

**INDIAN BUREAU OF MINES
MINERALS DEVELOPEMMENT AND REGULATION DIVISION**

**FMCP Inspection REPORT
Ranchi regional office**

Mine file No : BIH/GLA/BX/217/RRO

Mine code : 07BHR32004

- (i) Name of the Inspecting : **K001**) **B.L. KISKU**
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Shri Anil Kumar Jha, Mining Engineer & Shri Sanjeet M
Official with
Designation
- (iv) Date of Inspection : 03/06/2022
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **CHIRODIH (16.5)**
- (b) **Registration NO.** : **IBM/4139/2011**
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Opencast
- (e) Postal address
State : JHARKHAND
District : GUMLA
Village : CHIRODIH
Taluka : BISHUNPUR
Post office : JOBHIPAT
Pin Code :
FAX No. : NIL
E-mail : NIL
Phone : N.A.
- (f) Police Station : BISHUNPUR
- (g) First opening date : 01/02/1974
- (h) Weekly day of rest : THU
2. Address for : VILL-CHIRODIH
correspondance : PO-JOBHIPAT
DIST-GUMLA
3. (a) Lease Number : BHR0255
(b) Lease area : 16.58
(c) Period of lease : 50
(d) Date of Expiry : 19/11/2023
4. Mineral worked : BAUXITE Main

5. Name and Address of the

Lessee : VIVEK GARG
 LAKE AVENUE, KANKE ROAD
 RANCHI RANCHI JHARKHAND
 Phone:0651-208947
 FAX :

Owner : VIVEK GARG
 LAKE AVENUE, KANKE ROAD
 RANCHI RANCHI JHARKHAND
 Phone: 0651-208947
 FAX :

Agent : PREAM PRAKASH JHA
 LAKE AVENUE, KANKE ROAD
 RANCHI RANCHI JHARKHAND
 Phone:
 FAX :

Mining Engineer

Name : Anil Kumar Jha,Full Time
 Qualification : B.E.(Mining)
 Appointment/ : 01/07/2019
 Termination date

Geologist

Name : Sanjay Mahto,Full Time
 Qualification : M.Sc. (Applied Geology)
 Appointment/ : 01/02/2022
 Termination date

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|-------------------------------|---|--------------------------------|------------|
| 6. Date of approval of Mining | : | Renewal under rule 24 MCR1960 | 11/07/1997 |
| Plan/Scheme of Mining | | Renewal under rule 24 MCR1960 | 04/04/2012 |
| | | MP review under 17(1) MCR 2016 | 07/08/2018 |

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|---|--|---|---|
| 1a | Backlog of previous year | Nil. | Nil. | The area is already explored 11 nos. DTH. |
| 1b | Exploration over lease area for geological axis 1 or 2 | As per approved document entire lease area to be covered under geological axis 1& 2. | Entire lease area have been covered under geological axis 1& 2. | Entire lease have been covered under G1 & G2 level. |
| 1c | Exploration Agencies and Expenditure in lakh rupees during the year | N.A. | Exploration work carried out very past year by the Lessee. | N.A. |
| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | NIL | NIL. | N.A. |
| 1e | Balance reserve as on 01/04/20 | N.A. | Balance reserves as on 01.04.2022:- Proved (111) = 48959 MT. Probable (122) = 425414 MT Total mineable reserves = 474373 MT. | N.A. |
| 1f | General remarks of inspecting officers on geology, exploration etc | N.A. | NIL. | Total area covered under exploration. |

Development :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|--|--|--|--|
| 2a | Location of development w.r.t.lease area | N2583911 - E219907 & N2584016 - E220107 | N2583911 - E219907 and N2584016 - E220107. | N.A. |
| 2b | Separate benches in topsoil, overburden and minerals (Rule 15) | In Top soil -1 bench & in Laterite -1 bench. | In Top soil -1 bench & in Laterite -1 bench. | benches are maintained as per approved document. |
| 2c | Stripping ratio or ore to OB ratio | Ore: O.B.= 1:0.51 | Ore: O.B.=1:0.98 | As per A.R. 2021-22. |

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| 2d | Quantity of topsoil generation in m3 | 15782 cum | 15782 cum | N.A. |
| 2e | Quantity of overburden generation in m3 | 33132 m3 | 35212 tonnes | Nil. |
| 2f | General remarks of inspecting officers on development of pit w.r.t. type of deposit etc | NONE | NIL | NIL. |

Exploitation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|-------------------|--------------------|---------------------------------------|
| 3a | Number of pit proposed for production | 1 (One). | 1 (One). | NIL. |
| 3b | Quantity of ROM mineral production proposed | 127368 MT | 35625 MT | Low production due low market demand. |
| 3c | Recovery of sailable/usable mineral from ROM production | 127368 MT | 127368 MT | Nil. |
| 3d | Quantity of mineral reject generation | Nil | 600 MT | Mineral rejects furnished in A.R. |
| 3e | Grade of mineral rejects generation and threshold value declared. | Nil | Below 30% Al2O3. | Nil. |
| 3f | Quantity of sub grade mineral generation. | Nil | Nil. | Nil. |
| 3g | Grade of sub grade mineral generation | Nil | Nil | No sub grade mineral is produced. |
| 3h | Manual / Mechanised method adopted for segregating from ROM | Mechanized method | Mechanized method. | Nil. |

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| 3i | Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects. | Nil. | Nil. | Nil. |
| 3j | Provision of drilling and blasting in mineral benches | Yes. | Drilling & Blasting in mineral benches is done. | Drilling & Blasting in mineral benches is done. |
| 3k | Provision of mining machineries in mineral benches | Yes | Yes. | Nil |
| 3l | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | In Ore - 6mX6m in O.B. - 3mX6m | In Ore - 6mX6m and in O.B. - 3mX6m | Nil. |
| 3m | Total area covered under excavation/pits | 10260m ² & 6484m ² | 4.997 hecets. | Nil |
| 3n | Ore to OB ratio for the pit/mine during the year. | 1:0.50 | 1:0.50 | Nil |
| 3o | Total area put in use under different heads at the end of year | Area under:- Pit - 4.997 hecets. Waste Dump - 0.072 ha. Road - 0.149 ha. Other (Safety Barrier) - 0.75 ha. | Area under:- Pit - 4.997 hecets. Waste Dump - 0.072 ha. Road - 0.149 ha. Other (Green Belt) - 0.529 ha. | Nil |
| 3p | Production of ROM mineral during the last five year period as applicable | Last five years proposal :- 2016-17= Lapse period 2017-18= Lapse period 2018-19=131933 MT 2019-20=134357 MT 2020-21=124420 MT 2021-22=127368 MT | Last five years production:- 2016-17= Lapse period 2017-18= Lapse period 2018-19= 7392 MT 2019-20= 32994 MT 2020-21= 37765 MT 2021-22= 35625 MT | Nil. |

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| 3q | General remarks of inspecting officers on method of mining etc. | Nil | Nil | Nil |
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Solid Waste Management - Dumping:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|--|--|---|
| 4a | Separate dumping of topsoil, OB and mineral rejects (Rule 32,33) | Yes. | Yes. | Nil. |
| 4b | Location of topsoil, OB and mineral reject dumps | N.A. | Top Soil generated is spread over the reclaimed area for plantation. | O.B. & Rejects are used for concurrent backfilling. |
| 4c | Number of dumps within lease area and outside of lease area | N.A. | Within lease 1 (one) dump. | Nil. |
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16) | N-25 83 800 to N-25 83 900, E-22 01 000 to E-22 02 000 | N-25 83 800 to N-25 83 900, E-22 01 000 to E-22 02 000. | Nil. |
| 4e | Number of active and alive dumps. | N.A. | Active Dump- 1 (One). | Nil. |
| 4f | Number of dead dumps. | N.A. | One. | Nil. |
| 4g | Number of dumps established. | N.A. | One | Nil |
| 4h | Whether Retaining wall or garland drain all along dumps are there. | N.A. | N.A. | Nil. |
| 4i | Length of Retaining wall or garland drain all along dumps | N.A. | N.A. | Nil |
| 4j | Number of settling ponds | N.A. | Nil. | Nil. |
| 4k | Specific comments of inspecting officer on waste dump management | NIL | NIL | NIL |

Solid Waste Management - Backfilling:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|----------------------------|---|--|
| 5a | Status of part or full extraction of mineral from mined out area before starting backfilling. | After complete Extraction. | After completion of mineral extraction. | Nil. |
| 5b | Area under backfilling of mined out area | 0.236 hecets. | 1.97 hecets.(cumulative). | Nil. |
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32) | Concurrent spreading. | Concurrent spreading of top soil in reclaimed area. | Plantation establishment. |
| 5d | Total area fully reclaimed and rehabilitated | 1.97 hecets. (cumulative). | 1.97 hecets. (cumulative). | O.B. & Waste are used in concurrent backfilling of mined out area. |
| 5e | General remarks of inspecting officers on backfilling and reclamation etc. | N.A. | N.A. | O.B. & Waste are used in concurrent backfilling of mined out area. |

Progressive Mine Clousre Plan:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|---------------|--|--------------------|
| 6a | Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2). | N.A. | PMCP report Submitted on time. | Nil. |
| 6b | Area available for rehabilitation (ha) . | 0.161 hecets. | After completion of reclamation work 406 saplings to be planted. | Nil. |
| 6c | afforestation done (ha). | 155m X 112m | 155m X 112m | Nil. |
| 6d | No. of saplings planted during the year | 300 Saplings. | 300 Saplings. | Survival rate 40%. |
| 6e | Cumulative no .of plants | Nil. | 406 Plants. | N.A. |
| 6f | Any other method of rehabilitation | Nil. | Nil. | N.A. |

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| 6g | Cost incurred on watch and care during the year | Rs. 40600/- | N.A. | After completion of reclamation & rehabilitation work, area will be returned to land owner. |
| 6h | Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D | Nil. | Nil | After completion of reclamation & rehabilitation work, area will be returned to land owner. |
| 6i | Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings | Area- 0.236 ha. | Voids are backfilled with O.B. waste and reclaimed. Top soil are spread over the reclaimed area for rehabilitation and will be returned to land owner. | After completion of reclamation & rehabilitation work, area will be returned to land owner. |
| 6j | Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area | Yes. | Yes, rehabilitation work is done by afforestation in backfilled 0.085 ha. | N.A. |
| 6k | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir | Nil | Nil | Nil |
| 6l | Compliance on reclamation and rehabilitation by backfilling (v) any other specific means. | Nil | Nil | Nil |
| 6m | Compliance of rehabilitation of waste land within lease (i) afforestation | Nil | Nil | Nil |
| 6n | Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha) | Nil. | Nil. | Nil. |

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| 6o | Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation | Nil. | Nil. | Nil. |
| 6p | Compliance of environmental monitoring (core zone and buffer zone) | Nil. | Nil. | Nil. |
| 6q | General remarks of inspecting officers on PMCP compliance and progressive closure operations etc. | Nil. | Nil. | Nil. |

Mineral Conservation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|--|--|---------|
| 7a | ROM Mineral dispatch or grade-wise sorting within lease area | Yes. | Sorting & sizing of ROM are done manually within lease area. | Nil. |
| 7b | Method of grade-wise mineral sorting i.e. manual or mechanical. | Manual. | Manual. | Nil. |
| 7c | Different grade of mineral sorted out at mines. | Average grade of Ore to be dispatched - Al2O3 (+) 45% and SiO2 (-) 3%. | Average grade of Ore to be dispatched - Al2O3 (+) 45% and SiO2 (-) 3%. | Nil. |
| 7d | Any beneficiation process at mines | Nil. | No beneficiation process is done at mine site. | N.A. |
| 7e | General remarks of inspecting officer on Mineral conservation and beneficiation issues | Nil. | Nil. | None. |

Environment:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|--|---|---------|
| 8a | Separate removal and utilization of topsoil (Rule 32) | Separate removal and utilisation of topsoil proposed for rehabilitation . | Separate removal and utilisation of topsoil for rehabilitation carried out. Top soil are spread over in reclaimed areas and used in plantation. | Nil. |
| 8b | Concurrent use or storage of topsoil | Concurrent use of topsoil proposed. Storage of top soil not proposed. | The quantum of top soil removed during mining is used for rehabilitation by spreading over backfilled areas. Top soil dump is also rehandled and used for spreading over the backfilled area. | Nil. |
| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 33) | Separate dumps for overburden, waste rock, rejects and fines not proposed. | No dump is created as quarry is well developed & there is space for backfilling. Concurrent backfilling is done. Hard Laterite is dumped in the void first, then covered by murrum, and finally soil is spread on top for proper reclamation of the quarry. | Nil. |
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | Use of Overburden, waste rock, rejects and fines dumps for restoring the land to its original use proposed. | Overburden, waste rock, rejects and fines dumps used for restoring the land to its original use i.e. cultivation. | Nil. |
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | Proposal for Phased restoration, reclamation and rehabilitation of lands affected by mining operation have been given. | Phased restoration, reclamation and rehabilitation of lands affected by mining operation carried out. During the year 2021-22 about 1.18 ha land has been reclaimed. | Nil. |

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| 8f | Baseline information on existence of plantation and additional plantation done (Rule 41) | The density of vegetaion in forest land is 0.2 to 0.3 and small bushes. | Within the leased hold forest area vegetaion of Sal trees exists. The density of vegetaion is 0.2 to 0.3 and existence of trees are not disturbed by mining operation. The plantation in backfilled area is less as the reclaimed/rehabilitated area is handed over to raiyats/land owners. | Nil. |
| 8g | Survival rate | N.A. | 30% to 40%. | Nil. |
| 8h | Water sprinkling on roads to control airborne dust | Water sprinkling on roads to control airborne dust proposed. | Water sprinkling on roads to control airborne dust is carried out. | Nil. |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines area | Nil. | The aesthetic beauty in and around mines area is good. | Nil. |

Compliance of Rule 45:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|--|---|---------|
| 9a | Status of submission of Monthly and Annual returns | Monthly and Annual Returns to be submitted on time, as per MCDR, 2017. | Monthly return upto March 2022 and Annual Return for 2021-22 submitted on time. | Nil. |
| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager | Name of Mines Manager , Mining Engineer & Geologist not given. | Mines Manager & Mining Engineer: Sri Anil Kumar Jha (Deg. in mining), Geologist: Sri Sanjeet Mahto (MSc. Geology) have been employed. | Nil. |

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| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | Area exploited & abandoned by opencast mining 5.058 ha. Area under current (O/C) working 0.529 ha., Reclaimed/ rehabilitated area 0.441 ha, area used for waste disposal 0.160 ha, area occupied by buildings, residential, welfare buildings& roads 0.21 ha. | Area exploited & abandoned by opencast mining 5.058 ha. Area under current (O/C) working 0.529 ha., Reclaimed/ rehabilitated area 0.441 ha, area used for waste disposal 0.160 ha, area occupied by buildings, residential, welfare buildings& roads 0.21 ha. are found to be correct. | Nil. |
| 9d | Scrutiny of Annual return on afforestation | 300 saplings within lease area. | 300 saplings within lease area, survival rate 40%. | Nil. |
| 9e | Scrutiny of Annual return on mineral reject generation (Grade and quantity) | No mineral rejects. | No mineral rejects are generated and all minerals are sold in market. | Nil. |
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore | ROM :Production 35625 MT during 2021-22. Opening Stock 4200.171 MT & closing Stock 2967.201 MT, Closing Stock for Graded Ore for Alumina : Alumina : Below 40% Al2O3 & 40% to below 45% Al2O3 were 1126MT & 2967.201 MT respectively. | ROM :Production 35625 MT during 2021-22. Opening Stock 4200.171 MT & closing Stock 2967.201 MT, Closing Stock for Graded Ore for Alumina : Below 40% Al2O3 & 40% to below 45% Al2O3 were 1126MT & 2967.201 MT respectively. It seems to be correct. | Nil. |

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| 9g | Scrutiny of Annual return on sale value, Ex. Mine price and production cost | Sale Value of Below 40% Al2O3, Rs 4733560.44/- for 8897.67 MT sold to GEOMAX MINES & MINERALS Pvt. Ltd., Sale Value of 40% to below 45% Al2O3, Rs 7924140.00/- for 14895.00 MT despatched to Madan Mohan Prasad Singh & Sale value of Below 40% Al2O3, Rs 6950739.60/- for 13065.30 MT dispatched to PSG MINERALS. | The sale price comes Rs. 532/- per tonne. | Nil. |
| 9h | Scrutiny of Annual return on fixed assets | Value of Fixed Assets given is Nil., as there is no beneficiation plant, mine work-shop, power and water installation has been installed. | Value of Fixed Assets given is Nil. As there is no beneficiation plant, mine work-shop, power and water installation has been installed. | Nil. |
| 9k | Scrutiny of Annual return on mining machineries | (i) Dumper-10 tonne - 4 nos. - Mechanical (ii) Truck - 9.00 tonne - 4 nos. - Mechanical (iii) Back hoe - 0.24 cum - 1 no. - Mechanical | Mining machineries deployed given are: - (i) Dumper-10 tonne - 4 nos. - Mechanical (ii) Truck - 9.00 tonne - 4 nos. - Mechanical (iii) Back hoe - 0.24 cum - 1 no. - Mechanical. | Nil. |

Details of violations observed during current inspection and compliance position of violation pointed out

| Violation observed | | Show cause position | |
|--------------------|-------------------------|---------------------|-------------------------|
| Rule NO. | Issued on Compliance on | Rule NO. | Issued on Compliance on |

Date : 20.01.2023

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(B.L. KISKU)

Indian Bureau of Mines