

## MCDR INSPECTION REPORT

### 1.0 GENERAL

SN	Particulars	Details
1 (a)	Name of the Mine	RAN BAUXITE MINES , S.NO 403
1(b)	Name of Inspecting officer & Designation	Sanjay M Girhe, Sr. Mining Geologist
1(c)	Date of Inspection	03/11/2017
1(d)	Type of Inspection	Review of Mining Plan
1(e)	Accompanying officer	Sh. N. Gandhi, Mines Manager, Sh. Govindbhai, Mines Supervisor
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	5.27 HECT
3	Minocode	07GUJ0754
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/248/2011
5	Name of the lessee, Address, phone, email and fax number	M/S SAURASHTRA CALCINE BAUXITE&ALLIED IND., HARSHAD ROAD /P.O-BHATIA,TA-KALYANPUR,DIST-DEVBHUMIDWARKA,PH NO-02891-233199, 233155 Email: <a href="mailto:scabalindia@gmail.com">scabalindia@gmail.com</a> Fax No-02891-233166
6	Village	RAN
7	Taluka/Mandal	KALYANPUR
8	District	DEVBHUMI-DWARKA
9	Pincode	361315
10	State	GUJARAT
11	Post office	BHATIA
12	Nearest police station	BHATIA
13	Nearest Railway station	BHATIA
14	Date of Grant of Mining Lease	05/12/1978
15	Date of Execution	20/04/1979
16	Date of opening of Mine	
17	Date of first Renewal, if applicable and its period & expiry	Lessee had applied for first ML renewal on dtd-01/12/1997 and matter pending at State Govt. level
18	Date of second Renewal, if applicable and its period & expiry	--
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	Lessee had applied for first ML renewal on dtd-29/10/2002 for next 20 years.
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri Dwarkadas Raichura Harshad Road, P.O.-Bhatia, Taluka-Kalyanpur, Dist-Devbhumi-dwarka Phone No- 02891-233199
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri Gulabbhai Pabari Harshad road /P.O.-Bhatia,taluka-Kalyanpur,Dist-Devbhumi-dwarka,Ph no- 02891-233199
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	NA
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Sh. Nainesh Gandhi is working as Mining Engineer
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	NA
25	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	Mining Plan was approved vide letter No-682(23)-252/2002MCCM(N)UDP dtd 09.04.2003 for five year period.
26	Date of Approval of Scheme of	Scheme of Mining was approved vide letter No-

	Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	682(23)MS-424/2008 (N) UDP dtd 30.07.2013 for 5 year period from 2013-14 to 2017-18
27	Mineral(s) granted in lease and proved for mining	Bauxite
28	Method of Mining(Open cast, Underground)	Open cast
29	Category (Fully Mechanised, Others or Manual)	Others
30	Captive/Non Captive	Captive

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. –

**Exploration**

SN	Item	Proposals (2016-17)	Actual work	Remarks
1a	Backlog of previous year	Not Proposed	Not Applicable	exploration by working pit & prospecting pits
1b	Exploration over lease area for Geological axis 1 or 2.	1 Trial Pit of 4mx4mx4m was proposed.	1 Trial Pit of 4mx4mx4m was done	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	No Proposals	Expenditure Rs-40000 incurred exp. So far	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No Proposals	Nil	
1e	Balance reserves as on 01.04.2017	No Proposals	<u>Balance Reserves as on 01.04.2017</u> Proved (111) – 304661MT Probable(122)- 50500MT <u>Mineral Resources</u> Feasibility(211)- 140000MT	
1f	General remarks of inspecting officer on geology, exploration etc.	Shallow depth of Bauxite mineralisation of 5 to 6 mts where exploration by trial pit serve the purpose		

**2.0 Development**

SN	Item	Proposals (2016-17)	Actual work	Remarks
2a	Location of development w.r.t. lease area	Working was proposed along section M-M' south of strip-III .	Working carried out as per the proposed location	Production proposed - 50445MT & Production achieved-50443MT during 2016-17
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Top soil scrapping is proposed with separate benches in ore.	Top soil scrapping and separate benches in ore are done.	No OB in the area
2c	Stripping ratio or ore to OB ratio	1:0.111	1:0.11	Top soil as OB
2d	Quantity of topsoil generation in m3	2360 CuM	1062 CuM	
2e	Quantity of overburden generation in m3	Not Proposed	Nil	

2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	No overburden occurred in the area and 5% of total ROM which has clayish material is considered as waste.
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### 3.0 **Exploitation**

SN	Item	Proposals (2016-17)	Actual work	Remarks
3a	Number of pits proposed for production	Proposed in 1 Pit only	Achieved in 1 Pit only	
3b	Quantity of ROM mineral production proposed	53100 MT	50443 MT	
3c	Recovery of saleable/usable mineral from ROM production	High Grade Bauxite-20% (Al <sub>2</sub> O <sub>3</sub> >50%) Low grade Bauxite 80% (Al <sub>2</sub> O <sub>3</sub> >35%) Abrasive & Refractory grade	More or less achieved as per the proposals	Recovery from total ROM
3d	Quantity of mineral reject generation	No Proposals	Nil	
3e	Grade of mineral reject generation and threshold value declared	No Proposals	Nil	
3f	Quantity of sub-grade mineral generation	No Proposals	Nil	
3g	Grade of sub-grade mineral generation	No Proposals	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	Proposed Manual	Manual	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	No Proposals	Nil	
3j	Provision of drilling & blasting in mineral benches	No Proposals	Nil	
3k	Provision of mining machineries in mineral benches	Excavator-0.9M3 Tipper-15MT Jack Hammer-32	Excavator-0.9M3 Tipper-15MT Jack Hammer-32	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	3 Bench of 1.5Mts height proposed in Bauxite. 1 bench of 0.50M in top soil	Working carried out as per the given proposals	
3m	Total area covered under excavation/pits	3.45Ha (as per the approved MS)	2.20 Ha (As per the AR-2016-17)	
3n	Ore to OB ratio for the pit/mine during the year	1:0.11	1:0.11	
3o	Total area put in use under different heads at the end of year	Pit-3.45Ha OB dumps-0.03Ha Mineral Stack-0.05Ha Infrastructure-0.005Ha Road-0.030Ha	Pit-2.20Ha OB dumps-0.15Ha Mineral Stack-0.05Ha Infrastructure-0.005Ha Road-0.030Ha	Actual status is as per the AR-2016-17
3p	Production of ROM mineral during last five-year period, as applicable	Yr-2013-14 -: 55562 Yr-2014-15 -: 52875 Yr-2015-16 -: 52650 Yr-2016-17 -: 53100	Yr-2013-14 10990 Yr-2014-15 17797 Yr-2015-16 50410 Yr-2016-17 50443	Production figures as per the Annual Returns
3q	General remarks of inspecting officer on method of mining etc.	Violation of provisions of rules 11(1), 14 and 33 of MCDR,2017 were pointed out for rectification.		

#### **4.0 Solid Waste Management-Dumping**

SN	Item	Proposals (2016-17)	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Concurrent use of OB top soil & waste proposed.	Concurrent OB top soil & waste used.	Simultaneous backfilling
4b	Location of topsoil, OB & mineral reject dumps	It was proposed that the waste generated during scheme period will be backfilled in west part of the lease area	Top soil and waste generated during the year is used in backfilling	Simultaneous backfilling
4c	Number of dumps within lease area and outside lease area	Not proposed	Nil	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not proposed	NA	
4e	Number of active & alive dumps	Nil	Nil	
4f	Number of dead dumps	Nil	Nil	
4g	Number of dumps stabilised	Nil	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there	Nil	Nil	
4i	Length of Retaining wall or garland drain all along dump	Nil	Nil	
4j	Number of settling ponds	Nil	Nil	
4k	Specific comments of inspecting officer	Nil		

#### **5.0 Solid Waste Management-Backfilling**

SN	Item	Proposals (2016-17)	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Backfilling by waste material proposed in mine out area where ore completely exhausted.	Backfilling by waste material is done in mine out area where ore is completely exhausted.	
5b	Area under backfilling of mined out area	826 CuM	600 CuM	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Concurrent use of topsoil for restoration or rehabilitation proposed	Concurrent use of topsoil is done as proposed.	
5d	Total area fully reclaimed & rehabilitated	0.800 Ha	0.800 Ha	
5e	General remarks of inspecting officer on backfilling, reclamation etc.	Violation of provisions of rules 11(1), 14 and 33 of MCDR,2017 were pointed out for rectification.		

#### **6.0 Progressive Mine Closure Plan**

SN	Item	Proposals (2016-17)	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 23E(2). Details should be given in the format as given in Annexure-20.	Last day for submitting Annual Return was 31 <sup>st</sup> July of every year	Yes submitted within stipulated time limit.	

6b	Management of worked/mined out benches i) Area available for rehabilitation (ha) ii) Afforestation done (ha) iii) No. of saplings planted during the year iv) Cumulative no. of plants v) Any other specific method of rehabilitation vi) Cost incurred on watch & care during the year	Not Proposed	Nil	
6c	Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L X B X D) ii) Void filled by waste/tailings iii) Afforestation on the backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means	- - - - - 0.3861Ha	0.3861Ha	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	Not Proposed	Nil	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Ambient Air Quality, Water Quality, Noise Quality monitoring proposed	Monitoring carried in core as well as buffer zone.	
6f	General remarks of inspecting officer on PMCP compliance & progressive	Environmental quality monitoring works entrusted to outsourced consultant and relevant reports were produced during inspection.		

### **7.0 Mineral Conservation**

SN	Item	Proposals (2016-17)	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise despatch proposed.	Grade wise despatched Cement grade- 3148.140 Refractory grade- 2062.610	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Manual	Manual	
7c	Different grade of mineral sorted out at mines	Grade wise hand sorting of Bauxite ore within mining lease proposed	Bauxite is hand sorted within the quarry for different grade, such as a abrasive grade, refractory grade, ceramic grade, cement grade ,(low grade)	
7d	Any beneficiation process at mines	No beneficiation process is proposed	No beneficiation process is proposed	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Bauxite ore consumed as Non Plant grade of ore up to Al <sub>2</sub> O <sub>3</sub> -30% which threshold value of Bauxite Ore.		

## 8.0 Environment

SN	Item	Proposals (2016-17)	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	The top soil to be generated during 2016-17 scheme period was proposed to spread on backfilled area.	The top soil generated during 2016-17 scheme period was used to spread on already backfilled area.	
8b	Concurrent use or storage of topsoil	Concurrent use of topsoil proposed during the year	The top soil generated during 2016-17 scheme period was used to spread on already backfilled area.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Concurrent use of topsoil proposed during the year hence separate dumping not proposed.	The top soil generated during 2016-17 of scheme period was used to spread on already backfilled area.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not Proposed	Nil	Simultaneous backfilling
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc.)	It was proposed that the mined out land will be backfilled.	It was proposed that the mined out land will be backfilled.	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Proposed 20 saplings	20 Saplings planted 0.002 Ha	
8g	Survival rate	Proposed – 80%	Actual-70%	
8h	Water sprinkling on roads to control airborne dust	It was proposed to sprinkling water on haul road .	Water sprinkling on haul road being carried out regularly.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines are	Nil		

## 9.0 Compliance of Rule 45

S. N.	Item	COMMENTS	Remarks
	Status of submission of Online Monthly and Annual returns	M.R. Submitted upto till the previous month A.R. submitted for the year 2016-17 submitted on - 30.06.2017	

S. N.	Item	Details GIVEN in A.R.2016-17	OBSERVATION OF / OFFICER	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	NA	NA	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area,	Pit-2.20Ha OB dumps-0.15Ha Mineral Stack-0.05Ha	Pit-2.20Ha OB dumps-0.15Ha Mineral Stack-0.05Ha	

	dumps etc.	Infrastructure-0.005Ha Road-0.030Ha	Infrastructure- 0.005Ha Road-0.030Ha	
9d	Scrutiny of Annual return on afforestation	Proposed 20 saplings	20 Saplings planted 0.002 Ha	It was advised to the mine representatives present in the inspection to submit the online AR & MR meticulously and furnished the correct figures on Ex-mine price/Cost of production, etc.
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	NA		
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Details given in AR	Cement Grade- 66634.065MT 8001.500 Refractory	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	<u>Ex-mine Price</u> -Cement Grade-835/MT -Refractory-550MT <u>Cost of Production</u> For all grade-324	<u>Ex-mine Price</u> -Cement Grade- 835/MT -Refractory-550MT <u>Cost of Production</u> For all grade-324	
9i	Scrutiny of Annual return on fixed assets	NA	NA	
9k	Scrutiny of Annual return on mining machineries	Excavator-0.9M3 Tipper-15MT Jack Hammer-32	Excavator-0.9M3 Tipper-15MT Jack Hammer-32	

10- Details of violations observed during current inspection and compliance position of earlier violation pointed out: -The last inspection of mine was carried out on dtd 13.05.2013 and violations of rules 23E(2), 45(5)(a) & 42(1)(c )(i) were observed and these violation rectified by the lessee vide letter No-JAM/BUX/41 dtd 17.09.2013. This inspection was carried out in connection with Review of Mining Plan and during the inspection violation of rules 11(1), 14 & 33 of MCDR, 2017 were pointed for its rectification and violation letter was issued on dt 02.01.2018.

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