INDIAN BUREAU OF MINES MINERALS DEVELOPMENT AND REGULATION DIVISION

MCDR INSPECTION REPORT

Ranchi regional office

Mine file No : BIH/GUM/BX/216/RRO Mine code : 07BHR32014

(i) Name of the Inspecting : B001) SAGAR BODRA

Officer and ID No.

(ii) Designation : Assistant Mining Geologis

(iii) Accompaning mine : NONE

Official with Designation

(iv) Date of Inspection : 16/03/2018
(v) Prev.inspection date : 08/02/2017

PART-I : GENERAL INFORMATION

.. (a) Mine Name : NEW AMPTIPANI (49.27)

(b) Registration NO. : IBM/5041/2011

(c) Category : A Fully Mechanised

(d) Type of Working : Opencast

(e) Postal address

State : JHARKHAND
District : GUMLA
Village : AMPTIPANI
Taluka : BISHUNPUR
Post office : JOBHIPAT

Pin Code :

FAX No. : N.A. E-mail : N.A.

Phone : 06565-226016

(f) Police Station : BISHUNPUR
(g) First opening date : 15/07/1985

(h) Weekly day of rest : THU

2. Address for : VILL-KARKAPAT correspondance BISHUNPUR

DIST-GUMLA

3. (a) Lease Number : BHR0252 (b) Lease area : 49.07 (c) Period of lease : 20

(d) Date of Expiry : 26/05/2005

4. Mineral worked : BAUXITE Main

5. Name and Address of the

Lessee : AWADHESH KUMAR SINGH

AT -CHANDWA LATEHAR

JHARKHAND

Phone:06565226016 & 9431390666

FAX :

Owner : AWADHES KUMAR SINGH

AT/PO-CHIRKUNDA DIST-DHANBAD JHARKHAND DHANBAD

JHARKHAND

Phone: 06552-23005,220

FAX :

Mining Engineer

Name : SRI G.D.TEWARY, Full Time

Qualification : B.Tech (Min)

Appointment/ : Termination date

Geologist

Name : ARBIND RANJAN, Full Time Qualification : M. Sc. (Applied Geolgy)

Appointment/:
Termination date

Manager

Name : SRI GANGADHAR TEWARY

Qualification : B.Tech (Min)

Appointment/:
Termination date

PAGE : 3

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
la	Backlog of previous year	As per approved Mining Plan, dated12.09.20 16, valid for the plan period 2016-17 to 2019-20 (2015-16 was lapsed period), there was a proposal for 09 nos. of boreholes to be given during the year 2017-18 at a grid interval of 100m X 100m.	No exploration was carried out during the year 2017-18 as proposed in the approved Mining Plan. Backlog of 09 boreholes still existsted.	Nil
1b	Exploration over lease area for geological axis 1 or 2	As per approvewd Mining Plan, dated 12.09.2016, valid for the plan period 2016-17 to 201920 (2015-16 was lapse period), there was proposal for 09 nos. of boreholes to be given during the year 2017-18 to cover approximately 9.0 Ha on the Southern and Eastern part of lease area for G1 and G2 level.	Previously in the year 2011, thirteen (13) nos. of DTH were given, at a grid interval of 100m X 100m, covering about 13 Ha area, with total metrage of 132.8 m having maximum and minimum depth of hole at 10.5 m and 10.0 m respectively. No exploration was carried out during the year 2017-18 as proposed in the approved Mining Plan.	

1c Exploration
Agencies and
Expenditure in
lakh rupees
during the year

No specific proposal is there in the approved Mining Plan valid for the plan period 2016-17 to 2019-20 (2015-16 was lapse period).

Lessee had explored the area earlier by hiring drilling rig. About Rs. 100000/- (One lakh only) was incurred towards drilling of total 132.8m in 13 nos. of boteholes within the lease area at the rate of about Rs. 755/- per meter of drilling.

1d Balance area to be explored to bring Geological axis in 1 or 2

About 9.0 Ha area on the Southern and Eastern part of lease area was proposed to be explored during the year 2017-18 under G1 and G2 level.

The proposed exploration Nil has not been carried out by the lessee.

le Balance reserve as on 01/04/20

As per approved Mining Plan, valid for the plan period 2016-17 to 2019-20 (2015-16 was lapse period) the Reserve/ Resource as on 01.04.2016 was as given below:-Reserve(111): 507939 MT; ii. Probabale(122): 993571 MT; iii. Resource (211+ 222): 317435 MT.

After depleting 118215 Nil MT production for year 2017-18, the Reserve/Resource position as on 01.04.2018 will be same as given above:i. Reserve(111): 389724 MT (Av. Al2O3- 46.725%, SiO2- 4.08%); ii. Probabale(122): 993571 MT (Av. Al203-46.725%, SiO2- 4.08%); iii. Resource(211+222): 317435 MT (Av. Al203-46.725%, SiO2- 4.08%).

1f General remarks of inspecting officers on geology, exploration etc

The Aluminium ore of the lease area predominantly Gibbsitic(Tri hydrate). The Ore is overlain by Laterite and underlain by Lithomargic clay. Av. thickness of Laterite was 1.4m and Aluminium Ore varies in thickness from 3-5.8m and the av. thickness of Lithomargic Clay was 2.5m. There was proposal exploration through 09 BHs during the plan period of

2017-18.

Bauxite deposit of the Nil area is mostly associated with laterite, occurs as irregular and discontinuous lenses or tabular bodies within the laterite capping. The maximum thickness of Bauxite horizon encountered in the DTH was around 6.0 m followed by lithomargic clay. The area was explored through 13 DTH given during the year 2011 covering about 6 Ha area.

Development :

Sl.No. Item Propasals Actual work Remarks

Location of 2adevelopment w.r.t.lease area Mining Plan

As per approved dated 12.09.2016, development was proposed in Quarry no. 2 and 4 (Merged) (on the eastern area) between co-ordinates 2106N - 2500N & 642E- 754E. During the plan period area was excavated.

As per proposal, the development work was in progress around Quarry no. 2 and 4(Merged) on the eastern part of the lease area upto the period of its operation, i.e upto February, 2018. The present working quarry (2& 4 merged) had crossed the proposed part of lease development limit of 2017-18 (as per Development Plan of approved Mining Plan). The same was pointed out to the lessee through Violation cum show about 9.491Ha notice issued vide this office letter no. proposed to be BIH/GUM/BX/216/RRO, dated 16.05.2018.

The mine re-opened on 28.04.2018.

Separate benches Separate in topsoil, overburden and minerals (Rule 15)

2b

Soil, Overburden um) and Bauxite were proposed. In Top soil, OB height was proposed to be 3.5m. kept between 1-1.5m, 2.5-2.6m and 5.9respectively. The bench width was proposed to be kept within 6m in all 3 horizons.

Separate benches in benches in Top Overburden (maily consisting of top soil) and Ore were developed. (Laterite/Morr In OB (consisting of Top soil), the bench height varied from 1.5-4m and Bauxite bench was of 2-2.5m thickness. The and Ore, bench bench width was maitained between 3-

2c Stripping ratio or ore to OB ratio

As per approved Mining Plan, the overall stripping ratio during the period 2016-17 to 16 was lapse period) was 1: 0.52 Tes/cu.m. During 2017-18, the Ore to OB ratio was proposed to be 1: 0.64 Tes/cu.m.

During the period 2016-17, the mine was not in operation. The mine was re-opened on 28.04.2017 and production reported from May, 2017 to March, 2018. The production was 118218 MT and total 2019-20 (2015- OB generation was 54945 MT during 2017-18. On the basis production and proposed to be OB generation, the average Ore to OB ratio was calculated as 1: 0.46 Tes/cu.m.

Nil

2d Quantity of topsoil generation in m3 Mining Plan,

approved the top soil generation during 2016-17 to 2019-20 (2015-16 was lapse period) was proposed to be as under:i. 2016-17: 18009 cu.m; ii. 2017-18: 25278 cu.m; iii. 2018-19: 27809 cu.m; and iv. 2019-20: 30927 cu.m.

As per

About 25278 MT top soil has been generated during the year 2017-18.

Remarks

2e	Quantity of overburden generation in m3	the OB generation	The quantity of OB generation during last few years was as given below:- i. 2010-11: N.A; ii. 2011-12: 3000 MT (~ 1500 Cu.m); iii. 2012-13: 1000 MT (~ 500 Cu.m); iv. 2013-14: Nil; v. 2014-15: 56000 MT (~ 28000 Cu.m); and vi. 2015-16: 69637 MT (~ 34819 Cu.m). vii. 2016-17: Nil viii. 2017-18: 25278 MT	Nil
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	16 was lapse period), there was proposal to develop Quarry no. 2 and 4(Merged), located on the Western and SW portion of lease. The deposit was of	The lessee had previously developed five (05) quarraries within the lease area. As per proposal, the development work was carried out in Quarry no. 2 & 4(Merged) on the Western and SW part of the lease area upto the period of its operation, i.e upto February, 2016. On the date of inspection the mine was not in operation. The Bauxite of the area was mixed type with predominantly Gibbsitic (Al203.3H2O) in the range of 70-75% and balance 30-25% is Bohemitic (Al203. H2O).	Nil
Exp	loitation:			

Propasals Actual work

Sl.No.

Item

Number of pit Production was reported Nil 3a As per proposed for mainly from Quarry no. 2 approved production Mining Plan and 4(Merged) on the dated , dated Western & SW part of the 12.09.2016, lease area. The mine was production was not in operation during proposed from 2016-17. The mine was Quarry no. 2 & re-opened on 28.04.2017. 4 (Merged) as Altogether, 5 quarries were opened in the area, envisaged in the the dimension of which Development are given below:-Plan of the i. Quarry no. 1: 160m X approved 60m X 6m; document. ii. Ouarry no. 2 & 4(Merged): 600m X 180m X 6.5m; iii. Quarry no. 3: 70m X 35m X 6m; iv. Quarry no. 5: 70m X 50m X 3m. 3b Quantity of ROM The quantity of mineral The mine was not As per mineral approved production during last in operation production Mining Plan, eight years was as given during 2016-17. below:proposed the ROM Mineral i. 2010-11: 10070 MT; ii. 2011-12: 15280 MT; production during 2016-17 iii. 2012-13: 4090 MT; to 2019-20 iv. 2013-14: Nil; (2015-16 was v. 2014-15: 22910 MT; lapse period) vi. 2015-16: 49741 MT; was proposed and vii. 2016-17: Nil. to be as under:viii. 2017-18: 118215 i. 2016-17: 91330 Cu.m; ii. 2017-18: 99583 Cu.m; iii. 2018-19: 107120 cu.m; and iv. 2019-20: 113351 cu.m. 3c Nil Recovery of The proposed During the period 2017sailable/usable 18, the average recovery recovery of mineral from ROM saleable/useab of mineral from ROM was production le mineral around 65-70%. from ROM production was 80%.

3d	Quantity of mineral reject generation	As per approved Mining Plan dated 12.09.2016, no proposal was available for mineral rejects generation during the period 2016-17 to 2019-20 (2015-16 was lapse period).	About 1800 MT reject generation was reported from the mine.	Nil
3e	Grade of mineral rejects generation and threshold value declared.	as there was no proposal of	No Mineral Reject generation had been reported from the mine hence grade of mineral reject is irrelevant. The Threshold value of Bauxite is Al203- 30% with SiO2- < 5%. The av. grade of ore produced was of 40-46% Al203 and 4-4.5% SiO2.	Nil
3f	Quantity of sub grade mineral generation.	There was no proposal for Sub-grade mineral generation in the approved Mining Plan valid for the plan period 2016-17 to 2019-20. Further, the period 2015-16 was was lapse period.	No sub-grade Bauxite production was reported from the mine. However, whatever low grade materials were generated from the mine were blended with high grade material before dispatch, maintaining the requisite grade. Thus mineral wastage was avoided and ascertaining mineral conservation aspect.	Nil
3g	Grade of sub grade mineral generation	There was no proposal for Sub-grade mineral generation during the plan period 2015-16 to 2019-20, hence grade of the same is not applicable.	Not applicable as there was no sub-grade generation reported from the mine during 2017-18 and onwards.	Nil

3h Manual / Mechanised method adopted for segregating from ROM

In the approved Mining Plan, manual method was proposed segregating from ROM. hand picking at mine site. from May, 2017. Only the large lumps of Bauxite of the lateritic contact zone was proposed to be broken manually into small pieces up to 10 cm in size to prevent Iron and Silica contamination of lateritic

The Aluminium ore after blasting was segregated manually from ROM. The large lumps of Ore were broken into small pieces (10 cm size). The mine was not in operation during the year 2016-17 Total ROM was for lease extension. The proposed to be mine re-opened on sorted out by 28.04.2017. The production was reported

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

study was proposed for sub-grade mineral and reject no sub-grade and reject material was proposed to be generated from the mine as per approved Mining Plan valid for the plan period 2016-17 to 2019-20 (2015-16 was lapse period).

zone.

No analysis or No analysis or beneficiation beneficiation study was carried out for subgrade mineral and reject material as no sub-grade mineral and reject material was reported to material since be generated from the mine.

Nil

3 ј Provision of drilling and blasting in mineral benches As per approved Mining Plan, there was provision of drilling and blasting in harder formation.

Drilling with DTH (100 mm dia) and blasting were done in the mine during the period 2015-16. For OB, the Burden and Spacing were kept at 1m X 1.5m respectively and for Ore, the Burden and Spacing were kept at 3m X 3.5m respectively. For OB removal, the depth of hole was kept <3m (2.75m) and for Ore, it was kept at 6.6m with 10% of SG drilling in both the cases.

Nil

3k Provision of mining machineries in mineral benches The following machineries were proposed to be used in the mine as per approved Mining Plan:i. DTH drill: dia); ii.

Jackhammer: 04 nos. (34-39 mm)dia); iii.

no. (300 cfm); iv. Excavatoe: 03 nos. (0.9 cu.m);

Compressor: 03

v. Tipper: 04 no. (10MT).

The machineries proposed except Jackhammer were in use at the mine during 2015-16. For blasting, DTH machine was used for making holes. On the date of inspection, no machinery 03 nos.(100 mm was in use, as the mine was not in operation.

The production reported from May 2017.

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

It was proposed in the approved valid for the to 2019-20 (2015-16 waw height and width in Top soil, OB and Ore will be restricted within 6.0 m. The proposed bench dimension as per approved Mining Plan has been found to be suitable with the proposed method of mining under 'A'-FM category.

The mine was not in operation during 2016-17 for extension of lease. The mine was again reopened in the month of period 2016-17 April, 2017and started operation under 'A'-FM category. In actual lapse period), practice the height and that the bench width of benches in Top soil, OB and Ore were kept within 4-4.5 m in all the quarries. The height and width of benches were in conformity with the method of mining adopted under 'A'-FM category.

Total area 3m covered under excavation/pits

As per approved Mining Plan, dated 12.09.2016, there was proposal to 9.49 Ha area during the plan period under review. During 2017-18, it was proposed to excavate about 2.30 Ha area.

As on date of inspection (upto 2017-18), a cumulative of about 16.715 Ha area (NF area-16.619 Ha + F area-0.096 Ha) was covered under excavation excavate about including 6.08 Ha of reclaimed area.

Nil

Ore to OB ratio As per for the pit/mine approved during the year. Mining Plan,

the overall stripping ratio during the period 2016-17 to period) was proposed to be 1: 0.64 Tes/cu.m. During 2016-17, the Ore to OB ratio was proposed to be 1: 0.64 Tes/cu.m.

During the period 2016-17, the mine was not in operation. The mine was re-opened on 28.04.2017. During 2017-18, the average Ore to OB ratio was calculated as 1: 0.23 Tes/cu.m. The 2019-20 (2015- production was 118215 $\ensuremath{\text{MT}}$ 16 was lapse and total OB generation was 507939 MT.

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

Upto 2017-18, the total As per approved area put to use as per Mining Plan, available record, was as valid for the under:plan period i. Quarry-10.092 Ha 2016-17 to (including 0.014 Ha in 2019-20 (2015- Forest land); 16 was lapse ii. Backfilled area: period), the 0.88 Ha total area put iii. Infrastructure & to be used Road- 1.102 Ha after (including 0.120 Ha in completion of Forest land); 5 years iv. O.B Dump: 0.906 Ha working i.e at (~0.91 Ha); the end of v. Green belt: 0.10 Ha; 2019-20, was vi. Total area put to as follow :use: 13.084 Ha; and i. Quarry-Total unused area: 15.026 Ha 35.985 Ha out of total (Including lease area of 49.069 Ha. 6.08 Ha of backfilling area); ii. Road-1.048 Ha; iii. Green belt- 0.50 Ha; iv. OB Dump: 0.136 Ha; v. Infrastructure (Office): 0.005; vi. Total area put to be used: 16.715 Ha; and Total unused area: 32.354 Ha out of total lease area of 49.069 Ha.

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

As per approved Mining Plan, production during the year 2016-17, was 219191 2013-14: Nil; the plan to 2019-20, the proposed year wise production schedule was as given below: 2015-16: 49741 MT (Actual); 2016-17:

219191 MT; 2017-18: 238998 MT; 2018-19: 257089 MT; 2019-20: 272042 MT.

The quantity of mineral production during last seven years was as given below:-

2011-12: 15280 MT; 2012-13: 4090 MT; MT and during 2014-15: 22910 MT; 2015-16: 49741 MT; period 2015-16 2016-17: Nil. and 2017-18: 118215 MT

2010-11: 10070 MT;

The mine was not in operation during 2016-17.

3 a General remarks of inspecting officers on method of mining mine was

As per approved document, the operated by opencast method under 'A'-FM category with bench dimension of 6m X 6m both in OB and Ore. May, 2017. In every year 3 benches were proposed to be developed, first two benches were proposed to be developed in OB, consisting of Top soil and Morrum/Laterit e and the third bench was proposed to be developed in

During 2015-16, the mine was in operation by opencast method under 'A'-OTFM category. The proposed to be bench dimensions were maitained within stipulated limit. mine was not in operation during 2016-17 due to extension of lease. The mine was reopened on 28.04.2017 and reported production from The mine was not in operation during 2016-17.

Solid Waste Management - Dumping:

Ore.

Sl.No. Item Propasals Actual work Remarks 4a Separate dumping As per of topsoil, OB and mineral rejects (Rule 32,33)

approved Mining Plan dated 12.09.2016, plan period 2016-17 to period), there lease area. was no proposal for dumping of Top soil and OB material within the lease area. There was no proposal for Mineral Reject dump either. Concurrent backfilling with simultaneos spreading of top soil was proposed during the plan period. Further, there was proposal of rehandling of 4 dumps, viz. D2(East of Q2&4), D1B(South of 02&04), D1A((South of Q2& Q4) and D3(Northern

Part).

Separate dumps of Top soil and OB/Waste existed in the lease area. Total 7 nos. of dumps existed within the valid for the lease area. No fresh dump was created during 2015-16 and 2017-18. 2019-20 (2015- There was no Mineral 16 was lapse Reject dump within the

The mine was not in operation during 2016-17.

4b Location of Total 6 nos. of dumps Nil As per topsoil, OB and existed within the lease approved mineral reject area. Dump no. D1A and Mining Plan, dumps valid for the D1B of Top soil, were plan period located on the SW lease 2015-16 to boundary, dump no. 2019-20 (2015- D2(OB) was located on 16 was lapse the SW part of lease period), there area (on the West of was no Q4), dump no. D3(Top proposal for Soil) was located on the fresh dumping North of Q2, dump no. D4A & D4B(OB) were of Top soil OB/waste located East of O1 on within the the SE part of lease and lease area as one Morrum dump was created on the Western concurrent backfilling part of lease. No fresh and spreading dump was created during of top soil 2015-16 and 2017-18. were proposed There was no Mineral from the year Reject dump within the 2016-17. lease area. Number of dumps Nil 4c There was no Seven dumps were located within lease proposal of within the lease area. area and outside dump within The type and dimension of lease area the lease area of dumps are given as concurrent below:backfilling i. Dump no. D1A (Top Soil): 45m X 35m X 6m; and top soil spreading were ii. Dump no. D1B (Top proposed in Soil): 32m X 20m X 4m; the approved iii. Dump no. D2 Mining Plan, (OB/Waste): 60m X 42m X valid for the 3m; plan period iv. Dump no. D3 (Top 2015-16 to soil): 65m X 25m X 7m; 2019-20 (2015- v. Dump no. D4A 16 was lapse (OB/Waste): 30m X 18m X period). There 3m; was no vi. Dump no. D4B (OB/Waste): 60m X 30m X proposal of dump outside 2m; and vii. Morrum dump lease area. (Western part of lease): 30m X 12m X 5m. There was no dump

outside lease area.

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	No fresh dump was proposed during the approved plan period of 2016-17 to 2019-20 (2015-16 was lapse period).	All the dumps were located outside the Ultimate Pit Limit (UPL). Two dumps were created on the Western part of lease without any approved proposal, which was communicated to the lessee in the form of Violation cum show cause notice vide this office letter no. BIH/GUM/BX/216/RRO, dated 16.05.2018.	Nil
4e	Number of active and alive dumps.		Out of seven dumps, 4 dumps were active within the lease area as concurrent backfilling was also under way. Total area covered under active dump was 0.509 Ha).	The mine was not in operation during 2016-17 due to extension of lease.
4f	Number of dead dumps.	There was no proposal of dead dump in the approved Mining Plan dated 12.09.2016.	There were three (03) nos. of dead dumps present within the lease area, the area covered under dead dump was 0.396 Ha.	Nil
4g	Number of dumps established.	There was proposal of	No dump was established. As per proposal no dump re-handling was done during 2016-17 as the mine was not in operation during 2016-17 due to extension of lease.	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	There was no proposal of construction of Retaining wall or Garland drain around the	Retaining wall was constructed along two (02) existing dumps. No Garland drain was constructed along the dumps.	Nil

dump.

4i	Length of Retaining wall or garland drain all along dumps	as there was	The length of retaining wall were 60m and 40m along dump no. D1A(Top soil) and D2(OB) respectively.	Nil
4 j	Number of settling ponds	No such proposal was there for construction of settling pond in the approved Mining Plan.	No settling pond was created within the lease.	Nil
4k	Specific comments of inspecting officer on waste dump management	Simultaneous backfilling and top soil	para 4(c). Retaining wall was given along two dumps (D1A and D2) to stabilise the same. The dump on the Northern part of the lease (D3) was terraced for its stabilization. Rest dumps were of moderate height and were within	Two dumps were created on the Western part of lease without any approved proposal, which was communicated to the lessee in the form of Violation cum show cause notice vide this office letter no. BIH/GUM/BX/216/RRO, dated 16.05.2018.

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks

5a Simultaneous backfilling Status of part As per or full was in practice in the approved extraction of Mining Plan, mine on Northern part of mineral from there was lease area, South of mined out area proposal for quarry no. 3 and on the before starting East of quarry no. 4, at part backfilling. extraction of the Central part of mineral from lease area. About 0.88 mined out area Ha area was backfilled before and reclaimed. The mine starting was not in operation backfilling from March, 2016 to April 2017 due to simultaneous extension of lease. The backfilling mine was re-opened in along with top the month of April, 2017 soil spreading and production reported were proposed from May, 2017. in the approved document valid for the plan period 2016-17 to 2019-20 (2015-16 was lapse period). 5b Area under As per Upto 2017-18, about 0.88 During 2016-17, backfilling of approved Ha area was backfilled. the mine was not Mining Plan, mined out area in operation. there was proposal for backfilling of about 6.08 Ha of void area within the lease during the valid plan period 2016-17 to 2019-20 (2015-16 was lapse period). 5c Concurrent use Three top soil dumps Nil As per of topsoil for were present on the SW approved restoration or and Northern part of the Mining Plan rehabilitation dated lease area. Concurrent of mineral out 12.09.2016, top soil spreading was area (Rule 32) there was also done on the proposal for Northern and Central concurrent part of lease area. spreading of

top soil over worked out area.

5d Total area fully reclaimed rehabilitated

During the period of 2016-17 to 16 was lapse period), there plan period. was proposal for backfilling/re clamation of

about 6.08 Ha area out of 15.026 Ha of excavated area. There was no

proposal for rehabilitation during the plan period. It was

proposed that there will be simultaneous spreading of top soil over backfilled area.

Upto 2017-18, about 0.88 approved plan Ha area was backfilled and reclaimed. No rehabilitaion of the 2019-20 (2015- area was done as it was not proposed during the

Nil

5e

General remarks of inspecting officers on backfilling and reclamation etc. 12.09.2016

As per approved Mining Plan dated valid for the plan period 2016-17 to 16 was lapse was proposal of clamation of about 6.08 Ha of void area within the lease during the plan period. No Rehabilitation was proposed

during the plan period.

About 0.84 Ha area was Nil backfilled and reclaimed. No rehabilitaion was done. As on date of inspection the mine was not in operation. The proposed excavation and 2019-20 (2015- subsequent backfilling could not be achieved by period), there the lessee due to nonoperational status of mine from March 2016 to backfilling/re April, 2017. The mine was re-opened from April, 2017 and production reported from May, 2017.

Progressive Mine Clousre Plan:

Sl.No. Item Propasals Actual work Remarks

ба	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	approved Mining Plan dated 12.09.2016, valid for the plan period 2016-17 to 2019-20 (2015-	submitted by the party for the period 2015-16 to 2017-18, the same was pointed out to the party in the form of violation	Nil
6b	Area available for rehabilitation (ha) .	Only backfilling/re clamation	Ha area was backfilled and reclaimed. No rehabilitaion of the area was done as it was not proposed during the	Nil

бс afforestation done (ha).

As per were proposed given below:covering an the plan to 2019-20 (2015-16 was lapse period). Within 7.5m safety barrier, total 1000 no. of plantation was proposed @ 250 plants/year covering 0.4 Ha area and on Reclaimed area, total 8150 no. of plantation was proposed covering 3.26 Ha area. The year wise plantation schedule on Reclaimed area is given below:-2016-17: 900 nos.(0.36 Ha); 2017-18: 1675 nos.(0.67 Ha);

The year wise plantation proposal, 9150 done along the 7.5m nos. of plants safetry barrier was as to be planted i. 2010-11: N.A; ii. 2011-12: N.A; area of about iii. 2012-13: 100 nos.; 3.66 Ha during iv. 2013-14: Nil; v. 2014-15: 100 nos.; period 2016-17 vi. 2015-16: 100 nos; vii. 2016-17: Nil. viii. 2017-18: 10 nos.

The year wise plantation schedule on Reclaimed area(Contd.) is given below:iii. 2018-19: 1350 nos.(0.54 Ha); and iv. 2019-20: 4225 nos.(1.67 Ha). The mine was not in operation during 2016-17.

Nil

6d No. of saplings planted during the year

As per approved Mining Plan valid for the plan period 2016-17 to 16 was lapse was proposal for 250 nos. of plantation to be done over an area of 0.10 Ha within 7.5m safety barrier and 900 nos. of plantation to be done over an area of 0.36 Ha on Reclaimed area during 2016-17 and 1675 nos. of plantation to be done over an area of .67 Ha on reclaimed area during the year 2017-18..

As per During the year 2017-18, approved 100 nos. of plantation were done along the 7.5m valid for the plan period 0.05 Ha area. No plantation was done 2019-20 (2015- during the year 2016-17 as the mine was not in operation during the period under review.

6e Cumulative no .of plants

There was no proposal for cumulative plantation. However, during the plan period 2016-17 to 2019-20 (2015-16 was lapse period), about 9150 nos. of plantation were to be done over an area of 3.66 Ha.

On cumulative basis about 500 nos. of plantation were done by the lessee during 2010-11 to 2017-18 covering about 0.15 Ha area within 7.5m safety barrier.

The mine was not in operation during 2016-17.

6f Any other method No further of proposal wa

of rehabilitation No further proposal was available in the approved Mining Plan.

Not applicable.

6g	Cost incurred on watch and care during the year	No proposal was available in the approved Mining Plan dated 12.09.2016.	Cost incurred on watch and care was reported to be about Rs.1,50,000/-during the year 2017-18.	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	backfilled during the approved plan	About 0.88Ha area was backfilled and reclaimed on the Northern part (South of Quarry no. 3) and Central part (West of Quarry no. 2 & 4) of lease area. On the Northern part i.e South of Quarry no. 3 about 86m X 37m X 5m area was backfilled.	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	There was proposal for 6.08 Ha of backfilling in the last approved Mining Plan valid for the plan period 2016-17 to 2019-20 (2015-16 was lapse period) by using about 327570 Cu.m of OB/Waste material.	Upto 2017-18, about 0.88 Ha area was backfilled. The quantum of material used for backfilling was not available.	The mine was not in operation during 2016-17.

6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	2016-17 to	No plantation has been done over backfilled area. However, during the year 2017-18 about 100 nos. of plantations were done by the lessee along the 7.5 m safety barrier.	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	There was no such proposal in the approved Mining Plan dated 12.09.2016.	No water reservoir was constructed.	Nil
61	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	There was no other proposal in the last approved Mining Plan valid for the plan period 2016-17 to 2019-20 (2015-16 was lapse period).	Not applicable.	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	There is no recorded Waste land within the lease area.	Not applicable.	Nil
бn	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	There was no such proposal as no waste land existed in the lease area.	Not applicable.	Nil

60	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal available.	Not applicable.	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	No specific proposal was available.	During the period 2015- 16 to 2017-18, no information about environmental monitoring carried out in and around the lease area was available.	Nil
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	16 was lapse	Upto 2017-18, a cumulative of about 10.092 Ha area was covered under excavation, about 0.776 Ha area was covered under dump, Green belt cover was around 0.15 Ha area and 1.102 Ha area was covered under Infrastructure & Road. Retaining wall was constructed measuring 60m X 0.5m X 1m (1 X w X h) and 40m X 0.5m X 1m (1 X w X h) and Western part of the lease area.	During 2016-17, the mine was not in operation.

Mineral Conservation:

Sl.No. Item Propasals Actual work Remarks

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

There was no proposal for mineral dispatch in the approved Mining Plan. There was proposal for grade wise sorting within the lease.

Bauxite of this mine was pre-dominantly Gibbsitic i.e tri-hydrate (Al2O3.3H2O). About 70-75% of the ore was Gibbsitic and rest 30-25% was Bohemitic i.e mono-hydrate (Al203.H20). The year wise dispatch figure was as given below:i. 2010-11: 10035 MT(Al2O3: 40-45%); ii. 2011-12: 3773.13 MT(Al2O3: 40-45%) & 12081.085 MT (Al203: 45-50%); iii. 2012-13: 189.610 MT(Al2O3: 40-45%) & 2216.450 MT (Al2O3: 45-50%); iv. 2013-14: Nil;

v. 2014-15: 22499.795 MT(Al2O3: 45-50%);

vi. 2015-16: 48431.030 MT(Al2O3: 40-45%); vii. 2016-17: Nil. During 2016-17, the mine was not in operation. viii. 2017-18: The dispatch figure not available.

7b wise mineral sorting i.e. manual or mechanical.

and blending to ensure the was proposed in the last approved Mining Plan.

Method of grade- Manual sorting Manual grade wise sorting, manual screening(for fraction required grade above 1" size) followed by blending with suitable grade was practiced at the mine site during the year 2017-18. Thus all possible efforts like hand sorting, hand screening, bulk sampling followed by time to time chemical analysis were systematically followed to ensure that ore is not being mixed with waste material.

Generally two types of Nil ore stack were made within the mine site.

One was of 40-45% Al2O3 and the other of 45-50% Al203 grade material. The low grade ore was blended with high grade material in appropriate calibrated proportion before dispatch to maitain the required grade to be dispatched

to consignee.

Nil

Different grade 7с of mineral sorted out at mines.

No specific proposal was there in the approved Mining Plan dated 12.09.2016.

7d No proposal of No mineral beneficiation Any beneficiation mineral was done, only manual process at mines beneficiation sorting, screening and at mine site sizing were done at the was made in mine site. the approved Mining Plan valid for the plan period 2016-17 to 2019-20 (2015-16 was lapse period). 7e General remarks No mineral beneficiation The mine was not It was of inspecting was carried out at the in operation proposed in officer on the approved mine site. For Mineral during 2016-17. Mining Plan Conservation aspect, Mineral conservation and that, low lessee had deployed beneficiation grade Bauxite suitable nos. of workers issues will be hand for grade wise sorting, sorted and blending etc to avoid suitably mixing of ore with blended to deleterious material. meet the metal The year wise employment grade figure is given below:requirement. i. 2010-11: 38 nos.; Mechanical ii. 2011-12: 15 nos.; iii. 2012-13: 16 nos.; screening of iv. 2013-14: 03 nos.; the fraction above 1" size v. 2014-15: 19 nos.; vi. 2015-16: 22 nos.; was also proposed. and vii. 2016-17: 01 no. viii. 2017-18: NA

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Sl.No.	Item	Propasals	Actual work	Remarks

8a Separate removal In the and utilization of topsoil (Rule Mining Plan 32)

approved plan period 2016-17 to 2019-20 (2015- utilized for 16 was lapse was proposal for separate removal of top soil, stacking of top soil in the earmarked dump(top soil) and simultaneous spreading of the same over backfilled area. The top soil removal proposal was as under:i. 2016-17: 18009 cu.m; ii. 2017-18: 25278 cu.m; iii. 2018-19: 27809 cu.m; and iv. 2019-20: 30927 cu.m.

The top soil removal figure is not available. The top soil so valid for the generated, was dumped on the SW and Western part of lease area and also simultaneous spreading period), there over backfilled area.

The mine was not in operation during 2016-17.

8b Concurrent use or storage of topsoil

As per approved Mining Plan, there was proposal for simultaneous spreading of top soil over backfilled area.

There were three (03) top soil dumps was present within the lease area. Two (02) were on the SW part of lease area and the other one was present on the Northern part, on the West of Quarry no. 2 & 4 merged. Concurrent top soil spreading was done on the Northern and Central part of lease area on the South of Quarry no.3 and on the West of Quarry no. 2 & 4 (Merged) respectively.

Nil

8c

Separate dumps for overburden, waste rock, rejects and fines (Rule 33)

As per approved Mining Plan dated 12.09.2016, plan period 2016-17 to 16 was lapse was no proposal for dumping of Top area. soil and OB material within the lease area. There was no proposal for Mineral Reject dump either. Concurrent backfilling with simultaneos spreading of top soil was proposed during the plan period. Further, there was proposal of rehandling of 4 dumps, viz. D2(East of Q2&4), D1B(South of 02&04), D1A((South of Q2& Q4) and D3(Northern Part).

Separate dumps of Top soil and OB/Waste existed in the lease area. Total 7 nos. of dumps existed within the valid for the lease area. The type and dimension of dumps are given at para 4(c). 2019-20 (2015- No fresh dump was created during 2016-17 period), there and 2017-18. There was no Mineral Reject/Fines dump within the lease

8d Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use

There was proposal for 6.08 Ha of the last approved Mining Plan valid for the plan period 2016-17 to 2019-20 (2015-16 was lapse period) by using 327570 Cu.m of OB/Waste material.

During 2017-18, it was proposed to use 79840 Cu.m of OB/Waste material.

The figures of OB/Waste material used during 2016-17 and 2017-18, for backfilling in backfilling was not available.

During 2016-17, the mine was not in operation.

Phased 8e restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)

8f

Baseline information on existence of plantation and additional plantation done (Rule 41)

Phase wise restoration, reclamation and of land have not been proposed in the approved Mining Plan.

No existing reported in the approved Mining Plan. It was proposed that 1000 nos. of plantation were to be done over an area of 0.4 Ha along the safety barrier of lease area and 8150 nos. of plantation were to be done over an area of 3.26 Ha over the reclaimed area during 2016-17 to 2019-20 (2015-16 was

lapse period).

As per available record, upto 2017-18, about 0.88 Ha area was backfilled. Phase wise restoration, rehabilitation reclamation and rehabilitation of land affected by mining operations were not available.

During the year 2017-18 plantation was about 100 nos. of plantations were done by the lessee covering an area of about 0.1 Ha. No plantation was done during 2016-17 as the mine was not in operation due to extension of lease.

Nil

Remarks

	Survival rate	No specific proposal was made in the approved Mining Plan regarding survival rate.	During the period 2017-18, the survival rate was around 40% as reported by the mine management in the Annual Return for the year 2016-17.	Nil
8h	Water sprinkling on roads to control airborne dust	specific	Water sprinkling was done as and when required in dry season. During 2016-17, no water sprinkling was done as the mine was not in operation.	Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	No such proposal was available in the valid approved Mining Plan.	The area was almost barren, devoid of thick vegetation. Only sparse vegetation was found within the lease area. There was very little amount of excavation within the lease area covering 10.092 Ha out of total lease area of 49.069 Ha. thus only about 20% area was covered under excavation. The general aesthetic beauty of the lease area was not disturbed as such.	Nil

Sl.No. Item Propasals Actual work

Nil

9a Status of submission of Monthly and Annual returns

The information furnished in for the year Part-I of General information labour employment, Part-II about Employment & wages, Part-IIA 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, Dispatch & Stock and finally Part-VII consists of Cost of production.

The Party had submitted the information Monthly return regularly during the year 2016-17. Annual Return the Annual Return for the year 2016-17 covers yet submitted by the Part-I of lessee. In the above return, all the fields information were filled up with about mine and required information.

9b Scrutiny of
Annual return
for information
on Mining
Engineer,
Geologist and
Manager

was 'A'-FM category, a Whole time Mining Engineer and a whole time Geologist were to be appointed as per Rule-55(3) with due intimation of the same in Form-H under Rule-46 of MCDR, 2017.

Since the mine Name of full time Mining was 'A'-FM Engineer and Geologist category,a were submitted in the Whole time Annual return for the Mining year 2016-17.

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	in the Annual Return for the year 2016-17 was as under:- i. Area under excavation: 7.792 Ha; ii. Reclaimed: 0.47 Ha;	i. Quarry- 7.792 Ha (including 0.014 Ha in Forest land); ii. Backfilled area: 0.88 Ha iii. Infrastructure & Road- 1.102 Ha (including 0.120 Ha in Forest land); iv. O.B Dump: 0.906 Ha	Nil
9d	Scrutiny of Annual return on afforestation	of the Annual Return for the year 2016-17, the plantation	The information furnished was found to be correct as during the period under review about 100 plantation was done along the safety barrier during the year 2017-18.	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)		period 2017-18.	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	2(A), of the Annual Return	The figure given for Opening stock and Closing stock were in conformable with the figure furnished through Monthly Returns for the year 2015-16.	Nil

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	price and production cost were shown Part-VI and VII of the	In Part-VI, item no. 2 of the Annual Return 2016-17, the Ex-Mine price was shown as Rs. 400/-, in Part-VI, item no. 4, the Sale value was shown as Rs. 400/- and cost of production during 2016-17 was shown as Rs. 00.0/- in Part-VII of the Annual Return. The anomalies observed in the Annual Return were pointed out to the party.	
9h	Scrutiny of Annual return on fixed assets		The value of Fixed Assets of the lessee for the year 2016-17 was shown as Nil in Part-IIA of the A.R, under Capital structure.	Nil
9k	Scrutiny of Annual return on mining machineries	5/6/8/9 of the Annual Return 2016-17, the	The mine was not in operation during the year 2016-17. Hence, no mining mchinaries were used for mining.	

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

Violat	ion observed		Show couse position
Rule NO.	Issued on Co	mpliance on Rul	Le NO. Issued on Compliance on
Rule 11(1)	17/05/2018	Rule 1	11(1) 17/05/2018
Rule 26(2)	17/05/2018	Rule 2	26(2) 17/05/2018
Rule 27(2)	17/05/2018	Rule 2	27(2) 17/05/2018
Rule 28(1)	17/05/2018	Rule 2	28(1) 17/05/2018
MCDR17 Rule 31(4	17/05/2018	MCDR17	7 Rule 31(417/05/2018
MCDR17 Rule 32(1	.)(ε 17/05/2018	MCDR17	7 Rule 32(117/05/2018
MCDR17 Rule 32(1	.)(k 17/05/2018	MCDR17	7 Rule 32(117/05/2018
MCDR17 Rule 32(1	.)(c 17/05/2018	MCDR17	7 Rule 32(117/05/2018
MCDR17 Rule 32(1	.)(c 17/05/2018	MCDR17	7 Rule 32(117/05/2018
MCDR17 Rule 33	17/05/2018	MCDR17	7 Rule 33 17/05/2018
MCDR17 Rule 36(3	17/05/2018	MCDR17	7 Rule 36(317/05/2018

Date : (SAGAR BODRA)

Indian Bureau of Mines