

INDIAN BUREAU OF MINES
MCDR INSPECTION REPORT
Bhubaneswar Region

General

Sl. No.	Particulars	Details
1	Name of the Mine	Bainibasa Graphite Mine
2	Date of Inspection	22.02.2025
3	Name of Inspection officer:	Sh. Rohita Sethi, Assistant Controller of Mines
4	Name of official accompanying inspection	Er. P.K. Mohanty, Mines Agent Sri Harihara Barik, Geologist Sri Chiranjib Satapathy, Mines Manager
5	Last date of Inspection & Officer	27.10.2023, Sh. Ashok Kumar Pany, AME
6	Total Lease Area (Ha) with breakup of non-forest and forest land	Total Lease Area - 58.704 Ha. Total Non - Forest Land - 14.666 Ha. Total Forest Land - 44.038 Ha.
7	Mine code	28ORI27015
8	IBM Registration Number under rule 45 of MCDR, 2017	IBM/4724/2011
9	Name of the lessee, Address, phone, email and fax number.	M/s Pradhan Industries At- Telenga Bazar Dist- Cuttack Pin - 753009 (Odisha) Phone - 0671-2412299 Tele. Fax - 0671-2423078 Mobile - 9937197435 E-mail Id - pradhanindustriesctc@yahoo.com
10	Village	Bainibasa
11	Taluka / Mandal	Muniguda
12	District	Rayagada
13	Pin code	765020
14	State	Odisha
15	Post office.	Bhairabgarh
16	Nearest police station	Muniguda
17	Nearest Railway station	Muniguda
18	Date of Grant of Mining Lease	10.01.2017
19	Date of Execution	11.01.2017
20	Date of opening of Mine	27.12.2019
21	Date of expiry	10.01.2067
22	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	M/s Pradhan Industries Telenga Bazar, Cuttack Pin - 753009 Phone - 0671-2423078 Tele/fax - 0671-2423078
23	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Er. Pranab Kumar Mohanty Plot No. - N4/32, IRC Village, Nayapalli, Bhubaneswar - 751015. Odisha Date of Appointment - 21.12.2019 Mob. No. - 7008355990
24	Name of the Mines Manager with Address, mobile no, email, fax	Sh. Kirttan Bihari Mohanta, Mines Manager At/Po - Muniguda, Dist- Rayagada, Odisha

	number and date of appointment in mine	Date of Appointment - 02.03.2023 Mob. No. - 8763953318
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. Kirttan Bihari Mohanta, Mines Manager At/Po - Muniguda, Dist- Rayagada, Odisha Date of Appointment - 02.03.2023 Mob. No. - 8763953318
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. 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.	1. Mining Plan along with PMCP was approved for a period from 2016 - 17 to 2020 - 21, Vide approved Letter No. MP / OTFM / 20 -ORI / BHU / 2016 - 17 / 7097, Dtd. - 17.11.2016. Valid up to 31.03.2021. 2. Review of Mining Plan along with PMCP was approved for a period from 2021 - 22 to 2025 - 26, Vide approved Letter No. RMP / A / 38 -ORI / BHU / 2020 -21 / 2429, Dtd. - 12.01.2021. 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 Mechanized, Others or Manual)	Other than fully mechanized (OTFM)
31	Captive / non-captive	Non captive
32	Present EC Capacity	13272 TPA

Exploration: -

S L. No.	Item	Proposals (FY 2023 - 24)	Actual work	Remarks
1a	Backlog of previous year	No Backlog of previous year	NA	Violation was issued based on the last inspection for backlog of 21 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	NA	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 last approved Review of Mining plan vide dated 12.01.2021 the balance area to be explored is 39.524 ha.	NA	Cumulative 52 bore holes with 2097mtr (100x100 grid spacing) carried out by the Lessee
1e	Balance reserves as on 01.04.2024.(Proved + Probable)	As on 23.10.2020 was 122-4,09,416 tones 222-15960	Mineral Reserve as on 01.04.2024 was 3,79,400 tones	
1f	General remarks of inspecting officer on geology, exploration etc.	Two graphite veins occurred along with two nala courses exists within the lease area. The graphite deposit contains flaky ore average grade of 5.6% F.C.		

Development: --

S L. No.	Item	Proposals (FY 2023 - 24)	Actual work	Remarks
2a	Location of development w.r.t lease area	Coordinates - 193S - 275S / 241W - 341W Cross Section - X3Y3	Broadly as per the proposal	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	1:2.07	1:1.7	Nil
2d	Quantity of topsoil generation in m ³	5400 m ³	1000 m ³	Nil
2e	Quantity of overburden generation in m ³	20800 m ³	20300 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: -

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	12600 tonnes	12000 tonnes	Nil
3c	Recovery of salable / usable mineral from ROM production	11340 tonnes	12000 tonnes	Nil
3d	Quantity of mineral reject generation	1260	Nil	Nil
3e	Grade of mineral reject generation and threshold value declared	Mineral reject/sub-grade- 2 % to 3 % F.C. Threshold Value- 2% Fixed Carbon (F.C) (Min.)	Graphite ore containing +3% F.C is considered for beneficiation ore and graphite ore containing +2% F.C to 3% F.C considered as sub-grade	Subgrade ore is dumped inside the lease area
3f	Quantity of sub-grade mineral generation	Same as Para 3d		Nil
3g	Grade of sub - grade mineral generation	Same as Para 3e		Nil
3h	Manual / Mechanized method adopted for segregating from ROM	Mechanized	Mechanized	Nil
3i	Any analysis or beneficiation study proposed & carried out for sub - grade mineral and reject	No proposal	Nil	Nil
3j	Provision of drilling & blasting in mineral benches	No proposal	Nil	Nil
3k	Provision of mining machineries in mineral benches	Excavator with dumper combination.	As per proposal	Nil
3l	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 maintained as per proposal	Nil
3m	Total area covered under excavation / pits	3.245Ha. (up to end of the plan period)	0.535Ha.	Nil
3n	Ore to OB ratio for the pit / mine during	1:2.07	1:1.7	Nil

	the year					
3o	Total area put in use under different heads at the end of year	Area under excavation	3.245	Area under excavation	0.535	
		Storage for Topsoil	0.927	Use for waste disposal	0.340	
		Overburden dump	1.169	Infrastructure	0.024	
		Mineral storage	1.4	Top soil, ore, sub-grade stack	0.326	
		Infrastructure	1.050			
		Road	2.500	Nil		
		Tailing pond	0.450			
		Mineral separation plant	1.050			
		ETP	0.064			
		Rainwater harvesting pond	0.880			
		Settling pond	0.160			
		Water storage / reservoir	0.625			
Up to end of the plan period						
3p	Production of ROM mineral during last five-years period, as applicable	Year	Quantity Proposed	Year	Quantity Produced	
		Year - 2019 - 20	13272t	Year - 2019 - 20	1.7t	
		Year - 2020 - 21	13272t	Year - 2020 - 21	19.5t	
		Year - 2021 - 22	10920t	Year - 2021 - 22	6879.2t	
		Year - 2022 - 23	11760t	Year - 2022 - 23	11137t	
		Year - 2023 - 24	12600t	Year - 2023 - 24	12000t	
		TOTAL	0t	TOTAL	30037.4t	
		TOTAL	0t	TOTAL	30037.4t	
3q	General remarks of Inspecting Officer on method of mining etc.	Mechanized opencast mining method is being carried out with excavator, dumper combination.				

Solid Waste Management-Dumping: -

S.L.No.	Item	Proposals (FY 2023-24)	Actual work	Remarks
4a	Separate dumping of topsoil, OB &	Separate dumping of topsoil, OB & mineral reject proposed	Separate dumping of topsoil, OB & mineral	Nil

	mineral reject (Rule 32, 33)		reject is being carried out as per proposal	
4b	Location of topsoil, OB & mineral reject dumps	<ul style="list-style-type: none"> Topsoil -550S/610S and 410W / 540W OB Dump - 370S/430S and 580W / 610W Sub grade - 180S/200S and 325W / 340W	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 OB Dump – 1 Outside lease area - Nil	Within Lease Area OB Dump – 1 Outside lease area - Nil	Nil
4d	Location of dumps w.r.t ultimate pit limit	OB Dump - 1 Outside the UPL	OB Dump - 1 Outside the 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	All Retaining walls, Garland Drains to be made progressively over five years plan periods depending on level of mining as proposed.	1. Retaining wall (waste dump) -310m x 2m x 2m 2. Garland Drain (waste dump)- 350m x 1m x 1m	Nil
4i	Length of Retaining wall or garland drain all along dump	1. Retaining wall (waste dump) -310m x 2m x 2m 2. Retaining wall (Topsoil Stack) -120m x 2m x 2m 3. Retaining wall (Sub-grade stack) - 75m x 2m x 2m 4. Garland Drain (waste dump)- 350m x 1m x 1m 5. Garland Drain (Topsoil Stack)- 150m x 1m x 1m	3. Retaining wall (waste dump) -310m x 2m x 2m 4. Garland Drain (waste dump)- 350m x 1m x 1m	Lesser quantity of waste generation and all Retaining walls, Garland Drains to be made progressively over five years plan periods depending

				on level of mining.
4j	Number of settling ponds	No proposal	Nil	Nil
4k	Specific comments of inspecting Officer on waste dump management	Top soil, overburden wastes and mineral reject dump management are being carried out as per the approved proposals.		

Solid Waste Management-Backfilling: -

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

Progressive Mine Closure Plan: -

SL No.	Item	Proposals (FY 2023-24)	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.	As per Rule 26(2) Annual PMCP report to be submitted before 1st day of July of Every Year.	Yes. Submitted the online copy of PMCP under Rule 26(2) on time.	Nil
6b	Management of worked/mined out benches			Nil
	i) Area available for rehabilitation (ha)	i. Nil	i. Nil	
	ii) Afforestation done (ha)	ii. Nil	ii. Nil	
	iii) No. of saplings planted during the year	iii. Nil	iii. Nil	
	iv) Cumulative no. of plants	iv. Nil	iv. Nil	
	v) Any other specific method of rehabilitation	v. Nil	v. Nil	
	vi) Cost incurred on watch & care during the year	vi. Nil	vi. Nil	
6c	Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L * B * D) ii) Void filled by	No Such Proposal	Nil	Nil

	waste/tailings iii) Afforestation on the backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means			
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	3000 1.2Ha. Plantation	3000 1.2Ha. 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 operations	Lessee has implementing PMCP proposals as per approved RMP.		

Mineral Conservation: -

S L. N o.	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	ROM = +3%FC Subgrade = 2 - 3%FC	ROM 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.	No. Yet to be commissioning of Beneficiation plant in the mining lease area	Nil

Environment: -

S L. N o.	Item	Proposals (FY 2023-24)		Actual work		Remarks
		Year	Topsoil Storage(m ³)	Year	Topsoil Storage(m ³)	
8a	Separate removal and utilization of topsoil	2023-	5400	2023-24	1000	Being using for plantation

		24			
8b	Concurrent use or storage of topsoil	For plantation		Being used for plantation	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines	Separate dump 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	3000 no's of saplings		3000 no's of saplings	Nil
8g	Survival rate	NA		Around 25%	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

Compliance of Rule 45

Sl. No.	Item	COMMENTS		Remarks
9a	Status of submission of Monthly and Annual returns	All monthly returns for the reporting year are submitted with in the stipulated time period except for the month of Dec-2023, for which fine imposed vide this office letter no. MCDR-MiFLOGR/1/2023-BBS-IBM_RO_BBS dated 02/02/2024. Annual return for the year 2023-24 has submitted with in the stipulated time period		----- --
S L N O	Item	Proposals (FY 2023-24)	Actual work	Remarks
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.	Already exploited and abandoned by opencast mining	0.00 0	Appears to be correct at that time ----- --
		Area under O/C working	0.53 5	
		Use for waste disposal	0.34 0	

		Infostructure	0.02 4		
		Top soil ore sub-grade stack	0.32 6		
9d	Scrutiny of Annual return on afforestation	3000no's of saplings		Appears to be correct	----- --
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Nil		NA	----- --
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM Closing stock- 29480.540		Appears to be correct	----- --
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex mine price for less than 20% FC- 939.75		Appears to be correct	----- --
9h	Scrutiny of Annual return on fixed assets	Value of fixed Assets: 72085440		Appears to be correct	----- --
9i	Scrutiny of Annual return on mining machineries	Tractor-1 Back hoe-1		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 27/10/2023, 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 Such serious violation observed during this current inspection.

(11) The lessee was submitted DAI/drone survey data under rule 34A for FY 23-24 on 30/06/2024.

Rohita Sethi
Assistant Controller of Mines

