

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

**MCDR INSPECTION REPORT**

**Bhubaneshwar regional office**

**Mine file No :** ORI/CR/JJP/MCDR-72/BBS

**Mine code :** 11ORI19030

- (i) Name of the Inspecting : **AKP** ) **ASHOK KUMAR PANY**  
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : **SHRI NAVEEN SHRIVASTAVA, MINES MANAGER**  
Official with  
Designation
- (iv) Date of Inspection : 20/11/2021
- (v) Prev.inspection date :

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **SARUABIL CHROMITE BLOCK**
- (b) **Registration NO.** : **IBM/5765/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : JAJPUR
- Village : Saruabil
- Taluka : Kaliapani
- Post office : Kalarangiatta
- Pin Code : 755028
- FAX No. :
- E-mail : [mdtsalloysltd@tatasteel.com](mailto:mdtsalloysltd@tatasteel.com)
- Phone : 06742551045
- (f) Police Station : KALIAPANI
- (g) First opening date : 06/11/2020
- (h) Weekly day of rest : SUN
2. Address for : SARUABIL  
correspondance PO-KALIAPANI  
DIST-JAJPUR
3. (a) Lease Number :
- (b) Lease area : 246.858 ha
- (c) Period of lease : 50 year
- (d) Date of Expiry : 25.06.2021
4. Mineral worked : Chromite

## 5. Name and Address of the

Lessee : TATA STEEL MINING LTD  
 SUKINDA JAJPUR ORISSA  
 Phone:  
 FAX :

Owner : Tata Steel Mining Limited  
 KALIAPANI JAJPUR ODISHA  
 JAJPUR ORISSA  
 Phone:  
 FAX :

Agent : Shri Sushanta Kumar Mishra  
 KALIAPANI JAJPUR ODISHA  
 JAJPUR ORISSA  
 Phone:  
 FAX :

## Mining Engineer

Name : SHRI NAVEEN SHRIVASTAVA, Full Time  
 Qualification : BE MINING  
 Appointment/ : 21/10/2021  
 Termination date

## Geologist

Name : SHRI AADITYA KISHORE, Full Time  
 Qualification : MSC GEOLOGY  
 Appointment/ : 15/03/2021  
 Termination date

## Manager

Name : SHRI NAVEEN SHRIVASTAVA  
 Qualification : BE MINING  
 Appointment/ : 21/10/2021  
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining : MP under 16(1) of MCR 2016 10/11/2020

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	The mine was operated from 06.11.2020
1b	Exploration over lease area for geological axis 1 or 2	No proposal during the year 2020-21	Nil	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Nil	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	As per approved mining plan the lease area explored under G1 & G2 category	As per approved mining plan the lease area explored under G1 & G2 category	
1e	Balance reserve as on 01/04/20	As per the approved Mining Plan the reserve position is as follows:- Reserve-4.389 million tonne Resource-5.738 million tonne	As per the approved Mining Plan the reserve position is as follows:- Reserve-4.389 million tonne Resource-5.738 million tonne	
1f	General remarks of inspecting officers on geology, exploration etc			Chromite ore occurs in vein type deposit in the lease area.

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	376941E-377653E/2328133N-2329117N	376941E-377653E/2328133N-2329117N	

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches proposed	Carried out	
2c	Stripping ratio or ore to OB ratio	1:7.95	1.2.06	Mining operation started on 06.11.2020
2d	Quantity of topsoil generation in m3	Nil	Nil	
2e	Quantity of overburden generation in m3	1195000 Cum	308996 Cum	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Mining operation carried out in mechanised opencast method.

### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One Pit	One Pit	
3b	Quantity of ROM mineral production proposed	150000 tonne	149974.123 tonne	
3c	Recovery of sailable/usable mineral from ROM production	139000 Tonne	89075.421 Tonne	
3d	Quantity of mineral reject generation	11000 tonne	60898.702 tonne	
3e	Grade of mineral rejects generation and threshold value declared.	Below 40% Cr2O3 and threshold value 10% Cr2O3	Below 40% Cr2O3 and threshold value 10% Cr2O3	
3f	Quantity of sub grade mineral generation.	Same as mineral reject	Same as mineral reject	

3g	Grade of sub grade mineral generation	Same as mineral reject	Same as mineral reject	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Nil	Nil	
3j	Provision of drilling and blasting in mineral benches	Yes	Not carried out during the year	
3k	Provision of mining machineries in mineral benches	Shovel and dumper	Shovel and dumper	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench Height-8m and width-14m	Bench Height-8m and width-14m	
3m	Total area covered under excavation/pits	Area under pit is 48.315 ha	Area under pit is 48.315 ha	
3n	Ore to OB ratio for the pit/mine during the year.	1:7.95	1:2.06	
3o	Total area put in use under different heads at the end of year	The total area put to use in different head is 165.948 ha	The total area put to use in different head is 165.948 ha	
3p	Production of ROM mineral during the last five year period as applicable	2020-21-150000 tonne	2020-21-149974.123 tonne	Mining operation started from 2020-21

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

Mining operation carried out by mechanised opencast method.

### Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping proposed	carried out	
4b	Location of topsoil, OB and mineral reject dumps	Location of OB Dump- 377162E-377889/ 2329180N-2328890N	Location of OB Dump- 377162E-377889/ 2329180N-2328890N	
4c	Number of dumps within lease area and outside of lease area	6 Nos.	6 Nos.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Out Side UPL	Outside UPL	
4e	Number of active and alive dumps.	One dump i.e. dump-6 active	One dump i.e. dump-6 active	
4f	Number of dead dumps.	Two dump	Two dump	
4g	Number of dumps established.	Nil	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	Yes	
4i	Length of Retaining wall or garland drain all along dumps	Nil	Nil	Total 1638m retaining wall and 5541m garland drain exists.
4j	Number of settling ponds	Nil	Nil	15 Settling ponds exists

4k	Specific comments of inspecting officer on waste dump management	The waste dumping has been carried out as per proposal.
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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.	No proposal	Nil	Area not matured
5b	Area under backfilling of mined out area	Nil	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Nil	Nil	
5d	Total area fully reclaimed and rehabilitated	Nil	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			No area matured for reclamation/backfilling

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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).	To be submitted on or before 1st July	Submitted	

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6b	Area available for rehabilitation (ha) .	Nil	Nil
6c	afforestation done (ha).	Nil	Nil
6d	No. of saplings planted during the year	Nil	Nil
6e	Cumulative no .of plants	Nil	Nil
6f	Any other method of rehabilitation	Nil	Nil
6g	Cost incurred on watch and care during the year	Nil	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	Nil	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Nil	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Nil	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Nil	Nil



6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Nil	Nil	
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Nil	Nil	
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Nil	Nil	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Nil	Nil	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed	carried out	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			The mining operation commenced from 06.11.2020 and no area matured for reclamation/backfilling.

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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	Grade-wise sorting	

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7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanised	Mechanised	
7c	Different grade of mineral sorted out at mines.	Above 40% Cr2O3 and 10% to 40% Cr2O3	Above 40% Cr2O3 and 10% to 40% Cr2O3	
7d	Any beneficiation process at mines .	Nil	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			The low grade ore blended with high grade ore for sale.

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**Environment:**

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal of generation of topsoil	Nil	
8b	Concurrent use or storage of topsoil	Nil	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping proposed	carried out	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Nil	Nil	

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8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Nil	Nil	Area not matured
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Nil	Nil	
8g	Survival rate	NA	NA	
8h	Water sprinkling on roads to control airborne dust	water sprinkling proposed	carraied out	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			The aesthetic beauty maintained around the mining area

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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	The anual return to be submitted on or before 1st July	Submitted	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	The information of Manager, Mining Engineer and geologist has been furnished in the return.	Appointed	

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9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	The area under pit-48.315 ha, Reclaimed area- 0 ha Area under dump-61.414 ha	The area under pit-48.315 ha, Reclaimed area- 0 ha Area under dump-61.414 ha
9d	Scrutiny of Annual return on afforestation	Nil	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	60898.702 tonne- Below 40% Cr2O3	60898.702 tonne- Below 40% Cr2O3
9f	Scrutiny of Annual return on ROM stock and/or graded ore	The ROM stock is Nil	The ROM stock is Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	The cost of production is Rs. 11935.00	The cost of production is Rs. 11935.00
9h	Scrutiny of Annual return on fixed assets	The value of Fixed asset is Rs 505028464/-	The value of Fixed asset is Rs 505028464/-
9k	Scrutiny of Annual return on mining machineries	Dumper- 20nos. Dozer- 2 Nos. Excavator-5 Nos. Pump- 2nos. Water sprinkler- 1 Nos.	Dumper- 20nos. Dozer- 2 Nos. Excavator-5 Nos. Pump- 2nos. Water sprinkler- 1 Nos.

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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

**Date :**

**(ASHOK KUMAR PANY)**

Indian Bureau of Mines