

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

**MCDR INSPECTION REPORT**

**Bhubaneshwar regional office**

**Mine file No :** ORI/IRON/KJR/MCDR-55/BBS

**Mine code :** 30ORI08069

- (i) Name of the Inspecting : **DJ03** ) **DILIP JAIN**  
Officer and ID No.
- (ii) Designation : Junior Mining Geologist
- (iii) Accompanying mine :  
Official with  
Designation
- (iv) Date of Inspection : 20/12/2018
- (v) Prev.inspection date : 27/07/2016

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **DEOJHAR**
- (b) **Registration NO.** : **IBM/5262/2011**
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address  
State : ORISSA  
District : KEONJHAR  
Village : DEOJHAR  
Taluka : BARBIL  
Post office : DEOJHAR  
Pin Code : 758038  
FAX No. : 06767-272304  
E-mail : diom.tmpl@gmail.com  
Phone : 06767-272304,273448
- (f) Police Station : Joda
- (g) First opening date : 04/10/1995
- (h) Weekly day of rest : SUN
2. Address for : DEOJHAR IRON MINE, DISTRICT KEONJHAR  
correspondance : ORISSA, PIN: 758 038.
3. (a) Lease Number : ORI0721
- (b) Lease area : 34.37
- (c) Period of lease : 50
- (d) Date of Expiry : 04/09/2044
4. Mineral worked : IRON ORE Main

## 5. Name and Address of the

Lessee : TARINI MINERALS  
 AT P.O.BONIEKALA (JODA)  
 KEONJHAR ORISSA  
 Phone:  
 FAX :

Owner : TARANI MINERALS(P) LTD  
 BONEIKALA JODA KEONJHAR  
 ORISSA  
 Phone: 72304  
 FAX : 72304

## Mining Engineer

Name : Pinaki Mondal, Full Time  
 Qualification : B.E. Mining  
 Appointment/ :  
 Termination date

## Manager

Name : Pinaki Mondal  
 Qualification : B.E. Mining  
 Appointment/ :  
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	09/04/2002
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	17/03/2008
		Modif.approved Mining Scheme	24/10/2008
		Modif.approved Mining Scheme	28/10/2010
		Renewal under rule 24 MCR1960	05/12/2014

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No Proposal during the year 2017-18	19 Nos. of Bore holes have been drilled in the year 2017-18.	NIL.
1b	Exploration over lease area for geological axis 1 or 2	As per approved document dated 05/12/2014, a total of 27 BH have been proposed to explore lease area.	19 Nos. of Bore holes have been drilled in the year 2017-18. As per approve document dated 25/01/2019 entire lease area i.e. 34.365 ha explored under G1/G2 Category of exploration.	Lease expired on 05/09/2014 and supplementary lease deed was executed on 12/04/2016. Less exploration work is due to no mining activity during period.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No Specific Proposal of exploration agency.	M/s Thriveni Earthmovers Pvt. Ltd	NIL.
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal of exploration for the year 2017-18.	As per approve document dated 25/01/2019 entire lease area i.e. 34.365 ha explored under G1/G2 Category of exploration.	NIL.
1e	Balance reserve as on 01/04/20	As per approved document dated 05/12/2014, the position of reserve and resource was 5.053 and 3.581 million tonnes respectively.	As per approved document dated 25/01/2019, updated position of the Reserve & Resouce as on 01.12.2018 is as follows:- Resereve- 0.624 million tonne Resource- 0.968 million tonne	Lease expired on 05/09/2014 and supplementary lease deed was executed on 12/04/2016. No mining activity carried out during the period.
1f	General remarks of inspecting officers on geology, exploration etc	As per approved document dated 05/12/2014, a total of 27 BH have been proposed to explore lease area.	19 Nos. of Bore holes have been drilled in the year 2017-18. As per approve document dated 25/01/2019 entire lease area i.e. 34.365 ha explored under G1/G2 Category of exploration.	NIL.

## Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	N- 2445190to 2445480 E- 341860 to 342055	N- 2445190to 2445480 E- 341860 to 342055	Development observed within the approved limit.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No proposal of top soil generation, as no fresh area has been proposed for development in year 2017-18. Only intercalated waste proposed to generate.	No generation of top soil & intercalated waste during reporting year i.e. 2017-18. All the proposed benches are in Ore zone.	NIL.
2c	Stripping ratio or ore to OB ratio	1:0.015 CuM/Tonne	1:0.0 ( As no generation of waste during reporting year).	Violation for non-generation of waste has been issued.
2d	Quantity of topsoil generation in m3	No proposal of top soil generation, as no fresh area has been proposed for development in year 2017-18.	No top soil generation during year 2017-18.	NIL.
2e	Quantity of overburden generation in m3	12860 Cum (Intercalated waste)	NIL.	NIL.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	As per approved document dated 05/12/2014, existing pit has been proposed for development to exploit Iron Ore.	The development has been carried out as per proposal. However, no waste has been generated during reporting year.	NIL.

## Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
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3a	Number of pit proposed for production	One pit has been proposed for the development.	One pit has been developed as per proposal.	NIL.
3b	Quantity of ROM mineral production proposed	862906 tonne for the year 2017-18.	862715 tonne.	NIL.
3c	Recovery of sailable/usable mineral from ROM production	765170 tonne	862715 tonne	As anticipated, no sub-grade materila has been generated.
3d	Quantity of mineral reject generation	72016 tonne	NIL.	As anticipated, no sub-grade material has been generated during 2017-18.
3e	Grade of mineral rejects generation and threshold value declared.	+45 % Fe to 58 %Fe	NIL.	NIL.
3f	Quantity of sub grade mineral generation.	72016 tonne	NIL.	As anticipated, no sub-grade material has been generated during 2017-18.
3g	Grade of sub grade mineral generation	+45 % Fe to 58 %Fe	NIL.	NIL.
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized method.	Mechanized method.	NIL.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No Proposal of any beneficiation study.	Beneficiation study has not been carried out during the year 2017-18.	NIL.
3j	Provision of drilling and blasting in mineral benches	Blast holes of 110mm dia drill machine fed by compressed air.	Observed as per the proposal.	NIL.

3k	Provision of mining machineries in mineral benches	Drill Machine, Excavator, Dumper , Wheel Loader etc.	Observed as per the proposal.	NIL.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height is 10m and width more than height.	Bench height & width has not been maintained as per proposal at places.	For deviation violation letter issued.
3m	Total area covered under excavation/pits	As per approved document dated 05/12/2014 , an area of 6.80 Ha proposed under excavation at the end of plan period.	As per approved document dated 25/01/2019 , an area of 7.86 Ha put under the excavation begning of paln period.	NIL.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.015 CuM/Tonne	1:0.0 ( As no generation of waste during reporting year).	Violation for non-generation of waste has been issued.
3o	Total area put in use under different heads at the end of year	As per approved document dated 05/12/2014, total area proposed to put under different heads i.e. excavation, waste dumping, infrastructure , road etc is 19.21 Ha.	As per AR 2017-18, area put under the different heads i.e. excavation, waste dumping, infrastructure, road etc is 16.36 Ha.	As the proposed dump area. has not been utilized due to nong-eneration of Overburden.
3p	Production of ROM mineral during the last five year period as applicable	2013-14:- 1243194 MT 2014-15:- 317738 MT 2015-16:- 740784 MT 2016-17:- 1499852 MT 2017-18:- 862906 MT	2013-14:-17445 MT 2014-15:-118282 NIL. 2015-16:-Nil 2016-17:- 1460095 MT 2017-18:- 862715 MT	NIL.

3q	General remarks of inspecting officers on method of mining etc.	Full mechanized opencast method of mining has been proposed to win the ore.	Full mechanized opencast method of mining is being practiced at mine.	NIL.
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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No proposal of top soil generation, as no fresh area has been proposed for development in year 2017-18. Separate dumping of waste and mineral reject has been envisaged.	No top soil generation during year 2017-18 & also waste and mineral reject has not been generated during the reporting year i.e. 2017-18.	Violation for non generation of Waste has been issued.
4b	Location of topsoil, OB and mineral reject dumps	No Proposal of top soil generation. Waste is proposed to be dumped between grid lines N2444515 to N2444325 and E341646 to 341915.	Top soil, Waste and Mineral reject has not been generated during the reporting year i.e. 2017-18.	Violation for non-generation of Waste has been issued.
4c	Number of dumps within lease area and outside of lease area	1 new OB Dump and 2 new Mineral Reject dump have been proposed.	OB dump has not been generated. Past Mineral reject dumping has been carried out at over a proposed mineral reject dump. No mieral reject generation during 2017-18.	NIL.

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dump is Proposed in Non-mineralized zone and outside the UPL	No dumping as no generation of waste during the reporting year.	NIL.
4e	Number of active and alive dumps.	1	1	NIL.
4f	Number of dead dumps.	1	1	NIL.
4g	Number of dumps established.	No proposal.	Not applicable.	NIL.
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes, All along the OB and Mineral Reject dump.	Maintained during the reporting year.	NIL.
4i	Length of Retaining wall or garland drain all along dumps	Maintenance.	Retaining wall and garland drain observed all along the OB and Mineral Reject dumps.	NIL.
4j	Number of settling ponds	No Proposal.	Not applicable.	NIL.
4k	Specific comments of inspecting officer on waste dump management	Waste is proposed to be dumped between grid lines N2444515 to N2444325 and E341646 to 341915.	Waste has not been generated during the reporting year i.e. 2017-18.	Violation for non-generation of Waste has been issued.

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**Solid Waste Management - Backfilling:**

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Sl.No.	Item	Propasals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	No Proposal for reporting year as no pit area was matured for backfilling during reporting year 2017-18.	Backfilling has not been observed.	NIL.

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5b	Area under backfilling of mined out area	No proposal as no area is matured for backfillng.	Backfilling has not been observed.	NIL.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal of top soil generation, as no fresh area has been proposed for development in year 2017-18.	Entire top soil generated during past years have been utilized. Top soil has not been generated during the year 2017-18.	NIL.
5d	Total area fully reclaimed and rehabilitated	No Proposal reclamation and rehabilitation for reporting year.	Not applicable.	NIL.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	No proposal of backfilling as none of the pit area is matured for backfilling.	Backfilling has not been observed.	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).	As per rule 26(2) of MCDR, 2017, PMCP report to be submitted for previous year by 1st July.	Annual PMCP report for reporting year i.e. 2017-18 has been submitted.	NIL.
6b	Area available for rehabilitation (ha) .	0.04 Ha (Green belt)	0.24 Ha (Safety Zone plantation)	NIL.
6c	afforestation done (ha).	0.04 ha	0.24 Ha (Safety Zone plantation)	NIL.
6d	No. of saplings planted during the year	640 Nos	1860Nos.	NIL.

6e	Cumulative no .of plants	A total of 2560 number of plants have been proposed from 2014-15 to 2017-18.	2710 numbers of plants have been planted during 2014-15 to 2017-18.	NIL.
6f	Any other method of rehabilitation	No Proposal of any other method of rehabilitation other than plantation.	Plantation work has been carried out in safety zone area.	NIL.
6g	Cost incurred on watch and care during the year	Rs. 15000/-	Rs. 33000/-	As reported.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	No proposal of backfilling as no pit area has been matured for the backfilling.	No backfilling work during the reporting year as no area/pit has been matured for the backfilling.	NIL.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal of backfilling during the reporting year by waste/tailing material.	No backfilling has been observed as no pit area was matured for backfilling.	NIL.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	As no proposal of backfilling, hence, no proposal of afforestation on backfilled area.	No afforestation, as no proposal of backfilling.	NIL.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	As no pit area has been exhausted, hence no proposal of making reservoir.	None of the area has been matured for making reservoir.	NIL.

6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal of backfilling as no pit area has been matured for the backfilling.	No backfilling work during the reporting year as no pit area has been matured for the backfilling.	NIL.
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not applicable as no waste land within the lease area.	NIL.	Not applicable.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not applicable as no waste land within the lease area.	NIL.	Not applicable.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not applicable as no waste land within the lease area.	NIL.	Not applicable.
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposal has been given for environment monitoring in core and buffer zone.	Environment Monitoring was carried out in core and buffer zone for reporting year.	NIL.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Proposal of palntation has been given over an area of 0.04 Ha.	Plantation has been carried out over an area of 0.24 Ha. of safety zone.	NIL.

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Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting within lease area has been proposed.	Grade wise sorting was observed in lease area.	NIL.

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7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical.	Mechanical.	NIL.
7c	Different grade of mineral sorted out at mines.	Saleable Ore:+58 % Fe Mineral Reject:- +45 to 58% Fe	Saleable Ore:+58 % Fe No mineral reject generation during 2017-18.	NIL.
7d	Any beneficiation process at mines .	No Proposal of beneficiation in lease area.	No beneficiation has been observed. ROM is processed through screening and crushing.	NIL.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Separate stacking of sub-grade material has been envisaged. No Proposal of beneficiation in lease area.	Sub grade mineral generated in past during mining is stacked aeparately. No beneficiation has been observed.	NIL.

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**Environment:**

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal of top soil generation, as no fresh area has been proposed for development in year 2017-18.	No top soil generation during the year 2017-18.	NIL.
8b	Concurrent use or storage of topsoil	No proposal of top soil generation, as no fresh area has been proposed for development in year 2017-18.	No top soil generation during the year 2017-18.	NIL.

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping of Waste, Mineral reject has been proposed.	Separate dumping of Waste, Mineral reject was observed. However, no waste and mineral reject has been generated during the year 2017-18.	NIL.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal as none of the pit area was matured for backfilling by use of OB, waste rock etc.	Waste material is dumped over the designated area.	NIL.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	320 numbers of plants have been proposed for plantation over an area of approximate 0.20Ha.	No plantation over the dump as no waste generation during the year 2017-18. However, plantation work has been carried out in safety zone area by 1860 number of plantation.	NIL.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	A total of 2560 number of plants have been proposed from 2014-15 to 2017-18.	2710 numbers of plants have been planted during 2014-15 to 2017-18.	NIL.
8g	Survival rate	No specific Proposal.	60%	As per AR 2017-18.
8h	Water sprinkling on roads to control airborne dust	To control the airborne dust water sprinkling is proposed on the road.	Mobile water sprinkling vehicle observed.	NIL.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	To improve the aesthetic beauty, proposal of plantation has been given.	Aesthetic beauty in and around mines area was maintained by plantation.	NIL.

## Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	As per rule 45 of MCDR , monthly and annual returns to be submitted.	Monthly and annual returns have been submitted for reporting year.	NIL.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Information has been furnished about Mining Engineer, Geologist, and Manager.	Geologist has not been appointed.	Violation issued.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	A total of 16.36 ha area has been furnished under lease area utilization for area under o/c working 7.521 Ha, occupied by infrastructure 0.711 Ha, Other purpose 5.272 Ha and Work done under progressive mine closure plan 2.856 Ha.	The land use pattern is found to be in order.	NIL.
9d	Scrutiny of Annual return on afforestation	1860 Nos.	1860Nos.	NIL.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral Reject Generation: Nil.	Mineral Reject Generation: Nil.	NIL.

9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing stock:- ROM:- 0, Graded ore:- 277604.2MT (58%+) as on 01/04/2018	Closing stock:- ROM:- 0, Graded ore:- 277604.2MT (58%+) as on 01/04/2018	As per AR 2017-18.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of Production- Rs. 511.63	Seems to be in Order.	NIL.
9h	Scrutiny of Annual return on fixed assets	Value of fixed assets: Rs 113332/ - (in respect of minePlant & machinery including transport equipment)	Value of fixed assets: Rs 113332/ - (in respect of minePlant & machinery including transport equipment)	As furnished in AR 2017-18.
9k	Scrutiny of Annual return on mining machineries	Loader, Dumper, Crusher, Water Sprinkler etc.	Loader, Dumper, Crusher, Water Sprinkler etc.	NIL.

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**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
MCDR17 Rule 11(1)	02/01/2019		MCDR17 Rule 11(1)	02/01/2019	
MCDR17 Rule 45(7)(a)	02/01/2019		MCDR17 Rule 45(7)	02/01/2019	
MCDR17 Rule 55(1)(3)	02/01/2019		MCDR17 Rule 55(1)	02/01/2019	

**Date :**

**(DILIP JAIN)**

Indian Bureau of Mines