INDIAN BUREAU OF MINES MCDR INSPECTION REPORT

Bhubaneswar Region

General

Sl.	D 4 1	D		
N o.	Particulars	Details		
1	Name of the Mine	Bandhamandi Graphite Mine		
2	Date of Inspection	20.02.2025		
3	Name of Inspection officer:	Sh. Rohita Sethi, Assistant Controller of Mines		
4	Name of official accompanying	Er. P.K. Mohanty, GM, Technical,		
	inspection	Sri Bhagyadhara Mahalik, Mines Manager		
	•	Sri Harihara Barik, Geologist		
5	Last date of Inspection & Officer	26.10.2023, Sh. Ashok Kumar Pany, Assistant		
		Mining Engineer.		
6	Total Lease Area (Ha) with			
	breakup of non-forest and forest	(Forest Land - 3.278Ha. & Non forest land -		
	land	70.149Ha.)		
7	Mine code	28ORI27001		
8	IBM Registration Number under rule 45 of MCDR, 2017	IBM / 4724 / 2011		
9	Name of the lessee, Address,	M/s Pradhan Industries		
	phone, email and fax number.	At/Po - Talenga Bazar,		
		Ps - Purighat,		
		Dist Cuttack		
10	37·11	Odisha - 753009.		
10	Village	Bandhamandi		
11	Taluka / Mandal	Kashipur		
12	District	Raugada		
13	Pin code	765015		
14	State	Odisha		
15	Post office.	Godibali		
16	Nearest police station	Kashipur		
17	Nearest Railway station	Sikarpai		
18	Date of Grant of Mining Lease	1. Bandhamandi Mining Lease area over 41.724 Ha. granted on- 23.03.1986		
		2. Near Bandhamandi Mining Lease area over		
		31.703 Ha. granted on - 25.08.1997 for 20		
		years. 3. Both the area were amalgamated on 25.08.1997		
		w.e.f. 27.09.1991 for a period of 20 years.		
19	Date of Execution	1. Bandhamandi Mining Lease area over 41.724		
		Ha. was executed on – 27.09.1991		
		2. Both the Mining Lease 41.724Ha. and 31.703		
		Ha. have been amalgamated into one mining		
		lease over 73.427Ha. and executed on		
		06.10.2005 for a period of 20 years w.e.f. 27.09.1991.		
		3. Supplementary lease deed of M.L area over		
		73.427 hectares has been executed on		
		28.02.2018 for 50 years in all total w.e.f.		
		27.09.1991 to 26.09.2041 in view of the		
		section 8A of MMDR Amendment Act 2015.		
20	Date of opening of Mine	29.01.1992 and re - opening on 28.02.2018		
21	Date of expiry	26.09.2041		

23	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri Sundeep Pradhan M/s Pradhan Industries (Partnership Firm) Telenga Bazar, Cuttack Pin - 753009 Phone - 0671 - 2423078 Tele/fax - 0671 - 2423078 Sri Sundeep Pradhan A - 19, Trishna Residency, Phase - 3 Patia, Bhubaneswar, Odisha - 751024 Date of Appointment - 28.02.2018 Mob. No 7381848286
24	Name of the Mines Manager with Address, mobile no, email, fax number and date of appointment in mine	Sh. Bhagyadhara Mahalik At - Bandhamandi, Po - Godibali, Ps - Kashipur, Dist Rayagada, Odisha Date of Appointment - 15.03.2019 Mob. No 8144035601
25	Name of the Mining Engineer , Qualification and total experience with Address, mobile no, email, fax/phone number and date of appointment in mine	Sh. Satyajit Samal (10 Years of Experience) Bachelor of Technology in Mining Engineering 21.12.2022 At - Bandhamandi, Po - Godibali, Dist Rayagada Mob. No 9438524795
26	Name of the Geologist , Qualification and total experience with Address, mobile no, email, fax number and date of appointment in mine	Shri. Harihara Barik (22 Years of Experience) M Sc. (Geology) 28.02.2018 At - Bandhamandi, Po - Godibali, PS - Kashipur, Dist Rayagada Ph. No 9437361566. E mail barik.harihara@gamil.com
27	Date of Approval of Mining Plan/Review of Mining Plan/their modifications with five-year period and specific condition in approval letter, if any.	 Mining Plan was approved for a period of 5 years from 2003 - 04 to 2008 - 09, Vide approved Letter No BBS / RYG / Gr / MP / 171, Dated 17.09.2004, Valid up to 31.03.2009 Scheme of Mining with PMCP was approved for a period from 2008 - 09 to 26.09.2011, Vide approved Letter No MS / OTF - MECH / 01 - ORI / BHU / 2008 - 09, Nagpur, Dtd 16.05.2008. Valid up to 26.09.2011. Mining Plan with PMCP was approved for a period from 27.09.2011 to 2015 - 2016, Vide approved Letter No MP / OTFM / 05 - ORI / BHU / 2012 - 23, Dtd30.04.2012. Valid up to 31.03.2016 Scheme of Mining was approved for a period from 2016 -17 to 2020 - 21, Vide approved Letter No MS / OTFM / 32 - ORI / BHU / 2015 - 16 / 3822, Dtd 11.03.2016. Valid up to 31.03.2021. Review of Mining Plan along with PMCP was approved for a period from 2021 - 22 to 2025 - 26, Vide approved letter no RMP / A / 23 - ORI / BHU / 2020 - 21 / 2069, Dtd 09.11.2020. Valid up to 31.03.2026.
28	Mineral (s) granted in lease and proved for mining.	Graphite
29	Method of Mining (Opencast, Underground)	Opencast

30	Category (Fully	Mechanised,	Other than fully mechanized (OTFM)
	Others or Ma	nual)		
31	Captive / non	-captiv	e	Non captive
32	Present EC C	apacity		2,40,000 TPA (Throughput)

Exploration:-

S L. N	Item	Proposals (FY 2023 - 24)	Actual work	Remarks
1a	Backlog of previous year	No Backlog	Nil	Violation was issued based on the last inspection for backlog of 5 no's of boreholes, which has been clarified by the Lessee and same was approved by this office on 31/01/2024
1b	Exploration over lease area for Geological axis 1 or 2.	No Proposal for reporting year	Nil	Nil
1c	Exploration Agency & Expenditure in lakh Rupees during the year	NA	NA	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	As per approved mining plan G1 -6.618 ha, G2-65.657 ha and G3-1.152 ha	Nil	Entire potential mineralized area explored under G1 level of exploration.
1e	Balance reserves as on 01.04.2024. (Proved + Probable)	Mineral Reserve as per Approved Review of Mining Plan as on 31.08.2020 was 121- 2,293,489tonnes 221-286308tonnes 333-467348tonnes	Mineral Reserve as on 31.03.2024 was 121- 1,900,100tonnes 221-286308tonnes 333-467348tonnes	Nil
1f	General remarks of inspecting officer on	Violation was issued base of 5 no's of boreholes,		9

	geology, exploration etc.	Lessee and same was approved by this office on 31/01/2024.
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Development: --

S L. N o.	Item	Proposals (FY 2023 - 24)	Actual work	Remark s	
2a	Location of development w.r.t. lease area	Coordinates - 642S - 1071S / 147E -350E Cross Section - X5Y5, X6Y6, X7Y7 & X8Y8	Coordinates - 880S - 1030S / 150E - 345E Cross Section - X7Y7 & X8Y8	Nil	
2b	Separate benches in topsoil, overburden and mineral	Separate benches in topsoil, overburden and ROM ore proposed	Carried out as per proposal	Nil	
2c	Stripping ratio or Ore to OB ratio	1: 0.50	1: 0.54	Nil	
2d	Quantity of topsoil generation in m ³	2126 m ³	2000 m ³	Nil	
2e	Quantity of overburden generation in m ³	71414 m ³	69612 m ³	Nil	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	Development is being carried out as per proposal.			

Exploitation: -

tation	l i -			
S L. N o.	Item	Proposals (FY 2023-24)	Actual work	Remarks
3a	Number of pits proposed for production	One	One	Nil
3b	Quantity of ROM mineral production proposed	14214tonnes	132000tonnes	Nil
3c	Recovery of salable/usable mineral from ROM production	138873tonnes	2709.000tonnes	Nil
3d	Quantity of mineral reject generation	3268tonnes	3000 tonnes	Nil
3e	Grade of mineral reject generation and threshold value declared	Mineral reject- 2 % to 3 % F.C. Threshold Value- 2% Fixed Carbon (F.C) (Min.)	Mineral reject- 2 % to 3 % F.C. Threshold Value- 2% Fixed Carbon (F.C) (Min.)	Nil
3f	Quantity of sub-grade mineral generation	Same as Para 3d		
3g	Grade of sub - grade mineral generation	Same as Para 3e		
3h	Manual / Mechanised method adopted for	Mechanized	Mechanized	Nil

segregating from ROM						
Any analysis or beneficiation study proposed & carried out for sub - grade mineral and reject	No such proposal		Nil		Nil	
Provision of drilling & blasting in mineral benches	No proposal		Nil		Nil	
Provision of mining machineries in mineral benches	Excavator with combination.	dun	nper	As per proposal		Nil
Whether height of benches in overburden and mineral suitable for method of mining proposed in MP / SOM	Bench Height: 3 m Bench Width: 6 m Bench		Bench Height: 3 m Bench Width: 6 m more or less maintained as per proposal		Nil	
Total area covered under excavation / pits	, -		d of	8.214Ha.		Nil
Ore to OB ratio for the pit / mine during the	1: 0.50		1: 0.54		Nil	
<i>y</i> 5555	Area under excavation		9.790	,	8.214	
	Storage for Topsoil		0.585	Use for waste disposal	7.027	
	Overburden dump		4.937	Infrastructure	1.7	
		<u>ء</u>	1.535	Top soil, ore, sub-grade		
Total area put in use			0.010	stack		
				1.751		2713
at the end of year						Nil
			0.640			
		t	0.772			
		d	0.772			
		u	0.210			
	wall/Garland		2.00			
			,			
	_		pıan			
	Year	Qι	ıantit	Year	Quantit	Nil
Production of ROM		y Pr	ODOSE		y Produce	
mineral during last		d	Pose		d	
five-years period , as applicable	Year - 2019 - 20	24	45549	Year - 2019 - 20	49043	
-	Year - 2020 - 21	24	45549	Year - 2020 - 21	9094	
	Year - 2021 - 22	14	42141	Year - 2021 - 22	125555	
	ROM Any analysis or beneficiation study proposed & carried out for sub - grade mineral and reject Provision of drilling & blasting in mineral benches Provision of mining machineries in mineral benches Whether height of benches in overburden and mineral suitable for method of mining proposed in MP / SOM Total area covered under excavation / pits Ore to OB ratio for the pit / mine during the year Total area put in use under different heads at the end of year	ROM Any analysis or beneficiation study proposed & carried out for sub - grade mineral and reject Provision of drilling & blasting in mineral benches Provision of mining machineries in mineral benches Whether height of benches in overburden and mineral suitable for method of mining proposed in MP / SOM Total area covered under excavation / pits Ore to OB ratio for the pit / mine during the year Area under excavation / pits Overburden dump Mineral storage for Topsoil Overburden dump Mineral storage for Topsoil Overburden dump Mineral storage for Topsoil Overburden dump Mineral storage Infrastructure Road Tailing pond Mineral separation plan Rainwater harvesting pond Settling pond Retaining wall/Garland Drain Up to end of perio Year Production of ROM mineral during last five-years period, as applicable Year - 2020 - 21 Year - 2021 -	ROM Any analysis or beneficiation study proposed & carried out for sub - grade mineral and reject Provision of drilling & blasting in mineral benches Provision of mining machineries in mineral benches Whether height of benches in overburden and mineral suitable for method of mining proposed in MP / SOM Total area covered under excavation / pits Ore to OB ratio for the pit / mine during the year Area under excavation / pits Ore to OB ratio for the pit / mine during the year Area under excavation Total area put in use under different heads at the end of year Total area put in use under different heads at the end of year Area under excavation Total area put in use under different heads at the end of year Total area put in use under different heads at the end of year Area under excavation Total area put in use under different heads at the end of year Total area put in use under different heads at the end of year Froduction of ROM mineral during last five-years period, as applicable Year - 2020 - 22 Year - 2020 - 22 Year - 2021 - 1.	ROM Any analysis or beneficiation study proposed & carried out for sub - grade mineral and reject Provision of drilling & blasting in mineral benches Provision of mining machineries in mineral benches Whether height of benches in overburden and mineral suitable for method of mining proposed in MP / SOM Total area covered under excavation / pits Ore to OB ratio for the pit / mine during the year Total area put in use under different heads at the end of year Total area put in use under different heads at the end of year Total area put in use under different heads at the end of year Production of ROM mineral during last five-years period, as applicable Provision of drilling & No such proposal No such proposal No such proposal No such proposal No proposal Area under during the plan period) 1: 0.50 1: 0.50 245549 Propose 4 Year - 2020 - 24 245549	RÓM Any analysis or beneficiation study proposed & carried out for sub - grade mineral and reject Provision of drilling & blasting in mineral benches Provision of mining machineries in mineral benches Whether height of benches in overburden and mineral suitable for method of mining proposed in MP / SOM Total area covered under excavation / pits Ore to OB ratio for the pit / mine during the year Area under excavation 5to 200	Any analysis or beneficiation study proposed & carried out for sub - grade mineral and reject Provision of drilling & blasting in mineral benches Provision of mining machineries in mineral benches Whether height of benches in overburden and mineral suitable for method of mining proposed in MP / SOM Total area covered under excavation / pits Ore to OB ratio for the pit / mine during the year Area under excavation = 1: 0.50 Total area put in use under different heads at the end of year in the end

		Year - 2022 - 23	142141	Year - 2022 - 23	126740	
		Year - 2023 - 24	142141	Year - 2023 - 24	132000	
3q	General remarks of	Mechanized o	pencast mir	ning method is b	oeing carrie	d out with
	Inspecting Officer on	excavator, dun	nper combir	nation.		
	method of mining etc.					

Solid Waste Management-Dumping: -

Waste Management-Dumping: -						
S L. N o.	Item	Proposals (FY 2023-24)	Actual work	Remar ks		
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Separate dumping of topsoil, OB & mineral reject proposed	Separate dumping of topsoil, OB & mineral reject is being carried out as per proposal	Nil		
4b	Location of topsoil, OB & mineral reject dumps	Topsoil - 935S - 990S and 368E - 430E OB Dump - 360S - 550S and 242E - 380E Subgrade - 290S – 372 S and 150E - 228E	Topsoil, OB & mineral reject dumped / Stacked carried out in the earmarked area.	Nil		
4c	Number of dumps within lease area and outside lease area	within lease area – One outside lease area - Nil	within lease area – One outside lease area - Nil	Nil		
4d	Location of dumps w.r.t. ultimate pit limit	Outside UPL	Outside UPL	Nil		
4e	Number of active & alive dumps	One	One Dump (Active)	Nil		
4f	Number of dead dumps	Nil	Nil	Nil		
4g	Number of dumps stabilized	Nil	Nil	Nil		
4h	Whether Retaining wall or garland drain all along dumps are there	Yes, Proposal for maintenance of existing retaining wall and Garland drain	Being maintaining as per proposal	Nil		
4i	Length of Retaining wall or garland drain all along dump	Proposal for maintenance of existing retaining wall and Garland drain	Carried out as per proposal	Nil		
4j	Number of settling ponds	No Proposal	Nil	Nil		

4k	Specific	Top soil, overburden wastes and mineral reject dump management are
	comments of	being carried out as per the approved proposals.
	inspecting	
	Officer on	
	waste dump	
	management	

Solid Waste Management-Backfilling: -

S L. N o.	Item	Proposals (FY 2023- 24)	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	No Proposal	Nil	Nil
5b	Area under backfilling of mined out area	No Proposal	Nil	Nil
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area	No Proposal	Nil	Nil
5d	Total area fully reclaimed & rehabilitated	No Proposal	Nil	Nil
5e	General remarks of inspecting Officer on backfilling and reclamation etc.	Existing pit is not mate not exhausted complet		ling as ore/mineral

Progressive Mine Closure Plan: ---

S L. N	Item	Proposals (FY 2023 - 24)	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 26(2). (Hard copy same provided)	For the Year 2023- 24	Yes. Submitted the online copy of PMCP under Rule 26(2) on time	
6b	Management of worked/mined out benches/dumps 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	i. Nil ii. Nil iii. Nil iv. Nil v. Nil vi. Nil	i. Nil ii. Nil iii. Nil iv. Nil v. Nil vi. Nil	

	watch & care during			
	the year			
6c	Compliance on reclamation and rehabilitation by backfilling 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	No proposal	Nil	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	i)625 no's of saplings ii)0.250Ha iii)Plantation	i)850 no's of saplings ii)0.250Ha iii)Plantation	Nil
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Quarterly monitoring of Air, Noise Level and Ground water quality proposed	Environment Monitoring in the core zone and buffer zone have been carried out periodically	Nil
6f	General remarks of inspecting Officer on PMCP compliance & progressive closure operation etc.	Lessee has impleme RMP.	enting PMCP proposals as pe	er approved

Mineral Conservation: -

11 001	iservation: -			
S L. N	Item	Proposals (FY 2023- 24)	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting within lease area	Grade wise sorting within lease area	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Mechanized	Mechanized	Nil
7c	Different grade of mineral sorted out at mines	Beneficiation consider = +3%FC Subgrade = 2 - 3%FC	Beneficiation over +3%FC and Subgrade over 2-3% FC have been sorted separately in the mine and stacked in the earmarked area.	Nil
7d	Any beneficiation process at mines	Yes	Beneficiation plant is located within the	Nil

lease area at a distance of 0.5 Km	
from Quarry - 2	
where ROM initially	
processed	

Environment: -

						1
S L. N o.	Item	Proposals (FY 2023- 24)		Actual work		Remarks
8a	Separate removal and utilization of topsoil	Year	Topsoil Storage(m³)	Year	Topsoil Storage(m	Nil
		2023- 24	2126	2023-24	2000	
8b	Concurrent use or storage of topsoil	For plant	ation	Being plantation	used for	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines	Separate proposed		Separate dumping carried out as per proposal		Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No Proposal		Nil		Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc.)	No Proposal		Nil		Nil
8f	Baseline information on existence of plantation & additional plantation done	625 no's of saplings		850no's of saplings 3692 no's of saplings cumulative WML		Nil
8g	Survival rate	NA		Around 52%		Nil
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on haul roads proposed to suppress the dust		Water sprinkling by truck mounded sprinklers used for dust suppression.		Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	The aesthetic beauty in & around the mine is looking goo			oking good.	

Compliance of Rule 45

S L N o	Item	COMMENTS	Rema rks.
9a	Status of		
	submission of	All monthly returns for the reporting year are submitted with in	-
	Monthly and	the stipulated time period except for the month of Dec-2023,	

	Annual returns	for which fine imposed vide this office letter no. MCDR-MiFL0GR/3/2023-BBS-IBM_RO_BBS dated 01/02/2024. Annual return for the year 2023-24 has submitted with in the stipulated time period			
S L N O	Item	Proposals (FY 2023-2	24)	Actual work	Rema rks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mines Manager - 1 No. Mining Engineer - 1No. Geologist - 1 No.		Actual also the same	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	and abandoned by opencast mining Covered under current (O-C) working Reclaimed - rehabilitated Used for waste disposal Occupied by plant, building, residential, welfare buildings and roads Used for any other purpose (specify) (Topsoil, ore and subgrade stack) Work done under progressive mine closure plan during	0.0 00 8.2 14 0.0 00 7.0 27 1.7 00 1.7 51	Appears to be correct	
9d	Scrutiny of Annual return on afforestation	the year 850 no's of saplings		Appears to be correct	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	3000m3		Appears to be correct	-
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM Closing stock- 162600tonnes 80% More FC-212.496 40% more FC but Less than 80% FC-231.925		Appears to be correct	
9g	Scrutiny of Annual return	80% More FC-45486 40% more FC but Less t	han	Appears to be correct	 10

	on sale value, Ex. Mine price & production cost	80% FC-3200		
9h	Scrutiny of Annual return on fixed assets	Value of fixed Assets: Rs.6535524/-	Appears to be correct	
9i	Scrutiny of Annual return on mining machineries	Excavator- 1.2 CUM (1 Nos.) Dumper- 10 tonnes (8 Nos.)	Observed to be correct	

(10)Violation observed during current inspection and compliance position of earlier Violation pointed out:

- (a)Compliance position of earlier violation pointed out: During last inspection dated 26/10/2023, the violation of rule 11(1) and 45(7) of MCDR 2017 was pointed out and subsequently, said rule complied on 31/01/2024.
- (b) No Serious violation observed during current inspection.
- (11) The lessee was submitted DAI/drone survey data under rule 34A for FY 23-24 on 27/06/2024.

Rohita Sethi Assistant Controller of Mines