

INDIAN BUREAU OF MINES
MCDR INSPECTION REPORT
Bhubaneswar Region

General

SL. No.	Particulars	Details
1.	Name of the Mine	Kaliapani Chromite Mine
2.	Date of Inspection	17/05/2024
3.	Name of Inspection officer:	Rohita Sethi, Assistant Controller of Mines
4.	Name of official accompanying inspection	Sh. Prabeen Kumar Das, Mines Manager, Sh. Patitapaban Barik, Mining Engineer, Sh. Jyoti Ranjan Dash, Geologist and other mining officials.
5.	Last date of Inspection & Officer	27/04/2022, Sh. Sanjib Kumar Mohapatra, Senior Mining Geologist.
6.	Total Lease Area (Ha) with breakup of non-forest and forest land	62.225 HA (as per DGPS survey) Forest area: - 61.881HA Non-Forest Area:- 0.344
7.	Minocode	11ORI19013
8.	IBM Registration Number under rule 45 of MCDR, 2017	IBM/62/2011
9.	Name of the lessee, Address, phone, email and fax number.	Balasure Alloys Limited. Balgopalpur, Balasure, Odisha PIN: - 756020 Mobile: -8093005711 E Mail: -mail@balasurealloys.com
10.	Village	Kaliapani
11.	Taluka/Mandal	Sukinda
12.	District	Jajpur
13.	Pincode	755028
14.	State	Odisha
15.	Post office.	Kaliapani
16.	Nearest police station	Kaliapani Police Station
17.	Nearest Railway station	Jajpur-Keonjhar Road Railway Station
18.	Date of Grant of Mining Lease	22.05.2000
19.	Date of Execution	15.07.2000
20.	Date of opening of Mine	14.09.2000
21.	Date of expiry	16.07.2030

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22.	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Mr. Chikali Nagaraju Balasore Alloys Limited At: -Balgopalpur, Post:-Mitrapur District: -Balasore Pin-756020 E Mail: -mail@balasorealloys.com Mobile: - 8093153907 Date of Appointment: - 02-04-2024
23.	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Mr. Patitapaban Barik At/P. O: -Bhuban Dist: -Dhenkanal Pin: -759017 Contact: -8093005711 Mail id- patitapaban.barik@balasorealloys.com Date of Appointment: -03.02.2022
24.	Name of the Mines Manager with Address, mobile no, email, fax number and date of appointment in mine	Mr. Prabeen Kumar Das At/P. O: - Saladiha, P\O- Khuntapal Dist- Mayoubhanj Pin: -757020 Contact: - 8093092828 Mail id- prabeen.das@balasorealloys.com Date of Appointment: -22-12-2023
25.	Name of the Mining Engineer , Qualification and total experience with Address, mobile no, email, fax/phone number and date of appointment in mine	Mr. Patitapaban Barik Educational Qualification: -AMIE (Mining) Experience:- 35 years. At/P. O: -Bhuban Dist: -Dhenkanal Pin: -759017 Contact: -8093005711 Mail id- patitapaban.barik@balasorealloys.com Date of Appointment: -03.02.2022
26.	Name of the Geologist , Qualification and total experience with Address, mobile no, email, fax number and date of appointment in mine	Jyoti Ranjan Dash Educational Qualification: -M.Sc(Geology) Experience:- 19 years. Naxetravilla, Jajpur Road District: -Jajpur Odisha PIN: -755019 Mob: -8093153902, Mail id- jyoti.dash@balasorealloys.com Date of Appointment: -15.12.2023
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. Fresh under rule 22 MCR1960 vide letter No:- 314(3)2000-MCCM(C)/MP-1 dated 20.04.2000 . 2. Modif.of approved Mining Plan Vide letter No:- 314(3)/2003-MCCM(C)/MP-17 dated 10.09.2004. 3. Mining Scheme rule 12 MCDR1988 vide letter No:- 314(3)/2003-MCCM(C)/MP-17 dated 15.12.2005. 4. Modif.approved Mining Scheme vide letter No:- 314(3)/2008-MCCM(CZ)/MS-17 dated 25.11.2008. 5. Mining Scheme rule 12 MCDR1988 vide letter No:- 314(3)2010-MCCM(CZ)/MS-02 dated 18.05.2010. 6. Modif.approved Mining Scheme vide letter No:- 314(3)2012-MCCM(CZ)/MS-11 dated 17.12.2012.

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		<p>7. Modif.approved Mining Scheme vide letter No:- MSM/FM/32-ORI/BHU/2013-14 dated 25.07.2014.</p> <p>8. Mining Scheme rule 12 MCDR1988 vide letter No:- MS/FM/27-ORI/BHU/2014-15/ 4853 dated 27.03.2015.</p> <p>9. Modif.approved Mining Scheme vide letter No:- MSM/FM/41-ORI/BHU/2018-19 dated 07.02.2019.</p> <p>10. MP review under 17(1) MCR 2016 vide letter No:- RMP/A/40-ORI/BHU/2019-20 dated 07.01.2020.</p> <p>11.Modif. of approved review of the MP vide Letter No: BBS/JJP/CR/2169/MRMP/2022-23/226, Date: -03.06.2022.</p>
28.	Mineral (s) granted in lease and proved for mining.	Chromite
29.	Method of Mining (Opencast, Underground)	Opencast
30.	Category (Fully Mechanised, Others or Manual)	Category-A, Fully Mechanized
31.	Captive/Non-Captive	Captive
	Present EC Capacity	0.6 million tonne per annum

Exploration:---

SL.No	Item	Proposals (FY 2023-24)	Actual work	Remarks
1a	Backlog of previous year	2 Core Drilling-1880m	No exploration work has been carried out against the proposal	Violation issued under Rule 11(1) of MCDR, 2017
1b	Exploration over lease area for Geological axis 1 or 2.	Exploration proposed to prove ore body at depth and non-potential mineralized area.	G1-20.154Ha G2-21.290Ha	Nil
1c	Exploration Agency & Expenditure in lakh Rupees during the year	Nil	Not Applicable	Nil
1d	Balance area to be explored to bring	21.290	Nil	Nil

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	Geological axis in 1 or 2			
1e	Balance reserves as on 01.04.2024. (Proved + Probable)	Band-I- 19,628,536.00 MT Band-II 5,418,516.00 MT Total- 25,047,052.00 MT as per the last approved mining plan	Band-I- 19,616,647.00 MT Band-II 5,418,516.00 MT Total- 25,035,163.00 MT	After depleting production of 11889 tons of Chrome ore for the year 2023-24.
1f	General remarks of inspecting officer on geology, exploration etc.	Mining operation was discontinued from 06-06-2022 to 14-02-2024 due to want of statutory clearances. Lessee has not carried out the proposed exploration work in the reporting year.		

Development:--

SL.No.	Item	Proposals (FY 2023-24)	Actual work	Remarks
2a	Location of development w.r.t. lease area	North Side South Side OC 2324926- 2326524N/ 371897E - 72404E. BPM 2326307- 2326393N/ 372176-372269E UG 2352810- 2326378N/ 371973-372421E	OC (At Pit bottom) 2326169- 2326218N/ 372037-372111E. BPM No Work UG No Work	Broadly within the Proposed location.
2b	Separate benches in topsoil, overburden and mineral	Separate benches in overburden and minerals	Separate benches maintained in overburden and Mineral.	Nil
2c	Stripping ratio or Ore to OB ratio	OC 1:2.85 UG 1:5.166	OC 1:1.34 UG NIL	Violation issued under Rule 11(1) of MCDR, 2017
2d	Quantity of topsoil generation in m ³	Not Applicable	No topsoil generated.	Nil
2e	Quantity of	1017252cum	8830 cum	Violation issued

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	overburden generation in m3			under Rule 11(1) of MCDR, 2017
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	Mining operation was discontinued from 06-06-2022 to 14-02-2024 due to want of statutory clearances. As per the approved Mod. RMP Lessee has not achieved the proposed overburden quantity.		

Exploitation:--

SL.No.	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	348,321 tonnes (OC+BPM) UG-31350 tonnes	Only 11889 tons of production achieved by Open cast method	Violation issued under Rule 11(1) of MCDR, 2017
3c	Recovery of salable/usable mineral from ROM production	267618 tonnes	11889 tonnes	Violation issued under Rule 11(1) of MCDR, 2017
3d	Quantity of mineral reject generation	112053 tonnes	Nil	Violation issued under Rule 11(1) of MCDR, 2017
3e	Grade of mineral reject generation and threshold value declared	+10%-40% Cr ₂ O ₃	Nil	-----
3f	Quantity of sub-grade mineral generation	As per Para 3d		
3g	Grade of sub-grade mineral generation	As per Para 3e		
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	-----
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Yes	Through COBP	Feed Grade to COBP 22% to 28% Cr ₂ O ₃ Output Concentrate grade 42% to 49% Cr ₂ O ₃

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3j	Provision of drilling & blasting in mineral benches	20% of total excavation will be drilled and blasted	NIL	Mining operation was discontinued from 06-06-2022 to 14-02-2024 due to want of statutory clearances.
3k	Provision of mining machineries in mineral benches	Excavator & Dumper Combination	Excavator & Dumper Combination	-----
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	ROM- 8 m OB- 8 m	As per proposal	-----
3m	Total area covered under excavation/pits	20.664 HA	20.001 HA	Mining operation was discontinued from 06-06-2022 to 14-02-2024 due to want of statutory clearances.
3n	Ore to OB ratio for the pit/mine during the year	1:2.679	1:1.472	Due to less production of ROM and overburden during the reporting year Proposed Stripping ratio has been deviated. Violation issued under Rule 11(1) of MCDR, 2017
3o	Total area put in use under different heads at the end of year	Area Under Mining:20.748 HA Topsoil Stacking- Nil Waste Dump:-36.202 HA Mineral Storage :-1.478 HA Area Infrastructure:-1.471 HA Roads:-3.244 HA Railway-Nil Tailing Pond:-0.02 HA ETP:-0.24 HA Mineral Separation Plant:-0.890 HA Others to specify	Area Under Mining:20.02 HA Waste Dump:-30.92 HA Mineral Storage :-0.919 HA Infrastructure:-0.533 HA Roads:-2.888 HA Tailing Pond:-0.02 HA ETP:-0.224 HA Mineral Separation Plant:-0.870 HA	Mining operation was discontinued from 06-06-2022 to 14-02-2024 due to want of statutory clearances.

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		(Plantation in Safety zone):- 0.17 HA	Others to specify: 1.Plantation in Safety zone:- 2.486 HA 2.Remaining in safety zone & untouched 3.345HA	
3p	Production of ROM mineral during last five-years period , as applicable	2019-2020 :414732MT 2020-2021:- 380826 MT 2021-2022:- 279344 MT 2022-2023:- 342914 MT 2023-2024:- 379671 MT G.TOTAL:- 1797487 MT	2019-2020:- 189313 MT 2020-2021:- 53044 MT 2021-2022:- 18540 MT 2022-2023:- NIL 2023-2024:- 11889 MT G.TOTAL:- 272786 MT	-----
3q	General remarks of inspecting Officer on method of mining etc	Mining operation was discontinued from 06-06-2022 to14-02-2024 due to want of statutory clearances. Proposed method of mining as per the approved mining plan vide letter no. BBS/JJP/CR/2169/MRMP/2022-23 dated 03.06.2024 has not been carried out by the Lessee.		

Solid Waste Management-Dumping:--

SL.No	Item	Proposals (FY 2023-24)	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Separate dumping of top soil, OB wastes and mineral reject is proposed.	As per the proposal	----- -
4b	Location of topsoil, OB & mineral reject dumps	Dump1,2326090-2326522N/ 371030-371400E Dump2,2326200-2326585N/ 371400-372020E Dump3,2325556-	Broadly as per proposals. No new dump is proposed.	----- -

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		2325952N/ 372090-372555E		
4c	Number of dumps within lease area and outside lease area	03 Dumps within the lease area.	03 Dumps within the lease area.	----- -
4d	Location of dumps w.r.t. ultimate pit limit	Dumping proposed over existing dump which located outside of UPL	As per the proposal	----- -
4e	Number of active & alive dumps	03	03	----- -
4f	Number of dead dumps	Nil	Nil	----- -
4g	Number of dumps stabilised	No Proposal	Nil	----- -
4h	Whether Retaining wall or garland drain all along dumps are there	Yes	Yes	----- -
4i	Length of Retaining wall or garland drain all along dump	Retaining wall- 335m Garland Drain- 325m Fencing (Pit)- 430 m	Retaining wall- Nil Garland Drain- Nil Fencing- Nil	Violation issued under Rule 11(1) of MCDR, 2017
4j	Number of settling ponds	Nil	Nil	Nil
4k	Specific comments of inspecting Officer on waste dump management	1. Construction of Retaining wall, Garland Drain and fencing work has not been carried out by the Lessee as per the proposal, violation issued under Rule 11(1) of MCDR, 2017. 2. Mining operation was discontinued from 06-06-2022 to 14-02-2024 due to want of statutory clearances.		

I/35459/2024 **Solid Waste Management-Backfilling:--**

SL.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	No Proposal	Nil	-----
5b	Area under backfilling of mined out area	No Proposal	Nil	-----
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area	No Proposal	Nil	-----
5d	Total area fully reclaimed & rehabilitated	No Proposal	Nil	-----
5e	General remarks of inspecting Officer on backfilling and reclamation etc	Existing pits were not matured by backfilling as ore/mineral not exhausted.		

Progressive Mine Closure Plan: ---

SL.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)	Before 1st July of, 2023-24	Yet to be submitted.	-----
6b	Management of worked/mined out benches 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	i. Nil ii. Nil iii. 3000(Dump-3) iv. 80540 v. Nil vi. Nil	Lessee has to be planted 3000 no's of saplings on dump-3 over an area of 1.2ha against which no plantation carried out.	Violation issued under Rule 11(1) of MCDR, 2017

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	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	No Proposals	Nil	-----
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Environmental monitoring in Core zone and buffer zone will be as per MOEFCC and SPCB guidelines.	Air, Noise and Water quality monitoring carried out as per the proposal during the reporting year.	Nil
6f	General remarks of inspecting Officer on PMCP compliance & progressive closure operation etc	1. Mining operation was discontinued from 06-06-2022 to 14-02-2024 due to want of statutory clearances. 2. As per the proposal for the year 2023-24 the lessee has to be planted 3000 no's of saplings on dump-3 over an area of 1.2ha and lessee has to be constructed retaining wall of 335m, garland drain of 325m and fencing length of 430m against which no work has been carried out. 3. Violation issued under Rule 11(1) of MCDR, 2017		

Mineral Conservation:---

SL.No.	Item	Proposals ((FY 2023-24)	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	Sorting within lease hold area	Sorting within lease hold area	-----
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Mechanical	Mechanical	-----
7c	Different grade of mineral sorted out at mines	High Grade- +52% Cr ₂ O ₃ Medium Grade- 40-52% Cr ₂ O ₃ Low Grade- 10%- 40% Cr ₂ O ₃	As per proposal	-----
7d	Any beneficiation process at mines	Yes	Yes	

Environment:--

SL.No.	Item	Proposals (FY 2023-24)	Actual work	Remarks
8a	Separate removal and utilization of topsoil	No Proposal	Nil	-----
8b	Concurrent use or storage of topsoil	No Proposal	Nil	-----
8c	Separate dumps for overburden, waste rock, rejects and fines	Sub grade stack- 01, 03 OB Dumps	As per proposal	-----
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No Proposal	Nil	-----
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No Proposal	Nil	-----
8f	Baseline information on existence of plantation & additional plantation done	Existing Plantation- 80540 Nos Additional Proposed plantation- Dump-3:- 3000 Nos	Existing Plantation- 80540 Nos Additional planation- Nil	Mining operation was discontinued from 06-06- 2022 to14- 02-2024due to want of statutory

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				clearances.
8g	Survival rate	70%	Nil	-----
8h	Water sprinkling on roads to control airborne dust	Regular sprinkling of water on Haul roads, Waste dump using Water tanker to suppress the dust.	Carried out as per the proposals.	Mining operation was discontinued from 06-06-2022 to 14-02-2024 due to want of statutory clearances.

Compliance of Rule 45

SL.No.	Item	COMMENTS		Remarks.
9a	Status of submission of Monthly and Annual returns	M.R. Submitted upto-April 2024. A.R. submitted upto- 2022-23.		Annual return yet to be submitted.
S.N.	Item	Details GIVEN in A.R.	Actual in field	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	-----	-----	Annual return for Fy 2023-24 has not been submitted till the date of inspection and yet to be submitted within the stipulated time Period.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	-----	-----	Annual return for Fy 2023-24 has not been submitted till the date of inspection and yet to be submitted within the stipulated time

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				Period.
9d	Scrutiny of Annual return on afforestation	-----	-----	Annual return for Fy 2023-24 has not been submitted till the date of inspection and yet to be submitted within the stipulated time Period.
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	-----	-----	Annual return for Fy 2023-24 has not been submitted till the date of inspection and yet to be submitted within the stipulated time Period.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	-----	-----	Annual return for Fy 2023-24 has not been submitted till the date of inspection and yet to be submitted within the stipulated time Period.
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	-----	-----	Annual return for Fy 2023-24 has not been submitted till the date of inspection and yet to be submitted within the stipulated time Period.
9h	Scrutiny of Annual return on fixed assets	-----	-----	Annual return for Fy 2023-24 has

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				not been submitted till the date of inspection and yet to be submitted within the stipulated time Period.
9i	Scrutiny of Annual return on mining machineries	-----	-----	Annual return for Fy 2023-24 has not been submitted till the date of inspection and yet to be submitted within the stipulated time Period.

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

violation pointed out:

(a) No violation pointed out during the last inspection dated 27/04/2022.

(b) During current inspection: The violations of Rules 11(1), of MCDR 2017 have been observed and the violation letter issued on 06/06/24.

(11) On-line validation of star rating of templates yet to be submitted under rule 35 (FY-2023-24).

(12) The lessee has submitted DAI/drone survey data under rule 34A for FY 2023-24 on 20/04/2024.

Rohita Sethi
Assistant Controller of Mines