

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

MCDR inspection REPORT

Ranchi regional office

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

Mine code : 07BHR32004

- (i) Name of the Inspecting : **K005**) **B.P. KERKETTA**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Sri Gaurav Kumar, Representative of Lessee.
Official with
Designation
- (iv) Date of Inspection : 01/09/2019
- (v) Prev.inspection date : 16/03/2018

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** : **16.59**
- (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 : SURYANARAYAN AKHULI, Full Time
 Qualification : M.Sc. (GEO.)
 Appointment/ : 09/04/2014
 Termination date

Manager

Name : GANGADHAR TIWARI
 Qualification : AMIE IN MINING ENGINEER
 Appointment/ : 01/05/2019 01/07/2019
 Termination date

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	
1b	Exploration over lease area for geological axis 1 or 2	G1 2.19ha. G2 4.75ha.	G1 2.19ha. G2 4.75ha.	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Nil	Lessee it self	
1d	Balance area to be explored to bring Geological axis in 1 or 2	nil	nil	
1e	Balance reserve as on 01/04/20	Proved 111 : 162735 Te Probable 122 : 425414 Te	Proved 111 : 162735 Te Probable 122 : 425414 Te	
1f	General remarks of inspecting officers on geology, exploration etc		Lessee's efforts towards exploration is satisfactory	

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Quarry 1	Quarry 1	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in top soil, overburden and mineral proposed	Separate benches in top soil, overburden and mineral made.	
2c	Stripping ratio or ore to OB ratio	1:0.36	1:0.4	
2d	Quantity of topsoil generation in m3	13413 cum.	13213 cum.	
2e	Quantity of overburden generation in m3	24959 cum.	3750 cum.	

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	The development of the mine is as per approved mining plan. But the production is very less compared to targetted production.
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One	One	
3b	Quantity of ROM mineral production proposed	131933 MT	7392 MT	
3c	Recovery of sailable/usable mineral from ROM production	80%	80%	
3d	Quantity of mineral reject generation	Nil	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	<30%Al2O3	<30%Al2O3	Threshold Value Al2O3 30%
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	Manual method	Manual method	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	nil	nil	
3j	Provision of drilling and blasting in mineral benches	Drilling & blasting in mineral benches proposed.	Drilling & blasting in mineral benches done.	

3k	Provision of mining machineries in mineral benches	Mining machineries in mineral benches proposed.	Mining machineries in mineral benches used.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	3.5m OB & 6m Mineral Bench	3.5m OB & 6m Mineral Bench
3m	Total area covered under excavation/pits	10.2 Ha.	3.19 Ha.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.36	1:0.4
3o	Total area put in use under different heads at the end of year	11.09ha.	4.45ha.
3p	Production of ROM mineral during the last five year period as applicable	2013-14 Lapsed Period 2014-15 0 2015-16 0 2016-17 0 2017-18 0 2018-19 131933MT	2013-14 22980.615 MT 2014-15 0 2015-16 0 2016-17 0 2017-18 0 2018-19 7392 MT
3q	General remarks of inspecting officers on method of mining etc.		Method of mining adopted was Other than Fully Mechanised Open Cast Mining method.Out of Proposed 131933MT during 2018-19, only 7392MT Bauxite have been produced.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping of Top soil,OB and mineral rejects not proposed.	Separate dumping of Top soil,O.B. and mineral reject not done. They are used for sequential backfilling of Quarry voids.	

4b	Location of topsoil, OB and mineral reject dumps	On the Southern side of the Lease area old Top soil,OB and mineral reject dumps are located.	On the Southern side of the Lease area old Top soil,OB and mineral reject dumps are located.
4c	Number of dumps within lease area and outside of lease area	Three old O.B. dump 1(94mx60mx9m), 2 (100mx36mx2m). 4(39mx13mx2m) and One Top soil Old dump (30mx23mx2m) within the lease.	Three old O.B. dump 1(94mx60mx9m), 2 (100mx36mx2m). 4(39mx13mx2m) and One Top soil Old dump (30mx23mx2m) within the lease.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	The location of old dumps are within ultimate pit limit. But it is temporary and will be rehandled for backfilling.	The location of old dumps are within ultimate pit limit. But it is temporary and will be rehandled for backfilling.
4e	Number of active and alive dumps.	Two dumps	Two dumps
4f	Number of dead dumps.	Two dumps	Two dumps
4g	Number of dumps established.	Not Proposed.	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Not Proposed.	Nil
4i	Length of Retaining wall or garland drain all along dumps	Not Proposed.	Nil
4j	Number of settling ponds	Not Proposed	Nil
4k	Specific comments of inspecting officer on waste dump management		Waste dump management is carried out as per approved Review of minin plan.Sequential backfilling is being done by rehandling dumps.

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.	Full extraction of mineral from mined out area before starting backfilling proposed.	Full extraction of mineral from mined out area before starting backfilling done.	
5b	Area under backfilling of mined out area	0.87ha	0.87ha.	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Concurrent use of topsoil for restoration or rehabilitation proposed	Concurrent use of topsoil for restoration or rehabilitation done	
5d	Total area fully reclaimed and rehabilitated	0.87ha	1.18ha	
5e	General remarks of inspecting officers on backfilling and reclamation etc.		Backfilling And Reclamation Status is satisfactory	

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).	Annual report on PMCP to be submitted on time and correctly	Annual report on PMCP submitted on time and correctly	
6b	Area available for rehabilitation (ha) .	Not proposed	Nil	
6c	afforestation done (ha).	Not proposed	nil	
6d	No. of saplings planted during the year	Not proposed	nil	
6e	Cumulative no .of plants	Not proposed	Nil	
6f	Any other method of rehabilitation	Not proposed	nil	
6g	Cost incurred on watch and care during the year	Not proposed	Nil	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	176mX50mX7m	176mX50mX7m
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	nil	nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	nil	nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	nil	nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	nil	nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not proposed	300 tree plantation has been carried out.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not proposed	nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not proposed	nil

6p	Compliance of environmental monitoring (core zone and buffer zone)	Rs 45000/-	Rs 45000/-
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		PMCP compliance and progressive closure operations are carried out as per approved Review of mining plan.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM mineral dispatch and grade wise sorting within lease area proposed.	ROM mineral dispatch and grade wise sorting within lease area carried out.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	
7c	Different grade of mineral sorted out at mines.	Average grade of Ore to be dispatched. Al ₂ O ₃ (+)45% and SiO ₂ (-)3%	Average grade of Ore dispatched. Al ₂ O ₃ 40-45% and SiO ₂ (-)3%	
7d	Any beneficiation process at mines .	No mineral beneficiation except manual sorting proposed.	No mineral beneficiation except manual sorting done.	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		Mineral conservation is taken care of. Low grade Bauxite is blended with high grade and sold.No mineral beneficiation except manual sorting done. The cut off grade of ROM for Renukoot/Muri plant is Al ₂ O ₃ 42% ,SiO ₂ 3.5%.	

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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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 has used in plantation
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.
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. Backfilling is done sequentially. 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.
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.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Proposed.	Phased restoration, reclamation and rehabilitation of lands affected by mining operation carried out. During the year 2018-19 about 1.08ha land has been reclaimed.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Additional plantation of 300saplings in 0.12ha area on the periphery of lease area (within 7.5m safety barrier)	Additional plantation of 300saplings in 0.12ha area on the periphery of lease area (within 7.5m safety barrier)

8g	Survival rate	NA	60%
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 carried out.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		The aesthetic beauty in and around mines area is good.

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.	Monthly return upto September 2019 and Annual Return for 2018-19 submitted on time.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Name of Mines Manager , Mining Engineer & Geologist have not been given.	Mines Manager & Mining Engineer: Sri Anil Kumar Jha, Degree in mining, Geologist: Sri Ranvijay Pd.Singh employed.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under current working 2.01ha, Reclaimed/rehabilitated area 1.18ha, area used for waste disposal 0.98ha, area occupied by buildings, residential ,welfare buildings& roads 0.21ha, Top soil dump 0.07ha,	Area under current working 2.01ha, Reclaimed/rehabilitated area 1.18ha, area used for waste disposal 0.98ha, area occupied by buildings, residential ,welfare buildings& roads 0.21ha, Top soil dump 0.07ha,	
9d	Scrutiny of Annual return on afforestation	300saplings within lease area, survival rate 60%	300saplings within lease area, survival rate 60%	

9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM :Production 7392MT during 2018-19.Opening & closing Stock Nil, Graded Ore for Alumina : 40% to below 45% Opening Stock Nil,Closing Stock 3869.05MT, For use in Refractory: Oening & Closing Stock 133.71MT, Production NIL	ROM :Production 7392MT during 2018-19.Opening & closing Stock Nil, Graded Ore for Alumina : 40% to below 45% Opening Stock Nil,Closing Stock 3869.05MT, For use in Refractory: Oening & Closing Stock 133.71MT, Production NIL
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale Value Rs 2089745/-for 3522.95MT despatchede to Geomax Mines and Mineral Pvt.Ltd.,Ex Mine Price Rs 600/Te,Cost of operation Rs 538/te	Sale Value Rs 2089745/- for 3522.95MT despatchede to Geomax Mines and Mineral Pvt.Ltd.,Ex Mine Price Rs 600/Te,Cost of operation Rs 538/te
9h	Scrutiny of Annual return on fixed assets	Rs 2729550/-	Rs 2729550/-
9k	Scrutiny of Annual return on mining machineries	Tipper(9Tonne cap) 6nos., Dumper (25Tonne cap.) 3nos.,Rock Drill (100mm) 1no., Air Compressor 42Cum/min 1no.	Tipper(9Tonne cap) 6nos., Dumper (25Tonne cap.) 3nos.,Rock Drill (100mm) 1no., Air Compressor 42Cum/min 1no.

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

Violation observed		Show couse position	
Rule NO.	Issued on Compliance on	Rule NO.	Issued on Compliance on

Date :

(B.P. KERKETTA)

Indian Bureau of Mines