

## MCDR INSPECTION REPORT

### 1.0 GENERAL

SN	Particulars	Details
1(a)	Name of the Mine	Ratadia Nagrecha Bauxite Mines (204.07 Ha)
1(b)	Name of Inspecting officer & Designation	G. Ram, Sr.Assistant Controller of Mines
1(c)	Accomp.official	Shri SG Patel, SR Rathore
1(d)	Date & Type of Inspection	24.10.2018, Star Rating
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	204.07 Hect. ( Non-Forest) Survey No.133,262,305P
3	Mine code	07GUJ10008
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/727/2011
5	Name of the lessee, Address, phone, email and fax number	Gujarat Mineral Development Ltd., Khanij Bhavan, 132 Ft Ring Road-Vastrapur, Ahemdabad-380052; Ph-(pr)(02834)282289 Email:gadhsisa_2@gmdcltd.com
6	Village	Ratadia
7	Taluka/Mandal	Mandvi
8	District	Kutch
9	Pin code	370465
10	State	Gujarat
11	Post office	Mota Ratadia
12	Nearest police station	Gadhsisa
13	Nearest Railway station	Bhuj
14	Date of Grant of Mining Lease	19-1-1977
15	Date of Execution	21-07-1977 for 20 Years.
16	Date of opening of Mine	28-07-2007
17	Date of first Renewal, if applicable and its period & expiry	22-02-2007 MCR/1574/G-14/7665/PART-I/CHH for the 20 Years WEF 19.1.1997 to 20Years
18	Date of second Renewal, if applicable and its period & expiry	16.03.2016 for second renewal. Lease expired As per MMDR Amendment Act, 2015 extension of lease period is under process.
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	16.03.2016
20	Name of the Nominated Owner with Address, phone, email, fax & appointment	Shri Arunkumar Solanki, GMDC Ltd. "Khanij bhavan", 132 FT Ring Road, Vastrapur, Ahmadabad., Appointment- 24-06-2016
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri S G Patel, Bauxite Project-Gadhsisa, Ta-Mandvi, Dis-Kutch, 370445, Mobile- 9727792510, Email: gadhsisa@gmdcltd.com , Appointment- 01-11-2015
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	S.R.Rathore [Mine Manager],GMDC, CB Project-Gadhsisa; Post-Gadhsisa; Taluka-Mandvi; Dist-Kutch [Gujarat] 370445;Contact:- 9727792510,Email: <a href="mailto:gadhsisa_2@gmdcltd.com">gadhsisa_2@gmdcltd.com</a> ; <a href="mailto:srrathore@gmdcltd.co.in">srrathore@gmdcltd.co.in</a> Appointment- 04-04-2011
23	Name of the Mining Engineer, Qualification and total Exp. with Address, phone, email, fax number and date of appointment in mine	Shri S.R.Rathore, BE (mining Engg), Manager (Mines) Appointment- 27.6.2016
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Shri DS Patel, MSc Geology, Sr Manager(Geology) Appointment- 24.4.2018
25	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	682(23)(657)/1996 MCCM(N) UDP Dated-09.6.1997
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	684(4) (1)/MP/ (114)/2018 MDRD (N) GNR Dated-20-4-2018 for the period of 2018-19 to 2021-22.
27	Mineral(s) granted in ML proved for mining	Bauxite
28	Method of Mining(Opencast, Underground)	Opencast.
29	Category (Fully Mechanised/ Manual)	A-Category
30	Captive/Non Captive	Non Captive & Joint venture with Gujarat Credo Minerals Ltd

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

**Exploration**

SN	Item	Proposals (2018-19)	Actual work	Remarks
1a	Backlog of previous year	13 Boreholes of 20m depth each is proposed as earmarked. (2016-17) Not Proposed	39 Core borehole of 5-19m depth each done in 2015-16 against 39 borehole.	Copy of form J & K is submitted to IBM under provision of MCDR, 17 on 22.7.2016.
1b	Exploration over lease area for Geological axis 1 or 2.	It was proposed to drill 22 exploratory borehole as earmarked in Plate No.4	Initiatives taken for approval. Work will be start soon as reported.	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	39 Core borehole of 5-19m depth each done in 2015-16 against 39 proposed borehole.	Khanna & Associated 544 m. Drilling done which cost Rs. 319328/- of 39 boreholes.	Part of lease area is explored by trenches/ pits /boreholes etc.
1d	Balance area to be explored to bring Geological axis in 1 or 2	The part of lease area is still remains for exploration. Lessee has been taken initiative for proposed exploration.		
1e	Balance reserves as on 01.3.2018	The reserves & resources estimated as on 01.04.2018 is 4.76MT (111) & remaining resources are 3.17MT		
1f	General remarks of inspecting officer on geology, exploration.	NIL		

**2.0 Development**

SN	Item	Proposals (2018-19)	Actual work	Remarks
2a	Location of development w.r.t. lease area	It was proposed to work in Pit No-1, 2, 3, 4, 5, 6, 7&8 as earmarked in plate no. 5A.	Mine workings done partly in proposed pits due to lagging in ROM	(Till Sept.18) Lack of demand
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	It was proposed to maintain separate benches in OB & mineral.	Topsoil is stacking separately. No OB is generated presently.	Topsoil & OB is Removing separately.
2c	Stripping ratio or ore to OB ratio	1:0.0	1:0.0	
2d	Quantity of topsoil generation in m3	2550 M <sup>3</sup>	About 750M3 (900T)	
2e	Quantity of overburden generation in m3	Not Proposed	0	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	Lagging in production due to lack of demand. During inspection, advised to mine representative to improve the aesthetic/general cleaning & level of mine/pit area.		

**3.0 Exploitation**

SN	Item	Proposals (2018-19)	Actual work	Remarks
3a	Number of pits proposed for production	It was proposed to work in Pit No-1, 2, 3, 4, 5, 6, 7&8 as earmarked in plate no. 5A.	Mine workings done partly in proposed pits due to lagging in ROM.	Till Sept.18
3b	Quantity of ROM mineral production proposed	100013T	5714.14T T	
3c	Recovery of salable/usable mineral from ROM production	90011 T	5714.14T T	
3d	Quantity of mineral reject generation	90011T	5714.14T T	
3e	Grade of mineral reject generation and threshold value declared	Cut off grade-About 40%Al <sub>2</sub> O <sub>3</sub> as per buyer's specification.	Mineral rejects are being utilised by proper sizing & sorting & blending as per buyer's specification.	
3f	Quantity of sub-grade mineral generation	Not Proposed	NIL	
3g	Grade of sub-grade mineral generation	Not Proposed	NIL	
3h	Manual / Mechanised method adopted for segregating from	Mechanised	Manual/Mech.	

	ROM			
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Lab Analysis	Analysis done in house & outside agency both.	
3j	Provision of drilling & blasting in mineral benches	J/H Drilling & Blasting	As & when require for secondary blasting.	
3k	Provision of mining machineries in mineral benches	HEMM with Loader/JCB/Rock breaker & Tipper Combination	HEMM with Loader/JCB/ Rock breaker & Tipper Combination	
3l	Whether height of benches in OB and mineral suitable for method of mining proposed in MP/SOM	3.0 Meter	2.5-3.0 Meter	
3m	Total area covered under excavation/pits	4.49Ha area proposed in plan period.	Total excavated area is about 22.57 Ha (Cumulative)	
3n	Ore to OB ratio for the pit/mine during the year	1:0.0	1: 0.0	
3o	Total area put in use under different heads at the end of year	Pit-22.57 (reject-0.1, Others-1.7)	Total excavated area is about 22.57 Ha (Cumulative)	
3p	Production of ROM mineral during last five-year period, as applicable	Yr-2014-15=117310T Yr-2015-16=108120T Yr-2016-17=109058T Yr-2017-18= 0000NA Yr-2018-19=100013T	Yr-2014-15=53618T Yr-2015-16=0T Yr-2016-17=76376T Yr-2017-18=36812T Yr-2018-19=5714.14T	
3q	General remarks of inspecting officer on method of mining.	Lagging in production due to lack of demand. During inspection, advised to mine representative to improve the aesthetic/general cleaning & level of mine/pit area.		

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

SN	Item	Proposals (2018-19)	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Proposed	Doing as proposed	Till Sept.18
4b	Location of topsoil, OB & mineral reject dumps	It was proposed to separate OB & mineral rejects & blending.	Deviated due to lack of demand/lagging in ROM.	
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	NIL	
4e	Number of active & alive dumps	Not Proposed	NIL	
4f	Number of dead dumps	Not Proposed	NIL	
4g	Number of dumps stabilised	Not Proposed	NIL	
4h	Whether Retaining wall or garland drain all along dumps are there	Not Proposed	NIL	
4i	Length of Retaining wall or garland drain all along dump	699 m fencing	270 m fencing	
4j	Number of settling ponds	Not Proposed	NIL	
4k	Specific comments of inspecting officer	NIL		

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

SN	Item	Proposals (2018-19)	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Not Proposed	NIL	Till Sept.18
5b	Area under backfilling of mined out area	Not Proposed	NIL	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Not Proposed	NIL	Top soil is utilising for plantation purposes.
5d	Total area fully reclaimed &	0.5 Ha	0.5 Ha	

	rehabilitated (2018-19)	700 Plants	500 Plants	
5e	General remarks of inspecting officer on backfilling, reclamation etc	Poor survival rate due to scarcity of water in surrounding area/low rainwater. However lessee has been developed plantation near mine office/backfilled pit area.		

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

SN	Item	Proposals (2018-19)	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly	Yes	Submitted for 2017-18.	Till Sept.18
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	Survival rate is low due to scarcity of water in surrounding areas.
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	Not Proposed	Nil	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	0.5 Ha 700 Plants	0.5 Ha 680 Plants	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Yes	Monitoring is being carried out as per IBM guidelines.	
6f	General remarks of inspecting officer on PMCP compliance & progressive	Poor survival rate due to scarcity of water in surrounding area/low rainwater.		

### **7.0 Mineral Conservation**

SN	Item	Proposals (2018-19)	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	100013T	5714.14T	Till Sept.18
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Manual Sorting	Manual Sizing & sorting	
7c	Different grade of mineral sorted out at mines	Yes	(i) PG ( $Al_2O_3 \geq 52\%$ ) (ii) NPG ( $Al_2O_3 40$ to $<52\%$ ) (iii) Rejects size less than 10 mm	
7d	Any beneficiation process at mines	Not Proposed	NA	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Entire ROM is utilising by proper blending, sizing & sorting as per demand /buyers requirement.		

### **8.0 Environment**

SN	Item	Proposals (2018-19)	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Proposed 4072 M <sup>3</sup>	Directly Used For Plantation 750 M <sup>3</sup>	
8b	Concurrent use or storage of topsoil	Proposed	Used For Plantation	

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposed	Done	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Proposed	NA	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Proposed	yes	
8f	Baseline information on existence of plantation & additional plantation done	Not Proposed	Good aesthetic near mine office	
8g	Survival rate	Not Proposed	About 60%	
8h	Water sprinkling on roads to control airborne dust	Yes	Yes	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines are	During inspection, advised to mine representative to improve the aesthetic/general cleaning & level of mine/pit area.		

### 9.0 Compliance of Rule 45

S.N	Item	COMMENTS	Remarks
	Status of submission of Online Monthly and Annual returns	M.R. online Submitted up to till date A.R. for year 2017-18 is submitted on 01.6.2018	
S.N	Item	Details given in A.R.2017-18	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Shri S R Rathore, ME Shri VK Summers, (Geologist)	Sh. S R Rathore, ME WEF- 27.6.16 & DS Patel, MSc Geology, WEF-24.4.2018
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit- 21.7Ha Reclaimed area-0.86 Ha, Plantation-10Ha, Road & Infrastructure -15.3Ha	22.57 Ha & others
9d	Scrutiny of Annual return on forestation	1000 Plants (30% Survival)	680 Plants (50%) <sup>2018-19</sup> 150 Mine office area
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Not Given	NIL
9f	Scrutiny of Annual return on ROM stock and/or graded ore	O/S-13924.7T, P-280T, Disptch-4969.88T, C/S-9234.89T (Cement Grade) Chem-79461.0T (O/s & C/s)	Directed to use the correct Ex Mine Price/Cost of Production as sale price published in GMDC site.
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex-Mine Price- Rs 650/T &350 Cost of Production-Rs 713/T	
9i	Scrutiny of Annual return on fixed assets	Given	Given
9k	Scrutiny of Annual return on mining machineries	Excavator 200/Rock Breaker Dumper 17T,Loader/JCB	Excavator 200/Rock Breaker, Tipper 17T, Loader/JCB

10- Details of violations observed during current inspection and compliance position of earlier violation pointed out:-Mine was inspected for evaluation of Star Rating of mines. No significant violation observed presently.