KNK/Fe-O7, dated 28/11/2023.	In the western side of the lease along the western ML boundary the dumping has been carried out against the approved proposal. The waste dump in the western part of the lease has also been collapse. In this regard the violation of rule 11(1) was issued to the lessee on 12/07/2023 and further show cause notice dated 06/09/2023. After that non-compliance of rule 11(1), the waste dumping operation has been suspended vide this office letter no. CHG/KNK/Fe-07, dated 28/11/2023.
4c	Number of Dumps within lease area and outside lease area	Within Lease : 4 Outside Lease : Nil	Within Lease : 2 Outside Lease : Ni	No waste dumping has been carried out outside the lease. Due to non-acquisition of SC/ST land, rest of dumps not commissioned.
4d	Location of Dumps w.r.t. ultimate pit limit (Rule 16)	Outside the Ultimate Pit Limit within the lease	Dumps are located outside the Ultimate Pit Limit within the lease based on previous exploration	Based on the recent exploration carried out during FY 2021-22 onwards, depth continuity of ore upto 387 m has been proved. Thus waste dump area will fall within the

S.N.	Item	Proposals (2022-23)	Actual Work (2022-23)	Remarks	
				ultimate pit limit. In this regard the modification of the document is under pipeline.	
4e	Number of Active & Alive dumps	4 active dumps.	2 active dumps.	02 active dumps	
4f	Number of dead dumps	Not proposed.	Nil	Nil	
4g	Number of dumps Stabilised	Not Proposed	Not Applicable	Inactive terraces of the active dumps have been stabilized with plantation of local species	
4h	Whether Retaining wall or garland drain all along dumps are there	Yes	Yes	Retaining wall and garland drain made all along dumps.	
4i	Length of Retaining wall or garland drain all along dump	RW: 155 m Garland Drain: 158 m	RW : 225 m Garland Drain : 364 m	Retaining wall and garland drain made all along dumps.	
<b>4</b> j	Number of settling ponds	Not Proposed	01 settling pond	01 settling pond	
4k	Specific commends of inspecting officer on waste dump management				

# 5.0 Solid Waste Management-Backfilling:

S.N.	ltem	Proposals (2022-23)	Actual Work (2022-23)		Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Not Proposed	Area matured backfilling	not	Old backfilling was carried out in northern end of the pit, however based on the recent exploration carried out, depth continuity of ore upto 387 m has been proved and the area has been declared as mineralized zone.
5b	Area under backfilling of mined	Not Proposed	Area	not	Area not matured for

S.N.	ltem	Proposals (2022-23)	Actual Work (2022-23)	Remarks	
	out area		matured for backfilling	backfilling	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Not Proposed	Area not matured for backfilling	Area not matured for backfilling	
5d	Total area fully reclaimed & rehabilitated	Not Proposed	Area not matured for backfilling	Area not matured for backfilling	
5e	General remarks of inspecting officer on backfilling, reclamation etc				

#### 6.0 Progressive Mine Closer Plan:

S.N	ltem	Proposals (2022-23)	Actual Work (2022-23)	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly-Rule 26 (2)	Yes	Yes submitted on 29.06.2023	After referred back again resubmitted on 02.08.2023
6b	Management of worked/mined out benches	Not Proposed	Nil	Ultimate pit limit is yet to reach.
	Area available for rehabilitation (Ha)	Not Proposed	Nil	Ultimate pit limit is yet to reach.
	Afforestation done (ha)	3.407 ha	4.04 ha	Afforestation done in 4.04 ha
	No. of saplings planted during the year	8518 nos.	10000 nos.	10000 nos. saplings planted during the year
	Cumulative no. of plants	128353 nos.	129835 nos.	129835 nos. Cumulative plants
	Any other specific method of rehabilitation	Plantation in inactive terraces of waste dump	Plantation in inactive terraces of waste dump	Plantation in in inactive terraces of waste dump
	Cost incurred on watch & care during the year	Rs. 5.0 Lakh	Rs. 15.86 Lakh.	Labours and water tankers deployed to watch & care.
6c	Compliance on reclamation and rehabilitation by backfilling Voids available for backfilling (L*B*D) Void filled by waste/tailings Afforestation on the backfilling Rehabilitation by making water reservoir	Not Proposed	Nil	Ultimate pit limit is yet to reach.

S.N	Item	Proposals (2022-23)	Actual Work (2022-23)	Remarks	
•	Any other specific means	(2022-23)	(2022-23)		
6d	Compliance of Rehabilitation of waste land within lease i. Afforestation ii. Area rehabilitation (ha) iii. Method of rehabilitation	Not Proposed	Nil	No waste land lies within the mining lease area. However, Plantation of 10000 saplings against proposal of 8518 saplings have been done over 4.04 hadump area.	
6e	Compliance of Environment monitoring (core zone & buffer zone)	Yes	Monitoring of Air, water, noise quality is being carried out.	Monthly monitoring of Air, water, noise quality is being carried out. 3 Nos. of continuous Online Ambient Air Quality Monitoring Stations have been installed within the core zone	
6f	General remarks of inspecting officer on PMCP compliance & progressive closer operations	Plantation along the safety zone, inactive terraces of OB			

## 7.0 Mineral Conservation:

S.N.	ltem	Proposals (2022-23)	Actual Work (2022-23)	Remarks
7a	ROM mineral dispatch or grade wise sorting within lease area	Yes	Grade-wise dispatch of ore is carried out by mechanical means within the lease	Iron ore mixed with intrusions of granites and dolerites are stacked separately in the stockyard. They are mechanically segregated and ore is fed to crushing plant using excavator and dumpers

S.N.	ltem	Proposals (2022-23)	Actual Work (2022-23)	Remarks	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Mechanised	Mechanised	Mechanised	
7c	Different grade of mineral sort out at mine	Grade-wise dispatch of ore	Grade-wise dispatch of ore: -55% Fe, 55-58% Fe, 58-60% Fe, 60-62% Fe& +65% Fe	Iron ore mixed with intrusions of granites and dolerites are stacked separately in the stockyard. They are mechanically segregated and ore is fed to crushing plant using excavator and dumpers	
7d	Any beneficiation process at mines	Crushing, screening & beneficiation of ore was proposed	Only crushing & screening ore is being carried out. Beneficiation Plant is under Construction at Site	Only dry crushing & Screening is carried out at Mines. Magnetic separation of low grade iron ore is being carried out at mines. Beneficiation plant is under commissioning within the lease area.	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	to avoid mixin	ent grades of materials are segregated and fed to plant id mixing of ore. Separate stacking of OB, subgrade, Ore ow grade mineral is being carried out at the mines.		

#### 8.0 Environment:

S.N.	ltem	Proposals (2022-23)	Actual Work (2022-23)	Remarks
8a	Separate removal and utilization of topsoil (Rule32)	Not Proposed	Nil	No topsoil was generated during the year.
8b	Concurrent use or storage of topsoil	Nil	Nil	No topsoil was generated during the year.
8c	Separate dumps for overburden waste rock, rejects and fines (Rule 33)	Yes	Separate dumps for OB, Subgrade mineral and fines have been maintained	OB, Low grade materials, BMQ etc. are being stacked separately
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not Proposed	Area not matured for backfilling	Area not matured for backfilling

S.N.	ltem	Proposals (2022-23)	Actual Work (2022-23)	Remarks		
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not Proposed	Area not matured for backfilling	Area not matured for backfilling		
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Plantation of 8518 Plants proposed over 3.407 Ha in FY 2022-23	Plantation of 10000 Plants done over 4.04 Ha area in FY 2022-23	Plantation of 10000 Plants done over 4.04 Ha area in FY 2022-23. 129835 nos. Cumulative plants		
8g	Survival rate	Not specified.	Survival rate 85%	Survival rate 85%		
8h	Water sprinkling on roads to control airborne dust	Yes	Yes	Permanent fixed type water sprinklers have been installed in haul roads. Water tankers have also been deployed for dust suppression		
8i	General remarks of inspecting officer on aesthetic beauty in and around mine area	road, Water sprinkling in other roads & benches are being				

# 9.0 Compliance of Rule 45:

S N	Item		Remarks	
9a	Status of submission of	MR Submitted regularly.		
	monthly and Annual returns	AR Submitted up to = FY 2022-23 on 29.06.2023		
S N	Item	Details Given of I/Officer Observation of I/Officer		
9 b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer, Geologist and manager appointed as per statute.  Mining Engineer :Mr Shailendra Suryavanshi Geologist: Mr. Roop Sai Taigore		Mining Engineer, Geologist and manager appointed as per statute.

S N	ltem	Comments				Remarks	
9c	Scrutiny of Annual return on	Land Use	Area	Cove	ered, Ha		Land use
	land use pattern for area under pits, reclaimed area, dumps etc.  Lease area (surface area) utilisation as at the end of year 2022-23 (hectares)		Under forest		Outside forest	Total Area, Ha	pattern for area under pits, reclaimed area, dumps etc.
		Covered under current (O/C) Workings	der		0.000	37.063	furnished.
		Reclaimed/Rehabili tated	0.000	)	0.000	0.000	
		Used for waste disposal	58.94	13	4.459	63.401	
		Occupied by plant, buildings, & roads	19.06	53	0.000	19.063	
		Other Purpose (Safety Zone)	3.768	3	0.000	3.768	
		Work done under progressive mine closure plan during the year	4.04		0.000	4.04	
9 d	Scrutiny of Annual return on afforestation	Plantation: 10000		Plantation : 10000		0000	Plantation : 10000
9 e	Scrutiny of Annual return on mineral reject generation (Grade & Quantity)	593558.52 t (Below Fe)	55%	593558.52 t (Below 55% Fe)		(Below	593558.52 t (Below 55% Fe)
9f	Scrutiny of Annual return on ROM stock and/or grade ore	ROM closing stock (Magnetite): 29747.47T		(M	M closing agnetite): 747.47T	stock	ROM closing stock (Magnetite): 29747.47T
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production costs	Production cost is Rs. 2153.02 per Tonne.					Ex-mine price & Production cost is same as it is a captive mines
9i	Scrutiny of Annual return on Fixed assets	Value of fixed asset is Rs. 882978.		s Rs. Value of fixed asset is Rs. 882978.		l asset	Value of fixed asset is Rs. 882978.
9k	Scrutiny of Annual return on mining Machineries	Details of M Machinery furnishe AR.	ining Details of Mining d in Machinery furnished in AR.		•	Details of Mining machinery furnished in AR.	

10- Details of violations observed during last inspection and the compliance status.

No Violation of serious nature is observed during the inspection.

Date: 06/03/2024 Signature:

Name: D. Upadhyay Designation: DCOM