

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/CR/JJP/MCDR-15/BBS

Mine code : 11ORI19017

- (i) Name of the Inspecting : **SRM**) **SHRI SUDIP RANJAN MAZUMDAR**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Shri S Patni, Agent
Official with
Designation
- (iv) Date of Inspection : 11/12/2018
- (v) Prev.inspection date : 03/08/2018

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **MAHAGIRI**
- (b) **Registration NO.** : **IBM/4200/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : JAJPUR
- Village : KALIAPANI
- Taluka : SUKINDA
- Post office : KALIPANI
- Pin Code : 755047
- FAX No. : 06742580020
- E-mail : mineplanningcell@imfa.in
- Phone : 06742580100
- (f) Police Station : TOMKA
- (g) First opening date : 16/01/2006
- (h) Weekly day of rest : SUN
2. Address for : AT/ PO: KALIAPANI,
correspondance DIST: JAJPUR
ORISSA
3. (a) Lease Number : ORI0693
- (b) Lease area : 116.76
- (c) Period of lease : 30
- (d) Date of Expiry : 03/09/2029
4. Mineral worked : CHROMITE Main

5. Name and Address of the

Lessee : INDIAN CHARGE CHROME LIMITED.
BOMIKAL PO RASULGARH
BHUBNESHWAR ORISSA
Phone:580100,580125
FAX :580145/580020

Owner : C R RAY
IMFA BUILDIND, BOMIKHAL
RASULGARH, BHUBANESWAR
ODISHA JAJPUR ORISSA
Phone: 06742580100
FAX :

Agent : SUDHANSHU PATNI
M/S IMFA LIMITED, KALIAPANI
JAJPUR ODISHA JAJPUR ORISSA
Phone: 9937299495
FAX :

Mining Engineer

Name : SHRI JALANDHAR PATRA,Full Time
Qualification : M TECH MINING
Appointment/ : 26/10/2017
Termination date

Geologist

Name : KHIROD KUMAR MOHAPATRA,Full Time
Qualification : MSC (GEOLOGY)
Appointment/ : 02/03/2015
Termination date

Manager

Name : SHRI LALATENDU MAHAPATRA
Qualification : AMIE MINING
Appointment/ : 25/10/2017
Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Modif.of approved Mining Plan	29/11/2007
		Mining Scheme rule 12 MCDR1988	22/03/2010
		Modif.approved Mining Scheme	11/11/2011
		Mining Scheme rule 12 MCDR1988	06/04/2015
		Modif.of approved Mining Plan	10/03/2017

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Proposal in 2017-18: 1 No of Boreholes with total meterage of 105 meter.	Actual number of boreholes done in 2017-18 was 17 boreholes with meterage of 1033 meter	There is no backlog in exploration
1b	Exploration over lease area for geological axis 1 or 2	The balance area shall be explored by geophysical and geochemical prospecting during 2017-18. Based on the result of anomalies for chrome zone the boreholes shall be proposed.	Lease area explored as on 01.01.2017 under G1 was 27.73 Ha and remaining 46.047 Ha area was unexplored. Geophysical exploration has been done over unexplored area and two dTH holes have been drilled on anomalous zone.	Lease area explored as on 01.01.2017 under G1 was 27.73 Ha and remaining 46.047 Ha area was unexplored.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not Proposed	Agencies: M/s Maheswari Mining (P) Ltd for U/G Core drilling, M/s Drill King India Pvt Ltd for Surface Core drilling, M/s Coronation India Pvt Ltd for Surface non-core drilling and ISM Dhanbad for Geophysical prospecting. Expenditure: Rs. 4882463.00	Agencies: M/s Maheswari Mining (P) Ltd for U/G Core drilling, M/s Drill King India Pvt Ltd for Surface Core drilling, M/s Coronation India Pvt Ltd for Surface non-core drilling and ISM Dhanbad for Geophysical prospecting. Expenditure: Rs. 4882463.00
1d	Balance area to be explored to bring Geological axis in 1 or 2	Not Proposed	Balance lease area of 46.047 Ha as on 01.01.2017 is to be explored under G1/G2 as per UNFC norms.	Balance lease area of 46.047 Ha as on 01.01.2017 is to be explored under G1/G2 as per UNFC norms.

1e	Balance reserve as on 01/04/20	Reserves as on 01.04.2017 under 111 category of UNFC is 2699000 tonnes and under 122 category is 5609000 tonnes. Resources under 221 category os 2463000 tonnes and under 222 category is 1339000 tonnes.	Reserves as on 01.04.2018 under 111 category of UNFC is 2499500 tonnes and under 122 category is 5609000 tonnes. Resources under 221 category os 2463000 tonnes and under 222 category is 1339000 tonnes.	Reserves as on 01.04.2018 under 111 category of UNFC is 2499500 tonnes and under 122 category is 5609000 tonnes. Resources under 221 category os 2463000 tonnes and under 222 category is 1339000 tonnes.
1f	General remarks of inspecting officers on geology, exploration etc	Not Proposed	There is no backlog in the exploration as proposed in the approved modification to the mining plan. Area explored under G1 as on 01.01.2017 is 27.73 Ha.	There is no backlog in the exploration as proposed in the approved modification to the mining plan. Area explored under G1 as on 01.01.2017 is 27.73 Ha.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Development is proposed in both opencast mining with overall direction of advancement East-West	Development carried out in opencast quarry and underground mining by decline, vertical shafts, slot raise, vent raise and x-cuts etc.	Nil

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	There is no proposal of top soil generation. There is no specific proposal of separate benches in overburden and minerals.	No top soil generated during 2017-18. Separate benches in ore and overburden is maintained.	Nil
2c	Stripping ratio or ore to OB ratio	1:1.4t/cum for the year 2017-18	1:0.62 t/cum for the year 2017-18	Excavation from O/C is less due to failure in H/W benches.
2d	Quantity of topsoil generation in m3	Not Proposed	Nil	Nil
2e	Quantity of overburden generation in m3	34000 cum for the year 2017-18	5331.2 cum for the year 2017-18. Excavation from O/C is less due to failure in H/W benches.	In the letter ref no. IMFA/MPC/17/94 dated 04.12.2017 addressed to RCOM, IBM Bhubaneswar it has been mentioned that the collapse in hangwall side occurred again on 01.10.2017 due to high rainfall as a result quarry bottom got filled up and it was apprehended that expansion of the quarry may result in further collapse on the hangwall side.. It was decided to cease the opencast mining in order to prevent further collapse of hangwall side.

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Not Proposed	There was no generation of top soil. Opencast development was less due to collapse of hanging wall side resulting in cessation of opencast development. Underground mining is by blasthole stoping method carried out with access of decline and shafts.	In the letter ref no. IMFA/MPC/17/94 dated 04.12.2017 addressed to RCOM, IBM Bhubaneswar it has been mentioned that the collapse in hangwall side occurred again on 01.10.2017 due to high rainfall as a result quarry bottom got filled up and it was apprehended that expansion of the quarry may result in further collapse on the hangwall side..It was decided to cease the opencast mining in order to prevent further collapse of hangwall side.
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One, Opencast mining in quarry-1 and under ground mining is by blasthole stoping method	One, Opencast mining in quarry-1 and under ground mining is by blasthole stoping method	Nil

3b	Quantity of ROM mineral production proposed	In 2017-18, ROM production proposed from opencast working was 23000 tonnes and 277000 tonnes from underground mining.	In 2017-18, ROM production from opencast working was 6525 tonnes and 180088.46 tonnes from underground mining.	1. The proposed excavation could not been achieved due to collapse in the H/W side of O/C quarry. 2. Due to revocation of CTO by SPCB, Odisha, mining operation was stopped from 11th April to 22nd June 2017 resulting less development.
3c	Recovery of sailable/usable mineral from ROM production	300000 tonnes of ROM production of +10% Cr2O3	186613.46 tonnes of ROM production of +10% Cr2O3	Due to revocation of CTO by SPCB, ODISHA, mining operation was stopped from 11th April to 22nd June 2017 and also due to collapse in hang wall side of opencast quarry, opencast mining operation has been stopped resulting less production.
3d	Quantity of mineral reject generation	Not Proposed	Nil	Nil
3e	Grade of mineral rejects generation and threshold value declared.	Grade of mineral reject is not proposed and threshold value declared is +10% Cr2O3	Nil and threshold value +10% Cr2O3	Nil
3f	Quantity of sub grade mineral generation.	Not Proposed	Nil	Nil
3g	Grade of sub grade mineral generation	Not proposed	Nil	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	Nil

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not proposed	Nil	Nil
3j	Provision of drilling and blasting in mineral benches	In opencast deep hole drilling. Blasting is rarely required. In development faces Burn cut drilling pattern shall be followed. In development faces slurry explosive of 25mm & 40mm size of cartridge shall be used for effective blasting. In Stope drilling, 57mm dia. long hole and 115mm dia. DTH combination shall be used. The holes shall be drilled in ring pattern. Blasting shall be carried out by the explosive in cartridge form with electric delay detonators/Non el.	In development faces Burn cut drilling pattern has been followed. In development faces slurry explosive of 25mm & 40mm size of cartridge is used for effective blasting. In Stope drilling, 57mm dia. long hole and 115mm dia. DTH combination is used. The holes has been drilled in ring pattern. Blasting has been carried out by the explosive in cartridge form with electric delay detonators/ Nonel.	Nil

3k	Provision of mining machineries in mineral benches	Excavation of overburden and ore is carried out with the combination of hydraulic excavator, dumper, rock breaker and dozer.	Front end loader: 1.7 cum; dumper 14.5cum etc.	Data as furnished in annual return for 2017-18.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Proposed with 6m bench height	Height of the benches is suitable for opencast method of mining.	Nil
3m	Total area covered under excavation/pits	Total area covered under mining is 9.6 ha till the end of modification to the mining plan 2019-2020. Life of the opencast mining is up to 2017-18. Thereafter, opencast mining shall cease.	9.34 ha covered till 2017-18	Nil
3n	Ore to OB ratio for the pit/mine during the year.	1:1.4 t/cum	1:0.62 t/cum	Excavation from O/C is less due to failure in H/W benches.

3o	Total area put in use under different heads at the end of year	Total area at the end of 2019-20 will 47.874 ha; area under mining:9.6 Ha, storage for top soil:0.25Ha, overburden dump:5.09 Ha, mineral & subgrade ore storage, processing plant:17.166ha	Land Use Area in Hect. 1. Area under Mining- 9.34 2. Reclaimed /Rehabilitated - 6.21 3. Used for waste disposal -4.70 4. Occupied by plant ,building residential, welfare buildings, roads - 6.73 5. Other purpose - 5.46 6. Work done under Progressive mine closure plan during the year. - 0.45 , infrastructure : 9.837 ha, roads: 2.851ha, safety zone: 3.08ha	Nil
3p	Production of ROM mineral during the last five year period as applicable	2013-14=192518 MT 2014-15=377866 MT 2015-16=170656 MT 2016-17=232000 MT 2017-18=300000 MT	2013-14= 73795.35 MT 2014-15= 83581MT 2015-16= 74441 MT 2016-17=207695.64 MT 2017-18 = 186613.46 MT	Nil
3q	General remarks of inspecting officers on method of mining etc.	Not Proposed	Opencast mining carried by opencast method and underground mining by blasthole stoping method. Quantity of ROM production for 2017-18 was less than the proposal. Drilling and blasting carried out as per proposal.	Opencast mining carried by opencast method and underground mining by blasthole stoping method. Quantity of ROM production for 2017-18 was less than the proposal. Drilling and blasting carried out as per proposal.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	There is no proposal for generation and stacking of top soil and mineral reject. Waste generated from opencast and underground development working shall be utilised for concurrent backfilling of the mined out areas of opencast working.	There was no generation of top soil and mineral rejects. Waste generated has been utilised for backfilling.	Nil
4b	Location of topsoil, OB and mineral reject dumps	Top soil- NA, Overburden generated will be backfilled in the mined out part of the opencast quarry, Mineral Reject - NA	Top soil- NA, Overburden generated is backfilled in the mined out part of the opencast quarry, Mineral Reject - NA	Nil
4c	Number of dumps within lease area and outside of lease area	Within Lease area- One number of dump Outside Lease area- Nil	Within Lease area - One; Number of dump outside Lease area- Nil	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside UPL	Outside UPL	Nil
4e	Number of active and alive dumps.	No Proposal	Nil	Nil
4f	Number of dead dumps.	One waste dump	One waste dump	Nil
4g	Number of dumps established.	One waste dump	One waste dump	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Provided	Provided	Nil

4i	Length of Retaining wall or garland drain all along dumps	Not Proposed	Nil	Only repair and maintenance of existing retaining wall and garland drain has been proposed which has been maintained.
4j	Number of settling ponds	No Proposal	Nil	Only desiltation of settling ponds have been proposed and done.
4k	Specific comments of inspecting officer on waste dump management	Not Proposed	There is one number of dump within the lease area. The waste generated during the year 2017-18 has been utilised for concurrent backfilling as per proposal.	Nil

Solid Waste Management - Backfilling:

Sl.No.	Item	Proposals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Not Proposed	Not applicable	Nil
5b	Area under backfilling of mined out area	0.23 ha area for the year 2017-18	0.31 ha area for the year 2017-18	Nil
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No Proposal	Nil	No generation of top soil
5d	Total area fully reclaimed and rehabilitated	Reclaimed: 0.23Ha and Rehabilitated: 0.14 Ha	Reclaimed: 0.31Ha and Rehabilitated: 0.45 Ha	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Not Proposed	Backfilling/reclamation has been carried out in the mined out area of opencast quarry operation.	Nil

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).	Not Proposed	The Annual report on PMCP for the F.Y. 2017-18 has been submitted	Nil
6b	Area available for rehabilitation (ha) .	Rehabilitation of O/C backfilled area 0.14ha.	Rehabilitation of O/C back filled area 0.45ha.	Nil
6c	afforestation done (ha).	0.14 Ha	0.45 Ha	Nil
6d	No. of saplings planted during the year	350 number of plants during the year 2017-18	1550 numbers of plants during the yaer 2017-18	Nil
6e	Cumulative no .of plants	No specific proposal	25954 number of plants	Nil
6f	Any other method of rehabilitation	No Proposal	Nil	Nil
6g	Cost incurred on watch and care during the year	No proposal	Rs 570054.00	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	2 L Cum in (O/C) & 0.59 L Cum in (U/G)	0.51 L Cum. (O/C) & 0.42 L Cum (U/G)	Due to Collapse of H/W benches of O/C quarry and revocation of CTO by SPCB ODISHA from 11th April to 22nd May, less void was created for back filling in O/C & U/G. Also, violation and subsequently showcause has been issued to lessee for noncompletion of backfilling in stope block 5.

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	0.55 L Cum (O/C) and 0.67 L Cum (U/G) waste	0.30 L Cum (O/C) and 0.022 L Cum. Waste	Due to revocation of CTO by SPCB ODISHA from 11th April to 22nd May 2018 , only 0.30LCum of OB & waste was generated from O/C and U/G respectively and was utilised for back filling of O/c Quarry. Less achievement in U/G void filling was due to delay in installation of the back filling plant.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	350 nos.	1550 nos.	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not proposed	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not proposed	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not proposed	Nil	Nil

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not proposed	Nil	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not proposed	Nil	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Quarterly monitoring of air, water and noise levels are proposed	Carried out	Nil
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Not Proposed	Backfilling of Stope block 5 have not been completed as proposed to be completed in 2017-18 and violation and subsequently showcause letter has been issued to lessee.	Nil

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	The ROM is crushed/screened to different size specification before being dispatched to captive ferro chrome plants. The cut off grade of ore stipulated by captive ferro chrome plant is 30% Cr ₂ O ₃ %. However, in case of generation of chrome ore between 10% to below 30% Cr ₂ O ₃ , the same shall be stored and suitably beneficiated before being dispatched to plants.	Grade wise production and dispatch of lump and fines at (a) below 40% Cr ₂ O ₃ % and (b) 40% to below 52% Cr ₂ O ₃ %	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	Nil
7c	Different grade of mineral sorted out at mines.	Expected ROM Grade +10% Cr ₂ O ₃ and cut off grade of ore stipulated by captive ferro chrome plants is 30% Cr ₂ O ₃ %.	Grade wise production and dispatch of lump and fines at (a) below 40% Cr ₂ O ₃ % and (b) 40% to below 52% Cr ₂ O ₃ %	Nil
7d	Any beneficiation process at mines .	Not Proposed, Only crushing and screening is proposed	Nil. Only crushing and screening carried out.	Nil

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Not Proposed	The ROM is crushed and screened. Grade wise production and dispatch of lump and fines at (a) below 40% Cr ₂ O ₃ and (b) 40% to below 52% Cr ₂ O ₃ . No beneficiation is carried out.	Nil
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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not Proposed	Nil	Nil
8b	Concurrent use or storage of topsoil	Not Proposed	Nil	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Generated waste is proposed to be backfilled in the mined out area of the quarry. No dumps proposed	Generated waste is backfilled in the mined out area in the quarry.	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Generated waste is proposed to be backfilled in the mined out area of the quarry. No dumps proposed.	Generated waste is backfilled in the mined out area in the quarry.	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Reclamation of Pits- 0.23 ha. and Rehabilitation of Pit - 0.14	Reclamation of Pits- 0.31ha and Rehabilitation of Pit - 0.45ha.	Nil

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	No specific proposal	During the year 2017-18, 1550 nos of saplings planted within the lease area and 350 nos of saplings planted outside lease area	Data as furnished in annual return for the year 2017-18
8g	Survival rate	Not Proposed	Within Lease area-92.7% and outside Lease area- 90.57%	Data as furnished in annual return for the year 2017-18
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on haul roads	Water sprinkling is being done	Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Not Proposed	Aesthetic beauty is maintained.	Nil

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Annual and monthly returns for the year 2017-18 has been submitted.	Annual and monthly returns for the year 2017-18 has been submitted.	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Graduate Mining Engineer: 14 Diploma Mining Engineer: 21 Geologist: 6	Graduate Mining Engineer: 14 Diploma Mining Engineer: 21 Geologist: 6	Mining Engineer and Geologist are appointed.

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Utilization of surface area (in ha.) A) O/C working -9.34 B) Reclaimed /Rehabilitated -6.21 C) Used for waste disposal - 4.7 D) Occupied by plant, buildings, residential, welfare buildings and roads - 6.73 E) Other purpose - 5.46 F) Work done under Progressive mine closure plan during the year -0.45	Information as submitted in annual return for 2017-18.	Information as submitted in annual return for 2017-18.
9d	Scrutiny of Annual return on afforestation	1550 nos of trees planted within the lease area.	Data as furnished in annual return 2017-18.	Data as furnished in annual return 2017-18.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Nil	Nil

9f	Scrutiny of Annual return on ROM stock and/or graded ore	1. Closing stock of ROM as per annual return is 8049.966 tonnes. 2. Closing stock of lumps at mine head (in tonnes): a. Below 40% Cr2O3: 11301.18 b. 40% to below 52% Cr2O3: 5642.19 3. Closing stock of fines at mine head (in tonnes): a. Below 40% Cr2O3: 39428.11 b. 40% to below 52% Cr2O3: 1426.724	1. Closing stock of ROM as per annual return is 8049.966 tonnes. 2. Closing stock of lumps at mine head (in tonnes): a. Below 40% Cr2O3: 11301.18 b. 40% to below 52% Cr2O3: 5642.19 3. Closing stock of fines at mine head (in tonnes): a. Below 40% Cr2O3: 39428.11 b. 40% to below 52% Cr2O3: 1426.724	Data as furnished in annual return for 2017-18.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	1. Ex-mine price of lumps (in Rs per tonne): a. Below 40% Cr2O3: 4252.83 b. 40% to below 52% Cr2O3: 4252.83 2. Ex-mine price of fines (in Rs per tonne): a. Below 40% Cr2O3: 4252.83 b. 40% to below 52% Cr2O3: 4252.83	Data as furnished in annual return for 2017-18.	Data as furnished in annual return for 2017- 18.

9h	Scrutiny of Annual return on fixed assets	Value of fixed assets: Rs 56668730 (in respect of mine, beneficiation plant, mine work shop, power and water installation)	Data as furnished in annual return for 2017-18	Data as furnished in annual return for 2017-18
9k	Scrutiny of Annual return on mining machineries	Front end loader (1.7 cum capacity):2nos. Backhoe (1.0 cum capacity):2nos. Dumper (14.5 tonne capacity): 3nos. . Dumper (14.5 tonne capacity): 3nos. Load haul dumper (2 .0 cum capacity): 4 nos. Load haul dumper (4 .0 cum capacity): 2 nos Load haul dumper (3 .0 cum capacity): 1 no etc.	Front end loader (1.7 cum capacity):2nos. Backhoe (1.0 cum capacity):2nos. Dumper (14.5 tonne capacity): 3nos.	Data as furnished in annual return for 2017-18

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 :

(SHRI SUDIP RANJAN MAZUMDAR)

Indian Bureau of Mines