

## MCDR INSPECTION REPORT

### 1.0 GENERAL

SN	Particulars	Details
1	Name of inspecting office & designation	Shri Arun Kumar, Regional Controller of Mines
2	Date of inspection	10/03/2022
3	Name of the Mine	Dongarbor Iron Ore Mine
4	Total Lease Area (Ha) with breakup of Non-forest and forest land	Forest: 80.71 Ha. Non Forest: NIL Total Lease Area: 80.71 Ha.
5	Mine Code	30CHG15001
6	IBM Registration Number under rule 45 of MCDR, 1988	IBM/485/2011
7	Name of the lessee, Address, phone, email and fax number	M/s Sarda Energy & Mineral Limited 73-A, Central Avenue, Nagpur Pin Code: 440018 (Maharashtra) Phone: 0771- 2216100 Fax No.:0771- 2216198 Email: pkjain@seml.co.in  <b>Correspondence Address:</b> M/s Sarda Energy & Mineral Limited, Industrial Growth Center, Phase -I, Siltara Raipur, Chhattisgarh – 493111 Phone: 0771- 2216100 Fax No.:0771- 2216198 Email: pkjain@seml.co.in
8	Village	Nearby Village Padbharri, Jakke, Boria
8	Taluka / Mandal / District	Tehsil: Manpur, Distt. Rajnandgaon
10	State	Chhattisgarh
11	Post office & PIN	Khadgaon - 491229
12	Nearest police station	Khadgaon
13	Nearest Railway station	Dalli Rajhara
14	Date of Grant of Mining Lease	15/05/2002 to 14/05/2032 (30 years)
15	Date of Execution	02/01/2003
16	Date of opening of Mine	17/04/2003
17	Date of first Renewal, if applicable and its period & expiry	Not Applicable
18	Date of second Renewal, if applicable and its period & expiry	Not Applicable
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	Not Applicable
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri P. K. Jain, Whole Time Director & Nominated Owner, B-501, Ashoka Ratna, New Vidhan Sabha Marg, Raipur Chhattisgarh – 492007 Phone: +91-9752090007

		Fax: 0771- 2216198 Email Id: pkjain@seml.co.in. Date of Appointment: 01/06/2016
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri Neeraj Thakur, Head Iron Ore Mines, E-104, Ramniketan Society, Saddu, Raipur (Chhattisgarh) – 492014 Phone: +91-7747013700 Fax: 0771- 2216198 Email: nthakur@seml.co.in Date of Appointment: 01/10/2014
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Shri Srinivas Thakur, Boria Colony, Post Khadgaon, Tehsil: Manpur, District: Rajnandgaon, Chhattisgarh – 491229 Phone: +91 – 8825170248 Fax: 0771- 2216198 Email: sthakur@seml.co.in Date of Appointment: 01/05/2017
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Shri Ramanand Boria Colony, Post Khadgaon, Tehsil: Manpur, District: Rajnandgaon, Chhattisgarh – 491229 Phone: +91 – 7747013704 Fax: 0771- 2216198 Email: rmand@seml.co.in Date of Appointment: 01/05/2017 Qualification: B.E. Mining Experience: +12 years
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 55 & carrying out their duties as per rule 56 & 57.	Shri Sant Das, Boria Colony, Post-Khadgaon, Tehsil: Manpur, District: Rajnandgaon, Chhattisgarh – 491229 Phone: +91 – 7089347893 Fax: 0771- 2216198 Email: sant.d@seml.co.in Date of Appointment: 02/07/2012 Qualification: M.Sc. Geology Experience: +9 years
25	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	<b>Mining Plan</b> approved vide letter no. RNG/Fe/MPLN-625/NGP dated 11/06/1998 Proposal Period: 2003-04 to 2007-08 for 100.0 Ha. area <b>Modified Mining Plan</b> approved vide letter no. RNG/FE/MPLN-625/NGP dated 12/09/2005 Proposal Period: 2005-06 to 2007-08 for 80.71 Ha. Area
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	<b>Scheme of Mining</b> approved vide letter no. RNG/Fe/MPLN-625/NGP dated 25/05/2009 Proposal Period: 2008-09 to 2012-13 <b>Scheme of Mining</b> approved vide letter no. RNG/Fe/MPLN-625/NGP dated 06/08/2013 Proposal Period: 2013-14 to 2017-18 <b>Review of Mining Plan</b> approved vide letter no. RNG/FE/MPLN-1126/2017-RPR Raipur dated

		14/12/2017 Proposal Period: 2018-19 to 2022-23
27	Mineral(s) granted in lease and proved for mining	Iron Ore
28	Method of Mining(Open cast, Underground)	Open cast
29	Category (Fully Mechanised, Others or Manual)	Category 'A' Fully Mechanised
30	Captive/Non Captive	Captive
31	Existing EC Limit and validity	Iron Ore Production 1.5 Million Tonnes Per Annum obtained from Ministry of Environment and Forest, Government of India, vide letter no. J-11015/195/2006-IA.II(M) New Delhi dated 21/05/2007 valid up to 14/05/2032
32	Status of Financial Assurance as per rule 27 of MCDR, 2017	1. Rs. <b>1,05,75,000/-</b> vide Bank Guarantee no. 32700IGL00003617 valid up to 31/03/2023. 2. Rs. <b>70,50,000/-</b> vide Bank Guarantee no. 73360IGL0007621 for period valid upto 31.03.2023 towards Differential Financial Assurance.

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. –

### **1.0 Exploration**

SN	Item	Proposals (2020-21)	Actual work (2020-21)	Remarks
1a	Backlog of previous year	03 nos. of boreholes proposed (90 meter)	27 boreholes carried out and total 1083.50-meter drilling carried out.	After Exploration during year 2020-21, the explored area - Under G1 Category 15.14 Ha, Under G2 category 39.46 Ha, Under G3 category is 26.11 Ha, Under G4 Category NIL
1b	Exploration over lease area for Geological axis 1 or 2.	Not Specified	G1 Category - 15.14 Ha, G2 category - 39.46 Ha, G3 category -26.11 Ha, Under G4 Category - NIL	24 additional bore holes drilled in the lease area.
1c	Exploration Agency & Expenditure in lakh Rupees during the year	Not mentioned in the approved document.	M/s TMC Mineral Resources Pvt. Ltd. Chaitnya Nagar , Raigarh (C.G.)	Total Expenditure incurred on exploration was Rs.80,03,060.00
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	26.11 Ha needs to be explored	Nil
1e	Balance	111 Category: 3534504 Tons Lump		As per AR submitted

	reserves as on 01.04.2021 (in Million Tonnes)	Grade 111 Category: 3817140 Tons Fine Grade 121 Category: 48229 Tons, Lump Grade 121 Category: 52287 Tons, Fine Grade	
1f	General remarks of inspecting officer on geology, exploration etc.	24 additional bore holes drilled in the lease area.	

## **2.0 Development: -**

SN	Item	Proposals (2020-21)	Actual work (2020-21)	Remarks
2a	Location of development w.r.t. lease area (Range in UTM/Local Coordinate/Plot No./Location)	N1548 to N1938 and E1712 to E2240 RL 680 to 660 <b>Float:</b> N2342 to N2386 and E1578 to E1632	N1556 to N1943 and E1747 to E2246 RL 685 to 660 <b>Float:</b> N2342 to N2386 and E1578 to E1632	<b>Float ore</b> have been Mined out
2b	Separate benches in topsoil, overburden and mineral (Rule 13)	Topsoil: Nil Inter-burden: 02 Mineral: 02	Topsoil: Nil Inter-burden: 02 Mineral: 02	-
2c	Stripping ratio (m <sup>3</sup> /t) or ore to OB ratio (t/m <sup>3</sup> )	1: 0.474 t/m <sup>3</sup>	1:0.516 t/m <sup>3</sup>	Nil
2d	Quantity of topsoil generation in m <sup>3</sup>	17245 cum	Nil	No topsoil generated during the reporting year
2e	Quantity of overburden generation in m <sup>3</sup>	628331 cum	510500 cum	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	The actual development was carried out within the proposed limits.		

## **3.0 Exploitation:-**

SN	Item	Proposals (2020-21)	Actual work (2020-21)	Remarks
3a	Number of pits proposed for production	02 nos. (Ore body I and Ore body V)	02 no. (Ore body I and Ore body V)	As per proposal
3b	Quantity of ROM mineral production proposed	1322936 Metric Tonnes	263553.96 Metric Tonnes	
3c	Recovery of salable/usable mineral from ROM production	90%	90%	

3d	Quantity of mineral reject generation	1021037.50 Metric Tonnes	Nil	No mineral reject generated during the reporting year
3e	Grade of mineral reject generation and threshold value declared	33% Fe.	Not applicable	
3f	Quantity of sub-grade mineral generation	Nil	Nil	
3g	Grade of sub-grade mineral generation	Nil	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised screening & wet scrubbing for beneficiation proposed	Mechanised screening & wet scrubbing for beneficiation adopted	Done as proposed.
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Wet scrubbing proposed	Being done as per proposal	
3j	Provision of drilling & blasting in mineral benches	Dia.: 100 mm Depth: 5.0 m Burden: 2.0 m Spacing: 3.0	Dia.: 100 mm Depth: 5.0 m Burden: 2.0 m Spacing: 3.0	Drilling & blasting carried out as per proposal
3k	Provision of mining machineries in mineral benches	Excavator ,tipper combination proposed for production	Production & development was carried out using excavator & tipper combination.	Excavator: 06 nos., Rear Dumpers: 28 nos. Front end loader: 03 nos. Dozer 01 no. with 250 HP Wagon drill 02 nos.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Waste: 05 meters Ore/mineral: 05 meters	Waste: 05 meters Ore/mineral: 05 meters	Nil.
3m	Total area covered under excavation/pits	17.50 Ha. Up to end of review period.	15.45 Ha. up to end of FY 2020-21	Nil
3n	Ore to OB ratio for the pit/mine during the year (t/M3)	1: 0.474	1:0.516	
3o	Total area put in use under different heads at the end	Pit- 17.50 Ha. Waste/reject- 7.50	Pit- 15.45 Ha. Waste/reject- 7 Ha.	Workings within

	of year	Ha. Others-10.25 Ha.	Plant/Building/Infra- 7.5 Ha. Others-3.250 ha	proposed area
3p	Production of ROM mineral during last five-year period, as applicable (in Metric Tonnes)	Yr- 2016-17: 1454400.00 Yr- 2017-18: 1460800.00 Yr- 2018-19: 1099915.00 Yr- 2019-20: 1106126.00 Yr- 2020-21: 1322936	Yr- 2016-17: 174269.36 Yr- 2017-18: 455377.91 Yr- 2018-19: 422699.75 Yr- 2019-20: 348230.60 Yr- 2020-21: 263553.96	All units in Metric Tonnes
3q	General remarks of inspecting officer on method of mining etc.	Opencast method of mining was adopted with excavator & tipper combination.		

#### 4.0 Solid Waste Management-Dumping

SN	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 36, 37)	Separate dumping of topsoil, OB/IB, mineral waste proposed	Being done as per proposal.	
4b	Location of topsoil, OB & mineral reject dumps (Range in UTM/Local Coordinate/Plot No./Location)	Waste/OB/IB: N 2514 to N 2864 and E 1444 to E 1794 Fines Dump: N 1804 to N 1864 and E 920 to E 1030	Waste/OB/IB: N2512 to N2800 and E1446 to E1796 Fines Dump: N1805 to N1902 and E938 to E1041	Done as proposed
4c	Number of dumps within lease area and outside lease area	01 no. (OB/Waste dump)	01 no. (OB/Waste dump)	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 14)	Proposed beyond ultimate pit limit.	Being done as per proposal.	
4e	Number of active & alive dumps	Active 01 no.	Active 01 no.	
4f	Number of dead dumps	Not proposed in the approved document.	Not applicable	
4g	Number of dumps stabilised	Not proposed in the approved document.	Not applicable	
4h	Whether Retaining wall or garland drain all along dumps are there	Yes available along the dump periphery	Being done as per proposal	
4i	Length of Retaining wall or garland drain all along	Garland drain- 200 mt additional	Garland drain of approx. length 1200	

	dump	length along the dump boundary and lease boundary and new 100 m long of height 1.5 m to 2.5 m	m along dump periphery and lease boundary constructed previous year 660m long toe of dump and average height of 2.m constructed during previous year have been prepared and maintained during this year.	
4j	Number of settling ponds	No proposal	Existing ponds repaired and maintained only	
4k	Specific comments of inspecting officer	Dumping was carried as per the proposal & waste Dump management was observed to be satisfactory.		

### **5.0 Solid Waste Management-Backfilling**

SN	Item	Proposals	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Full extraction of mineral proposed before starting backfilling	Float Ore body has been extracted fully during the year 2020-21 & backfilling carried out.	
5b	Area under backfilling of mined out area	2 Ha area proposed for backfilling	0.804 Ha has been back filled	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 36)	It has been proposed to utilize the top soil as capping over backfilled areas for preparing it for plantation.	Nil	No Top Soil had been generate during the reporting year
5d	Total area fully reclaimed & rehabilitated	2 Ha	0.804 Ha has been back filled	
5e	General remarks of inspecting officer on backfilling, reclamation etc.	Backfilling was carried out after full extraction of float ore.		

### **6.0 Progressive Mine Closure Plan:-**

SN	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 23. Details should be given in the format as given in Annexure-20.	PMCP report to be submitted	PMCP report submitted	Report submitted on 31.05.20 21

6b	<b>Management of worked /mined out benches</b> i) Area available for rehabilitation (ha) ii) Afforestation done (ha) iii) No. of saplings planted during the year iv) Cumulative no. of plants v) Any other specific method of rehabilitation vi) Cost incurred on watch & care during the year	i) Nil ii) 2.00 iii) 5000 iv) 10250 v) Nil vi) 300000/-	i) Nil ii) 0.72 iii) 1800 iv) 5000 v) Nil vi) 3,80,000/-	
6c	<b>Compliance on reclamation and rehabilitation by backfilling</b> i) Voids available for backfilling (L X B X D) ii) Void filled by waste/tailings iii) Afforestation on the backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means	i) Nil ii) 2.00 Ha iii) Total 5000 nos. over 2.00 Ha. Area iv) Nil v) Nil	i) Nil ii) 0.804 Ha. iii) 1800 nos. over 0.804 Ha. Area iv) Nil v) Nil	
6d	<b>Compliance of Rehabilitation of waste land within lease</b> i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	i) Nil ii) Nil iii) Nil	i) Nil ii) Nil iii) Nil	
6e	<b>Compliance of Environmental monitoring (core zone &amp; buffer zone)</b>	Regular monitoring of Ambient Air, Water and Noise Vibration has been proposed	The environment monitoring has been carried out as per proposal.	Environmental monitoring was carried out by Environmental Analysts & Engineers Pvt Ltd, Mumbai.
6f	<b>General remarks of inspecting officer on PMCP compliance &amp; progressive</b>			



## 7.0 Mineral Conservation:-

SN	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting proposed within the lease area	Carried out as per proposal.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Both Manual and Mechanised	Carried out as per proposals	
7c	Different grade of mineral sorted out at mines	Segregation into Lumps /Fines and further gradation after chemical analysis – proposed % Fe content: Below 55% to upto 62 %	Segregation into Lumps /Fines and further gradation after chemical analysis –carried out. % Fe content: Below 55% to upto 62 %	
7d	Any beneficiation process at mines	Mechanical screening and wet scrubbing process at mines proposed.	Carried out as per proposal.	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Mechanized and manual method adopted for mineral sorting with dry screening & wet scrubbing.		

## 8.0 Environment

SN	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 36)	Proposed in approved plan	Nil	No topsoil generated during the plan period
8b	Concurrent use or storage of topsoil	Proposed to be stored separately and used in reclamation of mined out area	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 37)	Proposed	Carried out as per approved proposals	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Proposed	Carried out	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Proposed	Afforestation carried out during the year over earlier backfilled area available.	

8f	Baseline information on existence of plantation & additional plantation done (Rule 44)	Total 5000 nos. of plants proposed over reclaimed, backfilled and mined out area during period	Total 1800 nos plants within lease area over backfilled area	
8g	Survival rate	Not proposed	Avg. nearly 86 %	As per AR
8h	Water sprinkling on roads to control airborne dust	Proposed using water tanker (s)	Carried out as per proposal	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines are	Aesthetic beauty in and around the mine was good as lessee has carried out afforestation, water sprinkling and other environmental protective measures as per the RMP.		

### 9.0 Compliance of Rule 45

S. N.	Item	COMMENTS	Remarks
	Status of submission of Monthly and Annual returns	M.R. Submitted upto – March 2022 A.R. submitted upto- 2020-21	

S. N.	Item	Details GIVEN in A.R.	Observation of I/Officer	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer: Shri Ramanand Geologist: Shri Sant Das, Manager: Shri Niwas Thakur	Same mine officials were present during the course of inspection.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit- 15.45 Ha. Waste/reject- 7 Ha. Plant/Building/Infra -7.5 Ha. Others-3.250 ha	Appears to be correct	
9d	Scrutiny of Annual return on afforestation	WML-1800 @86% Survival OML-500 Saplings @84% survival	Appears to be correct	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Nil	No mineral rejects generated during the period	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM Stock: OB-148108.58 tonne Production-263553.96 tonne CB-70227.74 tonne	Appears to be correct	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Sale Value: Nil, Ex-Mine Price: Rs1460/Ton	Appears to be correct	

		Cost of Production: Rs 2420/Ton		
9i	Scrutiny of Annual return on fixed assets	Rs. 55446827.00/- including land ,infrastructure & plant & machinery	Appears to be correct	
9k	Scrutiny of Annual return on mining machineries	1. Excavator: 08 nos. with bucket size varies 0.6 cum to 2.7 cum 2. Wheel loader 04 nos. of 1.7 cum 3. Tipper 34 nos. with 14.69 cum 4. Water tanker 02 nos. of 12000 ltr. capacity	Appears to be correct	

10- (a) Details of violations observed during current inspection and compliance position of earlier violation pointed out:- The violations pointed earlier have been complied.

(b) Details of the Violations Pointed-out during inspections: - No such serious violation observed during the inspection.

Date: 08.04.2022

Signature:  
Name: Arun Kumar  
Designation: Regional Controller of  
Mines