INDIAN BUREAU OF MINES MINERALS DEVELOPMENT AND REGULATION DIVISION

MCDR INSPECTION REPORT

Ranchi regional office

Mine file No : BIH/GLA/BX/204/RRO Mine code : 07BHR32009

(i) Name of the Inspecting : M008) J. MOHANTA

Officer and ID No.

(ii) Designation : Assistant Mining Engineer

(iii) Accompaning mine : Shri B.K Mohapatra, DGM(Geo), Shri A.K.Sinha, Mining En

Official with Designation

(iv) Date of Inspection : 05/10/2016
(v) Prev.inspection date : 08/02/2016

PART-I : GENERAL INFORMATION

. (a) Mine Name : JALIM AND SANAI (38.447)

(b) Registration NO. : IBM/935/2011

(c) Category : A Other than Fully Mech.

(d) Type of Working : Opencast

(e) Postal address

State : JHARKHAND
District : GUMLA

Village : JALIM & SANAI
Taluka : BISHUNPUR
Post office : BISHUNPUR

Pin Code

FAX No. : 06526-24118

E-mail : N.A.

Phone : 06526-24016,24112,24446

(f) Police Station : BISHUNPUR
(g) First opening date : 01/11/1983

(h) Weekly day of rest : SUN

2. Address for : VILL-- JALIM & SANAI

correspondance PO-BISHNPUR

DIST-GUMLA

3. (a) Lease Number : BHR0248
(b) Lease area : 12.14
(c) Period of lease : 30

(d) Date of Expiry : 15/10/2004

4. Mineral worked : BAUXITE Main

5. Name and Address of the

Lessee : M/S HINDALCO INDUSTRIES LTD.

AT - COURT ROAD, LOHARDAGA, LOHARDAGA

JHARKHAND

Phone: 06526-22401112, 224446 & 224016.

FAX :06526-224112 & 224445

Owner : K.N.BHANDARI

M/s Hindalco Industries Ltd

P.O. Renukoot Dist.

Sonebhadra (UP) SONBHADRA

UTTAR PRADESH

Phone: FAX:

Agent : B.K.JHA

M/s HINDALCO INDUSTRIES Ltd. COURT ROAD PO& DIST -LOHARDAGA (JHK) LOHARDAGA

JHARKHAND

Phone: Mob- 941708929, 06526-224112/224015

FAX : 06526-224118

Mining Engineer

Name : SRI AKHILESH SINHA, Full Time

Qualification : B.E(Min)
Appointment/ : 17/05/2010

Termination date

Geologist

Name : SHRI ABHISHEK KUMAR, Full Time

Qualification : M.Sc (GEOLOGY)
Appointment/ : 17/12/2008

Termination date

Manager

Name : SRI TRIPURARI SINGH

Qualification : MINES FOREMAN CERTIFICATE

Appointment/ : 17/05/2010

Termination date

6. Date of approval of Mining : Existing rule 11 MCDR1988 03/03/1993
Plan/Scheme of Mining Mining Scheme rule 12 MCDR1988 30/03/2000
Renewal under rule 24 MCR1960 03/12/2004
Mining Scheme rule 12 MCDR1988 10/04/2012
FMCP under 23C(1) 26/02/2013

Mining Scheme rule 12 MCDR1988 19/12/2014

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|--|--|--|---------|
| 1a | Backlog of previous year | No proposal of exploration in the approved document. | No exploration carried out during the year. The entire lease area has been explored by boreholes and working quarries by the lessee. | 2 |
| 1b | Exploration over lease area for geological axis 1 or 2 | No proposal in the approved document. | The entire lease area has been explored by boreholes and working quarries. | |
| 1c | Exploration Agencies and Expenditure in lakh rupees during the year | None. | No exploration has been carried out during the year. No expenditure on exploration is avaialble. | |
| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | Nil. | The entire lease area has been explored by boreholes and working quarries. | |
| 1e | Balance reserve as on 01/04/20 | In the approved scheme of mining for the period from 2014-15 to 2017-18, the reserve position as on 01/10/2013 is as under: Proved (111): 205608 MT & remaining resources (211): 37472 MT. | After depletion of production from 2013-14 (49449 tonnes), 2014-15 (43675 tonnes) and 2015-16 (45589 tonnes) the available reserve as on 01/04/2016 is as under: Proved (111): 66895 tonnes & remaining resources (211): 37472 MT. | |
| 1f | General remarks of inspecting officers on geology, exploration etc | Not applicable. | The entire lease area has been explored by boreholes and working quarries by the lessee. There is no balance area remain unexplored. | 1 |
| Deve | elopment : | | | |
| Sl.No. | Item | Propasals | Actual work | Remarks |

| 2a | Location of development w.r.t.lease area | During the year 2015-16, it was proposed work in quarry no. 2 and 3 in the approved document. | The quarry no. 2 & 3 were developed as proposed in the approved document during the year 2015-16. |
|----|---|--|--|
| 2b | Separate benches in topsoil, overburden and minerals (Rule 15) | As per the approved document, during 2015-16, it was proposed to develop quarry no. 2 & 3 as follows: Quarry no. 3-one bench in soil & morrum and two benches in bauxite, Quarry no. 2: one bench in soil & morrum and one bench in bauxite. | During the year 2015-16, the benches in quarry no. 2 & 3 were developed as proposed in the approved document. |
| 2c | Stripping ratio or ore to OB ratio | During the year 2015-16, the proposed stripping ratio is 1:1.24. | During 2015-16, stripping ratio was 1:1.58. |
| 2d | Quantity of topsoil generation in m3 | 52307 cu.m of topsoil proposed to be generated during 2015- 16. | generation is not |
| 2e | Quantity of overburden generation in m3 | mineral reject | 45147 cu.m of overburden reported to be generated during 2015-16. |
| 2f | General remarks of inspecting officers on development of pit w.r.t. type of deposit etc | Not applicable. | The deposit is of bouldery and pockety in nature and is not continuous. Because of this there was some problem in the development of the mine. The development of the quarry are as per the proposed document. |

Exploitation:

| l.No. | Item | Propasals | Actual work | Remarks |
|-------|---|---|--|---------|
| 3a | Number of pit proposed for production | During the year 2015-16, it was proposed work in quarry no. 2 and 3 in the approved document. | The quarry no. 2 & 3 were developed for production during the year 2015-16 as proposed in the approved document. | |
| 3b | Quantity of ROM mineral production proposed | During the year 2015-16, it was proposed to produce 46296 tonne of bauxite as per tyhe approved scheme of mining. | 45589 tonne of bauxite was produced during the year 2015-16 from the mine. | |
| 3c | Recovery of sailable/usable mineral from ROM production | As per approved document, the proposed recovery of saleable bauxite ore is 90% of total ROM. | As reported during the inspection of mine, the recovery of saleable bauxite ore is varies from 80% to 85% of total ROM production. | |
| 3d | Quantity of mineral reject generation | There is no proposal of mineral reject generation from the mine in the approved document. | No mineral reject generation has been reported from the mine during the year 2015-16. | |
| 3e | Grade of mineral rejects generation and threshold value declared. | proposal of mineral reject generation | Not applicable as there was no mineral reject generation reported from the mine during the year 2015-16. The threshold value declared for bauxite is Al203- 30% with SiO2-<5%. | |
| 3f | Quantity of sub grade mineral generation. | There is no proposal of sub grade mineral generation in the approved document. | No subgrade mineral generation was reported during the year 2015-16. | |
| 3g | Grade of sub grade mineral generation | There is no proposal of sub grade mineral generation in the approved document. | Not applicable as there is no generation of subgrade mineral from the mine during the year 2015-16. | |

3h Manual / Mechanised method adopted for segregating from ROM

sizing of bauxite from the blasted material (ROM) has been proposed in the approved document.

Manual method After blasting manual of sorting and sorting and sizing of bauxite from ROM is practiced in the mine.

3i Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.

There is no proposal of any analysis or beneficiation study for subgrade mineral and rejects in the approved document.

As there is no generation of subgrade mineral and rejects, no analysis or beneficiation is carried out at the mine exept simple manual sorting, screening and sizing.

Provision of 3 ј drilling and blasting in mineral benches

Ther is provision of drilling and blasting is proposed in the approved document. As per proposal, 32-38 mm are to be drilled by jackhammers keeping spacing and burden 1m x 1m respectively. The holes are to be charged with ANFO mixure. Short firing by using ordinary detonator & safety fuse.

As per proposal, 32-38 mm diameter holes are drilled by jackhammers up to a depth of 1.5 mt. keeping spacing and burden $1m \times 1m$ respectively. Hand holes also drilled manually for blasting. The holes diameter holes are charged with ANFO mixure. Short firing is done by using ordinary detonator & safety fuse.

3k Provision of mining machineries in mineral benches

The mining operation is OTFM method. As per the approved scheme of mining, the machineries like poclain excavator, dozer, tractor, dumper, rock drills etc. are proposed to be deployed in the mine

Only quarry no. 2 was working on the day of proposed to be inspection. No mining carried out by machineries were deployed in the mine. The excavator is used for removal of overburden and manual method of mining is carried out in the mine.

31 Whether height of benches in overburden and mineral suitable height of for method of mining proposed in MP/SOM

As per approved document, benches in OB and mineral were proposed to be $6m \times 6m$ and $3m \times 3m$ respectively.

Height of the benches 2-3 m in over burden and 3m in ore are generally maintained in the mine. Two nos. of OB benches one in topsoil followed by one in hard morrum has been formed. The height and width of the benches formed in the mine are as per the approved document.

3m Total area covered under excavation/pits

As per approved document for the period from 2014-15 extent of 10.83 ha area has been proposed to be degraded by mining activity.

An extent of 4.78 ha area has been covered under excavation as per the annual return submitted by the lessee to 2017-18, an for the year 2015-16.

3n Ore to OB ratio for the pit/mine ore to OB during the year. ratio during

The proposed 16 is 1:1.24.

As reported, 45147 cum of OB was removed during the year 2015-16 against the year 2015- the production of 45589 tonne of bauxite. The ore to OB ratio for the year 2015-16 is 1:.0.99

Total area put in use under different heads at the end of year

As per approveed scheme of period from 2014-15 to 2017-18, the area put to use after cpmpletion of period is 10.83 ha (for all quarries including backfilled area of 4.42 ha and plantation area of 0.32 ha), road 0.02

Upto 2015-16, the total area put to use was: quarry- 4.780 ha, area mining for the reclaimed/rehabilitated-5.5 ha, area occupied by plant, building, road etc- 0.500 ha.

Production of 3р ROM mineral during the last five year period the period as applicable

As per document approved for from 2014-15 to 2017-18, propsed for the year 2014-15 & 2015-16 is as under: 2014-15 -45307 tonne, 2015-16 -

ha.

The production achieved during the last five years is as under: 2011-12 - 39985 tonnes, 2012-13 - 49505 tonnes, 2013-14 - 49445 tonnes, the production 2014-15 - 43675 tonnes, of bauxite was 2015-16 - 45589 tonnes.

3q General remarks of inspecting officers on method of mining etc.

Not. applicable.

46296 tonne.

As per the approved document, proposed method of mining is under A-OTFM category. Mining is carried out in the mine is mainly by manual means. The excavator is used only for removal of overburden. The mining is carried out in the mine as per the proposals in the approved document.

Solid Waste Management - Dumping:

Actual work Remarks Sl.No. Item Propasals

| 4a | Separate dumping of topsoil, OB and mineral rejects (Rule 32,33) | mineral rejects in the approved scheme of | The overburden and waste materials generated frpm the mine are simultaneosly used for backfilling in the mined out areas as proposed in the approved scheme of mining. The topsoil generated are spread over the backfilled areas. |
|----|--|---|--|
| 4b | Location of topsoil, OB and mineral reject dumps | There was no proposal for separate dumping of topsoil,OB and mineral rejects in the approved scheme of mining for the period from 2014-15 to 2017-18. | There is no dumps of topsoil,OB and mineral rejects in the lease area. |
| 4c | Number of dumps within lease area and outside of lease area | There was no proposal for separate dumping of topsoil,OB and mineral rejects in the approved scheme of mining for the period from 2014-15 to 2017-18. | There are no dumps within and out side of lease area. |
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16) | There was no proposal for separate dumping of topsoil,OB and mineral rejects in the approved scheme of mining for the period from 2014-15 to 2017-18. | No dumps exists in the lease area. |

| 4e | Number of active and alive dumps. | There was no proposal for separate dumping of topsoil,OB and mineral rejects in the approved scheme of mining for the period from 2014-15 to 2017-18. | No dumps exists lease area. | in | the |
|----|--|---|-----------------------------|----|-----|
| 4f | Number of dead dumps. | There was no proposal for separate dumping of topsoil,OB and mineral rejects in the approved scheme of mining for the period from 2014-15 to 2017-18. | No dumps exists lease area. | in | the |
| 4g | Number of dumps established. | There was no proposal for dumping of topsoil,OB and mineral rejects in the approved scheme of mining for the period from 2014-15 to 2017-18. | No dumps exists lease area. | in | the |
| 4h | Whether Retaining wall or garland drain all along dumps are there. | There was no proposal for dumping of topsoil,OB and mineral rejects in the approved scheme of mining for the period from 2014-15 to 2017-18. | Not applicable. | | |

| 4i | Length of Retaining wall or garland drain all along dumps | There was no proposal for dumping of topsoil, OB and mineral rejects in the approved scheme of mining for the period from 2014-15 to 2017-18. | Not applicable. |
|------------|--|---|--|
| 4 j | Number of settling ponds | There was no proposal for settling ponds in the approved scheme of mining for the period from 2014-15 to 2017-18. | No settling ponds in the lease area. |
| 4k | Specific comments of inspecting officer on waste dump management | Not applicable. | The entire overburden and waste materials generated from the mine are concurrently utilised for backfilling in the mined out areas. The topsoil so generated is spread over the backfilled area as per the proposal. |

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. | concurrent backfilling of the mined out areas after full | Concurrent backfilling of the mined out areas of quarry no. 2 has been carried out during the year 2015-16 as the approved document. | |

Remarks

| 5b | Area under backfilling of mined out area | During the year 2015-16, an axtent of 0.45 ha area of quarry no. 2 & 3 were proposed to be backfilled as per the approved document. | About 5.5 ha area has been backfilled as per the annual return submitted by the lessee for the year 2015-16. | |
|----|---|--|---|--|
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32) | Proposal for concurrent use of topsoil over the backfilled areas of quarry no. 2 & 3 for rehabilitation have been made in the approved document. | | |
| 5d | Total area fully reclaimed and rehabilitated | During the year 2015-16, an axtent of 0.45 ha area of quarry no. 2 & 3 were proposed to be backfilled as per the approved document. | About 5.5 ha of mined out areas of quarry no. 2 & 3 have been backfilled / reclaimed by the lessee as per the annual return submitted for the year 2015-16. | |
| 5e | General remarks of inspecting officers on backfilling and reclamation etc. | Not applicable. | About 5.5 ha of mined out areas of quarry no. 2 & 3 have been backfilled / reclaimed by the lessee as per the annual return submitted for the year 2015-16. The performance regarding backfilling and reclamation over mined out areas by the lessee is satisfactory. | |
| | Progressive Mine (| Clousre Plan: | | |

Propasals Actual work

Sl.No.

Item

| 6a | Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2). | Not applicable. | The party has not submitted the annual return on PMCPfor the year 2015-16. |
|----|--|--|--|
| 6b | Area available for rehabilitation (ha) . | 0.45 ha area was proposed to be backfilled in the worked out aeas of quarry no. 2 and 3 during the year 2015-16. | As reported by the party, 0.52 ha area has been reclaimed during the year 2015-16. |
| 6c | afforestation done (ha). | As per approved document, it was proposed to backfill 0.45 ha area during 2015-16 and to plant 200 saplings over an area of 0.0812 sq. mt. | As reported by the party, 0.52 ha area has been reclaimed during the year 2015-16 and 200 saplings has been planted over an area of 0.12 ha. |
| 6d | No. of saplings planted during the year | | 200 nos. of saplings were planted having 50% survival rate during the year 2015-16 as reported in the annual return submitted by the party for the year 2015-16. |
| 6e | Cumulative no .of plants | | 200 nos. of saplings were planted having 50% survival rate during the year 2015-16 as reported in the annual return submitted by the party for the year 2015-16. Details of cumulative no. of plantation were not available. |
| 6f | Any other method of rehabilitation | | Only plantation has been reported in the approved document. |

| 6g | Cost incurred on watch and care during the year | | Information not available with regard to cost incurred on watch and care during the year. |
|----|--|--|---|
| 6h | Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D | aeas of quarry | As on 2015-16, an extent of 5.500 ha of mined out area has been reclaimed / rehabilitated as reported in the annual return submitted for the above period. |
| 6i | Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings | | As on 2015-16, an extent of 5.500 ha of mined out area has been reclaimed / rehabilitated as reported in the annual return submitted for the above period. |
| 6j | Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area | 2 & 3 were proposed to be | As reported in the annual return for the year 2015-16, an extent of 5.500 ha of mined out area has been reclaimed / rehabilitated and 200 saplings planted during the above period. |
| 6k | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir | No proposal have been made in the approved document. | Not applicable. |

| 61 | Compliance on reclamation and rehabilitation by backfilling (v)any other specific means. | No proposal have been made in the approved document. | Not applicable. |
|----|---|--|---|
| бт | Compliance of rehabilitation of waste land within lease (i)afforestation | in the approved | There is no waste land within lease area. |
| 6n | Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha) | No proposal have been made in the approved document. | Not applicable. |
| 60 | Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation | No proposal have been made in the approved document. | Not applicable. |
| бр | Compliance of environmental monitoring (core zone and buffer zone) | Proposal for regular monitoring of water, air, soil and noise within the lease area and core zone have been made in the approved Scheme of Mining. | As reported, regular monitoring of air, water, soil and noise is being carried out by the lessee and are within permissible limit. |
| 6q | General remarks of inspecting officers on PMCP compliance and progressive closure operations etc. | Not applicable. | During the year 2015-16, concurrent backfilling of mined out areas of quarry no. 2 was undertaken and efforts also made to achieve the proposal made in the approved Scheme of Mining with regard to excavation schedule, production target, reclamation / backfilling proposal, afforestation proposal, environmental monitoring proposal etc. |

Mineral Conservation:

| Sl.No. Item Propasals Actual work Remarks | l.No. |
|---|-------|
|---|-------|

7a ROM Mineral dispatch or grade-wise sorting within lease area

The entire bauxite ore the mine is meant for captive plant of M/s Hindalco Ind. dispatch. Ltd. Only manual sorting, screening and sizing has been proposed in the approved document.The specification of ore is (+) 10mm to (-)200 mm.

During the year 2015-16, a total of 47573. 46 produced from tonne of Bauxite was dispatched from the mine to its captive plant at Renukoot / Muri. Manual consumption at sorting, screening and Muri / Renukut sizing is done at the mine site before

7b Method of grade- Manual wise mineral sorting i.e. manual or mechanical.

sorting, sizing of bauxite has beem proposed in the approved document .

The manual grade wise sorting, screening and screening and sizing of bauxite as proposed in the approved document is being carried out in the mine. The specification of ore is (+) 10mm to (-) 200 mm.

Different grade of mineral sorted out at mines.

7с

Manual sorting, screening and sizing of bauxite has in the approved document .

Manual sorting, screening and sizing of bauxite as proposed in the approved document is being carried out in the beem proposed mine. The specification of ore is (+) 10mm to (-) 200 mm.

7d Any beneficiation process at mines screening and

Only manual sorting, sizing of bauxite has been proposed in the approved document.

The manual sorting, screening and sizing of bauxite as proposed in the approved document is being carried out in the mine.

7e General remarks Not of inspecting apploafficer on Mineral conservation and beneficiation

issues

applicable.

No mineral beneficiation except manual sorting, screening and sizing of ROM produced from the mine is done before dispatch to its captive plant at Renukoot / Muri. The specification of ore is (+) 10mm to (-) 200 mm. All possible efforts on mineral conservation and beneficiation issues are taken care by the lessee.

Environment:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|--|---|---------|
| 8a | Separate removal and utilization of topsoil (Rule 32) | removed during the mining is to be utilised to spread over | The topsoil removed during the mining operation is spread over the backfilled areas as per the propsal made in the approved document. | |
| 8b | Concurrent use or storage of topsoil | There is no proposal for storage of topsoil. The topsoil removed during the mining is to be utilised to spread over the backfilled areas as per the propsal made in the approved document. | The topsoil removed during the mining operation is spread over the backfilled areas as per the propsal made in the approved document. | |
| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 33) | | The OB, waste generated from the mine during the mining operation was concurrently backfilled in the mined out areas of quarry no. 2 & 3 during the year 2015-16. | |

8d Use of There is no The OB and waste overburden, genearted from the mine proposal for waste rock, are backfilled in the storage of OB rejects and and waste mined out areas areas as fines dumps for material. The per the propsal made in restoring the entire OB and the approved document. land to its During the year 2015-16, waste original use about 416412 cu.m of genearted are to be OB/waste generated was backfilled used for backfilling. simultaneously in the mined out areas areas as per the propsal made in the approved document. 8e During the Phased The OB and waste restoration, year 2015-16, genearted from the mine reclamation and 0.45 ha area are simultaneouly rehabilitation proposed to be backfilled in the mined backfilled and out areas. As reported, of lands affected by an extent of 0.52 ha reclaimed in area has been reclaimed mining the approved operations document. during the year 2015-16. (Pits, dumps About 5.500 ha area has etc) already been reclaimed / rehabilitated up to 31/03/2016. 8f No existing During the year 2015-16, Baseline information on plantation has it was reported that 200 existence of been reported nos. of saplings were plantation and in the planted covering an are additional of about 0.12 ha. approved scheme of plantation done (Rule 41) mining.There is proposal for 800 nos. of plantation during the scheme period 2014-15 to 2017-18 and 200 nos. during the year 2015-16. Survival rate About 50% survival rate 89 No such has been reported by the survival rate has been party. proposed in the approved document. 8h Water sprinkling No such Water sprinkling is done on roads to proposal has in the haul roads from

been made in

document.

the approved

time to time to supress

the air borne dust

during transportation.

control airborne

dust

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8i General remarks Not of inspecting apploafficer on aesthetic beauty in and around mines area

Not applicable.

Concurrent backfilling of the mined out areas and spreading of topsoil over it for reclamation alongwith plantation are carried out by the lessee in the lease area. During the year 2015-16, about 200 nos. of saplings were planted. Forest exists within 500 mts of lease area having thick vegetation of sal trees. The aesthetic beauty in and around the mines area has not been disturbed due to mining operation.

Compliance of Rule 45:

Sl.No. Item Propasals Actual work Remarks

9a Status of submission of Monthly and Annual returns

The information furnished in the Annual year 2015-16 I of General information about mine and Labour employment, Part-II about Employment & wages, Part-II A about Capital Structure, Part-III consists of Consumption of materials, Part-IV about consumption of explosives, Part-V consists of General Geology & Mining under various sections, Part-VI about production, despatch & stock and Part-VII cost of production.

The party has submitted the Monthly Returns regularly within the stipulated time in every Return for the month. Party has also submitted Annual Return covering Part- for the year 2015-16 within stipulated time.

Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager

9b

Engineer, Manager have Return 16.

Name of Mining Since it is a A-OTFM mine, full time Mining Geologist and Engineer and Geologist have been appointed been furnihed under rule 42(1)(c)(i) in the Annual of MCDR, 1988. Name of Mining Engineer: Shri submitted for A.K. Sinha, B.E the year 2015- (Mining), Geologist: Shri A. Kumar, M.Sc (Geology).

9c Scrutiny of The land use The land use pattern for Annual return on pattern given the area under pits, land use pattern in the Annual reclaimed area, dump Return for the etc. furnished in the for area under pits, reclaimed Year 2015-16 annual return appears to area, dumps etc. was as under:- be in order. Area already exploited/aban doned by OC working: 12.910 ha.; Covered under current working: 4.780 ha; Area Reclaimed/Reha bilitated: 5.500 ha; Area occupied by infrastructure (Road etc): 0.5 Hect. Work done under PMCP: 0.520 ha. 9d Scrutiny of Under Part-V, Plantation was made as Annual return on item no. 4.4 per the approved scheme afforestation of the Annual of mining. Return, 2015-16, it was given that 200 nos. of plantation was made within the ML area during the year with 50% survival rate. 9e Scrutiny of No mineral During the year no Annual return on reject mineral reject mineral reject generation has generation has been generation been repoted reported from the mine. (Grade and in Part-V, Sec 4 of the quantity) Annual Return 2015-16. 9f ROM stock -The figures given on ROM Scrutiny of Annual return on Opening stock are appears to be ROM stock and/or balance: in order. graded ore 2005.240 tonne, Production: 45589 tonne of 40-45% of A1203 and Closing balance:

20.780 tonne.

| 9g | Scrutiny of Annual return on sale value, Ex. Mine price and production cost | bauxite furnished as Rs. 313.82- in the annual | The Ex-Mine price of bauxite furnished in the annual return is satisfactory. The cost of production has not been furnished in the annual return and the ex-mine price is considered as cost of production. The entire production of bauxite is used for captive purpose. |
|----|---|--|---|
| 9h | Scrutiny of Annual return on fixed assets | The value of fixed assets was given as Rs. 240254493/-under Capital Structure. | The information given in support of the value of fixed asstes appears to be correct. |
| 9k | Scrutiny of Annual return on mining machineries | machinery furnished under Part-V, Sec 5/6/8/9 of | The excavator is used for removal of overburden and manual method of mining is carried out in the mine. As the area is very sensitive no mining machineries are permanently kept at the mine site. The machineries used in the mine are brought from the nearby Shrengdag bauxite mine of the lessee as and when required. |

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

Violation observed Show couse position

| Violat | cion observed | | Show couse position | | |
|----------|---------------|---------------|---------------------|-------------------------|--|
| Rule NO. | Issued on | Compliance on | Rule NO. | Issued on Compliance on | |

Date: (J. MOHANTA)

Indian Bureau of Mines