

**INDIAN BUREAU OF MINES  
MINES CONTROL AND CONSERVATION OF MINERAL DIVISION**

**MCDR INSPECTION REPORT**

**Goa regional office**

**Mine file No :** MAH/RTG/BX-10/GOA

**Mine code :** 07MSH20006

- (i) Name of the Inspecting : **J003** ) **JANGID G K**  
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Sh D.M. Vaze, G.M. and Sh Pramod Sarode, M.M  
Official with  
Designation
- (iv) Date of Inspection : 20/09/2013
- (v) Prev.inspection date : 20/05/2012

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **GUDEGHAR BAUXITE MINE**
- (b) Category : A Fully Mechanised
- (c) Type of Working : Opencast
- (d) Postal address
- State : MAHARASHTRA
- District : RATNAGIRI
- Village : GUDEGHAR
- Taluka : MANDANGAD
- Post office : UMROLI
- Pin Code : 415208
- FAX No. : 0832-2454590
- E-mail : banerjee@fkpl.com
- Phone : 0832-2454575
- (e) Police Station : Veshvi / Bankot
- (f) First opening date : 16/02/2011
2. Address for : Gudeghar Bauxite mine of M/s ILPL  
correspondance C/o Dr. Satish Awale, H.No.376 , Near Post Offic  
Tal.- Mandangad, Dist-Ratnagiri, Pin code- 41520
3. (a) Lease Number :
- (b) Lease area :
- (c) Period of lease :
- (d) Date of Expiry :
4. Mineral worked : BAUXITE Main

## 5. Name and Address of the

Lessee : INFRASTRUCTURE LOGISTICS PVT LTD  
 CIDADE DE GOA DONA PAULA  
 NORTH GOA GOA  
 Phone:0832-2454590  
 FAX :0832-2454590

Owner : Milind Sardessai  
 Infrastructure Logistics  
 Pvt. Ltd. Cidade de Goa,  
 Dona Paula, Goa NORTH GOA  
 GOA  
 Phone: 0832-2454575, 9  
 FAX : 0832-2454575

Agent : D. R. VAZE  
 Cidade de Goa, Dona Paula,  
 Goa NORTH GOA GOA  
 Phone: 0832-2454575, 9850477966  
 FAX : 0832-2454575

## Mining Engineer

Name : PRAMOD V. SARODE, Full Time  
 Qualification : B.E.(MINING), 11 Years NAGPUR UNIVERSIT  
 Appointment/ : 01/01/2013  
 Termination date

## Geologist

Name : Ajit Sampatrao Nalawade, Full Time  
 Qualification : M.Sc. Geology  
 Appointment/ : 09/02/2011  
 Termination date

6. Date of approval of Mining : 24/05/2013  
 Plan/Scheme of Mining

**PART - II : TECHNICAL DETAILS/COMMENTS**

## 1. Details about Average employment :

Maximum number of persons employed on any day during the year

Employment category	No.of employment	Av. yearly working days
<b>DIRECT</b>		
Managerial	5	303
Supervisory	3	303
Others	19	303
Ministrial	4	303
Plant	3	303
Workers	23	303

**2. Community Development Plan (in and around the mines) : Proposed action and expenditure towards socio-economic development.**

Action during the year	Expenditure in Rs. Lakhs for				Remarks
	previous year		current year		
	Proposed	Incurred	Proposed	Incurred	
<b>General</b>					
Water supply	0.00	0.49	0.00		
Sanitation	0.00	0.00	0.00		
Medical facility	0.00	4.47	0.00		
Housing	0.00	0.00	0.00		
Safety	0.00	1.00	0.00		
Health	0.00	0.00	0.00		
<b>Sub total</b>	<b>0.00</b>	<b>5.96</b>	<b>0.00</b>		
<b>Infrastructure</b>					
Public transport	0.00	0.00	0.20		
Roads	0.00	0.00	1.50		
Communication	0.00	0.00	0.10		
Electricity	0.00	0.00	0.00		
<b>Sub total</b>	<b>0.00</b>	<b>0.00</b>	<b>5.96</b>		
<b>Sports activities</b>	<b>0.00</b>	<b>0.00</b>	<b>0.40</b>		
<b>Employment</b>	<b>0.00</b>	<b>0.00</b>	<b>8.40</b>		
<b>Environment management</b>	<b>0.00</b>	<b>0.00</b>	<b>12.50</b>		
<b>Training</b>	<b>0.00</b>	<b>0.00</b>	<b>0.50</b>		
<b>Others</b>	<b>0.00</b>	<b>0.00</b>	<b>2.50</b>		
<b>Recreation</b>	<b>0.00</b>	<b>0.00</b>	<b>0.05</b>		
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>32.11</b>		

**3. Status of compliance of MCDR, 1988, including therewith the rectification of the outstanding violation of rules.**

Mine was last inspected on 20/05/2012 and violation of rule 13(1) was issued for deviation in location of working. Modified mining plan was submitted & approved on 29/05/2013. After the current inspection, violation of rule 13(1) was issued on 24.10.2013 for advancing topsoil & mineral stacks outside the lease area..

**4. A note on the justification in case of suspension of mining operation under rule 13(2) or prohibition of deployment of any person under rule 56 of MCDR, 1988, if recommended.**

Suspension of mining operations under rule 13(2) or prohibition of deployment of any person under rule 56 of MCDR, 1988 is not recommended. However, if lessee failed to comply rule 13(1) within stipulated time, followup action will be initiated for logical end.

## 5. Scientific Mining

Items	Proposal	Actual work done	Remarks
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## A. Exploration (Rule 13)

- a.Type of prospecting : Additional and exploration i.e. pitting, drilling exploration was not proposed in 2012-13, however 51 boreholes are proposed during 2013-14 in eastern part of lease area.
- Additional exploration was not carried out during last two years i.e. 2011-12 & 2012-13, however 34 boreholes drilled during 2013-14 in eastern part of lease area. Earlier 49 boreholes for total 367m were drilled in 2010-11.
- b.Total area covered : Additional exploration was not proposed in 2012-13.
- Earlier 49 boreholes for total 367m were drilled in 2010-11 covering central and eastern part of lease area and 34 boreholes drilled during 2013-14 in eastern part of lease area. Total area covered is around 25ha.

## B. Working (Rule 13)

- a.Number and size of each pit (LxWxH) : Additional 1.58ha was proposed during the year. Pit of 100mX200mX7m size was planned at the end of 2012-13 over N1986750- N1986920 & E299940- E300100 grid lines.
- There is one pit of 260mX160mX6m over N1986750- N1986920 & E299950- E300120. Total area covered under pit is 3.19ha and it is located in south-west side of lease area.
- Pit is located at proposed site.
- b.Bench size(LxWxH)length can be defined as regular/irregular : One bench of 7m up to full thickness of bauxite was proposed.
- Single bench with maximum height is 6 m as per bauxite thickness.
- c.Ore to waste ratio pit wise if possible otherwise for mine : 1:0.62
- 1:0.64
- d.Total area covered under excavation/pits : Area proposed at the end of 2012-13 was 4.50 Ha.
- Area covered during 2012-13= 1.58 Ha. Cumm. As on date is 3.19Ha.

## C. Waste disposal (Rule 13)

- a.Location of dumps : There was proposal to utilize waste for bund formation in 1st year and for backfilling of mined out area in subsequent years.
- Waste was not fully utilized for creation of bunds & road maintenance. Area under dump increased from 1.15ha to 1.81ha including topsoil stack.
- e.Yearly generation : 62000t.
- 64054t.

of waste quantity.

- b.Method of dumping whether advancing/retreat : Direct use for making bunds all along the lease boundary in first year and backfilling from second year was proposed. Advancing method of dumping was followed and present topsoil stack and mineral stacks advanced beyond lease area. Violation letter issued for topsoil stack and mineral stacks advancement beyond lease area.
- c.Total area covered under waste dump. : Old 1.30ha area was proposed to lift and make it zero under topsoil & waste dump. Total area under topsoil & waste dump is 1.81ha as on date.
- d.No.and size of each waste dump with No of steps/lift/bench : There was no proposal for waste dumping. Total area under topsoil stack is 0.30ha.& waste dump is 1.51ha as on date.

#### D. Production

- b.Year wise production of last five year. : Proposal from 2010-11 to 2012-13 was 75000t, 75000t and 1,00,000t. Production of bauxite from 2010-11 to 2012-13 was 99597t, 58749t, 5000t. Mining operations were first commenced on 16.02.2011.

#### D. Reserve

- a.Reserve position as per latest MP/MS and at the time of inspection. : Total reserves of 8,00,000t under 111 category and 43,00,000t under 333 category. It is same and fresh reserves are not estimated after modified mining plan approved on 29.05.2013.

#### RESERVE POSITION AS ON 01/04/2013

<b>BAUXITE</b>		
Category	Quantity in Tonnes	Grade
Proved	800000	Below 45% Al2O3
Probable	0	
Possible	4300000	Below 45% Al2O3
Total	5100000	Below 45% Al2O3

#### PRODUCTION FOR THE PREVIOUS YEAR 2012 - 2013

Mineral	Production	Unit
BAUXITE	99597	TON

## 6. Conservation of Mineral - both quantitative and qualitative

### Beneficiation (Rule 20 and 26)

- Efforts for improving low grade and sub grade mineral. : Jaw crusher is used and screening is carried out to reduce silica.
- Efforts for improving percentage of recovery of ore. : Domestic sale to Hindalco at Belgaum plant. Different grades of mineral are separately stacked to improve quality & grade.

### Mineral Rule 15

- Percentage of recovery of ore : 60%  
pitwise w.r.t. ROM and total material
- Number of benches in ore and waste. : There is one bench in the pit having length, width of 260m & 10m with avg height of 6 m.

### Sub/grd mineral/fines (Rule16)

- Qty of yearly generation and total qty available during inspection with grade : Yearly generation of ROM :- 99,597t and Stocks available during inspection ROM:-68111.12t, Crushed Product - Below 40% Al<sub>2</sub>O<sub>3</sub>= 34007.58t & 40%-45% Al<sub>2</sub>O<sub>3</sub> = 41550.38t
- Number and size of each stack : 1. MG Crushed Ore 1,015.07m<sup>2</sup>, 2. MG RoM 1,071.29m<sup>2</sup>, 3. HG Crushed Ore 495.69m<sup>2</sup>, 4. MG Crushed Ore 5,826.23m<sup>2</sup>, 5. SHG Crushed Ore 955.52m<sup>2</sup>, 6. LG Crushed Ore 2,909.45m<sup>2</sup>, 7. HG Crushed Ore 1,587.93m<sup>2</sup>, 8. LG RoM 4,200.66m<sup>2</sup>, 9. LG RoM 5,359.31m<sup>2</sup> and TOTAL 23,420.30m<sup>2</sup>
- Location of stacking. : It is located in SW corner of lease area and advanced beyond lease area.
- Separate stacking from waste : Since the ROM cut-off grade is +30% Al<sub>2</sub>O<sub>3</sub>, no subgrade ore is generated.
- Total area covered for stacking : Total 9 Different grade ROM & crushed ore stocks are there and total area covered is 2.34Ha

### Exploration data as on 31/03/ 2013

No. of Boreholes	No. of Pits	No. of Trenches
49	0	0
34	0	0

### OVERBURDEN HANDLED DURING PREVIOUS YEAR 2012 - 2013

Overburden/waste removed (in m <sup>3</sup> ) :	32032
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### Utilisation of Sub Grade Mineral and Mineral Rejects

	Generated	Utilised	Stacked	(In Ton.)
<b>BAUXITE</b>				
Sub Grade Mineral ->	0	0	0	
Mineral Rejects ->	0	0	0	

## 7. Environment Management - both quantitative and qualitativ

### A. Land environment

- a. Landscape. : The Lease area is in mount shape and top of the deposit is in the form of platue. Maximum RL - 287.274m, Minimum RL - 182.324m
- b. Aesthetic environment : Afforestation is carried out near office premises and 3250 saplings have been planted all along lease boundary & road side..
- c. Soil and land use pattern : The Lease area is covered with Lateritic soil which is acting as topsoil for plantation.
- d. Agriculture : The Lease area is mostly having dense plants & no agricultural area. Rice, Millets, Mango, Cashew are crops. There will be no impact on agricultural activity due to the mining.
- e. Forest(flora and fauna) : The area is Private non-Forest revenue Land. There is no forest land in surrounding area.
- f. Vegetation : Natural vegetation in the form of trees & shrubs are there in lease area and occupied by vegetation like Mango, Kokum, Cashew, Chikku.
- h. Public building, places and monuments (protected, historical), placec of worship and places of tourist : Nil, village Gudeghar is at 1km distance downside and separate bypass road made for mineral transportation.

### B Water environment.

- a. Surface water : Bauxite mining operation does not dispose off any effluent in the surrounding watercourses. Surface water is not going to be affected either qualitatively & quantitatively.
- b. Ground water : The bauxite mining operations are confined to 5 to 6m from surface, which is above the ground water table. Ground water table in pre monsoon is 109 MSL and post monsoon season 110 MSL
- c. Quality of water : There are no any effluents generated from Mining Operation. During monsoon period water is naturally stored in settling pond and discharged through seepage.

### C. Air environment

- a. Noise : Noise level is within permissible limit.
- b. Air : Continuous air quality monitoring is carried out ,there is proper maintenance of tar-road for transportation of minerals and water sprinkling has been carried out on the main road.
- c. Climatic condition : The climatic condition of the area is hilly terrain and receive more than 4000mm rain.

### D. Socio economic environment

- a. Social and demographic profile. : The main occupation of the people is rain depended farming. Due to uneven topographic condition & less availability of the soil, the agricultural output is low & no major industries in the area. The mining operations is providing direct & indirect employment to more than 50 persons.

- b. Recommending health and safety. : Moderate amount of dust generated is being suppressed by water tankers. Medical Camp is been Organized in Villages. One dispensary with MBBS doctor is created in Gudeghar village. Shallow mining without drilling & blasting is there.
- c. Human settlement : There is No Human Settlement in Lease area. Nearby Surrounding villages are Gudeghar and Occupied with thin Human Settlements.
- d. Recreational facility. : There is Rest Shelter, canteen, Toilets constructed for Mine Officials in the Mine. Provision of Television is there for Mine Officials.

**7.1 Comments on the steps taken by the lessee towards maintaining environment and monitoring of environmental parameters to ensure the qualitative improvement in the environment and ecology.**

<u>Water Management</u>					
Season	Station type	Station name	Parameter	Value	
				Actual	Excess

<u>Air data for excess parameters</u>					
Season	Station name	Type of area	Parameter	Value	
				Actual	Excess

<u>PLANTATION DURING THE PREVIOUS YEAR</u>						<u>2012 - 2013</u>	Area in Hect.
Within lease area			Outside lease area				
Area	Trees planted	Survival rate	Area	Trees planted	Survival rate		
.71	1200	75	1.76	2000	70		

<u>TOP SOIL MANAGEMENT</u>		
<u>Quantity as on 31/03/2013</u>		
Cumulative quantity in tonne		
Generated	Utilised	Balance
21500	5000	16500



**8. Scrutiny of annual returns on cost of production, reserve, production, pit mouth value, stock, land use pattern and fixed assets.**

The annual return submitted for 2012-13.

Opening & closing stock of ROM material is shown in table, whereas in subsequent table 'Grade wise production, despatch, stocks and Ex-mine price' opening & closing stock of different grade of bauxite are not given. Merely stack of 385.72t of 40 to 45% Al<sub>2</sub>O<sub>3</sub> material is given, whereas stacks of different grades of material were observed during inspection. Further, 106405.80 tonnes of 41% grade material reported as Feed and Concentrated/Co-products. However, no beneficiation/treatment plant was observed at mines. Reserves are reported correctly as per latest approved mining plan. Surface area utilization is correct. PMV (Ex. Mine price) is reported as Rs. 425 and sale value is also reported Rs. 425 to M/s HINDALCO. Sale value of mineral is incorrect. Cost of production is Rs. 378.19. Lessee has been advised to show opening & closing stock correctly as per stack grade.

**PART - III : PERFORMANCE OF MINE OWNER**  
(In case of lease expiring within 2 years - as per guidelines)

**a. Compliance of terms and conditions of lease deed.**

MMN-1008/CR2413/Ind-9 Area - 91.58 Ha Non-Forest. Period 20 years. Date of expiry is 26/08/2030 Fresh grant

**b. Compliance of the provisions of MCDR, 88 and advise given.**

Approval of Mining Plan:- MP/RTNG/GOA(MAH)/Bx-189-SZ dated 24/08/2009  
Approval of Modified Mining Plan:- MP/RTNG/GOA(MAH)/Bx-189-SZ/611 dated 29/05/2013 for balance period from 2012-13 to 2014-15.

**PART - IV : PROPOSALS FOR FURTHER ACTION FOR :**

**Indian Bureau of Mines (any issue related to CGPB, SGPB, Assistance, Consultancy, Annual Programme and studies, etc.)**

MMS Division: Lessee may be advised to show the opening & closing stock correctly as per grade of mineral. Lessee is reporting opening stock under ROM category, whereas stacks of different grades are there at mines after crushing & screening.

**State Government (Illegal mining, mining dispute, infrastructure, Mineral based industry, Mineral policy, etc.)**

None at present.

**The Central Government (Infrastructure, Development, Mineral policy and Legislation, Mineral based industry, etc.)**

None at present.

**Date :**

(JANGID G K)

Indian Bureau of Mines